



PORTSTORONTO

BILLY BISHOP TORONTO CITY AIRPORT

**NOISE MANAGEMENT SUB-COMMITTEE
MEETING #13**

MEETING MINUTES

May 5, 2021
7:00 PM - 9:00 PM
Zoom Online Meeting
Toronto, Ontario

Minutes prepared by:



PORTS TORONTO

These meeting minutes were prepared by LURA Consulting. LURA provides neutral third-party consultation services for the Ports Toronto Noise Management Sub-Committee. These minutes are not intended to provide verbatim accounts of committee discussions. Rather, they summarize and document the key points made during the discussions, as well as the outcomes and actions arising from the committee meetings. If you have any questions or comments regarding the Meeting Minutes, please contact either:

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Summary of Action Items from Meeting #13

Action Item	Action Item Task	Who is Responsible for Action Item
M#13-A1	PortsToronto will take into consideration the additional feedback and reminders offered by the subcommittee to the next Annual Noise Report.	PortsToronto
M#13-A2	PortsToronto to seek clarification from Colin Novak regarding responses subcommittee members identified as unclear.	PortsToronto

List of Attendees

Name	Organization (if any)	Attendance
COMMITTEE MEMBERS		
Hal Beck – Co-Chair	York Quay Neighbourhood Association	Present
<i>Vacant position</i>	York Quay Neighbourhood Association	<i>N/A</i>
Max Moore	Bathurst Quay Neighbourhood Association	Present
Lesley Monette	Bathurst Quay Neighbourhood Association	Present
Bryan Bowen	City of Toronto – Waterfront Secretariat	Present
PORTS TORONTO REPRESENTATIVES		
Angela Homewood – Co-Chair	PortsToronto	Present
Michael David	PortsToronto	Present
Michael MacWilliam	PortsToronto	Present
FACILITATION		
Jim Faught – Lead facilitator	LURA Consulting	Present
Alexander Furneaux - Notetaker	LURA Consulting	Present
GUEST(S)		
Colin Novak	Akoustik Engineering Limited	Present

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Appendix A: Meeting Agenda

Appendix B: 2020 Annual Noise Report Presentation

1. Agenda Review and General Updates

Jim Faught (LURA Consulting) welcomed the Noise Management Subcommittee (NMSC) members to their 13th meeting held virtually via Zoom. Mr. Faught provided an overview of the agenda and asked the committee for any additional items or updates to be added to the list of agenda items. The meeting agenda is included in **Appendix A**.

- Ms. Homewood noted that the ICAO questions and items Mr. Beck submitted via email to PortsToronto are included with preliminary responses in the appendix from Noise Management Subcommittee Meeting #12 (January 28, 2021).

2. Permanent Noise Monitor Terminal Update

Michael MacWilliam (PortsToronto) provided a short update on the Permanent Noise Monitor Terminal installations. Little has changed since the last update, as the team has been unable to access the locations for the permanent noise monitor terminals due to the provincial stay-at-home restrictions. The team is preparing to mobilize with Dr. Colin Novak and Hal Beck to install terminals at Windward Co-op and Ontario Place. The Ontario Place terminal presents the added challenge of locating the appropriate person to get the monitor approved for installation. Mr. MacWilliam noted that a map of the proposed locations of the terminals was circulated.

- Mr. Beck indicated that he hopes the monitors will be located as close to the X and Y locations outlined in the Tripartite Agreement, noting that Gary Colwell had previously been discussing the possibility of installing one of the monitors on a light standard in Ontario Place.
- Mr. MacWilliam noted that he can connect with Mr. Colwell when he returns. He sought to clarify that Mr. Beck would like one of the monitors located at the edge of the NEF contour.
- Mr. Beck confirmed that was correct.

3. Ground Noise Study Update

Michael David (PortsToronto) updated the Noise Management Subcommittee that work on the Ground Noise Study is now minimal given that they have nearly exhausted all the tasks that can be completed without regular airport activity. Once airport activity returns to “normal conditions,” the study can continue to progress with ambient noise monitoring.

