

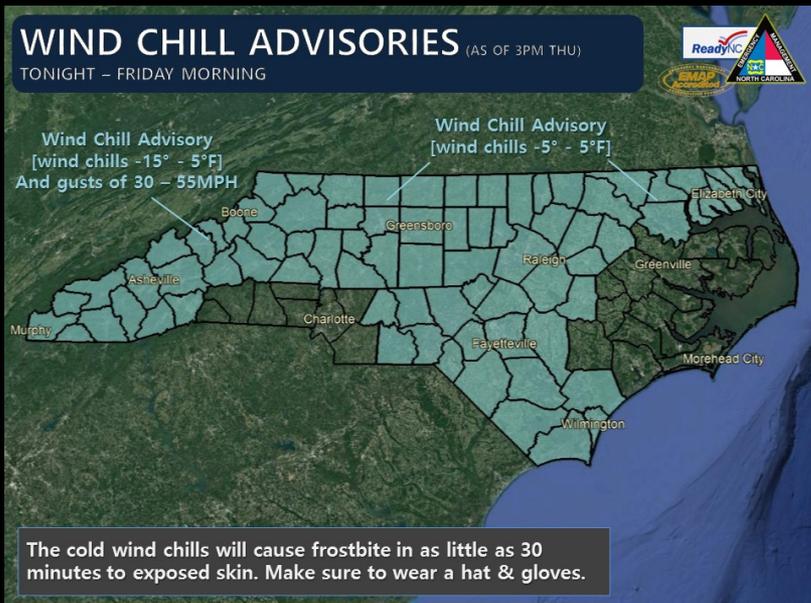
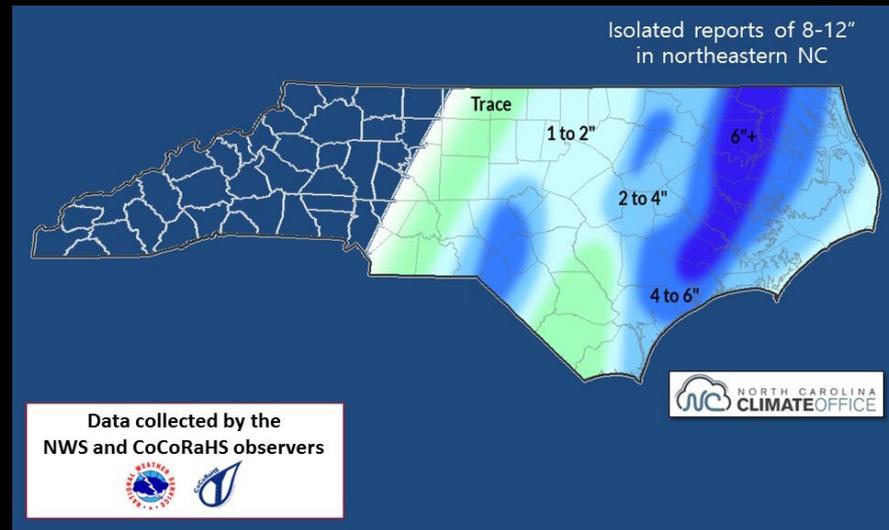


North Carolina Emergency Management 2018 Year In Review



Winter Storm

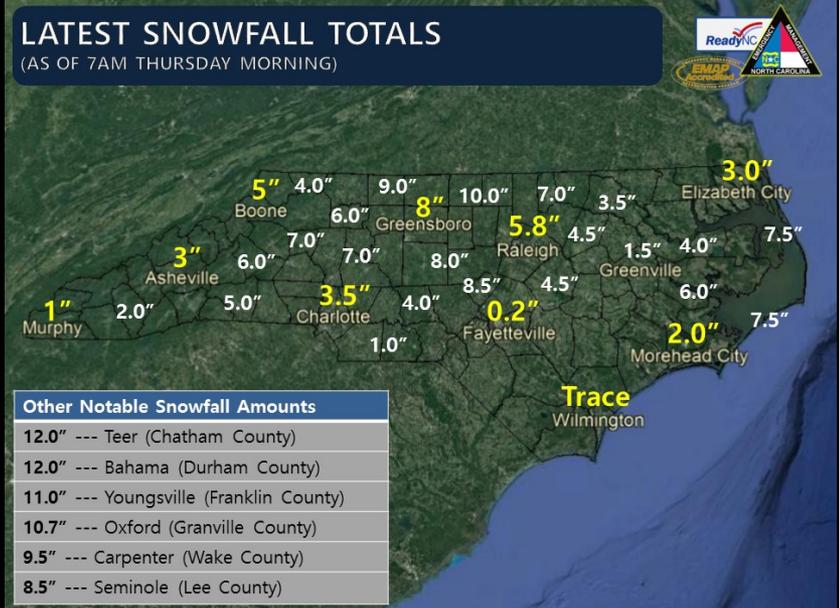
Winter weather struck the whole state as a powerful storm slammed the entire east coast. Bitterly cold temperatures plunged North Carolina in an unusual cold snap for a week. A wintry mix fell across the east, up to 3" of snowfall across the Piedmont and 6-12" of snow from the coastal plains to northeastern counties. The storm caused 4 fatalities and 20,000 power outages. State troopers responded to nearly 1,300 crashes in less than 48 hours. ~ Jan 3-5



The cold wind chills will cause frostbite in as little as 30 minutes to exposed skin. Make sure to wear a hat & gloves.

Winter Storm #2

The second winter storm in two weeks was an even bigger snowmaker, dumping up to 12 inches across Durham, Chatham, Granville and Franklin counties. One storm related fatality occurred in a Washington Co. traffic accident. - Jan. 15-17





Winter Forums

NCEM Senior Staff traveled to the three branches to discuss ongoing disaster relief efforts, upcoming events, training and other topics of interest to county partners. In Marion, NCEM staff visited the new McDowell County EOC and emergency equipment warehouse ~ Jan. 11, 16 & Feb. 9



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

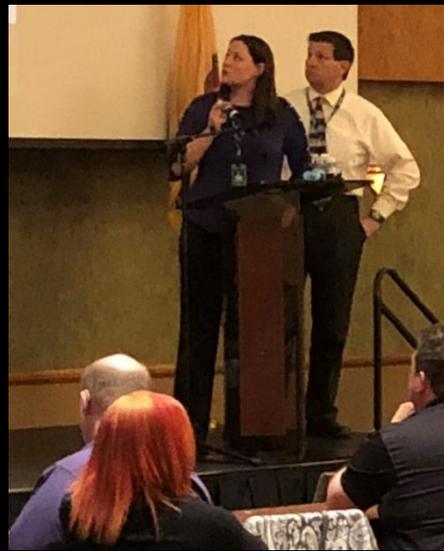


**ENERGY EMERGENCY
WORKING GROUP
MEETING**
WEDNESDAY, AUGUST 1, 2018
1:30 PM-to-4:30 PM
MEDIA ROOM
STATE EMERGENCY OPERATIONS CENTER



NCEMA Spring and Fall Conferences

State and local emergency management experts came together at the annual conferences to discuss response and recovery efforts. Governor Cooper, FEMA Administrator Brock Long and FCO Albie Lewis visited the Fall Conference in Sunset Beach to thank emergency managers for their work during Hurricane Florence ~ March/October





The statewide exercise tested the SERT's ability to respond to and recover from 'Hurricane Hans.' 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.

~ April 3-4



Statewide Hurricane Exercise



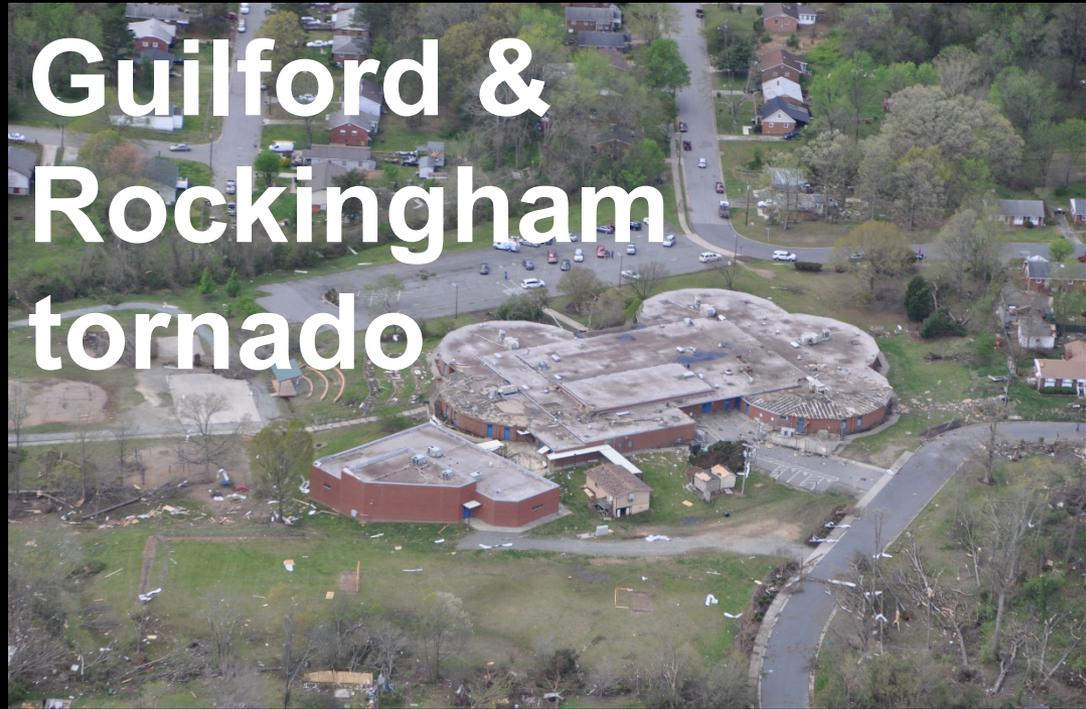
FEMA Integration Team



In April, North Carolina became the first state to have FEMA staff assigned to its emergency management agency to provide technical assistance on FEMA programs and continuous on-site assistance. – April 17



Guilford & Rockingham tornado



A tornado touched down in East Greensboro on April 15 and left a 30-mile long path of destruction north into Rockingham County. Forty-one homes or businesses were destroyed and 187 suffered major damage. One person died.

