

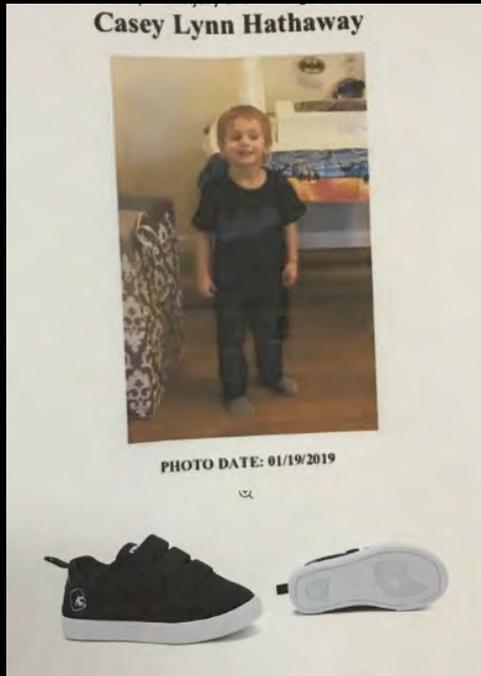


North Carolina Emergency Management

North Carolina Office of Recovery and Resiliency

2019 Year In Review

Search for Casey Hathaway



January 23-25

A three-year old Craven County boy beat all the odds and was found alive and well after three days alone in wet conditions and freezing temperatures.

NCEM Eastern Branch staff helped organize and manage the search. Hendrix Valenzuela was part of the two-man team that found Casey in the woods.



Catawba Flood Exercise

Rescue agencies from across the country and around the world were included in this multi-day search exercise, enabling all participants to learn from each other.
March 30- April 4



Durham Gas Explosion

April 10 - Urban Search and Rescue Team members and Structural Engineers responded at the request of Durham County





Energy Emergency Working Group



Gathers partners from the energy sector to collaborate, review incidents, learn and share best practices. Topics this year included OBX power outage, Greensboro tank farm fire, 811, electromagnetic pulse events and more.
- Feb 1 and Aug 15



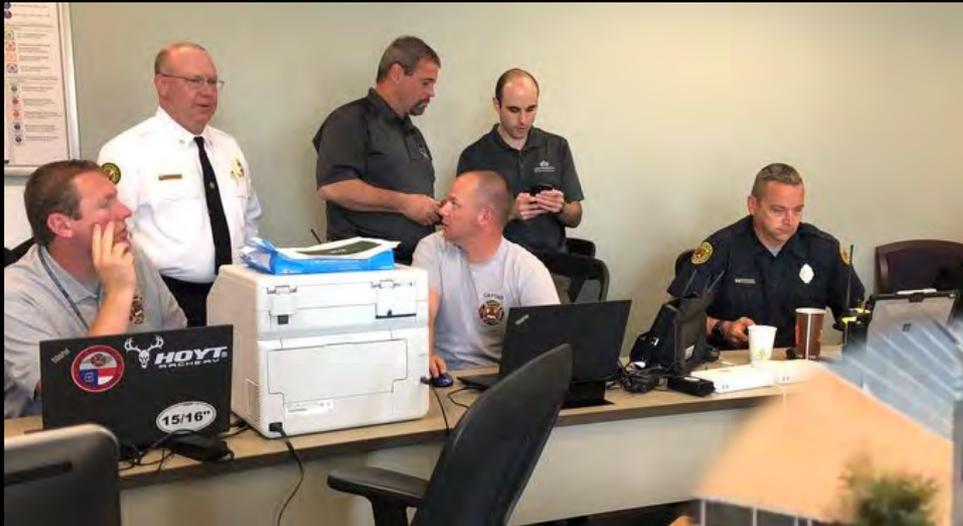
NCEMA Spring and Fall Conferences

State and local emergency management experts came together at the annual conferences to discuss response and recovery efforts. ~ March/October



UNC Charlotte Shooting

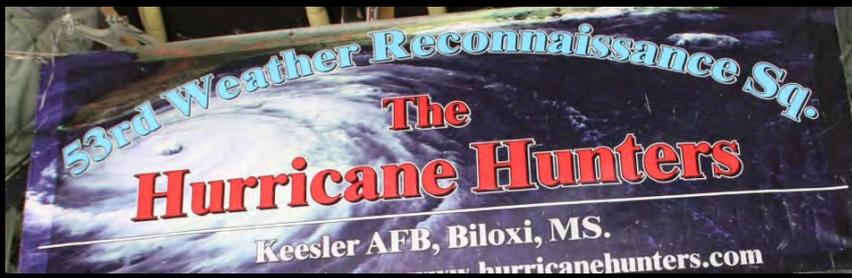
April 30



Two people died and six were injured in this campus shooting.

NCEM provided incident management support.





NOAA Hurricane Awareness Tour – Charlotte

May 9



Statewide Hurricane Exercise

The statewide exercise tested the SERT's ability to respond to and recover from 'Hurricane Flash.' The two-day full-scale exercise provided an opportunity for more than 280 people from 81 partner agencies to coordinate and collaborate on local and state disaster response plans.

~ May 22-23



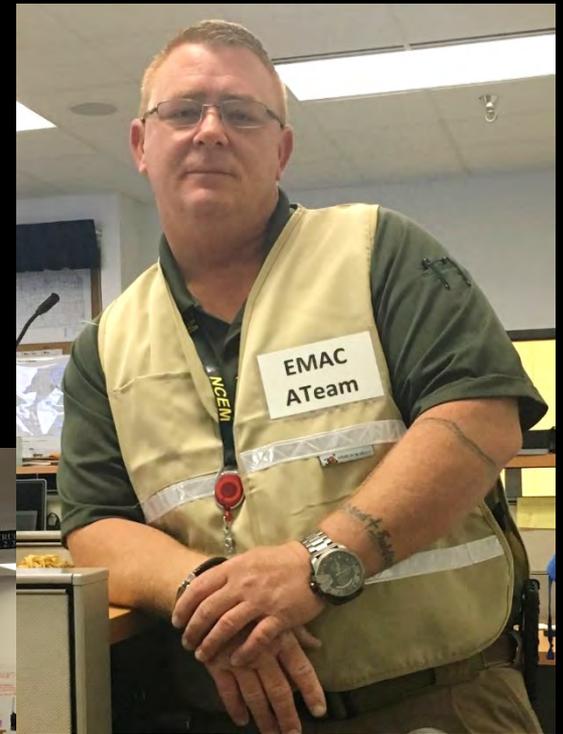


Emergency Management Assistance Compact

Kansas Floods

IMT and A-Team members assist Kansas with response to spring floods

Greg Weavil served on EMAC A-Team at Kansas State EOC May 27 to June 7





Emergency Management Assistance Compact

David Leonard and Melissa Greene assisted Wabaunsee County, Kansas EOC





Emergency Management Assistance Compact

Brian Parnell and Eric Wiseman served in Jefferson County and Riley County, Kansas





Emergency Management Assistance Compact

Mobile Hospital

North Carolina's mobile operating suite returned from a long-term deployment in St. Croix, U.S. Virgin Islands following Hurricane Maria.



SERT Aviation Symposium



State, federal and private partners who operate aircraft during disasters met at State EOC to coordinate, plan, network and explore partnership opportunities.

