2/8/16 Northrop Grumman Teleconference

9.75 GHz is our center frequency to see that phase centers are spaced 3lambda away from each other. Let’s say we had a scatter that was 5 degrees off boresight, excite all elements across array, and see phase response at 5 degrees we would get a large signal return. There will be a big scatter at 5 degrees and would look like an antenna pattern. Buying the access to the Phase Array Toolbox would be a great idea for simulation, start asking Dr Hooker, Dante or CMS on how to go about obtaining the license.

What do we do about the signal processing? Is it as easy as just entering in an fft function into matlab? Is it as easy as just entering in the I and Q values into the IP core in Xilinx? Must be researched a bit more. Hardcoding in MATLAB can be done if necessary. Schedule appointment with Dr Bernadin and/or Dr DeBrunner for consultation.

Frame is already perfectly assembled, looks very good. Kegan thought of a way to easily adjust horn holders without having to use a lot of measuring tape. Corner reflector needs to be fabricated or bought. Laser/Protractor scheme will be designed by Josh on the mechanical team to be used for alignment and calibration purposes.

Slider switching tests? Will be done very soon, it is low priority, however. Line stretcher is all we need to fix the delay line, just resolder on an SMA connector. Or use a line stretcher. The delay line miscalculation is not an issue. This can be discussed in the report, we can talk about what we learned. Get value out of what we faltered on and how we recovered. Pete will bring the line stretcher to be able to do the experiment we talked about and show IQ values moving.

HR is still talking to the College to figure out the date of the NG corporate visit. Pete will come up regardless.

Map out the different ways of achieving and implementing the DFT for the project. Discussing this in the report could be fruitful.

Bit manipulation to deal with negative and integer values coming in with the I and Q values.