

## EMERGENCY SERVICES DEPARTMENT

### General Information

Department Head: Donovan Davis (since Jan. 2009)  
 Location: 152 North Fayetteville Street, Asheboro, NC 27203  
 Phone Numbers: Administration: 318-6911

Donovan Davis, Emergency Services Chief: 318-6943  
 Lewis Schirloff, Emergency Services Deputy Chief: 318-6945  
 Jared Byrd – Major, Emergency Management Coordinator: 318-6913  
 Evan Grady – Captain, Emergency Management Planner:  
 Justine Buxton – Major, Technology Officer: 318-6912  
 Jonathan Bell – Lieutenant, Asst. Technology Officer: 318-6908  
 Sandy Smith – Major, 9-1-1 Communications Supervisor: 318-6944  
 Keena Heaton – Captain, Assistant 9-1-1 Communications Supervisor: 318-6942  
 Bradley Beck – Major, EMS Operations Officer: 318-6921  
 Erik Beard – Major, Erik Beard: 318-6946  
 Robin Whatley – Lieutenant, Training Coordinator: 318-6958  
 Dr. Jason Stopyra – Medical Director: 318-6945  
 Jason Phillips, PA-C – Deputy Medical Director: 318-6945  
 Dr. Bryan Beaver – Asst. Medical Director: 318-6945

Emergency Operations Center: 318-6910

**On-Duty EMS Shift Lieutenant: 318-6922**

**On-Duty 911 Shift Lieutenant: 318-6924**

911 & Administration Fax: 318-6951

Fire Inspections Fax: 318-6949

### Mission

To provide service to the community by preventing and minimizing loss of life, pain and suffering, property loss, and environmental damage from fire, natural disasters, and medical emergencies by offering education, prevention, and emergency response.

### Summary

Emergency Services includes fire inspection and enforcement of the N.C. State Building Codes, fire investigation, answer and dispatch of all emergency and non-emergency calls for assistance through 9-1-1 for all public safety agencies in the county, response to and provision for appropriate pre-hospital medical care and transport. Prevention services include public education, mitigation measures through preplanning, and disaster planning. This department operates 24 hours per day.

For the 2003-04 fiscal years, this department had 70 allocated positions, four more positions than the previous year. During budget deliberations, the Commissioners authorized the

addition of another ambulance (prime-time only) at the Archdale Ambulance Base, with the accompanying staff of four Emergency Medical Technicians. (*Organizational Chart Attached*)

For the 2007-08 fiscal years this department had 74 allocated positions.

For the 2014-15 fiscal years this department had 89 allocated full-time positions and 45 part-time positions.

For the 2015-16 fiscal years this department had 99 allocated full-time, three contracted, and 47 part-time positions.

In addition to the full-time and part-time positions, we also have three contracted medical directors; Dr. Jason Stopyra, Medical Director; Mr. Jason Phillips, PA-C, Deputy Medical Director; and, one Assistant Medical Director. The Assistant Medical Director is a participating fellow in the Wake Forest University EMS Physician Fellowship Program. They spend approximately one and a half years in the position of Assistant Medical Director before graduating and becoming Board certified in the EMS field.

Dr. Justin Sempsrott – January 1, 2014 – June 30, 2015

Dr. Bryan Beaver – July 1, 2015 – current

For the 2016-17 fiscal years this department had 102 allocated full-time, three contracted, and 47 part-time positions. Total positions: 152

## **Overview**

Randolph County initiated its ambulance service on July 1, 1977, when it took over that service from Ridge Funeral Home. The Emergency Services Department (ES) was created in 1983, when Neil Allen was hired as Emergency Services Director. (Neil retired December 31, 2008). The new department combined Emergency Medical Services, Fire Marshal, Fire and Ambulance Dispatch, and Emergency Management into one department. This department was initially housed at the McDowell Center. In August of 1992, ES moved into the old *Courier-Tribune* building, located at 152 N. Fayetteville Street. In November of 1992, ES took over all emergency communications (ambulance, law enforcement, and fire) for the County and all municipalities except Archdale. On March 17, 1993, the County initiated its E911 system, and the first call was placed at 9:11 a.m. The Fire Marshal's office was expanded to include fire inspectors July 1, 1992, as a result of new state laws requiring businesses and industries to have periodic fire inspections.

Donovan Davis was appointed to the position of Emergency Services Director on January 1, 2009. Lewis Schirloff was appointed to the position of Emergency Services Deputy Director on April 1, 2009.

As of January 1, 2013 all working titles for command, administrative and supervisory staff have been converted to the paramilitary ranking system:

Emergency Services Director	= Chief
Emergency Services Deputy Director	= Deputy Chief
Emergency Management Coordinator	= Major
9-1-1 Communications Manager	= Major
Technology Officer	= Major
Fire Marshal	= Major
EMS Operations Officer	= Major
Asst. 9-1-1 Communications Manager	= Captain
Emergency Management Planner	= Captain
EMS Shift Supervisors	= Lieutenant
Assistant Technology Office	= Lieutenant
EMS Crew Chiefs/Asst. Shift Supervisors	= Sergeant
9-1-1 Shift Supervisors	= Lieutenant
9-1-1 Asst. Shift Supervisors	= Sergeant
Training Coordinator	= Lieutenant
EMS Field Training Officers	= Corporal
9-1-1 Communications Training Officers	= Corporal

On July 16, 2013, Lt. EMT-P Robin Whatley was promoted to a new Training Coordinator position.

On September 1, 2013 EMT-P Crew Chief Bradley Beck was promoted to the EMS Operations Officer / Captain position.

On February 1, 2016 EMT-P Tammy Swaney was appointed to a new Logistics Coordinator position to handle medical supplies and inventory.

On July 1, 2016, a new Emergency Management Coordinator position was added. Major Jared Byrd was appointed to that position. Captain Evan Grady was hired on August 16, 2016 to fill the role of Emergency Management Planner.

### **Facilities and Equipment**

ES is housed in 9 buildings. The County owns all the buildings except for the Liberty Ambulance Base, which is owned by the Town of Liberty and the Trinity Base-(Station 28) which is owned by the Tabernacle Fire Department.

- Emergency Services Administration Building, 152 N. Fayetteville Street (3,700 sf upstairs, 3,061 sf downstairs): The upper level of this building houses ES Administration (1,530 sf), the 911 Communications Center (1,450 sf), Emergency Management (part of Administration). The lower level includes the Fire Marshal (1,260 sf), the Emergency Operations Center (500 sf), break room (756 sf), and storage (545 sf). This building is a very secure structure, as it has no windows on either level. Access is gained through a door with an electronic access lock. Visitors are screened and personally escorted into and throughout the building. The Sheriff's Vice/Narcotic unit moved out in 2010 and the

space was converted to offices and storage for the Chief and Deputy Chief. On July 16, 2014, the Board of Commissioner's voted to approve a new headquarters to be constructed on New Century Drive in Asheboro. It will house a new 9-1-1 Center, Emergency Operations Center, administrative offices, the Asheboro EMS base, and the Fire Marshal's offices.

- Asheboro Ambulance Base, 2222-E S. Fayetteville Street, McDowell Center (3,880 sf): This facility will be closed once the new headquarters facility is constructed.
- Archdale Ambulance Base, 402 Balfour Drive, (1350 sf): This base was enlarged in 2004 to accommodate a second ambulance bay and crew.
- Ramseur Ambulance Base, 5989 Hwy 64 East (1386 sf): This is a one-bay station built in 1987.
- Randleman Ambulance Base, 2-A Parrish Dr., Randleman (1386 sf): This is a one-bay station built in 1990, using the floor plan for the Ramseur Base. On August 26, 2013 the Randleman Ambulance Base property was sold to the highest bidder for \$535,000. The base location was permanently relocated to property owned by the Economic Development Corporation in the Randleman Business Park on Island Ford Rd. There was no cost for the property. A four bedroom, two bath modular home (1,400 sf) was purchased from the lowest bidder, Suits Homes in Siler City, for \$124,770 and constructed on the new site along with a two-bay drive-thru garage.
- Liberty Ambulance Base, 215 W. Swannanoa Av., Liberty: This space is owned by the Town of Liberty and located within the Liberty Fire Department. This base was replaced during the FY 2014-15 budget. The new Base is located at 519 W. Swannanoa Ave. It is a 2015 two-bedroom, two-bathroom modular home with a separate garage.
- Trinity Ambulance Base, In 2009 the Trinity Ambulance was relocated to the Tabernacle Fire Department's Station 28 on Slick Rock Mountain Rd in Trinity. It was previously co-located at the Guil-Rand Fire Department's Station 39 on Welborn Rd. This station is owned by the Tabernacle fire department. The Trinity ambulance remains at this station from 8:00 am to 10:00 pm, then moves to Tabernacle's Station 18 on US Hwy 64 W during the overnight hours. There are no sleeping accommodations at Station 28. A new Trinity base is already funded and an active search for property is underway to construct a new base facility in the Trinity area.
- Uwharrie Ambulance Base, located at 6444 High Pine Church Rd, was constructed during the latter part of the FY 2014-15 budget. It has a two-bedroom, two-bathroom modular home with a separate garage to house one ambulance and crew. The Base opened on January 1, 2015.
- Erect Ambulance Base, located at 8586 Erect Rd, Seagrove was constructed during the FY2015-16 budget. A 2012 modular home was purchased to house the crew and a separate garage was constructed for the ambulance. The Base opened on January 1, 2016.
- New Headquarters Facility – construction began in early 2016 with a projected open date in early 2017. This nearly 35,000 sq ft building will house a new 9-1-1 Center, EMS Asheboro Base (replace the base at Ira McDowell) with space to house ten ambulances, a new Emergency Operations Center (EOC) and training facilities, administrative offices, and the Fire Marshal's offices. The Emergency Services Administration building on N Fayetteville Street will remain in operation as a back-up 9-1-1 Center and EOC.