– May 17



Catawba River Flooding

Flooding along the Catawba River in Catawba and Mecklenburg counties inundated neighborhoods and resulted in an SBA Disaster Declaration and a State IA declaration.
- June 8-12

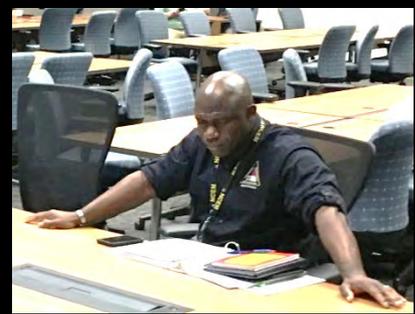




McGuire Nuclear Station Exercise

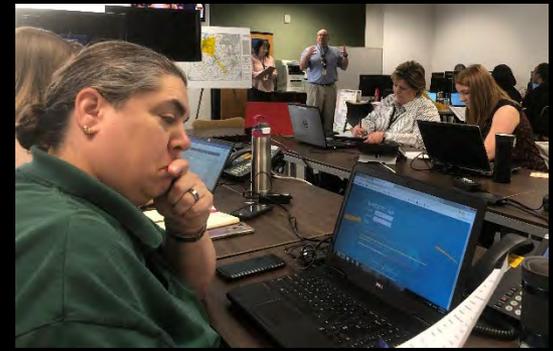


Mecklenburg, Gaston, Iredell, Catawba, Lincoln and Cabarrus counties exercised plans for response to a nuclear emergency at the McGuire Nuclear Station in Huntersville. June 4 & Aug 13



Harris Nuclear Plant Exercise

NCEM, Duke Energy, Wake, Chatham, Lee and Harnett counties tested their coordinated response to a radiological incident at the Harris Nuclear Plant. The federally-required exercise involves testing various aspects of response over a multi-week period. ~ March 14 & April 30



NCEM-ECU Hurricane Conference



More than 200 local emergency managers, nonprofit representatives, military, meteorologists and educators met to review and discuss hurricane predictions, preparations and response. ~ May 29



DOD Summit

NCEM hosted the 12th annual meeting of officials from Department of Defense agencies and North Carolina's military installations, to discuss and review disaster response plans. ~ June 12



Disaster Recovery Contracting Summit

East Carolina University and the Small Business Technology Development Center partnered to teach North Carolina companies how to compete for contracts for disaster recovery work with agencies like FEMA, NCEM and NCDOT. – August 7



Hurricane Dorian



Emerald Isle



Brunswick County



Hatteras

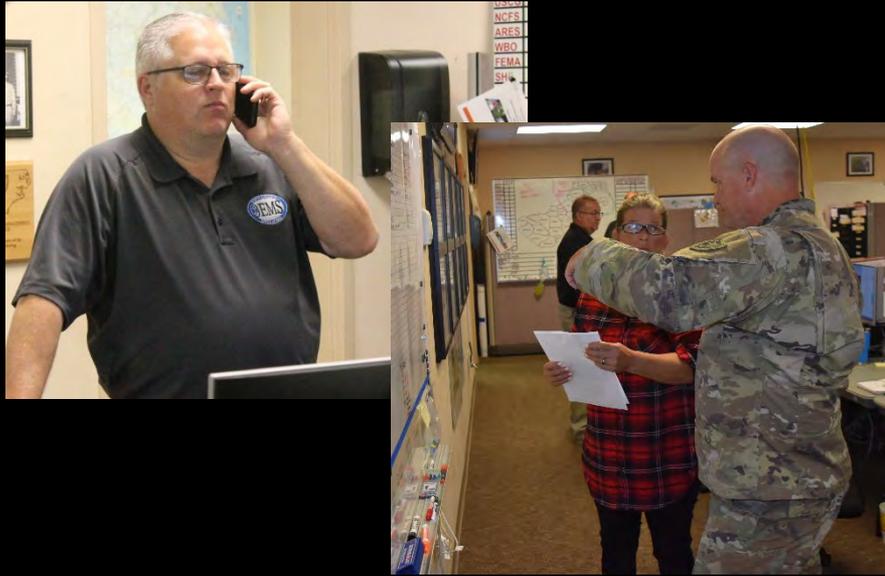


Ocracoke



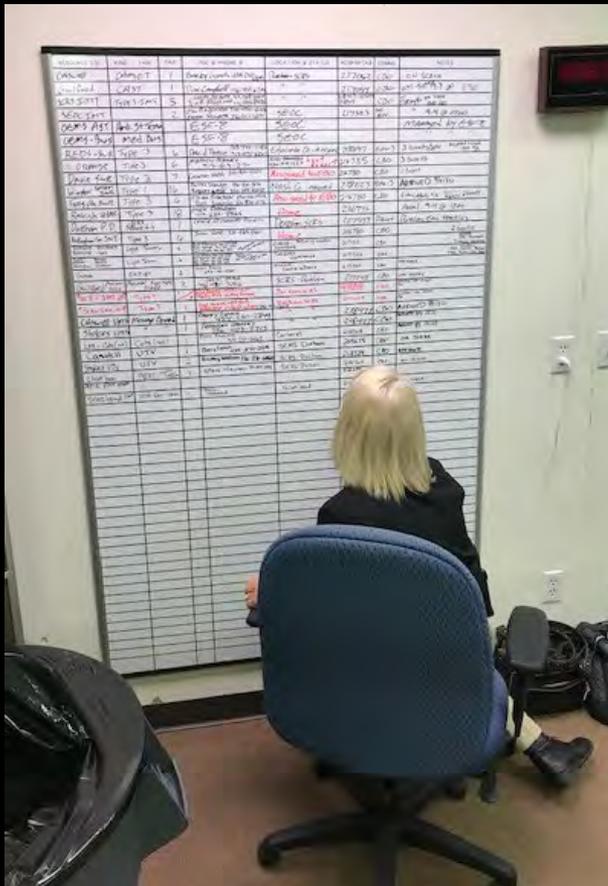
Hurricane Dorian

RCC East - Kinston



Hurricane Dorian

RCC Central Butner



Hurricane Dorian – State Coordinated Regional Shelter in Durham



Hurricane Dorian

Search teams deploy to Ocracoke Island



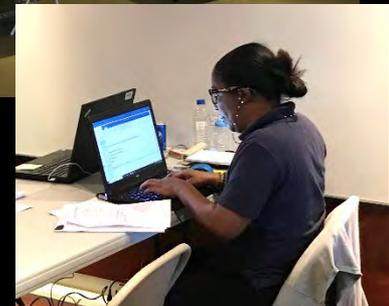
Hurricane Dorian – Ocracoke Island



Ocracoke Medical Clinic



JMOC becomes Ocracoke Recovery Center



Special Congressional Elections

District 3 and District 9



Sept. 10 – Just a few days after Hurricane Dorian struck, special elections were held in two of North Carolina's congressional districts. Cyber security teams monitored to ensure everything went smoothly. Emergency managers on Ocracoke worked to set up a temporary polling place so island residents could vote.



Safe Elections

In order to explain the state's efforts to ensure safe and secure elections, the State Board of Elections along with cybersecurity partners DIT, NCNG, NCEM and federal agencies held a voter confidence news conference – October 17



**#YourVote
CountsNC**

Municipal Elections

November 5



November Nor'easter

Nov. 15-17



Providing Essential Training

NCEM sponsored more than 500 classes this year training more than 10,000 personnel on topics such as: CERT, search and rescue, disaster response and recovery; sheltering; hazardous materials; active assailant; public information and radiological emergency preparedness.

