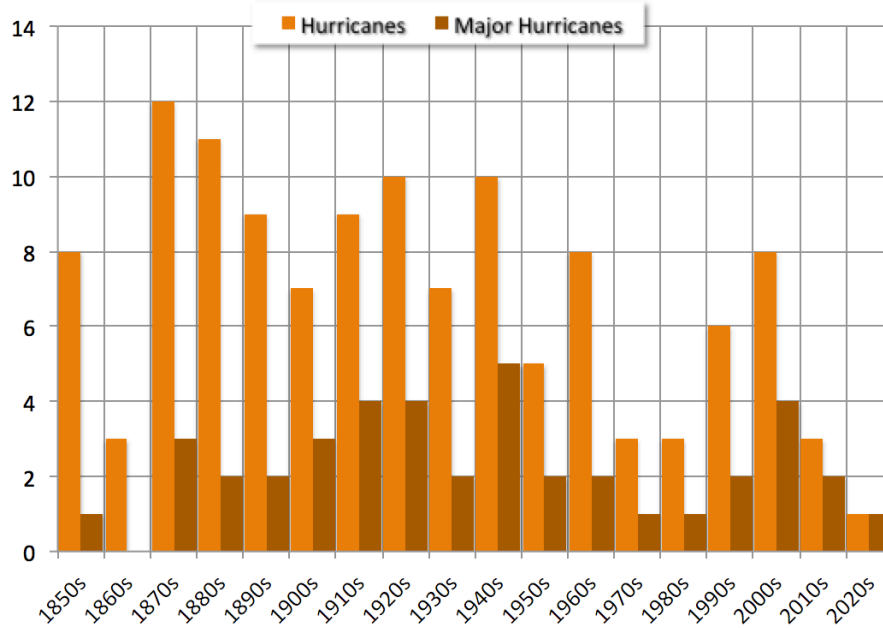


Hurricane Ian and Trends

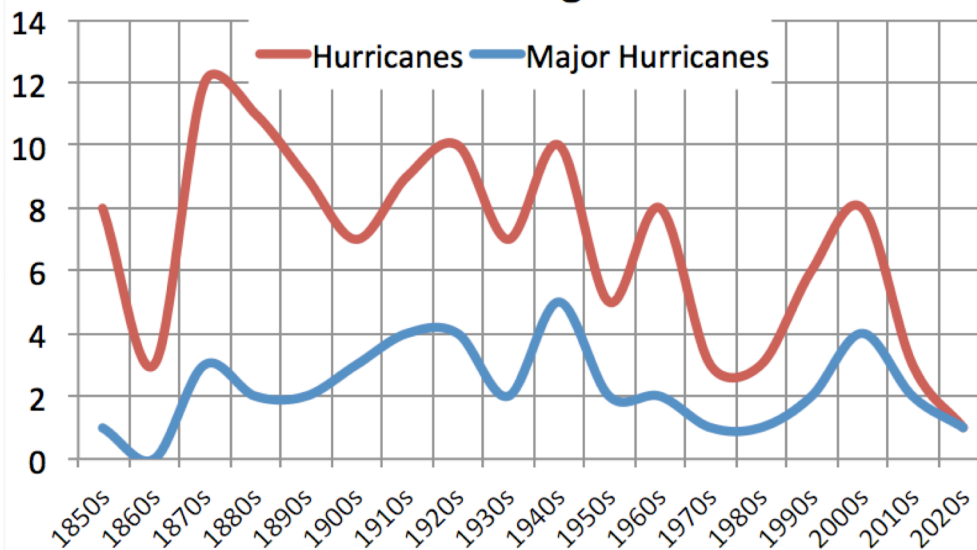
Ian made landfall as a strong CAT4 storm. The damage will rank among the largest storms. Its' life is not over as it will landfall again in South Carolina with rain the biggest story to come.

See the trends per decade of landfalling Florida hurricanes and major hurricanes since 1850.

Florida Landfalling Hurricanes



Florida Landfalling Hurricanes



Hurricane Ian and Trends

Here is a listing of the Major Hurricane landfalls in Florida.

