



THE mEMO



A joint publication between N.C. Emergency Management and the N.C. Emergency Management Association

Keeping Sampson Schools Safe

By Susan Holder, Sampson County Assistant Manager

For most of the nation, the news of the tragic school shooting at Newtown's Sandy Hook Elementary School on Dec. 14 was met with shock and horror at such an unimaginable event. For emergency responders in Sampson County, however, the news was accompanied by a chilling sense of déjà vu. Five days before the Connecticut shooting, they had responded to an eerily similar scenario.

On Dec. 9, in the small northern Sampson County community of Midway, nearly 250 first responders, emergency management and law enforcement officers spent Sunday afternoon practicing their coordinated response to an active school shooter who inflicted mass casualties. The goal of the exercise, planned months earlier, was to bring together men and women from the county's Sheriff's Office, Emergency Management, EMS, 11 volunteer fire departments, seven volunteer rescue squads, Sampson Regional Medical Center, local government and county schools to test their ability to work in a unified command situation that involved chemical hazards, an active school shooter and mass casualties. In the exercise scenario - now seen as jarringly similar to the events in Newtown - a troubled individual stole herbicides/pesticides from his workplace, drove to a pre-school where he killed his mother-in-law, set fire to a vehicle, and spilled the chemicals. The assailant then continued to nearby Midway Elementary School, where he poured gasoline before entering the facility, assaulting and killing multiple school staff and students before barricading himself, a teacher and her students in a classroom where his estranged wife worked as a teacher's assistant.

Each facet of the complicated drill, designed by the training committee of the Sampson County Local Emergency Planning Committee, offered responders the opportunity to test their individual *and* collective capabilities. The pre-school scenario enabled fire and rescue responders to drill hazmat response,



Above: Sampson County deputies discuss response to a simulated chemical spill at a Sampson County pre-school.

Below: Volunteer paramedics from Sampson EMS practice treating school staff and students as part of the day-long multi-faceted exercise.



while the elementary school scenario tested law enforcement, fire and rescue response to an active shooter and allowed school system staff the opportunity to test their lockdown protocols. In addition, staff from Emergency Management, hospital and county government simulated unified command from the county's mobile command vehicle. The drill ended with a family reunification and a mock press conference.

Emergency Management Services Director Ronald Bass thanked those who gave up part of their weekend to participate in the largest-ever exercise conducted in Sampson County.

"These exercises provide a great opportunity for responders to test their capabilities in realistic scenarios," Bass explained. "This specific drill gave us the chance to test inter-agency cooperation in a unified or area command. Sampson County is fortunate to have hundreds of men and women trained and equipped to respond to any emergency. But, ultimately, our ability to successfully respond to a large natural or man-made event is determined by our ability to employ this training and our resources in a cohesive and structured fashion."

Bass complimented the LEPC training committee, specifically Assistant EM Director Jerry Cashwell, Deputy Fire Marshal Prentice Madgar and Capt. Eric Pope of the Sampson County Sheriff's Office, for their efforts noting that they had been planning the exercise for nearly a year.

Feedback from the exercise was overwhelmingly positive. Bass noted that even those agencies that were initially skeptical and reluctant to invest the time and resources needed for such an exercise have since recognized the value of the drill.

"We now better understand each agency's policies, procedures and processes, and the incident command structure," Bass said. "More importantly there is a heightened appreciation for inter-agency communication and engagement."

As with any exercise, the team identified some areas for improvement. Emergency responders and law enforcement will continue to work on ICS protocols. Emergency Management officials identified some modifications needed for the county's 800 MHZ radio system. And, of course, both the exercise and the Newtown shooting prompted a review and update of the school crisis plan. For drill participants, the Newtown tragedy further validated the time and effort spent planning and conducting the exercise and solidified their goal to be prepared to respond if and when the unimaginable becomes reality.

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*~ Ronald Bass
Sampson Co. Emergency Services Director*



Volunteer paramedics and law enforcement from Sampson County practice responding to an active shooter as part of the day-long exercise.

