



Beyond, Every Day.

**Mail: PO Box 44638, YVR Domestic Terminal RPO
Richmond, BC V7B 1W2 CANADA**

MINUTES OF REGULAR MEETING

Aeronautical Noise Management Committee (ANMC)
Thursday 6 December 2018 - 1:00PM Vancouver International Airport, Link Boardroom 1

Those in attendance were:

- | | | |
|-----------------------|------------------|---|
| Chairperson: | Marion Town | Director Environment, YVRAA |
| Secretariat: | Rachel Min | Environmental Analyst, YVRAA |
| Admin Support: | Cathy Pham | Administrative Assistant, YVRAA |
| Participants: | Gary Abrams | City of Richmond (citizen representative) |
| | Ihsan Malik | City of Richmond (citizen representative) |
| | Meg Brown | City of Vancouver (citizen representative) |
| | John Hopkins | City of Richmond (staff) |
| | Philip Huynh | City of Surrey (staff) |
| | Alena Straka | City of Vancouver (staff) |
| | Marlene Keefe | Air Canada Pilots Association |
| | Don McLeay | National Airlines Council of Canada (NACC) |
| | Greg Dansereau | NAV CANADA – Area Control Centre |
| | Terry Cruse | NAV CANADA – Vancouver Tower |
| | Mary Point | Manager Indigenous Relations, YVRAA |
| | Mark Cheng | Supervisor Noise Abatement & Air Quality, YVRAA |
| Guests: | Wendy Avis | Manager Environment, YVRAA |
| | Haylea Van Vaals | Environment Co-op Student, YVRAA |

Next ANMC Meeting: 21 February 2019	
Rachel Min	8 Jan 2019
_____ Secretariat Signature	_____ Date

1.0 INTRODUCTIONS AND ADOPTION OF AGENDA

Marion Town welcomed members and guests and reviewed the meeting agenda.

The following new members and guest were introduced:

- John Hopkins – City of Richmond (staff representative) – new member
- Terry Cruse – NAV CANADA, Manager Vancouver Tower – new member
- Haylea Van Vaals – Environment Co-op Student, YVRAA - guest

2.0 WORK UPDATE: 2019-2023 YVR NOISE MANAGEMENT PLAN

Mark Cheng provided an update on progress to create the 2019-2023 YVR Noise Management Plan (“NMP”).

The draft action plan had been shared with the members of ANMC in August for review and comment. The action plan identifies 12 areas of focus, which includes:

Awareness – Community	Awareness – Industry
Night-time Operations	YVR ANMC
Noise Monitoring & Flight Tracking	Temporary Noise Monitoring
Run-ups	Performance Based Navigation & Flight Path Changes
Noise Abatement Procedures	Managing Capacity
YVR Float Plane Operations	Land Use Planning

Key initiatives will focus on improving information exchange with the community and providing support to stakeholders, as well as engaging with other Canadian airports, Transport Canada and other government agencies on national and international noise issues.

When asked for final comments, feedback received from Committee members concurred that the Plan reflected their organisational input and was a well-balanced approach to managing key noise issues over the next five years.

The draft NMP and associated action plan had been presented to YVR senior management and a sub-committee of the YVR Board of Directors. The final approval from the full YVR Board of Directors is anticipated later in December.

Once the NMP has received full internal approval, it will be submitted to Transport Canada and the Airport Authority will offer briefings to Transport Canada – Pacific Region staff. Once the Plan is approved/accepted by Transport Canada, the new NMP will be shared with the community. Committee members were asked for input on best ways to share the NMP.

Mark thanked the Committee members for their input and work over the last year in creating the new NMP.

3.0 UPDATE: HOUSE OF COMMONS STANDING COMMITTEE ON TRANSPORT, INFRASTRUCTURE, AND COMMUNITIES – ASSESSING THE IMPACT OF AIRCRAFT NOISE

Mark provided information on a noise initiative being conducted by House of Commons Standing Committee on Transport, Infrastructure, and Communities (“**TRAN Committee**”).

As background, the role of the TRAN Committee is to support the House of Commons through the study of legislation, policies and programs, and other issues of national importance related to

transportation, infrastructure, and Canadian cities and communities as well as the operations of Transport Canada and Infrastructure Canada.

In October, the TRAN Committee announced that they would undertake an initiative focused on aircraft noise near major Canadian airports, including night flights. To collect information for the study, the TRAN Committee has been hosting meetings to allow stakeholders, subject matter experts and representatives of the air transport industry to share their views on challenges and best practices for managing noise. The request to undertake the study was made to the TRAN Committee by several Members of Parliament in the Greater Toronto Area.

