



SITUATIONAL AWARENESS

SUBJECT: Tropical Threat this Week
 SITREP #: **2024-9.2**
 ISSUED: Tuesday, September 24, 2024 at 1300

OVERVIEW

Tropical Storm Helene is forecast to become a major hurricane as it approaches the northeastern Florida Panhandle and Big Bend. Landfall is expected to occur sometime between Thursday evening and early Friday morning, but due to the large size of Helene, impacts will begin to be felt in the metro area sometime Thursday afternoon. As of the current forecast, Friday morning looks to be the period with the highest hazard threat. Tropical Storm Helene is moving at a fast pace and will exit the region by Friday afternoon.

Current forecast guidance remains in fairly good agreement on landfall location. Intensity forecasts are more varied, as well as where the center of Helene tracks post-landfall. The latter two unknowns will determine the magnitude of our impacts in metro Atlanta. If the center of Helene stays to the east of the city, we can expect less intense winds, lower tornado threat, and possibly less rainfall totals. If the center tracks closer to or over Atlanta, we can expect to experience higher wind gusts, an increased chance of tornadoes, and greater rainfall amounts. Either way, Helene's size and quick forward speed mean that the storm's impacts will spread far from its center and remain stronger farther inland.



Figure 1: 5-Day Tropical Storm Helene Forecast Cone



IMPACTS

Rainfall

An unrelated cold front will push through the area Wednesday night bringing widespread rain and embedded thunderstorms. This rainfall could be heavy at times. This event will be prior to the impacts from Helene. Current forecast rain totals for Atlanta from Wednesday night through Friday morning are 4-6 inches with localized areas receiving up to 8 inches. Much of the forecast area is outlined in a Moderate Risk (Level 3 or 4) for excessive rainfall. While campus generally handles excessive rainfall well, the rest of the metro area does not. Flash flooding may become an issue Thursday night into Friday morning.

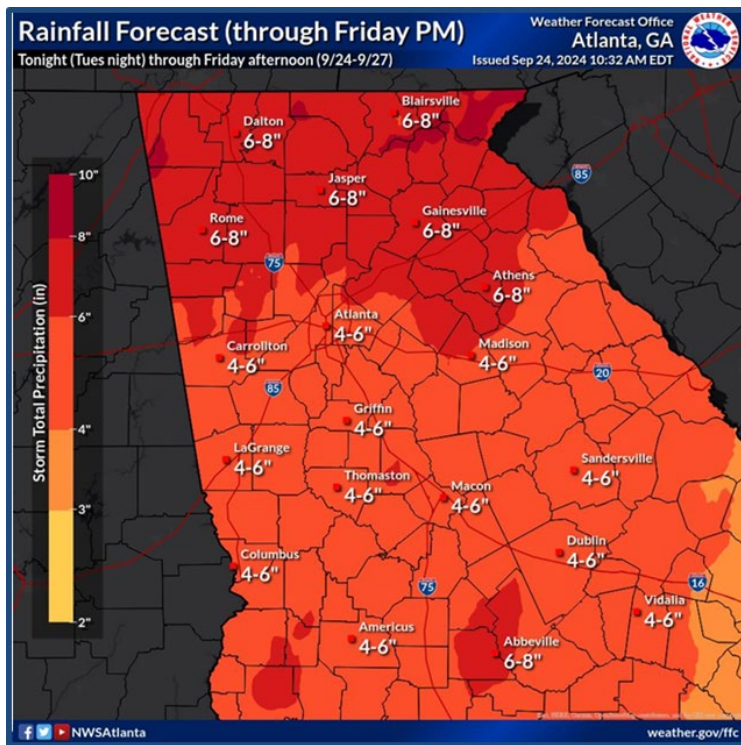


Figure 2: Projected Rainfall Totals through Friday Night

Damaging Winds

Conditions will become increasingly breezy over the course of the day on Thursday. As the system tracks farther inland overnight Thursday and into Friday morning, winds will become strong across the whole region. Current forecasts have sustained winds in the 25-35mph range, along with elevated gusts. Again, these forecasted wind speeds will increase or decrease depending on the track of the center of Helene (if the center passes over or very near Atlanta, you can expect these wind speeds to increase). High winds and saturated soils may lead to downed trees and powerlines across the region. More detailed wind gust forecasts will be available tomorrow.