Geodetic Survey Group Provides Spatial Data Framework for Multiple Industries

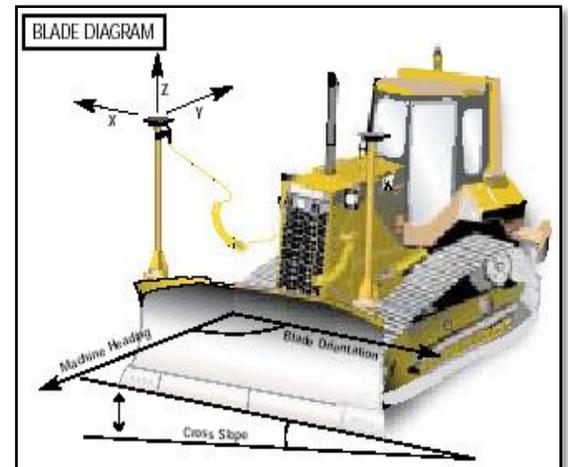
By Curt Johnson, NCEM Geodetic Survey

North Carolina Emergency Management welcomed the state's spatial data framework agency, the N.C. Geodetic Survey branch into its division last summer. But, why would a division dedicated to disaster prevention, response and recovery want to incorporate the state agency responsible for establishing and maintaining the state's official survey base? In an emergency, whether its people trapped by a flood or affected by any other type of disaster, positional information is critical for law enforcement and/or emergency practitioners to respond efficiently. The state's survey base forms the spatial framework used by disaster responders.

Despite being transferred to the division a few months ago, NCGS has actually had a long and mutually beneficial working history with the Geospatial and Technology Management section from previous quality control work on floodplain elevation data.

So, what is this survey base that forms the spatial data foundation used in floodplain mapping, disaster recovery, surveying and numerous other spatial applications? Basically, the survey base is composed of two components: physical and virtual. The physical components are geodetic monuments, which are three-inch diameter metal disks embedded into concrete that have been set at various locations throughout the state and have been surveyed to determine each monument's location (latitude and longitude) and/or elevation. The virtual component is the Continuously Operating Reference Station, or CORS, network, which is composed of GPS receivers spaced 20-40 miles apart across the state. Each receiver continuously records the GPS data off its permanently mounted GPS antenna, which has a surveyed reference point (i.e. its latitude, longitude and elevation have been determined).

Until 1994, the only way to access the survey base was for a surveyor to set-up a surveying instrument on a geodetic monument and then to survey from that reference point. In 1994, the agency started to build its CORS network, which has since spread throughout the state. The CORS network allows surveyors and mappers to access the survey base from anywhere in the state that can receive GPS signals and then process their data after the survey has been completed with correction files from the surrounding CORS.