Invitations to present to the TRAN Committee were sent to NAV CANADA, the four major airports in Canada (Toronto, Vancouver, Montreal, and Calgary), aerospace manufacturers, industry experts and academics, Transport Canada, and the airlines. Presenters were grouped into panels, with each panel session being one-hour long. Each presenter in the panel is given five minutes to make an opening statement, which is then followed by a Q&A period for the remainder of the session. The Vancouver Airport Authority participated in the panel with staff from Calgary and Montreal-Trudeau airport on October 30TH. Audio recordings and minutes of the meetings and presentations can be found on the TRAN Committee website - <http://www.ourcommons.ca/Committees/en/TRAN>.

Mark advised that presentations are ongoing, and the last groups are expected to present on December 11TH. Once all the presentations are completed, the TRAN Committee will prepare a report with recommendations, and the responsible Minister will have 120 days to respond. The report is anticipated in early 2019.

4.0 UPDATE: WORLD HEALTH ORGANIZATION EUROPEAN REGION – NOISE GUIDELINES

Mark provided information on noise guidelines recently released by the World Health Organization (“WHO”) European Region.

As background, the WHO is a specialized agency of the United Nations that is concerned with international public health. The WHO is broken into six regional divisions, and while the WHO makes recommendations, it is up to each member states whether to adopt these recommendations into their national policies.

On October 10th the WHO European Regional Office released a report on environmental noise guidelines. The report is the first of its kind that provides specific noise exposure recommendation for aircraft, road, rail, wind turbine, and leisure. It is noted in the WHO report that the guidelines are not meant for occupational or industrial noise.

With regards to aircraft noise exposure, the WHO noise guidelines recommend the following:

- Reducing the 24-hour average aircraft Day-Evening-Night Sound Level (LDEN) noise exposure to below 45 dBA.
- Reducing the average aircraft Nighttime Sound Level (LNIGHT) noise exposure to below 40 dBA (8-hours reference).

Observations:

- In determining the exposure values, the WHO reviewed past health studies and rated the study results on a scale ranging from “Very Low Quality” to “High Quality”. The aircraft noise exposure values were developed despite the supporting studies having results that ranged from Very Low Quality to Moderate Quality according to the WHO’s review.

- Non-acoustic factors were not sufficiently addressed by the WHO in their work.
- The indoor noise level equivalent of the WHO exposure levels is well below what is recommended by the Canadian Mortgage & Housing Corporation.

Mark advised that the European office of Airports Council International has posted a response to the WHO report on their website. This document can be found at the following link:

<https://www.aci-europe.org/component/downloads/downloads/5778.html>.

In addition, an independent research institute based in Norway, SINTEF, has published a paper questioning the scientific basis of the WHO guidelines. A copy of this paper can be found at the following link: <https://doi.org/10.3390/ijerph15122717>.

Canadian airports have had initial discussions with Transport Canada. In Canada, it is Health Canada that provides advice to the public and to the regulatory authorities on the health effects of aircraft noise. Health Canada provides a guidance document, “*Aircraft Noise in the Vicinity of Airports*” (January 2010), which has a key finding that there is currently insufficient evidence to conclude that aircraft noise causes heart disease. In past conversations with Health Canada, they have advised of no immediate plans to update the 2010 publication, and that they would continue to monitor the scientific literature on noise and health.

5.0 2019 NOISE MANAGEMENT PROJECTS

Rachel Min presented key work to be undertaken in 2019.

ANOMS Upgrade Plan

The Airport Authority is working on a multi-year support and upgrade plan for the Aircraft Noise and Operations Monitoring System (“ANOMS”). This work will address initiatives identified in the new 2019-2023 YVR Noise Management Plan to assess, upgrade and expand the network of noise monitoring terminals as well as identify and evaluate new community web tools.

As background, the hardware associated with ANOMS was installed about 10 years ago. As this hardware ages and technology improves, the Airport Authority is looking to ensure the system continues to be reliable in the collection of data and information.

The multi-year upgrade plan will propose to replace the current noise monitoring terminals (“NMTs”) with new units, add new noise monitoring terminals to the network, and enhance community web tools. If the plan is approved, work will begin in 2020.

In anticipation of adding new NMTs to the network, Airport Authority staff will complete supporting work in 2019 to identify potential sites. The first two units would be planned for installation in Musqueam and the City of Delta based on the input received during the development of the new Noise Management Plan.

Improvement to Online Resources

There are several factsheets available on the YVR website that provide information on airport and aircraft operations and the noise management program. They are currently in written (PDF) format. To help make these materials more accessible and engaging, the Airport Authority will look to convert into other media formats, such as video.

