MOOS Test Mooring #2
Power System
Telemetry Channel List

5 Apr 04 ecm

ADC Ch	Measurement	Units	Comment
ADC00	North Solar Current	A	negative value = positive charge
ADC01	East Solar Current	A	negative value = positive charge
ADC02	North Solar Voltage	V	
ADC03	East Solar Voltage	V	
ADC04	North Battery Current	A	
ADC05	East Battery Current	A	
ADC10	South Solar Current	A	negative value = positive charge
ADC11	West Solar Current	A	negative value = positive charge
ADC12	South Solar Voltage	V	
ADC13	West Solar Voltage	V	
ADC14	South Battery Current	A	
ADC15	West Battery Current	A	
ADC20	Wind Turbine Current	A	
ADC21	Loadsink 1 (North) Current	A	
ADC22	Battery Bus Voltage	V	
ADC23	Loadsink 1 (North) Temp	deg C	
ADC24	Diversion Regltr. 1 Temp	deg C	
ADC25	Aux Input	A	
ADC26	Loadsink 2 (South) Current	A	possible Shore Pwr input
ADC27	Battery Bus Voltage	V	
ADC28	Loadsink 2 (South) Temp	deg C	
ADC29	Diversion Regltr. 2 Temp	deg C	
ADC30	48-400 Conv 0 Input Current	A	no converter
ADC31	48-400 Conv 1 Input Current	A	no converter
ADC32	400V Output Voltage	V	
ADC35	48-12 Conv 0 Input Current	A	main buoy supply
ADC36	48-12 Conv 1 Input Current	A	no converter
ADC37	12V Output Voltage	V	main buoy supply
ADC40	Bridle Load Cell	A	4-20 mA current loop
ADC41	Anchor Load Cell	A	4-20 mA current loop
ADC42	spare	V	
ADC43	spare	V	

MTM2 Telemetry Channels, cont'd

Telem Ch	Measurement	Units	Comment
GFZ00	400V GF Open Ckt Test	A	all switches open; baseline offset
GFL00	400V GF, Low Side	A	test low side of protected ckt
GFH00	400V GF, High Side	A	test high side of protected ckt
GFT00	400V GF, Self Test	A	500-1000 uA high side fault
GFZ01	48V GF, Open Ckt Test	A	all switches open; baseline offset
GFL01	48V GF, Low Side	A	test low side of protected ckt
GFH01	48V GF, High Side	A	test high side of protected ckt
GFT01	48V GF, Self Test	A	500-1000 uA high side fault
WS00	Battery Box Water Sensors A = North 0 B = North 1 C = East 0 D = East 1		
WS01	Battery Box Water Sensors A = South 0 B = South 1 C = West 0 D = West 1		
PRES	Pwr Can Internal Pressure	millibars	
TMP1	Pressure Sensor Temperature	deg C	on P2 board
HUM1	Pwr Can Internal Humidity	% RH	
TMP2	Humidity Sensor Temperature	deg C	on P2 board

Comments:

Generally, positive current indicates charge flowing toward the batteries (tending to charge them), negative current indicates charge flowing away from the batteries (tending to discharge them). A circuit error on the Solar Current channels (ADC00, 01, 10, and 11) causes a sign error, that is for them to read in the opposite sense.

Most channels are sampled at 1/sec; Load Cell and converter currents are sampled at 4/sec.
Ground Fault measurement sets are taken at 1/min; default settling time is 1 sec.
Battery water and environmental sensors are sampled at 10 sec.