The RP has passed all testing and proper function verified. The RP tracking information is attached.

The following provides an overview of the testing performed at Harris for the reported “Total Fail” condition on the aircraft. The returned RP LRU has No Hardware changes, all HW being returned to NOAA is in as received condition. The “fix” was formatting and reloading the flash memory.

The evaluation of the RPLRU consisted of:

1. Establishing an as received baseline (fault verification). I did repeat the findings that were reported prior to returning the RP to Harris (i.e. Total Fail PFL, Standby not achieved and Ethernet communication to both Single board computers (SBC’s).
   1. Harris Problem Report opened (TFRR)
2. After the Ethernet testing, the formatting of the flash was accomplished by connecting the RP J10 serial cable and hyper-terminal to the RVP board and running the  dosFsVolFormat(“/ABRSi1”0,0) command  to format the flash memory. **NOTE:** the format command was after typing “devs” without the quotes from the hyper terminal command line. The Radar Processor flash memory successfully formatted (i.e. did not return value =-1=0xFFFF). Once Flash format completed I loaded LRJ maps using the quick connection feature of FileZilla then using the FST/STT set the configuration file to use LRJ maps but ignore DTM maps.
3. RP Testing to verify LRJ function. On application of power the RP performed Short/Long operational readiness testing in RIS configuration (Note: all RP testing using the NOAA MSDC operator software was using the RIS configuration) the RP successfully reached standby. The RTSS digital target simulation files were used to place targets on land and over water. The LRJ operator selection was used to turn On/OFF the LRJ function, this test verify the flash memory used to store the maps was functioning properly.
4. After successfully testing the LRJ. The RP was placed in the RMTE for an LRU level ATP. This required the NOAA RVP card be replaced with an RVP configured with a graphic processor daughter card. The cards are the same but the NOAA RVP does not include the daughter card. The RP successfully passed the ATP which tests all RP functions including RF.  Since the ATP loads test software into the SBC, the NOAA RVP card was reinstalled and the NOAA\_002\_D software was loaded into the Two SBC cards.
5. The Final RP configuration was to add the DTM maps which are approximately 1.5GB in size. The RP hardware had been returned back to the as received configuration (i.e. as delivered to NOAA for INCO). The DTM maps were loaded using the FileZilla application. Again the FST/STT was used to set the DTM as active and the RP was reset to run the operational Readiness Test (ORT), The RP successfully reached standby  and the RIS configuration was  again used to inject various targets in the system under MSDC control. (NO ISSUE observed or NOTED)
6. System configuration was loaded to support full system operation.

Summary:

* The RP worked without issue once the Flash memory was formatted and loaded with the maps. I conducted an LRU box level ATP and a series of digital target injection tests and had no sign of instability from the operational point of view. The RP repeatedly booted and shutdown with only stable repeatable operation.
* The RP was configured to Aircraft:
  + HWX Scaling Number set to decimal -192
  + Narrowband Recording was set to MILP (no MILP recordings are sent to Flash) The MILP is NOT saving any information to the FLASH, we had originally thought that could be the issue. The root cause is still unknown.

I will continue to investigate potential causes of the reported problem.

Best Regards

Jeff