Current Developments on NEF Contours in Toronto Lester B Pearson International Airport

For the past three years, the Greater Toronto Airport Authority ("GTAA") has been researching new approaches to airport noise impact on communities. With regard to NEF contours, the GTAA has developed an innovative approach to forecasting exposure to noise. As explained in their Master Plan 2017-2037 document:

> The regulatory requirement for an airport Master Plan in Canada is to produce Noise Exposure Forecasts (NEFs). Such forecasts produce noise contours defined by noise levels at various locations surrounding an airport. Generally, residential development is not permitted within the 30 NEF contour. We [GTAA] acknowledge that the NEF is not the only or best measure of noise impacts, but it does serve a function in land use planning. Best practice for airports today is to run a series of scenarios based on potential runway operating patterns, aircraft fleet mixes, stage lengths, and day and night operations to create a Multiple Scenario Envelope NEF contour or MSE NEF. The GTAA is in the process of producing a new MSE NEF contour for 2037; we're engaging with our neighbouring municipalities and other interested stakeholders regarding its implications. Once this consultation process is complete, a final MSE NEF will be issued.
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> *Multiple Scenario Envelope Approach.* The GTAA is adopting an innovative approach to generating Noise Exposure Forecasts that is consistent with best practice around the world, as well as with the method adopted by several other major Canadian airports.
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> The traditional approach to NEF modelling assumes, for planning purposes, a peak-day flight schedule based on average annual operating conditions – that is, average runway allocation, night/day split and flight tracks. This is somewhat like setting the thermostat in your home for the average annual temperature in Toronto.
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> The new NEF approach takes the same peak-day flight schedule and bases it on the varied operating conditions we experience over the course of a year and are likely to see again in the future. This yields an aggregate or Multiple Scenario Envelope (MSE) NEF noise contour reflecting all of those varied conditions.