

# Actuarial Weather Extremes Series

## Tropical Storm Alex: June 4, 2022

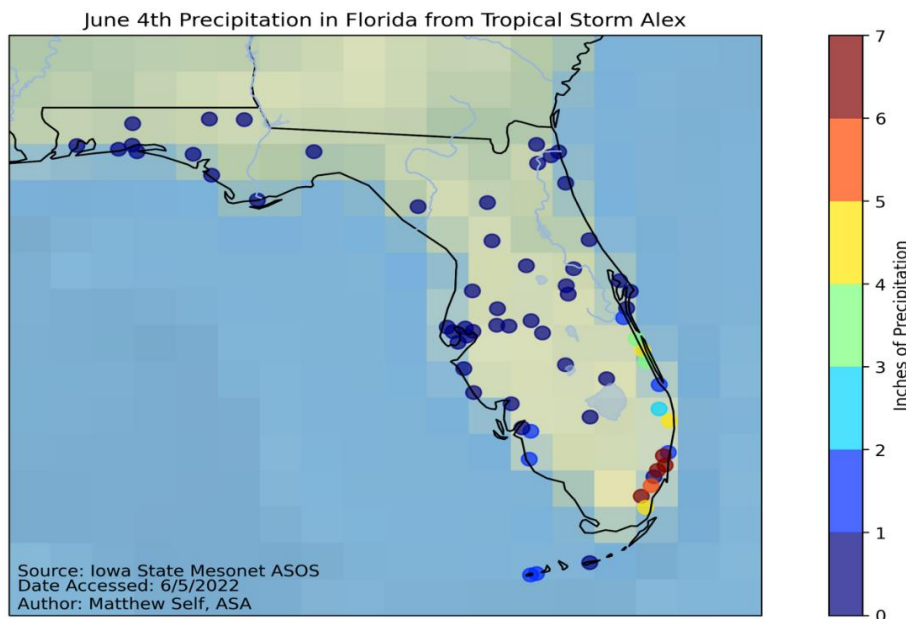
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### Event Description

On June 3, 2022, a low-pressure storm that would become Tropical Storm Alex hit south Florida, bringing historically heavy amounts of precipitation. According to ASOS stations at Fort Lauderdale (FLL), Miami International Airport (MIA), and West Palm Beach (PBI) airports, precipitation totals for June 4, 2022, were 6.6 inches, 5.3 inches, and 4.5 inches, respectively.

For Fort Lauderdale, the June 4 total was the highest daily total through June since 2013, with higher totals seen in only 3 other years since 1999. For Miami, the June 4 total was the highest daily total through June since 2020, with higher totals seen in only 4 other years since 1980. The heavy rain led to flooding in downtown Miami [2].

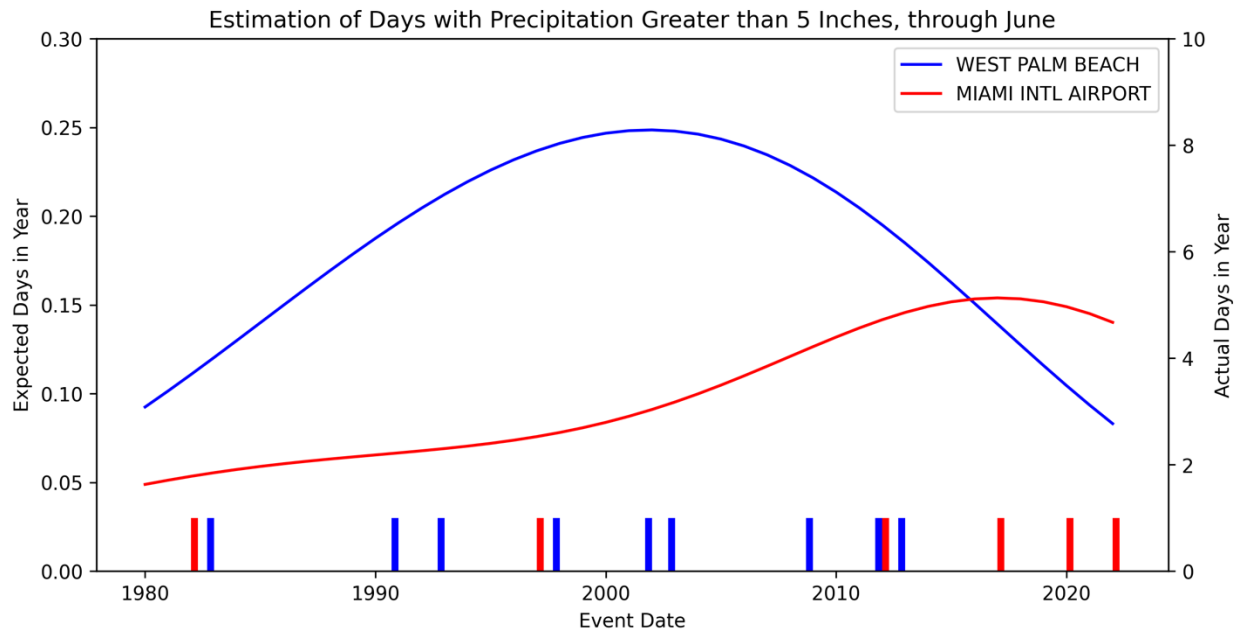
The storm also led to the death of three people in Cuba [3] and to power outages affecting 50,000 homes and businesses [4].



### Caveat and Disclaimer

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As seen in the graph above, the eastern coast of South Florida was hit particularly hard on June 4. The graph below shows long-term trend estimations for the number of days in a year (through June) with precipitation greater than 5 inches. In the past decade, the Miami ASOS station has seen an increasing number of these heavy precipitation events. These estimations are historical in nature and are not an attempt to predict or forecast future trends. Additionally, due to the nature of extreme events, we do not have enough data to statistically validate any changes in expected event frequency.



**Sources**

- [1] Source: Iowa State Mesonet
  - Data: Precipitation Observations at ASOS stations
  - [https://mesonet.agron.iastate.edu/request/daily.phtml?network=FL\\_ASOS](https://mesonet.agron.iastate.edu/request/daily.phtml?network=FL_ASOS)
  - Date Accessed: 6/5/2022
- [2] AccuWeather. June 4, 2022 [Hurricane Season’s Opening Salvo a Monster Rainmaker in Miami](#)
- [3] AP News. June 6, 2022 [Tropical Storm Alex heads for Bermuda area with wind, rain | AP News](#)
- [4] The Weather Channel. June 4, 2022 [Tropical Disturbance Leaves Cars Floating on Flooded Miami Streets, At Least Two Dead in Cuba | The Weather Channel - Articles from The Weather Channel | weather.com](#)

**Further Reading**

- <https://twitter.com/NWSMiami/status/1533432897352478720/photo/1>

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