	Classes	Students
Incident Management and Command	222	3,577
Floodplain	10	191
Search & Rescue	69	1,240
Hazardous Materials	3	26
Public Information/Communication	14	299
Active Assailant	4	67
Radiological Emergency Preparedness	5	164
Community Emergency Response Team	63	917
Other Federal Training	35	687
Other State Training	115	3,036
TOTAL	540	10,204

AHIMT Academy at Lake Junaluska

Nearly 100 emergency responders from across the state trained at the hosted the 4th annual All-Hazards Incident Management Team Academy held at Lake Junaluska. NCEM All Hazards Incident Management Teams (AHIMTs) are designed to support local emergency management agencies when an incident becomes too large or complex. Each team is composed of about 20 members who are specifically qualified for their assignment. – Feb. 11-14



Branch Training Weeks

April 22-16
at Craven
Community College

June 25-29
at Guilford Tech
Community College



FEMA EM Basic Academy

Graduated January 10





Tactical Communications School

July 29 – Aug 2

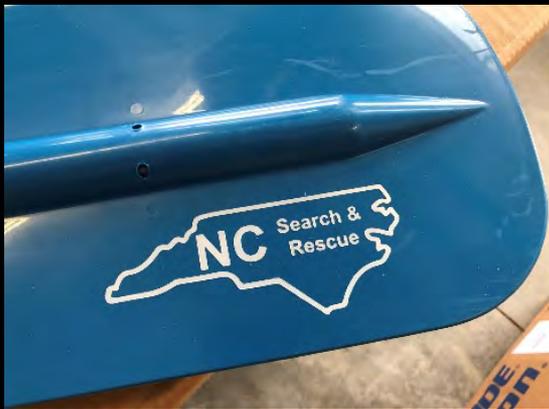


Search & Rescue Training

Hundreds of responders trained with NCEM on various types of SAR operations including:

- Wilderness search classes
- Structural collapse training
- Catawba Flood Exercise
- DuPont Rescue Experience
- Randolph and Moore SAR exercises
- Multi-platform HART training
- Swift water boat operators course
- Land search field team training





Water Rescue Equipment



Thanks to more than \$2 million in search and rescue funding from the legislature, NCEM was able to purchase more than 40 boats, along with motors and equipment to support swift water rescue teams across the state – July 10



NCHART

NC HART combines aviation assets from NCNG & SHP using 3 platforms (NCNG's Blackhawk & Lakota and the Highway Patrol's Bell 407s). Each platform trains monthly with qualified rescue technicians from local fire and rescue agencies.



In 2019, NCHART crews...

- Flew five in-state rescues Avery (2), Polk (2), Burke
- Numerous training events
- Multi-platform exercise, cross-training technicians



New SHP Helicopters

Two new Bell 407 helicopters added to the State Highway Patrol fleet brought new capabilities to NCHART program.



Civil Air Patrol

The NC Wing adds FLIR camera capability on two aircraft





HazMat Response & Training

NC Regional Response Teams provide support to locals during chemical releases, criminal acts and transportation incidents. In 2019, they:

- Responded to a record 45 state hazmat missions (breaking last year's record of 35)
- Handled hundreds of local missions
- Conducted training missions



CERT Training and Response

- With the addition of new teams in Cumberland, Lincoln, Union and Johnston counties - and Concord, North Carolina now has 98 Community Emergency Response Teams trained in basic disaster response skills – in 54 counties.
- 1,004 individuals completed CERT training in 2019
- Partnership with HBCUs led to basic training at Shaw, ECSU, St. Aug's, Fayetteville State and NC Central.



Hatteras Island CERT worked more than 4,000 hours for Dorian response – even on Ocracoke.

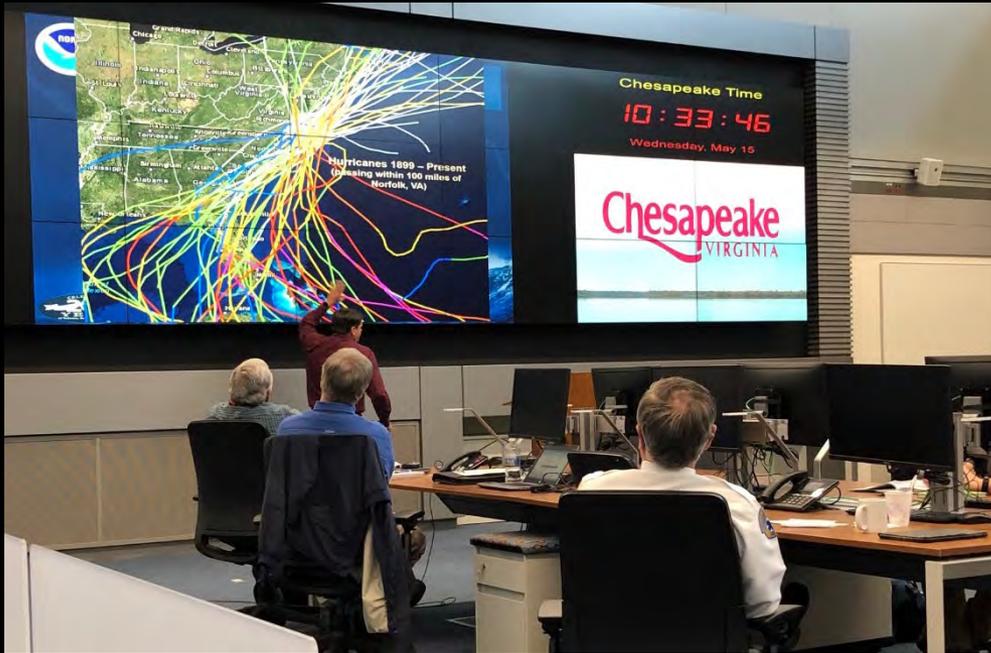


CERT trains teams in Moldova

CERT Coordinator Samantha Royster traveled to Moldova in May to train Moldovans on how to start their own CERT program.



NC / VA Evacuation Coordination Meeting



Annual meeting with Virginia partners to coordinate coastal evacuation issues between two states - at Chesapeake, VA EOC - May 15



Know Your Zone Initiative

Do you Know Your Zone?

In an emergency, local officials will order evacuations using pre-determined zones to keep your family safe. These zones highlight areas most at risk to impacts from hurricanes, tropical storms and other hazards.

