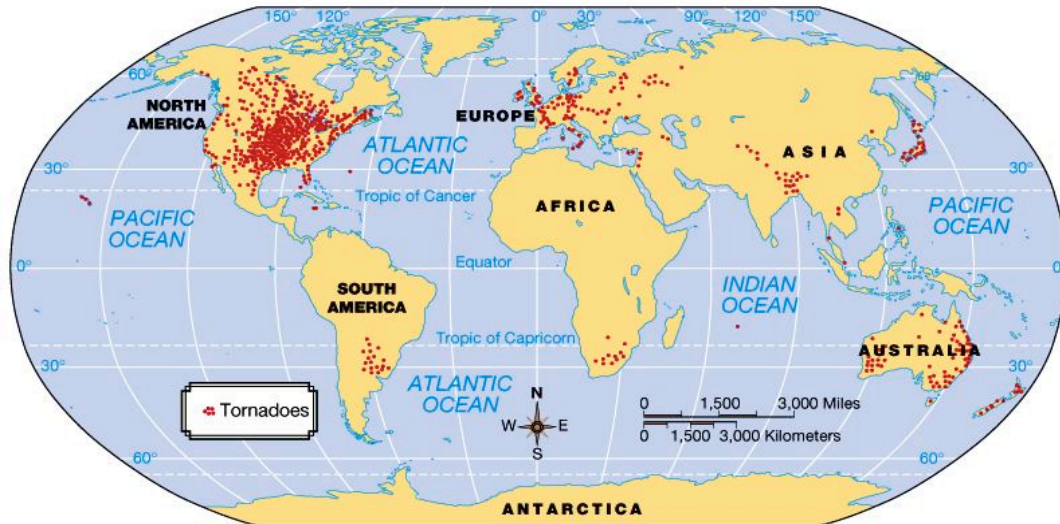


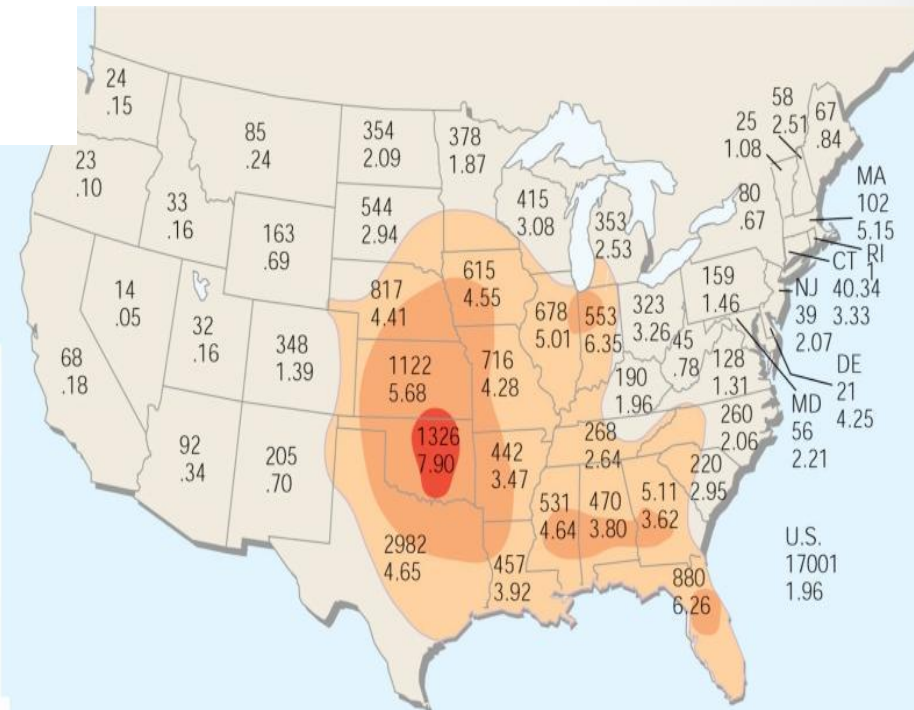
Global Tornado Frequency



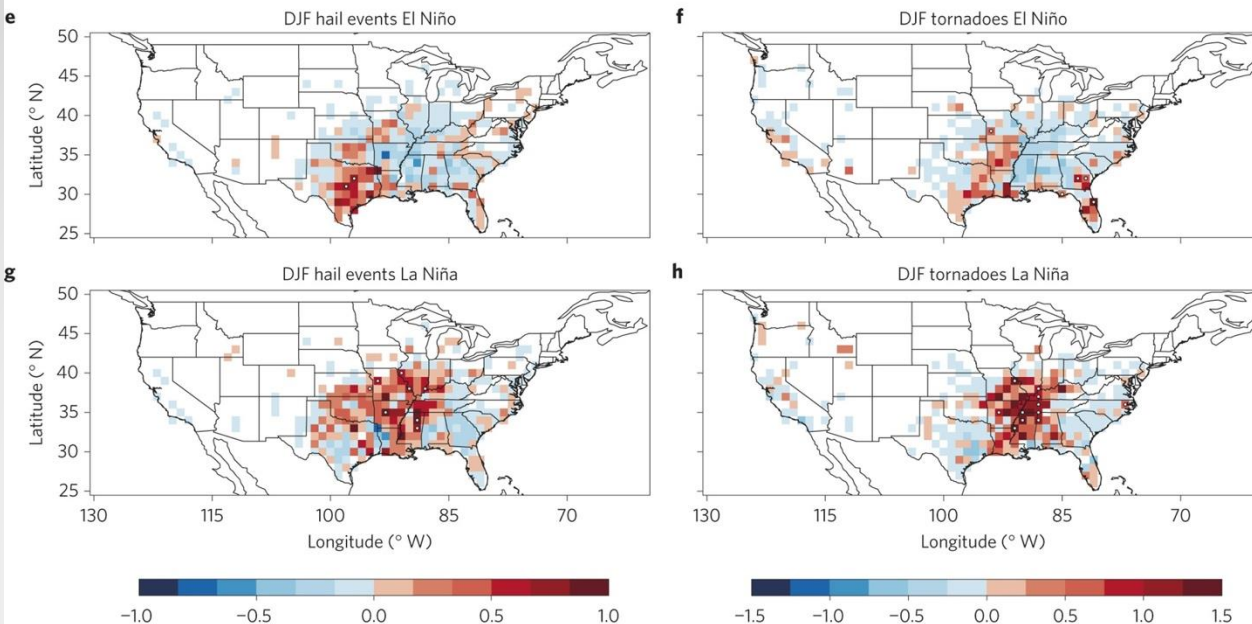
Global tornado frequencies

Annual U.S. tornado frequencies

