Northrop Grumman Sponsor Meeting 2/15/2016

The presentation for Spring Midterm I will be on Friday, 2/19/2016 at 4:00. Keep finding out about the matlab toolbox licenses. SimRF may be useful, but Simulink should just be fine.

On electronics testing, make sure everything is calibrated and check the test equipment to make sure that everything works as it should.

For Simulink file, we went over what each component does and what this simplified RF chain is emulating on the scope. (File attached to email from Pete) This shows how the voltage values will integrate over time, leveling off to a constant value. This is the DC level “fills up”.

Signal processing code on matlab is coming along well. Everything is being verified and compared to the excel file from last year to make sure the code is working as it should. Should be done within the next week, hopefully by the presentation, but not a guarantee.

Part of the memory is working, but not all of it. Only getting the lower byte of the data in each memory address. Was able to send data from the switches, then save that data from the memory. Can take that file and then open them into matlab. Having an issue getting the data to the 7 segment display. The display is probably more useful when we are testing to check the A/D data. This way we can see if there is a signal coming in real-time. If the code is working, we can just get data off of the memory instead of reading it off of the display. Maybe it will be better to see the values on the display to after writing to memory to see the actual data being saved. Cannot get this to work with the upper byte. Should be done by the end of the week. Trying to implement the FFT core generator, but not much headway has been done. If we can get I and Q data off of memory, then process in matlab, this should be the baseline. Processing on FPGA is a stretch objective. A/D should be stored as a standard logic vector. Take that data, sample it, convert to digital word, save to memory, send to matlab and do the processing.

Diagram should be created for system level relationships for the presentation.