

EMR-0206

July 26 2002

EMR Team:

- Kornke – lead
- Pearson (Nauru only)
- Garietz (Manus only)
- Ortega (VSAT)

Needs:

- None

GENERAL:

- Last report.
- The BBSS printer is OK; I had the time to peruse the manual. See remarks under task. I'll leave the old one for a spare.
- Francis will have the WSI shading built next week after he procures materials.
- Dick Pearse called and said he would have a packet of paperwork for Cheryl for either hand carry or FEDEX. I told him if it was a lot of paper that he should just FEDEX.
- I got Francis' email account setup with identity/password. Tested and instructed.

Audit In: Site in good shape, all instruments in working order on first inspection. Did notice the MPL shade paddle was flopping around on the actuator. A screw had worked loose. The solenoid returns from it's shaded position rather quickly (slams) so the mass of the paddle causes a lot of force against it's mounting screws. A resilient mount would be better or maybe there's an adjustment on the controller. I'll check later; for now I drilled out the holes for a larger screw and re tightened.

Manus Tasks

(Bolded/italics items top priority)

1. *DCP Install*

16 July

- The DCP antenna arrived damage with several broken and bent dipoles. Jason and I did some repair, installed and tested the transmission. I dialed into Wallops and saw the test messages. Everything looked OK.
Also checked Nauru and saw the last two sounding data

17 July

- Equipment installed preliminary training with Francis and Hymson on pre-loading the DCP buffer. Digicora is acting strange even without the DCP, I'm working on it.

18 July

- Completed

- Regular transmissions going to Wallops
- Need validation from NOAA.
- Will continue to monitor observer's progress with the DCP buffer pre-load.

19 July

- The Observer's are doing fine on the pre-load

2. Update Digicora Sysgen and sent to TWP ftp site

18 July

- Modified Sysgen to turn DCP automatic feed 'ON'. Still have one more mod to go before I ftp the new Sysgen.

19 July

- Sysgen revised to include WMO TEMP&PILOT output to Observer's laptop as well as printer. (Two RS232 channels on P1). They Observers were real pumped about this one since they spend an hour and a half transcribing the hardcopy; they all wanted to learn how. System now has redundancy. Documented procedure.

3. Replace MPL diode

15 July

- The MPL Diode supply install is completed. Energy went from 0.5 (before) to 6.2. Visibly noticeable improvement. Got the fiber off of the floor and looped gently near the back of the MPL rack.

4. Meet with VSAT survey person on arrival 15July (Jason Ortega)

15 July

- Jason has completed survey for VSAT installation. I will supply him with site drawings. I have done mark-ups indicating tentative locations.

16 July

- Worked with Jason to confirm and verify the four sites he had chosen for the VSAT antenna. Because the xmitter is only 8 Watts and the rains are significantly heavier than Nauru, he wants to keep the coax short. We thought 10 meters to the SE of the D-Van deck would be the best location but I had to check the WSI image field first. We stuck a basket on top of a 5-meter tall pole and looked to see if it showed on the WSI image. Everything looked OK. I now have all the primary and secondary antenna locations for Manus and Nauru. Will edit and send later.

17 July

- Completed

5. Fix I-van water leak

15 July

- Noticed some power cords lying in puddles below the dehumidifier. Suspect dehumidifier, shut off and dried up puddles. Will take a

closer look today. Obvious rotted flooring in several spots near WSI and MMCR but no indications of wet in those areas right now.

18 July

- Grass is growing on the I-Van roof. Thick layer of organic matter and lots of ponding. Francis and I are going to scrub off the roof and the entire van, coat with polyurethane roof coating and go over with fine-tooth comb. Today we threw a couple of buckets of detergent and bleach just to loosen up the debris. I'll have to block up the MMCR mounts to remove the mounting side rails attached to van. Debris is built up.

19 July

- I-Van is dry as a bone even with all this rain.

