

# Anderson County EMS

2022 Year in Review



What an incredible year for Anderson County EMS! We experienced a continuation in explosive 911 call volume growth throughout the County, but our medics did an outstanding job in meeting the needs and serving our community. We are truly proud of the effort, dedication, and commitment from our entire team.

Culture has been a major focus for our service. In 2022 we developed a new Mission Statement and Core Values that embody the service we provide to our community. A healthy culture is required for our service to continue to succeed.

Training remains an integral part of our service. With the addition of a Training Officer to our education department, we are seeing an improved new hire process, and overall training program. Our in-house EMT Basic program continues to be a success, benefiting our department and our local first responder departments. We are working to build upon that success in 2023!



*Recognition in July of Lifeguards from the Oak Ridge Pool who rescued a young girl from drowning and performed CPR to save her life!*



*Paramedic Chris Shoffner preparing his ambulance after completing a call.*

## Message from Director Nathan Sweet



How time flies, seems just like yesterday we were embroiled in the midst of a pandemic that not only seen a world turned upside down, but one that forever impacted our profession. The men and women of Anderson County EMS continue to serve our community stronger than ever. Their resilience was strengthened through the fire of one of the most challenging times in our profession. I continue to be encouraged and inspired by their daily devotion, and commitment to serving our community!

Although the challenges of a pandemic are seemingly behind us, other challenges still persist. Healthcare as a whole has taken a hit in the aftermath, staffing woes abound for all levels, and across the world. Instead of remaining idle, and waiting for the dust to settle, Anderson County EMS pushed forward, making advancements, improvements, and elevating our service to the community.

Based on multiple conversations within the service, it was determined that our mission statement and values needed review and updating. This process was lengthy, and included opportunities for feedback and involvement from all staff. We are delighted with the response and results of our new mission statement and values, as we believe they truly embody what our service strives for. The new Mission Statement for Anderson County EMS is: ***We care for our Community, through Healthcare, Education, Resources, and Support.*** A truly fitting mission statement that places an emphasis on what we do, how we do it, and for whom we do it. Additionally, we revamped our Core Values to ***Integrity, Team, Serve, Empathy, Progressive.*** Values that go beyond words, and are to be woven into our daily operations at every level.

2022 has truly been one of the best years for our service, when reflecting back at what we have accomplished, and what we have poured into all aspects of the service we provide our community, it easily brings a smile to my face, and excitement for our future! As we look forward to 2023, we see challenges in the form of increased service demand, increased costs, staffing, and limited revenue growth. I have no doubt that our team can meet these challenges, persevere, and succeed!

Respectfully,

Nathan Sweet  
Anderson County EMS Director



## Organizational Overview

Anderson County EMS is a primary 911 ambulance service that covers all of Anderson County, and a portion of Roane County. We operate six 24-hour ambulances that are strategically distributed throughout the County. With two in Oak Ridge, one on the East end by Melton Lake and Oak Ridge Turnpike, and the other near Kroger. We have one in Oliver Springs in the joint building with Oliver Springs FD on Midway Dr. One in Clinton near the Anderson County Jail. One in Andersonville off of First Quality Dr. in the industrial park, and lastly, one in Rocky Top near the City Hall. Each 911 ambulance is staffed with a paramedic and either an Advanced EMT, or EMT Basic.

We are a station-based service, meaning each 24-hour ambulance has a facility they are housed at as a base station. Posting is utilized during periods of high call volume, where an ambulance is moved from their base station, to a designated location to provide a better coverage for the County as a whole.



