



ANNUAL REPORT 2016



RICHMOND AMBULANCE AUTHORITY

W O R L D C L A S S E M S

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LETTER FROM THE CHAIRMAN OF THE BOARD

2016 marked the twenty-fifth anniversary of the Richmond Ambulance Authority ("RAA"), and a quarter century of providing the City of Richmond with the best possible Emergency Medical Services patient care available anywhere, as recognized by accrediting agencies and governments around the globe.

The three hundred employees of the RAA are a critically integral part of our City's First Responders, running quickly toward disaster and trouble in order to get others away to safety. They know how important response time is when there is an emergency, and every day the EMS professionals of the RAA respond to every call from Richmond citizens and arrive more quickly than our counterparts nearly anywhere else in the country...much more quickly. Combined with our Paramedic-based system, the care received by patients of the RAA is repeatedly rated among the best anywhere.

RAA's recognition as an international leader in the EMS industry has continued to bring visitors to us from around the world. This past year we have welcomed guests from twelve countries and many states, and also some of our friends here in Virginia. The reputation of the RAA, and the opportunity for exchange it brings, is a real asset that continues to help improve the service we can provide to the City of Richmond.

The RAA's Board of Directors consists of eleven members from diverse backgrounds. Some of the members were born and raised in Richmond, and others have been lucky that their paths have led them here. The group brings together a broad range of professional experiences from private industry (e.g. healthcare, finance, legal) as well as the City's CAO, Director of Finance, and a member from the City Council. In 2016, we welcomed our two newest Board Members, Matthew Conrad who is VCU's Executive Director, Government and Board Relations. Also, since the City hired John Wack as its new Director of Finance, I have become very grateful for his active and reliable participation on our Board.

During 2016, the employees, staff, and Board of the RAA combined in a process intended to define and create a new Mission and Vision Statement. Now completed, and after months of consideration by many people, the result provides guidance for every aspect and department at the RAA and, with this newly clarified and unifying vision, we are prepared to continue to bring Richmond the best possible prehospital care in the world.

The RAA takes significant strides to guarantee efficiency and rigorous protocols which ensure the most effective use of resources. The RAA is a leader in the collection of data and constantly reviews that data to increase our efficiency and performance. Much of what we do is not generally seen: maintenance of vehicles, management of patient records, complete and accurate stocking of every vehicle several times per day, continued training and more. The people of the RAA implement these best practices every day in order that we can continue to deliver the best service at the lowest cost to the community.

Please look through this annual report in order to answer any questions that you might have about the RAA, its operations, or whatever might interest you. The RAA is a globally-recognized exemplary model of prehospital care. It is an honor for me to be involved with the RAA, and our City of Richmond is blessed to have such an operation on call all the time.



The 2016 Richmond Ambulance Authority Board of Directors:

- J. Stephen Lord, Chairman
- Jeffrey Odell, Vice Chairman
- Terone B. Green, Treasurer
- Susangeline Strickland, Secretary
- Richard Bennett, M.D.
- Joseph Boatwright III, M.D.
- Matthew Conrad
- Selena Cuffee-Glenn
- Elizabeth Matish
- Cynthia Newbille
- John Wack

OPERATIONAL MEDICAL DIRECTOR'S REPORT



Another exciting, productive year, clinically! Highlights include:
MEDICATION CROSSCHECKS

Our RAA “culture of safety” continues to set new industry standards for clinical care and patient safety. We developed and implemented a new approach to reducing medication errors approximately 18 months ago, in which we mandated crew crosschecks on all medication prior to patient administration. The procedure uses aviation cockpit-type 1- and 2-medic checklists to double-check that they are administering the correct medication, dose, route to every patient. Our procedures have been successful in catching and preventing potential medication errors and are now being adopted in adjacent Richmond-area paramedic services.

