

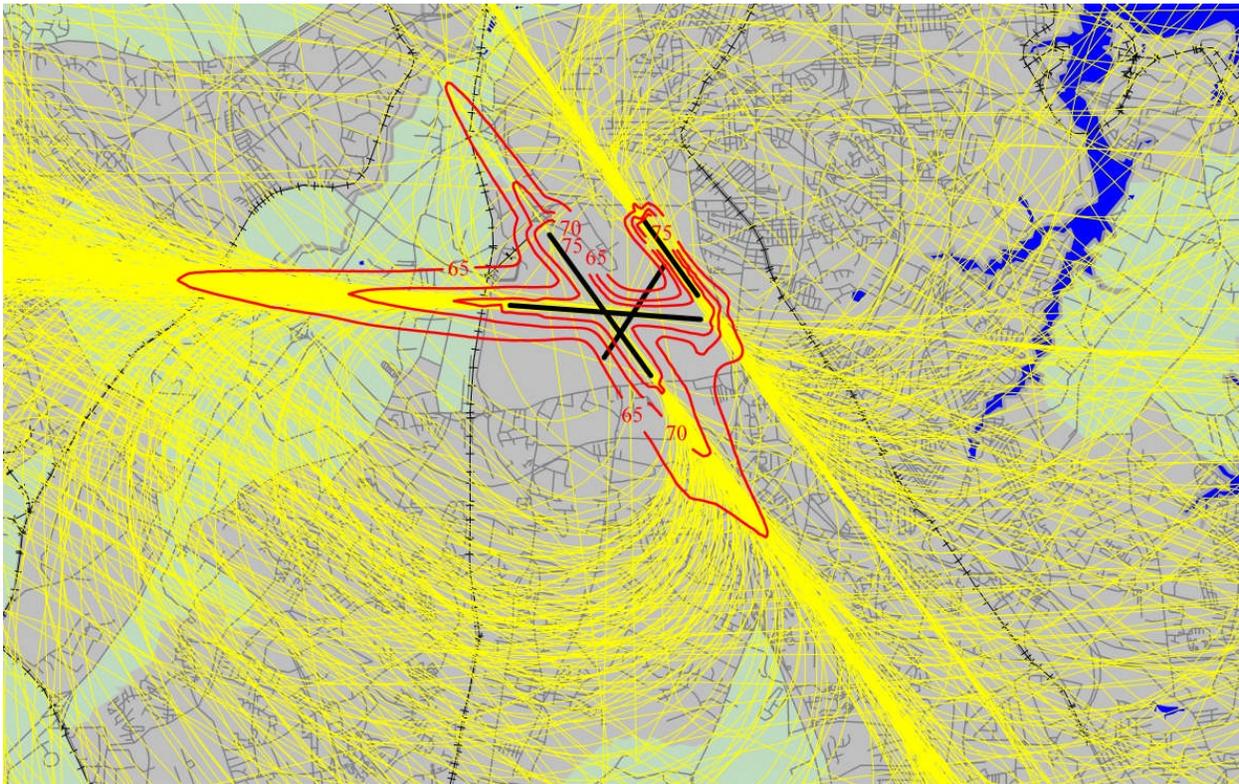
## **KNOWING WHERE AIRCRAFT FLY**

Flight track data are fundamental to understanding how an airport operates, and where aircraft are most likely to be heard. These data, usually derived from airport radar systems, show where each aircraft flew that used the airport. In thinking about buying a home, or to understand why aircraft fly over a neighborhood, plots of flight track data are invaluable.