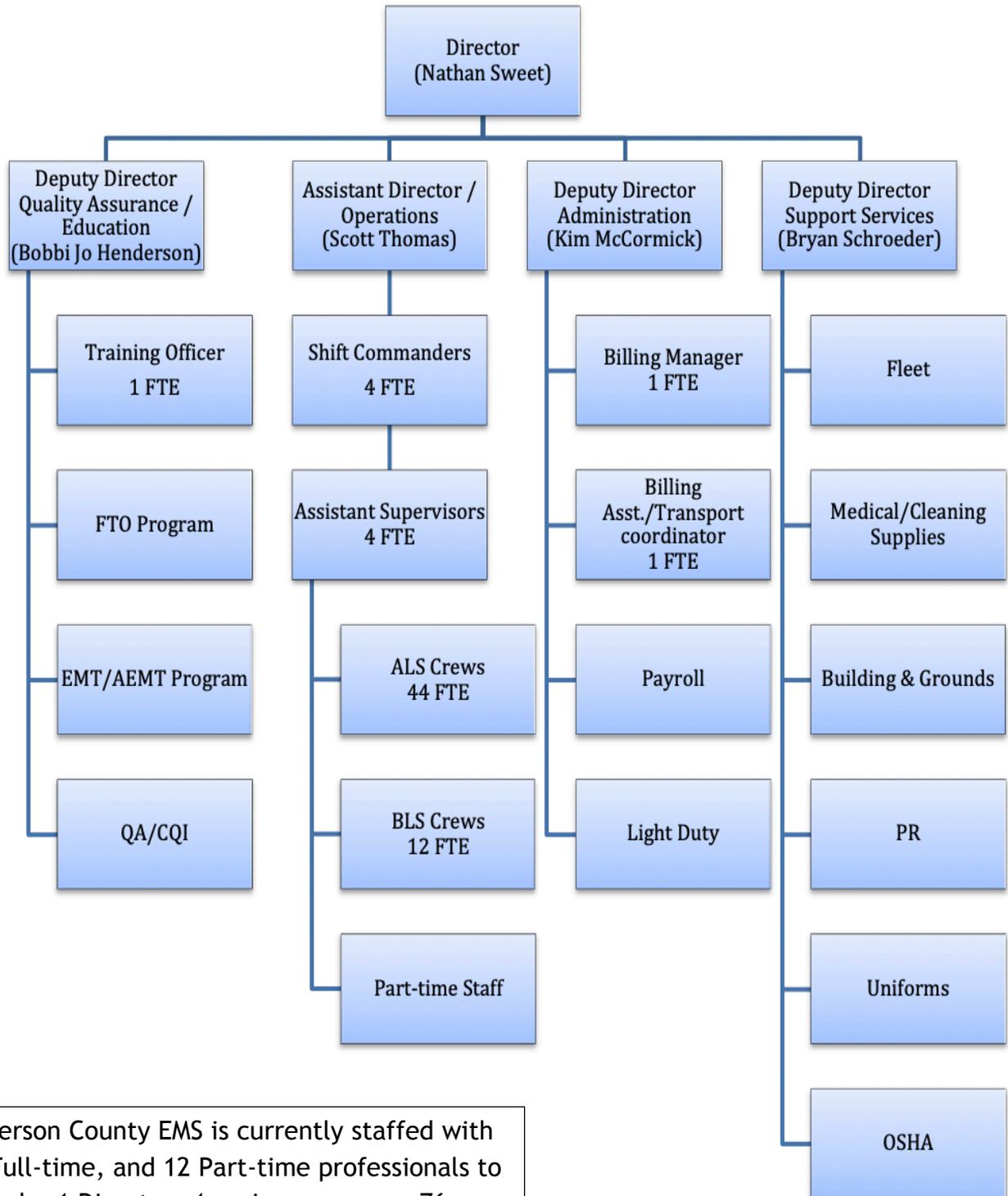
In addition to our 911 operation, we also staff five convalescent ambulances at various times and days during the week. These ambulances primarily address scheduled, convalescent calls, which serve our community in getting patients to dialysis treatment, doctor office visits, and discharges from the hospital back to their residence. At times of peak 911 call volume, these ambulances will be used to assist with 911 calls, as we do encounter times where, due to volume, all of our 911 ambulances are already on other 911 calls. Convalescent ambulances are staffed with Advanced EMTs, EMT Basics, or a composition of both.

Administrative personnel operate out of our headquarters facility located just before Station 1. This facility also serves as our Training Center, where we conduct our continuous education classes, along with our EMT Basic and Emergency Medical Responder courses.

We utilize a third-party billing company to process our claims for service. We have been with Digitech since July 2016 for these services. Although Digitech processes and manages our claims, they do not receive or “house” any of the money collected. All funds are deposited directly into our bank account. We still have staff on site at our headquarters who can assist with billing claims, or questions, even taking payments.