SELF-REPORTING

The industry-leading RAA Self-Reporting Program based on NASA’s Aviation Safety Reporting System continues to provide a valuable source of information that has further enhanced our culture of safety. Providers are encouraged to self-report errors, near-misses, and system issues in a non-punitive environment. The result – our Clinical Leadership team regularly gets several self-reports a week, usually for near-misses or suggestions to improve safety. This system, widely accepted by our prehospital providers and strongly supported by RAA administration, helps us identify opportunities for preventing and mitigating the consequence of simple human error, and identifying systems issues that can be altered to protect our patients.

UPDATE ON CARDIAC ARREST THERAPEUTIC HYPOTHERMIA PROJECT

Therapeutic hypothermia (controlled cooling of the body and the brain) after cardiac arrest can improve survival and neurological outcome. Richmond Ambulance Authority was one of the first EMS agencies in the United States to begin using this procedure in 2008. New studies continue to confirm the benefits of cooling but suggest that rapid infusion of iced saline in the field following restoration of circulation may not be the most effective technique and may not convey additional benefit to starting cooling after emergency department arrival.

Dr. Ornato and the RAA clinical staff have been working with a research and engineering team from Johns Hopkins University that has developed an alternative technology that can safely cool the body without the need for IV fluids or drugs. The device simply streams dehumidified room air through a mask into the nose of cardiac arrest patients with intermittent small puffs of sterile salt water. As the saline mist evaporates, it quickly cools the tissues in the back of the nose and mouth, including the brain. We are currently working on a proposal for RAA to potentially conduct a small pilot trial that can provide preliminary data to guide design of a large, multicenter clinical trial. If successful in improving survival and neurological outcomes after cardiac arrest, the device has the potential to also benefit patients with other forms of brain injury such as stroke or massive head injury.

CLINICAL SERVICES COMMITTEE ACTIVITIES AND NEW PROTOCOLS

The Clinical Services Committee worked on selecting video laryngoscopes and then submitted the protocol changes for review. Our RAA intubation protocol was changed to reflect the use of the McGrath Video Laryngoscopes. The Committee also worked on our Selective Spinal Immobilization protocol which has been updated and will soon be ready for printing and distribution.

JOSEPH P. ORNATO, MD, FACP, FACC, FACEP
OPERATIONAL MEDICAL DIRECTOR

Paramedics Cleared in 2016

Thien Tran

Matthew Miller

Alan Ottarson

Saul Mijangos

Mike Smith

Keith Still

Stuart Righter

Julian Day

Shelby Hicks

Ariel Eclipse

Christopher Wootton

Cory Bernardo

Oscar Escobar

Michael Peck

Michael Biamonte

Randy Yoskowitz

CHIEF EXECUTIVE OFFICER'S REPORT



2016 was another busy year for the Richmond Ambulance Authority (RAA) as we continued to deliver the very best prehospital care possible to our community while maintaining some of the fastest response times in the industry. In 2016, RAA responded to over 69,000 calls for service which resulted in a little over 49,000 transports. Our response time requirement is 90%. This record-breaking call volume did not slow us down, with RAA's overall 9-1-1 response time compliance reaching 94%! To run all of these calls, our ambulances drove over 1.3 million miles or 52.46 times around the world!

The outcome of these data-driven results is a reflection of RAA's commitment to the people we serve, which has now spanned over two and a half decades. We celebrated RAA's 25th anniversary in September 2016 with members of our Board of Directors and staff on hand for this important milestone in our organization's history.

Public education and community outreach have been, and continue to be, a key aspect to RAA's success, and 2016 was no different. Since the launch of the initiative, "Great Days of CPR" back in 2010, RAA has continued its push to train as many Richmonders as possible in this life-saving technique. In partnership with the Richmond Redevelopment Housing Authority, RAA provides Hands Only CPR training, which has become part of their required new tenant orientation.

RAA purchased Automated External Defibrillators (AED's) for the Richmond Public Schools' buildings and athletic teams. We provide both medical standby services and our participation at an array of community events throughout the year, always happy for the children to meet our very own mascot, ParaBear!

