North Carolina 911 Board

Hurricane Helene, September 2024

After Action Report

August 2025

INCIDENT OVERVIEW

Incident Name	Hurricane Helene, September 2024
Incident Date	September 26, 2024
Scope	This incident is a real-world event.
Focus Areas	Prevention Protection Mitigation Response Recovery
Capabilities	Capability 1 - Risk and Disaster Resilience Assessment Capability 2 - Infrastructure Systems Capability 3 - Operational Communications Capability 4 - Operational Coordination
Objectives	Objective 1: Fulfilling the North Carolina 911 Board's statutory obligation to contract with service providers to create a Next Generation 911 (NG911) network dedicated solely to the delivery of 911 calls and associated data, ensuring the successful delivery of all 911 calls via the Statewide Emergency Services IP Network (ESInet) to Public Safety Answering Points (PSAPs), also known as 911 centers, outside the impacted areas. The Board has satisfied its statutory duty by entering into a contract with AT&T to build and maintain the Statewide ESInet. [G.S. 143B-1400(27a); 143B-1402(a)(6)] Objective 2: As a primary responsibility of the NC 911 Board and its staff, ensure PSAPs meet the legal requirement for backup planning, including predetermined partner PSAPs, also known as "friend" PSAPs, with developed agreements and processes for the alternate or abandonment routing of 911 calls for daily and emergent operations, and monitor such reroute activity until operations return to a normal or as otherwise warranted. [G.S. 143B-1400(6); 143B-1406(f)(5)]
Threat	Hurricane

Incident Description

Hurricane Helene made landfall in Florida on September 26 as a strong Category 4 storm. The storm then tracked inland with varying intensity as it moved northward towards the western portion of North Carolina. While the strongest observed winds were measured at sites located within high topography of the southern Appalachians, strong winds also spread elsewhere across much of the western and central portions of the State.

Sustained wind observations of 70 and 55 knots (kt) were recorded at Mount Mitchell and Frying Pan Mountain, respectively, at approximately 1200 hours on September 27. Note that these observations were at locations over 5,000 feet in elevation. Similar wind speeds likely affected many of the mountainous areas in Western North Carolina. Peak gusts measured at those stations were 92 and 76 kt, respectively. A wind gust to 88 kt was recorded near Banner Elk. Many mountain peaks in Western North Carolina suffered extensive tree falls and damage due to these wind gusts. Farther east, a wind gust of 57 kt was recorded at Charlotte Douglas International Airport. Sustained winds to tropical storm force with gusts to 52 kt were also observed in Southport in eastern NC. The highest measured wind gusts in each state are listed in the following table.

Highest Measured Wind Gusts by State

State	County	Location	Wind Gust (kt)
Florida	Taylor	Perry	86
Florida	Suwannee	Dowling Park	86
Florida	Taylor	Athena	84
Georgia	Bacon	Alma	87
Georgia	Lowndes	Lake Park	83
Georgia	Coffee	Douglas	80
South Carolina	Laurens	Laurens	67
South Carolina	Beaufort	Beaufort	65
South Carolina	Anderson	Anderson	63
South Carolina	Aiken	Aiken	63
South Carolina	Pickens	Sassafras Mountain	63
North Carolina	Yancey	Mt. Mitchell	92
North Carolina	Watauga	Banner Elk	88
North Carolina	Haywood	Frying Pan Mountain	76

	Rainfall amounts of 20 to 30 inches occurred over a large area within the mountainous region of Western North Carolina. Widespread rainfall totals of 5 to 10 inches stretched from portions of the Florida Panhandle northward across Georgia and into the western Carolinas and southwestern Virginia. The maximum accumulations shifted along and east of track into the southern Appalachians, where orographic effects were maximized. The highest observed rainfall total was in Busick, North Carolina, where 30.78 inches were recorded from September 25 to September 28. Additionally, Celo, North Carolina measured 26.65 inches of rain. Both of those sites are located in Yancey County. Farther south, a total of 29.98 inches was measured in Transylvania County. Available observations indicate that rainfall amounts in excess of 18 inches occurred across portions of Transylvania, Henderson, Buncombe, Polk, McDowell, Yancey, Mitchell, Burke, Avery and Watauga Counties in North Carolina. Western North Carolina and southwestern Virginia received three-day rainfall totals that had less than a 1 in 1000 (<0.1%) chance of occurring in any given year. The intense flooding and winds caused immeasurable damage to a wide range of infrastructure in Western North Carolina, including wireline and wireless telecommunications infrastructure rendering 911 calls as undeliverable to the impacted Public Safety Answering Points (PSAPs). This resulted in the need to route 911 traffic to unaffected PSAPs elsewhere in the State. *Source: National Oceanic and Atmospheric Administration (NOAA), National Weather Service, National Hurricane Center – Tropical Cyclone Report – Hurricane Helene, 24-27 September 2024, released April 8, 2025.*
Organization	North Carolina 911 Board
Preparers	North Carolina 911 Board Staff and Legal Counsel
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ANALYSIS OF CAPABILITIES