Dispatch services are provided through the Anderson County E911 operations center, that is managed by the Anderson County Sheriff Department. There are two other 911 centers in Anderson County (Oak Ridge City, and Clinton City each have their own), who may take the initial call and then either transfer the caller to the Anderson County E911, or relay the information.

# ACEMS



Anderson County EMS is currently staffed with 72 Full-time, and 12 Part-time professionals to include: 1 Director, 4 senior managers, 76 clinical care providers, and 3 admin staff.

## Operational Statistics

2021	2022
SICK / UNKNOWN MEDICAL	SICK / UNKNOWN MEDICAL
2107	2152
BREATHING DIFFICULTY	BREATHING DIFFICULTY
2078	2083
FALL	FALL
1552	1760
CHEST PAIN / HEART PROBLEMS	CHEST PAIN / HEART PROBLEMS
1184	1327
MOTOR VEHICLE ACCIDENT	MOTOR VEHICLE ACCIDENT
758	697

Above is the breakdown of the top five calls for service over the past two years, other than a change in the numbers, the order has remained the same.

	2020	2021	2022
January	24	37	67
February	62	16	55
March	29	34	44
April	12	32	56
May	20	57	50
June	22	59	31
July	37	55	66
August	37	93	66
September	41	98	64
October	18	49	69
November	38	52	90
December	64	50	79
Total	404	632	737

### Code White / Level 0

Code White status is when there are no 911 ambulances available within the County. Some of the time we can be in a Code White status but still have a convalescent ambulance available to respond to calls. The average length of a Code White status in 2022 was 10 minutes. 82% of the time this occurred between 8am-8pm. Tuesday had the most occurrences (147), and Sunday had the least (62). Two major contributing factors for the increase is the time it takes to run a call, and the increase in the number of 911 calls.

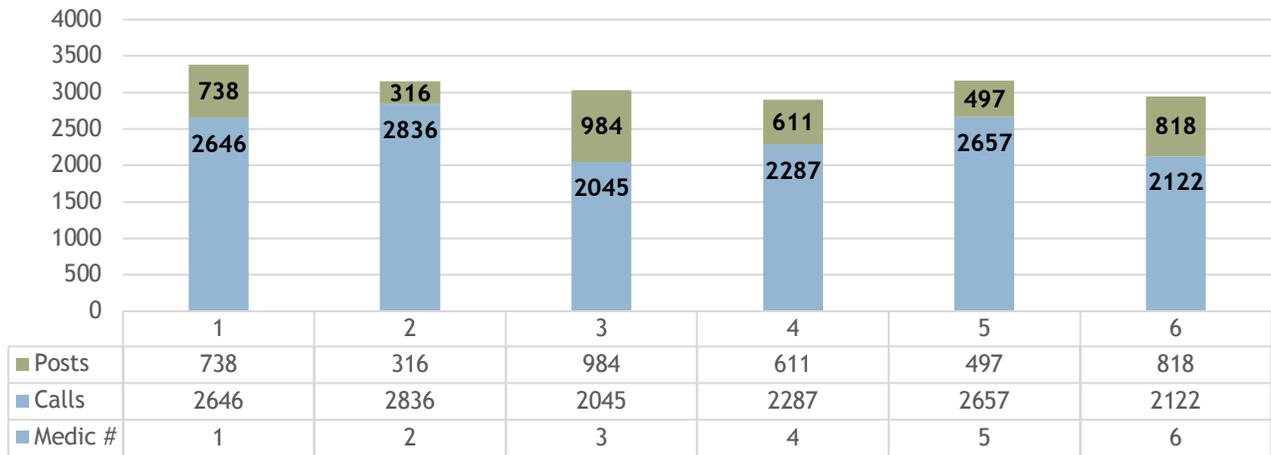
### 911 Time on Call

	2018	2019	2020	2021	2022
Time per Call (in hours)	1.33	1.41	1.38	1.40	1.46

We have seen a growth in the time it takes per call. The two main reasons we have seen this increase is due to longer scene times and longer destination times. With advancement in patient care, we have placed an emphasis on treating our patients, when appropriate, on scene before transporting. Negatively, we have seen longer destination times at hospitals due to their increased volume, and staffing issues. The longest destination time we encountered in 2022 was just over eight hours!

