

Was that actually a tsunami that hit Florida? Yes, but not the kind you think

June 27 2023, by Isabella O'malley



Credit: CC0 Public Domain

An unexpected culprit toppled beach chairs along the sand at normally calm Clearwater Beach, Florida, last Wednesday. West Coast surfers might snicker at the cause, but the National Weather Service confirms

the rare 4-foot (1.2 meter) wave was caused by a kind of tsunami, just not the kind you usually hear about.

It was a meteotsunami, a type caused by storms with strong gusting winds, rather than the dramatic tsunamis triggered by earthquakes.

WHAT IS A METEOTSUNAMI?

According to Paul Close, senior forecaster at the National Weather Service in the Tampa Bay area, when a line of storms tracks over the ocean, there can be 30- to 50-mph (48- 80-kph) winds near the leading edge. The winds push the water, increasing the [wave height](#) near the coast before it eventually crashes onto shore.

Meteotsunamis only last about an hour because once the leading edge of the storm passes onto land, the action subsides.

The meteotsunami was about 2.5 feet (0.8 meters) higher than the forecast wave height and around 4 feet (1.2 meters) higher than average sea level.

Six-foot (1.8 meter) and higher meteotsunamis have been recorded around the world.

The [weather service](#) does not issue specific advisories for meteotsunamis. If the agency forecasts that a [storm](#) will have substantial impact, it issues a coastal flood watch or warning.

WHEN DO METEOTSUNAMIS FORM?

Close said that stronger storms and squall lines—groups of storms that track in a line with intense winds and heavy rain—are more common

during the winter around Florida.

"They don't happen that often this time of year, but the current atmospheric pattern has been kind of unusual with all the heat out in Texas and the cool and damp [weather](#) in the Northeast," Close said.

This time of year, winds from the east are more common, he said. But the winds have been from the west almost all of June.

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