Utilizing the FEMA after action report format, this review of the capabilities of the North Carolina 911 Board Statewide emergency communications network for 911 call delivery aligns incident objectives and capabilities providing a consistent taxonomy for evaluation that transcends individual practices to support preparedness reporting and trend analysis. Table 1 includes the incident objectives, aligned capabilities, and performance ratings for each capability as observed during the incident and determined by the evaluation team.

Objective	Capability	Without Challenges (P)	With Some Challenges (S)	With Major Challenges (M)	Unable to be Performed (U)
Objective 1	Capability 1: Risk and Disaster Resilience Assessment	P			
Objective 1	Capability 2: Infrastructure Systems	P			
Objective 2	Capability 3: Operational Communications	P			
Objective 2	Capability 4: Operational Coordination	P			

Table 1. Summary of Core Capability Performance

Performed without Challenges (P): The targets and critical tasks associated with the capability were completed in a manner that achieved the objective(s) and did not negatively impact the performance of other activities. Performance of this activity did not contribute to additional health and/or safety risks for the public or for emergency workers, and it was conducted in accordance with applicable plans, policies, procedures, rules, regulations, and laws.

Performed with Some Challenges (S): The targets and critical tasks associated with the capability were completed in a manner that achieved the objective(s) and did not negatively impact the performance of other activities. Performance of this activity did not contribute to additional health and/or safety risks for the public or for emergency workers, and it was conducted in accordance with applicable plans, policies, procedures, rules, regulations, and laws. However, opportunities to enhance effectiveness and/or efficiency were identified.

Performed with Major Challenges (M): The targets and critical tasks associated with the capability were completed in a manner that achieved the objective(s), but some or all of the following were observed: demonstrated performance had a negative impact on the performance of other activities; contributed to additional health and/or safety risks for the public or for emergency workers; and/or was not conducted in accordance with applicable plans, policies, procedures, rules, regulations, and laws.

Unable to be Performed (U): The targets and critical tasks associated with the capability were not performed in a manner that achieved the objective(s).

The following sections provide an overview of the performance related to the incident objective and associated capability, highlighting strengths and areas for improvement.

OBJECTIVE 1

Fulfilling the North Carolina 911 Board's statutory obligation to contract with service providers to create a Next Generation 911 (NG911) network dedicated solely to the delivery of 911 calls and associated data, ensuring the successful delivery of all 911 calls via the Statewide Emergency Services IP Network (ESInet) to Public Safety Answering Points (PSAPs), also known as 911 centers, outside the impacted areas. The Board has satisfied its statutory duty by entering into a contract with AT&T to build and maintain the Statewide ESInet. [G.S. 143B-1400(27a); 143B-1402(a)(6)]

The strengths and areas for improvement for each capability aligned to this objective are described in this section.

Capability 1 – Risk and Disaster Resilience Assessment

Strengths

The full capability level can be attributed to the following strengths:

Strength 1: Since the implementation of the Statewide ESInet, 911 Board staff has coordinated with all Board-funded PSAPs to ensure backup plans that include alternate and abandonment routing. Hurricane Helene resulted in staff expending significant time with those PSAPs in the impacted area, as well as those who would serve as "friends," ensuring those plans were in place and the PSAPs were prepared to implement those plans when needed.

Strength 2: 911 Board staff, in advance of the storm, worked with PSAP managers and other designated locality representatives in the anticipated impact regions to further prepare through the implementation of additional call routing layers that ensured call routing would deliver 911 calls to PSAPs further outside the impact zone. This capability validates the investment in Next Generation 911 by the North Carolina 911 Board.