ES also owns a building on Dave's Mountain (228 sf), which houses radio equipment for EMS, law enforcement and fire. In January 2013 all radio communications was switched over to the NC VIPER 800 mhz radio system. (Asheboro Police Department made the transition to VIPER in July 2014). As of July 2013 all County owned UHF frequencies and equipment have been removed from service.

## **Service Area: 9-1-1 Emergency Communications**

### **Mission**

As 9-1-1 Professionals of Randolph County Emergency Services, our mission is to provide timely, professional, courteous and compassionate public safety services to the citizens and visitors to our county. We will make every effort to maintain efficiency and excellence in Fire, Law Enforcement, EMS, Rescue and Emergency Management Communications. With continued education and a commitment to strong teamwork, we can help save lives, protect property and proudly know that we make a difference, serving as a vital link in the Emergency Services of our community.

### **Summary**

Randolph County 9-1-1 provides fast, easy access to Emergency Services, Law Enforcement, Fire, Emergency Management, and other public services as deemed necessary. Staff answers and prioritize requests for emergency and non-emergency assistance and dispatch law enforcement, emergency medical service, fire and rescue in a timely manner in order to prevent or minimize loss of property and life. Pre-arrival instructions are given to callers with medical emergencies until responders arrive. Coordination and information relay of operations among different agencies is conducted on a daily basis. Public education to the community through presentations/demonstrations in schools, churches, and/or social organizations is provided upon request. The 9-1-1 Center is staffed 24 hours per day, 365 days per year. For the 2015-16 fiscal years this area had 24 full-time positions and 15 part-time positions, plus one (1) Communications Supervisor and one (1) Assistant Communications Supervisor.

The Emergency Services Chief / Director provides all directions and guidance for the 9-1-1 Communications Center. The 9-1-1 Communications Major and the Captain are responsible for the daily operations and management.

### **Overview**

On February 4, 1991, Randolph County adopted a 911 ordinance that established an Emergency Telephone System Fund and a monthly 911 service charge of \$1.00, effective June 10, 1991, to all telephone subscribers in the area served by the Randolph County 911 service. (Effective November 15, 1995, this amount was reduced to \$0.65 per month.) Proceeds from this surcharge were used to purchase and maintain emergency telephone equipment, including computer hardware, software and database provisioning, addressing and nonrecurring costs of establishing a 911 system. All telephone service providers collect this surcharge and pass it along to the County, less a 1% administrative fee.

It has been determined that certain positions associated with the 911 service can be paid for from the Emergency Telephone Fund. At this time, the following positions are paid for from this fund: 100% of the Addressing Coordinator in Computer Services, and 50% of the GIS Analyst in Computer Services. The rules were changed in 2010 which meant the ES department's MIS specialist position had to be fully funded by the County.

North Carolina Senate Bill 1242 established the 911 Wireless Fund and 911 Board. Effective October 1, 1998, the State began collecting from cell phone providers a 911 surcharge of \$0.80 on all cell phones. They pass along 40% of these funds to the 911 systems in the state. These funds can be used for purchase, lease, and maintenance of emergency telephone equipment needed for a wireless Enhanced 911 system. The other 60% of the wireless surcharge is used to reimburse the cell phone

providers for their costs associated with designing, upgrading, and maintaining the technology necessary to provide 911 systems the location, name and telephone number of cell phone callers. Randolph County pays for some telecommunicator training from the Wireless Fund.

By 2005 all cell phone providers must use cell phones with a GPS (geographic positioning system) chip. This chip identifies to 911 the location of a cell phone caller by latitude and longitude. In the interim, these providers may use a time-distance method to identify callers and their location. There are currently 7 cell phone providers in Randolph County. All 7 providers are compliant (either by GPS or the time-distance method). This technology is very important to Randolph County because approximately 75% of 911 calls are from cell phones. (One reason for this is that most of the time multiple cell phone callers will report the same incident, usually an automobile accident.)

### **911 Communications System**

The Randolph County 911 Communications Center is the primary Public Safety Answering Point (PSAP) for Randolph County, North Carolina and receives all calls made to the number “911” from within Randolph County. Dialing “911” is the primary method for the public to request emergency assistance from within Randolph County and will connect the caller to the Randolph County 911 Communications Center.

The equipment in the Communications Center has 3 primary components: Spillman System (CAD, GIS, records for all agencies, alphanumeric paging), a computer server for telephones, and a computer server for radios.

The Communications Center also houses the network connection for County departments located close by or north of town (Courthouse, Register of Deeds, Elections, Library, DRC, DSS). From here, these departments are connected with Computer Services by fiber.

The goal of the Communications Center is to answer 911 calls immediately. However, due to the transmission of data, the caller hears 2 rings before the 911 line in the Center rings. Ideal performance may be affected by call volume, staffing or equipment problems. In case of “dropped” calls, a return call will be made immediately to the number indicated by the Automatic Number Indicator (ANI).

Communications Center procedures include the following for each request for service: determining & documenting address of incident, determining & documenting call-back telephone number, determining & documenting the problem/nature of the request, determining & documenting emergency vs. non-emergency requests, providing pre-arrival instructions if indicated, determining & sending the closest appropriate vehicle to emergency requests for service, and determining any need for, and requesting assistance from, any other agencies as indicated.

The Communications Center has a mechanism in place to document time events for each request for service. These time events include time of request, time vehicle was alerted, time vehicle began responding, time vehicle arrived at scene, time vehicle left scene, time vehicle arrived at destination, time vehicle returned to service.

The Communications Center and field personnel have communications capabilities that allow for immediate communication with one another at any time a vehicle is operating within the agency's service area. There is a minimum of two communications devices per vehicle.

The Communications Center has a contingency plan to provide immediate back-up communications equipment and/or power source as may be necessary for its continued operation in the event of equipment or power failure. The contingency plan includes off-site capabilities in the event of an incident with the Communications Center building.

When the numbers “911” are dialed from a regular telephone, the phone number from which the call originates is sent to a database hosted by Century Link. The database forwards the call to the Randolph County 911 Communications Center with the following information:

- The originating phone number (main number if more than 1 phone)
- If a cell phone, the tower number may display
- Type of phone (business, coin, residential, cell, VoIP)
- Phone exchange (Liberty, Ramseur, Seagrove, Archdale, Randleman, etc.)
- Name of phone service subscriber,
- Address where the phone is located,
- Emergency service number and any information attached to that number,
- Call time and date,
- Dispatch position that answered telephone,
- 911 line that received the call,
- If call was transferred and the number that call was transferred to.
- Communications barriers, which can exist with persons who are blind, deaf, mute, or who speak a language other than English, are accommodated.

Once a 911 call has been answered by the Center, no caller will be instructed to hang up and dial another telephone number. If a call must be transferred for any reason, the Telecommunicator initiating the transfer will make the necessary connection without breaking contact with the caller until certain the connection is successful. Any person calling for emergency assistance will never be required to speak with more than 2 persons to request emergency medical assistance.

The Randolph County 911 Communications Center operates continuously, 24 hours a day, year round. When a 911 call is received and answered, the Telecommunicator determines the call nature, response type, response level, response priority, and the location and nature of the emergency. The telecommunicator then completes the process to accept the call as a CAD event and immediately sends the call information to the appropriate console for dispatch by radio. The Telecommunicator keeps the caller on line as necessary, gathering additional information and updating CAD for the dispatching Telecommunicator. The Telecommunicator maintains contact with responding units until the event has ended.

Telecommunicators are trained in the management of calls for medical assistance and certified in the use of Emergency Medical Dispatch procedures and are re-certified every two years. The Communications Center dispatches emergency medical response units based upon criteria provided by Randolph County EMS. Nature codes, response level and priority information is used by CAD to assure dispatch of the most appropriate response to any caller’s request for assistance.