- Mr. Moore inquired if there would be a benefit to taking noise recordings now and then comparing them to normal conditions. He also added that it would be helpful to see data outputs from these monitors so that the subcommittee members can acquaint themselves with reading these outputs when the study data is available.
- Mr. David replied that PortsToronto is continuing to track noise through the Permanent Noise Management Terminals however, the installation of the temporary noise monitors is not feasible currently for two reasons:
 - The stay-at-home order makes it impossible for the team to install the monitors on the buildings they require, as this involves access to specific units.

- It is exceptionally expensive to run the temporary noise monitors as they gather such fine grain data (these monitors record a reading every second for two weeks straight).
- Mr. Moore elaborated that he views it as helpful to practice how to read the data outputs, understand the report format and layout, and ensure that a table of Z-decibels (DBZ) is included for community review.
- Mr. MacWilliam replied that he would need to check what can be manipulated in the permanent noise management terminal system. The software typically outputs “canned” reports, which are somewhat limited in what can be manipulated.
- Mr. Moore indicated it was his understanding that DBZ is recorded and could be shown in a column alongside the other measurements. The goal would be to understand how to read these outputs.
- Ms. Monette also sought to clarify that each Permanent Noise Management Terminal’s data can be examined separately.
- Mr. MacWilliam confirmed that the DBZ values can be recorded and presented, and that each terminal can be examined separately.
- Mr. Beck clarified that understanding the format of the reports is an important component to addressing issues community members have when seeking to understand noise at select hours, episodes, or events of noise that are of interest. He suggested that a draft template with dummy numbers could be circulated so the subcommittee is aware of what the product of this work will be so it can be most useful to both PortsToronto and the community.
- Mr. David replied that the team needs some data to start from before a report template can be generated.
- Mr. Beck indicated even just data in the assumed range of what might be possible would be helpful to get a sense of how to understand the reporting.
- Mr. David further added that the team is beginning to describe hundreds of scenarios factoring elements such as time of day, low/high movements, the direction of take-off, aircraft type, and environmental conditions. He inquired if a contour map would be easiest to evoke the narrative of what they are talking about.
- Mr. Moore identified that he feels the products of the temporary noise terminals will be useful for the airport using the ICAO methodology for certifying planes however, the issue many community members and members of the subcommittee have is that measures such as average hour LEQ are not good methods for measuring ground noise. The community is interested in raw data, including peak readings.
- Mr. David explained that there are no standards for ground noise reporting that align exactly with the conditions present at BBTCA, so the team has to use a mix of methods derived from other ground noise reporting formats. At this stage, it is still unfamiliar territory which makes it difficult to say without any data how it will be reported at the level of specificity the subcommittee is looking for. He reminded the subcommittee that the purpose of the study is specifically to measure the quantitative and qualitative effect of ground noise on the community

to assess the best mitigation options and ultimately propose mitigation measures that are supported by data.

- Mr. Moore indicated that this is part of the reason why he and other members are calling for the use of DBZ weighting.
- Mr. Faught inquired if there is a timeline for a copy of the report that the subcommittee can look at.
- Mr. David replied that it would depend on when confidence in travelling and airport operations resumes.
- Mr. Bowen identified that he had previously raised the idea of reporting the findings of the ground noise study through a series of six to eight vignettes that are evocative, digestible, and representative of a few noise experiences based on common points of experience (time of day, location, weather conditions, etc...), such as being on a balcony at a given location before and after mitigation. He indicated that this format might be easier to understand for both the public and policymakers and feels that the community has an important role in establishing what these vignettes should highlight.
- Mr. Beck inquired if the project team has been reviewing the industry standards for noise reporting, including prevailing formats for stationary noise source site studies.
- Mr. David replied that Colin and Harvey have been reaching out to stakeholders in the area who have completed similar stationary source noise studies recently, such as Redpath Sugar. He also noted that the standard ground noise study format would not do justice to the content of this study as the general format was designed to assess stationary industrial sites in more rural areas under circumstances that are specific to those conditions. PortsToronto's study will need to include more airport-specific language and lend more nuance to the study.
- To Mr. Bowen's previous point, Mr. Beck indicated that he believes these vignettes should go through several iterations of feedback to ensure what is being shown is representative and provides a clear message of the study's findings. He identified that the development of the vignettes would help define the format of the report and how it summarizes the study findings. He suggested starting with Akoustik's report to identify a list of potential sites. He also strongly advocated to tables including all the data taken during the two-week observation period to be included with time of day, frequency octave band for each location. He also added if it would be possible to get a measurement of the lowest background noise possible in the area.
- Mr. Moore identified that he has personal measurements from during the first lockdown in Spring 2020 and indicated he would be willing to provide the data on the two dates he conducted measurements.
- Mr. MacWilliam reminded the subcommittee that environmental factors such as the weather might influence these measurements, possibly making it difficult to correlate Mr. Moore's measurements with the broader study's findings.