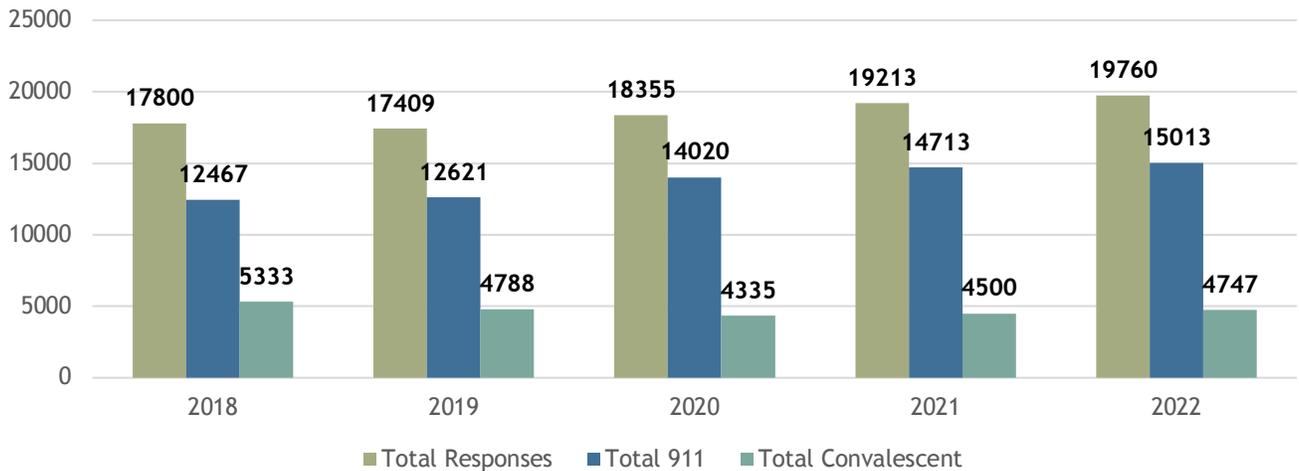
On average the time per transport may not appear significant, but couple that with our call volume increase and it greatly amplifies the issue. When you take an increase of 8 minutes per call (difference of 2022 from 2018) and multiply that by the overall number of calls in 2022 (over 19,000) you get an astronomical amount of more time spent on calls.