Strength 3: The NC 911 Board has identified four (4) regions in which a Regional Coordinator (RC), a member of Board staff, serves as a liaison to the PSAPs within that region. These established relationships are perhaps one of the greatest strengths of the 911 Board operations. The RCs know the respective assigned region and the subtle but sometimes significant nuances that make each PSAP distinctive, such that each PSAP's needs and strengths are unique. These partnerships demonstrate a crucial strength within the State's 911 infrastructure and a solid foundation upon which true disaster resiliency can be achieved.

Area for Improvement: Taking into consideration the level of preparation that was done in the months, and even years, leading up to the storm, as well as the robustness and redundancy that is built into the ESInet, there is no notable room for improvement in this area.

Analysis: The Network Monitoring and Assistance Center (NMAC), a Board-staffed 24/7 operations center, monitors ESInet performance using an industry-standard network management tool. This tool provides visibility into the connectivity of the diverse routes to each PSAP across the State. NMAC staff documented PSAP status, including reroutes established,

return of 911 calls directly to the PSAP, meetings, calls, and other pertinent information in the Customer Records Management (CRM) software. When a degradation occurred, NMAC staff contacted the impacted PSAP to validate 911 call delivery status. If it was determined that abandonment routing was necessary, the NMAC worked with the AT&T Resolution center to reroute 911 calls to a partner PSAP. When the need for additional assistance arose for a PSAP, the Regional Coordinators assisted in coordinating additional PSAPs who could accommodate the increased call volume during and immediately after the storm. During any route adjustments, NMAC staff and the respective Regional Coordinator conducted conference calls or virtual meetings with the PSAP leadership prior to making any call routing changes. PSAP details were noted daily in the "PSAP Reroute Status" spreadsheet and a live status was maintained by NMAC staff using the 911 call routing map developed by the North Carolina Center for Geographic Information Analysis (CGIA), that is housed within the Department of Information Technology (DIT). A daily situational report was provided to 911 Board members, impacted PSAPs, partner PSAPs, and other key leadership and personnel as warranted. NC 911 Board staff utilized various methods of communication during the activation of this incident for coordination and constant contact including telephone (cell, wired, VoIP), portable radios, FirstNet Enhanced Push-to-Talk (ePTT) radios, email, and Microsoft Teams. All daily situational reports have been retained by the Board 911. However, due to the secure and sensitive nature of this information, these reports are not included in this public report.

Reference: G.S. 143B-1400(27a); 143B-1402(a)(6)

Capability 2 – Infrastructure Systems

Strengths

The full capability level can be attributed to the following strengths:

Strength 1: The implementation of the Statewide ESInet has given NC the ability to reroute 911 calls anywhere within the State when needed, including during times of crisis. The system is purpose built to allow calls to flow seamlessly across the ESInet to other PSAPs during a blue-sky day or a catastrophic event. Additionally, should a predetermined agreement be established among the PSAPs for 911 call data interoperability, 911 calls can be provisioned to reroute to any PSAP in the country that has connectivity to the AT&T ESInet.

Strength 2: The 911 Board staff, along with AT&T as its managed service contracted provider of the ESInet, and various vendors in the telecommunications industry, have in place hardware redundancy including dual AT&T Virtual Private Networks (AVPNs) at each primary PSAP. This redundancy eliminates a single point of failure that could result in the loss of connectivity to the ESInet due to an AVPN degradation. Additionally, prior to the storm, plans were in place to implement additional redundancy in the form of a FirstNet Wireless Redundant Solution from AT&T. Essentially, this provides a wireless AVPN connection for even greater redundancy for the aging copper wire infrastructure of the last mile connectivity. The Board contracted with AT&T earlier in 2024 to install the solution for all Board-funded primary PSAPs and approved backup PSAPs, at no cost to the PSAP. As of the date of this AAR, 49 wireless redundant solutions are already in place and functioning. Deployment to all Board-funded primary PSAPs will be completed by the end of calendar year 2025.

Strength 3: The NC 911 NMAC is a 24-hour operation staffed by Tier I Technicians and Tier II Analysts, and is the first of its kind in the nation. The NMAC has the ability at all times to monitor

ESInet traffic and overall PSAP status in the form of software applications. This allows instantaneous awareness of call delivery status, alerting NMAC staff to a problem often before the PSAP is aware. It is this real-time insight that allows the NMAC to quickly react to the needs of PSAPs.

