

## MAINTENANCE RUN-UPS AND GROUND RUN-UP ENCLOSURE

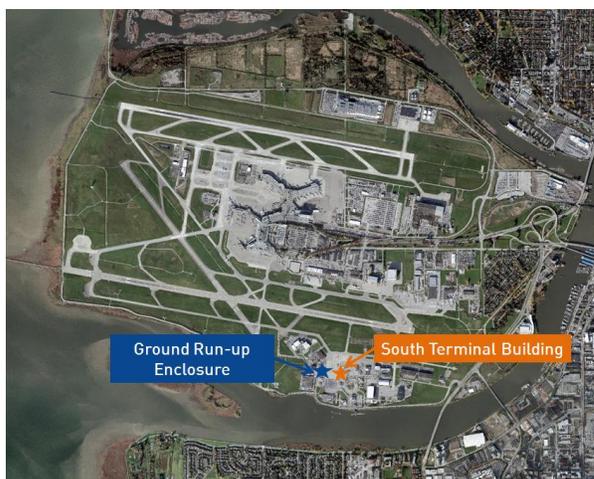
Aircraft engines are complex mechanical systems that require regular maintenance to meet the rigors of operational service. To maintain a high level of safety, Transport Canada defines stringent maintenance standards and requires operators to test engines and their components before the aircraft is put back into service. These tests are referred to as maintenance run-ups.

The duration and engine power setting during a run-up are dependent on the systems being checked. Maintenance staff will attempt to minimize the duration of the run-up as conducting a run-up translates to fuel burn and wear on engine components.

Because most aircraft are in operational service during the day, maintenance work is often carried out at night when the maintenance crews have access to the aircraft. As operators prepare to place the aircraft back into service for the following morning, some run-ups occur during the night-time and early morning hours.

To manage noise from run-up operations, the Vancouver Airport Authority maintains Run-up Directive which contains procedures on how, where, and when run-ups are permitted. In accordance with the Directive, operators must call YVR Airport Operations and request approval for their run-up. If an approval is granted, the operator is assigned a specific location on the airfield and a heading for the run-up. The location and heading is intended to ensure that the run-up is conducted safely and to minimize noise disturbances to those living in the immediate vicinity of the airport. During the night-time hours, the number of approved run-up locations is further reduced to have aircraft positioned away from populated areas as much as possible.

Additionally, the Vancouver Airport Authority completed the construction of Canada's first Ground Run-up Enclosure (GRE) in January 2012 to further minimize noise exposure on the community from run-up activities. The GRE is a three-sided open roof facility whose walls are designed to absorb and redirect noise from an aircraft performing a run-up inside the enclosure.



The GRE at YVR is located adjacent to the South Terminal Building. This site was selected due to its proximity to many of the maintenance bases on the south side of the airport and because it provided the best noise reduction of all the sites evaluated.

The walls of the GRE are made of steel and are lined with approximately 2,000 sound absorptive panels. These panels help achieve noise reductions in the range of 10-15 dBA (decibels). As such, the GRE is designated as the main location for high power run-ups on the south side of the

airport, especially during the night-time hours.

While the GRE can accommodate aircraft sized up to a B757, the primary users of the facility are smaller twin propeller commuter aircraft such as the Saab 340 and Beechcraft 1900.



Despite efforts to mitigate noise exposure from maintenance run-ups to the community, noise from these operations will be audible in the community given the close proximity of residential developments to the airport and the complex sound characteristics from the noise source.

If you are disturbed by a run-up, you may call (604) 207-7097 and speak to a representative in YVR Airport Operations. With the information you provide, YVR Airport Operations may be able to dispatch staff to investigate activities on the airfield.

*If you need more information, please contact the YVR Noise Management office at [noise@yvr.ca](mailto:noise@yvr.ca)*