### **Communications Hardware and Frequencies**

The Randolph County 911 Communications Center emergency communications system provides two-way radio voice communications within, but not limited to, Randolph County, NC to the Communications Center (PSAP) and to facilities where patients are routinely transported, i.e.,

Randolph Hospital. All Federal Communications Commission radio licenses or authorizations required for the EMS system are held and administrated by the Randolph County Emergency Services Department.

The radio system has the capability of communicating through frequencies in the Very High Frequency range (VHF). The Federal Communications Commission (FCC) has licensed the Randolph County 911 Communications Radio System on specific frequencies for EMS use. These are

**VHF Frequencies**

Mobile Channel Number	Channel Frequency	Channel Usage
F-1	155.220	Miscellaneous
F-2	155.280	State Wide Mutual Aid
F-4	154.415	County Fire

**UHF Frequencies**

Channel Name	Channel Frequency	Channel Usage
Med 10		Statewide UHF Frequency

- In January 2013 all public-safety agencies operating in Randolph County switched to the NC VIPER 800 mhz radio system. The Asheboro Police Department made the transition to VIPER in July 2014. All other UFH frequencies not listed above and equipment have been removed from service.
- There are ten - 911 trunks coming into the Center, 6 non-emergency (non-published) lines and 3 designated alarm lines. If all 911 lines are busy, emergency calls automatically roll over to seven-digit numbers with ANI capabilities. In 2013, one additional 9-1-1 trunk was added to total ten and three additional alarm lines were added.
- E-911 calls come to the Center by Century Link and are handled in the Center by a Cassidian Patriot VoIP phone system. The Cassidian System displays database information, which comes from Century Link. The name of Sprint was changed in 2010. The telephone equipment was upgraded in 2013 (AIRBUS DS Communications, formally Cassidian).
- Response units are dispatched through a Motorola MCC-5500 conventional and 800 mhz frequency console system. The radio console equipment was upgraded in 2015.
- Public Safety agency activities are tracked on a computer-aided dispatch system, manufactured by Spillman. The system is Windows NT based and uses a map display. The system also utilizes MDT terminals for law enforcement and EMS units. The Spillman CAD system has been in use since 1993.
- Randolph County 9-1-1 began receiving “Text to 9-1-1” calls in March of 2016. Text are received via the Emedia, which is 3<sup>rd</sup> party web-based provider offered by Telecommunications Systems. Text to 9-1-1 allows citizens and travelers text from cellular mobile devices. This is a valuable

tool for those in an emergency situation who for personnel safety or other reason are not able to make a voice call to 9-1-1.

### **Staffing**

911 has 24 full-time telecommunicators, one communications supervisor, one assistant communications supervisor and two Technology Officers. Telecommunicators work 12-hour fixed shifts that alternate between a 36-hour workweek and a 48-hour workweek. Telecommunicators wear uniforms when on duty. They are provided a shirts, and uniform pants. They began wearing uniforms full-time in 2012.

Randolph County 911 utilizes a pool of part-time employees, many of whom are seeking full-time positions. The 911 has 15 part-time positions budgeted. Most part-time telecommunicators work 12-hour shifts, but some work fewer than 12 hours in a shift. The part-time pool was increased to 15 in 2010. Part time employees are limited to working no more than 1000 per year.

### **Operations**

In addition to receiving all 911 calls for the county, the Center dispatches response for Randolph County EMS, Ash-Rand Rescue, Piedmont Triad Ambulance, Randolph County Sheriff, Asheboro Police, Randleman Police, Liberty Police, Ramseur Police, Seagrove Police, Piedmont Triad Regional Water Authority Lake Wardens (2009), Randolph County Fire Services and Randolph County Fire Marshal. One ear has the 911 telephone earpiece; the other ear listens to the radio communications from the various agencies. Each Telecommunicator is assigned one radio position per shift. This means that one Telecommunicator will dispatch only fire; another, only EMS; and another, only law enforcement. They also monitor alarms (fire, electricity, and panic buttons) for County buildings (Courthouse, McDowell, DSS, and Jail). In the midst of all this activity, these employees must also, after each call, enter into the computer the status of every field unit so that at any given moment it can be determined where each unit is and what it is doing.

Each shift has a supervisor/lead worker who assigns and coordinates work. Currently there are 6 telecommunicators assigned to each of the shifts.

Employees cannot leave their post for a lunch or supper break. They generally eat at their station, either bringing food from home or ordering takeout. There is a TV at each station, and employees are allowed to have the TV on during slower periods.

Department policy dictates that field officers, family members, and other visitors are limited to 15 minutes in the Communications Center. No one with a criminal history is allowed in the Center. 911 administrative employees conduct around 25 group tours annually through the Communications Center. These may be student, church, civic, or scout groups. In addition, staff members go to schools to do presentations.

### **Training/Certifications/Continuing Education**

The initial training for all new employees is the Communications Training Program (CTP). This is a comprehensive 5-7 week classroom course in-house conducted by supervisors during their off time. The department generally hires in groups of 4 or 5 since these instructors must be paid overtime for this work. After successful completion of the classroom training, new employees are

assigned to a preceptor (experienced Telecommunicator) for the remainder of their training. Throughout the training period, the classroom instructors and preceptors will keep detailed progress reports on each trainee. In turn, the trainee will also evaluate the preceptor.

At the present time, there are 3 certifications, in addition to the CTP, that must be obtained within the first 6 months of employment (if possible) while employees are under the probationary period. These initial certifications must be maintained by recertification and continuing education. Not keeping certifications current and in good standing could result in suspension and/or termination of employment. The County will pay for registration, travel, food and lodging of any initial certification. However, Telecommunicators must pass these on the first try or it will be the employees' responsibility to obtain any failed certification on their own time and at their own expense. The County will fund all costs for recertification if the employee is in good standing. The Supervisor will be responsible for enrolling employees in all classes, both initial and recertifications, and for notifying employees of details regarding the class. If an employee is unable to attend the class, for whatever reason, he is to give no less than a 48-hour notice to the Deputy Director. Failure to do so may result in disciplinary action, and/or the employee will be subject to reimbursing the County for any expenses incurred.

The first certification is APCO Public Safety Telecommunicator 1. This is a 54-hour course that is taught by an in-house APCO Certified Instructor. APCO PST1 meets and exceeds the APCO Project 33 Revised Minimum Training Standards for Public Safety Telecommunicators. APCO Project 33 training standards are widely recognized as the national industry standard for basic telecommunicator training. The PST1, 6th Edition course blends the knowledge and skill building information needed for a basic telecommunicator with the most up-to-date information on the technology and issues surrounding today's public safety communications center. The course includes "hot" topics such as Voice over Internet Protocol (VoIP), and the Telecommunicator's role in the U.S. Department of Homeland Security's NIMS Incident Command System. There is also an extensive expansion of information on previously presented topics including entire modules dedicated to TTY and Telematics training. . All students successfully passing the final exam receive APCO Institute certification demonstrating completion of a training course that meets and exceeds industry accepted national basic training standards. Instructional media and exercises used throughout the course reinforce the knowledge attained in lecture and demonstration

The second certification is Emergency Medical Dispatch (EMD). This is a 24-hour course. After taking this course, employees must also pass a written exam given by the state Office of EMS to prove they are proficient as EMDs. When Randolph County adopted the EMD program in 1998, we chose Medical Priority as our vendor, and all certifications must be accomplished through them in order to use their product. All EMD updates are implemented within 1 year of release, usually sooner. They coordinate the course offerings. This course teaches the Emergency Medical Dispatcher (EMD) to ascertain information from the caller by asking pre-determined questions. This will allow units to be dispatched with the proper response to reduce liability and to provide field personnel with necessary patient information. The EMD gives pre-arrival and post-dispatch instructions to the caller in order to help the patient. This enables patient care to begin immediately. This certification requires 24 hours of continuing education as well as recertification every 2 years for national standards and every 4 years for state. All full-time and part-time Telecommunicators are required to obtain this certification. It has been determined that the cost for this course can be covered from the Wireless Fund.

The third certification is through DCI (Division of Criminal Information). This is a 40-hour course. The State Bureau of Investigation requires that all Telecommunicators be certified to access information through this system. A criminal background check as well as being fingerprinted is required for this certification. Randolph County is authorized for full access in this system. Receipt of this information is restricted to law enforcement/justice personnel only. All full-time and part-time personnel must recertify every 2 years. The content of this course involves entering and retrieving information from a national database in the areas of criminal history, driving records, stolen property, missing persons, wanted persons, etc.

The fourth certification is CPR. This is an 8-hour, pre-requisite course for the EMD certification course. These classes are offered in-house or at a local facility.

Once all training has been successfully met and certifications obtained, trainees will be released to function alone as Telecommunicators, without the supervision of a preceptor. After trainees have been released, they will receive random evaluations from the Supervisor.