Area for Improvement: The ESInet functioned as designed and offered unprecedented call delivery resilience that resulted in no 911 calls going unanswered as long as the caller could get a dial tone. There were no areas for improvement observed.

Analysis: With the ESInet performing as designed, full capability was achieved. Alternate call routing of 911 calls occurs in the event a PSAP is unreachable, or the PSAP is receiving more 911 calls than can be answered by their telecommunicators. In those instances, 911 calls will automatically route to a predetermined partner PSAP. Abandonment call routing occurs when a PSAP is experiencing extended degradation or must physically abandon their facility. When this occurs, calls are manually diverted to a predetermined partner PSAP. To initiate abandonment call routing, the impacted PSAP must contact the NMAC. NMAC staff then coordinates with the AT&T Resolution Center for 911 calls to be routed to the partner PSAP until such a time the impacted PSAP can resume normal operations. The need for abandonment call routing implementation occurred because of last mile degradation due to severe infrastructure devastation and obliteration. The NMAC staff monitors ESInet performance using an industry-standard network management tool, which provides visibility into the connectivity of the diverse routes to each PSAP across the State. NMAC staff documented PSAP status, including reroutes established, return of 911 calls directly to the PSAP, meetings, calls, and other pertinent information in the Customer Records Management (CRM) software. When a degradation occurred, NMAC staff contacted the impacted PSAP to validate 911 call delivery status. If abandonment routing was necessary, the NMAC worked with the AT&T Resolution center to reroute 911 calls to a partner PSAP. When the need for additional assistance arose for a PSAP, the Regional Coordinators also assisted in coordinating with additional PSAPs who could accommodate the increased call volume during and immediately after the storm. During any route adjustments, NMAC staff and the respective Regional Coordinator conducted conference calls or virtual meetings with the PSAP leadership prior to making any call routing changes. PSAP details were noted daily in the “PSAP Reroute Status” spreadsheet and a live status was maintained by NMAC staff using the 911 call routing map developed by CGIA. A daily situational report was provided to 911 Board members, impacted PSAPs, partner PSAPs, and other key leadership and personnel as warranted. NC 911 Board staff utilized various methods of communication during the activation of this incident for coordination and constant contact including telephone (cell, wired, VoIP), portable radios, FirstNet ePTT radios, email, and Microsoft Teams. All daily situational reports have been retained by the 911 Board. However, due to the secure and sensitive nature of this information, these reports are not included in this public report.

Reference: G.S. 143B-1400(27a); 143B-1402(a)(14); 143B-1402(a)(15)

OBJECTIVE 2

As a primary responsibility of the NC 911 Board and its staff, ensure PSAPs meet the legal requirement for backup planning, including predetermined partner PSAPs, also known as “friend” PSAPs, with developed agreements and processes for the alternate or abandonment routing of 911 calls for daily and emergent operations, and to monitor such reroute activity until operations return to normal or as otherwise warranted.

Reference: G.S. 143B-1400(6); 143B-1406(f)(5)

Capability 3 – Operational Communications

Strengths

The full capability level can be attributed to the following strengths:

Strength 1: As a part of the required connectivity to the Statewide ESInet, all Board-funded PSAPs must develop partnerships with "friend" PSAPs and to enter into agreements that allow for the receipt and processing of 911 calls that are alternate or abandonment routed from the primary PSAP. These partnerships are critical for consistent, successful 911 call delivery.

Strength 2: As a part of pre-storm preparation, 911 Board staff conducted outreach with PSAP managers and leadership of localities that were forecasted to be in the storm's impact zone. Additional enhancements to call routing were implemented to ensure successful 911 call delivery outside the projected impact zone.

Strength 3: Though call routing was already in place, 911 Board staff worked with vendor partners to manually reroute calls or provision network intelligence to distribute 911 calls among multiple PSAPs, also known as "load balancing," from impacted PSAPs on the fly as the situation deteriorated both during and after the storm. This allowed all 911 calls that were successfully dialed at the source to be delivered to an alternate PSAP for call processing.