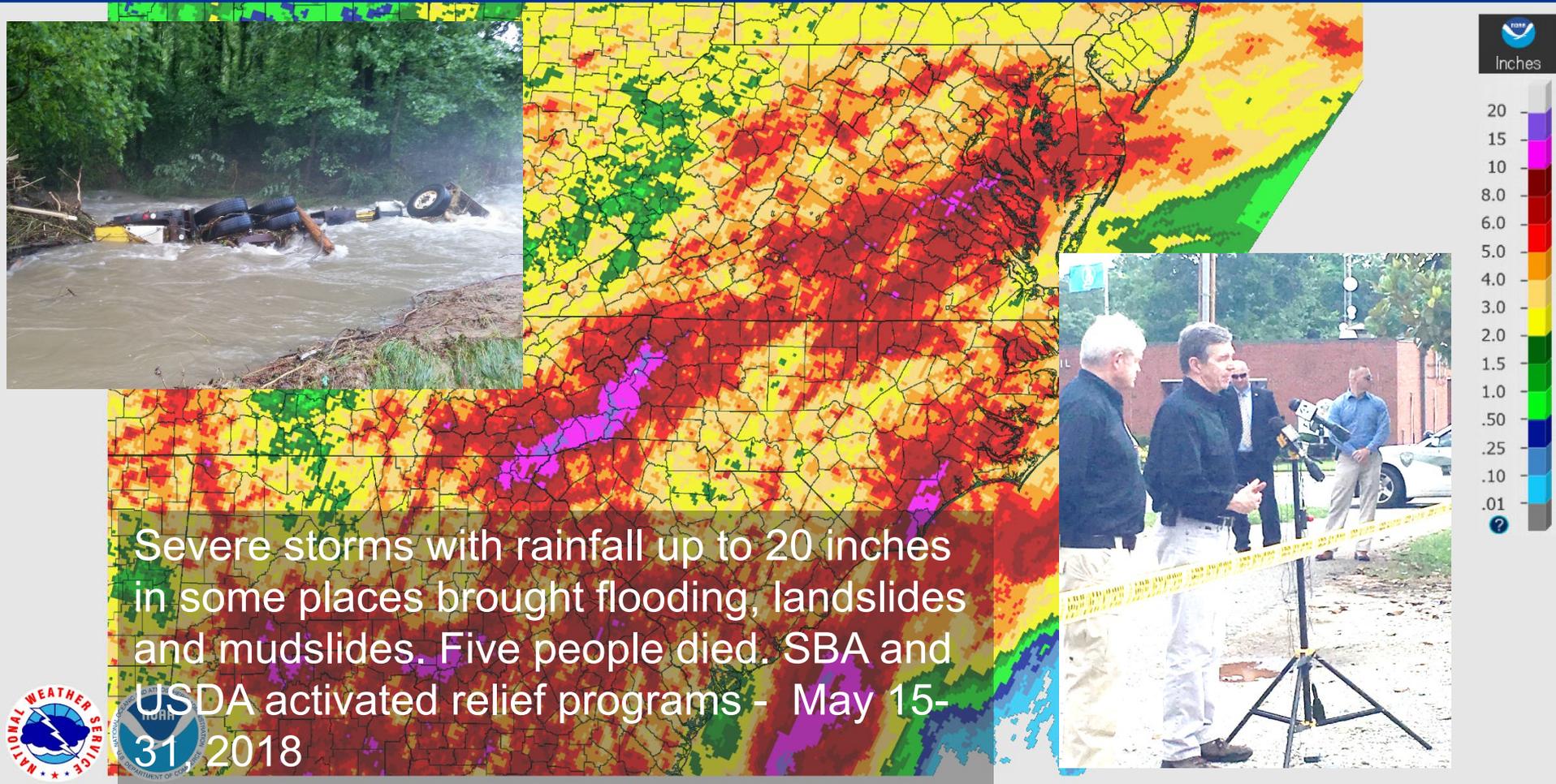


Sub Tropical Storm Alberto / Western NC Flooding

May 30, 2018 14-Day Observed Precipitation

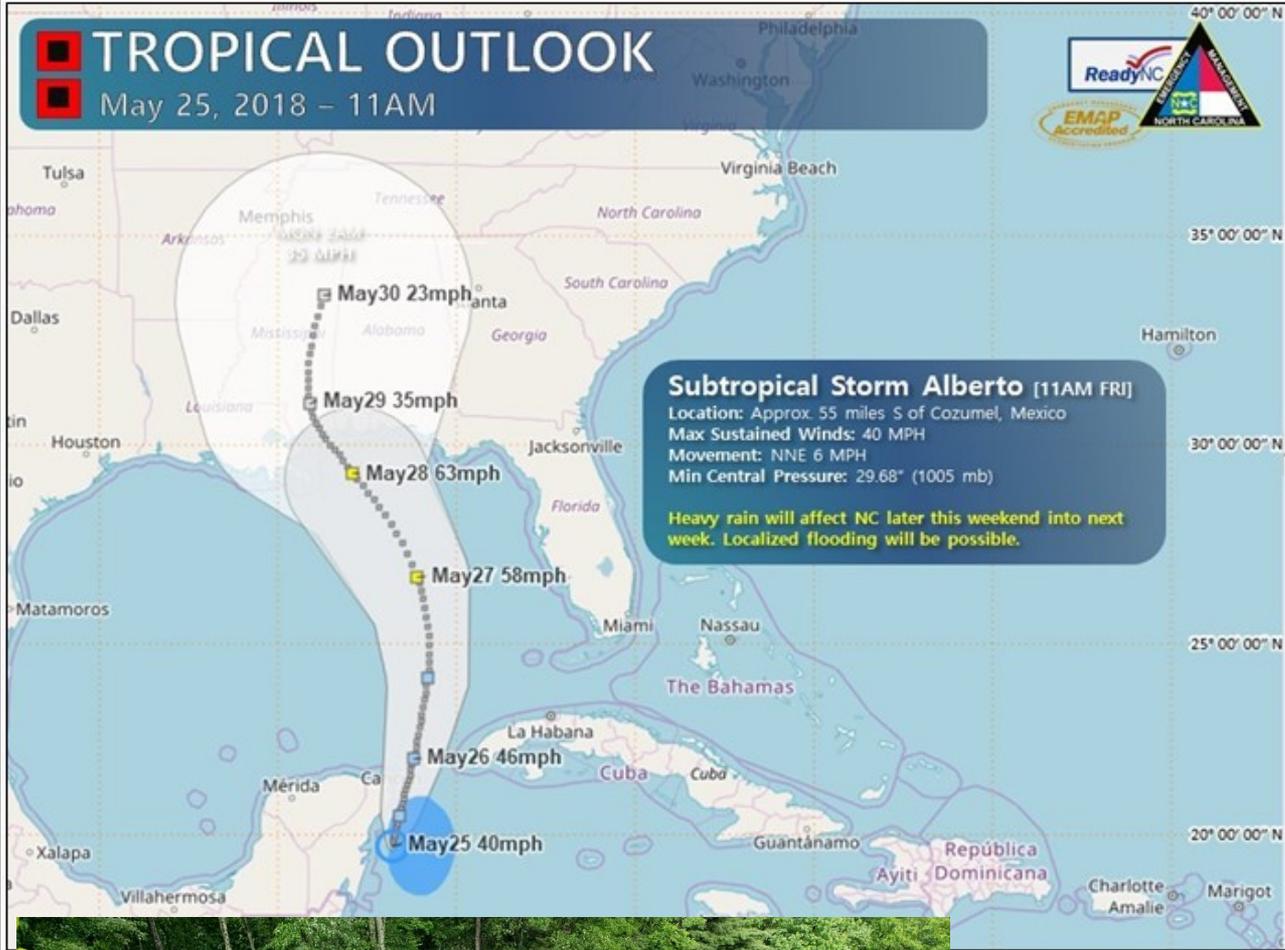
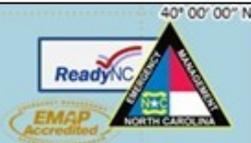
Created on: May 30, 2018 - 14:56 UTC

Valid on: May 30, 2018 12:00 UTC



TROPICAL OUTLOOK

May 25, 2018 – 11AM



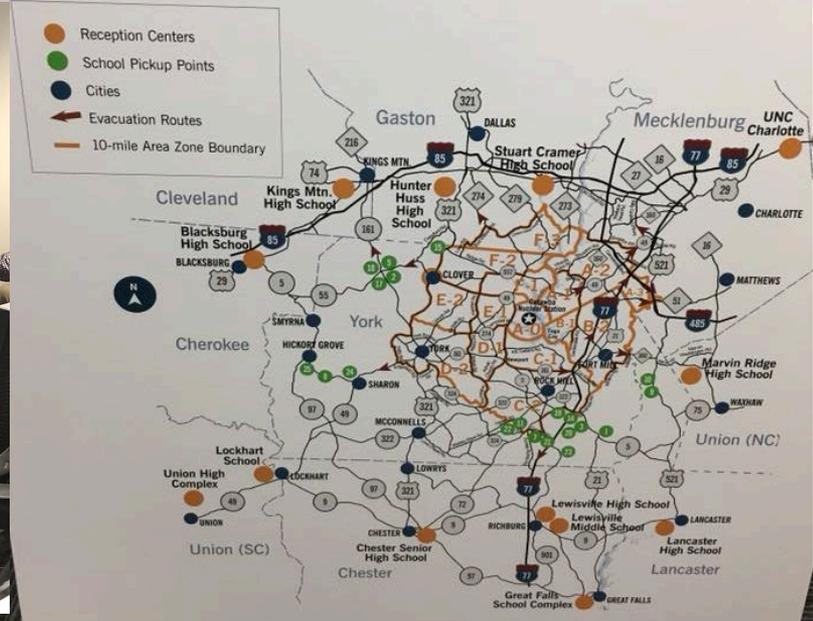
Sub Tropical Storm Alberto / Western NC Flooding

Nearly three weeks of rain, including rain from the remnants of Sub-Tropical Storm Alberto, fell across western NC in May – up to 20” in some locations. Work is underway for a state disaster declaration in eligible communities.