Florida major hurricanes					
Storm	Saffir-Simpson Category	Date of landfall	Year	Landfall Intensity (in knots)	Landfall Location
<i>Great Middle Florida</i>	3	August 23	1851	100	Panama City
Unnamed	3	August 17	1871	100	Jupiter Island
Unnamed	3	October 7	1873	100	Captiva Island
Unnamed	3	October 3	1877	100	Panama City
Unnamed	3	September 10	1882	110	Navarre
Unnamed	3	August 16	1888	110	Miami Beach
Unnamed	3	October 9	1894	105	Panama City
Unnamed	3	September 29	1896	110	Cedar Key
Unnamed	3	October 18	1906	105	Marathon
Unnamed	3	October 11	1909	100	Marathon
Unnamed	3	September 29	1917	100	Fort Walton Beach
Unnamed	4	September 10	1919	130	Dry Tortugas
<i>Great Miami</i>	4	September 18-20	1926	125	Palmetto Bay
<i>Okeechobee</i>	4	September 17	1928	125	Palm Beach
Unnamed	3	September 4	1933	110	Jupiter
<i>Labor Day</i>	5	September 3	1935	160	Craig Key
Unnamed	3	October 18	1944	105	Dry Tortugas
Unnamed	4	September 15	1945	115	North Key Largo
Unnamed	4	September 17	1947	115	Fort Lauderdale
Unnamed	4	September 21-22	1948	115	Near Chokoloskee
Unnamed	4	August 26	1949	115	Lake Worth
<i>Easy</i>	3	September 5	1950	105	Near Cedar Key
<i>King</i>	4	October 18	1950	115	Coconut Grove, Miami
<i>Donna</i>	4	September 10	1960	125	Conch Key
<i>Betsy</i>	3	September 8	1965	100	Tavernier
<i>Alma</i>	4	June 8	1966	125	Dry Tortugas
<i>Eloise</i>	3	September 23	1975	110	Near Destin
<i>Elena</i>	3	September 2	1985	100	Gulfport, Mississippi*

Hurricane Ian and Trends

Florida major hurricanes

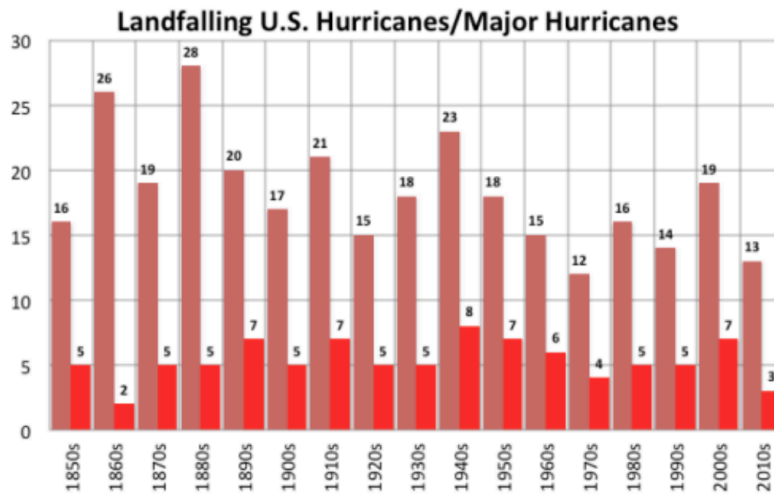
Storm	<u>Saffir-Simpson</u> Category	Date of landfall	Year	Landfall Intensity (in <u>knots</u>)	Landfall Location
<u>Andrew</u>	5	August 24	1992	145	Near <u>Homestead</u>
<u>Opal</u>	3	October 4	1995	100	<u>Pensacola Beach</u>
<u>Charley</u>	4	August 13	2004	130	<u>Cayo Costa</u>
<u>Ivan</u>	3	September 16	2004	105	Near <u>Gulf Shores, Alabama*</u>
<u>Jeanne</u>	3	September 26	2004	105	<u>Hutchinson Island</u>
<u>Dennis</u>	3	July 10	2005	105	<u>Santa Rosa Island</u>
<u>Wilma</u>	3	October 24	2005	105	<u>Cape Romano</u>
<u>Irma</u>	4	September 10	2017	115	<u>Cudjoe Key</u>
<u>Michael</u>	5	October 10	2018	140	<u>Panama City, Mexico Beach</u>
<u>Ian</u>	4	September 28	2022	130	<u>Cayo Costa</u>

Dr. Neil Frank, longest serving Hurricane Center Director advises:

“Without question the most reliable indicator of a trend in hurricane activity in the Atlantic is to focus on land falling major hurricanes (3-5) in the mainline U.S. I doubt if a major hurricane could have hit the U.S. in the 1800s without being noticed, while a minor hurricane in a remote area could have been undetected so it is important to concentrate on major hurricanes. It is important to emphasize that the rainfall in a tropical system is not related to the intensity but depends on the forward speed of motion. In the case of Harvey, the weakening hurricane stalled over southeast Texas for three days. Finally, as you know the most active hurricane season in the U.S. was 1886 when 7 hurricanes hit the Gulf coast. One of the major hurricanes in Texas destroyed Indianola on the south shore of Matagorda Bay. At one time there were around 20,000 people in the city before a prior major hurricane in 1875 did major damage. The only thing in Indianola today is a cemetery with numerous headstones with dates 1875 or 1886 “

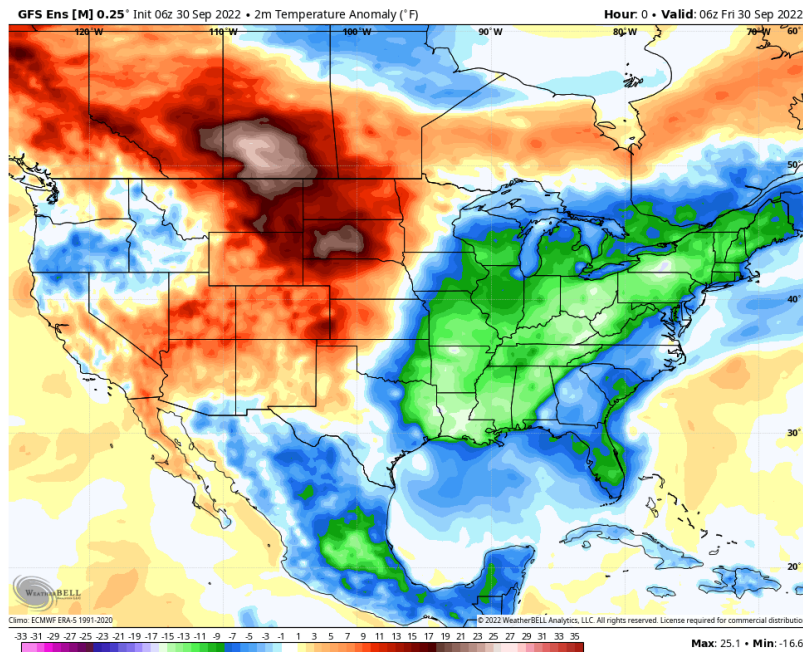
The US trend like Florida is down.