Enter your address to find your zone →

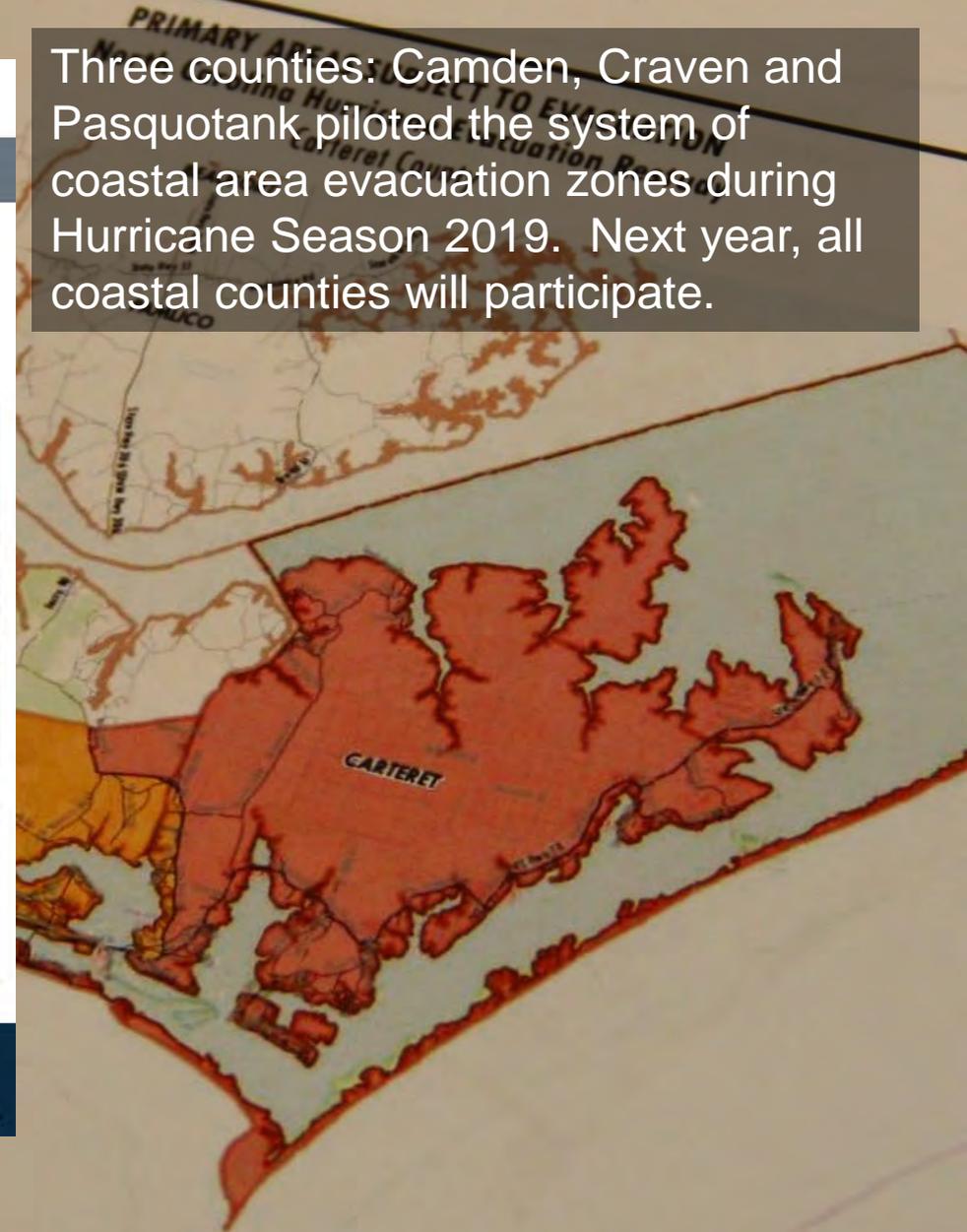
Frequently Asked Questions
Find answers to common questions regarding Know Your Zone

Evacuation Zone Maps
Look at a map of your county's evacuation zones

Digital Toolkit
Tools for local governments to use in Know Your Zone education

North Carolina Evacuation Zones

Three counties: Camden, Craven and Pasquotank piloted the system of coastal area evacuation zones during Hurricane Season 2019. Next year, all coastal counties will participate.

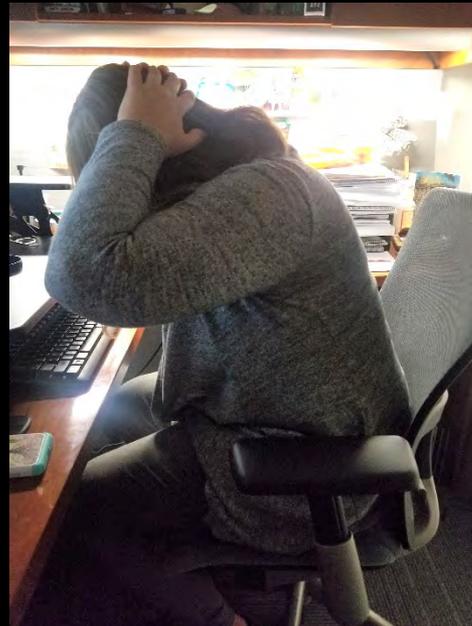


Great Southeast Shakeout Earthquake Drill

October 17



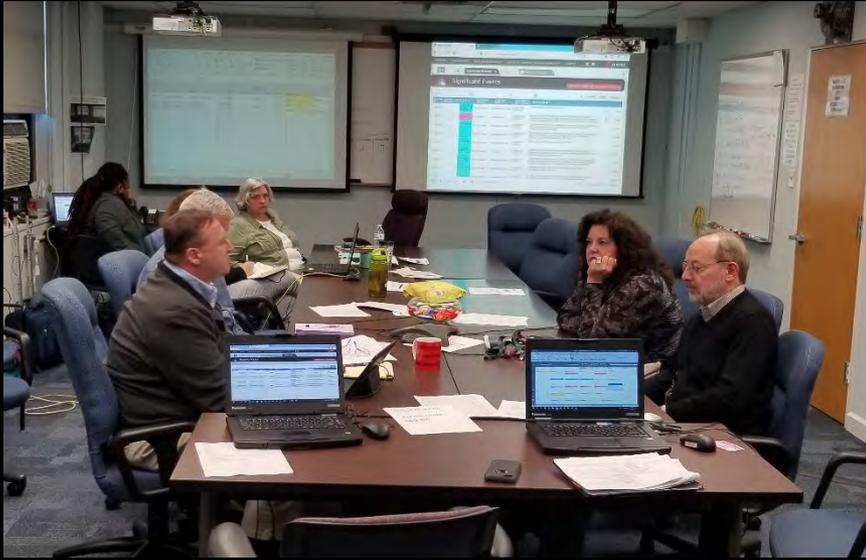
Great Southeast Shakeout Earthquake Drill October 17



Ebola Full Scale Exercise

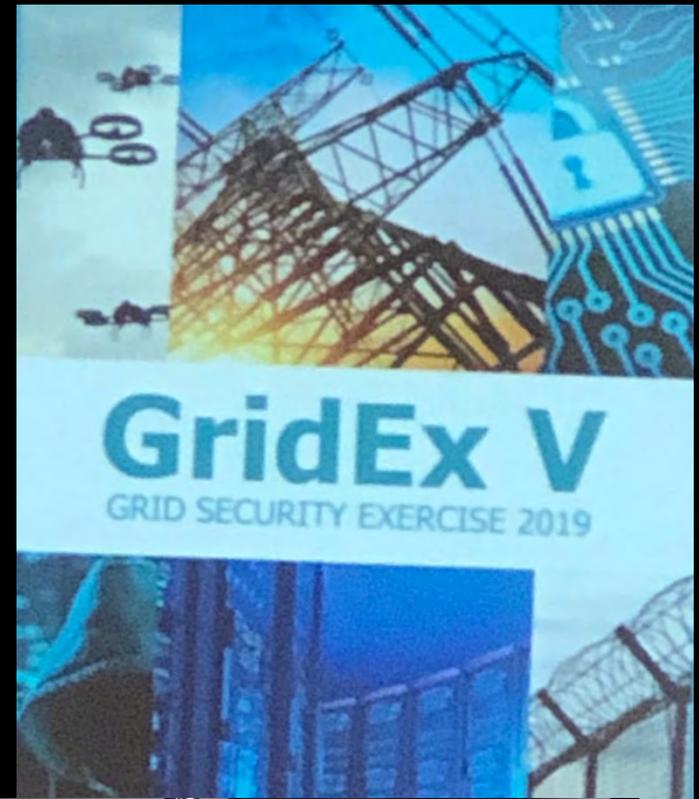
November 6-7

NCEM participated with NCDHHS and hospitals across the state to exercise procedures for Ebola response, patient treatment and transport.



