Metorological Variables			
Tag	**XML File Definition**	**CF Standard Name**	**Notes**
<Station>	station ID		
<date>	date and time of observation in GMT (MM/DD/YYYY HH:mm:ss)		
<wdir1>	direction from which the wind is coming, sensor 1	wind_from_direction	
<wdir2>	wind direction, sensor 2 if equipped		
<wspd1>	wind speed, sensor 1 (m/s)	wind_speed	
<wspd2>	wind speed, sensor 2 if equipped		
<gust1>	wind gust, sensor 1, (m/s)	wind_speed_of_gust	
<gust2>	wind gust, sensor 2 if equipped		
<baro1>	air pressure adjusted to sea level, primary sensor (hPa)	air_pressure_at_mean_sea_level	MSL conversion should occur on RAs' end; NDBC won't do the conversion.
<baro2>	air pressure adjusted to sea level, secondary sensor		
<sbar1>	air pressure	air_pressure	
<atmp1>	air temperature (deg. C), sensor 1	air_temperature	
<atmp2>	air temperature (deg. C), sensor 2 if equipped		
<rrh>	relative humidity (%)	relative_humidity	
<dewpt1>	dew point temperature (deg. C), sensor 1	dew_point_temperature	
<dewpt2>	dew point temperature (deg. C), sensor 2 if equipped		
<mx1mgt1>	maximum one-minute sustained wind	no CF name	
<dmx1mgt1>	direction of maximum one-minute sustained wind	no CF name	
<mx1mmin1>	minute after the hour of maximum sustained wind (0-59)	no CF name	
<mn1mslp1>	minimum one-minute barometric pressure	no CF name	
<mslpmin1>	minute after the hour of minimum barometric pressure	no CF name	

Temperature, Salinty, and Currents Variables			
Tag	**XML File Definition**	**CF Standard Name**	**Notes**
For all platforms that measure salinity and/or water temperature and/or currents, include data with these XML tags:			
<fm64iii>	set to 820 if temperature and/or currents are measured (indicates salinity is not measured)		This information can be derived from the dataset. For example, see if temp, currents, salinity variables are in the dataset.
	set to 830 if salinity is also measured		
<fm64xx>	set to 99		
<fm64k1>	set to 7, indicates measurements are at fixed depths		
<fm64k2>	0, indicates salinity is not measured		Use the attribute "accuracy". This is not in the CF/ACDD conventions, but is in the IOOS GliderDAC spec and has been added to the IOOS Metadata Profile 1.2. Example mapping: <fm64k2>1</fm64k2> ---> "accuracy = 0.01" <fm64k2>2</fm64k2> ---> "accuracy = 0.03" Example metadata: double salinity(time) ; salinity:standard_name = "sea_water_practical_salinity" ; salinity:units = "1e-3" ; salinity:accuracy = ".01" ;
	1, indicates salinity accuracy is better than 0.02 ppt.		
	2, indicates salinity accuracy is less than 0.02 ppt.		
If salinity and/or temperature are measured include the following:			
<dp001>	depth of uppermost CT measurement (to nearest meter)		this comes from the depth variable
<tp001>	temperature from uppermost CT (Celsius)	sea_water_temperature	
<sp001>	salinity from uppermost CT (PSU)	sea_water_practical_salinity	
<dp002>…<dp00n>	depth of next deepest CT measurement (to nearest meter)		this comes from the depth variable
<tp002>…<tp00n>	temperature at <dp002>…<dp00n>	sea_water_temperature	
<sp002>…<sp00n>	salinity at <dp002>…<dp00n>	sea_water_practical_salinity	
For platforms that measure currents include the following:			

<fm64k3>	set equal to 1 if current sample is instantaneous		Use "cell_methods" (CF 7.3.2)
			
			Example mapping:
			
			<fm64k3>1</fm64k3> ---> (no cell_methods)
			<fm64k3>2</fm64k3> ---> "cell_methods = time: mean (interval: 1 min)"
			<fm64k3>3</fm64k3> ---> "cell_methods = time: mean (interval: 5 min)"
			<fm64k3>4</fm64k3> ---> "cell_methods = time: mean (interval: 15 min)"
			
			Example metadata:
			
			double eastward_sea_water_velocity(time);
			  standard_name = "eastward_sea_water_velocity";
			  units = "m.s-1";
			  cell_methods = "time: mean (interval: 1 min)";

	set equal to 2 if sample is averaged < 3 min		
	set equal to 3 if averaged between 3 and 6 min		
	set equal to 4 if averaged > 6 min		
<fm64k4>	set equal to 9		Always set to 9
<fm64k6>	set equal to 4 if platform motion removed		This is meant for moving platforms, like ships. so it's always set to 5 for a moored buoy. so we don't need to worry about this for RAs
	set equal to 5 if platform motion not removed		
<dv001>	depth of uppermost current measurement to nearest meter		
<uv001>	eastward water velocity (cm/s)	eastward_sea_water_velocity	
<vv001>	northward water velocity (cm/s)	northward_sea_water_velocity	
<dv002>…<dv00n>	depth of next deepest current measurement to nearest meter		
<uv002>…<uv00n>	eastward water velocity at <dv002>…<dv00n>		
<vv002>…<vv00n>	northward water velocity at <dv002>…<dv00n>		

Oceanographic Variables			
Tag	**XML File Definition**	**CF Standard Name**	**Notes**
<wtmp1>	surface water temperature (deg. C), sensor 1	sea_surface_temperature	Either sea_surface_temperature or sea_water_temperature can be used for <wtmp1> and <wtmp2>
<wtmp1>	surface water temperature (deg. C), sensor 1	sea_water_temperature	
<wtmp2>	surface water temperature (deg. C), sensor 2 if equipped	sea_surface_temperature	
<wtmp2>	surface water temperature (deg. C), sensor 2 if equipped	sea_water_temperature	
<zdep1>	depth from uppermost CT (to nearest tenth of a meter)		this comes from the depth variable
<zsal1>	salinity from uppermost CT (PSU)	sea_water_practical_salinity	
<ztmp1>	temperature from uppermost CT (deg. C)	sea_water_temperature	
<zcond1>	conductivity from uppermost CT (mS/cm)	sea_water_electrical_conductivity	
<zox3>	dissolved oxygen, % of saturation (near surface)	fractional_saturation_of_oxygen_in_sea_water	
<zox4>	dissolved oxygen concentration (mg/l) (near surface)	mass_concentration_of_oxygen_in_sea_water	
<zox9>	dissolved oxygen concentration (mg/l) (near bottom)	mass_concentration_of_oxygen_in_sea_water	
<zox10>	dissolved oxygen, % of saturation (near bottom)	fractional_saturation_of_oxygen_in_sea_water	
<ztrb1>	turbidity (Formazine Turbidity Units, FTU)	sea_water_turbidity	
<zchl1>	chlorophyll concentration (ug/l)	mass_concentration_of_chlorophyll_in_sea_water	
<tide1>	water level (feet above MLLW + 10 feet)	Proposed new standard name: tidal_sea_surface_height_above_mean_lower_low_water https://github.com/cf-convention/discuss/issues/57	NDBC will read MLLW and add 10ft themselves.
<zph1>	pH	sea_water_ph_reported_on_total_scale	
<zeh1>	EH (mV) - oxidation reduction potential	No CF name	
<srad1>	short wave radiation (W/m**2)	surface_downwelling_shortwave_flux_in_air	
<lwrad>	long wave radiation (W/m**2)	surface_downwelling_longwave_flux_in_air	