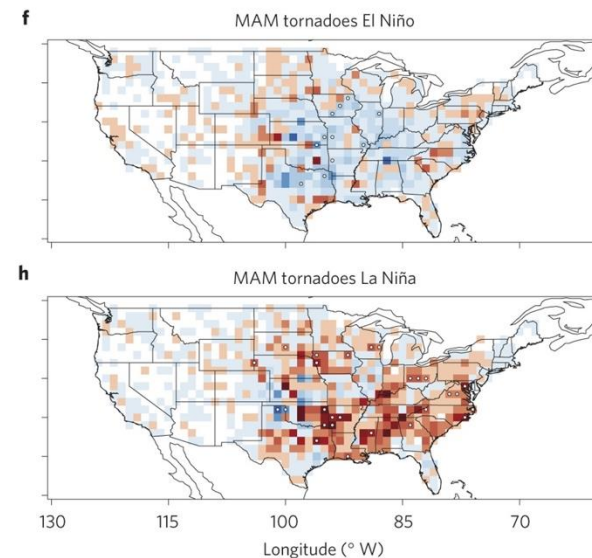
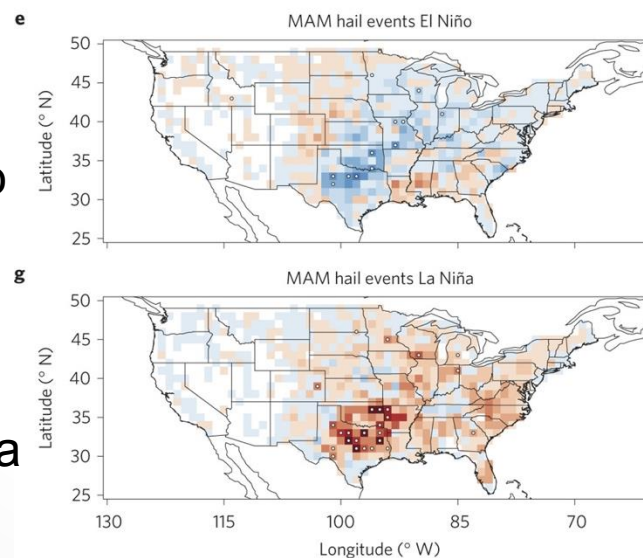
Alaska:	1
	0
Hawaii:	15
	0.97
Pacific Islands:	1
	0
Puerto Rico:	7
	0.85
Virgin Islands:	1
	0



ENSO Modulates Tornadoes and Hail: should we expect more this spring?