Mandatory continuing education is required for each Telecommunicator (while off duty) on a quarterly schedule. Employees are paid for required in-service training classes. In-service notifications are sent to each Telecommunicator by email only, using the County-provided email address. When employees have a conflict with an in-service, they are given a makeup assignment, but hours must be accounted for to maintain all required certifications.

### **Commonly Used Terms in 911 Communications**

#### **Abbreviations:**

ANI	Automated Number Indicator
CAD	Computer-Aided Dispatch
CTP	Communications Training Program
DCI	Division of Criminal Information
EMD	Emergency Medical Dispatch
FCC	Federal Communication Commission
GIS	Geographic Information System
GPS	Global Positioning System
LIFE	Linked Information for Emergencies
MDT	Mobile Data Terminal
PSAP	Public Safety Answering Point
UHL	Ultra High Frequency
VHL	Very High Frequency
VoIP	Voice over Internet Protocol

### **Performance Measurement Reporting**

The goals for this service area deal with answering and dispatching calls quickly. Goal #1 is to ensure that all emergency lines are answered in a timely manner. The department keeps up with the number of incoming calls and separates 911 calls from administrative calls. It is important to maintain this information over a period of time to see if the workload increases to the point that extra

telecommunicators are needed. The goal is to complete 35% of incoming 911 calls within one minute, 70% within two minutes, and 95% within three minutes. These percentages were chosen as the standard after calculating the average time their most proficient operator spent on incoming 911 calls over a period of six months.

Why has this service area fallen so short of the standard for completing 911 calls? Cell phone usage continues to increase, as reflected by the fact that they now account for 75% (2016) of all incoming 911 calls. Additionally, many citizens are having their house phone lines removed and are using only their cell phones. The number of landlines in Randolph County has decreased from 72,000 to 69,000 in 2007 and 2009, to just 59,000 in 2013. Cell phone calls take longer because the operator has to type in a lot of information. As of 2012, nearly 100% of all cell phones have GPS technology.

Goal #2 is to ensure that calls are dispatched quickly. The standards for this goal were chosen by the same method as Goal #1—the average times of the most proficient operator over a period of six months were calculated: 50% within one minute, 75% within two minutes, and 95% within three minutes. Dispatch time begins when the operator hits the “accept” button after getting all pertinent information from the caller. Dispatch time ends when the operator has completed giving instructions to the response agency and ends that call.

The time for dispatching is affected by the volume of calls during peak times. More serious calls may get dispatched before prior less serious calls. Many times the queue of incoming calls increases because multiple cell phone callers are reporting the same incident.

The Major calculates performance measurements for Communications by using a Spillman report that calculates average dispatch times and tallies the total number of calls received (911 and administrative). For each month of the quarter he runs a detail report of one shift per telecommunicator to arrive at average times to complete incoming calls and to complete dispatch.

## **Emergency Management**

### **Mission**

To enhance the quality of life by assisting citizens, visitors and public safety agencies to effectively prepare for, respond to, recover from and mitigate against all hazards and disasters.

### **Summary**

The Emergency Management (EM) service area has staff on-call 24 hours per day, 365 days per year to respond to, prepare for, mitigate against and recover from disasters and emergencies within Randolph County. This area has 2 full time positions allocated.

### **Overview**

Emergency Management is an area of service required of all counties by the State of North Carolina. Randolph County has, through the adoption of an Emergency Management Ordinance in 1980, established an Office of Emergency Management to coordinate all activity relative to preparing for, mitigating against, and recovering from hazards, disasters and emergencies in Randolph County. This Office was originally placed under the Fire Marshal. With the creation of the Emergency Services Department in 1983, the Director of Emergency Services was designated as the person responsible for coordinating these functions in Randolph County. In 2009, the Emergency Management service area was reorganized and the Emergency Management Coordinator assumed these duties under supervision from the Deputy Director of Emergency Services.

The Director/Deputy Director completes an annual work plan for Emergency Management division. In addition, any time there is an emergency incident, the emergency management staff must send a report to the State within 24 hours. All NC counties are required to have an Emergency Operation Plan (EOP).

Randolph County Emergency Management must coordinate on-the-scene response for hazardous incidents and compliance oversight. For example, if 911 received a call about a fuel spill, someone must go to the scene, assess the situation, contact any relevant state agencies, contact the company whose truck had the spill, make sure clean-up has been arranged for, and to back to the scene later to verify that clean-up was done.

### **Staffing**

The Emergency Management Coordinator oversees the operations of the division. In July of 2016, an Emergency Management Planner position was added to the division to assist with some of the following activities.

EM staff spends time researching and administering grants to better prepare Randolph County for events by purchasing equipment, administering training, and mitigating hazards. Since 2009, Randolph County Emergency Management has been directly responsible for more than \$803,937 in federal grants that have been used for the following:

- Enhance security at Randleman Regional Reservoir
- Purchase Urban Search and Rescue (structural collapse) equipment
- Hosting ICS training

- Developing a Community Emergency Response Team
- Hosting an Hazardous Materials Safety Seminar for businesses
- Purchasing of generators to run critical facilities
- Purchasing a Command/Rehab unit for on scene support
- Performing chemical accident drill at a private business
- Updating the Hazard Mitigation Plan
- Supporting the Local Emergency Planning Committee (LEPC)

### **Funding**

The US Department of Homeland Security provides a base funding amount of \$35,000 annually with the Emergency Management Grant Program so as long as the local emergency management agency meets requirements dictated by NC Emergency Management. Randolph County is required to match the grant one to one with an additional \$35,000 dedicated to the local emergency management program. Additional grant funding is provided to support the program if the local emergency management agency goes above and beyond the base requirements and meets more stringent goals throughout the year. Randolph County Emergency Management has received the maximum allowable funding through the grant since the beginning of the performance incentives.

### **Emergency Operation Plan**

All counties are required to develop an Emergency Operations Plan (EOP) that details the responsibilities and requirements of various agencies involved in the Emergency Management arena. The EOP enables Randolph County to respond to disaster situations, whether natural or man-made.

Our first EOP was written in 1989 and updated in 1992. In July 2003 we received a grant to develop a new EOP, which was completed by June 30, 2004 and is reviewed annually. This outline each involved person's responsibilities but will not tell that individual specifically how to carry out his duties. Everyone must sign off on their knowledge of and readiness to carry out his responsibilities

### **Hazard Mitigation Plan**

The County received a Federal grant, administered by the State, to develop a Hazard Mitigation Plan (HMP), which was contracted with the Piedmont Triad Council of Governments to prepare the HMP. The Plan was finished and sent to the State for approval in November 2003. After receiving State approval, the Federal government then approved the plan. The Randolph County Commissioners formally adopted the plan in August 2004. The HMP received a major update in 2011, and again in 2016. The current Hazard Mitigation Plan is valid through 2021.

### **Exercises/Drills**

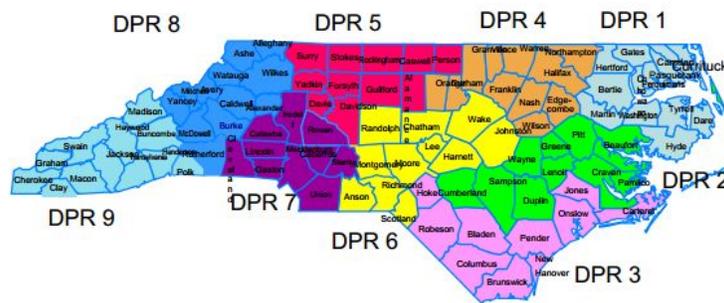
As part of the Emergency Management Performance Grant, Randolph County is required to participate in at least 3 multi-jurisdictional exercises per year. If the county experiences a significant incident, that may be used in the place of an exercise.

Exercises are a great way to bring multiple agencies together to learn what capabilities or limitations an agency has to a particular event. Exercises serve as a way to test or validate current plans and procedures and improve them before a real world event occurs.

### **Domestic Preparedness Regions**

North Carolina is divided into 9 different Domestic Preparedness Regions (DPRs). Randolph County is a member of DPR6. The purpose of the DPR is to promote regional preparedness, where each region develops a capability assessment and a list of gaps and shortfalls in order to prepare for them. Grant money is passed through the DPR and any equipment purchased through the DPR is hosted within region, and that resource can be deployed to any county within the region primarily, and any county in the state thereafter.

**Domestic Preparedness Regions (DPR) Map**



### **Performance Measurements**

Randolph County Emergency Management strives to reach the following performance measures annually.

- Conduct exercises involving local responders and key officials.
- Conduct quarterly Local Emergency Planning Committee (LEPC) meetings.
- Train county employees through the National Incident Management System.
- Respond to EM calls within 60 minutes.

## **Service Area: Emergency Medical Services (EMS)**

### **Mission**

To provide emergency medical technician-paramedic level pre-hospital care and transport services to the citizens and visitors of Randolph County.

### **Summary**

The 24-hour-per-day on-call division provides state-of-the-art pre-hospital care with skill, compassion and dignity to those who are ill or injured. This service area has 59.88 positions.

