

ARM Manus Research Station

Site Visit 0706M Report

Visit Duration: 08 June to 17 June 2007

Manus Island, Papua New Guinea

SV-0706M

Final Report

Site: Manus	Dates on Site: 8 - 17 June 2007
Team Members: Troy Culgan John Glowacki Hastings Deering?	Required Items & Other Actions: <ul style="list-style-type: none"> • Purchase programmable phone handset - BOM? • Order higher quality DC-to-DC converter - awaiting ECR 615 approval - LJ • Loggernet upgrade CD (on site) • SKYRAD IRT PC and cable (on site) • Provide SKYRAD IRT PC keyboard and mouse (on site) • Waterproof 110-V outlets - MA to purchase • MPL port window glass - KK • SMET anemometer spare from Darwin - KK • AWS anemometer spare from BOM - KK • MMCR TWTA (en route) • MMCR UPS (en route) • GPS Suominet receiver (en route) • Loggers (en route) • New PCs (en route)
Task Summary:	<p>Safety: Major Hazards: Caustic chemicals (KOH), Explosive gas (H2), AC electricity Hazard Controls: BOM Electrolyser Handbook, BM Electrolyzer Operations/Maintenance Training, ASNZS 4836/2001-Safe Working on LV Electrical Installations, 2-man rule</p> <p style="color: red;">When replacing items (e.g., desiccant, filters, etc.), record and report the quantity of spares left on site.</p>

SITE TASKS

High priority / usually non-routine

Low priority / usually routine

Completed

Priority	System	Date Completed (dd/Month)	Service Time (hours)	Tasks <small>For each priority item insert new line (row) for each date/time entry</small>
1	MMCR			Install new TWTA
		18-Jun		Failed to arrive in time for this site visit
		20-Jun		Arrived on site - Installation rescheduled for emergency SV in July
2	MMCR			Install new Liebert UPS - consult mentor to ensure MMCR software configuration is updated to reflect changes
		16-Jun	3	MMCR Liebert UPS in operation, mentor informed. Awaiting response for further action
		18-Jun	1	Multi link software installed, mentor notified to check configuration
3	BBSS			Replace DigiCORA II w/ new DigiCORA III
		17-Jun	2	DigiCORA III BBSS amp switch installed to complete installation
3	BBSS			Train Observers on DigiCORA III operations
		17-Jun	1	Myra given had one training session with successful ballonn Launch
		18-Jun	2	Hymson attended Digicora 3 launch training
		19-Jun	2	Observer training completed
4	COMMS			Contact TOC Perry Haney to troubleshoot sat link (1-866-244-5012 or 1-410-970-7700)
		13-Jun	0.5	Contact TOC at 0932 local, awaiting response
		13-Jun	2	Contact iSoc at 10:24 made adjustments to transmit power level. Power level set to -24dbm. Communications circuit will be monitored over the next 24 hours to verify all is correct.

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4	OTHER			Install ARM Kiosk
		11-Jun	3	Kiosk transported and installed at Papindos general store
		12-Jun	3	Kiosk dedication ceremony complete
5	OTHER			Replace ARM Kiosk UPS batteries
		10-Jun	1	Kiosk UPS batteries replaced
6	SMET			Install replacement anemometer on SMET tower
		11-Jun	5	Inspection found that the Hi wind cable from surge protector to Logger is faulty indicating high resistance. Checking for a suitable replacement cable on site
		12-Jun	2	Temporary cable installed, required to be replaced next site visit. Recommendation replace Manus and Nauru anemometer cables with same cable as AMF to maintain integrity of wiring diagrams.
6	SMET			Assess anemometer cable connection for mod.
		11-Jun	1	Photos taken of old install, plan to be documented
7	GPS Suomi			Replace GPS Suominet
		16-Jun	1	GPS Suominet receiver replaced and instrument change form sent
8	AWS			Install replacement anemometer on AWS tower
		11-Jun	2	AWS anemometer replaced
		12-Jun	0.1	Instrument change form sent
9	IRT (SKY)			Install new SKYRAD IRT computer cables - pending mentor input
		17-Jun		Postponed until all technical issues resolved and testing completed in Darwin
9A	IRT (SKY)			BCR-1384 Change emissivity value from 1.000 to 0.987
		16-Jun	0.5	Completed at 03:05 16 June 07 utc
10	LGR			Change out loggers
		11-Jun	1	SMET logger changed out, instrument change form to follow.
		12-Jun	0.1	Instrument change form sent
		13-Jun	1	Skyrad and Gndrad loggers changed out, instrument change form sent
11	OTHER			Replace instrument PCs w/ new Dell GX620s (CEIL, Loggernet, TSI, MWR, MPL, SAM, BBSS) w/ CPCC - pending Ron Reed input
		12-Jun	2	Ceilometer computer changed to GX620 corepc at 05:20 12June07
		12-Jun	2	MWR computer changed to GC620 corepc at 06:21 12June07
		13-Jun	2	Ceilometer GX620 computer failure, no display, does not boot. Replaced with another GX620 found on site, corepc installed and computer set to operate
		14-Jun	4	Loggernet computer changed out to GX620 with a version of Corepc. Worked with Ron Reed to prepare and install computer with new version of loggernet.
12	LGR			Loggernet software upgrade using CD from Ritsche
		14-Jun	1	Completed
13	ES&H			Update AED software
		19-Jun	1	Unable to locate
14	MPL			Install new port window
14A	MPL			Install MPL telescope temperature sensor

