

HOKE COUNTY EMERGENCY COMMUNICATIONS

PSAP Back-up Plan

Table of Contents

Table of Contents	1
Forward	2
PSAP Back-up Plan	
I. Hoke County	3
II. History of the Communications Center	3
III. Agencies Served and Call Volume	3
IV. Staffing	4
V. Equipment	4
VI. Stand-Alone Facility	4
VII. Distance Between Main and Back-up Centers	4
VIII. Positions/Workstations	4
IX. Connection Between Centers/Trunk Rerouting/Redundancy	5
X. Transition 911 Call Answering	7
XI. Back-up Power Systems	8
XII. Maintenance and Testing of Back-up Center	8
XIII. Employee Needs	8
XIV. Costs	9
XV. Planned Upgrades	9
Appendix 1 Back-up Center Activation Methodology	10
Appendix 2 Back-up Center Activation Checklist	13
Appendix 3 Primary Center-Calls Routed to Moore Co. Checklist	15
Appendix 4 Names and Telephone Numbers Cited in Plan	16
Appendix 5 List of Communications Center Telephone Numbers and Circuit Numbers	18

HOKE COUNTY EMERGENCY COMMUNICATIONS

PSAP Back-up Plan

FORWARD

The Emergency Communications Center, like any facet of Public Safety, is an integral part of a system that is designed for the safety and benefit of the citizens it serves as well as the units in the field that depend on it. Like those other organizations, Centers must plan for everyday and ordinary operations and those occurrences that are not considered the norm.

It does not take a tornado or fire to disrupt a Communications Center. It can be a backhoe or a shovel. It can be a malfunctioning computer card or a power surge. No matter the cause, a Communications Center must be able to carry on its function as the first link in the chain of Public Safety.

The purpose of this plan is to provide for a back-up communications system for the City of Raeford and Hoke County in the event of the disabling of the Primary Communications Center from whatever source or means. The continuity of the communications function is of utmost importance and any lapse in service can have catastrophic consequences.

This plan is always a work in progress. It will be reviewed each time the back-up Center is activated for testing or for an actual event. It will be reviewed annually with all Center personnel to seek improvements and process changes deemed necessary to improve the flow of work and the speed, accuracy and ease of activating the back-up Center. While the event of having to activate the back-up Center can be a trying and stressful experience, proper planning can alleviate some of the tension and make that transition effective and timely.

This plan has been approved by the North Carolina 911 Board as a Back-up Center Plan and satisfies the requirements of N.C.G.S. 62A-46 (e) (4a).

HOKE COUNTY EMERGENCY COMMUNICATIONS

PSAP Back-up Plan

I. Hoke County

Hoke County, North Carolina is located in southeastern North Carolina in the Sandhills region. Hoke County is bordered by Cumberland, Scotland, Moore, and Robeson Counties as well as the Fort Bragg Military Reservation and the Camp Mackall Military Reservation. Hoke County has 1 incorporated city, Raeford. 2013 Census estimates have the total population of Hoke County at 51,322 of which 4,827 are in the City of Raeford.

II. History of the Communications Center

Hoke County Emergency Communications began operations on January 3, 1989. Before then, City communications was handled by the Raeford Police Department and County communications was handled by the jailer at the Hoke County Sheriff's Department. Hoke County Emergency Communications became the sole PSAP for Raeford and Hoke County and remains so to this day. The first Communications Center was located in the Sheriff's Department in 3 end offices that were renovated for this purpose. In 2000, the Communications Center moved to the back-up Center location at 423 E. Central Ave. The Communications Center moved to its present location at 709 E. Palmer St. with the construction of a new facility in February of 2013. At that time, all equipment in the former Center was left for the express purpose of serving as a back-up Center. All computers, furniture, and dispatch consoles were left in place.

III. Agencies Served and Call Volume

Hoke County Emergency Communications serves the entire County of Hoke and City of Raeford as the sole PSAP in the County. We dispatch for the Hoke County Sheriff's Office, Raeford Police Department, the 9 Stations of the Raeford/Hoke County Fire System plus the Hoke County Division of the NC Forest Service and 2 out of County Departments with district in Hoke County, Hoke County EMS-CFVMC, and the Hoke County Rescue Squad. We serve as the County Warning Point for Emergency Management and monitor the National Warning System

(NAWAS) radio. We serve as an after hours point of contact for Raeford Public Works and Hoke County Utilities. We dispatch Hoke County Animal Control and Raeford Animal Control. We maintain notification lists for Public Safety, Criminal Justice, and Public Service agencies in Hoke County. We also coordinate response from outside agencies such as Aeromedical Services e.g. UNC Aircare, and the American Red Cross upon request from field agencies. In 2013, we made 59,991 CAD entries (this included all calls, field status, etc) and answered 42,649 911 calls plus administrative calls.

