1.) GEOST, Inc. is a small engineering business located in Tucson, Arizona and founded in 2004 by Dr. Anthony Gleckler. It specializes in active and passive optical remote sensing and provides expertise in all phases of project development for electro-optics and sensors. GEOST’s strengths are in the areas of EO sensor architecture development, image processing, and rapid prototyping of sensor systems for a varied customer base. Recent programs at GEOST include remote sensing of satellites and debris from a wide variety of earth based sensors. GEOST is looking to continue growth in this sector and is seeking two summer interns to work in and promote this business sector within GEOST. The intern candidates must be US citizens (and willing to provide proof of citizenship) and available to work off-hours, including late nights.

2.) GEOST employs multiple senior-level engineers and PhDs that will be available to guide interns over their 3-month internship. Mr. Adam Wade graduated first in his class from the Optical Sciences Center at UofA in 2001 before joining GEOST in 2010 and will be the direct supervisor of summer interns. Mr. Wade has been the technical lead on several high profile remote sensing and astronomy related programs at GEOST and currently directly manages several programs at GEOST as well as providing technical contributions to others.

3.) The summer intern(s) will be primarily operating a prototype Space Situational Awareness (SSA) sensor system at the primary GEOST location in Tucson. The sensor system is on a mobile cart base that is driven in and out of the GEOST facility on a nightly basis while collecting data on a variety of earth satellites and debris. The intern(s) will gain direct experience in the operation of an SSA class telescope system to include data reduction and analysis. Along with this primary duty the intern(s) may assist GEOST employees in the operation of other telescope systems hosted in permanent domes outside of the GEOST facility. As part of the SSA program, GEOST is developing a technology for imaging the entire sky to monitor weather and seeing conditions for the SSA sensors. A second task for the interns will be to set up the hardware for this project, collect data on a nightly basis, and use the data to develop software capable of detecting cloudy conditions in sectors of the night sky. This software will then help direct the active SSA sensors to collect in only the clear, useful sectors of the night sky. While performing this project the intern(s) will learn a variety of engineering skills to include hardware implementation, data analysis, and software development.