Observation Data Descriptions

Note: The Ship Observations Report page displays the current hour's measurements whereas the Radial Search and Box Search Observations pages display observations received during the past hour. All three pages display in English units by default, but can be changed by the viewer to display multiple hours and/or metric units.

Identification Data

ID or SHIP ID	Five to seven character reporting identifier for stations. Ships are not identified for security reasons.
T	One character code used to identify reporting source: B = Buoy, C = C-MAN Station, D = Drifting Buoy, S = Ship, O = Other
TIME or HOUR	In UTC (Greenwich Mean Time - GMT) for data display and data files.

Data are classified according to the following groups. Any data field that contains one or more dashes represents missing data for that observation hour.

Informational Data

LAT	The angular distance from the equator, measured northward (+) or southward (-) along a meridian from 0° at the equator to 90° at the poles.
LON	The angular distance between the prime meridian and the meridian of a point on the earth, measured eastward (+) or westward (-) from the prime meridian (0°) through 180°.
DIST	Great circle distance, in nautical miles, between the search location origin and the observing station location.
HDG	True bearing, in degrees, from the search location origin to the observing station location.

Standard Meteorological Data

WDIR	Wind direction (the direction the wind is coming from in degrees clockwise from true N) during the same period used for WSPD. See Wind Averaging Methods
WSPD	Wind speed (m/s) averaged over an eight-minute period for buoys and a two-minute period for land stations. Reported Hourly. See Wind Averaging Methods.

GST Peak 5 or 8 second gust speed (m/s) measured during the eight-minute or two-minute period. The 5 or 8 second period can be determined by payload, See the Sensor Reporting, Sampling, and Accuracy section.

WVHT Significant wave height (meters) is calculated as the average of the highest one-third of all of the wave heights during the 20-minute sampling period. See the Wave Measurements section. Note: Buoy WVHTs are combined seas whereas Ship WVHTs are observed wind wave heights.

DPD Dominant wave period (seconds) is the period with the maximum wave energy. See the Wave Measurements section.

APD Average wave period (seconds) of all waves during the 20-minute period. See the Wave Measurements section.

MWD Mean wave direction corresponding to energy of the dominant period (DOMPD). The units are degrees from true North just like wind direction. See the Wave Measurements section.

PRES Sea level pressure (hPa). For C-MAN sites and Great Lakes buoys, the recorded pressure is reduced to sea level using the method described in *NWS Technical Procedures Bulletin 291* (11/14/80).

PTDY Pressure Tendency is the direction (plus or minus) and the amount of pressure change (hPa) for a three hour period ending at the time of observation.

ATMP Air temperature (Celsius). For sensor heights on buoys, see Hull Descriptions. For sensor heights at C-MAN stations, see C-MAN Sensor Locations

WTMP Sea surface temperature (Celsius). For sensor depth, see Hull Description.

DEWP Dewpoint temperature taken at the same height as the air temperature measurement.

VIS Station visibility (statute miles). Note that buoy stations are limited to reports from 0 to 1.9 miles.

TCC Total cloud cover (eighths). The total fraction of the sky covered by clouds of all types.

TIDE The water level in feet above or below Mean Lower Low Water (MLLW).

Swell Wave Data

S1HT Height of primary swell waves. Swell wave height is the vertical distance between any swell wave crest and the succeeding swell wave trough.

S1PD Period of primary swell waves. Swell wave period is the time that it takes two successive swell wave crests to pass a fixed point.

S1DIR True compass direction, in tens of degrees, from which primary swell waves are coming from.

S2HT Height of the secondary swell waves. Swell wave height is the vertical distance between any swell wave crest and the succeeding swell wave trough.

S2PD Period of secondary swell waves. Swell wave period is the time that it takes two successive swell wave crests to pass a fixed point.

S2DIR True compass direction, in tens of degrees, from which secondary swell waves are coming from.