

Appendix A
Meeting Agenda
Billy Bishop Toronto City Airport
Noise Sub Committee Meeting 14

Wednesday October 6, 2021
7:00 PM to 8:30 PM
Zoom Virtual Meeting

AGENDA

- 7:00 Welcome
- 7:05 Agenda Review and Updates
- 7:10 Restart of Commercial Service (Michael MacWilliam)
- 7:40 Permanent Noise Management Terminal update (Michael MacWilliam)
- 7:55 Ground Noise Study update (Michael David)
- 8:10 Discuss Max's ICAO Summary May 10, 2021 email (Max Moore)
 - Attachment provided "M.Moore 10-05-2021_ICAO Noise Standards – Background Information"
- 8:25 Business Arising
- 9:00 Adjourn

Appendix B
Restart of Commercial Operations Presentation



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Community Liaison Committee Meeting
Update on Airport Commercial Service Restart
September 22, 2021

General Principles

- Continual Focus on Expense and Revenue Management
- Health and Safety – ICAO Council Aviation Recovery Task Force (CART)
- Coordination with all key stakeholders and government agencies/partners
- IMS (Incident Management System) approach since Pandemic started
- Issues Management Approach
- Project Planning Framework

PortsToronto Activities

- Continual review and adjustments to Transport Canada, PHAC regulations (over 37 revisions to date)
- Rapid Antigen Screening Program
- Pandemic Response and Contingency Plan
- Ambassador Program / Staff Recall and Training
- Critical Restricted Area Reactivation / RAIC Process
- ACI – Airport Health Accreditation



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Airline Readiness

- September 8th Domestic Service Restart phased approach
- Transborder Operations commenced September 17th
- Continued dialogue, engagement and sharing of plans
- Coordination of Aircraft Movement/Readiness
- Review of Risk Assessments completed for all key departments (including destination risk assessments for flight crew)
- Updates on key personnel recall and staffing
- Health and Safety Plans/Protocols
- Approval granted by PortsToronto for restart July 30th subject to conditions



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Well, hello there!

Please help:

- Physical distance
- Wear your mask

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Please help:

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Government Agencies / Terminal Operator

- CATSA (Canadian Air Transport Security Authority) Reinstatement of Services
- Transport Canada Civil Aviation and Security Engagement
- CBSA (Canada Border Services Agency) Engagement
- PHAC (Public Health Agency of Canada) Engagement
- Working with PHAC/CBSA and Switch Health and providing Transborder Arrival Screening
- Nieuport Aviation Engagement

An aerial photograph of Toronto, Canada, showing the city skyline with the CN Tower and the Billy Bishop Toronto City Airport. The scene is captured at sunset, with a warm orange and yellow glow over the water and sky. The airport's runways and taxiways are visible, along with the surrounding urban landscape.

Questions

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Appendix C
ICAO Noise Standards – Background Information
Discussion Paper

Prepared by Community Subcommittee Member Max Moore, May 10, 2021

May 10, 2021

ICAO Noise Standards & Community Noise Standards

The International Civil Aviation Organization (ICAO) is an agency of the United Nations, based in Montreal, which sets standards of operation for the airline industry around the world. This includes standards for design of airport facilities, runway lengths, flight paths, navigation and communications protocols, reporting requirements, safety standards, and Standards for Certification of Airplanes for commercial operation.

Air Industry Technical Standards

In addition to its role as an airline industry council for nearly 200 nations, ICAO is a standards setting agency. It determines whether airline industry measurements will be made in meters or feet, liters or gallons, for example. ICAO specifies measurements for altitude, temperature, air pressure, flight paths, communications standards etc.

The Air Navigation Commission (ANC) is the technical body within ICAO, which studies, negotiates and recommends different standards for adoption. Standards are developed under the direction of the ANC through a formal process of ICAO Panels. When they receive ANC approval, proposed standards are sent to the ICAO Council, for consultation and coordination with member states before final ICAO adoption.

Adopted standards are communicated to member states in an Aeronautical Information Publication (AIP), which contains all ICAO information essential to air navigation. Countries are required to update their AIP manuals every 28 days.

ICAO Noise Standards thus far apply only to noise made by planes in the air. There are no noise standards for measuring airport ground noise. If a *Community Noise Standard* is proposed for measuring airport ground noise, the approval process must go through all the steps outlined above, in order to become an ICAO standard.

Airplane Certification Procedures and NEF Contours

The airplane certification procedure is designed as a certificate of airworthiness. It is not designed as a system of noise measurement, but it does have a noise rating component.

Certification of planes for commercial operation involves a series of standardized noise measurements which rank newly manufactured planes in a noise category, compared to other planes. **Stage 1** older and more noisy planes (Boeing 707, DC-8). **Stage 2** includes B727 and DC-9. **Stage 3** is 737 Classic. **Stage 4** is A320, B737NG, B747-400. **Stage 5** includes newer, less noisy planes (A320, A350, B737 MAX, B777).

ICAO Airplane Certification Noise Ratings for commercial planes are also used by the aviation industry for NEF Modelling. NEF (Noise Exposure Forecasts) set limits on how many planes can be in the air, near an airport, at any point in time, by calculating the total amount of flight noise made. (# of Planes Times Noise Ratings for each plane)

ICAO Airplane Certification & Airport Ground Noise Measurement

In the procedure for certifying airplanes, there are three noise monitors to measure the noise of a plane flying overhead. These noise meters are placed at different distances from the source of the noise, ie. 1/2 mile, 2 miles and 5 miles from the airport.

Noise measurements from these three locations are statistically averaged to get a standardized average noise reading for the aircraft takeoff, flyover and landing. The averaged noise measure is called an PNL (Perceived Noise Level).

Airplane certification noise measurements are then statistically adjusted to produce EPNL - Effective Perceived Noise Level Reports. EPNL statistics make it possible to compare noise from different planes, by removing specific components of the noise - bass rumble, occasional noise peaks, intermittent noise (ie. on-again, off-again noise).

By averaging and adjusting airplane noise measurements for the purpose of certification the resulting DBA Decibel measurement is 15-20 Decibels lower than the original DBZ Decibel noise readings. This reduced decibel number is not an accurate noise reading, but is a standardized index number, which can be compared to similar statistically adjusted noise ratings for different planes.

Because the ICAO noise measurement procedure for airplane certification has only a limited purpose, (to rank new planes in existing noise categories), the procedure for measuring flight noise is done in a particular way, not as an objective noise measure, but as a standard procedure which allows comparisons of noise for different planes.

This is why the airplane certification noise procedure is only a partial measure of noise, which is limited to a specific purpose. It is not valid as a full measure of noise as people experience it. The purpose of this ICAO procedure is for airplane noise certification, and not for measuring the effect of airport noise on surrounding homes.

ICAO's EPNL-DNA noise measures report noise as much as 15-20 decibels lower than original DBZ noise, as it is heard by airport neighbours. EPNL reports using discounted DBA Decibels, are only partial noise measures. This is why ground noise reports need to measure noise as it is experienced by airport neighbours, with complete DBZ Decibels.

Put another way, using the ICAO airplane certification noise measurement methodology produces partial noise measurements which are statistically useful for drawing NEF lines on a map, but nothing else.

Airport Ground Noise cannot be measured with the ICAO's airplane noise certification method, because ground noise requires a better noise measure, with full DBZ Decibels.