23 July

- Coated with polyurethane

6. Replace BBSS printer

17 July

- Installed but as before the Digicora is acting strange
- No data for today's launch was sent to the DCP for transmission; hardly any was printed on the new printer either. What was printed was not legible, as if the cartridge wasn't any good. I will do some simulations to see what's going on.

18 July

- BBSS printer still not working, probably some soft settings. I have to read the manual on CD. Probably needs Config. I haven't had time to sit and read the manual. The TEMP and PILOT electronic file should be available directly to the Observer's laptop by tomorrow so the printer will be reduced to backup.

19 July

- I spent the morning doing PCMF simulations to test the new printer, still not working. I cleaned and adjusted the print head clearance on the old printer and it works fine. I will resume activity on the new printer when I get time or if some missing piece of information comes by.

25 July

- Found a manual with some printer configuration stuff. Will try tomorrow.

26 July

- Manual had instruction for configuring the printer via the front panel. We now have another configuration to deal with. The printer Config is only available hardcopy so I'll bring it home with me and add to BBSS PRO.

7. Config Outfitter SAT phone for ISP dial out

15 July

- Completed-I have a short user document that will be posted by each phone and available on TWP web

8. Inspect Trackers for future maintenance

9. Monthly T/RH probe filter change - instruct Observers
 - 20 July
 - Completed
10. ARCS-1 Drawing Book Mark Up
11. X-Van Roof repair
 - Completed
12. Run Fiber for MWR
 - 22 July
 - Expect to see some red while I do the hardwire part.
 - 25 July
 - The instrument end FO modem needs to be connected. All other terminations/routing done, i.e. the hard parts are done.
13. Run fiber for Ceilometer
 - 20 July
 - Pulled out FO cable checked length and routing but rain interrupted often.
 - 22 July
 - All runs completed, all FO termination completed. Expect to see the MWR and Vceil go red tomorrow while I connect up the bit drivers.
 - 24 July
 - Completed
14. WSI night pollution shading
 - 18 July
 - I've only identified that it does exist; pondering a fix.
 - 25 July
 - We did a test using the calibration canopy. When located near the ISS van it blocked the direct glare and cast shade on the WSI. There is still light reflecting from other surfaces. We've attenuated the direct light but slight indirect still remains. Francis will have a 'wing" built with metal roofing that will extended about 2meters past the SW corner of the ISS van and about half a meter above the roof.
15. Go through storage vans & remove unneeded items
 - 22 July
 - Peter is hauling off stuff as I throw it outside.
16. Commission spare diesel tank, demo pump
 - 18 July
 - Checked inside tank since BOM's cleanout. Very little water/fuel residue but will try to remove since the weather is very dry. Also needs leveling.
 - Francis will order diesel on Monday, local.
 - 22 July
 - Leveled tank, vacuumed out tank with shop-vac (~1 gallon h2o)
 - 24 July
 - Tank Filled Today! Completed

17. Recon network to separate the functionality of IOP, instrument and data system networks (a la Eagan)
20 July
 - Drawing sent to Eagan.
18. Secure MPL telescope
21 July
 - Completed
19. Mount new fire extinguishers in Vans
17 July
 - Completed
20. Put flagging on NOAA tower guy wires
17 July
 - Completed
21. BBSS components inventory (Maestas cheat sheets)
20 July
 - Faxed to TWPPPO-Completed
22. Other
15 July
 - Worked with Franklin (ARCS2) via sat phone on DCP problem. Not sure what it was but it's fixed after a reset (Ctrl IX, Ctrl X)
 - Moved SDS equipment to ISS van so we have room to work.
 - Edward from Lae arrived yesterday and began AirCon servicing.

17 July

 - The Gndrad IRT enclosure was full of water, probably about a cup full.
 - The Skyrad IRT mirror is transparent; no gold coating is completely gone except some still on the sides. See the attached image and notice the screw is visible through the mirror.
 - I worked with Edward the AirCon guy to make sure he had completed the list.

20 July

 - I think the Observer's will need another laptop. Keys worn and sticky sometimes have to hit twice. Maybe Brad knows if it can be cleaned, etc. The performance is good.