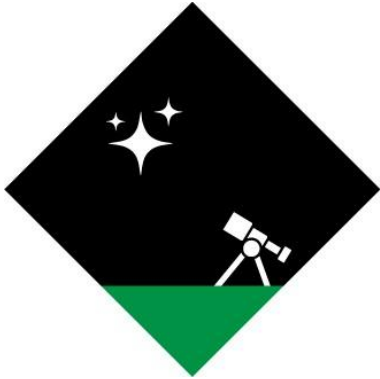# Operation Dark Sky

Team: Luke Thompson, Justin Ceccarelli, Jordan Tatum

Faculty Leader: Michael Leverington

Our Client

- Jim Clark: Director and Chief Engineer at the NPOI.

- Peter Kurtz: Software Engineer.

- Henrique Schmitt: Astronomer and Head of the Optical Interferometer

What is the NPOI?

- Navy Precision Optical Interferometer (NPOI)

- Interferometry

- Informs Naval navigational tools, and the world's GPS and time measuring systems.

- Useful for studying binary stars and stellar diameters

Site Details

- Data
  - 6 different light sources
  - Needs to be carefully interpreted/charted
  - Predictions for time of next observation must be made well in advance (with OBSPREP)
- World's largest baseline interferometer

The Problem:

obsprep

- Essential to the operation of the NPOI

- The current GUI is outdated

- The calculations must entered by hand

Our Task

Our initial goals include:

- Provide convenient access to the data from OBSPREP's backend

- Provide cross platform functionality

- Sort the information by observation station and by star

Further Goals

Additional goals include:

- Integrated Graph creation tools

- Information savable as a text file

- Installer script to ease program installation

Conclusion

The past iteration of ObsPrep is outdated. We plan to build a modern, easily maintainable GUI that will save astronomer's time, reduce operational downtime, and make it easier to share their findings.