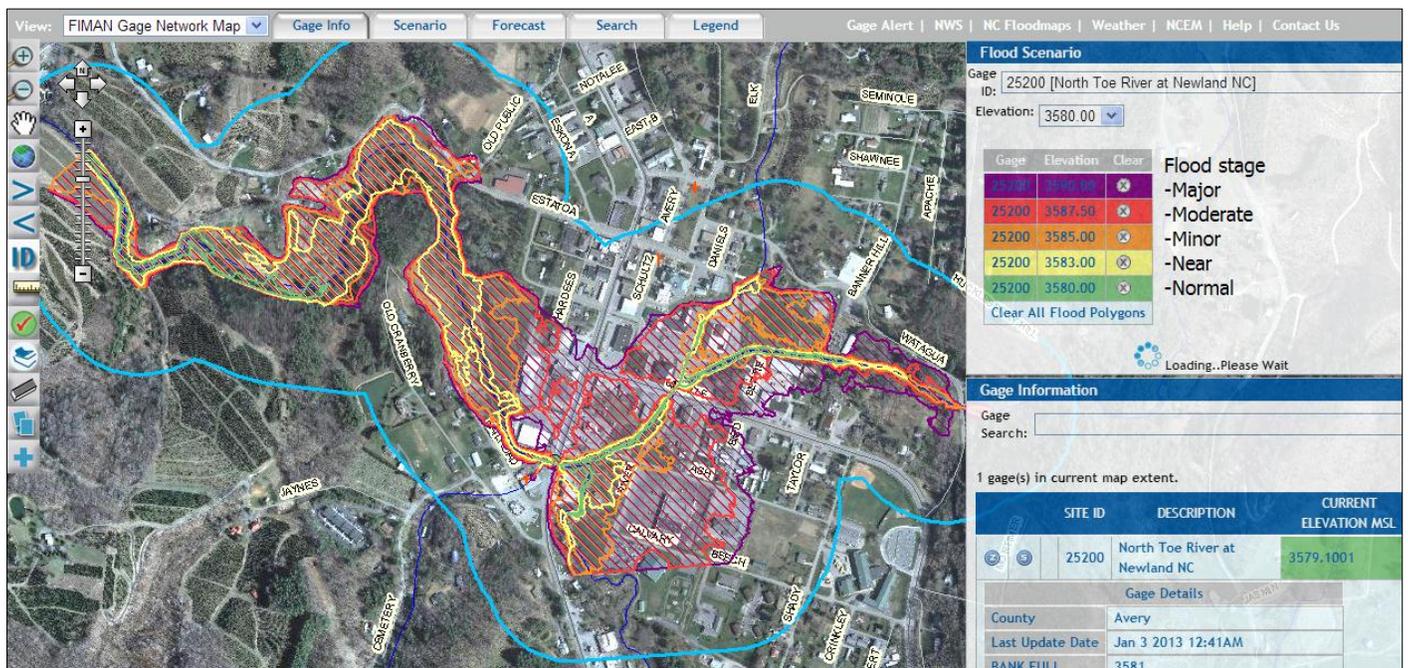
A diagram of a machine controlled bulldozer showing that it uses GPS and a 3D site design to control the machine's heading, blade orientation, and cross-slope. Photo source: Purdue University – Div. of Construction Engineering & Management

The CORS network supports floodplain mapping and disaster recovery: by quickly establishing benchmarks in a disaster area; collecting elevation data and aerial imagery; and developing a flood warning system.

In 2004, the agency started to build its real-time network, known as RTN, which has since expanded to statewide coverage by including nearly every station in the CORS network. The RTN broadcasts the correcting data in real-time via the Internet, which opened the door for more than just surveyors and mappers to include the fastest growing RTN user groups: precision agriculture farmers and construction workers. Farmers use the RTN for driving their tractors to plant seeds, apply soil amendments and harvest their crops. This machine control practice has dramatically increased crop yields and reduced costs, because rows can be planted tighter and fertilizer applied only to where needed. Earth moving equipment operators use the network to dig and grade sites to pre-determined specifications for road construction, mining and development. This machine control practice reduces costs and time, because the site is prepared right the first time.

NCGS has come a long way from establishing and maintaining the state's survey base with physical monuments to include real-time virtual access, which has opened the door for more than just surveyors and mappers to include floodplain mapping, disaster recovery and GPS machine control users such as precision agriculture farmers and earth moving equipment operators. For more information visit www.ncgs.state.nc.us.

The North Carolina Flood Inundation Mapping Alert Network (FIMAN) combines elevation data with real-time stream gage data to show areas that are currently flooded as well as areas that are expected to be flooded hours and days into the future. The image shows a scenario that demonstrates the flooding extent in Newland at the following flood stages: normal (green), near (yellow), minor (orange), moderate (red), and major (purple). Photo source: NCFMP



Remembering Tim Miller

By Mike Cook and Julia Jarema, NCEM

North Carolina's Emergency Management community recently lost what many regard as "one of the last really great ones." Tim Miller, passed away Dec. 12 after a battle with cancer. He was 55.