Catawba Nuclear Station Exercise

Catawba Nuclear Station Emergency Planning Zones

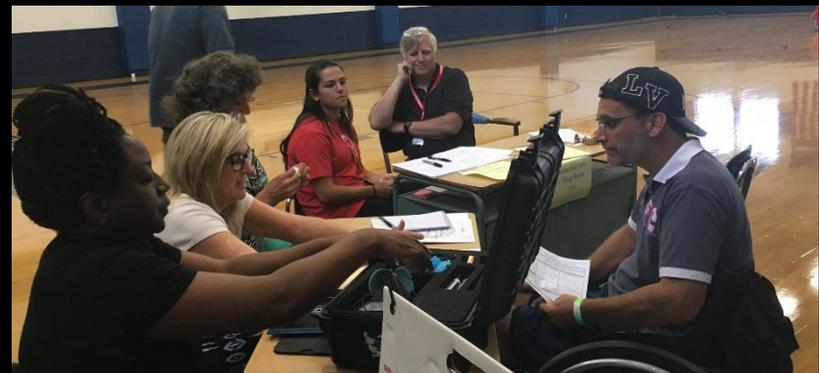
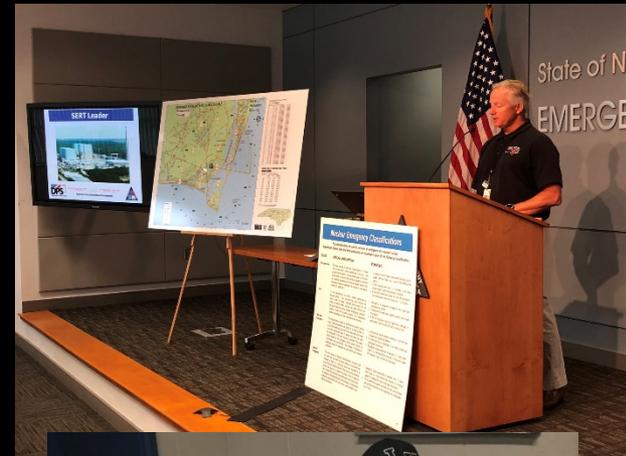
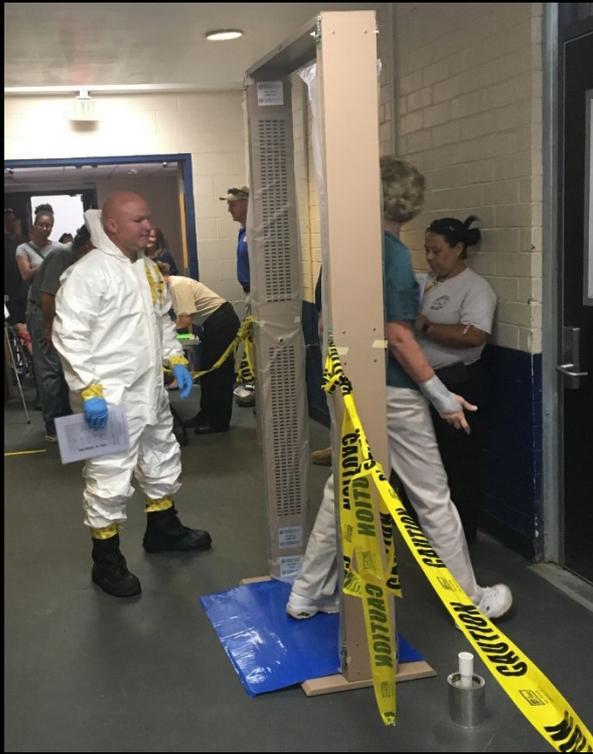


North Carolina and South Carolina along with Mecklenburg, Gaston and York counties exercised plans for response to a nuclear emergency at the Catawba Plant in Rock Hill, SC.
~ May 1 & June 5



Brunswick Nuclear Plant Exercise

NCEM, Duke Energy, Brunswick and New Hanover counties tested their coordinated response to a radiological incident at the Brunswick Nuclear Plant. The federally-required exercise involves testing various aspects of response over a multi-week period. ~ July 31



River Basin Studies

NCEM coordinated studies of the Tar, Neuse and Lumber River basins, designed to mitigate future floods along these rivers. A variety of mitigation options were proposed for each river basin.

Feb-May



NCEM-ECU Hurricane Conference



WELCOME 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 22

DPR Sustainment Exercises

Periodic training exercises help the domestic preparedness regions make sure shared equipment is kept in good working condition and all agencies are familiar with its operation. Feb & Nov



Providing Essential Training

NCEM sponsored nearly 500 classes this year training more than 8,500 personnel on topics such as: CERT, search and rescue, disaster response and recovery; sheltering; hazardous materials; active assailant; damage assessment; public information and radiological emergency preparedness.



As of mid-November	Classes	Students
Incident Management and Command	226	3133
Mitigation Planning	0	0
Search & Rescue	75	1478
Hazardous Materials	7	84
Public Information/Communication	11	233
Active Assailant	5	48
Radiological Emergency Preparedness	7	199
Community Emergency Response Team	45	636
Disaster Assessment	4	63
Other Federal Training	51	1185
Other State Training	61	1461
TOTAL	492	8520

Eastern Branch Training Week



170+ emergency managers, law enforcement and first responders participated in the Eastern Branch Office training week. Participating agencies included county and state

EM, State Highway Patrol, National

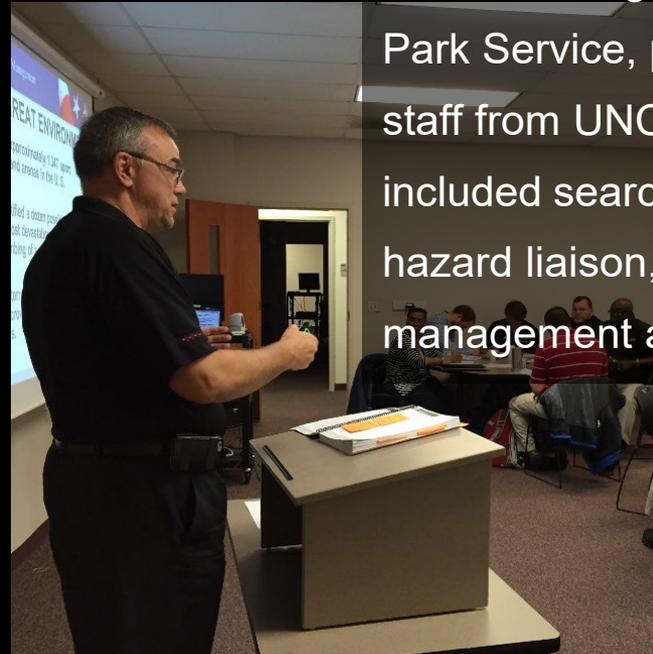
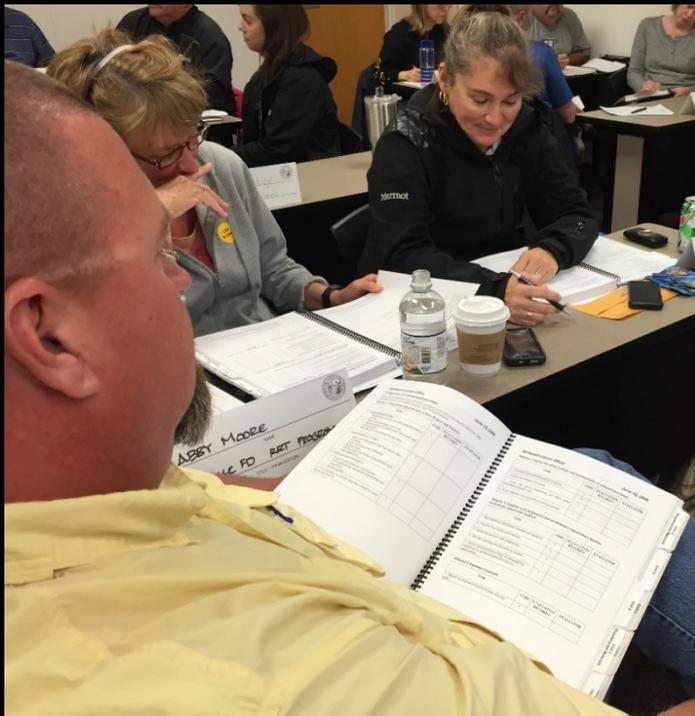
Park Service, police and university