GridEx V

November 13 - Partnered with utilities and NC cyber response team in tabletop exercise simulating cyber threats to the electric power grid



Disaster Recovery Information Sessions

Visited 17 counties in August and September to share recovery program information



Helping Families Recover

- ✓ We begin 2020 in the middle of the largest ongoing recovery operation in our state's history
- ✓ Four storms – Matthew, Florence, Michael and Dorian
- ✓ 77 of 100 counties have received disaster declarations since Hurricane Matthew in 2016
- ✓ More than \$3.2 billion in state and federal aid delivered for Matthew and Florence



Hurricane Florence Housing Assistance

Hurricane Florence highlighted the shortage of affordable housing in many eastern North Carolina communities. State and local officials continue working to provide long-term solutions for disaster-resilient housing. Meanwhile, a variety of programs helped families find safe shelter.



- **656** Travel Trailers or Manufactured Home Units installed to temporarily house families while they repair their homes.
- **261 households** remain living these temporary housing units
- **395** families have successfully moved on to more permanent housing



NC STEP

North Carolina Sheltering and Temporary Essential Power

Provided basic repairs to make homes safe, sanitary and habitable, so residents could shelter-at-home while continuing further repairs.

- Six-month program
- Began in November 2018
- Ended in April 2019
- Operated in 12 approved counties
- More than 2,300 homes completed
- 13 contractors
- Two VOADs
- In October, FEMA announced termination of the STEP pilot program nationally





NORTH CAROLINA OFFICE OF RECOVERY AND RESILIENCY

ReBUILD NC

- NCORR has committed more than \$156.9 million in CDBG-DR funds to help rebuild impacted communities, an increase of 972% from this time last year.
- NCORR has issued 1,261 homeowner award letters to storm survivors. This is a 719% increase in the past year.
- One year ago, 19 storm survivors' homes were under construction. Today, the number of storm survivors' homes with construction initiated or construction completed has increased to 541.
- Over \$7.9 million in grants and \$22.2 million in loans to 21 communities through a state-funded Grant and Loan Program.





NORTH CAROLINA OFFICE OF RECOVERY AND RESILIENCY

ReBUILD NC

- Now preparing to launch new Hurricane Matthew programs, including a homeowner buyout program to get people out of harm's way and a small rental program to increase affordable housing in impacted communities.
- NCORR is now well positioned to quickly establish new programs when HUD publishes the Hurricane Florence Federal Register notice giving North Carolina access to an additional \$542 million in funding.
- Funds awarded to storm survivors by NCORR represent a large percentage of the \$3.2 billion that has been spent helping North Carolinians recovery from Hurricanes Matthew, Florence and Dorian.

Flood Gauges

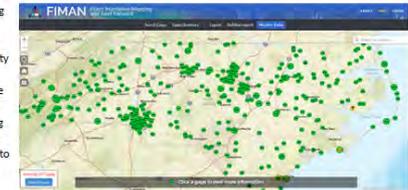
NCEM was able to expand the state's network of flood gauges this year in three ways:

- 54 new gauges installed and included in FIMAN
- In partnership with NC A&T Geomatics program and UNC North Carolina Policy Collaboratory established a low-cost gauge test site at NC A&T
- Created the Adopt a Gauge (AaG) program



North Carolina Emergency Management Adopt a Gauge (AaG) Program

The Flood Inundation Mapping Alert Network (FIMAN) provides flood warning information to local community officials and the public. The goal of FIMAN is to reduce the loss of life and flood related property damage by providing timely, detailed, and accurate flood inundation information to government officials and the public.



FIMAN uses data from a network of more than 500 gauges. In order to provide flood warning information for additional locations in North Carolina more stream gauges are being installed. For FIMAN to provide timely and accurate information, data from these gauges must be obtained 24 hours a day, seven days a week with no interruptions.



Gauge maintenance is critical to being able to provide data to community officials and the public during an event. North Carolina Emergency Management has created the Adopt a Gauge (AaG) program to partner with local officials to insure that gauges are operational and to notify NCEM when a gauge needs repair.

The AaG program would allow a county or local government to adopt the gauges in their community and serve as eyes on the ground for those gauges. AaG partners would use the NCEM/AaG web page to report status information about a gauge site, to report problems (debris buildup, damage, theft) or report that the gauge is in good condition.

The AaG partner would also serve as a local contact that could handle a quick visit to a gauge to perform simple maintenance tasks.

For additional information about the program submit your questions or information request to NCEM. (aag@ncem.org)

Comparing LiDAR based flood mapping to surveyed edge of water

High Water Mark (HWM) Photo Application

High Water Mark Location

Please Mark the location of the building or object that exhibits a high water mark from flooding. Search for your location by using the buttons provided below, or use the zoom and pan tools to move the map to your exact location. Attach a photo to help surveyors locate the mark.

1. Enter Information

Name of Collector

Photo Type

High Water Mark

Notes (<150 char)

Attach a photo of the high water mark

Select File

2. Select Location

Specify the location for this entry by clicking/tapping the map or by using one of the following options.

Search Lat/Lon

Find address or place



Continuously Operating Reference Station (CORS) Network

Supports Public Safety Applications

- Floodplain mapping
- FIMAN
- SERA
- 911
- Statewide aerial imagery project
- Statewide LiDAR elevation project
- High water mark data collection

Solar powered CORS with weather sensor at Rodanthe



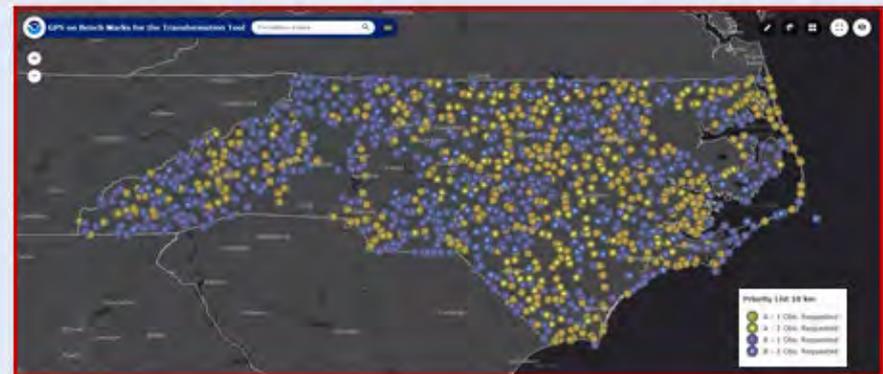
Preparing NC for the 2022 Datum Change

Gravity Data Collection

- New gravity marks established (relative and absolute)
 - One hundred and twenty (120) in western North Carolina (relative)
 - Partnering with NGS to establish eleven (11) new absolute gravity stations in western North Carolina (NC)
 - Observations completed in western NC on 11/14/19



