ARCS SKYRAD and GNDRAD Data Logger Field Calibration Form

CALF(DAQR1)-0001

I. Calibration information

This is a (check which):	Calibration	Calibration Check	Field Calibration
			X

Date:	GMT Begin Time:	GMT End Date:	GMT End Time:	ARCS #
8/15/2002	0:00	8/15/2002	0:00	3
MM/DD/YY		MM/DD/YY		

Instrument / System:	TWP OMS Part Number(s):	TWP OMS Serial Number(s):
SKYRAD1 ZENO Datalogger	ZENO-3200(RAD)	035 wd25942
GNDRAD1 ZENO Datalogger	ZENO-3200(RAD)	

Current Configuration Version:	New Configuration Version
V020306.00	

Location (eg. PNNL, Manus):	Participant(s):	Issued by:	Signature(s):
Darwin	Troy Culgan		

Reference Instrument(s):	TWP OMS Part Number(s):	TWP OMS Serial Number(s):
Voltage source (Val)	2701C or 2707A	26-1348
Voltmeter Agilent (HP)	33401A	us36051415

Precision Resistors about 4020, 8200, and 18000 Ohms

Verify that serial numbers of reference instruments are correct (yes / no)	yes
Verify calibration coefficients and configuration file changed accordingly for PIRs, PSPs, and NIPs. (yes / no)	yes
Correct system time and date (yes / no)	yes

NOTES:

Voltmeter Agilent cal due 26 june 2003

Voltage source cal due 03 March 2002

II. Initial Values

Sensor / Element Connection Location	Reference Target (Val) Actual (Flk)	Reading Actual or Range	Reference Target (Val) Actual (Flk)	Reading Actual or Range	Reference Target (Val) Actual (Flk)	Reading Actual or Range
PIRG Signal	0.0μV	(μV)	500.0μV		1000.0μV	
Connector 2	Short	0	500	499	1000	998
PIRG Rc	4000 Ω		8000 Ω		16000 Ω	
Pins 2 - 3	4217	4207	8250	8221	15828	15745
PIRG Rd	4000 Ω		8000 Ω		16000 Ω	
Pins 7-8	4217	4207	8250	8221	15828	15745
PIRD Signal	0.0μV		500.0μV		1000.0μV	
Connector 6	Short	0	500	502	1000	1004
PIRD Rc	4000 Ω		8000 Ω		16000 Ω	
Pins 2-3	4217	4207	8250	8221	15828	15745-60
PIRD Rd	4000 Ω		8000 Ω		16000 Ω	
Pins 7-8	4217	4207	8250	8223	15828	15750
PSPG	0.0μV		6000.0μV		12000.0μV	
Connector 1	Short	0	6000	5997	12000	11991
PSPD	0.0μV		6000.0μV		12000.0μV	
Connector 5	Short	0	6000	5995	12000	11990
NIP	0.0μV		6000.0μV		12000.0μV	
Connector 7	Short	0	6000	5994	12000	11990
IRT	0.0mV		500.0mV		1000.0mV	
Connector 3	Short	0	500	4978	1000	997.7
UVB_UV pins 2&3	0.0mV		1250.0mV		4000.0mV	
Connector 4	Short	0	1250	1245	4000	3990
UVB_T pis 2&6	0.0mV		1000.0mV		2000.0mV	
Connector 4	Short	0	1000	998	2000	1995
GNDRAD						
PIR Dn Signal	0.0μV		500.0μV		1000.0μV	
Connector 6	Short		500		1000	
PIR Dn Rc	4000 Ω		8000 Ω		16000 Ω	
PIR Dn Rd	4000 Ω		8000 Ω		16000 Ω	
PSP Dn	0.0μV		6000.0μV		12000.0μV	
Connector 5	Short		6000		12000	
NET (+ values)	10.0mV		50.0mV		100.0mV	
Connector 9	10		50		100	
NET (- values)	- 10.0mV		- 50.0mV		- 100.0mV	
Connector 9 pins 3&2	-10		-50		-100	
IRT	0.0mV		500.0mV		1000.0mV	
Connector 3	Short		500		1000	
Voltage Divider						

Were there calibration changes?(yes/no) **no**

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II. Final Values

Sensor / Element Serial Number:	Reference Target (Val) Actual (Flk)	Reading Actual	Reference Target (Val) Actual (Flk)	Reading Actual	Reference Target (Val) Actual (Flk)	Reading Actual
PIRG Signal	0.0μV		500.0μV		1000.0μV	
Connector 2						
PIRG Rc	4000 Ω		8000 Ω		16000 Ω	
Pins 2 - 3						
PIRG Rd	4000 Ω		8000 Ω		16000 Ω	
Pins 7-8						
PIRD Signal	0.0μV		500.0μV		1000.0μV	
Connector 6						
PIRD Rc	4000 Ω		8000 Ω		16000 Ω	
Pins 2-3						
PIRD Rd	4000 Ω		8000 Ω		16000 Ω	
Pins 7-8						
PSPG	0.0μV		6000.0μV		12000.0μV	
Connector 1						
PSPD	0.0μV		6000.0μV		12000.0μV	
Connector 5						
NIP	0.0μV		6000.0μV		12000.0μV	
Connector 7						
IRT	0.0 mV		500.0 mV		1000.0 mV	
Connector 3						
UVB_UV	0.0 mV		1250.0 mV		4000.0 mV	
Connector 4						
UVB_T	0.0 mV		1000.0 mV		2000.0 mV	
Connector 4						
PIR Dn Signal	0.0μV		500.0μV		1000.0μV	
PIR Dn Rc	4000 Ω		8000 Ω		16000 Ω	
PIR Dn Rd	4000 Ω		8000 Ω		16000 Ω	
PSP Dn	0.0μV		6000.0μV		12000.0μV	
NET (+ values)	9.5 mV		45.0 mV		95.0 mV	
NET (- values)	- 9.5 mV		- 45.0 mV		- 95.0 mV	
IRT	0.0 mV		500.0 mV		1000.0 mV	
Voltage Divider						

IV. Statistics(if applicable)

No. of Samples:	Std. Dev.	CF Range %	Uncertanty %

V. Calilbration Change(if applicable)

Sensor or Parameter	Sensor Serial No.	Internal Resistance (Ohms)	Original Sensitivity (Volts/Unit)	Offset	Quadratic
	Old / New	Old / New	Old / New	Old / New	Old / New

Document(s) Referenced:	Document(s) Updated:
PRO(DAQR)-001.001	PRO(DAQR)-001.007

PROBLEMS: