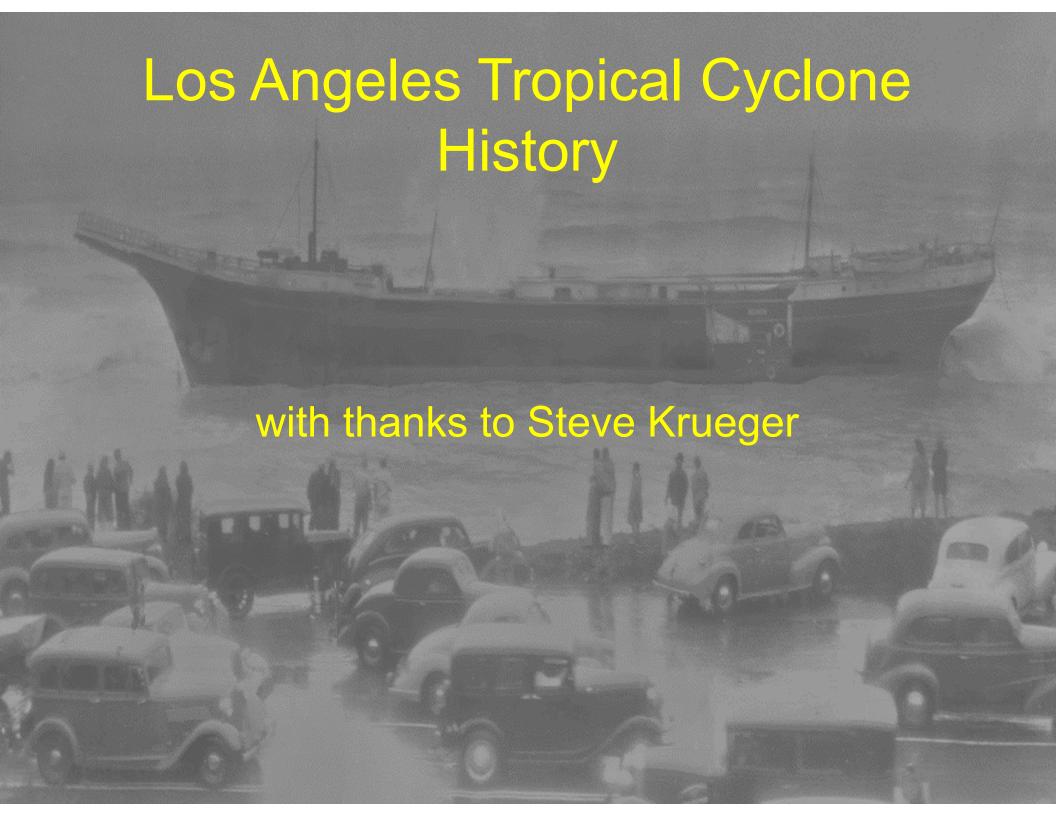
Tropical Cyclones Affecting Los Angeles



TCs in the Southwestern U.S.

- Only 4 storms brought tropical storm-force winds to the SW U.S. during the 20th Century
- Only a single storm made direct landfall in Southern California
- No storms have made landfall in the SW U.S. as hurricanes
- Notwithstanding the above, many TC remnants, or TCs passing close by have affected the SW U.S.
- Main problem is rainfall-induced flooding

Strongest tropical cyclone to affect Los Angeles since records began: Cyclone of September 24-26 1939

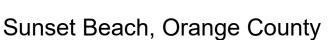
- Wind gusts to 65 knots, 5.6" of rain at LA
- Mt. Wilson recorded storm total of 11.6"
- 45 deaths from flooding, 48 lost at sea
- Circulation in advance of cyclone responsible for intense heat wave (107 in LA)

See article by Paul Duginski, LA Times, 22 August 2019



Paths of the first and fourth in a series of September 1939 storms that affected Southern California, with the fourth one making landfall as a tropical storm. Two others dissipated before reaching the Southland, but influenced the area. (Paul Duginski / Los Angeles Times)







September 25th, 1939



The 247-foot fishing barge Minnie A. Caine was washed ashore off Sunset Boulevard north of Santa Monica. Her six crew members were rescued. The fishing barge was one of several craft, large and small, battered by heavy seas and 60 mph winds. This photo appeared in the Sep. 25, 1939, editions of the Los Angeles Times.(Los Angeles Times)



Los Angeles

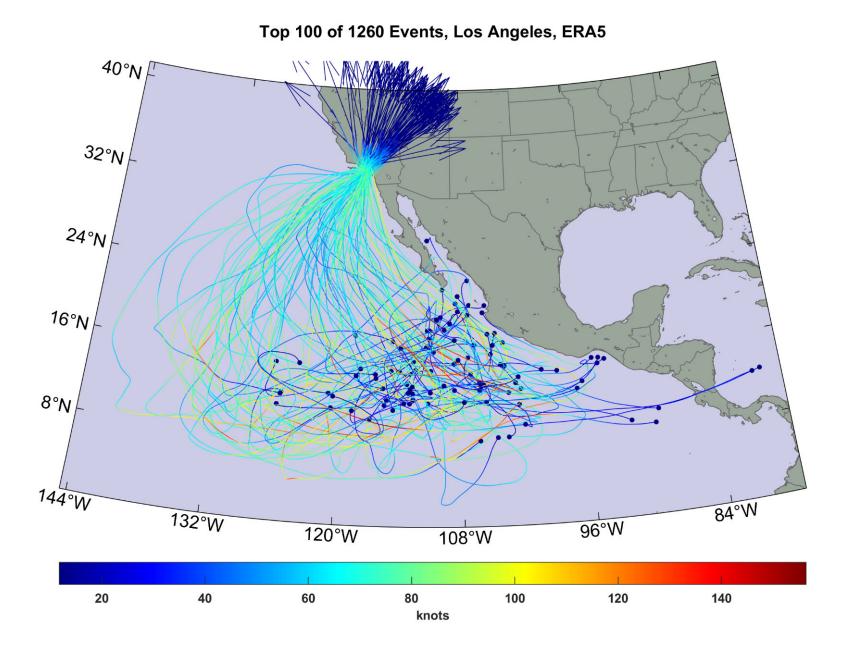
26 1939

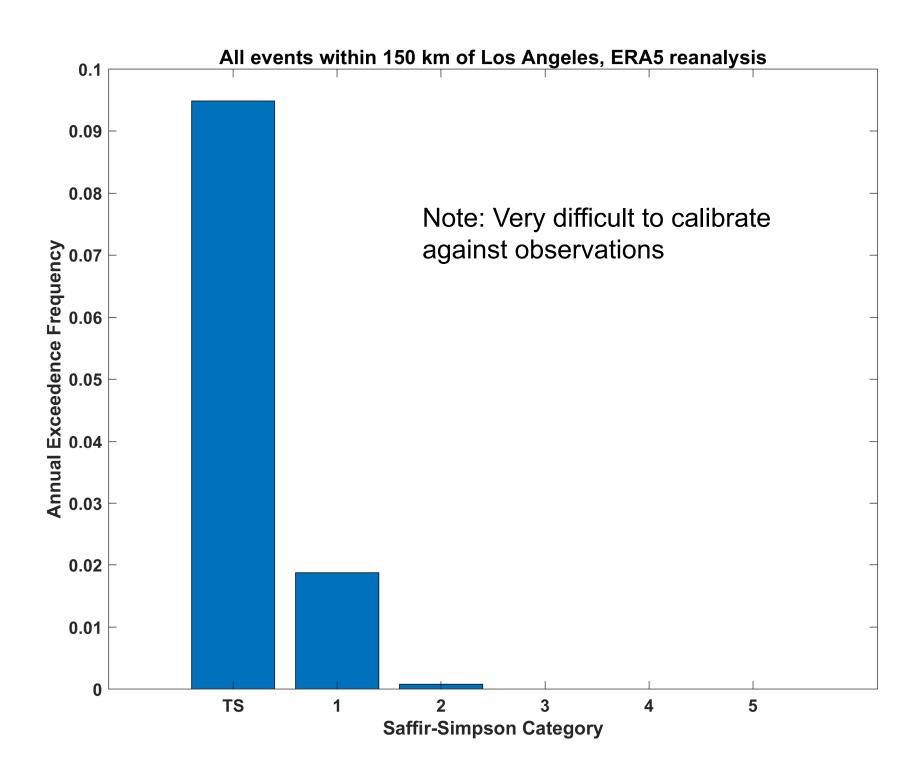
Times, September

Application of MIT downscaling to assess long term TC risk near Los Angeles

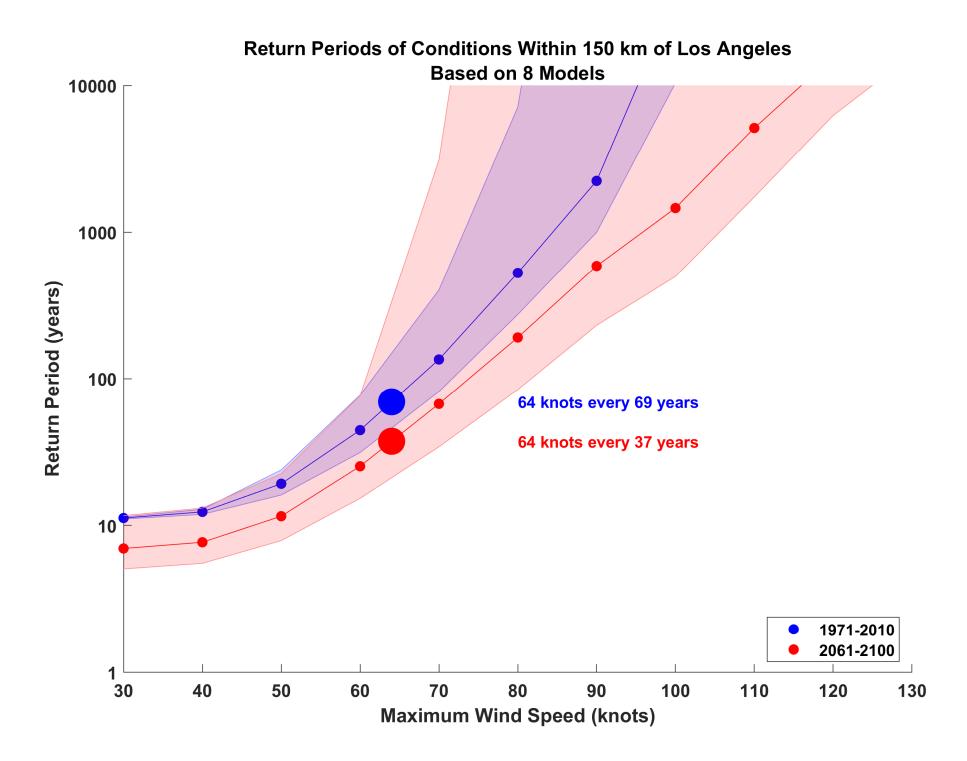
- All events passing within 150 km of downtown Los Angeles with winds in excess of 30 kts within that circle
- 1,260 events downscaled from ERA-5 reanalyses, 1979-2020
- 1,200 events downscaled from each of 9 CMIP6generation climate models for:
 - 20th century: 1971-2010
 - SSP3 7.0 2061-2100

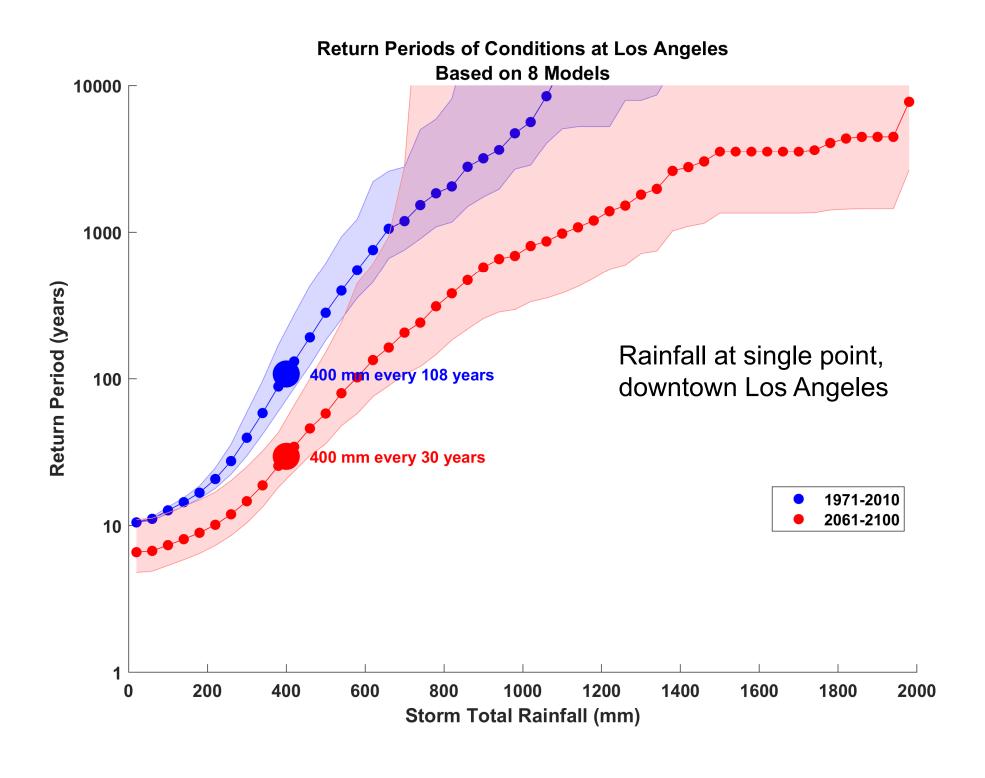
Strongest 100 of 1260 events downscaled from ERA-5 reanalyses

