

EE / CprE / SE 491 –sdmay20-03

NOAA GEOS-R Satellite Receiver

Bi-Weekly Status Report 6

04/03/2020 – 04/16/2020

Client: N/A

Faculty Advisor: Nathan Neihart

Team Members:

Nick Butts — *Software Group*

Rudy Lim — *Software Group*

Jonathan Massner — *Systems and RF Group*

Ted Mathews IV — *RF Group*

Riley Stuart — *ADC Group*

Jordan Tillotson — *ADC Group*

Past Week Accomplishments

- Software Research and Development - Jonathan Massner
 - Looked up how to save raw packet data to a file
 - Researched ways to call Python from C code
- ADC board layout - Jordan Tillotson
 - Final revision of ADC board layout
 - Documentation of ADC design and layout
- Software Development- Riley Stuart
 - Research and development for File Header processing section of software.
- Finished most of C code for software - Nick Butts
 - Main program being written using functions that were developed to process the data
- Figured out parsing software for viewing file content- Rudy Lim
 - Downloaded and tested software for parsing data
 - Found good documentation for software
- Documentation, SDR, website work - Ted Mathews IV
 - Setup quick webpage for pulling NOAA images and displaying received ones on the PI
 - Worked on documentation for the board designs and the report
 - Aimed the antenna and got the SDR configured for the PI

Pending Issues

- Software
 - Need to test the entire software

Individual Contributions

Team Member	Contribution	Weekly Hrs	Total Hrs
Jonathan Massner	Software Development	5	90
Nick Butts	Software development	8	113
Ted Mathews IV	Work on RPI hosted webpage, work on SDR	15	183
Jordan Tillotson	ADC board layout/documentation	8	129
Rudy Lim	Software development	6	86
Riley Stuart	Software development	4	102

Plans for Coming Week

- ADC/DSP - Jordan Tillotson
 - Finish up documentation of the design process
 - Assist with software design
 - Design document additions and edits
- ADC/DSP - Riley Stuart
 - Work on documentation
 - Finish software implementation
- RF - Ted
 - Get images from SDR via goes_recv and goes tools
 - Work on documentation for the final report.
- Software - Nick
 - Finish documenting existing code
 - Final testing what we have for correct operation
- Find sample data to use with the XRIT2PIC software - Rudy
 - Try to generate an image with the software using available data
 - Work on design documents
- Software - Jonathan
 - Figure out how to run Python code with C code
 - Start documentation