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		10-Jun	0.5	Replaced telescope temperature sensor at 04:32 10 June07 utc
15	COMM			Check the configuration of both satellite modems on site. Save as text file and email to Larry, Dick and Krzysztof , check and label satellite spares. Ensure they are stored in D-Van where observers can find them if required.
		18-Jun	1	Configuration files checked and sent to Dick Eagan
15	COMM			Check Satellite cable runs and connectors, replace connectors if necessary, weatherproof.
		19-Jun	1	external visual inspection complete
15	COMM			Check operation of satellite phones - Investigate why they cannot be called from Australia.
		14-Jun	1	Checked Satellite phone configuration and requested that SGP (Ron Reed) dial in and verify operation
		15-Jun	0.2	Received call from Amon in D-Van
16	COMM			Verify the operation of backup satellite dial in modem - investigate why the phone cannot be called from Australia
		15-Jun	1	Email from Dick Eagan to verify: Troy, I was able to dial in successfully to the console server over the satphone modem. Cool! Dick E.
17	BBSS			Look for spare GC25 (s/n Z24435)
		17-Jun	1	This unit does not appear to be at Manus
18	H2GEN			Perform Hogen internal Gas sensor calibration. Calibrate Hogen Van gas sensors. Ensure test gas cylinder valves are closed before leaving site.
		17-Jun		Calibration gas has not arrived on site
		20-Jun		Calibration gas arrived on site - Task rescheduled for emergency SV in July
19	H2GEN			Check operation of electrolyser and Oxygen analyzer. Perform a stcoktake of electrolyser spares and consumables
		15-Jun	1	Replaced oxygen analyser and performed checks
20	OTHER			Give Observers refresher training on Daily Rounds and bull's-eye check
		19-Jun	2	Complete
21	VANS			Look for Van roof corner posts
		19-Jun	1	unable to locate
22	BBSS			Change out UPS batteries - Backed up by APC Back UPS PRO 420SC uses Vision Model 1270E Batteries, fed by Non UPS 120V via APC Power Controller. Replaced with Yuasa NP7-12 Batteries
		17-Jun		BBSS digicora 3 is using a Leibert UPS
23	OTHER			Inspect all site cables with Inspection Procedure
		13-Jun	2	Completed by Elijah
24	CEIL			Change out internal battery
25	ES&H			Change out U-Van eye wash bottle/solution
		13-Jun	0.5	Completed by Elijah
26	ES&H			Change out Balloon Barn eye wash bottle/solution

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		13-Jun	1	Completed by Elijah
27	GENSET			Supervise service by Hastings Deering (if contract in place) - If no contract with H-D, BOM techs to change oil and filters
		12-Jun	8	Service completed, report sent
28	HVAC			Pressure-wash A/C coils
29	IRT (SKY)			Change out SKYRAD IRT Gold Mirror
		13-Jun	0.5	Elijah changed out IRT mirror at 09:24 Manus local time
30	MMCR			Change out fan for Radian Receiver, 12VDC
31	MPL			Change out shutter timer AA batteries
		13-Jun	0.5	Completed by Elijah
32	PWR			Change out logger box (12V car) batteries for SKYRAD, GNDRAD and SMET in E-Van
33	ES&H			Train Observers on Lock Out/Tag Out procedure
34	UPS			Change out Observer laptop UPS batteries
35	UPS			Change out Liebert UPS batteries for D-, E-, and I-Van
		17-Jun	4	UPS batteries changed out on Primary units, D,E&I vans
36	RBL			Replace lamps RBL launch enclosure
		15-Jun	1	Lamps replaced and operation checked
	SHIPPING			List items to be shipped following visit
				Failed GX620 computer to SGP (possible warranty repair)
				AWS anemometer to Darwin
				Oxygen Analyser to Darwin
				Spare RM Young anemometers to Darwin for connector modification
				PTB201 to Darwin for connector (barometer)
	FUTURE NEEDS			List items needed for future visits (spares, etc.)
				30 Meters anemometer cable (replace existing cable next site visit)
				AED spare battery