## 2022 Responses and Posts per 911 Ambulance

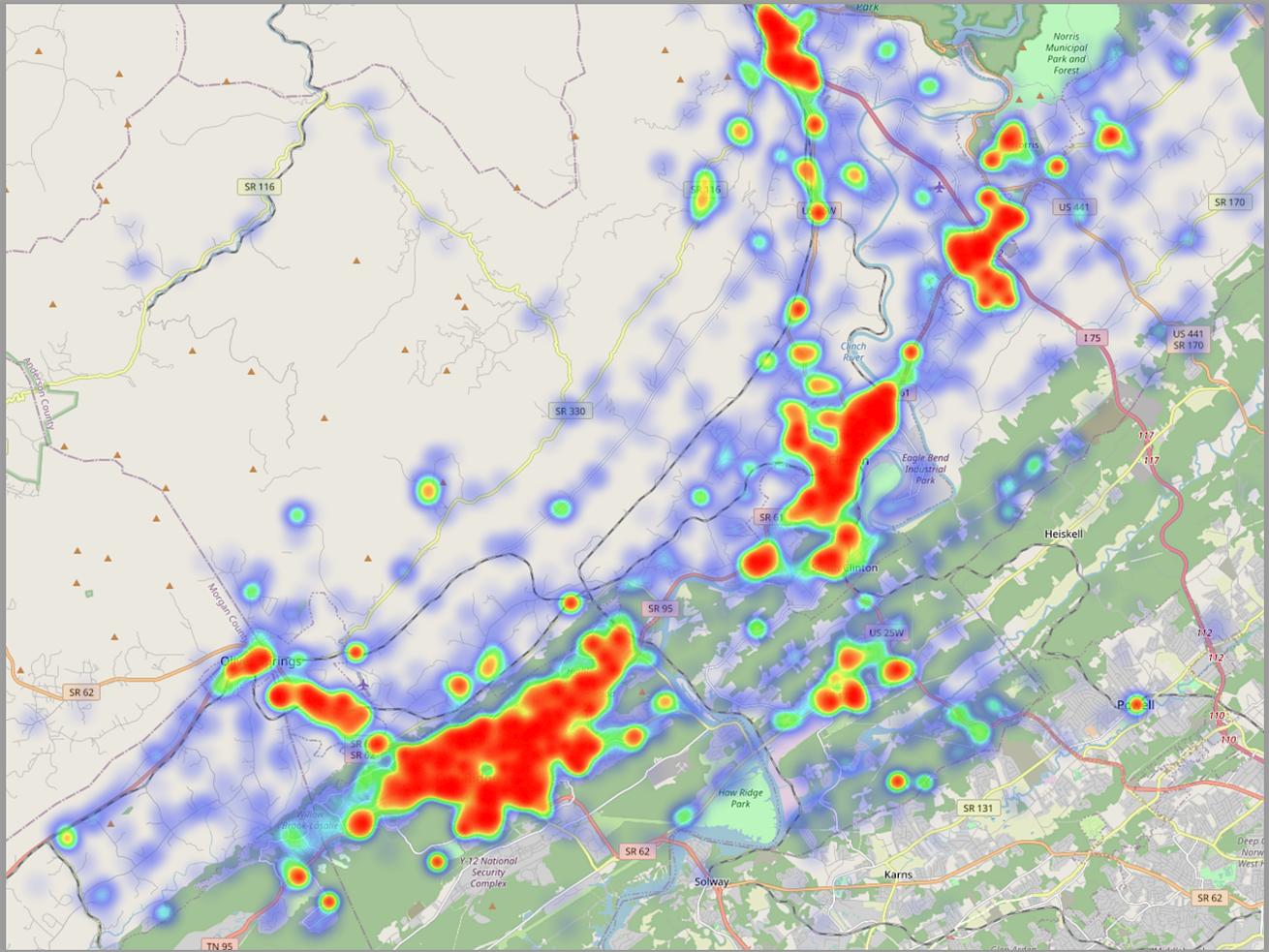


Medic 1, located in Clinton, was our busiest ambulance for 2022 when considering both responses and posting, Medic 4, in Oliver Springs, had the lowest total volume. Medic 2, located west side of Oak Ridge, had the highest number of responses, while Medic 3, in Rocky Top, had the highest number of posts. Inversely, Medic 3 had the lowest number of responses, and Medic 2 had the lowest number of posts.

