

Statement of Work

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Project Name: New Horizons Image Analysis Support

- The New Horizons is a NASA mission that was launched in 2006 to study Pluto and will be making its closest approach to the planet in July 2015. The spacecraft includes an imaging subsystem called the Ralph instrument that will be capturing images of Pluto during the flyby. Rochester Institute of Technology (RIT) has expertise in developing an image processing chain and calibration evaluation for digital imaging systems. RIT will provide expert imaging support for this important space mission.

- **Scope**
Provide image processing and calibration algorithm support for the Ralph instrument onboard the New Horizons spacecraft. The effort is to be conducted in two phases:
 - Phase one: Assist in the characterization of the raw image data from the instrument. Develop calibration routines to properly calibrate the raw image data into necessary science products.
 - Phase two: provide extended image analysis support after the Pluto close encounter. Analyze downloaded imagery from the instrument and adjust processing algorithms as necessary to ensure high data integrity.

- **Deliverables**
 - Deliverable 001: Provide engineering computer code and/or detailed description of the developed process to calibrate image data from the Ralph instrument.
 - Deliverable 002: Provide additional documentation and/or image examples as requested.
 - Travel: Four trips, for one person per trip (Rochester, NY to Greenbelt, MD or Laurel, MD) to participate in technical meetings related to this project.

- **Period of Performance**
 - This effort will have a one year period of performance. The first phase will extend through the month of July 2015 (the closest approach to the Pluto system). The second phase of this effort will begin after July and extend up to one year in total.