### **Overview**

Randolph County Emergency Medical Services is the lead agency for all levels of pre-hospital care and transport. All credentialed pre-hospital providers practicing in Randolph County, regardless of practice, are required to be affiliated with Randolph County Emergency Medical Services System, follow the established pre-hospital protocols and scope of practice, and practice under the direct supervision of the Randolph County Emergency Medical Services Medical Director.

### **Goal**

It is the goal of the Randolph Emergency Medical Services System to provide for optimal care for the ill or injured patient through continued development of an emergency medical services system, which includes plans for the implementation and provision of

- A coordinated emergency medical services system
- The dispatch of emergency medical services resources
- The treatment and transportation of persons in need of pre-hospital medical care in the most prompt and efficient manner possible
- A quality improvement program
- A coordinated medical response to mass casualty and disaster situations
- Educational programs necessary to maintain the expected level of patient care
- Commitment to the professional development of our employees, providing them with proper motivation, tools, and opportunities to best serve the citizens of Randolph County.
- Strengthen the growth and development of Emergency Medical Services as an integral part of the health care profession
- Liaison with governmental agencies
- Other activities as necessary to carry out those activities as defined by the Medical Care Commission and North Carolina Office of Emergency Medical Services

### **Randolph County Emergency Medical Services System Components**

"EMS System" means a coordinated arrangement of resources (including personnel, equipment, and facilities) organized to respond to medical emergencies. It is integrated with other health care providers and networks including, but not limited to, public health, community health monitoring activities, and special needs populations.

Emergency Medical Dispatchers enhance our pre-hospital services by providing life-saving instructions until the arrival of pre-hospital providers. Ash-Rand Rescue Squad and EMS Inc. and Piedmont Triad Ambulance and Rescue function at the Advanced EMT level to provide complementary ambulance service to Randolph County. The North Carolina Zoological Park provides EMT level of care, and city and county fire departments provide Emergency Medical Responder or greater level of care to supplement the EMS

- ◆ **EMD: The Emergency Medical Dispatcher** takes calls from the general public for EMS assistance, provides medically oriented instructions to the caller over the telephone, and dispatches an ambulance and other EMS resources in response to the call.
- ◆ **EMR: The Emergency Medical Responder** tends to be the first person to arrive at the scene of an incident and is trained to provide basic emergency medical care.
- ◆ **EMT: The Emergency Medical Technician** determines the nature and extent of illness or injury and establishes priority for required emergency care. Based on assessment findings, renders emergency medical care to adult, infant, and child, medical and trauma patients.
- ◆ **Advanced EMT: The Advanced EMT** has advanced training that allows this credentialed technician to administer intravenous fluids, use defibrillators to give lifesaving shocks to a stopped heart, and employ advanced airway techniques and equipment to assist patients experiencing respiratory emergencies.
- ◆ **Paramedic: The EMT-Paramedic** provides the most extensive pre-hospital care. In addition to the procedures already described, paramedics may administer drugs orally and intravenously, interpret electrocardiograms (EKGs), perform endotracheal intubations, and use monitors and other complex equipment.
- ◆ **The Medical Director** is the physician responsible for the medical aspects of the management of our EMS System. **On-line Medical Direction** allows EMS personnel to obtain on-line medical direction. On-line medical direction is restricted to medical orders that fall within the scope of practice of the EMS personnel and within the scope of approved system treatment protocols. Only physicians, EMS-physician assistants, EMS-nurse practitioners, or mobile intensive care nurses can provide on-line medical control. Only physicians may deviate from written treatment protocols. On-line medical direction is provided by a system of two-way voice communication that can be maintained throughout the treatment and disposition of the patient.
- ◆ **EMS Peer Review Committee** is the committee within our EMS system responsible for the continued monitoring and evaluation of medical and operational issues within the system and for improvement of the system. It is chaired by the Medical Director for the Randolph County EMS System. Each quarter the Quality Management Committee meets to address any EMS System issues as well as to review the patient care audit the Medical Director conducted for that quarter. This allows the committee to ensure we are providing a high standard of care and to identify any training issues.

### **Randolph County Emergency Medical Services System Providers**

The Randolph County EMS System franchises with other providers for emergency services and non-emergency transport. Each franchise agreement indicates the hours of operation and level of care to be provided by the franchisee. Randolph County Emergency Medical Services provides 24-hour coverage at the paramedic-level of care.

### **Randolph County Emergency Medical Dispatch**

The Randolph County 9-1-1 Communications center is an NCOEMS approved EMD center, operating (medically) under the guidance of Randolph County Emergency Medical Services System. Emergency Medical Dispatchers (EMDs), utilizing the Medical Priority Dispatch System (MPDS), provide valuable information and instructions on how to perform lifesaving maneuvers while waiting for emergency medical

personnel to arrive. The Randolph County Emergency Medical System utilizes Randolph County 9-1-1 Communications to dispatch and coordinate pre-hospital resources. All agencies in the system operate on a shared, statewide VIPER Radio Network. All emergency and non-emergency requests for pre-hospital services are received by Randolph County 9-1-1. Once the call is received, credentialed emergency medical dispatchers process the call and a response is configured and dispatched. Thirty-three classifications of emergency type are dispatched on the basis of a pre-determined response matrix.

### **EMS Operations/Staffing**

Operating out of eight bases, EMS is provided countywide 24-hours-a-day by Randolph County EMS. Seven ambulances are strategically located throughout Randolph County to meet the needs of the community. The Paramedic administrative staff supplements these primary units as call demands increase.

EMS bases are located in Archdale Unit 841 (Base-1), Trinity Unit 846 (Base-6), Liberty Unit 842 (Base-2), Ramseur Unit 843 (Base-3), Asheboro Units 844 and 854 (Base-4), and Randleman Unit 845 (Base-5), Uwharrie Unit 847 (Base-7 added 1/1/2015) and Erect Unit 848 (Base-8 added 1/1/2016). Each ambulance is staffed with at least one Paramedic and one Emergency Medical Technician credentialed at the EMT level or greater. Additional units will be staffed and put into service for special event coverage or unusual events. Emergency backup is available through EMT and Advanced EMT level ambulances used for routine transports. Additional backup is available from neighboring counties through mutual aid arrangements. All emergency resources are dispatched 24-hours-a-day by Randolph County 9-1-1 Communications Center and have the ability to communicate directly with the Randolph County 9-1-1 Communications Center.

EMS has three shifts which rotate in consecutive progression. The shifts are designated as “A” Shift, “B” Shift and “C” Shift. Each shift is staffed with fourteen (18) employees and one supervisor. Employees rotate through all of the six bases to ensure that they have geographical knowledge of each ambulance base district. Also, the supervisor arranges the schedule to ensure all team members work together at some point during the month. In order to ensure adequate staffing, Randolph County EMS utilizes a pool of part-time employees. Ideally there will be about 30 individuals in the pool. The majority of part-timers are seeking a full-time position. Supervisors monitor and evaluate the part-time employee’s performance. By doing this on a regular basis, they can make an informed decision in the event a full-time vacancy occurs on their shift. The employee can be moved into a full-time slot without going through the advertising requirements for filling vacancies. Part-time employees must go through the same training as full-time employees (both initial training and continuing education training). Part-time employees must average working 24 hours a month or 72 hours a quarter.

The crew at each ambulance base uses the time between calls to clean the base, clean the truck and equipment, restock the truck, and notify the supervisor of replacement items needed. They must also make sure the truck is refueled when it is half empty. The County issues gas cards for use at multiple gas stations.

Randolph County Emergency Medical Services offers a variety of specialty service programs, including public information, injury prevention and safety presentations. Other specialty programs include a State Medical Assistance Team (SMAT) and a Special Emergency Response Team (SERT). SMAT is comprised of Randolph County EMS personnel, Hospital personnel, fire personnel, 911 Communications personnel and law enforcement personnel who provide the first line of response in support of local agencies in the event of a decontamination event or mass medical care event. The special emergency response team is comprised of five tactical paramedics who function as members of the Randolph County Sheriff

Department's Tactical team in response to calls that involve a hostile situation or one in which there is a risk for personal injury. These calls typically are drug raids, hostage situations or searches.

### **EMS Operational Team**

#### **Emergency Services Chief/Director**

Manages the divisions of EMS, Fire Marshal, Communications, and Emergency Management.

#### **Emergency Services Deputy Chief/Director**

Assists in the management of the divisions of EMS, Fire Marshal, Communications and Emergency Management.

#### **EMS Operations Officer - Major**

An employee in this class manages, directs, and supervises the operations of the Emergency Medical Services Division. Responsibilities include the supervision of the Shift Supervisors and the coordination of EMS resources. Responsibilities include interviewing, hiring, and training employees; planning, assigning, and directing work; appraising performance; rewarding and disciplining employees; addressing complaints and resolving problems. Additional responsibilities also involve the planning and coordination of local resources with other county and city agencies or departments and with area hospitals. The employee must exercise considerable independent judgment in frequent dealings with hospitals and outside agency personnel. Work is performed under the general supervision of the Director of Emergency Services and is evaluated by observation, review of reports, and overall effectiveness of operations.