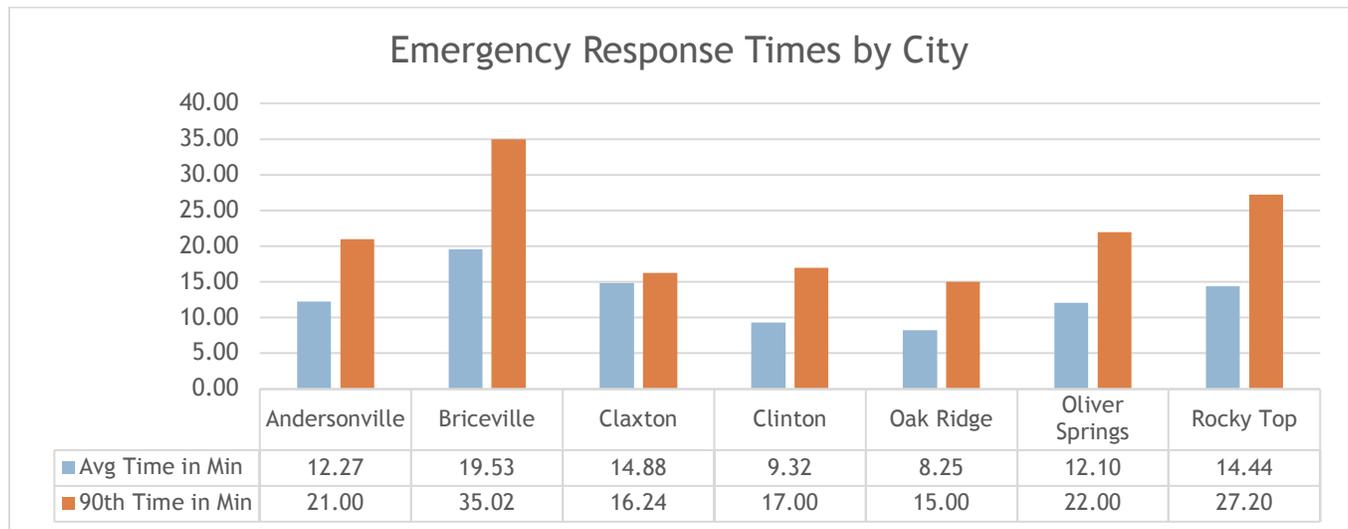
## Call Volume by Calendar Year



Call volume has steadily increased over the past five years. The number of 911 responses, which have increased 20% from 2018 to 2022. Convalescent call volume has fluctuated up and down this is mostly dictated by our 911 volume and staffing. A rise in 911 volume has caused an increase in use of convalescent ambulances for 911 responses, and staffing has caused an occasional shut down of convalescent ambulances, both prompting us to give convalescent transports away to other ambulance services. Not all 911 calls result in a transport, we actually transport about 75% of the patients we respond to. Ultimately, our patients have the decision on if they are transported or not, and some of the time we are able to treat the patient on scene, and they do not need the services of an emergency room.



The above map details the areas we experienced 911 responses throughout 2022. As can be seen the bulk of our calls are within the multiple city limits.



Response time encompasses the time we are toned by E911 dispatch until the ambulance arrives on scene. Anderson County does not have set response time standards. County wide average response time is 9.89 minutes.

## Training

One of our pillars of strength is training. It is an integral part of providing the best care we can to our community, and one we will continue to emphasize. In 2022 we had our second and third EMT basic class, in which we had a total of 11 attendees and all 11 successfully completed the course. From that we had 8 achieve a first-time pass rate of the national registry test. Of those attendees, 6 were from local departments (2 Oak Ridge FD, 3 Clinton FD, 1 Claxton VFD), and 5 were paying attendees. Anderson County EMS provides this training to local departments for the cost of \$175 (which is the fee we must pay to the State EMS office per student). All other costs: books, instructor hours, class materials, class uniforms, etc. are provided by Anderson County EMS. This same class at a Community College would cost over \$3,000 (for all materials described, and others required by the college). For paying attendees we charge \$2,300.

In addition to the EMT Basic curriculum Anderson County EMS includes additional classes to complete our EMT Basic program, such as Pre-Hospital Trauma Life Support, Escaping Violent Encounters, and EMS Vehicle Operator Safety. These classes are added because we strive for a more well-rounded “street ready” EMT.



We taught 24 National Association of EMT classes to 270 students. Excluding CPR we taught an additional 40 American Heart Association classes, with attendance to these classes from people all over. We had people travel in from Indiana, Mississippi, Kentucky, Alabama, and US Virgin Islands to attend our classes. We provided CPR training for over 400 people in 2022!

We taught one Emergency Medical Responder class in 2022. This is an 80-hour course, and is provided for free to our local departments, to include books and all materials for the class. We had 11 students complete this course, with 6 of those coming from outside Anderson County. We also taught a two-day EMR refresher course for 14 attendees from local departments. Outside attendees pay \$400 for this course.



We had a combined 5,469.5 hours of training for Anderson County employees in 2022, more than 3 times what is required by State EMS Rules!

## Staffing

Staffing continues to be one of our greatest challenges. Some of the top obstacles for future success in staffing are work schedule, job stress, and pay/benefits. The transition from a 24hr on/48hr off schedule to our 24hr on/72hr off schedule has reaped great returns. Improving from a 26% turnover rate in 2021 (18 individuals), to a 14% turnover rate in 2022 (10 individuals), the National average is 20-36%. Our goal is to get to an annual turnover rate of 10% or less (7 individuals).



Not all turnover is bad, we had some individuals leave in 2022 who were able to achieve incredible personal goals and dreams. One was accepted into the FBI Academy and has since graduated to become an FBI agent; another was accepted into PA school, yet another was able to get a job closer to their home (and family) in Crossville, that also provided benefits at no cost. We are inspired by these individuals, and see it as an incredible blessing to be a part (albeit small part)

of their story! We strive to be a place that encourages growth, even if that means they leave from serving our community.