National Geodetic Survey GPS on Bench Marks 2019/2020



NC SPARTA (WebEOC) New Features

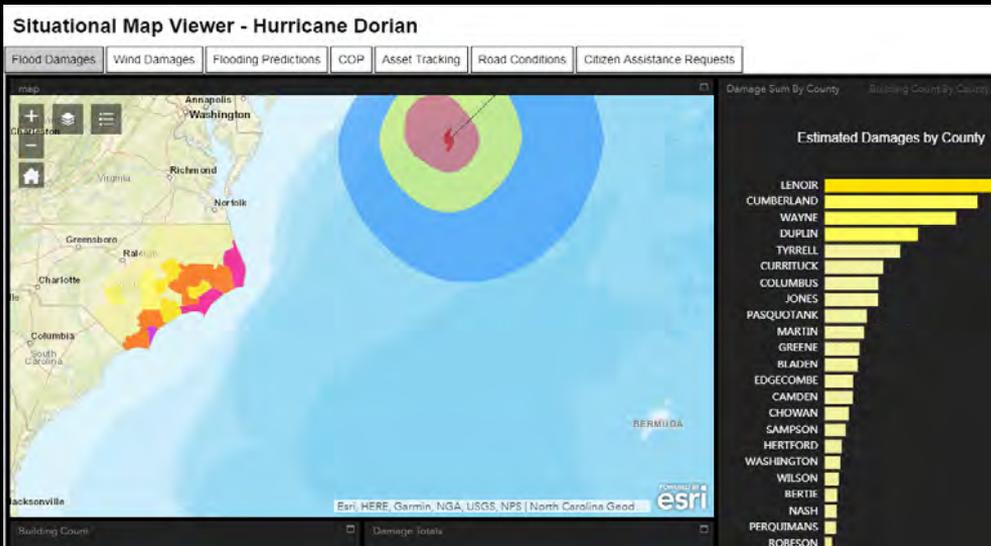
- Created 1,006 new WebEOC accounts
- Created 4 new boards and modified 23 existing boards
- Continued Logistics development to capture costs, bill of lading, notifications
- Partnered with 211 to capture and track citizen requests
- Updated the power outage feed to consume all information electronically
- Developed a Situational Map Viewer
- Re-initiated the WebEOC User Group (statewide and NCEM internal)
- Received an award from Juvare for Hurricane Florence response

211 Citizen Calls

County	Address	Description	Status	Action
Alamance	301 Jones Street graham , NC	test	Complete	Edit
Hyde	37 Tuttle Lane Ocracoke , NC 27960	There are two adults in the home which sits on stilts above water. There is rushing water below. Felicity Gage Gael Hawkins	Complete	Edit
Onslow	TEST TEST , NC	TEST	Complete	Edit

NCNG Armories

Armory	County	Status	Address	Action
ALBEMARLE ARMORY	Stany	Closed	120 College Drive Albemarle 28001-0249	Edit
ASHEBORO ARMORY	Randolph	Closed	1430 South Fayetteville Street Asheboro 27205-6850	Edit
ASHEVILLE ARMORY	Buncombe	Closed	100 Minuteman Drive Asheville 28806	Edit
BELMONT ARMORY	Gaston	Closed	300 North 6th Street Belmont 28012-3239	Edit
BENSON ARMORY	Johnston	Closed	320 East Mann Street Benson 27504-1914	Edit
BEULAVILLE ARMORY	Duplin	Closed	435 South Jackson Street Beulaville 28518-8747	Edit
BOONE ARMORY	Watauga	Closed	274 Hunting Hills Lane Boone 28607-1489	Edit



Resource Tracker

Record	Originating Agency	Initial Date/Time	Assigned To User	Priority	Resource/Use	Status	Notes/Attachments	Action
223198	Emergency Medical Services	12/05/2019 11:39:23	Log Support	High	Other Need two road tr...	Enroute Lead - Logistics Coordinator 12/05/2019 12:01:51	PO Processed PO#: DOR2... Gregory Weavil 12/08/2019 10:04:32	Edit Deploy No Deployments
219352	NCEM Operations Chief	09/05/2019 13:22:43	Log Support	Medium	Base Camp Request Kerr Sc ...	Complete Lead - Logistics Coordinator 11/25/2019 08:24:58	PO Processed DOR219362... Gregory Weavil 11/25/2019 06:11:44	Edit Deploy No Deployments
219377	RCC East Operations	09/05/2019 13:56:10	RCC East ComL	High	Radio Cache 10 Viper Talkgrou...	On Scene Lead - Communications Branch Coordinator 11/21/2019 09:23:58	I spoke with Sgt. Knight and... David Parker 09/05/2019 14:27:49	Edit Deploy No Deployments



School Risk and Response Management Progress

Progress to date includes:

- Several Awards and articles for the SERA system
- Contacted ~ 75 County EMs
- Working with Law enforcement and First responders
 - ~ 40 counties completed
- 55 of 58 Community Colleges now in Production
- Contacted all Community Colleges, working to provide Access to Higher Education Risk Management Plan
 - ~ 25 Community Colleges Provided Access





STATE EMERGENCY RESPONSE APPLICATION

Dams

- 705 dams now in production
- Shows impacts including:
 - Roads closed
 - Time water will reach certain lengths
- All data provided to NCDEQ Dam Safety Section

Prisons

- All Prisons in production
- All prison wardens provided access
- All Juvenile Justice facilities in production

Working on upgrades and maintenance.

STATE EMERGENCY RESPONSE APPLICATION

CATEGORY: Dams COUNTY: Orange DAM NAME: Cane Creek Reservoir Dam

CANE CREEK RESERVOIR DAM PROFILE

Cane Creek Reservoir Dam

State ID:	ORANG-01
Spillway Type:	Other
National Inventory of Dams ID (NID):	NC00779
Failure / Breach Type:	IMPOUNDING
Structural Height:	72 ft.
Normal Freeboard:	12 ft.
Normal Pool Elevation:	498 ft.
Receiving Stream:	Cane Creek
Latitude:	35.95028
Longitude:	-79.24111

CONTACTS: [collapse]
IMPACT: [collapse]
RESPONSE: [collapse]
ON-SITE DIRECTIONS: [collapse]

STATE EMERGENCY RESPONSE APPLICATION

CATEGORY: Dams COUNTY: Mecklenburg DAM NAME: Crystal Springs Lake Dam

PROFILE

Crystal Springs Lake Dam

State ID:	MECK-01
Spillway Type:	Other
National Inventory of Dams ID (NID):	
Failure / Breach Type:	
Structural Height:	
Normal Freeboard:	
Normal Pool Elevation:	220.87 ft.
Receiving Stream:	
Latitude:	0
Longitude:	0