staff from UNC & ECU. Courses

included search and rescue, all

hazard liaison, sporting event risk

management and more. ~ April 24-27



Central Branch Training Week

June 25-29 at
Guilford Tech
Community
College



North Carolina Emergency Management

TRAINING WEEK

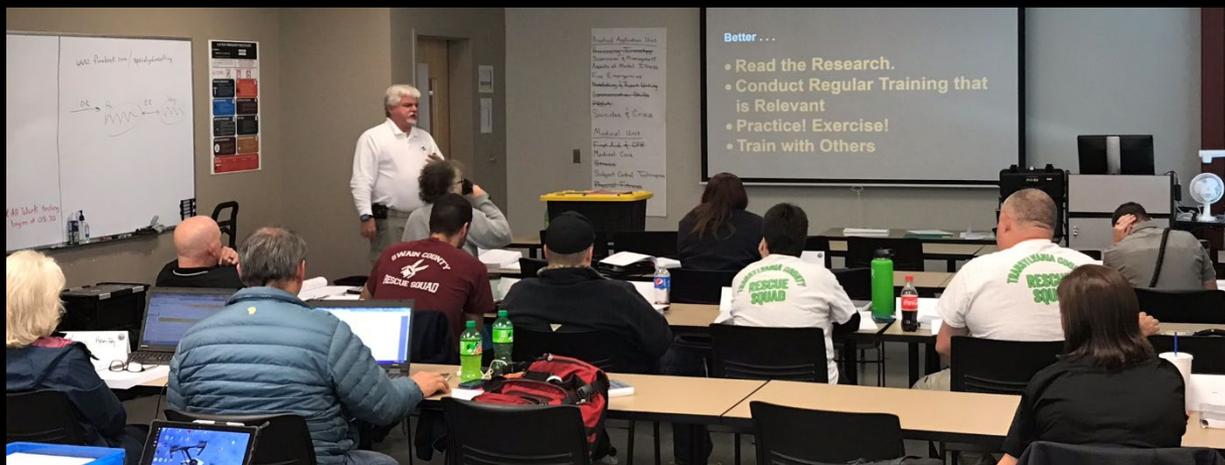
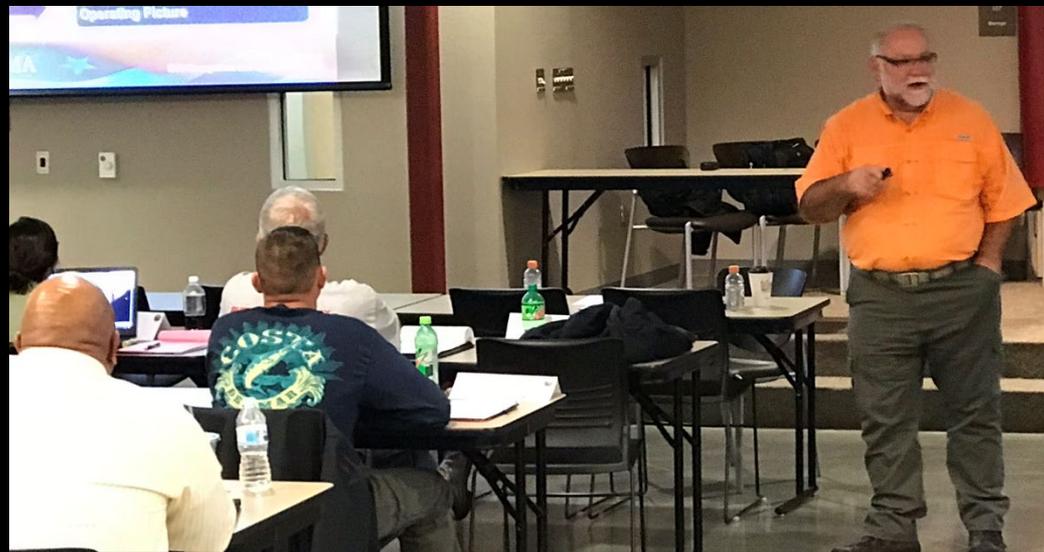
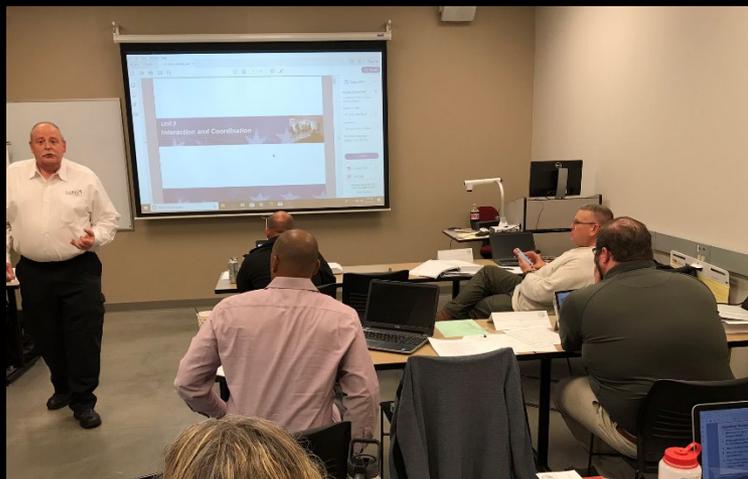
REGISTRATION

Room 236

GTCC
GUILFORD TECHNICAL
COMMUNITY COLLEGE

Western Branch Training Week

November 5-9 at
Asheville-Buncombe Tech



Search & Rescue Training



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

- Wilderness search classes
- Structural collapse training
- Dupont Rescue Experience & WNC SAR Exercise
- HART training on three aircraft types
- Swift water boat operators course
- Land search field team training





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

NCHART



In 2018, NCHART crews...

- Flew five in-state rescues
Burke (3), Montgomery, Chatham
- 40 training events
- 1 multi-platform exercise





HazMat Response & Training

NC Regional Response Teams provide support to locals during chemical releases, criminal acts and transportation incidents. In 2018, they:

- Responded to 32 state hazmat missions
- Handled nearly 300 local missions
- Conducted 54 regular & training missions
- Provided technical advice to locals
- Finalized strategic plan thru 2024





- North Carolina has 79 Community Emergency Response Teams trained in basic disaster response skills – in 43 counties.
- 445 new members completed CERT basic training in 2018.
- New SAR for CERT class developed this year – 60 trained.
- Hundreds of volunteer hours logged for Hurricane Florence



CERT Training



Training

All Hazards Incident Management Teams





Mayor Harry Kim
@MayorHarryKim

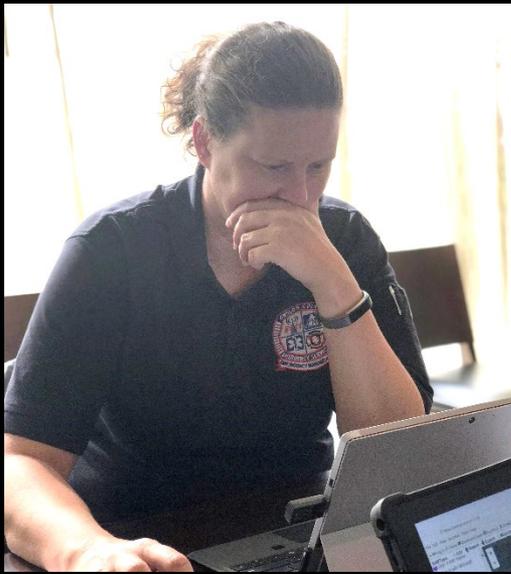
Hawai'i County is blessed to have the expert help of State and Federal resources to provide emergency relief and assistance to our distressed neighbors in the Lower East Rift Zone of Puna. Mahalo plenty.
[#mayorharrykim](#)



Three incident management teams consisting of 25 total members spent a combined six weeks assisting the Hawaii County Civil Defense Agency in its volcano response.



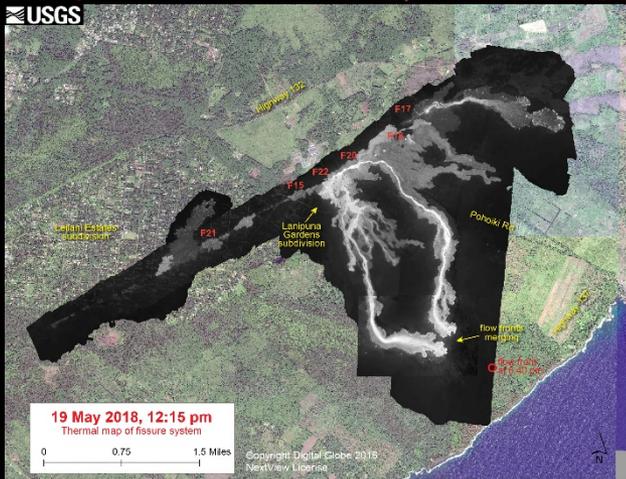
Kilauea Volcano Eruption



A graphic featuring the Hawaiian flag on the left and the NCS (Northwest Coast State) flag on the right, both set against a background of a volcanic eruption. In the center is the official seal of the State of Hawaii, which includes the text "STATE OF HAWAII 1959" and "Māhalo 'ākea".

'A 'ohe hana nui ke alu 'ia
No task is too big when done together by all

Kilauea Volcano *May 2018*



Kilauea Volcano Eruption

Mobile Hospital Deployments

North Carolina mobile hospital assets served long-term deployments in areas affected by Hurricanes Irma and Maria – an operating suite in St. Croix, U.S. Virgin Islands and a mobile emergency department in Marathon Key, FL.



Engineers to Alaska

Three structural engineers deployed to Alaska through EMAC to help with assessments on damaged buildings after early December's 7.0 earthquake. They are volunteers through the Design Professional Organizations (DPO) program where engineers and architects volunteer their services to others during and after an emergency.

