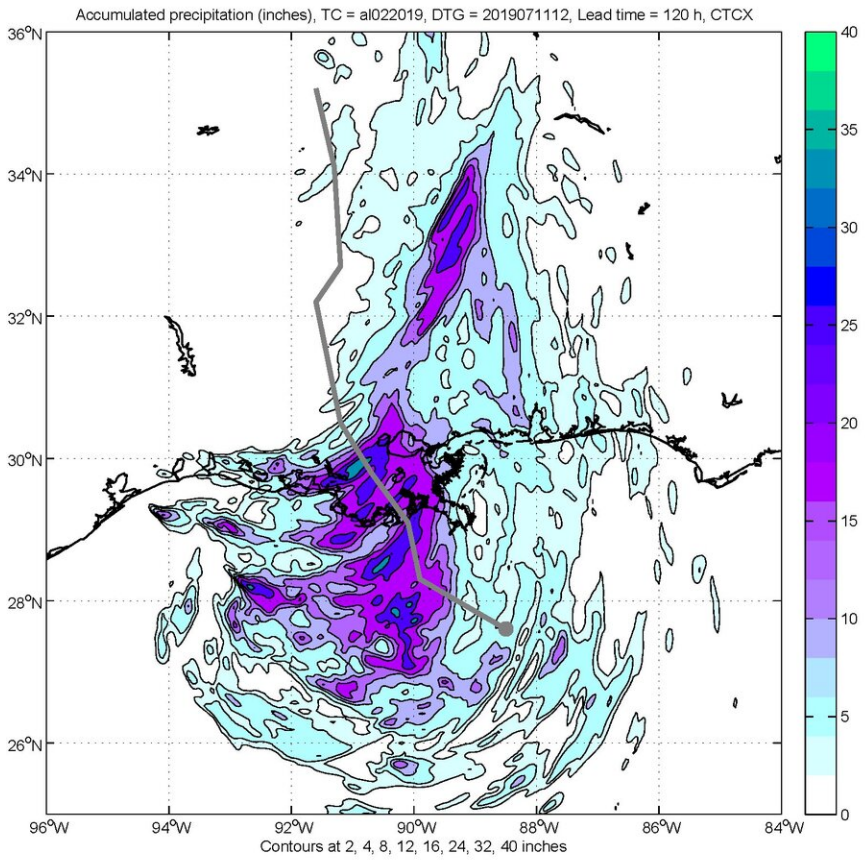
NRL tropical cyclone forecast updates go live

July 12 2019



COAMPS-TC predicts heavy rain around where Barry makes landfall, with a sizeable region predicted to receive over 15 inches of rain and potentially over 30 inches in certain locations therein. Credit: US Naval Research Laboratory

U.S. Naval Research Laboratory's updated tropical cyclone prediction

software becomes operational just before the first tropical system of the season to reach the U.S. makes landfall July 13.

The updated prediction model, one of a handful used by the National Hurricane Center, features updates to improve the accuracy of tropical cyclone intensity, track, and structure forecasts.

"Many people are unaware that the Navy is a contributor to the suite of models utilized by the National Hurricane Center," said NRL Meteorologist, Jonathan R. Moskaitis. "We are working to predict tropical cyclones and contributing to the official forecasts released to and depended on by the public."

The model, formally known as the Coupled Ocean-Atmosphere Mesoscale Prediction System-Tropical Cyclone (COAMPS-TC), is the Navy high-resolution regional operational prediction system dedicated to the prediction of tropical cyclones. Tropical cyclones are a generic term that includes hurricanes and typhoons. They are an organized system of clouds and thunderstorms that originates over tropical or subtropical waters. These weather events have many potential impacts, including damaging winds, coastal inundation, flooding rain, and large waves at sea.

Tracking these systems is of great interest to the Navy. Sailors and their families, civilians and contractors, and numerous Naval assets remain deployed world-wide, and rely on accurate weather prediction to stay out of harms way. The Fleet Numerical Meteorology and Oceanography Center (FNMOC) uses COAMPS-TC as one of several tools to provide the highest quality, most relevant and timely worldwide meteorology and oceanography support to U.S. and coalition forces.

View model data at https://www.nrlmry.navy.mil/coamps-web/web/tc