

SPRINGBANK AIRPORT NOISE MANAGEMENT



Introduction

The problem of reducing aircraft noise has become a far-reaching issue. Presently, efforts to control noise around Canadian airports frequently involves government officials, airport operators and local residents. Since the early 1990's, Canadian airports have been evolving into private operations, called Local Airport Authorities.

The Calgary Airport Authority (the Authority) is a not-for-profit corporation established in 1990 and incorporated under the Alberta Regional Airports Authorities Act. It holds long-term leases for both the Calgary International Airport (YYC) and Springbank Airport (YBW) and is responsible for all operating and capital costs associated with both these facilities.

On October 1, 1997, the Authority took over operations of YBW from the Federal Government. One of the first undertakings of the Authority at YBW was to develop a working relationship with communities around the airport. It is with this objective that the Springbank Airport Community Noise Consultative Committee (SACNCC) was created.

The purpose of noise management is to minimize the level of disturbance to those living in the communities within the vicinity of the airport while recognizing the need for airport operations. The challenge of noise management is to successfully balance the often competing demands for safe, convenient, airport services and those for enjoyable community living.

Responsibilities

Noise management surrounding Canadian airports is governed by the *Aeronautics Act* and the *Canadian Aviation Regulations*. Noise operating restrictions and noise abatement procedures specific to each airport and approved by the Federal government, are published in the Canada Air Pilot (CAP) and the Canada Flight Supplement.

Transport Canada is the regulatory body responsible for enforcing air traffic noise control and abatement regulations and is empowered to sanction both pilots and carriers who violate them.

YBW's noise management responsibilities are outlined in its lease with Transport Canada. The Authority takes responsibility for noise management at the YBW, which includes noise management plans and handling concerns regarding aircraft noise. However, this responsibility does not grant the Authority enforcement powers for those regulations under the *Aeronautics Act*.

Understanding Noise

Noise is unwanted sound. Sounds of high volume, different frequencies and sounds which interrupt people's activities are all considered noisier than other sounds. Aircraft sounds can exhibit these noise characteristics. Sound is measured in decibels (dBA). The decibel scale measures the amount of pressure produced on the ear by the energy from a given sound source. To the average person, a 3 dBA increase is barely perceptible. An increase in 10 dBA is perceived as being twice as loud. Unwanted sounds are generally considered noisy, even though their loudness and pitch are the same as familiar sounds. While many aircraft flying overhead will generate the same loudness as some household appliances, the aircraft may seem louder to many because of its unexpected occurrence or frequency of occurrence.

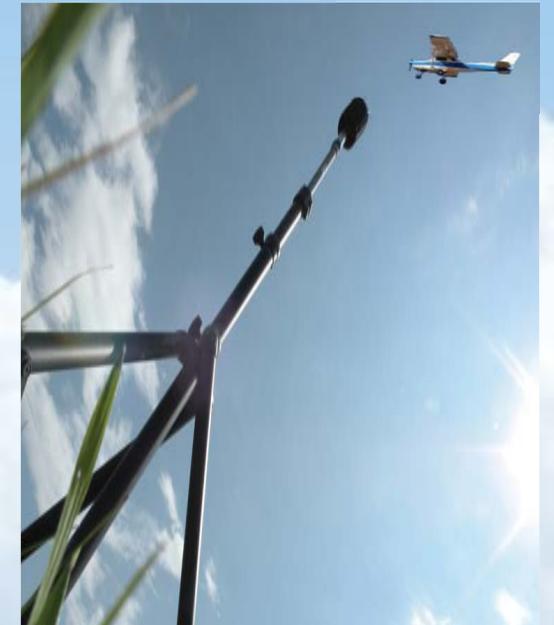
Understanding Why Noise Varies

Factors responsible for above average amplification of aircraft noise in the community include:

- Temperature inversions;
- Wind speed and direction;
- Ambient air temperature;
- Humidity and precipitation;
- Barometric pressure; and
- Percent and height of cloud cover.

Due to the above listed factors, sound can vary up to five or more decibels from the same aircraft operating at the same location on different days.

Jet aircraft noise emission standards are implemented when the aircraft is manufactured. Jet aircraft operating in Canada comply to these noise emission standards. Currently, there are two acceptable noise standards depending on the date of manufacture and this can lead to a variance in sound from one jet aircraft to another.



Noise Mangement at YBW

The purpose of the YBW Noise Management Program is to minimize the level of disturbance to those living in the communities in the vicinity of the airport while recognizing the need for 24-hour airport service. The challenge of noise management is to successfully balance the competing demands for a safe, convenient, 24-hour airport services and to decrease noise impacts to those residents living around YBW.

Noise Management Elements at YBW: Springbank Airport Community Noise Consultative Committee (SACNCC):

The most important and effective part of our Noise Management Program is the SACNCC. A variety of stakeholders, including neighbouring communities, The Authority, Nav Canada, Rocky View County and various air transport groups. The aim of the committee is to address noise issues through a consultative and collaborative process. The committee's objectives are to provide a forum for dialogue and an improved understanding between the stakeholders and parties affected by noise related to YBW operations.

Noise Concern Hotline (403-286-7703):

The YBW Noise Concern Hotline is the principal conduit for community members to voice concerns and pose questions about aircraft activity in Springbank and the surrounding communities. Information collected throughout the year facilitates the the Authority in understanding issues related to YBW operations.

Procedures for Aircraft Operators

To minimize noise, The Authority works with Air Traffic Control (Nav Canada) to maintain flight procedures for arriving and departing procedures. Subject to safety, airfield maintenance, and weather conditions the following guidelines are requested of all aircraft operators:

- Unless otherwise directed by Air Traffic Control (ATC), and when safe, avoid overflying noise sensitive areas such as acreages, farms and residences. The map below illustrates areas with noise sensitivities;
- Runway 17/35 preferred when operationally safe;
- Circuits are prohibited between 11:00pm - 7:00am local time;
- Unless otherwise directed by ATC, climb to 4500' ASL prior to turnout; and
- Maintenance run-ups are prohibited between 11:00pm to 7:00am.

A big part of the ongoing process of fostering harmonious relationships with our community can be achieved by following good "common sense" flying practices.



Preferential Runway Use

Runways are selected by Nav Canada using wind speed and directions at the airport to ensure stable, safe operation of aircraft at low altitudes. Preferential runways are used in calm wind conditions and night-time restrictions are used to minimize noise impacts in communities close to the airport. If conditions do not permit safe arrivals and departures, runways which are most safe to use are opened to air traffic.

There are two runways at Springbank Airport - Runway 8/26 and 17/35. Runway activity is dependent on wind direction because aircraft must depart and arrive into the wind.

If you have any other concerns or questions regarding Noise Management at the Springbank Airport, please call the Noise Hotline at **(403)-286-7703** or visit **www.ybw.ca**.

YBW CALGARY AIRPORT AUTHORITY

Calgary Airport Authority,
2013

Springbank Noise Hotline
(403)-286-7703

Facts:

- YBW is one of the busiest airports in Canada based on the number of aircraft movements.
- Night-circuits are required for pilot certification.
- YBW is home to the Rocky View County's Fire Station 102 providing emergency response to the surrounding communities.

