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Willis Research Network
Hurricane Commentary

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Tropical Storm Sally

Executive Summary

Sally is a serious threat for the Central North Gulf Coast. Damaging winds are expected in southeastern Louisiana and coastal Mississippi, and surge and flash flood impacts are expected anywhere from southeastern Louisiana to the Florida Panhandle. Sally is expected to organize into a robust hurricane overnight tonight and continue to strengthen up until landfall. Interests along the Central North Gulf coast should monitor forecasts today and tomorrow as the impact locations come into focus.

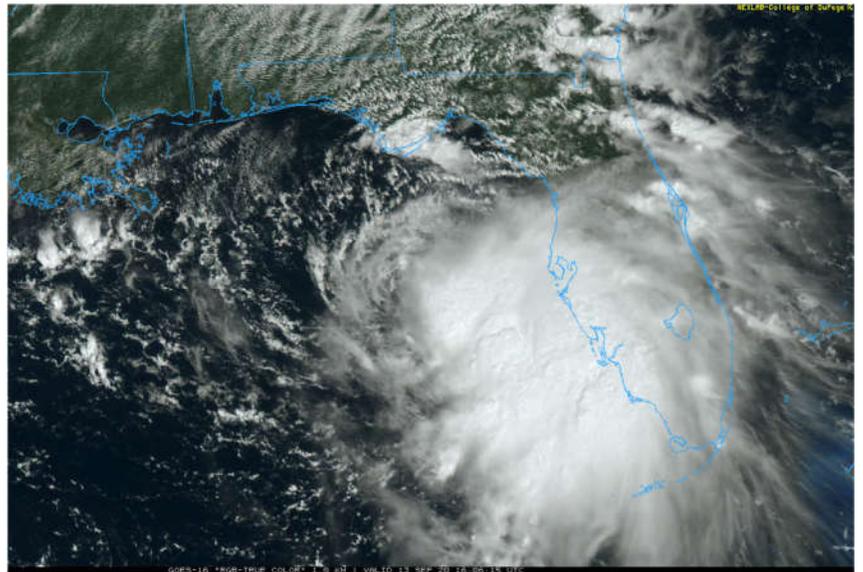


Figure 1: Sally enters the eastern Gulf of Mexico. Image time is 12.13pm EDT Sept 13, 2020 (College of DuPage).

Forecast Summary

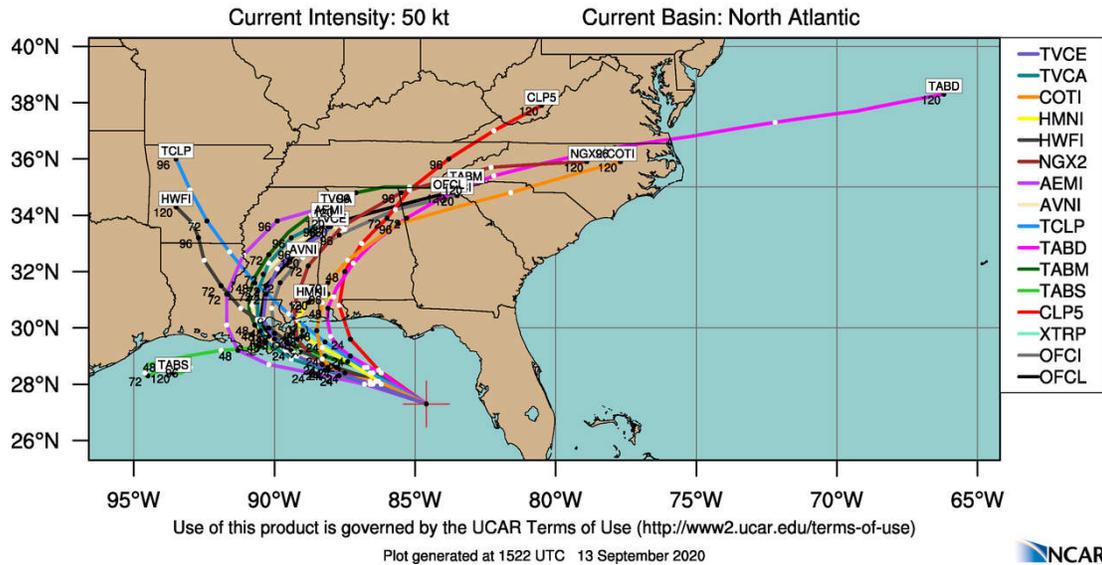
On cue, the North Atlantic lit up with tropical cyclone activity as we move through the peak of the hurricane season. The National Hurricane Center is currently monitoring seven tropical systems at various stages of development. Two are expected to impact land in the next couple of days. Hurricane Paulette is expected to make landfall on Bermuda - or at least make a close pass – late today or early Monday as a hurricane at category 1 or category 2 strength. Our attention in this commentary focuses on Tropical Storm Sally.

