

Weather Metadata

Last updated:

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Station Overview

Location: Pier 25, New York, NY ([40.720474](#), [-74.016363](#))

Data collection period: July 2018 – present

Parameters: air temperature, barometric pressure, dew point, precipitation, relative humidity, wind speed, direction, and gusts

Previous location: Pier 26, New York, NY ([40.721538](#), [-74.015600](#))

Previous data collection period: 9/16/2016-July 2018

Previous parameters: air temperature, barometric pressure, dew point, precipitation, relative humidity, wind speed, direction, and gusts

Contacts

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Station Description

The purpose of the Hudson River Park Pier 26 station is to generate a consistent and precise stream of weather data to the general public and interested stakeholders. The goal in collecting this data is to ultimately inform Hudson River management policies, restoration efforts, and extreme event planning. This station was selected due to its location near the NYC Harbor and in lower Manhattan, one of the world's most heavily developed and densely populated urban environments.

The meteorological station is located on the northwestern piling at the end of Pier 26. The station is equipped with a Vaisala WXT530 all in one instrument. Rainfall data is recorded using a supplemental TE525WS tipping bucket gage attached to the station. Data is recorded by a CR200 datalogger every 15 minutes and transmitted online every hour. Dew point is calculated in real-time using the relative humidity and air temperature data.

Special Remarks

9/16/2016-9/19/2016	Time zone on logger set incorrectly. Data from this period are one hour off.
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10/7/2016	Averaging and update intervals changed to match those of Pier 84 station. Data prior to this time stamp are calculated using a 3-second interval rather than an 870-second interval. Intermittent jumps in wind gust values. Cause unknown and continuing to monitor.
July 2018	Station moved from Pier 26 to Pier 25 due to construction.

Distribution Terms

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Data Quality Assurance

Data collection and verification have been performed on all parameters since the establishment of this station according to the HRECOS Quality Assurance Project Plan(s), which are available at www.hrecos.org

Code Definitions

Parameters

Name	Synonyms	Description	Units
ATMP	TAIR	Air temperature	Degrees Celsius
BARO	PRES	Air pressure	Millibars
DEWP		Dewpoint	Degrees Celsius
GST		Wind gust (15 min. max)	m/s
PAR		Photosynthetically active raditon	mmoles/m ²
RAD		Total radiation	Watts/m ²
RAIN	PRECIP	Rainfall	mm
RAINDC	PRECIP_TOT	Total daily precipitation accumulation	mm
RHUM	RELH	Relative humidity	%
STMP		Soil temperature	
WD	WDIR	Wind direction	Degrees
WDEV	SDWDIR	Wind direction standard deviation	Degrees
WSPD		Wind speed	m/s

Flag code definitions:

A Accepted data
P Provisional data

S Suspect data, consult comment codes
R Rejected data, consult comment codes
C Corrected data, consult comment codes

Comment code definitions:

General Errors

GIM Instrument malfunction
GIT Instrument recording error, recovered telemetry data
GMC No instrument deployed due to maintenance or calibration
GPF Power failure
GQR Rejected due to QAQC checks
GSM See metadata
GMT Instrument maintenance
GDP Power down
GPR Program reload

Sensor Errors

SIC Incorrect calibration, multiplier, or offset
SNV Negative value
SOC Out of calibration
SSM Sensor malfunction
SSR Sensor removed for deployment
SSN Not a number/unknown value

Other comments

CAF Acceptable calibration/accuracy error of sensor
CDF Data appear to fit conditions
CRE Significant rain event
CSM See metadata
CVT Possible vandalism
CWE Significant weather event

Weather sensor specifications

Parameter: Air temperature

Units: Celsius

Sensor Type: capacitive

Model#: WXT530

Range: -52°C to +60°C

Accuracy: ±0.3°C

Parameter: Relative humidity

Units: %

Sensor Type: Capacitive

Model#: WXT530

Range: 0 to 100%

Accuracy: ±3% (0-90%); ±5% (90-100%)

Parameter: Barometric pressure

Units: hPa

Sensor Type: capacitive

Model#: WXT530

Range: 600 to 1100 hPa

Accuracy: ± 0.5 hPa at 0 to $+30$ °C; ± 1 hPa at -52 to $+60$ °C

Parameter: Precipitation

Units: mm

Sensor Type: acoustic

Model#: WXT530

Range: 0-200 mm/hr

Accuracy: 5%

Parameter: Wind direction

Units: Degrees

Sensor Type: Ultrasound

Model#: WXT530

Range: 0-360 Degrees

Accuracy: ± 3 Degrees

Parameter: Wind speed

Units: m/s

Sensor Type: Ultrasound

Model#: WXT530

Range: 0 to 60 m/s

Accuracy: $\pm 3\%$ at 10 m/s