Testing Process Evaluation

Gaps:

There is a lack of unit tests for the FlightPathCaluculation class itself, it does not meet the adequacy criterion, as there are test suites definitely missing. There are currently only 3 functional tests here, however I believe that they suffice to boost our confidence levels that it is indeed working as intended. This is boosted by manual testing techniques to check the output file is what was required. We did not have enough time to fully implement all unit tests for the that class.

There was also a lack of tests for checking the contents of the Json and GeoJson generated files. This was because the file sizes were large, a large number of allocated resources would have to be shifted in order to fully test the file contents.

Improvements could easily be just implementing the test above. However that might have affect our other tests, due to the cost-effectiveness trade off we would have to cover.

Target levels/performance levels/Did our testing meet the target:

Target levels will be considered as coverage, e.g class coverage (how many classes have tests implemented). There are target levels that coverage would preferably meet to ensure good coverage.

Class coverage refers to the proportion of the class containing test suites. This is at 100% for our system. Target levels would ideally reach 100% as well. This means that we did in fact reach our target for class coverage.

Test coverage may refer to test suites covering the total code in the project, 100% will always be the target but its is not always possible due to restraints once again in our budget, so target of 90% is more feasible. We would need an exhaustive input space and extreme levels of time spent on test to achieve that level. I believe we achieved about 70% as some test suites were missing cases.

We have to keep in mind that coverage is a proxy, it might be misleading and mistakenly boosting the confidence level developers may have on the system.