

ARM Manus Research Station

Site Visit 0312M Report

Visit Duration: 01 December to 13 December 2003

Manus, Papua New Guinea

SV 0312M (Calibration)

Site: Manus **Proposed Dates on Site:** 01Dec to 12Dec
Team Members:
Troy Culgan
John Glowack

Priority	System	Date Completed (dd/Month)	Service Time in Hours	Tasks/Description of Work/Process <small>For each priority item insert new line(row) for each date/time entry</small>
1	CAL			Record configurations before and after cals
		1-Dec	15min	configurations of Skyrad,Gndrad and calogger placed on ftp site
2	CAL			Provide Cal Kit inventory list
		4-Dec	15 Min	Inventory list sent to Bill Porch
3	DAQ			Calibrate all Instrument loggers and Spares
		30-Nov	2 hrs	Prep for electronic calibration of loggers
		1-Dec	4 hrs	Electronic cal completed /forms to follow
		2-Dec	1 hr	Cal forms completed and sent
4	CAL			Calibration/comparison skyrad radiometers
		1-Dec	1 Hr	Instruments set on Cal stand
		2-Dec	1Hr	Data sent to Bill Porch
		3-Dec	1Hr	Data collected and placed on ftp site
		4-Dec	1 Hr	Data collected and placed on ftp site
		5-Dec	1Hr	Data collected and placed on ftp site
		6-Dec	2 hrs	Investigate anomalies reported by Bill Porch
		7-Dec	2 hrs	Investigate anomalies reported by Bill Porch /data collected and placed on ftp site
		8-Dec	1Hr	Data collected and placed on ftp site
		9-Dec	2hr	Calibration complete, instruments removed from cal stand,
5	CAL			Calibration/comparison grnrad radiometers
		1-Dec	20 min	Instruments inverted at 0620 UTC 1-Dec-03
		9-Dec	20 min	Gndrad instruments set to normal at 1155 9 Dec utc
6	SMET			Calibration/comparison smet instruments and logger
		2-Dec	4 hrs	Calibration/comparison smet instruments and logger complete Barometer check comparisons not yet completed
		3-Dec	2 hrs	Barometer checks not yet completed , unable to get comparison software to work
		7-Dec	4 hrs	Barometer comparison check complete, comparison data to be sent to Bill Porch
		8-Dec	30 min	Data sent to Bill Porch

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7	IRT			Calibration/comparison IRT gnr rad
		3-Dec	1 hr	complete / forms on ftp site
8	IRT			Calibration/comparison IRT skyrad
		3-Dec	1 hr	complete / forms on ftp site
9	CEIL			Calibration Ceilometer
		7-Dec	1 hr	Ceilometer calibration complete
10	WSI			Calibration WSI
		3-Dec	2 hr	Prep for calibration/ check equipment
		4-Dec	4 hrs	Unable to get WSI cal program to run
		6-Dec	5 hrs	WSI calibration complete
				WSI coolant change / desiccant change in lens housing Note: WSI Coolant changed out with Prestone Extended Life 5/150 Coolant - approx 3 gallons remain on site. This was used in place of Nulan Red.
		6-Dec	2hrs	
		8-Dec	1 hr	Cal Data placed on ftp site
11	CAL			Place Cal/replacement records on Ftp Site.
		4-Dec	1 hr	Replacement records on ftp site
		7-Dec	1Hr	Replacement/ cal records on ftp site
12	TSI			Repair or send to Darwin
				TSI shadow band and mirror alignment problems rectified; equipment to be monitored over the next few days to ensure correct tracking. Cause wiring error of mirror drive.
		5-Dec	1 hr	
		9-Dec	2 hr	TSI camera alignment performed, TSI to be monitored to check performance
		10-Dec	4hr	Further TSI alignment
13	CEIL			Repair cable or replace instrument
				Dick Pearse informed us that spare ceilometer from Darwin has not yet arrived on Manus
		30-Nov	10min	
		6-Dec	1 hr	Ceilometer change out complete at 0630 6Dec utc
14	ORG			Investigate ORG offset
				Org offset reduced to acceptable levels, rectification action taken, rewired barometer power to use the 12vdc input instead of the switched 12vdc output of the zeno logger. Will monitor to see if this is an effective change. (this was ineffective)
		5-Dec	3hr	
				Investigation revealed an association with the comm port could be the cause, report sent to TWP.
		8-Dec	4 hrs	

		9-Dec	2hrs	Performed checks suggested by mentor, no success. Plan to check smet spare in Darwin and available for handcarry back to Manus for install.
Priority	System	Date Completed (dd/Month)	Service Time in Hours	Tasks/Description of Work/Process For each priority item insert new line(row) for each date/time entry
15	OTHER			Change out desiccant in all instruments to Envirogel
		1-Dec	1hr	Observers changed desiccant in all instruments
16	COM			Install spare skyrad/calibration line
		1-Dec	1hr	Spare fiber installed to Cal logger
17	COM			Install battery backup for Outfitters SAT phone.
		1-Dec	5 Hrs	Battery back up installed
19	BBSS			Send H2 Cylinders back to BOC.
		4-Dec	2 hrs	4 H2 cylinders and 4 Balloon gas cylinders delivered to wharf for shipping
20	SMET			Change out TRH Aspirator Fan
		2-Dec	15 min	TRH Aspirator fan changed / wasp nests cleared
21	MPL			Change out MPL Shutter Timer Batteries
		4-Dec	15 min	Batteries changed
22	MWR			Change Heater Blower assembly
		2-Dec	2Hrs 30 min	Heater Blower assembly changed out /rain sensor threshold changed to 1.00 at approx 02:05 utc Used spare fan for Blower replacement of old style fan, no spares on site , Fan model Commair MX2B3
23	OTHER			Complete and Submit Audit out
		11-Dec	2hr	Audit out complete and placed on ftp site
23	OTHER			Additional Tasks
		3-Dec	5 hrs	Replace U-Van AC,A/C unit - U van serial numbers:Old unit - 143J011652220-02, New unit - 143L021761142-02
		3-Dec	30 min	Split AC's delivered and stowed in X-Van
		8-Dec	2 hr	Francis given instruction on how to use scanner more effectively, at his request
		9-Dec	2 hr	Computer management instruction to Dick Pearse
		11-Dec	2hr	spare fibre used as one went faulty
24	Needs			
		1-Dec		gauge.
		1-Dec		MMCR: Nuts and washers on bottom end of radome springs need changing.
		3-Dec		air foot pump requires replacement
		5-Dec		2 MWR fans required as spares. Commair MX2B3
		11-Dec		Spare fibre pair for Skyrad
		9-Dec		Ship ceilometer to Darwin

		9-Dec		Ship or Hand Carry MMCR DSP Card & Coherent Integrater Card to Darwin
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		9-Dec		Ship questionable PIR to SGP.
		10-Dec	4 hr	Equipment packed and ready for shipment: Radiometers to SGP via interconex WSI cal gear to SGP via interconex Cal gear and ceilometer to Darwin
		11-Dec		Send replaced MWR heater blower assembly to SGP for upgrades
		11-Dec		Ship or hand carry 4 WSI white box metal filters to Darwin for transfer to Nauru