IV. Staffing

In the Primary Center, we have 2 consoles manned 24 hours per day and an additional console manned from 12:00 pm-12:00 am. In addition, we have 2 more consoles that can be manned by the Director, Assistant Director or any other personnel for a total of 5 consoles.

V. Equipment

We utilize Moducom radio consoles, the Positron (Intrado) VIPER 911 Telephone System, VisionAir CAD with GeoComm mapping. We utilize Eaton Wrightline console furniture. We utilize a Stencil recording system. The main and back-up Centers have the same equipment.

VI. Stand-Alone Facility

The back-up Center will serve as a single agency stand alone facility.

VII. Distance Between Main and Back-up Centers

The main Center and back-up Center are 2 miles apart.

VIII. Positions/Workstations

We normally man a maximum of 3 consoles depending on time of day (see above). There are 3 consoles in the back-up Center. We rotate staff (the Director, Assistant Director, other personnel) should workload warrant.

IX. Connection Between Centers, Trunk Rerouting, Radio Redundancy

The Primary Center and Back-up Center each has a fully functional and independent Positron (Intrado) VIPER telephone system. Each system has the latest available hardware and software. When it becomes necessary to man the back-up Center, there are 2 physical switches in the main Center that divert the 911 and administrative line trunks to the back-up Center. We also notify The CenturyLink Network Operations Center (NOC) that the back-up Center has been activated. The CenturyLink Central Office is located at 325 N. Main St. in Raeford. This is 1.7 miles northeast of the Primary Center and 0.6 miles northwest of the back-up Center. CenturyLink advises that the trunks to each Center take different routes from the Central Office to the Primary and Back-up Centers. This ensures that unless there is a problem at the Central Office itself, there is no single point of failure that will disable the telephone system at both Centers simultaneously.

The main Center houses the primary CAD server with a back-up server located at the Hoke County IT Department server room at 423 E. Central Ave. in the same building as the back-up Center. The primary server is backed up to the back-up server daily. The back-up Center computers feed off the main server at the primary Center. In the event of back-up Center activation, and the primary server is still running, then the back-up Center computers only have to be turned on. In the event that the primary server is not accessible for any reason, the County IT department will make the back-up server the primary CAD server. This operation can be performed remotely if after hours. The Hoke County IT Department has someone on call at all times.

Radio consoles (Moducom) are always live at the back-up Center. Base stations for Fire, City Police, EMS/Rescue and Sheriff's Channel 1 are connected to the consoles via telephone line (tone controlled DC interface). City Public Works, County Public Works and Sheriff's Channel 2 are connected via RF link (mobile radio on a DC power Supply). The RF links can be used for the channels on telephone loops should a total telephone service outage occur by simply changing the channel on the RF link.

Radio outages are of three main types:

1. The radio console in the Communications Center (Moducom) has failed;
2. The base station has failed, and/or;
3. The radio loop from the base station to the Center has failed.

If the radio console has failed, the Communications Center has a cadre of 6 VHF, 5 UHF, and 2 800 MHz radios that will enable communications with field units. All primary channels in the Hoke County radio system are duplexed therefore portable radios can be used with those repeaters. The Raeford Fire Department has a paging and radio system that is independent of the Communications Centers radio system that can be utilized in duplex or simplex mode if the repeater has failed. We would send a Telecommunicator to the Raeford Fire Department for paging EMS, Fire and Rescue units, and relay calls by landline. If that is not available, relay would be made by cellular telephone. The Raeford Fire Department is located at 415 E. Prospect Ave. Raeford, NC 28376.

