



Piedmont Triad AmRRON ExSum Hurricane Florence (Update 10)

Key Judgments:

Florence has weakened to a tropical depression, however, it is still doing damage and claiming lives across the Carolinas.

The number of deaths being reported across the Carolinas as a result of Florence is over 20 individuals.

Flooding, tornadoes, and wind damage continue. Rivers are still rising and multiple dams are being monitored closely with at least one being projected to fail according to NOAA.

A large portion of Interstate 95 through NC is still closed. Wilmington has been cut off from the rest of the state and officials are making plans to airlift supplies into the town. The Brunswick power plant has shut down both reactors due to employees not being able to access nor leave the plant.

Power outages across North Carolina and South Carolina as of 2145Z are 393,979 and 13,540 respectively. Power restoration for the affected areas may take 2-3 weeks in some locations.

AmRRON has returned to AmCON Level 5 at the nationwide organizational level. AmRRON support operations will continue on a regional level as needed, with coordination taking place on the Z-Net 'AmRRON Eastern Division' channel. We will continue to conduct 40/80 meter nets on both voice and digital according to the SOI time schedule for the next 24 hours, and persistent beaconing nets at 7.110 and 3.588.



Introduction:

Florence weakened to a tropical depression storm Sunday morning and spent much of the day pounding central and western North Carolina with significant rain. Many areas reported downed trees, flooding and numerous road closures.

Forecasters say Florence is still expected to produce excessive rainfall as it turns from the Carolinas over the Mid-Atlantic and southern New England early this week.

Substantiation:

2018-09-17-2045Z – wxii12.com: River flooding risk continues in the Piedmont Triad as Florence lingers away from the Carolinas

<https://www.wxii12.com/article/tropical-depression-florence-north-south-carolina/22998590>

Major river flooding is the concern heading into Monday for portions of North Carolina, including the Triad, as remnants of Florence continue to move northward. Florence's heavy rainfall is forecast to continue, potentially causing catastrophic inland flooding. A flash flood warning was issued Sunday evening for much of the Triad, including Forsyth, Guilford, Davidson, Randolph, Alamance, Montgomery, Surry, Wilkes and Alleghany counties.

Twenty-three people have died as a result of the storm, which came ashore on Friday as a hurricane, 17 of which occurred in North Carolina. Six victims died in South Carolina.



2018-09-17-2100Z – weather.com: More Evacuations as Rivers Reach Major Flood Stages; Death Toll Rises

<https://weather.com/storms/hurricane/news/2018-09-17-florence-flooding-north-south-carolina>

- Workers Stranded: Flooding surrounded Duke Energy's Brunswick nuclear plant on Monday, cutting it off from the outside world, the News and Observer reported.
- Missing child found dead: Union County officials said they recovered the body of 1-year-old Kaiden Lee-Welch Monday morning, who had been missing since he was swept away by floodwaters a day earlier.
- Train derails: A CSX train derailment in Lilesville may have been caused after flooding washed out the tracks.
- Wilmington cut off: Wilmington, the state's eighth-largest city, is cut off from the rest of North Carolina by still-rising floodwaters from Florence, officials plan to airlift food and water to a city of nearly 120,000 people as rescuers elsewhere pull inland residents from homes threatened by swollen rivers.
- Charlotte flooding: In and around Charlotte, people trapped in their homes have prompted numerous multiple water rescues, especially on the south side of the city, where 20 roads were closed, according to the National Weather Service.
- I-95 closed: Flooding led to the closure of a huge stretch of Interstate 95 from north of Fayetteville all the way north to U.S. 64 – a span of about 60 miles of the freeway.
- Evacuation center evacuated: Sunday night, two dozen people had to leave an evacuation center in Cheraw, South Carolina, when more than 2 feet of water flooded the building
- River update: The worst for many in SC may still be coming. Rivers including the Little Pee Dee, the Waccamaw, the Great Pee Dee, the Lumber, and the Black are expected to reach or exceed flood levels this week.
- Bridges threatened: Department of Transportation Secretary (SC) Christy Hall has said floodwaters could wash over several bridges in the state.