The Caldwell County native began his career in the late 70's as a volunteer paramedic for the county; a position in which he worked for several years. During that time Tim was instrumental in developing the medical first responder program which continues today as a large and expected response to the citizens of that county.

Tim began work with North Carolina Emergency Management in 1986 as a trainer and taught many different subjects. Two years later, he became NCEM's radiological emergency preparedness planner. As the division's REP planner, he greatly enhanced preparedness efforts in the counties around the McGuire and Catawba Nuclear Stations. In fact, much of his work is still being used today as a standard for response in the event of an accident at these locations.

In 1995, Tim became an area coordinator for the division, managing a trainer and two planners. Together, they worked with 18 counties conducting preparedness activities. Two years later, he became the Western Branch manager, overseeing five area coordinators in a 34 county region that included the Eastern Band of the Cherokee. During that time, he helped to develop what is now known as the North Carolina Helo Aquatic Rescue Team, a nationally recognized program copied by many other states. He also was instrumental in developing the concept of forward deployment of resources, a practice that is still used today.

After his retirement in 2006, Tim continued as a consultant providing various types of support to the emergency management community. In 2008 he formed his own company, Blue Ridge Preparedness Group, and provided consulting services to numerous states. Miller was recognized nationally for his knowledge of emergency services.

Tim is survived by his wife, Delorese, son, Robert, daughter, Susan Miller Bumgarner and her husband, Clint, two grandchildren and his mother, Anita Harris Miller.



“Of all the types of work that Tim did, I believe he enjoyed teaching others the most. He was always willing to help you expand your knowledge to better your capabilities to help others.”

*~ Mike Cook
NCEM Western Branch Manager*

Seeking Input for Newsletter

The *mEMO* is a joint publication between N.C. Emergency Management division and association for the state's EM community. Those who work in or with emergency management at the state and local levels are encouraged to submit articles, photos and information that you think would be of interest to your colleagues. Please submit content to Julia.jarema@ncdps.gov.

North Carolina Scores High on National Health Emergency Readiness Survey

North Carolina is one of five states nationally to receive the highest score on a recent survey about emergency readiness. The Tarheel state scored 8 out of 10 on key indicators of public health preparedness.

The nonpartisan Trust for America's Health and the Robert Wood Johnson Foundation released the annual "Ready or Not?" report in mid-December. The report has for the past 10 years provided a snapshot of each state's readiness for public health emergencies.

The report says that in the years since Sept. 11, 2001, preparedness has improved, but gaps still remain. In particular, many states have gaps in readiness for extreme weather and health emergencies, such as bioterrorist threats and serious disease outbreaks.

For details see www.healthyamericans.org/report/101/.

Taken from information provided by TFAH news release.

Mark your Calendar

- Jan.15-17 NC HART training, *Badin Lake*
- Jan.16 NCEM Forum *Raleigh*
- Jan.18 State Emergency Response Commission meeting, *Raleigh*
- Jan.23 Harris Ingestion Pathway Zone workshop, *Raleigh*
- Feb.19-21 NC HART training, *Camp Butner*
- Mar.10-13 NCEMA spring conference, *Sunset Beach*
- Mar.20-24 Search & Rescue exercise, *Burke County*

Staffing Changes

Joining the Community

James Brown –joined NCEM as Deputy Logistics Chief Jan. 2. Brown previously worked in Richmond, Va.

Mike Feger – is the new NCEM exercise officer tasked with state and nuclear graded exercises, as well as local grant-funded exercises. He is a former military contractor.

Saying Goodbye

Doug Hoell –is retiring effective Feb. 1. Doug has served as NCEM director since 2005 and has been with the division since 1977. Farewell friend; we wish you well!

Jordan Rink – of Wake County EM is leaving the county Jan. 25 to take over the Blue Ridge Preparedness Group.

Monty Stevens – director of Stokes County Emergency Management, retired Dec. 31 after 32 of service with the county. He will be sorely missed.