RAA continues to remain involved in the local and regional community with increased attendance at City government meetings, continued visibility at local, state and national EMS meetings, and we continue to uphold strong relations with members of the media. Award recognition continued in 2016, with RAA's own Vehicle Maintenance Manager, Dan Fellows,

named an EMS10: Innovators in EMS award recipient back in February. Only ten recipients are selected each year for having demonstrated innovation in moving the level of EMS care forward, and we are very proud to have Dan recognized at the national level! In addition, RAA was fortunate to have been awarded the American Heart Association's Gold Award, having met all of the requirements under their program, "Mission: Lifeline," which was developed to help improve the quality of care for STEMI (ST Elevation Myocardial Infraction) patients. Last, but certainly not least, RAA ended 2016 having won the Governor's Award in the category, "Outstanding EMS Agency." We are humbled to have been chosen to receive this prestigious recognition.

We have a solid team that makes up our dedicated workforce, a Board of Directors who unselfishly volunteers their time, an Operational Medical Director who provides excellent clinical oversight to our field staff, and a City Council and City Administration who are supportive and understanding of the critical role RAA plays in assuring the City of Richmond's public safety. Together, we can all be very proud of our accomplishments in 2016 as we prepare to gear up for yet another successful year in 2017.



CHIP DECKER
CHIEF EXECUTIVE OFFICER

2016 NEWS AND EVENTS



JANUARY

No sooner had the year begun, we welcomed visitors from Roanoke, and also 'welcomed' the major snowstorm of the year - Winter Storm Jonas - which brought over 12 inches of snow to Metro Richmond. The depth of snow saw our ASAP, 6 wheel drive vehicles, truly demonstrate their versatility.

The Communications Center welcomed a new controller - CBS6 Meteorologist Nikki Dee Ray spent time with us to see what it takes to control the Richmond EMS system.

FEBRUARY

February brought the first of what turned out to be many international visitors. First to arrive were our friends from the Norwegian Health Ministry. Australian paramedicine students also joined us.

Vehicle Maintenance Manager, Dan Fellows, received well-deserved national recognition by receiving an EMS 10 award for industry innovation.



MARCH

In March, staff and students from Taiwan's Kaohsiun Medical University (KMU) made their annual visit.

We got on two wheels for the International Police Mountain Bike Association (IPMBA) bike medic class under resident instructor Sgt. Bip Terhune. We made our poster presentations at the Rao Ivatury Trauma Symposium, and Sgt. Tiffany Samuels was named an AAA Star of Life.

APRIL

In April, we visited the National Capitol during 'EMS on the Hill' Day. We celebrated National Public Safety Telecommunicators Week, and Communications Supervisor, Chris Ward, graduated from his Communication Center Manager (CCM) course.

RAA had a front cover article in EMS World Magazine, and welcomed its publisher, Scott Cravens, to our HQ. Our bike medics graduated from their bike medic course, and we also assisted the Richmond Police Department with their Latino Youth Academy.



2016 NEWS AND EVENTS



MAY



We had a very busy May having celebrated National EMS Week, and our annual awards were given to recognize our outstanding employees.

RAA was also the recipient of the Mission: Lifeline Gold Award. We celebrated National Motorcycle Safety Month with our Rider Alert program.

On a very wet Sunday afternoon, we assisted Ukrop's Monument Avenue 10K Cardiac Arrest Survivor, Bill Hughes, in finishing the race just 50 days after his arrest and quadruple bypass surgery!



JUNE

In June, We also welcomed our 2016 summer interns as part of the Partnership for the Future Program.

We had our first close-up glimpse of President Donald Trump as he campaigned, and we stood by at the Richmond Coliseum.

We welcomed visitors from Sudan and Australia. We went on the road as a group from RAA visited Huntsville Emergency Medical Services, Inc. (HEMSI) in Huntsville, AL, to view their CAD and control room operations.



JULY



In July, we issued our clinical protocol updates, and received our new supervisor units.

Operations Assistant, Katie Moody, became a member of the YWCA Young Professionals Leadership Alliance.

Our Logistics department did the grand reveal on their new logo shirts, and Rich Lindfors was recognized for his role in saving a patient while taking part in a triathlon.

