

NATHANIEL B PALMER

METEOROLOGY										
Designator	Descriptive Name	Original Units	Instrument Make and Model	Note	Observation Type	Distance from Bow	Distance from Center Line	Height	Sampling Rate	Data Precision
AT	air temperature	celsius	R.M. Young 41372LC	N/A	measured	164' 8"	4"	63'	1/s	0.1
BP	atmospheric pressure	millibar	R.M. Young 61201	adjusted to sea level	measured	164' 8"	4"	62'	1/s	0.0001
TC	conductivity	siemens meter ⁻¹	Sea-Bird SBE 45	N/A	measured	N/A	N/A	N/A	.5/s	0.0001
TWDP	earth relative wind direction	degrees (clockwise from	Gill 1390-PK-062	N/A	calculated	163' 4"	10'	112' 8"	1/s	1
TWDS	earth relative wind direction 2	degrees (clockwise from	Gill 1390-PK-062	N/A	calculated	163' 4"	12'	112' 8"	1/s	1
TWSP	earth relative wind speed	meter second ⁻¹	Gill 1390-PK-062	N/A	calculated	163' 4"	10'	112' 8"	1/s	0.01
TWSS	earth relative wind speed 2	meter second ⁻¹	Gill 1390-PK-062	N/A	calculated	163' 4"	12'	112' 8"	1/s	0.01
LA	latitude	degrees (+N)	Kongsberg Seapath 330+	N/A	measured	N/A	N/A	N/A	1/s	0.01
LW	Long wave atmospheric radiation	watts meter ⁻²	Eppley PIR	downwelling	measured	162' 8"	7'	110' 10"	1/s	
SW	Short wave atmospheric radiation	watts meter ⁻²	Eppley PSP	downwelling	measured	164'	7' 6"	110' 10"	1/s	
LO	longitude	degrees (-W/+E)	Kongsberg Seapath 330+	N/A	measured	N/A	N/A	N/A	1/s	
PA	photosynthetically active atmospheric radiation	microeinstein meter ⁻²	Biospherical QSR-240	downwelling	measured	161' 6"	5'	111' 8"	1/s	
CR	platform course	degrees (clockwise	Kongsberg Seapath 330+	N/A	calculated	N/A	N/A	N/A	1/s	0.01
GY	platform heading	degrees (clockwise	Yokogawa gyro compass	N/A	measured	N/A	N/A	N/A	0.2/s	0.01
WDP	platform relative wind direction	degrees (clockwise from	Gill 1390-PK-062	N/A	measured	163' 4"	10'	112' 8"	1/s	1
WDS	platform relative wind direction 2	degrees (clockwise from	Gill 1390-PK-062	N/A	measured	163' 4"	12'	112' 8"	1/s	1
WSP	platform relative wind speed	meter second ⁻¹	Gill 1390-PK-062	N/A	measured	163' 4"	10'	112' 8"	1/s	0.01
WSS	platform relative wind speed 2	meter second ⁻¹	Gill 1390-PK-062	N/A	measured	163' 4"	12'	112' 8"	1/s	0.01
SOG	platform speed over ground	knot	From Gyro and GPS inputs	N/A	calculated	N/A	N/A	N/A	0.2/s	0.1
RH	relative humidity	percent	R.M. Young 41372LC	N/A	measured	164' 8"	4"	63'	1/s	0.1
UNDERWAY										
SA	salinity	PSU	Sea-Bird SBE 45	N/A	calculated				1 / 3 sec	0.0001
SST	sea temperature	celsius	Sea-Bird SBE 38	N/A	measured				1/sec	0.0001
FL	Fluorometer	µg/l	Wetlabs FLRTD	N/A	measured				1/sec	0.016
TR	Transmissometer	%	Wetlabs Cstar	N/A	measured				.5/s	0.006%
DEPLOYED										
	Altimeter	meter	Teledyne Benthos PSA-916	6000m	calculated				10/S	0.1
		meter	Valeport VA-500 altimeter		calculated				10/S	0.1
	Bottom Contact Switch	on/off	Sea-Bird 9p-9b							
	CTD Deck Unit	N/A	Sea-Bird 11+							
	Carousel Water Sampler	N/A	Sea-Bird SBE-32	6800m						
	Conductivity	Siemens/meter	Sea-Bird 4 - 02/O		measured				10/S	0.0001
		Siemens/meter	Sea-Bird 4C	6800m	measured				10/S	0.0001
		Siemens/meter	Sea-Bird 4M	6800m	measured				10/S	0.0001
	CTD Fish	N/A	Sea-Bird SBE 9+	6800m						
	Dissolved Oxygen	ml/l	Sea-Bird SBE 43	7000m- Ti	measured				10/S	0.1
	CTD Pump	N/A	Sea-Bird 5-02							
		N/A	Sea-Bird 5T	10,500m- Ti						
	Fluorometer	µg/l	WetLabs FLRTD	6000m	calculated				10/S	0.01
	Pinger, 12khz	N/A	OIS 6000	6000m						
	PAR	microeinstein meter ⁻²	Biosph. Inst. QSP-200L4S	1000m	measured				10/S	0.01
		microeinstein meter ⁻²	Biosph. Inst. QSP-2300	1000m	measured				10/S	0.01
	Seacat CTD	N/A	Sea-Bird SBE19plus	7000m- Titanium						
	Temperature	celsius	Sea-Bird 3-02/F	6800m	measured				10/S	0.001
	Temperature	celsius	Sea-Bird 3plus	6800m	measured				10/S	0.001
	Temperature	celsius	Sea-Bird 3F	6800m	measured				10/S	0.001
	Transmissometer	%	WET Labs C-Star	6000m	measured				10/S	0.001
TRACE METAL										
	Carousel Water Sampler	N/A	Sea-Bird SBE-32	7000m- Titanium						
	CTD Fish	N/A	Sea-Bird SBE 9+	10500m- Ti						
	Conductivity	Siemens/meter	Sea-Bird 4C	10500m- Ti	measured				10/S	0.0001
	Dissolved Oxygen	ml/l	Sea-Bird SBE 43	10500m- Ti	measured				10/S	0.1
	Pump	N/A	Sea-Bird 5T	10500m- Ti						
	Temperature	celsius	Sea-Bird 3plus	10500m- Ti	measured				10/S	0.001