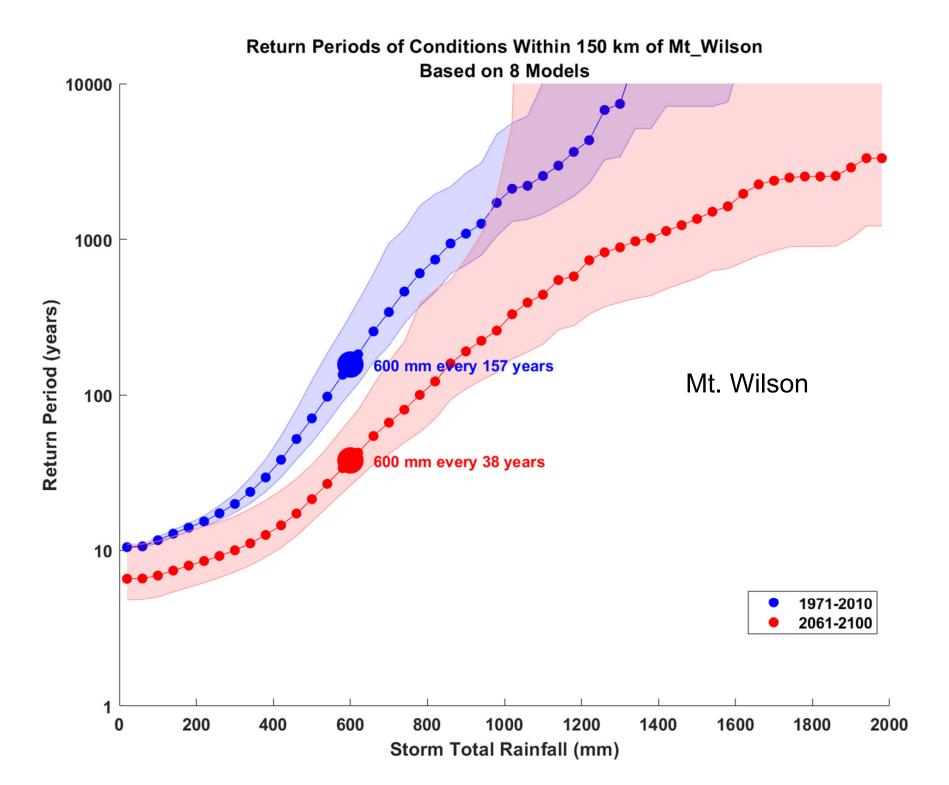


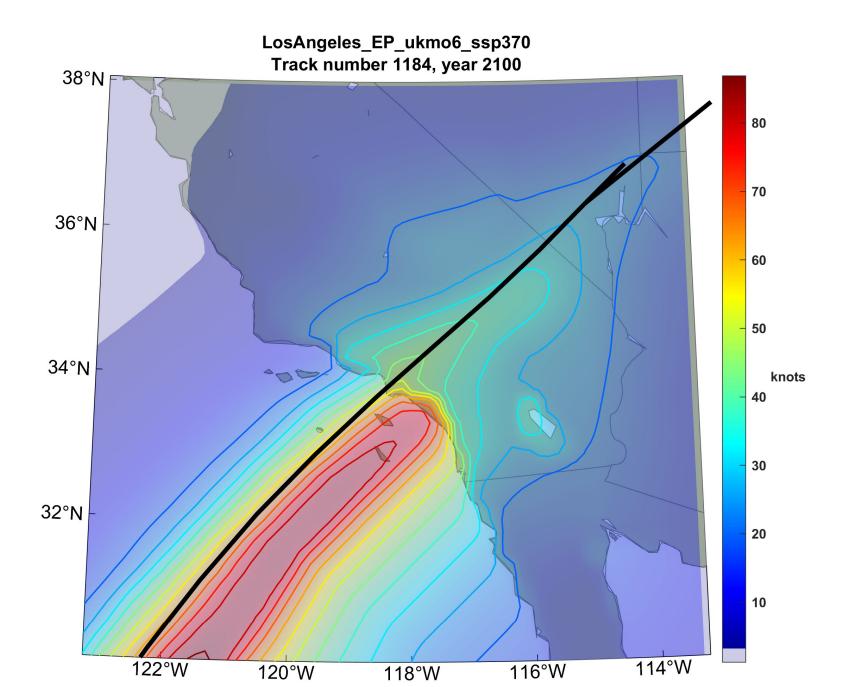


Global warming effects on tropical cyclone affecting Los Angeles









LosAngeles_EP_ukmo6_ssp370 Track number 1080, year 2096