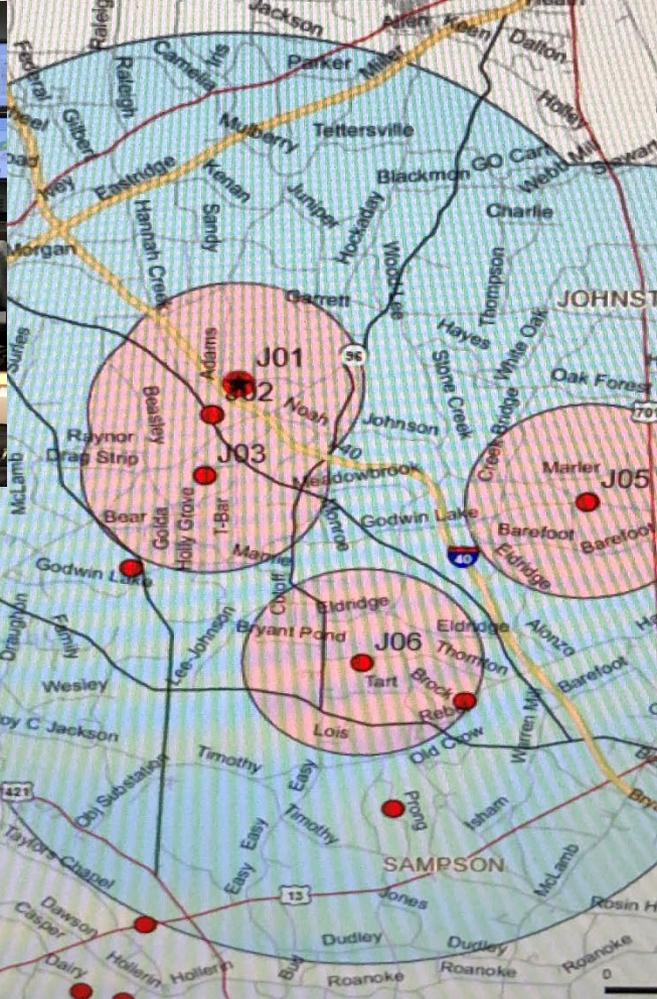
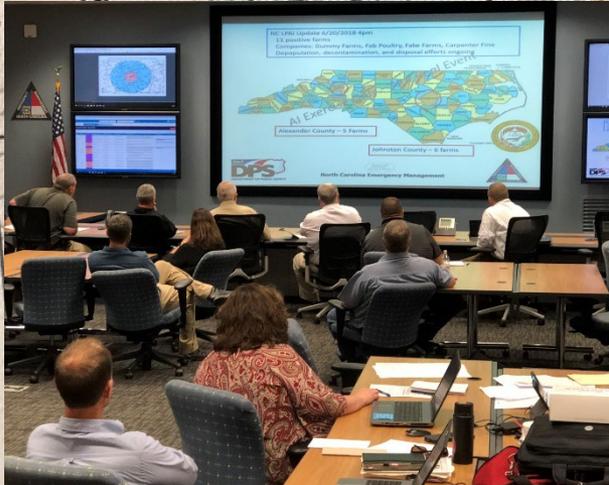


Avian Flu Exercise

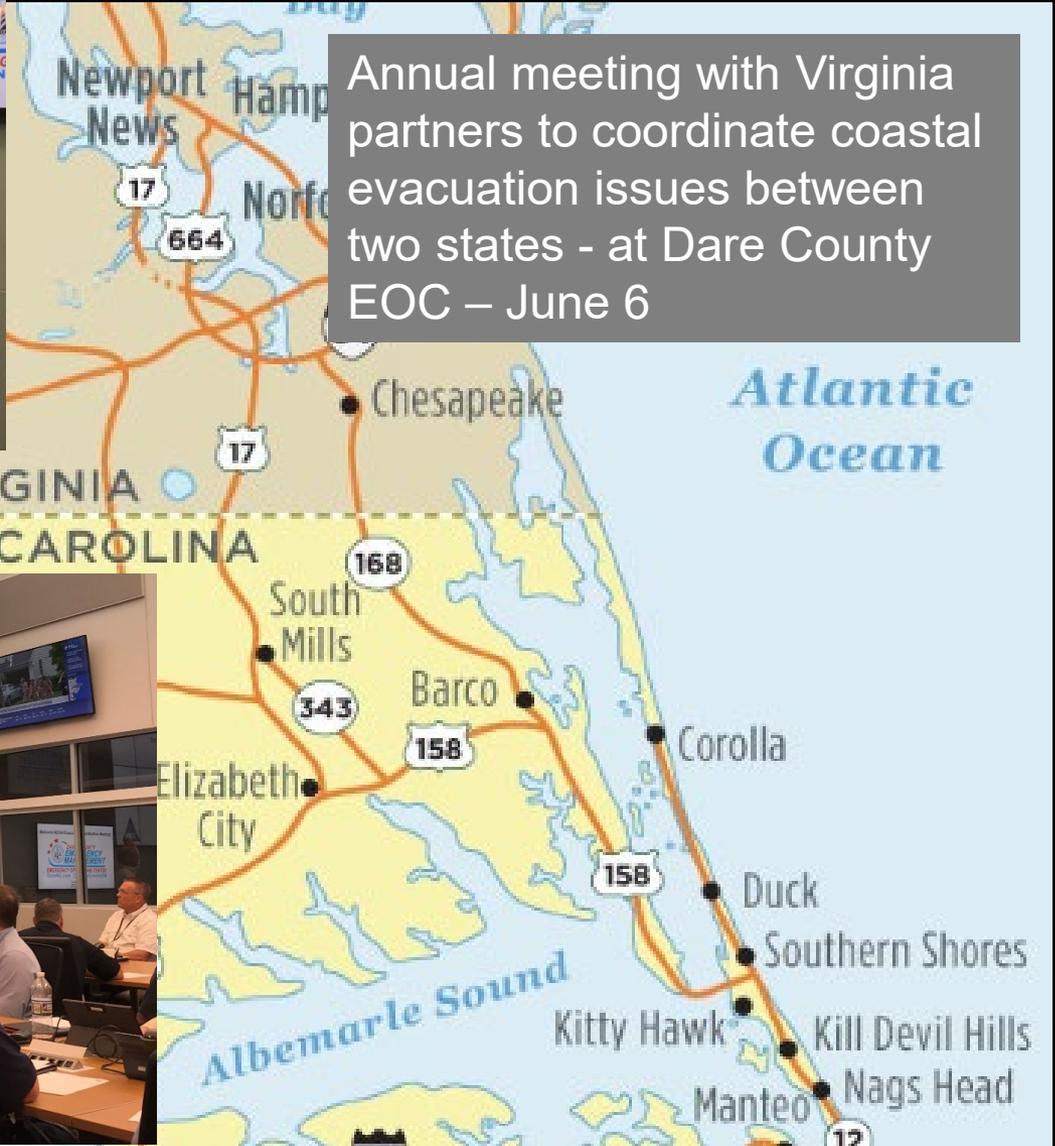
June 20-21

With our partners from NC Department of Agriculture, practiced response to an incident of low-pathogen avian influenza (LPAI) in order to protect the food supply.

Exercise Eastern NC 2018 AI FSE (Johnston) *Exercise*



NC / VA Evacuation Coordination Meeting



Annual meeting with Virginia partners to coordinate coastal evacuation issues between two states - at Dare County EOC – June 6



- ### Evacuation Movement
- NC receives Watch/Warning from NWS
 - Motorists head North and West
 - Travel routes:
 - 158 West
 - NC 168 North
 - US 17 North
 - NC 32 North
 - Enter Chesapeake
 - Hampton Roads or travel I-64 E & W

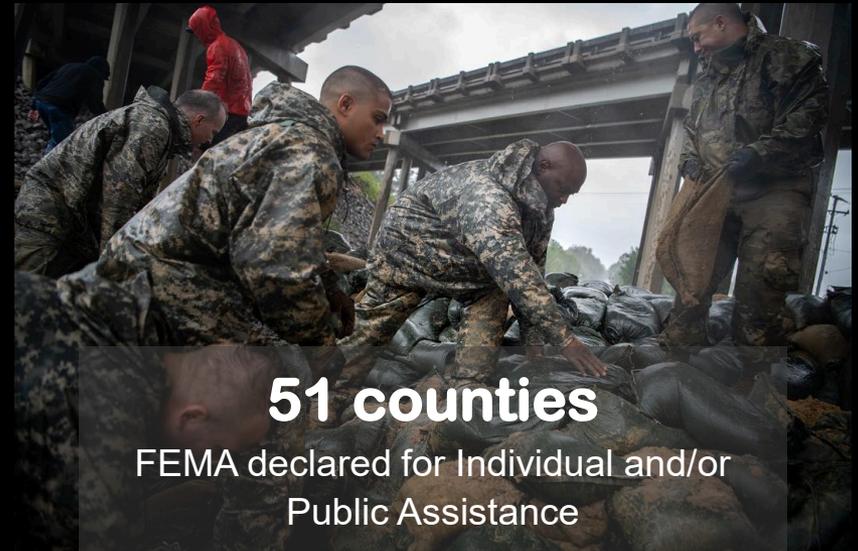
Know Your Zone Initiative



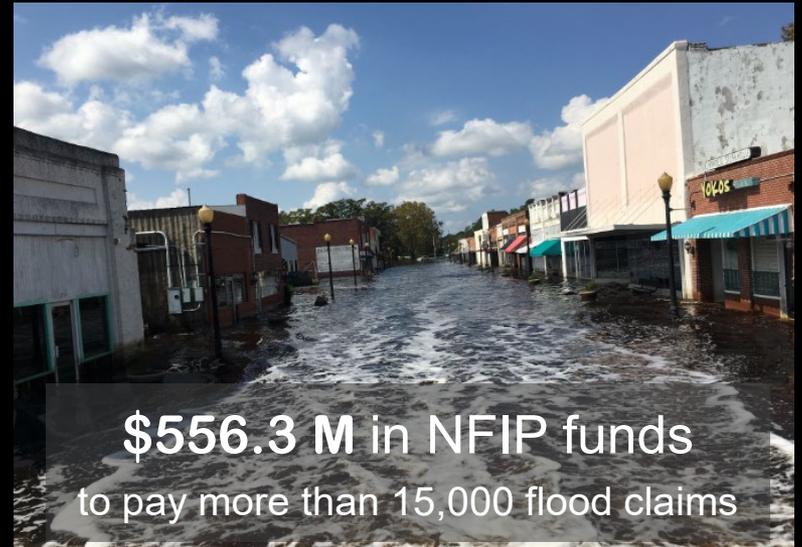
Series of kickoff meetings held with counties to begin discussions on creating coastal evacuation zones for use starting with 2020 hurricane season. - August / September



Hurricane Florence



Hurricane Florence



Regional Coordination Center - EAST



RSOI Garner



Receiving, Staging, Onward Movement and Integration (RSOI) facility to stage, supply, track, mobilize, demobilize and brief emergency responders from 30+ states passing through the facility. Operated under Unified Command by NCEM, NC Forest Service and NC National Guard.



