Actual LOC to date: 233
Estimated LOC to completion: 250
Total effort to date:
      Riley Miyamoto: 02:30
      Egan Nakano: 02:00
      Joseph Nasca: 03:00

Hosting: We are hosting our documents and code on github.
https://github.com/ics414-dunbar/avionics

The files for the version of our program we are submitting are:

Dial.png

VOR.png

Driver.java

GUI.java

Testing:

      To test our VOR program we utilized the code that Joseph provided, which was a redesign of the existing code with a GUI element. Our new version set the radial that the plane would be approaching the VOR station to a randomly generated heading. Initial testing was completed with the random values generated by our program, to test if our program had basic functionality. In our program the OBS settings are simulated by two buttons which increment and decrement the OBS by 5 degrees. The results of these tests showed us that the program performed as we thought it should, altering the OBS reflected in the GUI moving the right amounts and the CDI needle showed the appropriate deflection to the left or right depending on how we set the OBS.

      After our initial tests showed that this GUI version of our program functioned reasonably, we ran a number of test cases, wherein we changed the randomly generated heading to a series of fixed headings. We tested a number of headings and OBS settings with the four main different positions that would affect the CDI needle, being between 300 and 30 degrees, 30 and 120 degrees, 120 and 210 degrees, and 210 and 300 degrees. These all returned acceptable results where according to how we understand VOR should work. After these tests we reverted the code back to its original state generating a random heading.