#### **Shift Supervisor - Lieutenant**

Randolph County Emergency Medical Services operates three (3) twenty-four (24) hour shifts which are managed by three (3) Supervisors. An employee in this class supervises and coordinates the activities of a staff of emergency medical technicians on an assigned shift. The employee is responsible for monitoring in-service and out-of-service ambulances and makes appropriate decisions to efficiently operate the shift. The employee must have good knowledge of how the department operates and be able to make decisions. The employee has the responsibility for ensuring that equipment is in working condition, supplies on each unit are ample, and that each vehicle is staffed with qualified personnel. The employee must encourage and promote effective, efficient, and professional skills and relationships in order to facilitate the delivery of the highest possible standard of care. Work is performed under the direct supervision of the EMS Operations Officer evaluated by observation and in terms of the effectiveness of operations.

#### **Shift Crew Chief - Sergeant**

An employee in this class supervises and coordinates the activities of a staff of emergency medical technicians on an assigned shift in the absence of the Shift Supervisor. The day-to-day function of this employee is to train new employees, precept employees advancing in certification as well as to improve the overall skill of his assigned shift. The employee is responsible for monitoring in-service and out-of-service ambulances and makes appropriate decisions to efficiently operate the shift. The employee must have good knowledge of how the department operates and be able to make decisions. The employee has the responsibility for ensuring that equipment is in working condition, supplies on each unit are ample, and that each vehicle is staffed with qualified personnel. Work is performed under the direct supervision of the Shift Supervisor and/or the EMS Deputy Director and is evaluated by observation and in terms of the effectiveness of operations.

#### **Emergency Services Medical Director**

All aspects of the organization and provision of basic (including medical responder) and advanced life support emergency medical services (EMS) require the active involvement and participation of physicians.

Furthermore, every pre-hospital provider that provides any level of life support in Randolph County must have an identifiable physician medical director whose primary responsibility is to ensure quality patient care. Additional responsibilities include involvement with design, operation, evaluation, scope of practice and ongoing revision of the system, including initial patient access, dispatch, and pre-hospital care,

The Medical Director acts as Chairman of the Medical Oversight Committee and serves as the Medical Director for the following programs:

- Emergency Medical Responders
- EMT
- Advanced EMT
- Paramedic
- Emergency Medical Dispatch
- Tactical Emergency Medical Specialist Program
- State Medical Assistance Team

### **Initial and Ongoing Requirements and Training**

#### **Initial Credentialing Requirements**

Applicants seeking initial credentialing at any EMS level in the RCEMS System must complete the entire didactic, clinical, and field internships required by Randolph Community College (RCC), or other approved educational institution. The student must successfully complete credentialing requirements for initial certification as required by NCOEMS.

#### **Local Re-credentialing**

All providers within the Randolph County EMS System will be credentialed through NCOEMS and the Randolph County EMS System and will be re-examined at the end of each credentialed period (4 years). EMT's, Advanced EMT's and Paramedic's will be required to complete a written exam. NCOEMS requires that all field technicians attend at least 24 hours of continuing education per year. All field technicians must successfully complete a scope of practice skills evaluation to ensure compliance with local state requirements. Physicians, EMS Operations Office, Training Coordinator, EMS Shift Supervisors and Crew Chiefs conduct the evaluations, which include such items as IVs, CPR, medication administration, intubation, etc.

The Continuing Education curriculum will be updated to reflect new technologies, best practices, and patient care techniques to coincide with the dynamic evolution of the modern EMS practice. EMS personnel are paid for their hours of training, which takes place during their 48-hour periods between shifts. Doctors and other technical experts outside Randolph County EMS serve as instructors.

EMS students at community colleges are required to do "ride time" before they graduate. RCC, DCC, MCC, Lenoir Community College and GTCC have contracted with our EMS to provide this experience.

The State of North Carolina has recently enlarged the scope of practice allowed for EMTs, who could now work in other settings such as health departments, hospitals, and emergency departments and perform such procedures as IVs and intubations.

## **Hiring Process**

The interview selection is a two-step assessment process. First, each applicant will go to the Assessment Center, which is an interviewing and selection process that includes a written exam, writing a patient care report, medical physical ability test, and a practical evaluation, which simulates situations that may be experienced on the job. Upon successful completion of this process, applicants will complete step two, which is an oral interview.

Each employee, regardless of his certification or experience, will complete a new employee orientation and our field training and evaluation program. The new employee orientation program introduces new employees to our department and reviews the General Operating Guidelines, the patient care manual, the exposure control plan, County-related policies and procedures, HIPAA policies and procedures, obtaining uniforms, and an emergency vehicle operations course. The new employee orientation is usually 40 hours long. After the employee completes the new employee orientation, the employee is assigned to a crew chief in order to start the field training and evaluation program. The field training and evaluation program is an organized, standardized, successful, and proven approach to the mentoring of new employees to their profession and our service, eliminating subjectivity and permitting the documentation of success or failure. The new employees are better prepared to meet the challenges of the environment in which we serve. Each employee receives approximately 300 hours of field training and evaluation before he is allowed to provide independent patient care. The new technician has the luxury of having a mentor in the rear of the ambulance during this evaluation and training process. Once the evaluation and training process has been completed, the technician will become a primary crew member.

## **EMS Billing**

Billing is handled for each individual that is transported. (Note: For multiple patient events, 3 or more patients could be transported in one ambulance.)

BLS-Non-emergency	These transports are generally for scheduled visits to a doctor's office or other medical facility, with no treatment given.
BLS-Emergency	These transports are for situations such as a broken leg; no ALS required.
ALS-1	These transports are generally from one hospital to another; may need to do monitoring, IVs, etc. during transport.
ALS-1 Emergency	These transports involve ALS treatment.
ALS-2	These transports involve more intensive ALS procedures.
Specialty Care	These transports are inter-facility transports with a doctor, nurse, respiratory therapist, etc. on board.
Treatment-No Transport	This situation usually occurs when someone with diabetes, asthma, etc. is in distress. ALS treatment is provided to the patient. Due to the treatment provided, the patient's condition improves and the mentally competent patient refuses any further treatment or transport by EMS.
Mileage Charge per loaded mile	

Convalescent waiting Time

Waiting time (after 30 minutes) added to billed as fee per hour

Standby Special Event Ambulance and Crew Per Hour

Standby Special Event EMS Technician (no ambulance) Per Hour Per Number of Employees

Each Patient Care Report (PCR) electronically received by the Administrative Assistant in Emergency Services. Each PCR is reviewed for completeness, accuracy, and charges. The PCR is electronically received by EMS/MC for EMS billing within 72 hours.

The EMS Operations Office, Training Coordinator, EMS Shift Supervisor and/or the crew chief will review the PCR (Patient Care Report) and, as an audit of the PCR, will follow up with the hospital to verify the patient's condition (presentation of symptoms and mechanics of injury) and to verify that the treatment protocol was correct based on that information. Each report will be reviewed as it comes in.

### **Vehicles/Equipment**

All ambulances in the Randolph County EMS system are inspected by the NC Office of Emergency Medical Services to ensure they comply with equipment standards as established by the State and the EMS System Medical Director.

RCEMS utilizes a combination of transporting ambulances and a QRV (Quick Response Vehicle) to provide an ALS level of coverage to Randolph County 24 hours a day 7 days a week.

### **Outfitting and Staffing an Ambulance**

One ambulance requires 7½ positions for 24/7 status. Outfitting a new ambulance costs around \$260,000 This includes

- Truck--\$150,000.00
- Cardiac Monitor --\$45,000
- Communications Equipment--\$10,000
- Supplies & Equipment--\$55,000
- Technology Equipment (computers, wireless access devices, patient care software, navigation technology and etc) \$10,000
  - Positionlogic plots the ambulance location on a map enhancing the telecommunicator's ability to identify the closest available EMS unit to a medical call.
  - We are currently have Mobile Spillman on the laptops on the ambulances in order for the crews to see the in-coming call medical calls and also to get their PCR report information sooner and quicker decreasing the need to tie-up a Telecommunicator.
  - GIS—The EMT can type in the address from dispatch and a map comes up on the screen showing how to get to the scene. This will soon be changing to a mapping solution from Spillman which will give turn by turn directions to each ambulance in order to help decrease response times.
  - ESO—EMS Personnel types in the PCR (Patient Care Report), documents findings, what was reported to them, treatment rendered, etc. Area hospitals can log into ESO and retrieve the patient care record and place it with the patient's medical record at the hospital. This PCR will be electronically sent to EMS/MC for automated billing.