Converting all factsheets will be a multi-year endeavor, and it is expected that two to three factsheets will be converted each year. ANMC members were encouraged to review the

current factsheets available on the YVR website and to provide input on which information to prioritize. The factsheets can be found on the Noise FAQ page - <http://www.yvr.ca/en/about-yvr/noise-management/noise-faqs>.

Customized Reports for ANMC

Airport Authority staff will work with city staff and citizen representatives on the ANMC to develop customized reports to better support their role on the Committee. A questionnaire will be distributed in 2019 to solicit input on the content and frequency of reports to ensure it meets their needs.

6.0 2019 SOUTH RUNWAY MAINTENANCE SCHEDULE

Rachel provided information on the 2019 south runway maintenance schedule.

The south runway is the airport's 24-hour main runway. As a result, it requires regular maintenance to ensure the highest level of safety. While there are no plans for extended closures of the south runway closure in 2019, the south runway will be closed on selected nights between the months of February and November 2019 to carry out necessary maintenance work. During the closures, the north runway will be used for all departures and arrivals between 10 PM and 7 AM.

The dates for the south runway closures in 2019 are as follows:

February 13, 27
March 13, 27
April 6, 20, 29, 30
May 1, 2, 3, 18
June 1, 8, 15, 22, 29
July 6, 13, 20, 27
August 3, 10, 17, 24, 31
September 14, 28
October 2, 16, 30
November 13, 27

An advisory with these dates has been posted on the YVR website - <http://www.yvr.ca/en/about-yvr/noise-management/south-runway-maintenance-schedule>.

7.0 YVR TRAFFIC TRENDS

Mark provided information on traffic trends at YVR, with a focus on night operations.

Between 1992 and 2017, YVR has experienced a significant growth in the number of passengers but relatively flat growth in the number of aircraft movements as shown in **Figure 1**.

In 2017, the number of aircraft movements decreased by 11% compared to the peak year for aircraft movements in 1998, whereas the number of passengers increased by 56% during this same time-period. This indicates aircraft are carrying more passengers per flight, which is good news for noise and emissions.

Like all international airports in Canada, YVR is open 24-hours to sustain YVR's role as a hub to support travel and business demands of the region. In 2017, there were a total of 9,890 runway movements between the hours of midnight and 6 AM, which accounted for approximately 3% of the total annual runway movements. This equates to an average of 28 movements per night, which are typically a mix of passenger services and cargo/courier integrators.

Runway Movements and Passengers: 1992-2017

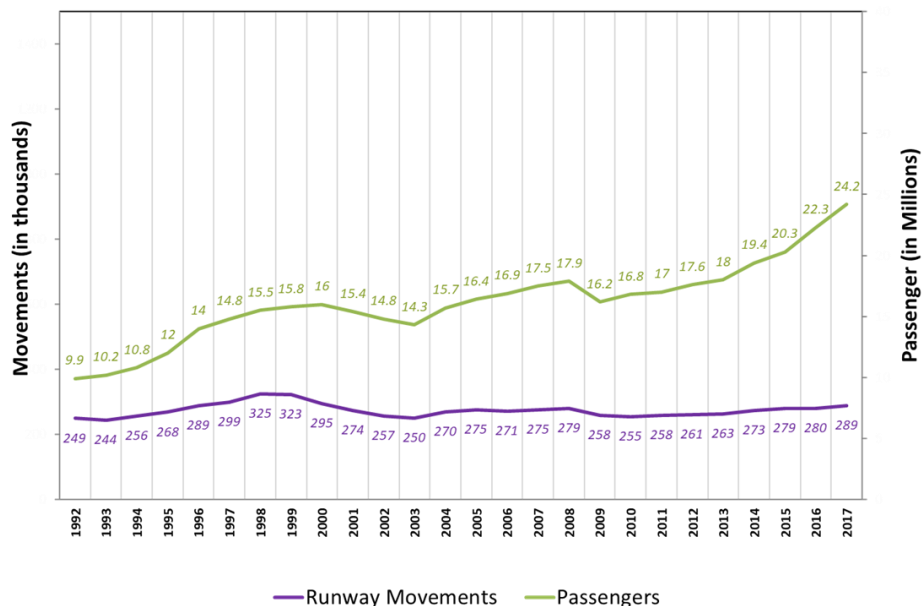


FIGURE 1

As illustrated in **Figure 2**, YVR has always been open 24-hours, including the years before 1992 when the airport was managed by Transport Canada. To control and manage night-time traffic at YVR, Noise Abatement Procedures and access restrictions have been in place for many years; however, night operations have never been prohibited.

