

ADCIRC and WAM/STWAVE Modeling:

The ADCIRC computer model of tide and storm surge for the entire eastern Atlantic Ocean and the entire Gulf of Mexico is coupled with WAM/STWAVE computer model of wind waves for the entire Gulf of Mexico. We have Ultra-high resolution in the Southeastern Louisiana/Mississippi Region. Minimum model resolution is 60 m (200 ft). ADCIRC model spun up for 28 days, tide only; then six-day storm surge simulation is made on the tail end. The six-day storm surge simulation takes 73 minutes on our newest supercomputer, using 256 processors. The hurricane surface wind fields used to force the models are built using results of computer simulations of winds that are blended with measured data from satellite, ground radar, sensors mounted on "Hurricane Hunter" aircraft, and sensors dropped from the aircraft that record and transmit measurements while they descended through Hurricane Katrina.