Assignment A8: FAA-NASA Strategic Deconfliction vs. Lane Strategic Deconfliction

CS 6380
Spring 2020

Assigned: 24 March 2020

Due: 28 April 2020

For this problem, we compare the FAA-NASA Strategic Deconfliction (FNSD) approach (pairwise flight deconfliction) to Lane-Based Strategic Deconfliction (LSD). In particular:

- **FNSD**: develop as efficient a method as possible to deconflict aircraft using the grid based method. In this approach a new flight must determine the grid elements it will cross, find any other flights operating in those grid elements at the same time, and make sure it does not violate the safe separation distance.

- **LSD**: use the LSD method to schedule flights.

To do this involves setting up a flight region which allows reasonable comparisons, as well as some way to get flight paths for both methods.

Measures must be developed and scenarios run which clearly demonstrate the advantages and disadvantages of the two methods.

You should handin the source code used in the study. The code should conform to the style requested in the class materials.