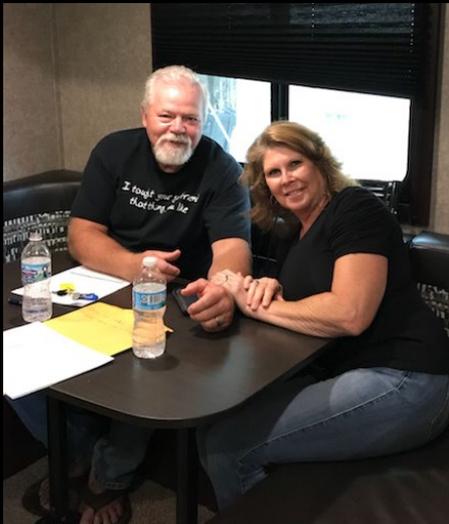
Presidential Visit

New Bern – September 19



Helping Families Recover

- ✓ Surpassed \$1 billion in total Federal aid delivered to victims
- ✓ 138,579 survivors have contacted FEMA for help, information and referrals.
- ✓ \$4.7 million in Disaster Unemployment Insurance helped 6,573 who lost work due to Florence
- ✓ 101,348 damaged homes inspected by FEMA
- ✓ 41,970 visits to Disaster Recovery Centers



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.



- Nearly 22,000 people in 100+ shelters. Last shelters closed Nov. 9
- 357 families (1,017 people) living in hotels (TSA)
- 372 Travel Trailers or Manufactured Home Units installed to temporarily house families while they repair their homes.
- First travel trailers were in place two weeks after search and rescue operations ended



NC STEP North Carolina Sheltering and Temporary Essential Power

- For eligible homes affected by Hurricane Florence with minor damage.
- Provides rapid, **partial** repairs that put the home in safe, clean and secure condition.
- These are not permanent repairs. They are intended to make the house livable, so residents can shelter at home.
- NC STEP allows families to maintain their household routines and allows residents to stay connected to their communities.
- Repairs to flooded homes will be handled by a qualified voluntary disaster relief organization or a contractor, depending on the level of damage to the home.
- The state will provide the building materials and supplies needed.



Hurricane Michael

After a devastating landfall in Florida's panhandle, Michael caused four deaths in North Carolina. More than 100 people were rescued from flash flooding and eight temporary shelters opened. Power outages affected 870,000 homes and businesses at their peak on October 15. A federal disaster declaration request for 21 counties is pending. – October 11-17



Hurricane Matthew Recovery

- \$765 million spent on hurricane recovery for public infrastructure repair, small business recovery and direct payments to homeowners.
- 81,911 residents registered for help, information with FEMA.
- More than 3,000 families stayed in FEMA transitional sheltering
- 151 repair and renovation projects underway or in planning/permitting funded by NC Disaster Recovery Act of 2017.



Building Flood Resistant Housing



HURRICANE MATTHEW

FEMA Hazard Mitigation Grant Program funds totaling \$84.5 million were awarded in 2018 to local governments to elevate, reconstruct or buyout 680 homes in flood prone areas. Local governments that are now working to secure permits, contractors and complete this work. Elevations and reconstructions for the Town of Princeville are the only awards remaining to be made.

Hurricane Matthew CDBG-DR Program

More than \$7.5 million in Community Development Block Grant – Disaster Relief awards to 230+ applicants. Outreach ongoing to reach new potential registrants who need assistance.



**RECEIVE PERSONALIZED ASSISTANCE
AT A REBUILD NC OUTREACH EVENT
IN YOUR AREA**



HOKE COUNTY
Hoke County Public Library
334 N. Main Street | Raeford, NC 28376



Nov. 14: 1pm-6pm
Nov. 15: 1pm-6pm
Nov. 26: 8am-6pm



**DIAL 2-1-1 TO MAKE
YOUR APPOINTMENT TODAY!**

ReBUILD NC

WWW.REBUILD.NC.GOV

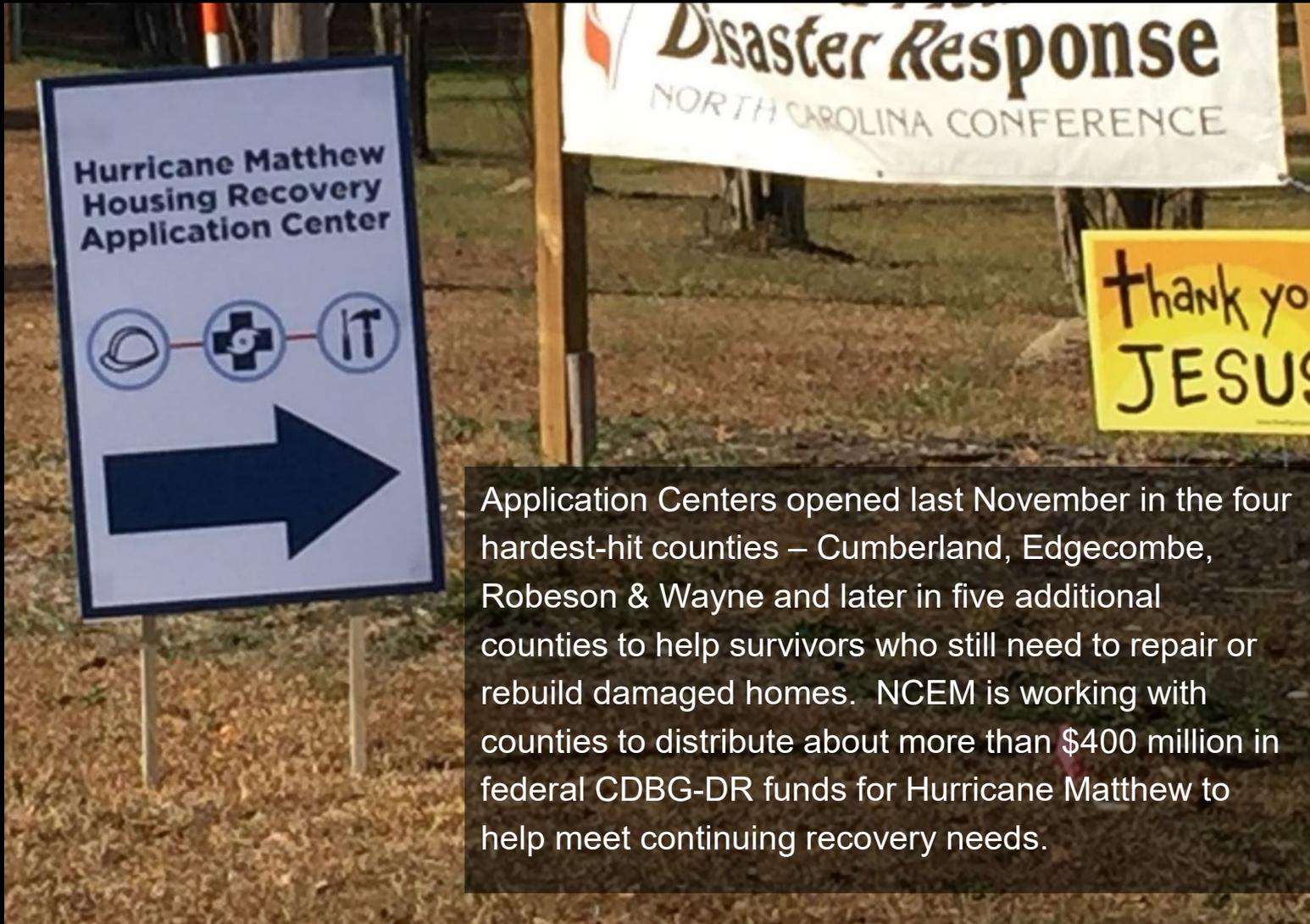


Office of Recovery and Resiliency

The new Office of Recovery and Resiliency is staffing up to manage more than \$1 billion in expected CDBG-DR funding for Hurricane Florence while continuing to carry out the Hurricane Matthew recovery program. Headed by Laura Hogshead, the section and its 45 employees will move to permanent offices in early 2019.



Hurricane Matthew Housing Recovery Application Centers



Application Centers opened last November in the four hardest-hit counties – Cumberland, Edgecombe, Robeson & Wayne and later in five additional counties to help survivors who still need to repair or rebuild damaged homes. NCEM is working with counties to distribute about more than \$400 million in federal CDBG-DR funds for Hurricane Matthew to help meet continuing recovery needs.

Gathering High Water Marks

After a flood, the high water level is marked by local governments, then NCEM surveyors gather accurate horizontal and vertical position data at that location, which helps to create more accurate flood maps.