If a base station fails, then there are several redundancies in place. Law Enforcement operates on the UHF band. The Hoke County Sheriff's Office and Raeford Police Department utilize 3 duplexed channels on 3 different repeaters. All law enforcement mobile and portable radios have the capability of all 3 duplexed channels plus their simplex counterpart. The Sheriff's Channel 1 and Raeford Police base stations are located in the radio building adjacent to the main tower at 125 E. Edinborough Ave. in Raeford. This is behind the Hoke County Detention Facility. This area is considered part of the Detention Center and as such is fenced in and monitored by Detention Center staff with each gate and door to the building being locked. This radio facility is on a generator. Sheriff's Channel 2 is located on the VIPER tower at 174 Rosefield Dr., Raeford, NC 28376. This is the McCain VIPER tower and is on generator backup, also. The main fire repeater is also located at the McCain VIPER tower. EMS/Rescue is located at the main tower at the Detention Center. In the event of the failure of these base stations, paging can be accomplished by one of two methods: 1. There are 2 simplex base stations radios we have that are able to page Fire, EMS, and Rescue from the radio console. 2. The Raeford Fire Department as stated above. Afterwards, normal traffic is conducted via the

VIPER network. For Fire, EMS, and Rescue, VHF is only utilized for paging but can be utilized as a backup in case of VIPER failure.

In the case of telephone radio loop failure, any of the alternate means from above can be used. For law enforcement channels, we can utilize portables. For paging, we can use the VHF backup radios mentioned above. VIPER is accessed via RF link so it would not be affected. We also have the RF link programmed into our City and County Public Works RF links so that if necessary, we can change them to transmit on Fire and/or EMS/Rescue repeater frequencies or simplex.

In the event of all systems failure or demolition due to storm or fire, we would request the Moore County Emergency Management field unit that has our channels programmed and can be moved to Hoke County and utilized for radio communications. NCSHP also has mobile solutions available in the event of total destruction of the McCain VIPER site and we have gaps in coverage due to not being able to access a tower.

Internet service is always live at the back-up Center.

CAD, Mapping, the Radio console system and the telephone systems are identical in both Centers. There is also a copier/fax machine at the back-up Center with a dedicated telephone number.

X. Transition 911 Call Answering

If any event occurs that causes a telephone system interruption, all trunks are set to automatically default to Moore County Emergency Communications. For short term diversion, they can handle our calls and get them back to us via cellular telephone. In the event calls are going to be diverted to Moore County for any lengthy period of time, a Hoke County Telecommunicator will be sent to Moore County Communications to take and relay Hoke County calls. Calls will be relayed back to Hoke County via cellular telephone. Each staff member has a personally owned cellular telephone. The Center also has VIPER system portable radios available and those could be utilized to relay calls back from Moore County on common channels or a portable can be

issued to the Telecommunicator assigned to go to Moore County Communications. The NC SBI DCI System could also be utilized if that system was functional.

XI. Back-up Power Systems

The Hoke County Emergency Communications System utilizes 4 generators at 4 different sites. All generators are load tested weekly and maintenance is performed quarterly by National Power Corporation with the exception of the VIPER Tower generator for which the NCSHP handles the maintenance. The back-up Center is still on the same generator and UPS as when it was the main Center. A second generator powers the main tower and radio shack that house the Sheriff Channel 1, Raeford Police, EMS/Rescue and School System radio systems. The Fire 1, Sheriff Channel 2, and County Maintenance/Transportation radios are housed in the VIPER radio building which is the VIPER McCain radio site on Rosefield Dr. in the western part of the County. This building is on a third generator administered by the VIPER division of the North Carolina Highway Patrol. The Primary Center is on a fourth generator. All generators operate independently of each other. The County has a standing agreement with its main fuel suppliers, Raeford Oil Company and McNeill Oil Company, both of Raeford, to provide fuel for generators and County vehicles during times of emergency.

XII. Maintenance and Testing of Back-up Center

The back-up Center will be tested monthly for all operational issues. A member of the Communications Center staff is designated to conduct this back-up test and will involve the County Information Technology staff. We will conduct a full load test bi-monthly in which we will make the back-up Center the Primary for the shift. Days and times will be varied so that all shifts will have an opportunity to participate.

XIII. Employee Needs

The back-up Center has a full kitchen and rest room facilities. Shower and sleeping facilities as well as additional kitchen facilities are located next door at the Hoke County Rescue Squad base. We also have room in an ante room of the back-up Center to set up sleeping facilities should additional facilities be needed.

XIV. Costs

As the Back-up Center was the Primary Center until February 2013, the infrastructure that was utilized at the time was left in place. Furniture, telephone, radio console, and computers were left in place. The Telephone system was upgraded from the Simon System to the latest Positron (Intrado) VIPER system when the new Primary Center was constructed. Both systems have the latest hardware and software and are identical in every detail. The present Stancil recording system was replaced on September 16, 2014. Console Cleaning Specialists performed dispatch furniture maintenance and cleaning on September 15, 2014.

