

Transport Canada's Aviation Noise Monitoring Vehicle

Transport Canada has developed a program to monitor aviation noise to help reduce its impact on communities near airports.

There have been significant changes in aviation-related noise in recent years. Noise abatement measures have become more common at airports and newer jet aircraft are quieter than their predecessors. But at the same time, the number of jet flights has increased.

It is impossible to eliminate all aviation-related noise as long as we rely on air transportation. But the impact of such noise may be reduced.

The noise monitoring program at airports in Transport Canada's Pacific Region will assess the noise levels associated with various aviation activities and the parts of neighbouring communities which are most affected. The results will provide scientific data for airport planning and development. The program is starting in communities served by larger, busy airports.

The program includes analysis of aircraft noise abatement procedures to recommend needed changes consistent with safe operating practices. It is to be used to identify trends in the impact of aviation-related noise on the community as well as monitoring noise sensitive areas during peak traffic and quiet hour periods.

Noise monitoring sites are chosen in the surrounding community to collect noise data. After this "baseline" data is compiled initial actions can be taken, as required, to control or regulate aircraft noise or to plan land use in the vicinity of airports. Follow-up monitoring is done as required to detect changes in "baseline" noise levels.

Some of the noise monitoring projects recently completed or now underway include:

- a) up-dating previous noise monitoring data for Vancouver International Airport;
- b) monitoring night operations at Vancouver International Airport;
- c) providing baseline and comparative noise data for Transport Canada's Environmental Impact State-

ment on the reactivation of Boundary Bay; and
d) expanding our community noise data base.

The noise monitoring vehicle enables Transport Canada to conduct several specific monitoring projects simultaneously. The customized 3.6 metre van is fully equipped to make it habitable for an operator for lengthy periods of working hours.

Four separate power systems for the electronic monitoring equipment make the van a very mobile and reliable piece of equipment. A roof-mounted microphone picks up sound, converts it to electrical signals and feeds them into a mini computer. This noise level analyzer makes more than 35,000 separate readings an hour. At the same time the computer is analyzing the sounds, it produces a continuous graph of noise levels. Once each hour, the computer also prints an accurate summary of various noise levels (in decibels) and their duration (in seconds).

All ground to air communications are monitored to correlate air traffic control instructions and the operations of individual aircraft with the recorded sound levels. Such communications can themselves be recorded to serve as a double check on the operator's manual record of aircraft activity.

Don't be surprised to see the van parked on your street, in a nearby park, schoolyard, community centre, or even in your neighbour's driveway.

When we can, we'll put the van on display and show you how we are monitoring community noise levels. We may be able to come out at the request of your group or community association, if the van's work schedule permits.

While we've got our electronic ear to the sky we have another ear ready to hear your complaints about aviation noise in the greater Vancouver area. Transport Canada's noise complaint telephone has been in operation since 1974. Your complaints will be investigated as they come in. If aviation-related noise is bothering you, don't hesitate to give us a call, 24 hours a day at 666-3477.