Hurricane Ian and Trends

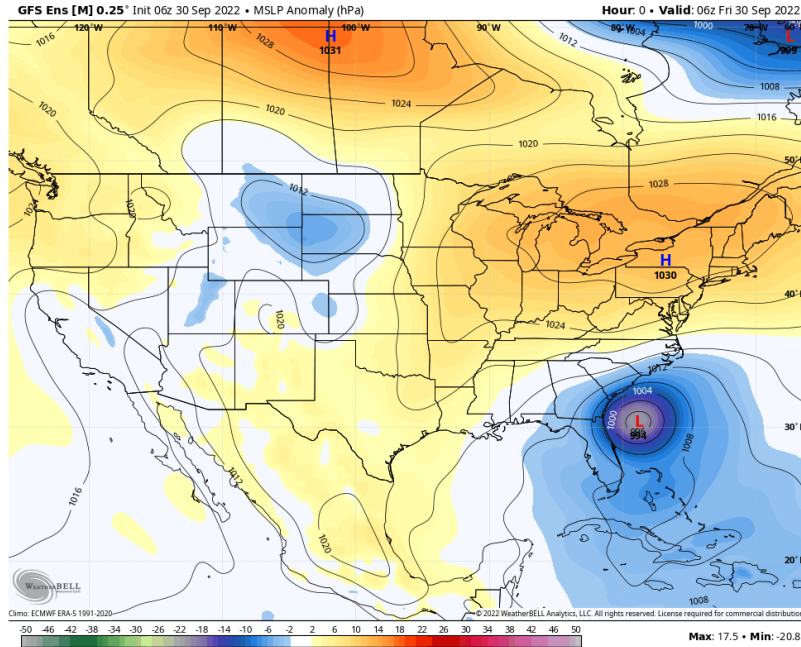


Source: AOML

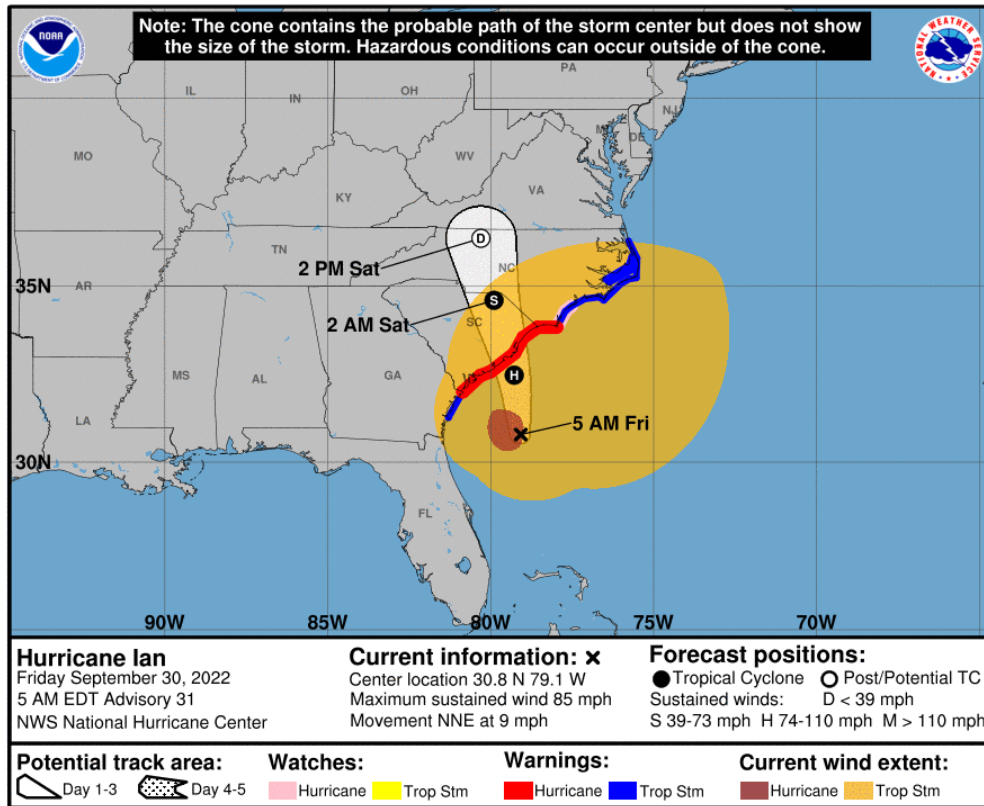
Ian encountered a 'cool' upper trough and large, chilly surface highs to the north, which deflected it northeast through Florida before feeding off the Gulf Stream to become a hurricane again and resuming its journey poleward.



Hurricane Ian and Trends



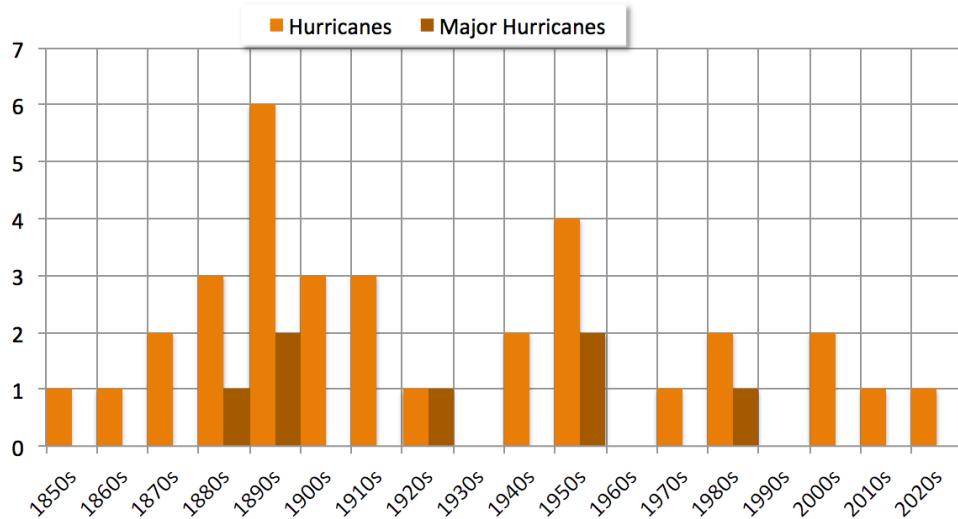
See Ian's track for landfall #2.



