

NEXT

This map shows the seasonal intensity of hurricanes, typhoons, and tropical cyclones—all three names refer to the same phenomenon—since 1851 as recorded in NOAA's public archives. Storms in the Atlantic have been recorded for a much longer period, and therefore appear denser. Only in recent decades has activity in the more tumultuous Pacific been reliably monitored.

Hurricane detection over time
by Saffir-Simpson scale

- Category 5
- Category 4
- Category 3
- Category 2
- Category 1



Stormy History Determining climate change's effects on hurricanes is a messy business. Globally, hurricane frequency doesn't seem to be increasing, but the proportion of strongest storms is, according to senior research scientist Greg Holland of the National Center for Atmospheric Research. The North Atlantic region has seen increases in hurricane frequency and intensity since the 1970s, says atmospheric scientist Jim Kossin of the National Climatic Data Center. Human influences on climate are difficult to detect in historical data sets of hurricane activity due to natural variability and incomplete records. Before airplanes and satellites, people conveyed information about hurricanes using two-way radios, firsthand accounts, and the telegraph. —Jane J. Lee

This chart shows summaries of historical hurricane seasons, adding up recorded length in days of each storm and where storms rate on the Saffir-Simpson scale throughout their lifetimes, for a sense of overall activity.



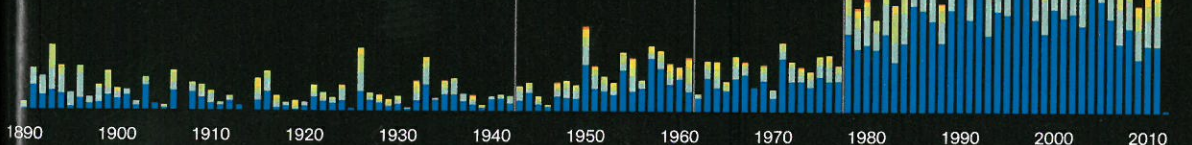
IMPROVEMENTS IN DETECTION

Historical best guesses, based on physical and archival evidence

Increased oceanic air travel and overt aerial hurricane hunting

Emergence of polar satellite tracking to identify storm locations

Storm detection and tracking increase dramatically with emergence of geostationary satellites



JOHN NELSON, IDV SOLUTIONS. SOURCE: NOAA INTERNATIONAL BEST TRACK ARCHIVE FOR CLIMATE STEWARDSHIP