NOISE MEASUREMENT AT AÉROPORT MONTRÉAL-TRUDEAU

Aéroports de Montréal has 8 noise monitoring stations, including one mobile. ADM publishes the Leq (equivalent level) noise levels recorded by the stations around the airport. The Leq is also used by Québec’s Transport and Environment ministries as a noise indicator.

These stations are strategically positioned along flight paths. The devices are installed and calibrated by independent professionals, and the noise measurements are analyzed by sound experts. The system is linked to Nav Canada radar data; the noise is therefore correlated with aircraft movement.

We generate three types of reports: aircraft noise, community noise and all other noise sources combined. Interpreting the results requires taking into account different factors such as noise attenuation by buildings.

We set up a mobile station at the Centre Claude-Robillard in the Ahuntsic borough for 44 days. We had the noise data analyzed by an independent firm. The night Leq for aircraft is 45 dB(A). Using the noise attenuation criterion employed by the World Health Organization, the night Leq detected inside residences in this borough is 24 dB (A). For information purposes, the decibel level of a normal conversation is 60 dB(A).

A mobile noise monitoring station was also set up in Ville Mont-Royal. The night Leq for aircraft is 50 dB(A). Again using the noise attenuation criterion employed by the World Health Organization, the night Leq detected inside residences in this borough is 29 dB (A).
<table>
<thead>
<tr>
<th>Sound level meter used by Aéroports de Montréal Brüel &amp; Kjaer, Model 2250, type 1</th>
<th>Microphones used by les Pollués</th>
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</thead>
<tbody>
<tr>
<td><img src="image1" alt="Sound level meter" /></td>
<td><img src="image2" alt="Microphones" /></td>
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</table>

- Equipment certified and calibrated by professionals;  
- Installed in residential neighbourhoods close to flight paths;  
- Noise correlated with aircraft movement and linked to Nav Canada radar data;  
- Noise measurements analyzed by professionals;  
- Three types of reports: aircraft noise, community noise and all sources of noises combined.

- Microphones not calibrated by professionals and their precision is not to standards;  
- Not installed by professionals: location can change the noise level (e.g. wall less than 3 metres distorts the reading);  
- Noises are not correlated with aircraft movement or linked to a radar data system;  
- Linked to a system in Germany that generates data.

For more information: [http://www.admtl.com/fr/adm/collectivites](http://www.admtl.com/fr/adm/collectivites)

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