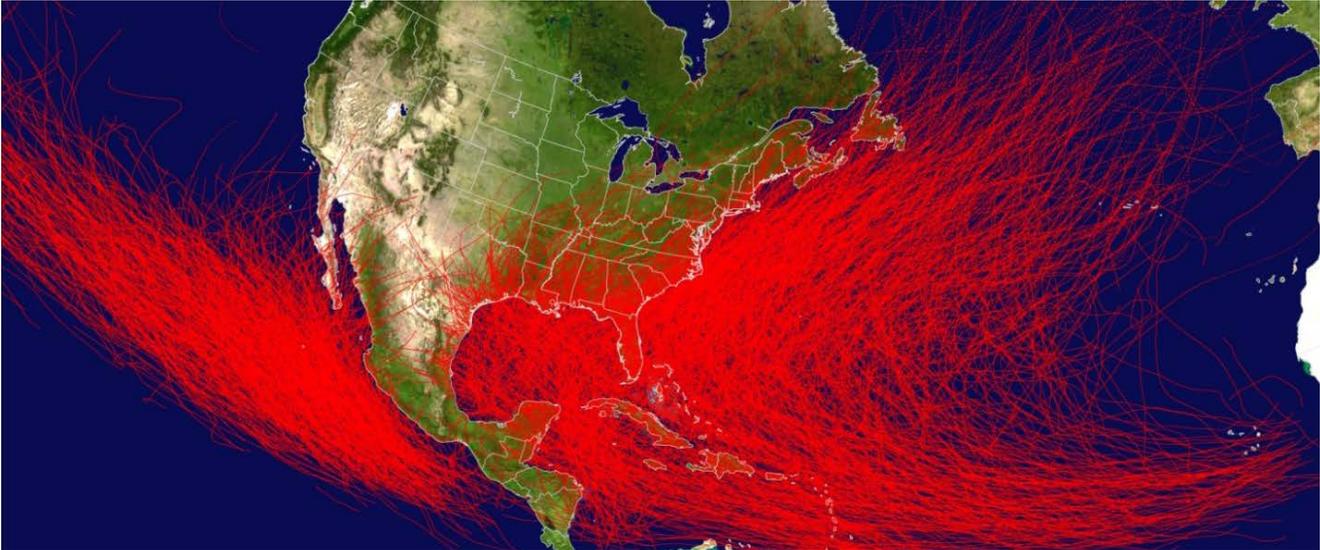




The U.S. National Hurricane Center (NHC)

NHC's Mission: *To save lives, mitigate property loss, and improve economic efficiency by issuing the best watches, warnings, forecasts and analyses of hazardous tropical weather, and by increasing understanding of these hazards through global outreach.*

NHC's Vision: *To be America's calm, clear and trusted voice in the eye of the storm, and, with our partners, enable communities to be safe from tropical weather threats.*



Historical tracks of hurricanes, tropical storms and tropical depressions across NHC's area of responsibility

What NHC does: NHC maintains a continuous watch, and issues analyses, forecasts and warnings of weather and ocean conditions over the area shown above. It produces information in several formats for U.S. interests and, by international agreement, guidance for more than two dozen coastal countries in that area and the global marine community in those waters. It communicates its products through multiple methods, including the media. NHC conducts an extensive outreach and education program.

NHC resources: NHC has 46 employees including 10 hurricane specialists, 17 marine forecasters, a talented technical and administrative staff, and several on-site partners including the Federal Emergency Management Agency (FEMA) and DOD.



NHC director Dr. Rick Knabb provides an interview.