## Comments

Donovan Davis, ES Director, we have developed a great working relationship with the County Commissioners, with their support and financial assistance will meet the needs and expectations of the community of Emergency Services (i.e. new bases, personnel, equipment, and etc).

## Commonly Used Terms in EMS

### Abbreviations

<b>PCR</b>	Patient Call Report
<b>ALS</b>	Advanced Life Support
<b>ESO</b>	ESO Solution Electronic Patient Care Record
<b>BLS</b>	Basic Life Support
<b>ED</b>	Emergency Department
<b>EMD</b>	Emergency Medical Dispatch (or Dispatcher)
<b>EMS</b>	Emergency Medical Services
<b>EMT-B</b>	Emergency Medical Technician-Basic
<b>AEMT</b>	Advanced Emergency Medical Technician
<b>EMT-P</b>	Paramedic
<b>FTEP</b>	Field training and Evaluation Program
<b>GIS</b>	Geographic Information System
<b>EMR</b>	Emergency Medical Responder
<b>PTAR</b>	Piedmont Triad Ambulance and Rescue
<b>QRV</b>	Quick Response Vehicle
<b>RCC</b>	Randolph Community College
<b>SOG</b>	Standard Operating Guide

### **Definitions of Common Terminology**

**Advanced Life Support-Level 1:** Transportation by ambulance, medically necessary supplies and services, and either an ALS assessment by ALS personnel or the provision of at least one ALS intervention.

**Advanced Life Support-Level 2:** Transportation by ambulance, medically necessary supplies and services, and the administration of at least 3 medications (or 3 doses of the same medication), and at least one of the following ALS procedures: manual defibrillation/cardioversion, endotracheal intubations, central venous line, cardiac pacing, chest decompression, surgical airway, intraosseous line.

**Basic Life Support:** Transportation by ambulance and medically necessary supplies and services, plus the provision of BLS ambulance service.

**Chute Time:** Begins when 911 dispatches the unit and ends when the ambulance is moving.

**Dispatch Delay:** Begins when the call comes in to 911 and ends when 911 dispatches the unit.

**Response Time:** Begins when 911 dispatches the unit and ends upon arrival on the scene.

**Specialty Care Transport:** Interfacility transportation of someone critically injured or ill by ambulance, including medically necessary supplies and services, at a level of service beyond the scope of the EMT-P. SCT is necessary when the patient's condition requires ongoing care from one or more health professionals in an appropriate specialty area (nursing, emergency medicine, respiratory care, cardiovascular care, etc.)

**Standard Operating Guide:** Department manual outlining internal policies and procedures, duties and responsibilities of employees, mandated certifications, dress codes, emergency vehicle operations, etc. This manual is given to all new employees.

**Turn-around Time:** Begins when the unit arrives at the hospital and ends when the unit leaves the hospital.

### **Performance Measurements**

Two goals for this service area are to provide pre-hospital care that is both timely and of the highest standard possible to the citizens and visitors of Randolph County. A third goal deals with billing.

The first goal, which deals with timeliness, measures three components of response time. These measures were chosen because, according to the Emergency Services Director, most citizens evaluate their level of satisfaction with the service based on response time. Most complaints are related to the length of time it took for the ambulance to arrive on the scene.

- *Percent of time pre-hospital care to the sick and injured is provided within 10 minutes*—The time period of 10 minutes refers to the time from dispatch to arrival on the scene. There are nationally recognized standards for this response time. The California Office of EMS developed a standard based on 4 areas of population density: urban, suburban, rural, and wilderness. Randolph County's average population density per square mile puts us in the suburban category. Ten minutes is the standard for suburban areas. Of course, Randolph County is a large county geographically, and some areas are too remote from ambulance stations to be reached within 10 minutes. Our ambulances reach the scene within 10 minutes 60+% of the time.
- *Percent of time the standard chute time (time lapsed from receipt of call until vehicle is en route) is 2 minutes or less*—Two minutes is a National Fire Service standard, and other counties in North Carolina are using this standard. Ambulance crews strive to be en route within 2 minutes of dispatch, but night calls (when they are sleeping) may take a little longer.
- *Percent of time that turn-around time at the hospital is less than 30 minutes*—This standard was determined by doing time studies of how long it took to deliver the patient, do the paperwork, clean the ambulance, and restock supplies used from that trip.
- *Also reviewed are time on scene for trauma patients, chest pain patients and stroke patients to ensure treatment and care are administered quickly and transported to a medically appropriate facility.*

The first goal also includes some workload measures, including the number of dispatches and the number of transports. These numbers can be useful in determining if call volume has increased to the point of needing another ambulance or checking against revenues to see if workload has decreased or if collections have decreased. Not all dispatches result in a transport.

Performance measures for EMS are calculated by using a Spillman report, ESO and NCEMS Toolkits that calculates average response times. For each month of the quarter he reviews one week of EMS calls to determine the number of calls for which chute times are equal to or less than 2 minutes. The same report and procedure are used to determine the number of calls that EMS responds to within 10 minutes and for which turn-around time is 30 minutes or less.

The second goal deals with quality of care:

- *Percent of time providers follow established pre-hospital care protocols*—Protocols for Randolph County EMS are patterned after national protocols, modified and adapted by our medical director. The Emergency Services Deputy Director does a random sampling audit each quarter (e.g., every 4<sup>th</sup>

call or every 10<sup>th</sup> call) to verify that protocols for the chief complaint for each of the selected calls were followed correctly. This measure was chosen because staff felt it was the best way to ensure proper treatment based on patients' complaints and EMS findings.

- *Number of complaints per 1000 transports*—These are complaints received by phone, mail, or walk-ins.
- *Number of founded complaints per 1000 transports*—The Deputy Director investigates each complaint and determines if it is founded. Each complaint and the subsequent findings are documented on a written form (see sample).

The third goal deals with the billing for ambulance services.

- *Number of days to process call to billing department*—When personnel have completed all information, the PCR is electronically sent the report to the department's Processing Assistant, who reviews the report for accuracy, completeness, and charges. Then the PCR forwards the report to EMS/MC, where actual ambulance billing takes place.

Finally our goals of commitment to the professional development of our employees, providing them with proper motivation, tools, and opportunities to best serve the citizens of Randolph County and strengthening the growth and development of Emergency Medical Services as an integral part of the health care profession is truly our goal. This is the current and future of EMS. As healthcare changes take place so does the role of EMS. EMS will continue to provide acute pre-hospital care but will also provide community paramedicine in our community.

The Community Paramedic Program closes the gap by expanding the role of EMS personnel. Through a standardized curriculum, accredited colleges and universities will train paramedics to serve communities more broadly in the areas of:

- Primary care
- Public health
- Disease management
- Prevention and wellness
- Mental health
- Oral health
- 

The Community Paramedic Program adapts to the specific needs and resources of our community. It will succeed through the combined efforts of those that have a stake in maintaining the health and well-being of our citizens.

## **Service Area: Fire Inspections**

### **Mission**

The mission of the Randolph County Fire Marshal's office is to preserve and protect the lives and property of every citizen and visitor of Randolph County from fire and explosion. This is accomplished by providing quality and professional fire prevention services. These services shall include the enforcement of the North Carolina Fire Prevention Code, definitive fire origin and cause investigations, fire and life safety education opportunities, and providing support to the County's fire departments in order to further reduce the loss of life and property.

### **Summary**

The Fire Inspection area has N.C. certified Fire Inspectors and Fire Investigators that typically work a forty hour work week. During these hours, inspectors conduct inspections within commercial occupancies, churches, schools, day care facilities and foster homes as mandated by the N.C. Fire Prevention Code. Inspectors also conduct fire investigations, provide fire public education and assist the County's fire departments as needed. Each week one inspector is on 24 hour on-call status to respond to and assist fire departments on fire-related calls to determine the origin and cause of fires. Employees within this division also conduct fire safety classes, perform fire safety surveys and install smoke detectors for County citizens. Fire Inspectors are also NC Certified Firefighters and provide assistance to the County's fire departments as needed. This service area has 5.11 allocated positions. Fire Inspectors work a four day ten hour work week 8:00 a.m. to 6:00 p.m., with the Fire Marshal and Deputy Fire Marshal working a five day eight hour work week 8:00 a.m. to 5:00 p.m.

### **Overview**

Randolph County's Fire Marshal's Office includes the Fire Marshal, Deputy Fire Marshal and 3 Fire Inspectors which are state-mandated positions. The Fire Marshal's Division operates out of offices located on the lower level of the Emergency Services Administration Building. Fire Inspectors were added to this service area in 1992 when the state began requiring that all businesses, industries, institutions, and residential dwellings designed for more than 2 families have periodic fire inspections.

