

Earthquake and Aftershocks Rattle NYC Area

By Don Sutherland

Friday, April 5, 2024 saw the New York City Area experience its strongest earthquake since 1884 and fourth strongest on record. The earthquake was centered at Whitehouse Station, New Jersey and registered Magnitude 4.8. The earthquake occurred at a depth of 4.7 km at 10:23:20 am EDT.

The quake started with a sharp jolt, which was followed by rapid shaking that lasted 10-15 seconds. Some residents reported that the temblor knocked pictures off their walls. People as far away as Virginia and New Brunswick in Canada felt the earthquake. Ahead of the quake, some dogs reacted seconds before the shaking occurred.

At 10:29:58 am EDT, the first aftershock (Magnitude 2.6) occurred. By 8:00 pm EDT on Saturday, there had been 34 aftershocks. Nine of those aftershocks measured Magnitude 2.0 or above, including a fairly sharp aftershock of Magnitude 3.8.

Earthquakes of 4.0 or above are infrequent but not unknown in the New York City Area. The most recent earthquake was the ninth on record.

The New York City Area's 4.0 or Stronger Earthquakes:

Date	Magnitude	Location	Losses/Impacts/Notes
December 19, 1737	5.2	Greater NYC Area	Threw down chimneys
November 30, 1783	5.3	North-Central NJ	Two foreshocks (11/24 and 11/30) and one aftershock. Threw down chimneys
September 9, 1848	4.4	Greater NYC Area	
August 10, 1884	5.2	Greater NYC Area	Threw down chimneys; felt from Virginia to Maine
September 1, 1895	4.1	Near High Bridge, NJ	Broken windows in Philadelphia; felt from Virginia to Maine
January 20, 1905	4.5	Greater NYC Area	Probably located offshore
August 23, 1938	4.0	Freehold, NJ	Four aftershocks felt
October 19, 1985	4.0	Ardsley, NY	
April 5, 2024	4.8	Whitehouse Station, NJ	Felt from Virginia to New Brunswick, Canada

Sources: NJGWS 2013; USGS 2012d; Won-Young Kim, Lamont-Doherty Earth Observatory of Columbia University 1999; NJGS, 2017; and, Earthquake.USGS.gov