Comparing LiDAR based flood mapping to surveyed edge of water



New Flood Gauges

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

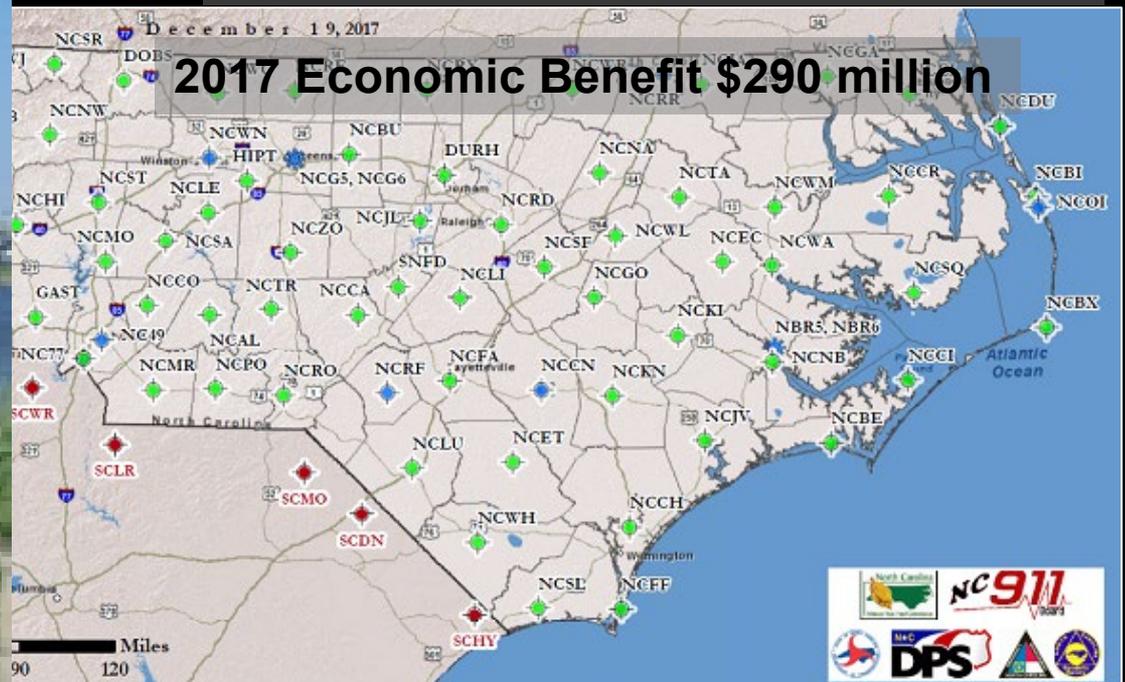
- 32 new gauges purchased with NCEM & county funds
- 75 prototype gauges from three manufacturers being installed and tested as part of program with DHS Science and Technology Directorate
- 26 new gauges purchased to be installed in 2019



Continuously Operating Reference Station (CORS) Network

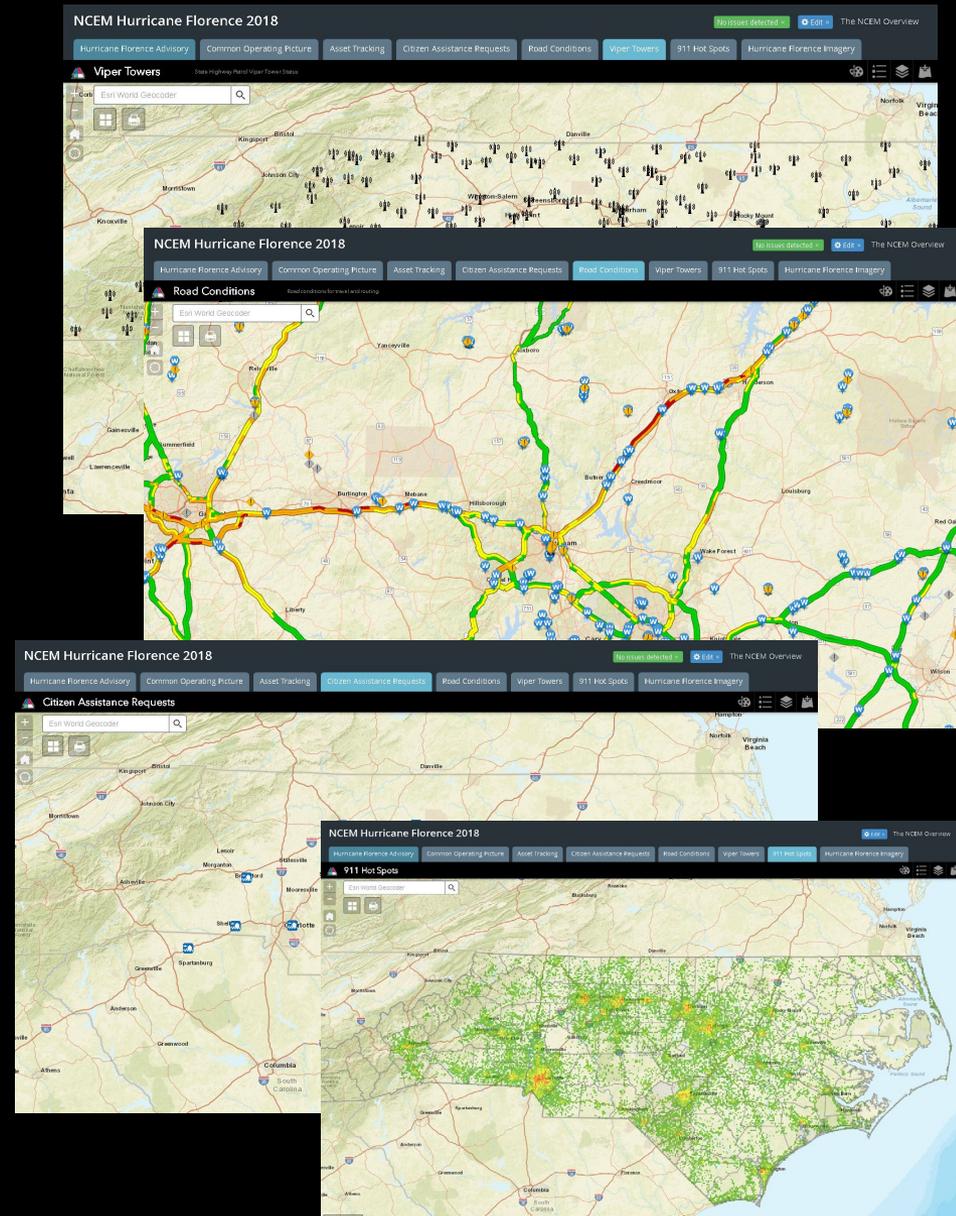
Supports Public Safety Applications

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



NC SPARTA (Web EOC) New Functionality

- Developed boards to capture Logistics purchasing and bills of lading
- Visualization
 - VIPER Towers
 - WAZE/ESRI/TIMS Traffic
 - Florence Situational Map Viewer
 - Damage Assessment Data
 - Created snapshot of 911 cell calls pilot project
 - Partnered with DIT to consume citizen requests
 - NCEM TigerSwan/SPOT pilot project
- Checklist boards for Hurricane related incidents
- Began capturing power outage data from all utilities
- Developed email notifications
- Risk Management Plan integration from Risk Management Portal
- Health WebEOC joined NC SPARTA
- Worked with Crisis Track and Orion to integrate damage assessment data
- Re-initiated the WebEOC User Group (statewide and NCEM internal)





School Risk and Response Management Progress

Progress to date includes:

- Training meetings for 115 school districts;
- Acquisition of all floor plans for all 2,400 schools (15,000 floor plans)
- Establishment of 240,000 assets within school buildings
- School Risk Management Planning Tool – **In Production**
- Generated / replicated 2,000+ school risk management plans
- State Emergency Response Application – **In Production**
- Higher Education Risk Management Plan- **In Production**
- Correctional Facilities Risk Management Plan- **In Production**





STATE EMERGENCY RESPONSE APPLICATION

Next Steps

SERA Dams - Testing

- Will show inundation
- Roads closed
- Time water will reach certain lengths
- Works with Dam EAP

Prisons

- Have all the building architecture
- Working through details of plans

STATE EMERGENCY RESPONSE APPLICATION

CATEGORY: Dams COUNTY: Orange DAM NAME: Cane Creek Reservoir Dam SHOW DAMS WITH INUNDATION ONLY

CANE CREEK RESEVOIR DAM PROFILE

Cane Creek Reservoir Dam DIRECTIONS EAP PDF

State ID:	ORANG-011
Spillway Type:	Other
National Inventory of Dams ID (NID):	NCO0779
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 IMPACT RESPONSE ON-SITE DIRECTIONS

Map labels: 0 min, 15 min, 20 min, 25 min, 29 min, 31 min, 39 min, 45 min, 53 min, 57 min, 57 min

STATE EMERGENCY RESPONSE APPLICATION

CATEGORY: Dams COUNTY: Heckenburg DAM NAME: Crystal Springs Lake Dam SHOW DAMS WITH INUNDATION ONLY

PROFILE

Crystal Springs Lake Dam DIRECTIONS

State ID:	
Spillway Type:	
National Inventory of Dams ID (NID):	
Failure / Breach Type:	
Structural Height:	
Normal Freeboard:	
Normal Pool Elevation:	
Receiving Stream:	
Latitude:	0
Longitude:	0

CONTACTS IMPACT RESPONSE ON-SITE DIRECTIONS

Crystal Springs Lake Dam

File Name	DJI_0082.jpg
Date	2018-10-11 08:10
Longitude	-83.9119
Latitude	35.0814
Relative Alt	102.36 ft
Absolute Alt	320.87 ft
Above Sea Lev	320.54 ft
Camera Pitch	-34.20 °
Camera Yaw	-113.30 °
Camera Roll	0 °

Close



Civil Air Patrol

The North Carolina Wing of the Civil Air Patrol performed many missions during Hurricane Florence response:

- Aerial transport and supply
- Aerial imagery
- Points of distribution



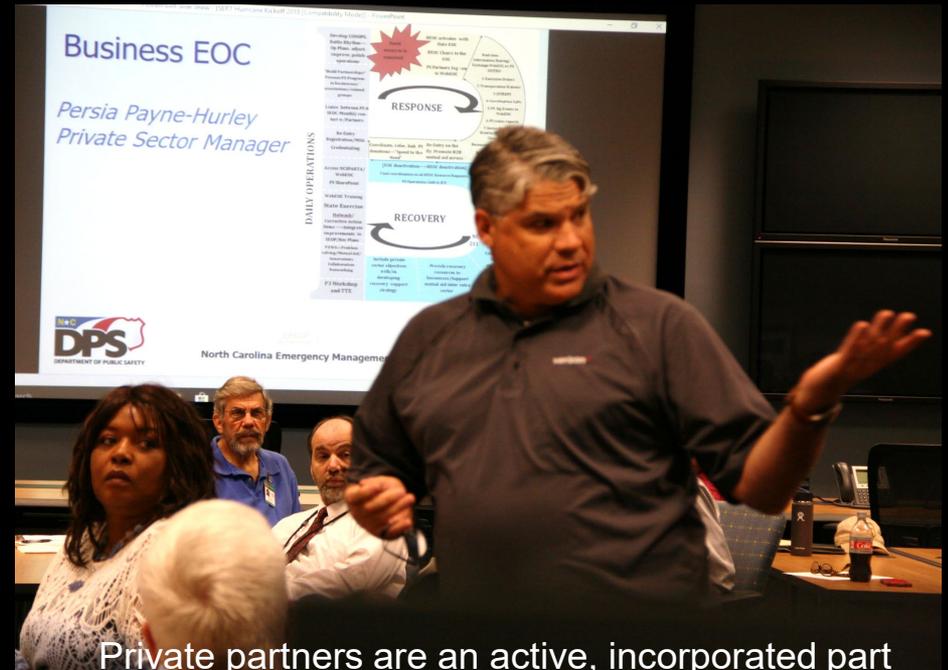


SERC Meetings

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: World Equestrian Games, GenX, School Security, Hurricane Florence Response and Hurricane Matthew recovery and more.