- Mr. Beck agreed and to that point indicated the vignettes should account for these environmental factors, potentially incorporating the average weather conditions.
- Mr. Bowen added that the average weather conditions are being explored as part of the plaza design process on Eireann Quay and would be willing to share this information as it is available and where it is relevant.
- Mr. Moore inquired if the plaza is considering soundproofing.
- Mr. Bowen replied the focus is mostly on wind mitigation.
- Mr. MacWilliam reminded the subcommittee that the purpose of the Ground Noise Study is to assess the noise conditions to make informed decisions about mitigation initiatives. PortsToronto may not have had the same measurements to make mitigation decisions for things such as the Ground Run-Up Enclosure (GRE) and the western noise wall however, the goal will be to quantify the value of future mitigation efforts.
- Mr. Moore noted that the noise wall and the GRE were good starts however there are better ways to mitigate noise such as rough, irregular surfaces.
- Mr. David and Mr. MacWilliam noted that the noise wall and the GRE look smooth from a distance but up close resemble a cheese grater. Even the GRE was a significantly more advanced piece of noise mitigation technology from the noise wall.
- Ms. Monette noted that there is a Canadian company developing barriers that mitigate noise and cleans air pollution. She noted that it would be interesting to see if these would be an appropriate mitigation measure that dovetails with both the Ground Noise Study and the Air Quality Study.
 - Following the meeting Ms. Monette provided the weblinks to the company, Envision² (<https://envisionsq.com/barrier/>).
- Mr. Faught noted that there was a full presentation to the CLC at Meetings #2, #4, and #5 regarding the construction of the western noise barrier wall.
- Mr. Bowen inquired if there is a possibility to extend the existing noise wall with the decommissioning of the North-South runway.
- Mr. MacWilliam replied that he would need to review the Airport Master Plan to understand this better. In theory, yes, it could however, NAV Canada does not like large flat structures near the airport as this can pose electronics issues with their instruments.

4. 2020 Annual Noise Report Presentation and Discussion

Michael MacWilliam provided an overview presentation of the 2020 Noise Management Report. Mr. MacWilliam's presentation is included in **Appendix B**.

- Mr. Moore asked what the difference between "General" and "General Aviation" is.
- Mr. MacWilliam replied that a noise complaint is categorized as General when the complaint is unspecific to a particular source. For instance, "there is noise coming from the airport all day".
- Mr. Moore asked if he is correct in his interpretation that General and General Aviation accounted for approximately 90% of noise complaints.

- Mr. MacWilliam indicated Mr. Moore is correct, however that largely has to do with the flights currently being operated. Based on historical data, when operations return to normal, we would expect more complaints associated with “Scheduled Commercial” (encompassing flights by Porter and Air Canada).
- Mr. Moore noted that members of the community may not be able to distinguish what the source of the noise is.
- Mr. MacWilliam replied that PortsToronto investigates the source of the noise by cross-referencing the time of the complaint with what was operating at that time. If the noise can be identified (either the date or time), it is categorized; if it cannot be identified the noise is attributed to “Uncorrelated”.
- Ms. Monette inquired if there have been more smaller planes or executive jets flying in/out to destinations such as Muskoka.
- Mr. MacWilliam replied that there have been no business jets coming in, only medivac flights. He suspects the increase in medivac flights has been associated with the need for hospital transfers.
- Ms. Monette asked if there are more people flying smaller aircraft because it is more affordable.
- Mr. MacWilliam indicated he cannot speak to specific numbers but is aware that more people were using their planes during the lockdown in 2020 as it was a permitted activity and there was lots of opportunity for flying with Schedule Commercial flights effectively-being non-existent.
- Ms. Monette asked about the relationship of aircraft movements compared to pre and post COVID.
- Mr. MacWilliam indicated that Scheduled Commercial movements are way down, while General Aviation is close to the same or slightly above 2019 levels. General Aviation was one area where the airport saw a very quick rebound as the Spring 2020 lockdown measures were eased.
- Mr. Beck suggested that General could be renamed to “General Complaints”.
- Mr. Moore suggested “Non-Specific Concerns”.
- Mr. MacWilliam indicated he is wary of changing data streams as it creates a matching issue presenting problems when comparing with data from previous years. Perhaps “General (Non-Specific)” could be included in future reporting.
- Mr. Beck added that the subcommittee has previously discussed adding a glossary of terms to the Annual Noise Reports to clear up any confusion.
- Mr. Beck asked if the Master Plan generated a lot of complaints.
- Ms. Homewood responded that may have contributed to the spike in complaints.
- Mr. Beck asked that the request for a 10-year record of complaints be included in the Annual Noise Reports so these outlier events can be viewed in context. He referred to similar spikes that occurred when the Porter Jets discussions were happening which attracted a lot of media attention to the airport.
- Ms. Monette also indicated that the significant growth in new residential buildings in the area may add more people who could file complaints.
- Mr. Bowen asked if complaints have an address associated with them to identify where complaints are coming from.

