

APPENDIX I

AOOS CLIMATE AND FORECAST (CF) CONVENTIONS

Data processed through the AOOS data portals have been transformed to adhere to the following CF (Climate and Forecast) conventions. These conventions are designed to promote the processing and sharing of files created with the NetCDF API. The CF conventions are increasingly gaining acceptance and have been adopted by a number of projects and groups as a primary standard. The conventions define metadata that provide a definitive description of what the data in each variable represent, and the spatial and temporal properties of the data.

Climate and Forecast (CF) conventions.

Name	URN	Max	Min	Units
Wind Gust To Direction	http://mmisw.org/ont/ioos/parameter/wind_gust_to_direction	360	0	degrees
Wind To Direction	http://mmisw.org/ont/cf/parameter/wind_to_direction	360	0	degrees
Sea Ice	http://mmisw.org/ont/fake/parameter/sea_ice	100	0	%
Cloud Cover	http://mmisw.org/ont/fake/parameter/cloud_cover	100	0	%
Apparent Temperature	http://mmisw.org/ont/fake/parameter/apparent_temperature	135	-130	°F
Stokes Drift Directions	http://mmisw.org/ont/fake/parameter/stokes_drift_directions	360	-360	degrees
Sea Ice Direction	http://mmisw.org/ont/fake/parameter/direction_of_sea_ice_velocity	360	-360	degrees
Air Temperature Maximum	http://mmisw.org/ont/fake/parameter/air_temperature_maximum	135	-130	°F
Total Dissolved Solids	http://mmisw.org/ont/fake/parameter/total_dissolved_solids	1.00E+37	0	g/L
Incoming Shortwave Radiation	http://mmisw.org/ont/cf/parameter/toa_incoming_shortwave_flux	1367.7	0	W/m ²

Name	URN	MAX	MIN	Units
Reflected Shortwave Radiation	http://mmisw.org/ont/cf/parameter/toa_outgoing_shortwave_flux	1367.7	0	W/m ²
Air Temperature Average	http://mmisw.org/ont/fake/parameter/air_temperature_average	135	-130	°F
Wind Gust	http://mmisw.org/ont/cf/parameter/wind_speed_of_gust	253	0	mph
Relative Humidity Average	http://mmisw.org/ont/fake/parameter/relative_humidity_average	100	0	%
Relative Humidity Maximum	http://mmisw.org/ont/fake/parameter/relative_humidity_maximum	100	0	%
Relative Humidity Minimum	http://mmisw.org/ont/fake/parameter/relative_humidity_minimum	100	0	%
Photosynthetic Active Rad Mole	http://mmisw.org/ont/cf/parameter/surface_downwelling_photosynthetic_photon_flux_in_air	1.00E+37	0	μmole/m ² s
Air Temperature Minimum	http://mmisw.org/ont/fake/parameter/air_temperature_minimum	135	-130	°F
Water Temperature (intragravel)	http://mmisw.org/ont/fake/parameter/water_temperature_intragravel	135	20	°F
Sea Surface Temperature	http://mmisw.org/ont/fake/parameter/sea_surface_temperature	135	20	°F
Wave To Direction	http://mmisw.org/ont/cf/parameter/sea_surface_wave_to_direction	360	-360	degrees
Wave From Direction	http://mmisw.org/ont/cf/parameter/sea_surface_wave_from_direction	360	-360	degrees
Sea Surface Dominant Wave To Direction	http://mmisw.org/ont/fake/parameter/sea_surface_dominant_wave_to_direction	360	-360	degrees
Barometric Pressure	http://mmisw.org/ont/cf/parameter/air_pressure	1085	335	mbar

Name	URN	MAX	MIN	Units
Panel Temperature	http://mmisw.org/ont/fake/parameter/panel_temperature	135	-130	°F
Ground Temperature	http://mmisw.org/ont/cf/parameter/soil_temperature	135	-130	°F
Fuel Temperature	http://mmisw.org/ont/fake/parameter/fuel_temperature	135	-130	°F
Turbidity	http://mmisw.org/ont/ioos/parameter/turbidity	1.00E+37	0	NTU
Air Temperature	http://mmisw.org/ont/cf/parameter/air_temperature	135	-130	°F
Water Temperature	http://mmisw.org/ont/cf/parameter/sea_water_temperature	135	20	°F
Snow Depth	http://mmisw.org/ont/cf/parameter/surface_snow_thickness	500	0	inches
pH	http://mmisw.org/ont/cf/parameter/sea_water_ph_reported_on_total_scale	14	0	fraction
Swell Wave To Direction	http://mmisw.org/ont/cf/parameter/sea_surface_swell_wave_to_direction	360	-360	degrees
Wind Wave To Direction	http://mmisw.org/ont/cf/parameter/sea_surface_wind_wave_to_direction	360	-360	degrees
Wind Gust From Direction	http://mmisw.org/ont/ioos/parameter/wind_gust_from_direction	360	0	degrees
Relative Humidity	http://mmisw.org/ont/cf/parameter/relative_humidity	100	0	%
Significant Wave Height	http://mmisw.org/ont/cf/parameter/sea_surface_wave_significant_height	20	0	m
Current To Direction	http://mmisw.org/ont/cf/parameter/direction_of_sea_water_velocity	360	-360	degrees

Name	URN	MAX	MIN	Units
Wind From Direction	http://mmisw.org/ont/cf/parameter/wind_from_direction	360	0	degrees
Salinity	http://mmisw.org/ont/cf/parameter/sea_water_practical_salinity	50	0	PSS
Swell Height	http://mmisw.org/ont/cf/parameter/sea_surface_swell_wave_significant_height	20	0	m
Wind Wave Height	http://mmisw.org/ont/cf/parameter/sea_surface_wind_wave_significant_height	20	0	m
Solar Radiation Maximum	http://mmisw.org/ont/fake/parameter/solar_radiation_maximum	1367.7	0	W/m ²
Solar Radiation Average	http://mmisw.org/ont/fake/parameter/solar_radiation_average	1367.7	0	W/m ²
Solar Radiation Minimum	http://mmisw.org/ont/fake/parameter/solar_radiation_minimum	1367.7	0	W/m ²
Global Solar Radiation	http://mmisw.org/ont/cf/parameter/surface_downwelling_shortwave_flux_in_air	1367.7	0	W/m ²
Solar Radiation	http://mmisw.org/ont/fake/parameter/solar_radiation	1367.7	0	W/m ²