

Community Design Principles – Input from YVR Noise Management Committee

With the adoption of Airspace Change Communications and Consultation Protocol (ACCCP) and future development of Required Navigation Performance (RNP) procedures, the YVR Aeronautical Noise Management Committee identified the following “community design principles” to help airspace designers incorporate community considerations when developing new routes and procedures.

Airspace procedures are created in accordance with the standards prescribed by Transport Canada and the International Civil Aviation Organization to ensure aircraft safety. As a result, there is often very little flexibility when developing new procedures. The intent of the community design principles is to help with evaluating options whenever flexibility in airspace design can be accommodated to minimize or reduce noise impact on communities without compromising safety.

Below are the committee’s suggested community design principles:

- Whenever possible, keep new routes over less noise sensitive and populated areas such as water, industrial and commercial areas, agricultural areas, and highways.
- Explore options to minimize current community issues when designing new routes; however, ensure noise mitigation exercised for one community does not come at the expense of another.
- Wherever possible, consider alternating or randomizing preferred routes.
- Assess noise and visual impacts of new routes.
- Use technology for noise reduction benefits (e.g., idle approach/descent).
- Explore noise reduction options by looking at the types of aircraft and the procedures available
- Differentiate areas currently exposed to noise from areas newly exposed to noise, when assessing new routes.
- Work with local governments during planning the new routes and when communicating with residents.
- Study Best Management Practices and success stories from other airports that have undergone airspace changes.
- When selecting new routes for development, consider and prioritize new routes that may bring benefit to existing high noise and aircraft impacted areas by focusing on areas currently most exposed to arrivals or departures and explore ways to mitigate.
- Consider topography when developing routes (ASL vs. AGL) and where aircraft descend and intercept the ILS.
- Consider when and where speed brakes and spoilers are utilized in the Vancouver airspace.
- Create an opportunity to consult early in the process and involve the local governments.
- Fully assess the implications of rerouting on newly impacted communities.
- Account for the type of ground surface (e.g., water, forest, etc.) that will be overflowed.
- Assess the impacts of vectoring off published routes when designing new routes.