Area for Improvement: While there is no notable room for improvement regarding 911 call delivery or call processing as it solely relates to the ESInet, there was an observation concerning the conveyance of 911 call information from the alternate PSAP back to the primary PSAP. While the alternate PSAPs had different options for communicating with the primary PSAP following call processing, one of the most widely attempted methods was the Statewide land mobile radio system (LMR). However, as connection to this network is voluntary, not every jurisdiction in the State utilizes it. The network is overseen by the North Carolina Highway Patrol Technical Services Unit (TSU). The operation of this network is not within the authority of the Board. Hurricane Helene revealed performance issues due to simultaneous transmissions and the sheer volume of radio traffic necessary to deliver calls back to the primary PSAPs, such that the radio system reached the point of total saturation and at times became largely unusable.

Analysis: Full capability was achieved with the ESInet performing as designed and intended. The Statewide radio system was completely saturated and at times was virtually unusable as an option for 911 call delivery call data interoperability for those PSAPs utilizing the system. However, due to investments by the Board and PSAPs in technology, there were still multiple paths available to PSAPs to return crucial call dispatch information back to the primary PSAP. The PSAPs who served as call routing partners for the event were creative and used alternative, non-traditional means to accomplish this. These methods included the use of commonly available platforms for data sharing that contained cumulative 911 call data from across the State, dedicated unified communications platform chat functions, cell phone to cell phone communication (when available), and the use of the State Division of Criminal Information (DCI) user interface. In some cases, PSAPs used a combination of these methods to send and receive this information. The Board focused on offering PSAPs available solutions that are within the Board's authority and will continue to do so in the future.

Reference: G.S.143B-1400(6);143B-1406(f)(5); Statewide Communications Interoperability Plan (SCIP)

Capability 4 – Operational Coordination

Strengths

The full capability level can be attributed to the following strengths:

Strength 1: The NC 911 Board staff initiates a monthly test of the Statewide Call Talk Group with all Board-funded PSAPs and submits the results of this test to the Statewide Interoperability Coordinator (SWIC). This process is to ensure the talk group is operational and accessible when needed. Additionally, the Board provided portable radios to all primary PSAPs that chose to participate in a grant opportunity to provide a portable radio located at each console position for redundancy to the primary radio equipment. Ninety-eight PSAPs chose to take advantage of this grant offering, and the Board provided funding for 601 portable radios within those PSAPs.

Strength 2: The NC 911 Board began conducting outreach with all Board-funded PSAPs days in advance of the approaching storm, which continued both during and after the onslaught of Hurricane Helene. This outreach ensured a collective understanding of the potential threat by all stakeholders and established a regular cadence, allowing PSAPs to understand the Board's progress and to keep them updated through the storm and in the weeks that followed.

Strength 3: The NC 911 Board staff maintained a 24-hour presence in the State Emergency Operations Center (SEOC) in the days leading up to, during, and after the storm. Being embedded within Emergency Support Function 2 (ESF2) enabled staff to share accurate, relevant, and timely information concerning 911 call delivery in real time. Ultimately, 911 Board staff transitioned to a remote, on-call status, and maintained that posture for several weeks until most of the initial telecommunications infrastructure restoration efforts had been completed, and 911 call flow had largely returned to normal.

Area for Improvement: While there are no identified areas for improvement noted, 911 Board staff recognizes that overall effectiveness would be improved if staff were not physically co-located with ESF2 in the State EOC but rather physically co-located with the NMAC staff at the Board's office facility. This will allow for a much more cohesive exchange of information relevant to 911 call delivery and direct communications with the impacted PSAPs without causing confusion or disruption to other ESF2 operations. However, should there be a need as conditions warrant for any incident or event that may necessitate staff presence at the State EOC, that will be adhered to accordingly.

