

Executive Summary

The N.C. Department of Information Technology's First Responder Emerging Technologies (FirstTech) program worked to support first responders throughout the state during 2023.

FirstTech made great strides in meeting its program goals in 2023 while delivering tremendous value to the responders in North Carolina and participating in national efforts. FirstTech staff supported various agencies during both planned and unplanned events and disasters, bringing knowledge of advanced technologies to support first responder missions. This annual review is to highlight the program accomplishments of the 2023 calendar year.

In addition, this year saw a return to "normal operations" as program staff reengaged with first responders and industry through conferences and in-person visits that rivaled pre-pandemic activities. These in-person interactions proved to be incredibly valuable, as FirstTech made additional connections with others that approached the team in 2023.

Vision

A connected North Carolina where all first responder agencies can access, afford, and effectively use technologies necessary to protect life and property.

Mission

Serve the North Carolina first responder community through thought leadership, direct experience, and unbiased information to increase technological literacy and support agencies' understanding, adoption, and usage of the best technologies available.

Accomplishments

The following list highlights the work that was accomplished in 2023. Several of these items are ongoing, and more details can be provided upon request.

Responder Engagements

- Participated in the State Interoperability Executive Committee (SIEC); Charles Laird served as chair.
- Red Grasso and Charles Laird attended Communications Coordinator (COMC) Training at N.C. Emergency Management (NCEM) and are certified to operate in this capacity.
- Continued direct engagement with agencies on SIEC radio encryption plan.
- Continued participation on the N.C. 911 Board Technology Committee.
- Provided ongoing assistance to the N.C. National Guard Aviation unit with radio programming and technologies, supporting additional needs as new aircraft with updated radios were acquired.
- Worked with several agencies to explore and deploy the free Department of Defense funded Team Awareness Kit (TAK) platform.
- Continued support of our text-to-speech tool to serve public safety. This tool streamlines public safety agencies' ability to create audio files used in their two-way radios, saving them time and money, and providing increased safety by allowing users to keep their eyes up and focused on the mission. This

tool had 3130 unique visitors with a total of 8347 webpage hits in 2023. This 58% increase from the previous year demonstrates the unique value this tool provides.

- Provided support to NCEM with purchasing FirstNet & Verizon Compact Rapid Deployables for the Strategic Technology Reserve Program.
- The N.C. Department of Agriculture's State Fair Public Safety and Wake County Sheriff's Officer demoed the program's Motorola APX NEXTs out of the Lending Library.

Industry Engagements

- Maintained strong relationship with AT&T regarding the federal FirstNet project via monthly progress calls. Provided updates to Secretary Weaver.
- Provided mentorship meetings with various companies through accelerator programs offered by Public Safety Communications Research (PSCR).
- Continued work on the Bridge4PS platform.
- Attended the TAK Product Center's Developer's Conference to present on TAK use in North Carolina and engaged in discussions involving public safety's use of TAK.
- Provided feedback and suggestions on FirstNet AT&T's user portal (FirstNet Central) and network notifications.
- Received demo units from Somewear Labs on satellite communication technologies to demo with ATAK.

Partnership Engagements/Economic Development

- Maintained support for the Paging Project in collaboration with PBS-NC and Device Solutions, a North Carolina-based company who was awarded a U.S. Department of Homeland Security (DHS) grant to conduct this research. This project aims to strengthen the missions of both the first responders and public television nationwide.
- Worked with PSCR to serve as subject matter experts on Unmanned Aerial Systems research and other projects.
- Participated in several ongoing efforts with DHS including:
 - Communications Section Task Force, which is a nationwide representative body advancing the communications needs within the Incident Command System
 - P25 Compliance Assessment Program, working to advance digital radio communications
 - First Responder Resource Group (FRRG)
 - Federal Partnership for Interoperable Communications
- Presented at several conferences and events, strengthening the program's mission as thought leaders:
 - Multiple panels at the 2023 International Wireless Communications Expo

Detail Assignments - Emergency Response & Planned Events

Completed several requested engagements to support response agencies' technology needs:

- Scotland County Emergency Management – Deployed as a Communications Unit Leader (COML) in support of a search and rescue incident.

- UNC Chapel Hill Emergency Management – Assisted with setting up Team Awareness Kit for use on the Tar Heel 10-Miler.
- N.C. Department of Agriculture State Fair Public Safety – Provided technology support for the Got to Be NC Festival.
- NC Emergency Management – Deployed as Communications Coordinator (COMC) and Communications Unit Leader (COML) for the Statewide Exercise.

Measuring Success

The following metrics to show the impacts and successes of the FirstTech program in 2023:

1. Speak at two national events per year to demonstrate recognized thought leadership.
2. Be a good steward of public resources by finishing each fiscal year at or under budget.
3. Participate in at least six emergency, disaster, or planned events per year to keep current on technology used within the first responder community.
4. Bring the North Carolina voice to national efforts by being an active member of at least three working groups, task forces, committees or other efforts related to policies, governance, or trainings relevant to the first responder community:
 - a. SAFECOM P25 CAP TF, focused on the P25 digital radio standard
 - b. DHS Science & Technology, First Responder Resource Group
 - c. PSCR, innovative research subject matter expert
5. Serve North Carolina efforts to advance first responder technologies by being an active member of at least two working groups, task forces, committees or other efforts related to policies, governance, or trainings relevant to the first responder community, such as membership on the SIEC and the N.C. 911 Board Technical Subcommittee:
 - a. SIEC; Charles Laird served as chair
 - b. N.C. 911 Board Technical Subcommittee member
6. Conduct four different trainings related to telecommunications to end users within North Carolina per year:
 - a. Fell short of this goal, though we did work with NCEM to develop a Radio 101 training.
 - b. Presented at the NC Emergency Management Association's conference on FirstNet deployable assets.
 - c. Worked with the N.C. State Bureau of Investigation to develop a Cellular 101 training.
7. Attend at least 90 percent of the NCEM SERT calls and briefings per year as scheduled by the NCEM Communications Branch:
 - a. Accomplished.

8. Attend at least 50 percent of the CJIN board meetings per year:
 - a. Not accomplished. The location and dates of the CJIN meetings were moved to the High Point area and it was difficult to attend.
9. Conduct at least 12 update meetings per year with the FirstNet Authority or their contractor, AT&T, to get an update on the FirstNet project and provide feedback:
 - a. Accomplished.
10. Attend at least two conferences, expos, forums or such events per year related to first responder technologies:
 - a. Attended International Wireless Communications Expo.
 - b. Attended Association of Public Safety Communication Officials annual event.

Future

The FirstTech program will revise its Strategic Plan for 2024 and continue improving how it tracks its metrics. The COVID-19 pandemic created opportunities to participate in projects virtually; however, in-person meetings and events have proven invaluable. The ability to be in the same room with colleagues and collaborators demonstrated the importance of unstructured conversations that occur during breaks, in hallways and over meals, which can lead to strengthened relationships and new ideas. In addition, the pace of technology adoption seems to have recently accelerated.

FirstTech continues to take a primary role in the Paging Project in collaboration with PBS NC and DHS, which has the potential to become a nationwide model. FirstTech is taking an active role to manage the \$2 million set aside from the N.C. General Assembly for Expanding Mobile Broadband and is drafting the process for disbursing those funds. FirstTech will continue to review technologies, support response agencies, and look to make the largest impact possible.