Partnering with the Private Sector



Private partners are an active, incorporated part of the State Emergency Response Team.

- In its fourth year, NCEM's private sector program/BEOC added 300+ partners for more than 640 businesses engaged with the state in disaster response – banking, energy, health care/pharmacy, retail, grocery, restaurants, lodging, utilities, communications and more.
- During the Hurricane Florence response, our private partners supported North Carolina with goods, services and over \$20 million cash donations to the North Carolina VOADS.

EMAP Reaccreditation



After months of policy review and document preparation, EMAP assessors visited in June. In November, NCEM received notification that North Carolina's Emergency Management program would be reaccredited for another five years.



Election Day Activation

For the first time, the state EOC activated to monitor election processes on election day. Participating partners included U.S. Homeland Security, NC Information Technology, NC SBI, NC National Guard Cyber Security Teams and State Board of Elections.



Winter Storm #3



More than 20 inches of snow fell in some parts of North Carolina and more than 500,000 homes and businesses lost power. Two deaths were connected to this early winter storm. Dec. 6-11



Preparing Communities

- Severe Weather
- Hurricane
- Winter Weather
- Great Shakeout
- Preparedness Month

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.

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



Social Media

NC Emergency Management
@NCEmergency



104% audience increase
45,700 > 93,400



64% audience increase
27,789 > 45,313

Social Media



User @realDonaldTrump

 **NC Emergency Managem** @NCE... Sep 14
Use these resources to get help or more info. For emergencies, call 911. To receive info on shelters, evacuations & storm related needs, dial 211. Use social media to connect with loved ones or the Red Cross Safe & Well site. Storm info is available at ncdps.gov/florence.



Call **911**
For Storm Needs
Call **211**
For Info
ncdps.gov/florence

Let your family & friends know you are safe
safeandwell.communityos.org
American Red Cross

747 4k 16k

Donald J. Trump Retweeted

 **NC Emergency Managem** @NCE... Sep 14
#FlorenceNC safety tips:
- STAY INDOORS. Do not venture out during the storm.
- Do NOT drive or walk through stagnant or moving floodwaters.
- If your power goes out, do NOT operate gas powered generators or charcoal grills in or near your home.

Donald J. Trump Retweeted

 **NC Emergency Managem** @NCE... Sep 15
New Evacuation Orders are in place. Go to ncdps.gov/florence to see if you are in an area with a mandatory or volunteer evacuation. If you decide to leave your home, be sure to check DriveNC.gov before you leave to ensure your route is clear. **#FlorenceNC**



601 5k 17k

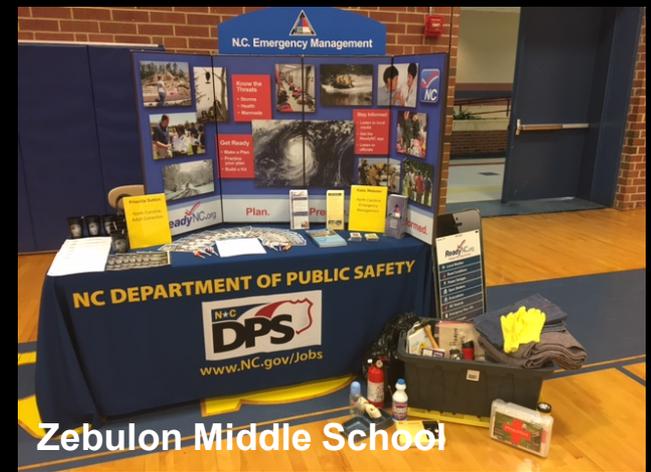
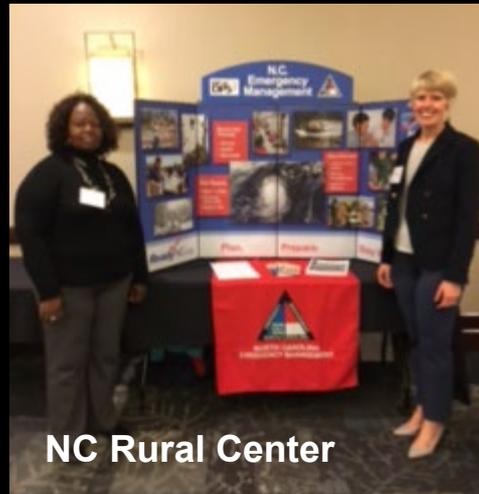
Vice President Mike Pence Retweeted

 **NC Emergency Managem** @NCE... Sep 14
It's starting to get dark, and **#HurricaneFlorence** is still causing power outages, heavy rainfall and hazardous wind conditions. If possible, avoid venturing out of your home. Flooded roads are deadly. Never drive past barricades or through standing water. **#FlorenceNC**



49 335 799

Community Outreach

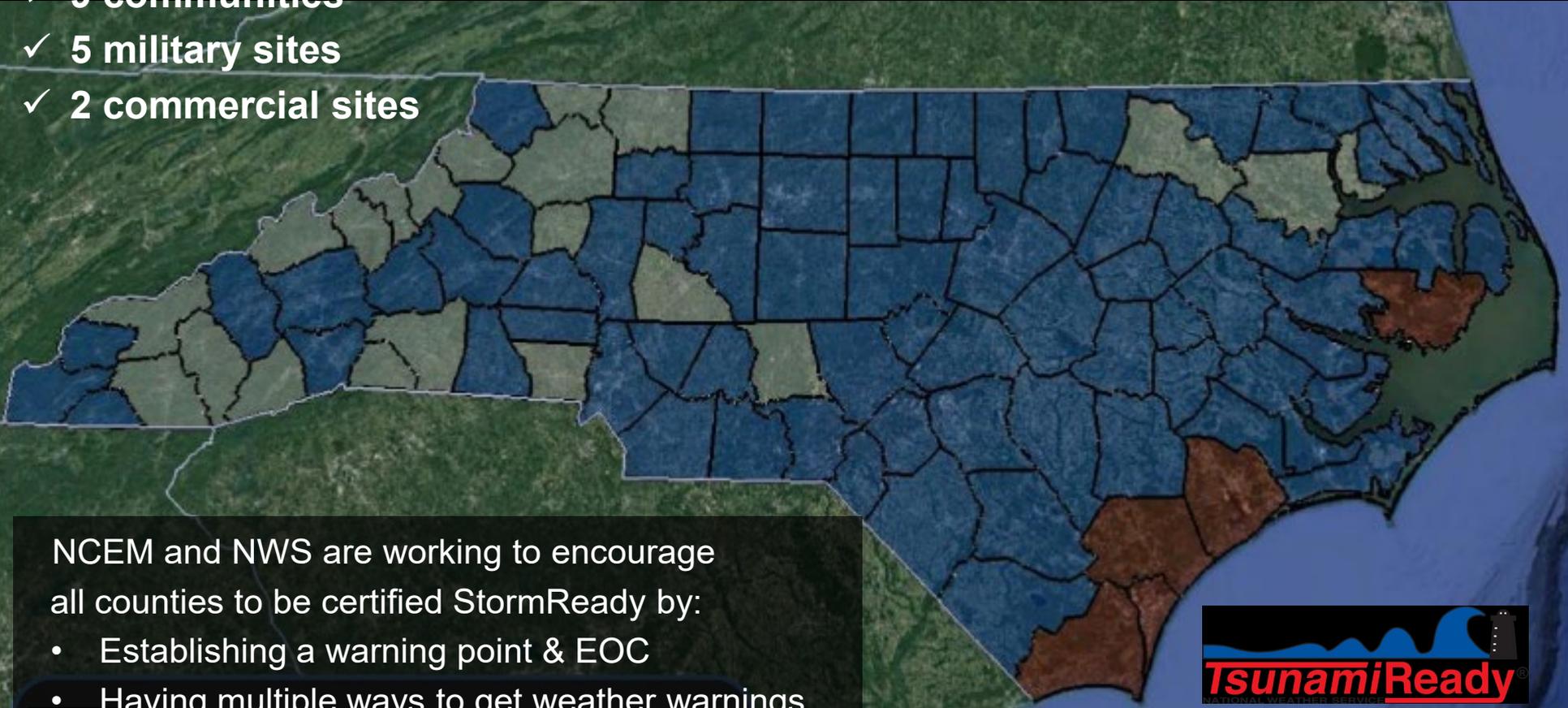




StormReady

Added 6 new
counties
in 2018

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



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



- ✓ 5 counties
- ✓ 2 communities
- ✓ 1 military site

Happy Holidays!