March-May El Niño

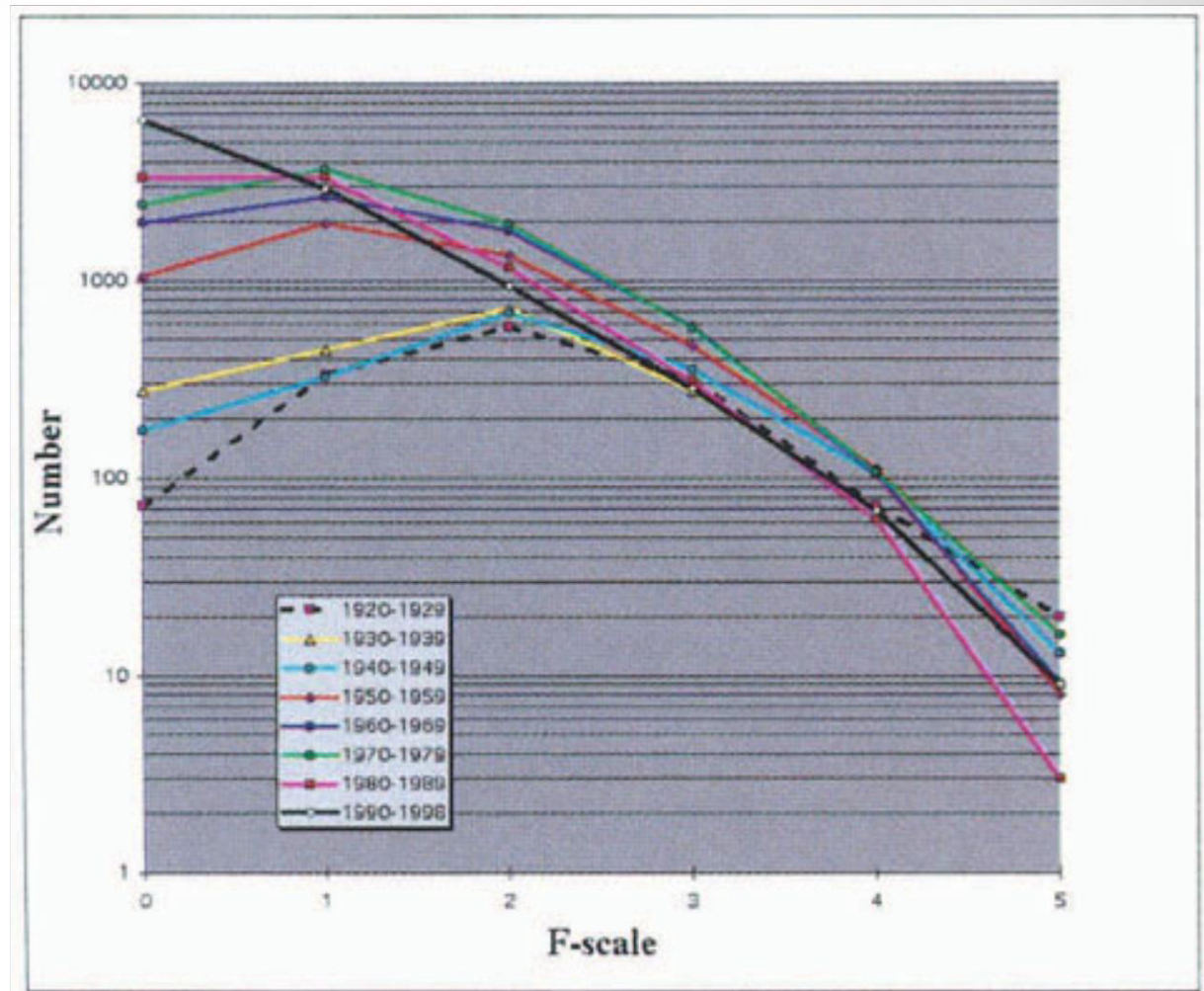


● Allen, Tippett and Sobel (2015)

