

Weather Metadata

Last updated:

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Station Overview

Location: Pier 84, New York, NY ([40.764628](#), [-74.003186](#))

Data collection period: 12/21/2012 – 7/15/2025

Parameters: air temperature, barometric pressure, precipitation, daily cumulative rainfall, relative humidity, wind speed, direction, and gusts

Contacts

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Station Description

The purpose of the Hudson River Park Pier 84 station is to generate a consistent and precise stream of water quality and atmospheric 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 Hudson River Park Pier 84 station is located on the southeastern piling at the end of Pier 84's finger pier. The meteorological station is located approximately 3 meters above the water. All data is recorded every 15 minutes by a CR200 datalogger and transmitted online every hour.

This station was decommissioned on 7/15/2025 due to rising costs. Please consult the data from Pier 25, which is nearby.

Special Remarks

Date	Remark
1/1/2014-6/17/2015	All rain data flagged as suspicious due to sensor overestimating rainfall amounts.
3/3/2016-6/27/2016	No data during this period. Equipment was in factory for routine maintenance and inspection.

5/18/2017	Bird spikes installed
August 2024	Station was vandalized and telemetry equipment was stolen. Station continues to collect data, but they are not available in real-time.
7/15/2025	Station decommissioned.

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#: WXT520

Range: -52°C to +60°C

Accuracy: ±0.3°C

Parameter: Relative humidity

Units: %

Sensor Type: Capacitive

Model#: WXT520

Range: 0 to 100%

Accuracy: ±3% (0-90%); ±5% (90-100%)

Parameter: Barometric pressure

Units: hPa

Sensor Type: capacitive

Model#: WXT520

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#: WXT520

Range: 0-200 mm/hr

Accuracy: 5%

Parameter: Wind direction

Units: Degrees

Sensor Type: Ultrasound

Model#: WXT520

Range: 0-360 Degrees

Accuracy: ± 3 Degrees

Parameter: Wind speed

Units: m/s

Sensor Type: Ultrasound

Model#: WXT520

Range: 0 to 60 m/s

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