When Randolph County Inspectors began doing these inspections in 1992, these services were also provided (through contract agreements) to all municipalities within the county with the exception of Randleman and Asheboro. Four Inspectors were hired to do this work. In 1997 the Town of Liberty started doing their own inspections. In 2000, Liberty entered into an agreement with the Town of Staley to provide inspection services. In 2001, the City of Randleman took over inspections within the municipalities of Ramseur, Franklinville and Seagrove. In 2002 Randleman took over Archdale and Trinity. From 2002 until 2015, Randolph County provided inspections only in the unincorporated areas of the county. When the workload decreased because of this, only 3 inspectors were needed. One inspector position was deleted at the first vacancy, and that position was shifted to 911 Communications, where there was a great need for another position. In 2012, upon the retirement of the division's administrative assistant, this position was eliminated.

In late 2015 the Towns of Franklinville, Ramseur, and Staley re-contracted with our department to provide fire inspection services. The Town of Seagrove re-contracted with our department in 2016. The additional inspections brought back into the Fire Marshal's Division created the need for an additional inspector. This position was approved and filled in March of 2016.

In addition to doing fire inspections and investigations, the Fire Marshal maintains a close working relationship with the 22 fire departments which serve Randolph County. He attends the fire chief council meetings and the County Fire Association meetings for information exchange. He assists the county's fire departments with insurance rating inspections, fire district maps and many other issues. He also works closely with the North Carolina Office of State Fire Marshal to insure all aspects of the county's fire service are compliant with state and federal regulations.

The Fire Marshal assists the Emergency Services Technology Division with troubleshooting radio equipment to ensure operational readiness, if possible, without calling in additional technical support. He also assists the Emergency Management Division as needed with response to fuel spills and is also part of the Emergency Operations Center staff during a disaster.

## **Operations**

**FIRE INSPECTIONS** - Employees within the division typically work forty hour work weeks between the hours of 8:00a.m – 6:00 p.m. Monday - Friday. However, there are some instances when a facility cannot be inspected until after normal working hours because of the nature of its operations or an inspector may be requested to handle a complaint such as an illegal burn, or an overcrowded occupancy. These requests are typically handled by the on-call inspector. Even though only one inspector is on call at a time, more than one may be called out to an incident after hours. For this reason, all fire inspectors drive their County vehicles home each day. Currently the three fire inspectors rotate an on-call status of one week on and two weeks off. The Fire Marshal and Deputy Fire Marshal serve as primary back up if additional assistance is requested by the on-call inspector.

The inspection workload is processed through a web-based computer software program. Each inspector's vehicle is equipped with a computer, wireless internet access, and printer which allow the inspectors to enter data, provide customers with printed copies of the inspection results, and appropriately schedule the next inspection for the facility. Currently each inspector is assigned to one of three inspection zones within the County. Each inspector is responsible for scheduling and conducting inspections within his or her zone. The Deputy Fire Marshal is responsible for quality assurance of the inspection program as mandated by the State. He is also responsible for the data entry of new occupancies and ensuring inspections are properly scheduled by the inspectors.

If violations are found during an inspection, the inspector will schedule a re-inspection. Re-inspections are typically scheduled from 15 to 30 days from the original inspection date depending on the severity of the violation. In rare instances, it may be necessary for a violation

to be corrected immediately if it poses an imminent threat to life safety. Violations not abated by the property owner/occupant can result in the issuance of a criminal summons.

Fire inspectors are also involved with the construction and renovations of commercial buildings within the county. New and/or renovated facilities are identified through Central Permitting and plans are submitted to the Fire Marshal's Office for review. These plans are reviewed by the Fire Marshal or Deputy Fire Marshal and once approved, assigned to the appropriate inspector to schedule inspections. Submitted plans may include site, building, sprinkler, and alarm plans depending upon the use and design of the building. New construction and renovation projects typically require multiple visits by inspectors to inspect and test building systems before a certificate of occupancy can be issued.

A Fire Inspector has 6 years from date of hire to progress through the three levels of state inspection certification.

- Level 1 - The inspector must complete and pass a 15 hour Law and Administration class and a 40 hour Level I inspection class before being eligible to take the State exam. Once the state exam is successfully completed, the inspector may apply for a probationary Level II certificate. He or she then must work for 2 years under the supervision of another inspector who is already at Level II or higher.
- Level 2 – The inspector must complete and pass a 32 hour Level II inspection class prior to taking the State exam. Once the state exam is successfully completed, the inspector may apply for a probationary Level III certificate. He or she then must work for 2 years under the supervision of another inspector who is already at Level II or higher.
- Level 3 – The inspector must complete and pass a 24 hour Level III inspection class prior to taking the State exam.

During each level of certification, an inspector may inspect only facilities classified at that level:

- Examples of Level I facilities include businesses, small assembly (fewer than 100), mercantile, residential (larger than a 2-family dwelling) and storage occupancies.
- Examples of Level II facilities include all Level I plus large assembly (more than 100), educational, and industrial facilities.
- Examples of Level III facilities include all Level I and II plus high-rise buildings, buildings with hazardous materials, institutions (nursing homes, prisons, jails), and buildings housing explosives.

The State of North Carolina does have continuing education requirements for fire inspectors. They are required to have a minimum of 6 hours of continuing education annually based on the NC Fire Prevention Code. The NC Department of Insurance offers numerous continuing education classes across the state each year.

**FIRE INVESTIGATIONS** - State law requires that ALL fires be investigated to determine the origin and cause. It is the responsibility of the local fire chief to ensure this requirement is met.

When the fire chief is unable to make a determination or wants a second opinion, he or she will call on the Fire Marshal's Office for assistance. These requests are typically handled by the on-call inspector who is required to respond to calls within 20 minutes to ensure the total response time for any call within the county does not exceed one hour. If a fire reported to 911 communications includes the possibility of an entrapped victim or an injury, the on-call inspector is automatically dispatched at the time of fire department dispatch.

Whenever fire investigations are conducted by the Fire Marshal's Office a written report is completed. All origin and cause investigations are conducted in accordance to standards and guidelines set forth by NFPA and other nationally recognized organizations. Randolph County's fire investigators are not sworn officers with the power of arrest. They do, however, work closely with local law enforcement agencies.

If a fire is determined to be suspicious or incendiary in nature, the case is turned over to the appropriate law enforcement agency and we assist them with the investigation. Occasionally evidence is collected from a fire scene and sent to the SBI lab for examination or may be stored in an evidence room at the Fire Marshal's Office. The collection, handling, and storage of all items of evidence are also conducted in accordance to applicable standards and guidelines.

**PUBLIC EDUCATION** – Randolph County Fire Marshal's Office recognizes the importance and effectiveness of quality fire prevention and public education. Employees within the division are trained and available to respond to requests for public education opportunities for citizens of all age groups. Employees provide fire extinguisher training for business and industry and provide fire safety classes for numerous age groups. Smoke detectors are also provided and installed for citizens free of charge through an agreement with Randolph County Fire Protection Association.

**FIRE DEPARTMENT SUPPORT** – Fire Inspectors are NC Firefighter II and EMT certified. They are available to provide assistance to the County's 22 fire departments as needed. The Fire Marshal's Office also works closely with the fire departments during NC Department of Insurance rating inspections. These inspections are vital to ensuring citizens are receiving the best possible home owner insurance rating along with quality and professional emergency response from well-trained and well-equipped fire departments.

### **Vehicles**

Fire Inspections has a total of 6 vehicles. Five of these vehicles are fully equipped to allow inspectors to complete all required inspection and investigation related tasks. The sixth unit is equipped with a portable generator and scene lighting for use during extended complex operations. This vehicle also serves as a spare inspector vehicle when needed. All six vehicles have towing capabilities to assist with the movement of the County's various resources in the event of major incidents.

### **Equipment**

The major equipment of this service area is located on each investigative unit:

- Investigation tools and equipment as required by NFPA 921

- Evidence collection supplies
- Digital photography equipment
- Breathing apparatus
- Turn-out gear
- Gas detector
- Med bag
- Computer and printer

In addition to the above listed equipment, all personnel are issued a portable radio, cell phone, and pager.

### **Performance Measurement Reporting**

The Fire Marshal's Office has four major functions: fire safety inspections, origin and cause investigations, public education, and fire department support.

Fire inspection goals are determined and measured by calculating the total number of occupancies which require routine inspections, the number of routine inspections performed, and the number of follow-up inspections required. Our minimal goal is to inspect every occupancy in accordance with the inspection schedule set forth by the NC Fire Prevention Code. Randolph County Fire Marshal's Office currently exceeds this goal.

Fire investigation goals are determined and measured by calculating the number of requests for origin and cause investigations, the number of fires which are determined to be accidental, the number of fires which are determined to be incendiary, and the number of fires which result in an undetermined cause. Our goal is to have no more than 15% of all investigations result in an undetermined cause. Randolph County Fire Marshal's Office currently exceeds this goal.

Public education and fire department support activities are tracked and documented for statistical purposes through the department's web-based computer software program. This documentation includes man-hours devoted to public education/ fire department support, number of classes conducted and the number of citizens receiving fire safety public education.