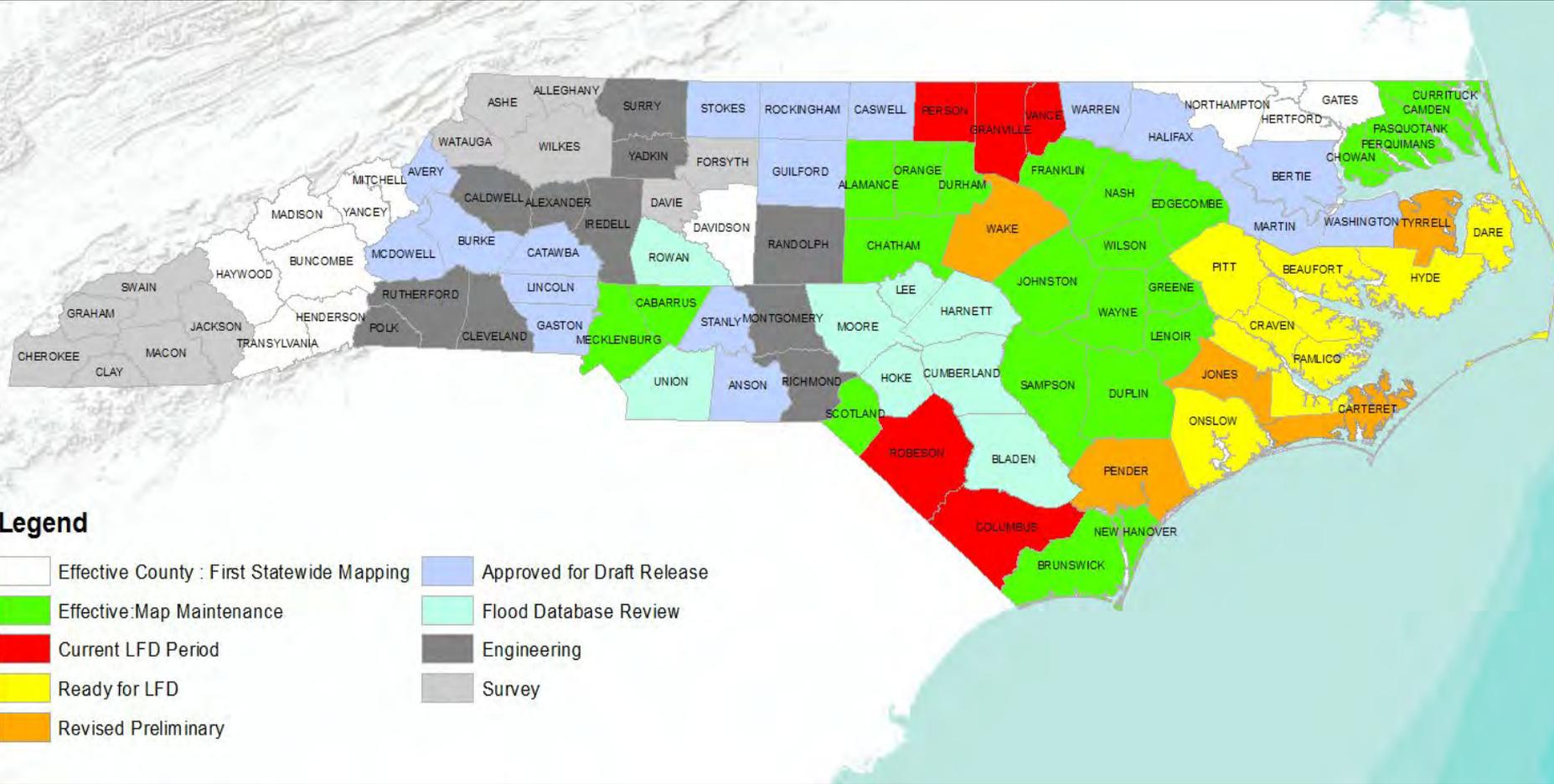
CONTACTS: [collapse]
IMPACT: [collapse]
RESPONSE: [collapse]
ON-SITE DIRECTIONS: [collapse]

Crystal Springs Lake Dam

Image Info

File Name:	DR_0082.jpg
Date:	2018-01-10 10:50
Longitude:	80.919
Latitude:	35.0814
Relative Alt:	102.26 ft.
Absolute Alt:	220.87 ft.
Above Sea Lvl:	220.54 ft.
Camera Pitch:	-34.25°
Camera Yaw:	-113.30°
Camera Roll:	0°

Flood Mapping – Status of map updates



SERC Meetings

The State Emergency Response Commission met four times this year to review, assess, plan and implement projects and procedures to protect North Carolina residents and the environment through effective emergency planning. Topics included: Cyber security, school security, hurricane recovery and more.



Partnering with the Private Sector

In its fifth year, NCEM's private sector program/ BEOC has more than 660 businesses engaged with the state before and after disasters – in banking, energy, health care/ pharmacy, retail, grocery, restaurants, lodging, utilities, communications and more. The North Carolina BEOC continues to lead the nation in operational private partnerships, cross sector coordination and the incorporation of the private sector into State EOC Operations.



Design Professionals
(engineers and architects) to 225

Expanded capabilities with:

- OnStar
- Uber
- Google
- Facebook



Preparing Communities

NC 2-1-1 can help you find assistance in a disaster.

Dial 2-1-1 or
1-888-892-1162



In partnership with the National Weather Service, NCEM led four campaigns to prepare North Carolinians for various types of severe weather including tornadoes, hurricanes, snow and ice. Materials were sent to county emergency management agencies, issued by Governor's office and pushed across social media platforms.

- Severe Weather
- Hurricane
- Winter Weather
- Great Shakeout
- Preparedness Month
- Know Your Zone

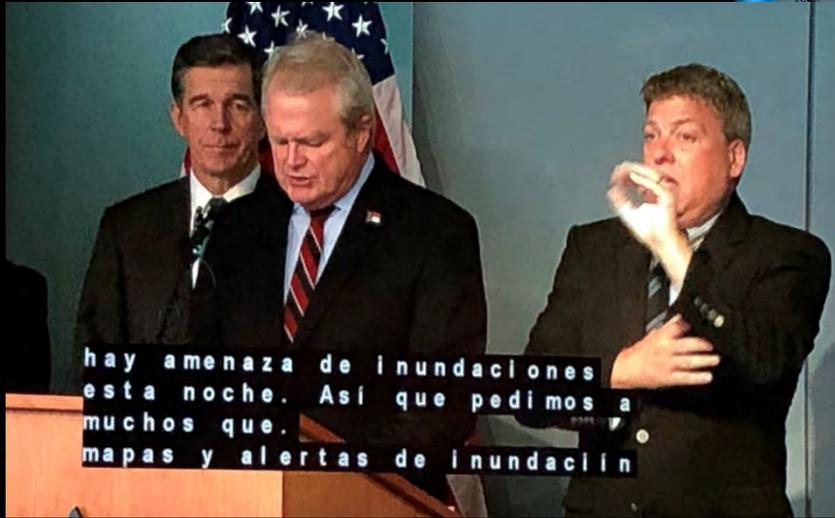
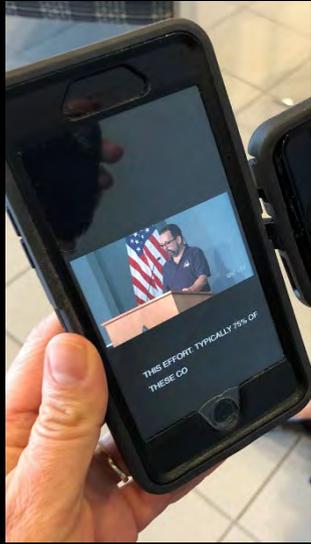
Consejos para manejar durante el invierno

- No conduzca en la nieve y el hielo a menos que tenga que hacerlo.
- Reduzca la velocidad.
- Asegúrese de que el tanque de gasolina esté lleno.
- Deje suficiente espacio entre usted y los demás vehículos.
- Pase por puentes y pasos a desnivel con precaución.
- Mantenga los artículos básicos a la mano: raspador, cables de arranque, mantas, linterna, botiquín de primeros auxilios, hoja de ruta.
- Si comienza a deslizarse, quite el pie del pedal del acelerador.