Telephone Maintenance-\$23,469.00/annually

Moducom Maintenance \$16,035.00/annually

VisionAir-VisionAir is not charging for the extra licenses since this is a backup Center. Also, maintenance is covered under the present agreement with no additional cost.

Generator Maintenance-\$1,500.00/annually

Recorder Maintenance-\$3,500.00/annually

XV. Planned Upgrades

Due to physical constraints, the UPS has been limited to individual units at each console and on the servers. Additional space has been recovered in the back-up Center so that a single unit UPS can be installed and that will be accomplished as soon as possible. Future plans also include adding an additional console position. The room that contained the back room equipment for the Communications Center also housed other equipment such as servers for the County IT infrastructure. Those servers have been moved to another location and this space is now free. Another room is now free next to this room since we do not occupy this space on a full time basis any longer. This space will be reclaimed as backroom equipment space. We plan on removing all unused wiring, punch blocks, etc. and rewiring all server connections to the consoles for the CAD, radio and telephone servers and controllers.

HOKE COUNTY EMERGENCY COMMUNICATIONS

PSAP Back-up Plan

APPENDIX 1

Back-up Center Activation

In the event Hoke County Emergency Communications has to activate the back-up Center, there are many tasks that must be undertaken simultaneously. Remember, every second that 911 cannot be dialed in Hoke County to reach us, someone is not getting the help they need. Therefore, these actions must be undertaken in a swift, decisive manner and everyone is going to have to be involved.

The decision to go to the back-up Center will be made by the Director or Assistant Director. If for some reason you cannot contact someone from the administrative staff, contact the County Manager. If that is not possible, you may make the decision to go to the back-up Center.

There are many events that may precipitate having to relocate to the back-up Center. Some are obvious such as destruction of, or damage to, the Communications Center such that normal operations are not possible. This could be a natural disaster such as a tornado, hurricane, flooding, high winds, etc. It could also be due to a fire in the Center or some type of event in the Center that damages equipment to the point of being unable to utilize the Center to receive and dispatch calls.

No matter the issue, we have to be able to do 2 things: receive calls via telephone and dispatch them via radio. Telephone calls include 911 trunks and administrative lines. Radio dispatch means all channels including the ability to page Fire, EMS, and Rescue units, normal traffic on Sheriff and Police channels and the ability to utilize the VIPER system.

911 system outages are of 2 distinct issues: a problem with the 911 trunks getting calls to the Center; and the Center not being able to get the call due to a problem with the Center.

If we have an issue with the Center such as damage beyond use, it becomes obvious that we will have to go to the back-up Center.

If it is a problem with getting calls to us, the first question we have to ask is: “If they cannot get the calls to the primary Center, can they get them to the back-up Center?” If not, moving to the back-up Center is of little use. This is where re-routing of calls may be needed.

As a primary backup mechanism, 911 calls that cannot be routed to us at the primary Center are automatically routed to Moore County Emergency Communications by CenturyLink (our telephone provider). This task is usually performed automatically and it is supposed to notify the CenturyLink Network Operations Center (or NOC pronounced like “knock”) to call us.

Remember 911 trunks can default to Moore County and our Administrative lines can still come through as normal OR 911 trunks can default to Administrative lines, especially VOIP lines like Time Warner Cable (TWC) telephone customers or Vonage users. When the NOC calls you and informs you of this, ask them if they know what the problem is and can calls be sent to the back-up Center. If they say calls can be sent to the back-up Center, initiate that procedure. If they cannot and calls have to go to Moore County, initiate that procedure.

If moving to the back-up Center is required, several things have to happen:

1. Calls have to be forwarded to the back-up Center WHEN someone is there to answer them. Otherwise let them go to Moore County until then.
2. The CAD, Mapping, and mobile servers have to be connected in the back-up Center.
3. The computers in the back-up Center have to be started up including the telephone system.

There is a checklist as part of this procedure that will outline how to do this.

If 911 service is out and those calls cannot be routed to the back-up Center, then they will go to Moore County. If that is the case, several things have to happen:

1. Off duty personnel will have to be called and sent to Moore County Communications to handle Hoke County calls.
2. Determine if we can receive administrative line calls. If so, those calls from Moore County can be relayed on those lines. If not, utilize on duty personnel personal cellular telephones to get calls back from Moore County.