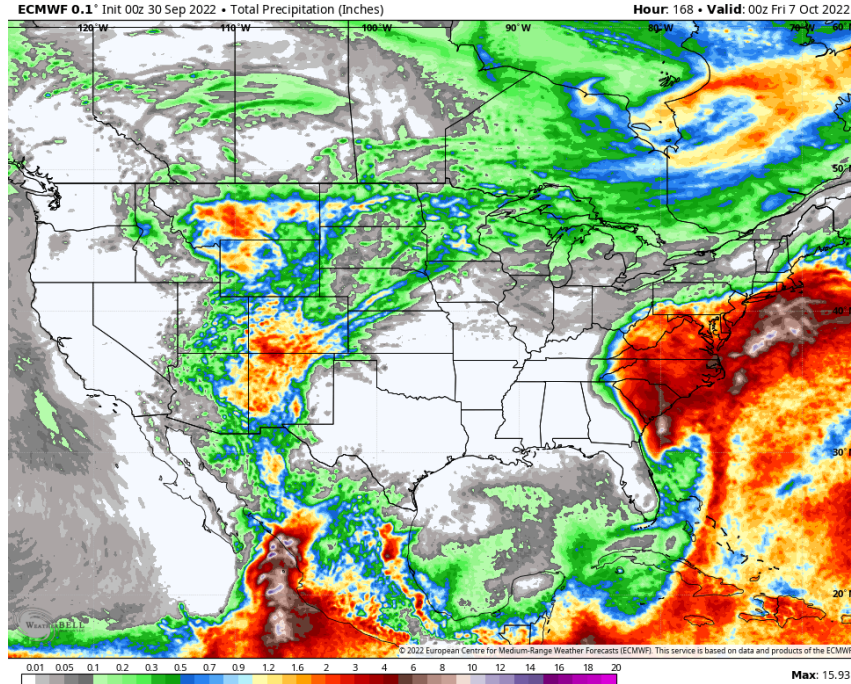
Hurricane Ian and Trends

I have added a landfall to South Carolina chart as probably a CAT 1. The trend too here is down. The 1890s was the big decade. The most recent landfalling major was Hugo, a CAT4 in 1989.

South Carolina Landfalling Hurricanes

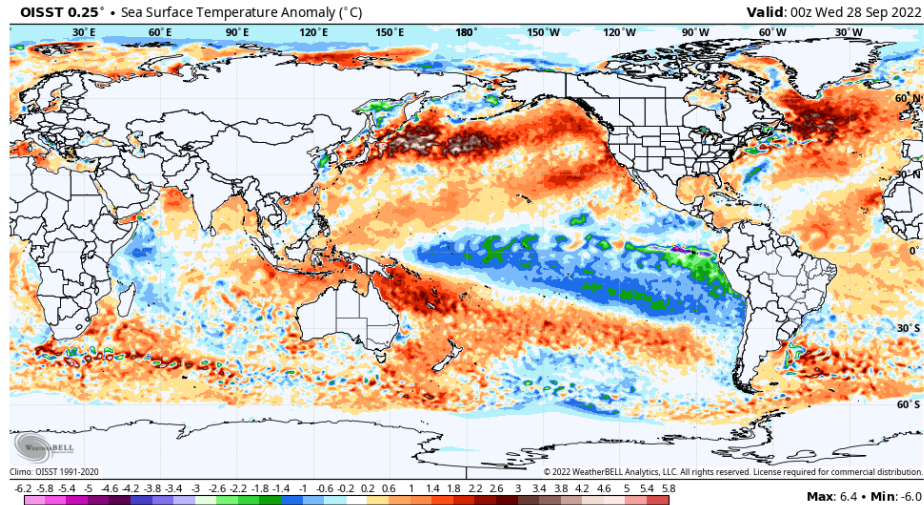


See the heavy rains coming inland again the next several days.



See the latest Sea Surface Temperature anomaly chart. The La Nina cold water shows in the Pacific and warm pools in the northwest Pacific and northwest Atlantic.

Hurricane Ian and Trends



These are due to a lack of early to mid-season hurricanes in these areas (until one developed and tracked to the Bering Sea and Alaska). Hurricanes usually track these areas in the late summer and fall. The tropics heat up with the intense high in the sky sun in the summer. Currents carry some of that heat north but this is slow and nature created hurricanes to speed the process. If these warm pools persist they can affect the winter patterns. More on that to follow,