Data Format Key

Definition of Variables for Ocean Acidification Research Cruises, 2011

General

Variable	Definition	Units
Cruise ID	USGS Field Activity identification number	
Date_UTC	Date in Coordinated Universal Time (UTC) format	MM/DD/YY; UTC
Time_UTC	Time of data collection UTC	HH:MM UTC, 24-hour format
Date_EDT/EST	Date of data collection	MM/DD/YY; (Ship Time – East Coast)
Time_EDT/EST	Time of data collection	HH:MM; 24-hour format (Ship Time – East Coast)
Latitude	Latitude	decimal degrees (WGS84)
Longitude	Longitude	decimal degrees (WGS84)
Temp_C	Water temperature	degrees Celsius (°C)
Flag	Viability of Sample	1: Good, 2: Not available (avoid using), 3: Bad (avoid using), 4: Interpolated/Last good value

Discrete Water Samples

Variable	Definition	Units
Sample	Sample indentification number	
Depth_m	depth at which sample was collected	meters (m)
Sal_ppt	Water salinity	parts per thousand (PPT)
TCO2	Total carbon dioxide	micromole per kilogram (µmol/kg)
TA	Total alkalinity (micromole per kilogram seawater)	micromole per kilogram (µmol/kg seawater)
Notes	description, concerns, viability of samples or environment	

Sonde

Variable	Definition	Units
Sp_Cond	Specific conductivity	microsiemens per centimeter (µS/cm)
pH	measure of acidity or alkalinity	
ODO	Optical dissolved oxygen	percent (%)
Chlorophyll	water chlorophyll	micrograms per liter (µg/L)

Aft Systems

Variable	Definition	Units
pCO2	partial pressure of carbon dioxide	parts per million (ppm)
pH	measure of acidity or alkalinity	
Ship_Sal_PSU	Salinity recorded by ship	practical salinity units (PSU)

Navigation

Variable	Definition	Units
WXTP_Ta	Weather Transmitter Port_ Air Temperature	degrees Celsius (°C)
WXTS_Ta	Weather Transmitter Starboard_ Air Temperature	degrees Celsius (°C)
WXTS_Pa	Weather Transmitter Starboard_ Air Pressure	hectopascal (hPa)
WXTP_Pa	Weather Transmitter Port_ Air Pressure	hectopascal (hPa)
TSG_COND	Thermosalinograph_Conductivity	siemens per meter (S/m)
dec_lat	Decimal Degrees_Latitude	decimal degrees
dec_lon	Decimal Degrees_Longitude	decimal degrees
Depth	Depth under keel	meters (m)
COG	Course Over Ground	degrees
SOG	Speed Over Ground	knots (kt)
WXTP_Rc	Weather Transmitter Port_ Rain Accumulation	millimeters since last reset
WXTS_Rc	Weather Transmitter Starboard_ Rain Accumulation	millimeters since last reset
WXTp_Ri	Weather Transmitter Port_ Rain Intensity	millimeters per hour (mm/hr)
WXTS_Ri	Weather Transmitter Starboard_ Rain Intensity	millimeters per hour (mm/hr)
WXTP_Ua	Weather Transmitter Port_ Relative Humidity	percent (%)
WXTS_Ua	Weather Transmitter Starboard_ Relative Humidity	percent (%)
WXTP_Dm	Weather Transmitter Port_ Wind Direction Average	degrees
WXTS_Dm	Weather Transmitter Starboard_ Wind Direction Average	degrees
WXTP_Sm	Weather Transmitter Port_ Wind Speed Average	meters per second (m/s)
WXTS_Sm	Weather Transmitter Starboard_ Wind Speed Average	meters per second (m/s)
TSG_SALPSU	Thermosalinograph_Salinity (Practical Salinity Units)	practical salinity units (psu)
HDT	Ship's Heading	degrees
TSG_TEMP1	Thermosalinograph_Temperature 1	degrees Celsius (°C)
TSG_TEMP2	Thermosalinograph_Temperature 2	degrees Celsius (°C)
WXTP_TD	Weather Transmitter Port_ True Wind Direction	degrees
WXTS_TD	Weather Transmitter Starboard_ True Wind Direction	degrees
WXTP_TS	Weather Transmitter Port_ True Wind Speed	meters per second (m/s)
WXTS_TS	Weather Transmitter Starboard_ True Wind Speed	meters per second (m/s)
TSG_WETFL	Thermosalinograph_Wetlabs Fluorometer	milligrams per cubic meter (mg/m^3)