2018-09-17-1939Z – AP: Rain, floods still in Florence's forecast

<https://apnews.com/713c9557b81c4f81886b3de70b45affe/Toppled-trees,-swift-water,-have-killed-many-during-Florence>

- Storm deaths: Florence is being blamed for at least 20 deaths in the Carolinas
- Heavy rains: Nearly 34 inches (86 centimeters) of rain fell from Thursday through Sunday in Swansboro, on the North Carolina coast, according to the National Weather Service
- In the dark: About 500,000 outages, mostly in North Carolina
- Damage estimates: \$17 billion to \$22 billion in lost economic output and property damage, according to economists at Moody's Analytics
- Evacuations: Tens of thousands ordered out of communities along North Carolina's steadily rising rivers, while over 2.4 million people in southern China's Guangdong province were warned to escape Mangkhut
- To the rescue: Over 1,000 search-and-rescue personnel with 36 helicopters and over 200 boats were working in North Carolina, and the Defense Department assigned 13,500 military personnel to help relief efforts
- Safe now: North Carolina's governor says 2,600 people and 300 animals have been moved to safety as of mid-day Monday
- Blocked: 1,200 North Carolina roads closed, including 357 primary roads
- Grounded: about 200 U.S. flights canceled Monday, down sharply from the 3,500 canceled from Wednesday through Sunday



—Washed out: 2 U.S. government river monitoring gauges stopped transmitting after waters reached 21.5 feet (6.5 meters) and 24.2 feet (7 meters), and more gauges were expected to fail as rivers continued rising

2018-09-17-1559Z – News & Observer: Wilmington inaccessible by land, nuclear plant declared a state of emergency.

<https://www.newsobserver.com/news/local/article218530380.html>

Duke Energy’s Brunswick nuclear plant, about 30 miles south of Wilmington, declared a state of emergency because the 1,200-acre complex is cut off by flood waters and inaccessible to outside personnel, The N&O’s Craig Jarvis reported on Monday. Some plant workers are stranded there, N&O reporter John Murawski reported.

2018-09-15-1545E – NCDOT: Brunswick Nuclear Power Plant Declares Emergency

<https://www.nrc.gov/reading-rm/doc-collections/event-status/event/2018/20180917en.html>

"A hazardous event has resulted in on site conditions sufficient to prohibit the plant staff from accessing the site via personal vehicles due to flooding of local roads by Tropical Storm Florence."

Power Reactor Facility: BRUNSWICK Region: 2 State: NC Unit: [1] [2] [] RX Type: [1] GE-4,[2] GE-4 NRC Notified By: THOMAS SHERRILL HQ OPS Officer: VINCE KLCO Emergency Class: UNUSUAL EVENT 10 CFR Section: 50.72(a) (1) (i) - EMERGENCY DECLARED	Event Number: 53609 Notification Date: 09/15/2018 Notification Time: 15:45 [ET] Event Date: 09/15/2018 Event Time: 00:00 [EDT] Last Update Date: 09/15/2018 Person (Organization): MIKE ERNSTES (R2DO) CATHERINE HANEY (R2) HO NIEH (NRR) WILLIAM GOTT (IRD)
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Unit	SCRAM Code	RX Crit	Initial PWR	Initial RX Mode	Current PWR	Current RX Mode
1	N	N	0	Hot Shutdown	0	Hot Shutdown
2	N	N	0	Hot Shutdown	0	Hot Shutdown

Event Text

UNUSUAL EVENT DUE TO SITE CONDITIONS PREVENTING PLANT ACCESS "A hazardous event has resulted in on site conditions sufficient to prohibit the plant staff from accessing the site via personal vehicles due to flooding of local roads by Tropical Storm Florence." Notified DHS SWO, FEMA OPS, and DHS NICC. Notified FEMA NWC, NuclearSSA, and FEMA NRCC via email.

2018-09-17-1443E – NOAA-NWS-Alerts: The National Weather Service in Wilmington has issued a

- * Flash Flood Warning for... A Dam Break in... Central Robeson County in southeastern North Carolina...
- * Until 845 PM EDT Monday.
- * At 241 PM EDT, county dispatch reported the imminent failure of Country Club Lake Dam by the recreation center.
- * Locations impacted include...
 - Areas along the Lumber River between Old U.S. 74 and Deep Branch
 - Road, including Terry Sanford Drive, Kyra Lane, Old Landing Road,
 - Harpers Ferry Road, and Super Loop Drive.