Analysis: Full capability was achieved for this capability. The NC 911 Board and staff successfully coordinated with PSAP managers, leadership, SEOC, and appropriate stakeholders

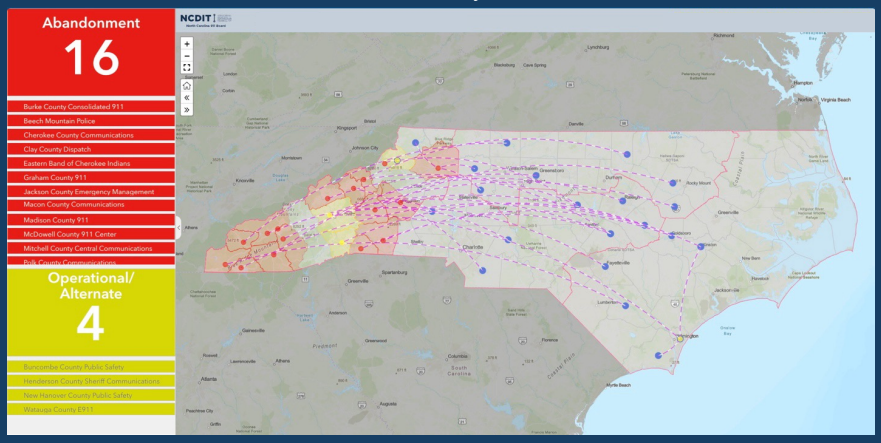
before, during, and after this historic and unprecedented weather event. The overall response posture was successful in maintaining accurate and timely situational awareness with the ability to operate as normally as possible during such adverse conditions.

Reference: G.S. 143B-1400(6); 143B-1402(a)(1); 143B-1406(f)(5)

911 CALL STATISTICS AT A GLANCE

Between September 26 and 28 (spanning the day before the storm through the day after), there were 90,000 911 calls across the State. This represents a 55% increase in call volume Statewide, with 32,000 additional calls initiating from the impacted counties. Locally, Western North Carolina PSAPs encountered varying percentages of call volume increases, and experiences were relative, based upon PSAP capabilities and staffing during the impact of the event. PSAPs in the impacted region experienced varied, but still remarkable, increases in call volumes. September 27, 2024, marked a 586% single day increase in overall 911 call volume, with individual PSAPs in the impacted region experiencing much more extensive spikes.

The "Math After" … by the numbers.

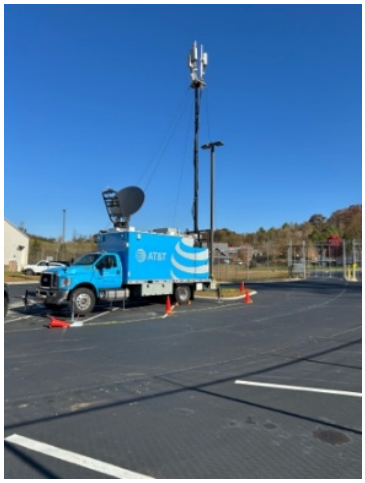


	9-1-1 Calls	Rerouted Calls	Total by Date	2023 Calls	Increase from 2023
9/27/24	16,571	3,829	20,400	2,974	586%
9/28/24	6,028	1,418	7,446	3,004	148%
9/29/24	4,576	984	5,560	4,086	36%
9/30/24	3,666	927	4,526	3,771	20%
4 Days	**30,841**	**7,158**	**37,999**	**13,835**	**175%**
3 Days	27,175	6,231	33,406	10,064	232%
2 Days	22,599	5,247	27,846	5,978	366%
1 Day	16,571	3,829	20,400	2,974	586%

NOTABLE SUCCESSES

Hurricane Helene struck North Carolina on September 27, 2024, as one of the most devastating storms in the State's history. The NextGen 911 Solution provided a lifeline to those dialing 911, validating the N.C. 911 Board's investment in NextGen 911. While there was full confidence in the Statewide ESInet prior to the event, the storm and its aftermath rigorously tested this robust system. The ESInet and hosted call handling equipment performed as intended without issue for the entire time. For those callers that could connect to a dial tone either on a wireline or wireless device, 911 calls were automatically and seamlessly rerouted from PSAPs inundated with calls or experiencing service disruptions and degradation due to loss of infrastructure, to other PSAPs in non-impacted areas across the State. At the height of the storm, 19 PSAPs in Western North Carolina had 911 calls rerouting to 23 PSAPs in other regions across the State, ensuring callers could reach a trained telecommunicator.