HOKE COUNTY EMERGENCY COMMUNICATIONS

PSAP Back-up Plan

APPENDIX 2

Back-up Center Activation Checklist

- [] Incident occurs that requires moving operations to the back-up Center, e.g. 911 trunk loss, damage to Center, etc.
- [] Contact Director
- [] Contact Assistant Director
- [] If unable to contact above, contact County Manager
- [] If this is a 911 issue, contact the CenturyLink NOC. Ascertain the origin of the issue and if they can route calls to the back-up Center. **IF CALLS CANNOT BE ROUTED TO THE BACK-UP CENTER, UTILIZE THE CHECKLIST ON APPENDIX 3** and stay in the main Center. If calls can be routed to the back-up Center, advise them you will be calling them back shortly and to stand by.
- [] Contact Moore County Communications 947-2911. Advise them that our trunks are going to default to them until the back-up center is up and running.
- [] The Director will contact the Moore County Public Safety Director and advise him of the situation.
- [] Call off duty personnel, preferably the matching shift on the other cycle and part time personnel. Have them report to the back-up Center unless told otherwise or you identify a need to redirect them.
- [] Contact Telecommunicator Fairbanks if he is not on duty.
- [] Contact the IT Director or her designee.
- [] Put in a trouble ticket through normal channels with CenturyLink.
- [] Director-Contact CenturyLink Public Safety Working Group Director.

Back-up Center

- [] Cut on CAD computers.
- [] Cut on Telephone system Computers.
- [] Ensure Moducom is functioning.
- [] Cut on fax machine.
- [] When Center is manned, call the CenturyLink NOC and when advised, throw the 2 switches in the equipment room to divert telephone system to back-up Center.
- [] Primary Center personnel report to back-up Center.
- [] IT will activate back-up server if primary server is down.
- [] Director-Notify PSAP Liaison or Executive Director of 911 Board of outage and move.

HOKE COUNTY EMERGENCY COMMUNICATIONS

PSAP Back-up Plan

APPENDIX 3

Staying in Main Center/Calls Rerouted to Moore County Communications Activation Checklist

- [] Incident occurs that requires rerouting calls to Moore County Emergency Communications, e.g. 911 trunk loss, damage to Center, etc. This reroute should occur automatically. If it does not, contact the CenturyLink NOC and have them rerouted. Ascertain the origin of the issue and if they can route calls to the back-up Center. **IF CALLS CAN BE ROUTED TO THE BACK-UP CENTER, UTILIZE THE CHECKLIST ON APPENDIX 2** and prepare to move to the back-up Center.
- [] Contact Director
- [] Contact Assistant Director
- [] If unable to contact above, contact County Manager
- [] Contact Moore County Communications 947-2911. Advise them that our trunks are going to default to them and we will be sending personnel to them.
- [] The Director will contact the Moore County Public Safety Director and advise him of the situation.
- [] Call off duty personnel, preferably the matching shift on the other cycle and part time personnel. Have them report to the Main Center unless they are closer to Carthage. In that case, have them proceed directly to Moore County.
- [] Contact Telecommunicator Fairbanks if he is not on duty.
- [] Contact the IT Director or her designee and place them on stand-by in case the back-up Center becomes an option.
- [] Put in a trouble ticket through normal channels with CenturyLink.
- [] Director-Contact CenturyLink Public Safety Working Group Director.
- [] Director-Notify PSAP Liaison or Executive Director of 911 Board of outage and move.

HOKE COUNTY EMERGENCY COMMUNICATIONS

PSAP Back-up Plan

APPENDIX 4

Back-up Center Activation

Names and Telephone Numbers Cited in Plan and Checklists

Director-Emergency Communications	Jimmy Stewart
Asst. Director-Emergency Communications	Tricia McKnight
Hoke County Manager	Tim Johnson
CenturyLink Network Operations Center (NOC)	
Moore County Emergency Communications	
Hoke County Communications	Ron Fairbanks
Director of Public Safety-Moore County	Bryan Phillips
Communications Manager-Moore County	Kris Sheffield
CenturyLink Public Safety Working Group	Donna Pair James McLeod
IT Director-County of Hoke County	Candace Pierce
PSAP Liaison-NC 911 Board	David Dodd
Executive Director-NC 911 Board	Richard Taylor
Hoke County Communications Personnel	See Attached List
Local CenturyLink Personnel	
CenturyLink Trouble Reporting	

HOKE COUNTY EMERGENCY COMMUNICATIONS

PSAP Back-up Plan

APPENDIX 5

Back-up Center Activation

**List of Communications Center Telephone Numbers
and Circuit Numbers**