- Mr. MacWilliam indicated that individuals who complete the complaint form are asked to provide an address however, this is not required. The Annual Noise Report does document where the complaints are received from at an aggregate level.
- Mr. Beck sought clarification on what “City-Side Modernization” is.
- Mr. MacWilliam indicated this was PortsToronto’s project to reconfigure the taxi corral, parking lot, and complete road reconstruction on Eireann Quay.
- Mr. Bowen added that the City refers to City-Side Modernization as Transportation Improvements in the Bathurst Quay Neighbourhood Plan. The streetscape improvements started by PortsToronto will be continued by the City of Toronto near the intersection with Queens Quay.
- Mr. Beck asked if there is a noise study for the ferry electrification and whether the electric ferry would meet requirements.
- Mr. MacWilliam indicated that he is not aware of a study. Mr. David did get some baseline readings through the Ground Noise Study. He noted that the mechanical resonance from the motor would be decreased and should result in net improvements, however the pre-conversion data is limited.
- Overall, the subcommittee noted that there were positive improvements to the Annual Noise Report since the 2018 Annual Noise Report however, there are a few outstanding items to consider for next year including:
 - Clarifying terms through a Glossary.
 - Providing a 10-year record of complaints.

M#13-A1 PortsToronto will take into consideration the additional feedback and reminders offered by the subcommittee to the next Annual Noise Report.

5. General Discussion and Outstanding Questions

The remaining meeting was spent discussing items raised by community members following Dr. Colin Novak’s presentation and discussion at Meeting #12.

- Mr. Beck asked if there are concerns or further questions about what Dr. Novak presented if there is a way to continue to dialogue with Dr. Novak on these issues. He wished to clarify if there is a maximum number of exchanges the subcommittee can have with Dr. Novak.
- Ms. Homewood replied that Dr. Novak’s contract stipulates him being retained to attend three meetings.
- Mr. David added that the limit is more related to the amount of time he can devote to the subcommittee in his contract rather than a specific number of questions. Mr. David suggested that going forward, it is best to aggregate questions through email then provide them to him all at once and give him time to provide an answer in writing so there is a record. This approach will help to clarify answers to questions, which committee members can refer back to as needed. If there are questions about his written responses, the subcommittee can always devote time to discussing them.
- Mr. Beck noted that some of the comments and questions he had would likely have been more easily addressed in a short conversation. He also noted that

regarding Dr. Novak's response to **Question 2** on that DBA weighting is globally accepted, this is accepted by the industry, not communities at large that experience the noise. He recalled that Dr. Novak mentioned DBD was well suited to aircraft noise frequencies.

- Ms. Monette noted that the response Colin provided to **Question 3** regarding the vibrating sounds she hears is not clear to her.

M#13-A2 PortsToronto to seek clarification from Colin Novak regarding responses subcommittee members identified as unclear.