AUGUST

In August, the big news was the honor of receiving the Old Dominion EMS Alliance, Inc 2016 Regional Award for Outstanding EMS Agency! System Status Controller, Ben Gomes, was also named as the ODEMSA 2016 Outstanding Telecommunications Dispatcher of the Year.

RAA participated in National Night Out events across the city, and visitors from Australia and Ecuador spent time in the Richmond System.



2016 NEWS AND EVENTS



SEPTEMBER

September marked the 25th Anniversary of RAA, and we celebrated in style! Riding along with us was Virginia Attorney General Mark Herring, and we welcomed our very first Public Health Intern, Mike Rains.

We participated in the "Bus Stop, Heart Stop" Hands Only CPR campaign at the City's 9/11 service, and Governor Terry McAuliffe also joined staff members during the annual stair climb for 9/11 Memorial Stair Climb at the SunTrust building.



OCTOBER



In October, we began our very first RAA Youth Academy. Over the course of four weeks, we educated a group of young citizens in the operations of EMS in Richmond, and identified methods of entry into the EMS field as a future career.

We welcomed Brazilian Trauma Surgeon Dr. Rod DeOlivera, as part of the Pan American Trauma Society Observership. We also traveled out to the EMS World Expo Conference and presented a number of speakers, including Training Manager, Shannon Daniel, who gave her presentation in both English and Spanish.

NOVEMBER

In November, the RAA Youth Academy concluded, and we celebrated Thanksgiving with a work family dinner. The month's (and year's) biggest news was being named as the Governor's pick for State EMS Agency of the Year at the annual EMS Symposium in Norfolk, VA.

November was also another big month of international visits - students from the Australian Catholic University in Canberra, Copenhagen EMS, and the leaders of Rwanda's SAMU Ambulance Service spent time with us.



DECEMBER

We concluded 2016 with a very busy December! We made our annual appearance in the Christmas Parade with RAA Mascot, Parabear, and we welcomed Lt. Rich Wilkins to his role as Assistant Field Operations Supervisor.

We also spent time out in the community by assisting with the distribution of meals to those in need. In keeping with tradition, we served lunch and dinner to our work family on duty Christmas Day.

MEMORABLE MOMENTS FROM 2016





OUR VISITORS



Staff from Roanoke Fire-EMS Department in Roanoke, VA

Paramedic Students from Australian Catholic University, based in Canberra, Australia

Delegation from the Finnish Ministry of Social Affairs and Health, and the Norwegian Department of EMS, Norwegian Directorate of Health

MBA students from Taiwan's Kaohsiung Medical University

Publisher of EMS World Magazine, Scott Cravens

6th Year Medical Students, Takayuki Kimora and Nao Eto, from Tokyo Medical University

Staff from the American Ambulance Association

International Observership Fellow Dr. Mohamed Hamid, from the city of Khartoum in Sudan

Paramedic Student Sean Cotterill, from Ambulance Service Australia (ASA) and the University of Tasmania, Sydney

Australian Paramedic and RN student Courtney Prince, from the Australian Catholic University, Brisbane Campus

Pan American Trauma Fellow Dr. Rodrigo Olivera, from the Grajau General Hospital, Santo Amaro University in Sao Paulo, Brazil

Staff from the Weil Institute of Emergency and Critical Care Research

Jean Marie Uqitonze and Ignace Kabagema from the Rwandan Ministry of Health, Division of Pre-Hospital Emergency Services, based in the City of Kigali, Rwanda

CEO, Professor Freddie Lippert and delegation from Copenhagen EMS in Denmark

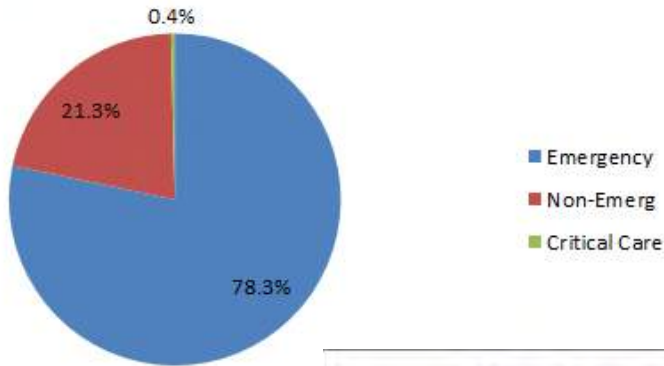
Staff from Carilion Clinic Patient Transportation, Roanoke, VA