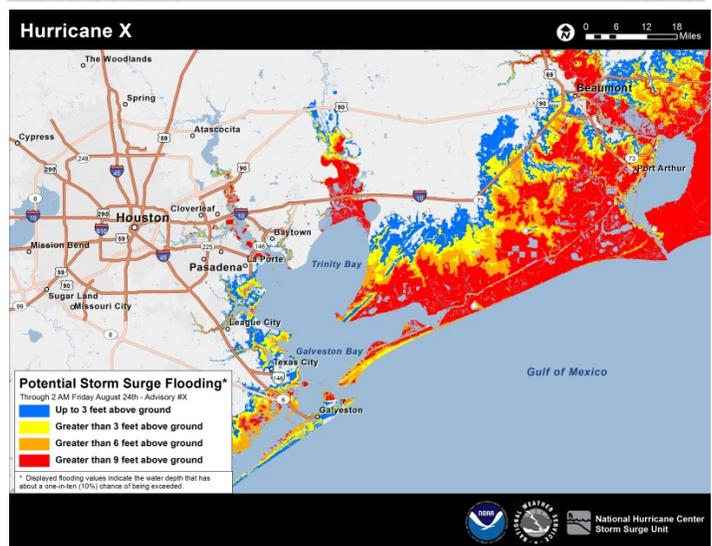
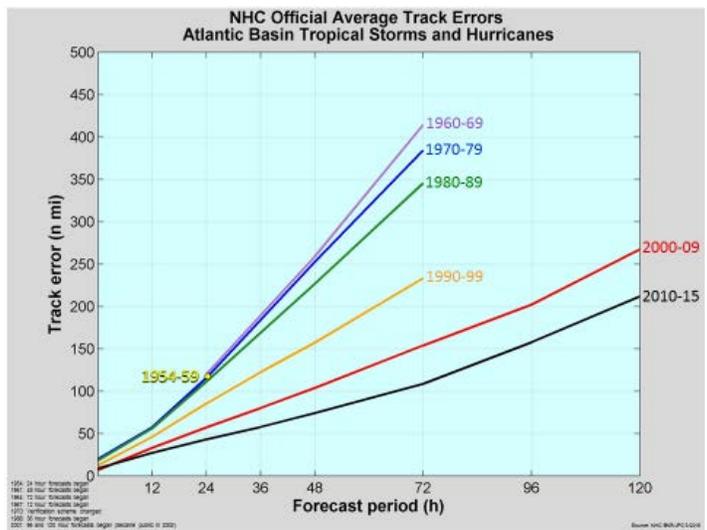
NHC's key successes in recent years: Built collaborations with emergency managers, the media, and the research community that reduced by two-thirds to 90% the U.S. hurricane-related deaths since NHC became established in the 1950s (source: Willoughby et al., 2007)

- Expanded its forecasts and warnings to include dangerous storms both before and after the tropical cyclone stage of development
- Extended forecasts from 3 to 5 days, watches to 2 days and warnings to 36 hours
- Extended tropical cyclone formation forecasts from 2 days to 5 days
- Reduced track (storm location) forecast errors by 50% over about 15 years (see graph)
- Trained more than 1,500 emergency managers during the past 25 years in week-long hurricane workshops at the NHC, co-hosted by the FEMA

- Introduced wind and storm surge probability products, and gridded marine data to quantify risk at everyone's location
- Enhanced web site that receives billions of hits for some storms
- Quantified the causes for U.S. loss of life in tropical cyclones

NHC's five key challenges:

- Storm surge remains the nation's greatest threat for a large loss of life from a single-day natural disaster. In 2014 NHC began disseminating a **Potential Storm Surge Flooding Map** (see example, lower right) and, in 2017, expects to issue "**Storm Surge Warnings**" to reduce the number of storm surge fatalities in this country.
- Making accurate forecasts of hurricane intensity. Only in the past few years has there been progress, largely attributable to NOAA's **Hurricane Forecast Improvement Project (HFIP)**. Unfortunately, the HFIP budget was cut by more than half in 2015.
- Hurricane damage continues increasing as coastal population and infrastructure grow. NHC recommends **mitigation** by knowing your evacuation zone, having a personal hurricane plan, obtaining supplies and insurance, and making home improvements. Additional efforts are needed to educate the public about storm preparations, including evacuation from storm surge.
- Improvements in forecasts depend on how fast research can be made useful to forecasters. The NHC works closely with the United States Weather Research Program's **Joint Hurricane Testbed** to expedite the transfer of research results into NHC forecast operations. The testbed's budget has been cut in half.
- Acquiring and retaining information technology (**IT**) staff and the infrastructure needed to develop new operational products, including Geographic Information Systems (GIS) data services for such partners as emergency managers.



For more information about the NHC:

- Web page: www.nhc.noaa.gov or www.hurricanes.gov
- Public Affairs office: nhc.public.affairs@noaa.gov, 305-229-4404
- Main telephone number: 305-229-4470
- Be our Facebook friend: <http://www.facebook.com/nwsnhc>
- Follow us on Twitter: <http://www.nhc.noaa.gov/twitter.php>
- NHC blog "Inside the Eye": <https://noanhc.wordpress.com/>

NHC is a National Center for Environmental Prediction, within the Commerce Department's National Oceanic and Atmospheric Administration, National Weather Service.