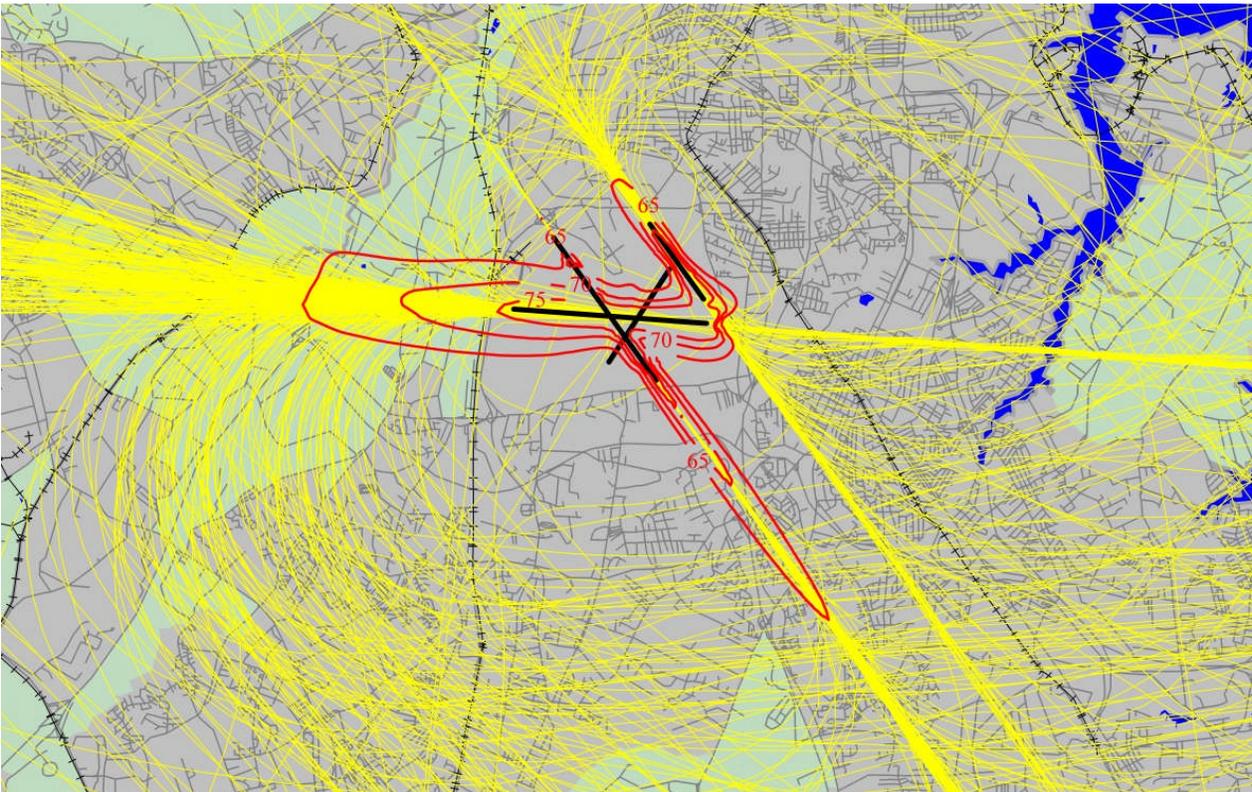
This paper presents two ways of plotting flight track data. Figure 1 and Figure 2 present one type of presentation. These show actual tracks flown on two different days (along with resulting Day-Night Average Sound Levels). This airport has two primary modes of operations: West Flow, when aircraft arrive from the east and depart to the west; East Flow, when aircraft arrive from the west and depart to the east. These types of plots are interesting, but it is difficult to tell, especially if many days are plotted, where exactly the concentration of flight tracks lie.

An alternative presentation is demonstrated in Figure 3 and Figure 4. These are “flight track density plots” and show the predominance of departure and arrival flight tracks, in this case for a one week period. Longer periods can also be presented in this form, providing additional understanding of common routings.

Both presentations provide useful information for understanding where aircraft fly and can be produced for most commercial airports.



