

We all remember the Hurricane Rita evacuation in 2005, but the Hurricane Rita scenario is not even close to the worst-case scenario since there was sufficient time to get those trapped on the freeways to areas of safety.

Tonight, I will contrast two major hurricanes that affected the Upper Texas Coast in the 1980's: Hurricane Allen in 1980, which caused massive evacuations on the scale of Hurricane Rita and with comparable warning lead times, and Hurricane Alicia in 1983, which came close to the worst-case scenario since there was an inadequate time for evacuations due to the rapid intensification of the system..

Hurricane Allen was a "classic" Cape Verde system that developed in the Western Atlantic on the 2nd of August and rapidly intensified to a major hurricane. By the 8th, Allen was a Category 5 hurricane on the Saffir-Simpson Hurricane Scale and was threatening the Upper Texas Coast. The Upper Texas Coast was under a Hurricane Watch at 5 AM on the 8th and was under a Hurricane Warning at 11 AM the same day. The City of Galveston closed off routes of entry into the city for all non-residents two days earlier and recommended an evacuation on the 8th -- there were no provisions for mandatory evacuations until 2005. Since there were shortcomings in the coordination of the evacuations of not only Galveston, but also Texas City, Dickinson, League City, Hitchcock, La Marque, and others, the Gulf Freeway was effectively turned into a parking lot from the Seawall to Huntsville. This is a span of 100 miles. Fortunately Allen turned away from the Upper Texas Coast, stalled, and weakened. Allen made landfall as a Category 2 hurricane on the Lower Texas Coast. The remnants did cause a tornado outbreak in the Texas Hill Country which caused damage in the state capitol of Austin. The effects on the Upper Texas Coast were limited to torrential rains from one of the feeder bands and gale-force winds.

Hurricane Alicia formed from a cluster of thunderstorms which caused flooding in the Houston area in August 1983 and formed into a Tropical Storm on August 15th south of the Mississippi Delta. Alicia then drifted to the West at about 5 MPH. On the morning of the 17th, Hurricane Alicia stalled and rapidly intensified from 75 MPH maximum sustained winds to 115 MPH maximum sustained winds. Alicia made landfall at San Luis Pass (the western tip of Galveston Island) at 2 AM on the 18th and was still intensifying at landfall. Alicia then went over the Houston NWS office (in Alvin at the time) and the eastern eyewall (the most intense segment of the eyewall) passed directly over downtown Houston. Over \$2 Billion worth of damage was caused by Alicia and downtown Houston was an extremely dangerous place due to the flying glass from the downtown skyscrapers. Alicia also caused a 9 foot surge on Galveston Island and a 12 foot surge at Kemah/Seabrook. Evacuations were limited due to the fast development of the system -- only 10% of Galvestonians evacuated before Alicia. This is in contrast to the 30% that evacuated before Allen three years earlier. Also, predictions indicated a landfall near the Matagorda County fishing town of Palacios which caused people including the media and local emergency management to relax their guards before landfall. The name "Alicia" was subsequently retired and replaced by "Allison".

These two hurricanes show a contrast in the time frame that local emergency management officials had to plan their responses, including evacuations. Allen gave Federal, State, and local authorities a time span of four days to plan and execute their responses since Allen started in the Atlantic, traversed the Caribbean, and entered the Gulf of Mexico. Alicia developed so quickly that the Alicia was not even a named system when the full evacuation plan of all the vulnerable areas of the Houston/Galveston area needed to have been started.

The point is to be always ready for a hurricane emergency since a fast spinner such as Camille, Alicia, Bret, Charley, or Wilma could occur tomorrow and leave us little lead time to prepare and respond.