

ARM Darwin Research Station

Site Visit 0405D Report

Visit Duration: 17 May to 28 May

Darwin, Australia

SV0405D

Site: Darwin	Proposed Dates on Site: May 17-28
Team Members: <ul style="list-style-type: none"> • Rex Pearson • Troy Culgan • John Glowacki • Mike Ritsche (ANL) 	Ship or hand carry prior to SV: Loggers and associated parts.
	Safety: Major Hazards: AC electricity. Hazard Controls: ASNZS 4836/2001-Safe Working on LV Electrical Installations, 2 man rule.

Site Tasks

Priority	System	Date Completed (dd/Month)	Service Time in Hours	Tasks/Assoc Hazards-Controls
1	LOGGERS			Install new Cambell Logger for SkyRAD/ Electrical- ASNZS 4836/2001
		17-May-04	1	Tested skyrad logger and programmed
		20-May-04	18	Skyrad taken off line at 2200z. New logger installed and instruments connected. Data looks to be ok on the loggernet PC except for the B/W radiometer. Problem experienced with the fiber cable after the change of the logger boxes - we ran temporary cables over ground to get systems working and have arranged for the cable to be respliced on Monday.
			1	MFRSR reconnected and waiting to check its communications, GPS receiver has still to be reconnected tomorrow.
		21-May-04	6	Completed Skyrad installation, repaired broken cable on 8-48 and reading correctly now. Installed GPS system connector and restored GPS to operation. Problems still experienced with the MFRSR - can talk to the logger from collector but no data is being collected. Email sent to Ron Reed and Dave Reass to follow up.
		24-May-04	2	Additional checks on the MFRSR have not fixed problem. Need the data to be checked as 1. The data file is too large cf normal and collection and ingest only seem to run at night.
		25-May-04	2	Changed logger board on the MFRSR. Donna Flynn has confirmed the data is now ok and is organising for the ingest to be fixed.
2	LOGGERS			Install new Cambell Logger for GndRAD/ Electrical- ASNZS 4836/2001

Priority	System	Date Completed (dd/Month)	Service Time in Hours	Tasks/Assoc Hazards-Controls For each priority item insert new line(row) for each date/time entry
				Removed old logger and installed Campbell logger. There are some questions about the coefficients - contacting Peter Gotseff to confirm the program setup. System off line at 0100Z. 8
				The IRT is setup to output 0-10 volts whereas the Campbell can only read 0-5v. This was used as it is unlikely the IRT can go above the 5 volt output at this point (about 370K) also had to change the multiplier to use volts instead of millivolts for the temp calculation. 1
				Subject to getting the radiometer coefficients correct - the Gndrad logger install is complete and connected to the loggernet PC
		20-May-04	4	Changed program to allow coefficients to be entered with out having to invert and multiply (removes chance of mistakes when changing radiometers). Found problem with the wiring diagram for the PIR - case and dome wiring colours were reversed - changed and problem rectified. Gndrad now appears to be running correctly.
3	LOGGERS			Install new Cambell Logger for SMET/ Electrical- ASNZS 4836/2001
		18-May-04	8	Problems experienced with the barometer setup. Mike is contacting Campbell to try to resolve the problem.
			5	Logger and case installed on Smet tower and wiring almost completed
			1	Communications from logger to the Loggernet PC established and tested.
		19-May-04	5	Found problem in the Campbell program causing the barometer to read intermittantly. Changed the program and the barometer is now reading correctly.
			2	Completed the Smet installation and fully tested.
		27-May-04	2	Changed ouput of cal slope to high res. To prevent truncation of displayed data.
				The Smet installation is now complete and connected to the loggernet PC
4	LOGGERS			Install LoggerNet System/ Electrical- ASNZS 4836/2001
		17-May-04	6	Logger PC connected to network and tested
				Smet logger tested in D van and connected to logger pc
		19-May-04	2	Perl software installed on the logger PC and the scripts appear to be working.
		26-May-04	6	Created local display of relavent data for all three systems so observers/techs can view met and diagnostic data.
5	UVB			Remove UVB, Pack and Ship/ Electrical- ASNZS 4836/2001
		20-May-04	1	UVB removed and cabling removed from stand.
6	SDS			Confirm collections and ingest are functioning./None
		20-May-04	0.5	Spoke to Brian Ermold and advised smet and gndrad were on line.
				Brian advised setting look ok and he is working on the collection software.

Priority	System	Date Completed (dd/Month)	Service Time in Hours	Tasks/Assoc Hazards-Controls
		21-May-04	1	Collections look to be working - checked data on collector for Smet, Skyrad and Gndrad
				Awaiting information of the ingest program changes
7	Logger PC's			Install software and set configurations
		21-May-04	2	Installed loggernet software and commenced setting configuration parameters for systems to be sent to Nauru and Manus
		24-May-04	3	Completed installation of software on the Manus and Nauru PC's. Made an image of the Darwin hard drive for future rebuilds if it is required. The island ones will be done on site when the build is complete.
		25-May-04	4	Commenced documentation on PC set-up
8	Logger boards			Program NL100 and check Campbell logger
		24-May-04	4	Having problems programming the NL100 units reliably. Further investigation is required.
		25-May-04	2	Found problem in programming - all now seems to program ok. Campbell have been advised .
		24-May-04	3	Detected a temperature anomoly over the weekend. The temperature reading on the Smet was shutting down during mid afternoon. It appears the logger that was in place may have a temperature related problem when measuring bridge measurements. Logger was swapped out and was normal today with similiar temperatures.
		25-May-04	2	Added fan to logger box - internal temperature was reduced by 5 degrees.
		27-May-04	2	Added Fans to GNDRAD and SKYRAD enclosures
10	Documentation			
		26-May-04	6	Created Wiring diagrams for the SMET sensors to Logger.
		26-May-04	2	Began writing the User's Manual
		27-May-04	6	Finished the User's Manual
11	SHIPPING			List items to be shipped following visit/ None
				UVB radiometer
				Loggers to be shipped back
				One Campbell Logger for repair (fails at below rating). Warrantied
12	FUTURE NEEDS			List items needed for future visits (spares, etc)/ None