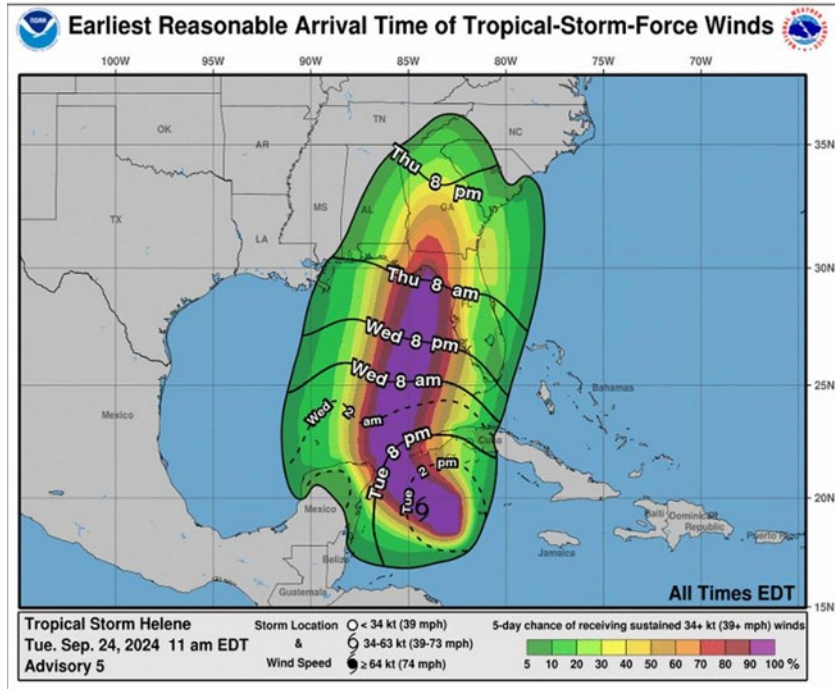


Figure 3: Earliest Reasonable Arrival Time of Tropical Storm Force Winds (Atlanta=20% of seeing tropical storm force winds)

Isolated Tornadoes

The tornado threat is conditional on the track of the storm. The tornado threat is highest on the northeasterly side of a tropical storm; therefore, if the center of the storm tracks to the east of Atlanta, the tornado threat will be very low. If Helene tracks closer to or over Atlanta, our tornado threat will increase. Tornadoes associated with tropical systems typically develop and dissipate quickly and are generally weak. This can make it hard for forecasters to warn these tornadoes. A clearer picture on tornado threat will develop as we get closer to landfall.

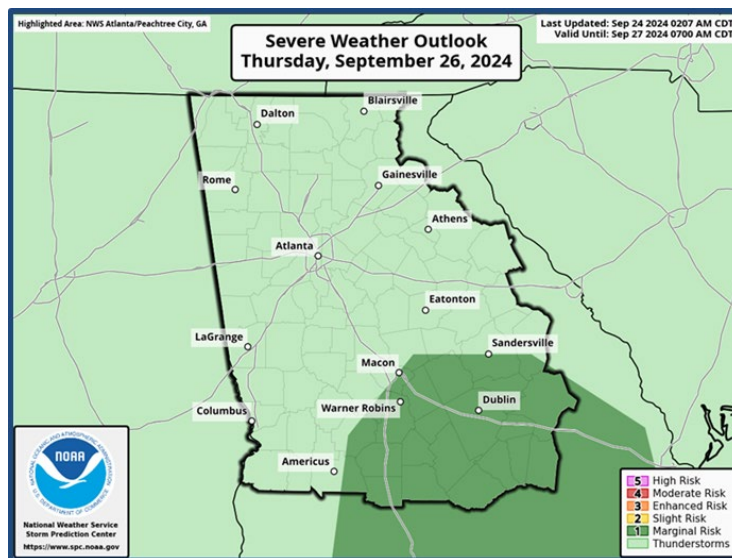


Figure 4: Severe Weather (Tornado) Outlook for Thursday, 9/26 (Level 1 of 5).



PRIMARY HAZARDS

- Heavy Rainfall
- Damaging Winds
- Isolated Tornadoes

NEXT STEPS

- The Georgia Tech Police Department Office of Emergency Management will continue to monitor the situation and provide updates as necessary.
- The National Weather Service is holding daily Special Weather Briefings on Helene at 12:30pm. Situational Awareness communications will be disseminated following those briefings unless earlier communications are warranted.
- Follow the GT Office of Emergency Management on twitter @gtpdalerts.
- For the latest forecast information, please visit the [National Weather Service](#) and [National Hurricane Center](#).