<https://www.nature.com/articles/ngeo2385>

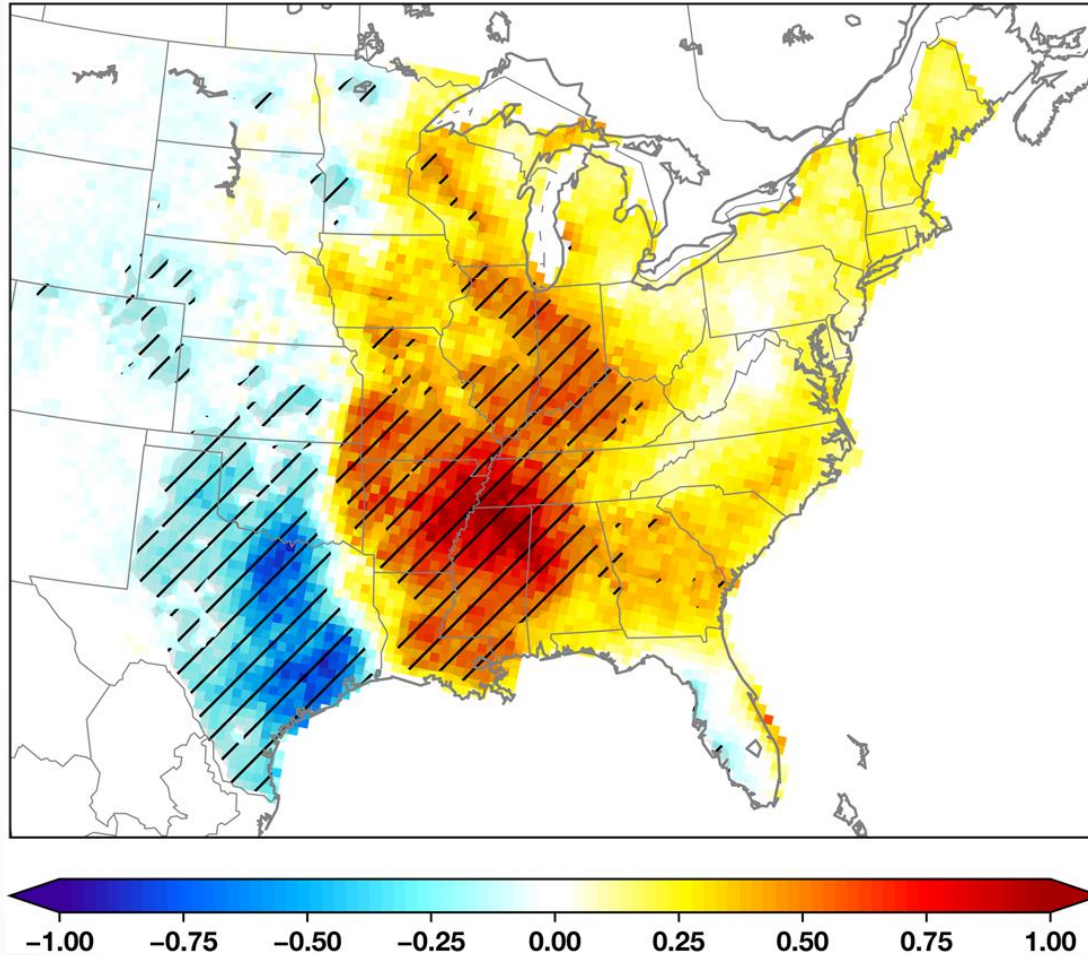
Trends in tornado frequency obscured by observing changes?

No increase in strongest tornadoes, clear increase in weaker ones: better reporting?



upward trend in the number of reported tornadoes and an increasing population. Over the last 80 years, the majority of the increase in tornadoes reported annually has been in the “weak” category (F0 and F1 on the Fujita scale) of events and these meteorologically

Tornado-favorable conditions changing over past ~40 years; Why? Variability? CO₂? Aerosols?



1979-2017 trend in tornado-favorable conditions