- Mr. Moore added that Dr. Novak will be providing ICAO compliant reports which community members on the subcommittee had previously identified as not useful for the purposes of ground noise study and community reporting. He reiterated that this is why community members have been requesting the DBZ measurements.
- Mr. David reminded the subcommittee that the Ground Noise Study is explicitly focused on community benefit to ultimately fund mitigation opportunities based on data to quantify the benefit various mitigation strategies would have. He also noted that Dr. Novak is a professional engineer who must abide by his code of practice and ethics when conducting his work.
- Mr. Moore noted that the request has been to have DBZ reports that are not LEQd. The community would like to see peak noise.
- Mr. David noted that the team has consistently indicated that reporting can and will provide DBZ measurements observed at 1-second increments for two weeks once normal airport operations resume.
- Mr. Beck added that the infrasonic sounds were not adequately captured in Dr. Novak's response and would speak to Ms. Monette and Mr. Moore's comments about feeling vibrations and the concerns this poses for heart health.
- Mr. Beck clarified that he raised several questions about ICAO following the last meeting given that ICAO is regularly referred to in airport documents and communication however there is not much knowledge about how they work. Given their relation to the NEF contours which act as the main decision-making tool for airport slots, it's critical to understand at least at a high level the math that goes into the ICAO targets, what factors are included in the targets. He also noted that he's interested in how sound values are actually captured by the octave band and given a decibel value.
- Ms. Homewood noted that the subcommittee received Mr. Header's presentation, from the Ontario Ministry of Environment and Climate Change, on the NPC-300 guidelines. She sought to clarify that Mr. Beck is looking for a separate presentation on ICAO and NEF? She indicated that she's unaware if there is a particular person with the specific expertise on how these were initially conceived of that would be accessible to present to the subcommittee.
- Mr. Beck expanded on his previous point with an example. PortsToronto released a [press release on the De Havilland Dash 8-400 recertification](#) to meet the latest noise emission standards set by ICAO Chapter 14, he would like to understand the noise contours, ICAO test relative to the Effective Perceived

Noise Level (EPNL), and what the contour is measuring in reference to the ICAO chapters. He also noted that he would like Ms. Homewood and Mr. Bowen to have a strong understanding of this so it can be brought back to PortsToronto and the City of Toronto respectfully.

- Mr. Bowen indicated that he is very appreciative of everything that he has learned during his time on the subcommittee and is actively applying this knowledge internally at the City. He highlighted a recent briefing note to senior leadership discussing the shortcomings of the NEF contours in a marine environment. The knowledge gained through the subcommittee is helping add more nuance and the ability for decision-makers to understand the issues at play.
- Ms. Homewood clarified that PortsToronto did not release this news release. It was a news release from De Havilland that PortsToronto shared for the community's knowledge. It was presented to the subcommittee in the spirit of transparency.
- Mr. MacWilliam indicated that they want to focus on the tool that directly correlates with the expectation of noise rather than the aircraft element. He identified it would be preferable to keep the discussion of ICAO close to its relationship with the NEF model and the shortcomings it presents. He added that he, like Ms. Homewood is unsure who the ICAO expert would be to get into the questions of equations and formula development.
- Mr. Bowen asked if there are ways to augment and layer other tools onto the NEF that get at more of the nuance the community is looking for. Mr. Bowen suggested that the subcommittee is primed to explore these conversations now to be informed by the time the Tripartite Agreement is reopened in 2033. Mr. Bowen indicated that it would be helpful to understand these nuances so that recommendations could be put forth as the Tripartite Agreement review process begins.
- Mr. Faught suggested that the list of topics related to ICAO, focusing on what Mr. Beck had identified previously, would be a good step for the next subcommittee meeting in Fall 2021.
- Mr. Beck indicated that he would like to understand how the airport slots are determined based on the NEF calculations. He indicated that he feels there is nothing to protect waterfront residents, nor is there an understanding of the sensitivities inherent in the NEF contours.
- Mr. Bowen added as a final point that if there is another similar airport to BBTCA where they have gone beyond NEF and are facing similar growth management challenges, it would be great to hear from them at a future meeting.

6. Business Arising

Jim Faught (LURA) inquired whether there were any additional items to address prior to adjourning and sought feedback on the date for the Noise Management Subcommittee to meet.

- Ms. Homewood suggested Wednesday, September 8, 2021, at 7:00 PM as this would precede the September 22, 2021, Community Liaison Committee meeting.

The meeting adjourned at 9:00 PM.