PSWS Software - PROJECT PLANNING – 01 – TO-DO – 10/16/2019

Identifying Software Modules/Concepts to be Designed

Local Host

* Prototype handler for data coming from DE (need ICD from Scotty first; due by EOY)
* Interprocess control design (shared memory)
* Code for storing data; note different types
  + Ring buffer
  + FFT results
  + FT8
  + WSPR
  + (plus what else? CW skimmer?)
* GNURadio I/F; methods to to trigger & control it; to move data to and from it (incl. filename management)
* Future concept: OpenHPSDR-compatible app (may adapt OpenHPSDR app, but receive only) – Phase 2
* Data senders (uploader for ring data; FFT; firehose)
* Remote Command receiver/processor (commands from Central)
* Local Command processor (commands from local user or local software)
* Time-of-day synchronizer (NTP)

Central Control

* Prototype account handler, incl. security + roles; incl. administrator functions
* Prototype system for handling user commands;
* Prototype comm system for data exch. (commands + data, both ways, incl. heartbeat); need to unify with CWRU (Rob) for Central <-> Local ICD
* Prototype data uploader (incl. ring data, FFT, but not firehose)
* FFT storage (into database (?)) + analysis

Overall Systemic

* Test concepts
  + Automated unit tests
  + Integration test
  + User acceptance test
  + Quality gate