We have begun to see a stable filling of vacant positions, while unfortunately encountering times where several staff are out extended times for injury and illness. Only about half of these were work related. Consistency with Part-time staff has been a struggle, one we have not been able to effectively impact over the years, requiring the use of unscheduled overtime, and mandatory overtime in order to maintain minimal staffing levels.

2022 presented us with one of the most challenging years when making our annual award choices. Annual awards are made off of the feedback from staff, who submit a nomination with supporting information of why that employee should be selected for the award. We have several employees who would be fitting of receiving each award, which is a testament to the men and women who serve our community!



**The Charlie Williams EMT of the Year: AEMT Micaiah “Mac” Vacchiano**

**Paramedic of the Year: Critical Care Paramedic Ashley Rodgers**

**Officer of the Year: Lieutenant David Murner**

**The Robert McKamey Director’s Award: Paramedic Elliot Mitzelfeld**

## Achievements

During Hurricane Ian we deployed one ambulance and two personnel with the Tennessee Ambulance Strike Team. Deputy Director Henderson, and Assistant Director Thomas were the two staff who went on this mission. They were deployed for 14 days, the longest deployment we have had.

Our Medical Director, Dr. Meredith Reddington, moved with her family to New Zealand! Upon her departure we transitioned to operate under Dr. Daren Cox. Dr. Cox is an ER physician with Team Health, and works at the Methodist Medical Center ER. Dr. Cox was raised in Oliver Springs and is excited to be a part of our service, giving back to his hometown.

We brought on several new pieces of equipment, all of which were graciously approved by the Anderson County Commissioners. We purchased eight Lucas Auto Compression Devices, which allow for continuous, consistent chest compressions during CPR. Additionally, we purchased Autovent respirators for each 911 ambulance, allowing consistent ventilations for patients in need of respiratory support.



Through a grant from Tennessee Risk Management, we purchased several powered stair chairs for each ambulance. These devices allow staff to easily move patients up or down stairs with minimal lifting required. Providing improved safety and decrease of potential injury to staff and others.

Deputy Director Bobbi Jo Henderson was recognized at the Region II EMS Director's Association as the recipient of the 2022 President's Award. This award is one of the hardest awards to receive as the available candidates can be exhaustive. It is a testament to Mrs. Henderson's commitment, and effort for all things education, and EMS. Mrs. Henderson is an incredible asset and has taken our education department farther than it has ever been, and it truly is one of the very best in the State of TN!

Shift Commander Devin Gilliam was recognized as the 2022 EMT of the Year by the VFW, at both the regional and State level. Commander Gilliam is a Staff Sergeant with the United State Army National Guard.

Critical Care Paramedic Rebecca Pace was promoted to Training Officer for Anderson County EMS. She will oversee the in-house training programs, as well as our orientation program. She has been with Anderson County EMS for eight years, and has also spent time as an educator with Roane State Community College.



84 staff were recognized for exceptional care, where we received numerous compliments from patients, family, and other providers for the recognition of the service, care, and compassion that our staff provided. This is confirmation from our community, to the incredible work our staff does and the awesome care they provide!

We had two CPR saves in 2022! Four staff, and four Oak Ridge FD first responders were directly involved in these CPR saves. Of which, one had our new Lucas compression devices used. A third person, a child, was rescued and resuscitated by Lifeguards at the Oak Ridge pool!



There was one baby delivery supported by not only our staff, but two first responders with Clinton FD. Baby deliveries can be complicated when performed out “in the field” and our providers train for any and all situations that could occur. It is tradition to award a stork pin for our staff who aided in the delivery of a baby.

Seven personnel attended the Leadership in Supervision course provided by the National Fire Academy in Emmitsburg Maryland. This course is part of our career development requirements for our supervisory advancement tract. This course offers training in the basic leadership skills and tools needed to perform effectively in the EMS profession. Providing a successful transition to supervisory and leadership roles, and establishing a conceptual foundation and framework for success in leadership roles by exploring creative, analytical, political, and critical thinking perspectives.

One person attended the first half of the Managing Officer Program at the National Fire Academy. This course further expands on the Leadership in Supervision course, elevating the training, and education of our current and future leaders in EMS.

Three staff completed the Crisis Intervention Team (CIT) Course, which provides a different perspective on best practices when approaching people in mental crisis.

## Anderson County Board of Commissioners

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