The current night-time access restrictions for YVR require prior approval of jet aircraft over 34,000kg (maximum take-off weight) departing between the hours of midnight and 6 AM. When receiving a request from operators for a jet departure at night, the Airport Authority will review the benefit of the operation to the broader community. In general, approval is granted for flights that are live with passengers or cargo, whereas operations such as repositioning/ferry or technical flights are typically denied.

Additional noise abatement procedures aimed to minimize noise at night are as follows:

- Closure of north runway between 10 PM and 7 AM, except for emergencies or airfield maintenance;
- The use of preferential runways that attempts to keep both arriving and departing traffic over the Strait of Georgia between 11PM and 6AM, weather and traffic permitting; and,
- Vectoring procedures for selected operations to minimize over-flights of populated areas.

Night Movements (midnight-6AM): 1989-2017

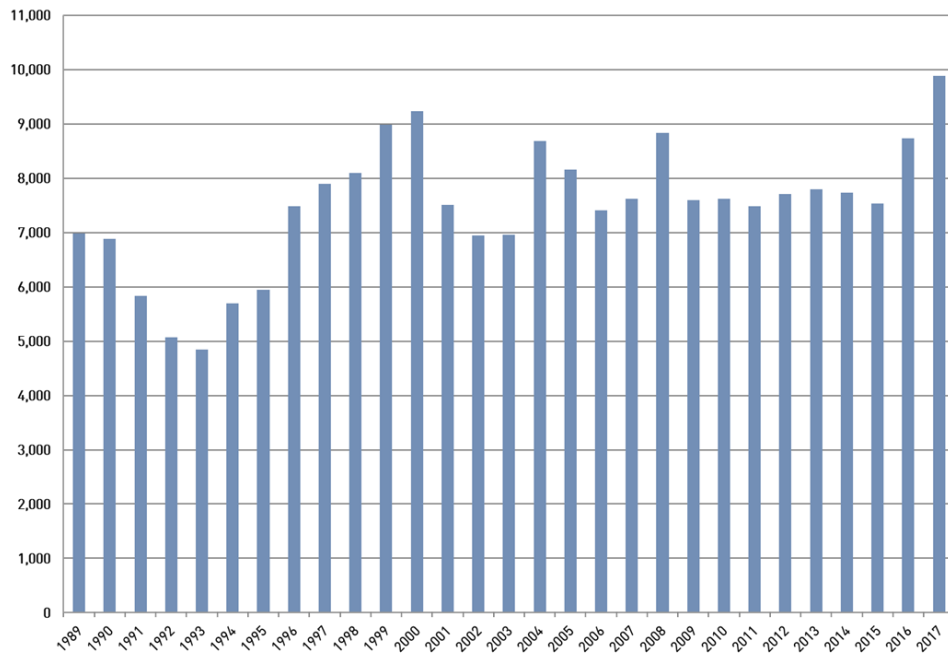


FIGURE 2

8.0 Q4 – 2018 REPORT

Rachel reviewed the Q4 report. Between January 1 and November 30 of this year, the Airport Authority received a total of 786 concerns from 240 individuals. This is a 37% decrease in the number of complaints, and a 0.4% decrease in the number of individuals compared to the same period in 2017. Approximately 44% of 786 concerns were registered by three individuals residing in the City of Richmond.

9.0 OTHER BUSINESS

a. Templeton Redevelopment Project

Referring to information presented at the Q2 ANMC meeting in June, work on the Templeton Redevelopment Project is ongoing, and further updates will be provided to the ANMC in 2019.

b. Temporary Noise Monitoring at Musqueam

The portable noise monitoring terminal was installed at Musqueam and data collection has commenced. A summary report will be prepared in early 2019, and the Airport Authority will work with community representatives on developing how best to share this information with the community.

c. Open Discussion

Gary Abrams, City of Richmond citizen representative, discussed issues regarding night-time operations. Gary advised he had spoken with a few residents of north Richmond who have expressed concerns about night operations and the use of the north runway at night. He cautioned there appears to be growing community sensitivities to these operations.

Marion thanked Gary for raising this issue. While YVR has always been open 24 hours, as illustrated in the presentation on traffic trends earlier in the meeting, the Airport Authority will continue to monitor traffic trends and report on night-time operations and community

concerns, as well as regularly review the night-time Noise Abatement Procedures to ensure they remain relevant. The airport will also continue to work with the City of Richmond planning department to support appropriate allocation of land uses and building design which reflect an operating airport, to manage noise impacts on the community.

MEETING ADJOURNMENT

Marion thanked members for their attendance and contributions. The meeting was adjourned at 3:45 PM.