**Figure 1 Flight tracks for one day of predominantly "West Flow"**



**Figure 2 Flight Tracks for one day of predominantly "East Flow"**

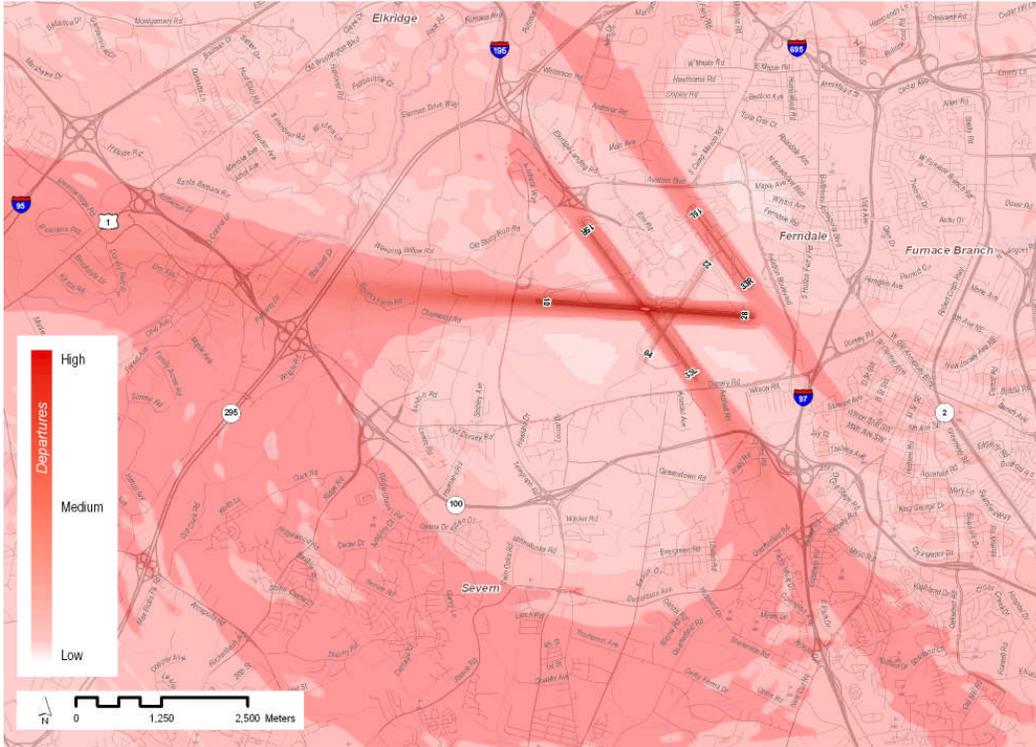


Figure 3 Departure Track Densities

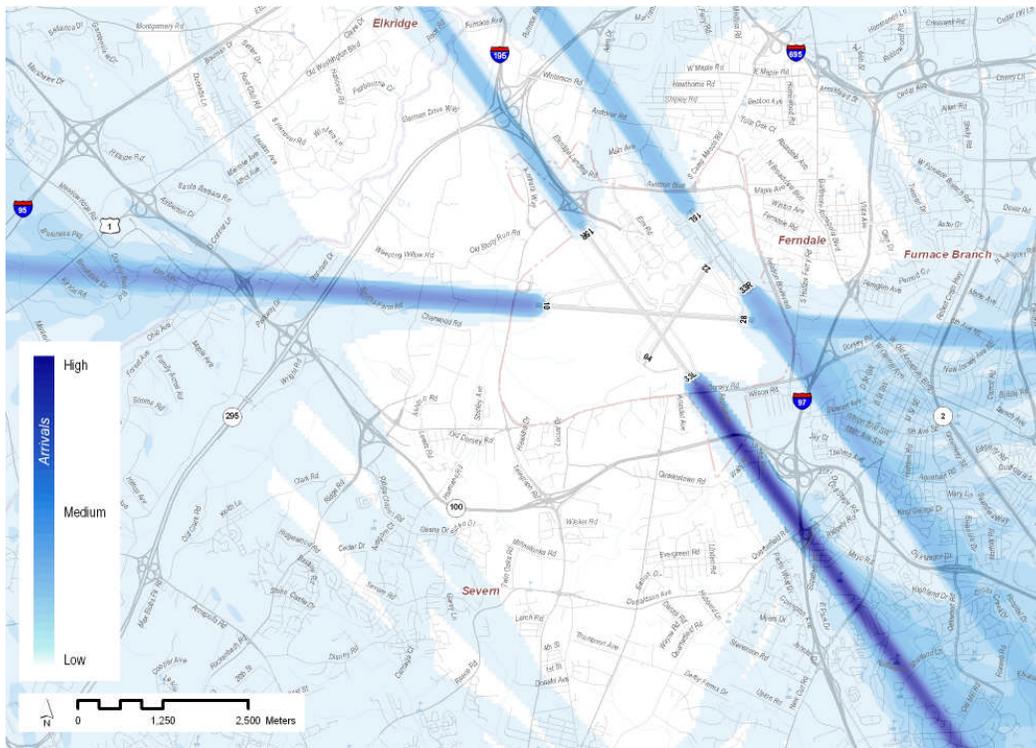


Figure 4 Arrival Track Densities