ReadyNC.org



Interpreting News Conferences into Spanish



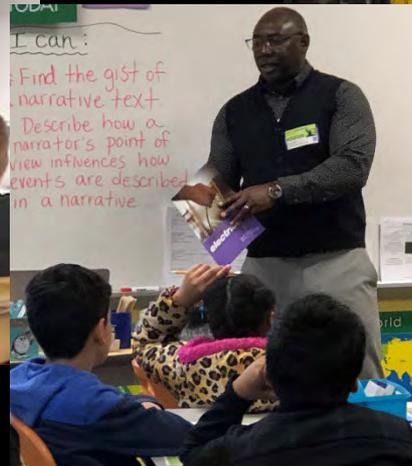
Community Outreach



La Fiesta del Pueblo
Raleigh



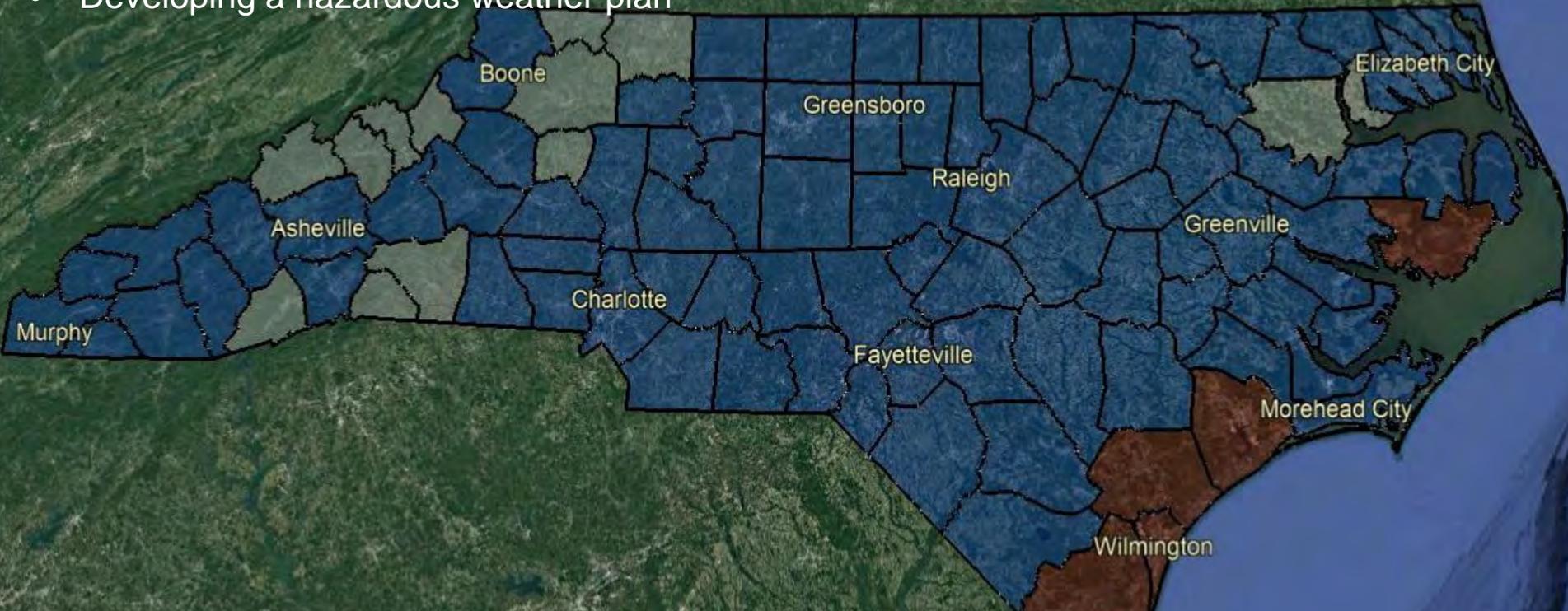
Hurricane Awareness Tour - Charlotte



School
visits

NCEM and NWS are working to encourage all counties to be certified StormReady by:

- Establishing a warning point & EOC
- Having multiple ways to get weather warnings
- Creating a system to monitor local weather
- Promoting emergency preparedness
- Developing a hazardous weather plan



	StormReady [87]
	StormReady and TsunamiReady [5]
	No Status [13]

- ✓ 7 universities
- ✓ 9 communities
- ✓ 5 military sites
- ✓ 2 commercial sites

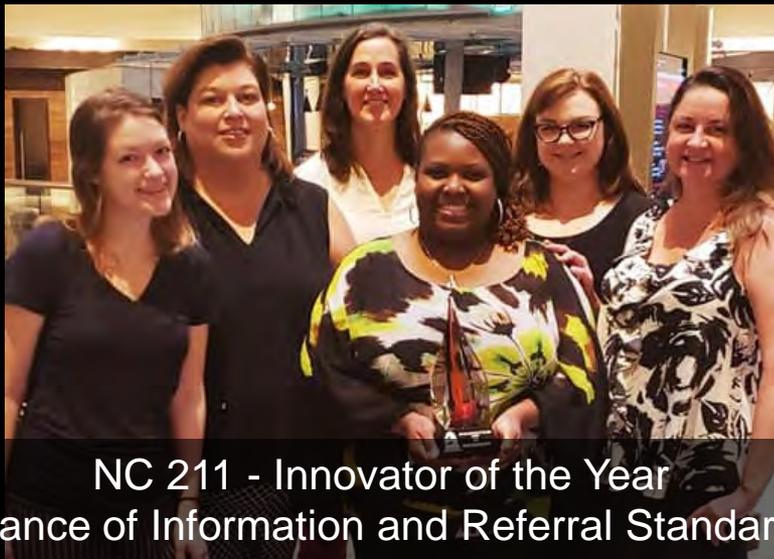
Awards & Recognitions



Higgins and Langley Memorial Awards for
Swiftwater Rescue



NC Association of Broadcasters
Wade Hargrove Community Service Award



NC 211 - Innovator of the Year
Alliance of Information and Referral Standards



NASCIO 2019 State IT Recognition Awards
State Emergency Response Application

Awards & Recognitions



Brenda Morris
NCDPS Badge of Excellence



Gary Thompson
National Council of Examiners for
Engineering and Surveying (NCEES)
Distinguished Service Award

Retirements and Departures



People of NCEM and NCORR













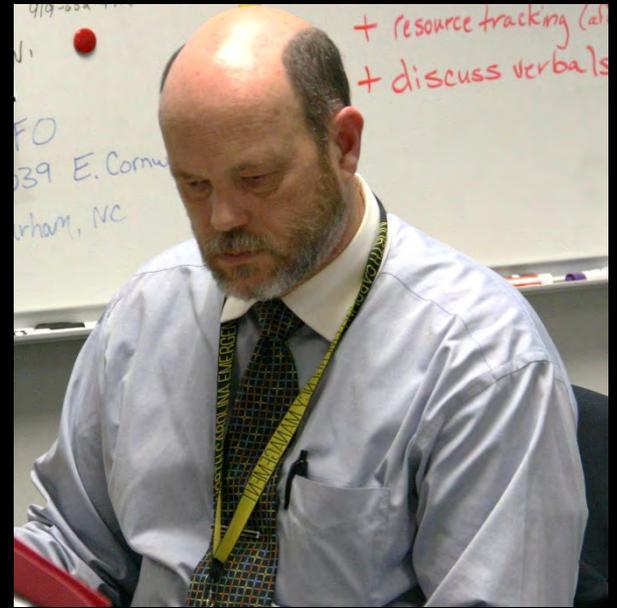












Happy Holidays!