Madison County was one of the hardest hit areas of the State in terms of overall infrastructure damage. The damage to the telecommunications infrastructure was so severe that the PSAP could not receive 911 calls for nearly a month, resulting in the abandonment routing of calls to another PSAP, Chatham County, located over 225 miles away. During this time, Board staff collaborated with AT&T to expedite the deployment of the FirstNet Wireless Redundant Solution to assist with 911 call delivery returning to Madison County as the local primary PSAP for its citizens. As an additional layer of redundancy for this implementation, AT&T granted the Board's request to also dispatch a Satellite Cell on Light Truck, or "SatCOLT" to the County. This marked the first time this solution was used for 911 call delivery anywhere in the State. As of the date of this report, this solution remains in place and allows the County to answer its own 911 calls without the permanent telecommunications infrastructure, which is still in the process of repair.



POST INCIDENT

Following the unprecedented impact of Hurricane Helene, the NC 911 Board and its staff have taken significant steps to address the PSAP needs observed during the storm response and recovery.

The challenges faced by the PSAP community, especially those that managed alternate and abandonment routed calls, have been acknowledged. To assist the PSAPs in mitigating these issues in the future, a multi-level Resiliency Compendium is being developed by Board staff. Though these operational needs have traditionally fallen outside the purview of the 911 Board and are ineligible for use of the Emergency Telephone System Fund (ETSF), State law establishes the Board's authority to coordinate, adopt, and communicate all necessary technical and operational standards and requirements to ensure an effective Statewide interconnected NG911 network, which is the Statewide ESInet. Thus, through the NG911 Reserve Fund, the Board will be able to directly provide or fund PSAP purchases for those technologies that meet the statutory mandate for NG911. Please note, the following is a very high-level list of the priority initiatives of the Resiliency Compendium, which is still subject to further development and/or refinement.

- FirstNet Wireless Redundant Solution: The implementation of the FirstNet Wireless Redundant Solution is progressing throughout the State. This initiative will provide the Board-funded primary PSAPs in NC with an unprecedented level of redundancy and connectivity to the ESInet for 911 call delivery. The project is well underway with a projected completion date of December 2025.

- Wireless ePTT Radios: This initiative will allow each Board-funded primary PSAP to be provided with wireless ePTT radios to enable 911 call data interoperability for the exchange of real-time situational information between PSAPs during emergency events as well as blue-sky day operations. Monthly testing of deployed radios with Board staff will be required. As of the date of the submission of this report, concept testing with several PSAPs is underway and

is proving to be an additional tool that the PSAPs can utilize for PSAP-to-PSAP communications.

- 911 Call Data Interoperability: Exploration is underway of platforms that will enable 911 call data interoperability for the exchange of real-time situational data between PSAPs during emergency events as well as blue-sky day operations in a secure integrated environment. A yet-to-be determined cadence of testing with Board staff will be required for this solution.

- Satellite Solutions: The study to determine feasibility of equipping each Board-funded primary PSAP with a satellite device is underway. This device will be activated when traditional Internet access or cell service is degraded, allowing the ability of Wi-Fi calling, email exchange, or online application access to enable 911 call data interoperability for the exchange of real-time situational information between PSAPs during emergency events as well as blue-sky day operations. A yet-to-be determined cadence of testing with 911 Board staff will be required for any primary PSAP that is provided device.

Board staff continues to explore these initiatives, developing procurement and implementation plans, and welcomes input of other possible solutions for exploration to enable 911 call data interoperability for the exchange of real-time situational information between PSAPs during emergency events as well as blue-sky day operations.

FINAL ANALYSIS

As the damage to the last mile commercial telecommunications infrastructure was so severe, and in many instances rendered non-existent, the 911 call reroutes and load balancing remained in place for weeks following the event and functioned without incident for the duration of the time needed. The NC 911 Board, its staff, AT&T, and other organizational and vendor partners played a vital role throughout the storm and aftermath by continuously monitoring the service and performance of the Statewide ESInet, while coordinating efforts to ensure all appropriate PSAPs were engaged. These collaborative efforts allowed for real-time modifications in call routing, maximizing efficiency of operations for PSAPs across the State for 911 call processing. Ultimately, these efforts resulted in life saving calls to 911 for the thousands of citizens impacted by Hurricane Helene being answered by trained professional telecommunicators. The Board is proud and humbled to serve the State by providing modern and secure methods for 911 call delivery. The Board's planning and investment in NG911 reaped substantial returns and strengthened its resolve to continue to innovate in Next Generation 911 to ensure further successes when the ESInet is put to the test.