Sally emerged yesterday as a tropical storm over the Florida Keys and Southwest Florida. Sally appears a little disorganized with most of its thunderstorms displaced to the east of the surface circulation (Figure 1). This tilted structure results from moderate winds in Sally's environment that are pushing the thunderstorms off to one side. These environmental winds are expected to die away throughout the day today, allowing Sally to become more vertically aligned. Only at this time will Sally begin to strengthen. Forecast models disagree on when this alignment will take place and this means that forecasts of intensity at landfall are fairly uncertain (Figure 2). But the warm waters of the eastern Gulf of Mexico are more than sufficient to support a robust hurricane. And these Gulf waters are warmer than normal. The National Hurricane Center calls for category 1 intensity at landfall. The outer winds are expected to reach the Gulf Coast early on Monday with hurricane force winds arriving into southeastern Louisiana and Mississippi late on Monday.

Perhaps more impactful than the wind threat is the water threat. Sally is expected to slow down substantially at the time of landfall and crawl ashore over many hours. This slowdown will significantly raise rainfall totals with 15 inches or more expected from southeastern Louisiana to the far western Florida Panhandle. Flash flooding is expected to be widespread. Sally also brings a surge threat along a large stretch of the Gulf coast from Louisiana to the Florida Panhandle. Dangerous surge is expected to peak around 10 feet in eastern Louisiana.

TROPICAL STORM SALLY (AL19)

Early-cycle track guidance initialized at 1200 UTC, 13 September 2020



TROPICAL STORM SALLY (AL19)

Early-cycle intensity guidance

initialized at 1200 UTC, 13 September 2020

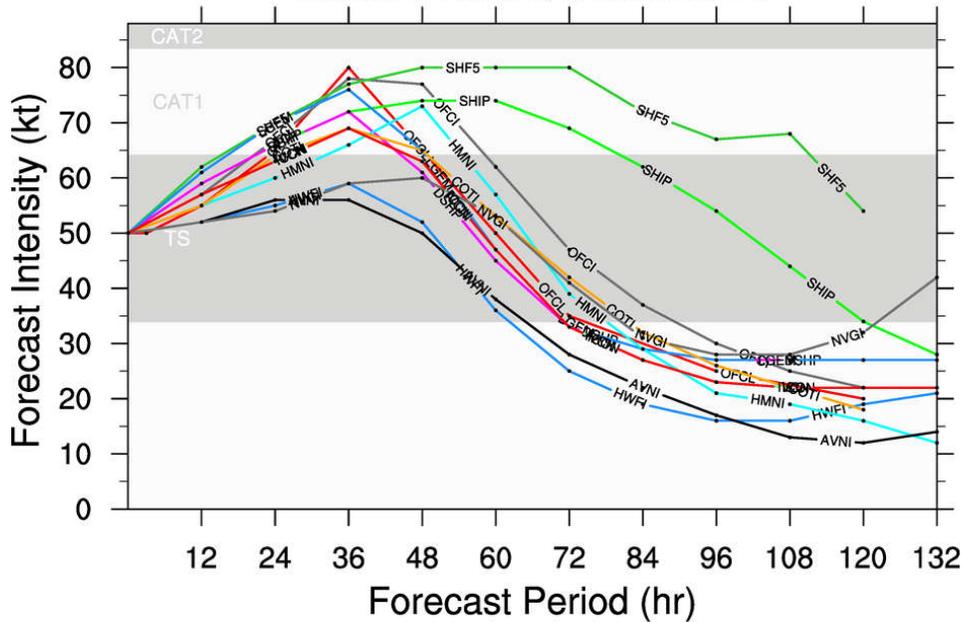


Figure 2: The latest model forecast tracks and intensity for Tropical Storm Sally from 11:22am EDT 13 Sept, 2020. Source: NCAR/TCGP.

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