Fox Company (Forward Observer) Reports:

- Fox Company is supporting two non-profit organizations at this time:
 - Cajun Navy Relief (CNR) www.cajunnavyrelief.com : Providing intelligence support leading up to and during rescue operations in three primary areas of operations (AOs) in North Carolina. These AOs include Lumberton, Jacksonville, and Wilmington. Sunday and Monday were focused on rescue operations in Lumberton as the town flooded from the rising Lumber River.
 - Humanitarian Aid Security (HAS) www.humanitarianaidsecurity.org : Providing intelligence support leading up to and during operations in various AOs including Fayetteville, Wilmington, and Lumberton in North Carolina as well as Charleston and Columbia in South Carolina.
- Other organizations are headed into the affected areas that Fox Company may support with intelligence as necessary in the coming days.
- Operations have wound down in many of these AOs at the present time and new AOs are being defined.

AmRRON SitReps:

2018-09-17-1200Z: relayed from xxxxTA, grid FM14: xxxxTA reports water levels are high but stabilized despite continued rain. Jet traffic was observed using ILM airport. Type unk. Numerous helicopters operating in area. FEMA reported to be using mall as staging area. Utilities have set up base at CFCC campus. Cajun Navy has been working the area. Port is not yet open. xxxxTA reports he has fuel, food and water. His phone service has upgraded and data has improved from yesterday. He is using generator power. Reports of looting last night. Suspicious vehicles in area. Transportation is limited due to continued flooding and threat of flash flood.

Outlook:

Flooding will likely continue throughout the week as rainwater from the mountains moves through the state. Flood waters will begin to recede in the latter part of the week and into the weekend.

Rescue efforts are likely to continue through the week. Emergency crews will begin focusing on the delivery of food, water, and medical to cutoff and heavily affected areas.

Repair of damaged infrastructure including roads, bridges, and utilities will begin as the waters begin to recede and crews gain access to evaluate damages.

Potential Hazards Being Monitored:

2018-09-17-1803Z- apnews.com - As rivers swelled, state regulators and environmental groups were monitoring the threat from gigantic hog and poultry farms located in low-lying, flood-prone areas.

References:

- 1) Previous PT AmRRON Executive Summaries related to Hurricane Florence
 - ExSum – PT AmRRON 2018-09-08-A Tropical Storm/Hurricane Conditions for NC in the Coming Week
 - ExSum – PT AmRRON 2018-09-10-A Hurricane Florence
 - ExSum – PT AmRRON 2018-09-11-A Hurricane Florence (Update)
 - ExSum – PT AmRRON 2018-09-12-A Hurricane Florence (Update 2)
 - ExSum – PT AmRRON 2018-09-13-A Hurricane Florence (Update 3)
 - ExSum – PT AmRRON 2018-09-14-A Hurricane Florence (Update 3)

AmRRON

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ExSum-PT AmRRON 2018-09-17-A
2300 Zulu



EXECUTIVE SUMMARY

Monday, September 17, 2018
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- ExSum – PT AmRRON 2018-09-14-B Hurricane Florence (Update 4)
 - ExSum – PT AmRRON 2018-09-15-A Hurricane Florence (Update 5)
 - ExSum – PT AmRRON 2018-09-15-B Hurricane Florence (Update 6)
 - ExSum – PT AmRRON 2018-09-15-B Hurricane Florence (Update 7)
 - ExSum – PT AmRRON 2018-09-16-A Hurricane Florence (Update 8)
 - ExSum – PT AmRRON 2018-09-16-B Hurricane Florence (Update 9)
- 2) AmRRON Communications Condition Level: <https://amrron.com/net-resourcestools/amcon-amrron-communications-condition-level/>
 - 3) AmRRON Tropical Storm/Hurricane for Coming Week: <https://amrron.com/2018/09/09/tropical-storm-hurricane-conditions-for-nc-in-the-coming-week/>
 - 4) NWS: National Hurricane Preparedness: <https://www.weather.gov/wrn/hurricane-preparedness>
 - 5) NOAA: National Hurricane Center: https://www.nhc.noaa.gov/refresh/graphics_at1+shtml/092830.shtml?cone#contents
 - 6) w3kwh.com: Current Band Conditions: <https://w3kwh.com/current-band-conditions/>