OUR PERFORMANCE

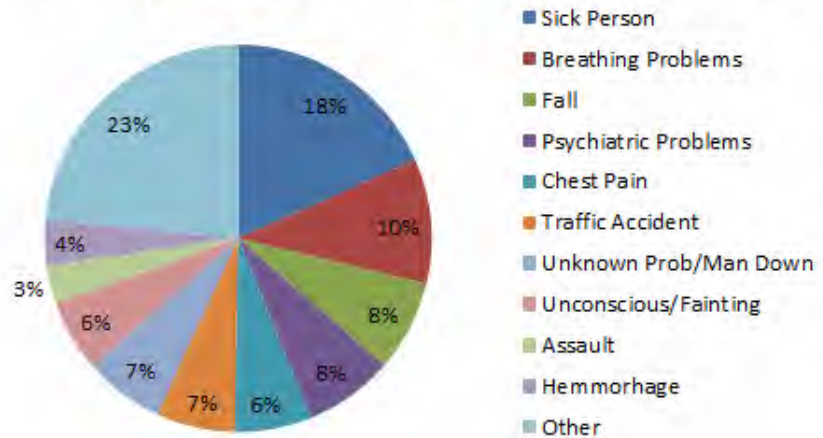
2016 RAA System Demand



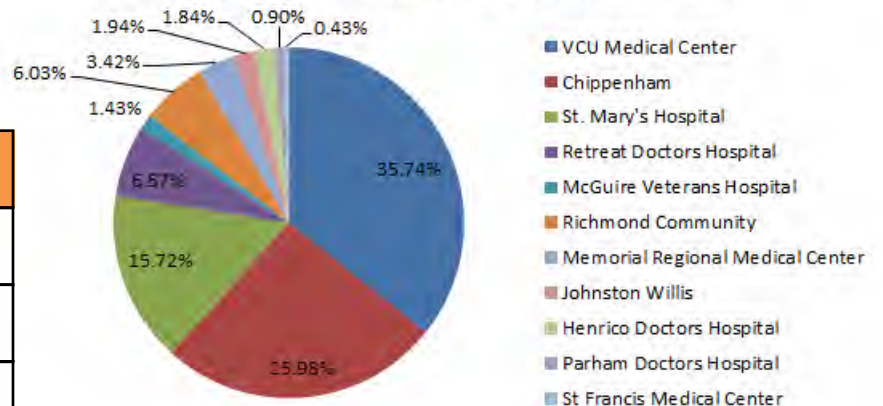
	Emergency	Non Emergency	Total
Responses	54,320	14,793	69,113
Transports	36,233	13,659	49,892



2016 RAA 9-1-1 Calls by Chief Complaint



2016 RAA 9-1-1 Transports by Hospital



911 Compliance	
Priority 1	94.07%
Priority 2	94.07%
Priority 3	90.78%
Overall	92.00%



FLEET COMPOSITION



In 2016, RAA trucks traveled 1,306,321 miles. That's the equivalent of:

120,901 trips around Richmond (in square miles)

52.46 trips around the world

2.73 trips to the moon and back

Our fleet:

25 Ford E-450 6.8L Gasoline Type III ALS Excellance Ambulances with solar panels

4 Ford E-450 Diesel 6.0L Type III ALS Excellance Ambulances

8 Ford E-350 6.8L Gasoline Type II BLS AEV Ambulances

1 International Diesel DT466 4400 Critical Care Excellance Ambulance

1 Freightliner Diesel M2 Critical Care Excellance Ambulance

2 Ford Expedition 5.4L Gasoline Supervisor Vehicles

1 Ford F-250 Gas 6.0L Prime Mover

2 Chevy Tahoe 5.8L Gasoline Administrative Vehicles

1 Ford Expedition 5.4L Gasoline Administrative Vehicle

1 Ford F-150 5.0L Gasoline Resource Vehicle

2 Polaris Gasoline ASAP Specialty Vehicles

2 ASAP Trailers

1 Mass Casualty Response Trailer

8 Cannondale Law Enforcement Bicycles



STATEMENT OF NET ASSETS

Years Ended June 30, 2016 and 2015

	2016	2015
ASSETS		
Current Assets:		
Cash	\$ 2,161,406	\$ 1,952,456
Short-term investments	1,250,000	2,000,000
Total cash and short-term investments	3,411,406	3,952,456
Receivables:		
Service accounts receivables, net of allowance for contractual adjustments and doubtful accounts	1,672,615	1,569,728
Reusable supplies	257,115	216,335
Other current assets	373,388	651,807
Total Current Assets	5,714,524	6,390,326
Long-Term Investments	1,000,000	1,250,000
Capital Assets, net:		
Vehicles and ambulances	6,059,198	5,517,993
Building and improvements	587,350	391,570
Communications center	1,622,335	2,067,418
Communications equipment	980,792	624,711
Medical equipment	2,979,892	2,210,751
Office furniture and equipment	1,051,084	953,810
Shop equipment	90,726	90,191
Less accumulated depreciation	(7,691,810)	(7,161,738)
Total Capital Assets, net	5,679,567	4,694,706
Total Assets	12,394,091	12,335,032
LIABILITIES		
Current Liabilities:		
Accounts payable and accrued expenses	699,240	606,731
Accrued payroll	365,156	317,920
Current installments of obligations under capital lease	5,854	12,637
Total Current Liabilities	1,070,250	937,288
Noncurrent Liabilities:		
Obligations under capital lease, excluding current installments	-	5,854
Total Liabilities	1,070,250	943,142
DEFERRED INFLOWS OF RESOURCES		
Membership fees received in advance	18,659	21,896
NET POSITION		
Investment in capital assets	5,673,713	4,676,215
Unrestricted	5,631,469	6,693,779
Total Net Position	\$ 11,305,182	\$ 11,369,994

STATEMENT OF REVENUES, EXPENSES, AND CHANGES IN NET ASSETS

Years Ended June 30, 2016 and 2015

	<u>2016</u>	<u>2015</u>
Operating Revenues:		
Service revenues	\$ 30,040,864	\$ 29,141,163
Provision for contractual adjustments and doubtful accounts	(15,589,943)	(15,579,429)
Net Operating Revenues	<u>14,450,921</u>	<u>13,561,734</u>
Operating Expenses:		
Salaries and related benefits	12,316,226	11,290,009
Health insurance	1,539,544	1,283,050
Workers' compensation	387,116	279,618
Depreciation and amortization	1,590,666	1,527,755
Professional services	340,572	255,396
Collection expenses	25,773	17,441
Marketing and advertising	24,130	41,239
Office expenses	409,767	377,799
Telephone	162,007	152,292
Communications	79,529	59,918
Public information	38,531	24,908
Postage and shipping	40,740	40,122
Occupancy	199,640	194,744
Other	97,397	81,390
Insurance	168,141	177,540
Printing and artwork	9,739	7,290
Travel	85,178	62,834
Medical supplies and equipment	729,883	701,798
Recruiting and background investigations	50,653	46,127
Vehicle fuel and tolls	404,585	514,574
Vehicle repairs and maintenance	357,439	332,465
Uniforms and laundry	113,521	95,424
Total Operating Expenses	<u>19,170,777</u>	<u>17,563,733</u>
Operating Loss	<u>(4,719,856)</u>	<u>(4,001,999)</u>
Non-Operating Revenues (Expenses):		
City of Richmond subsidy	4,590,500	4,405,500
Interest income, net of interest expense of \$1,750 in 2016 and \$1,035 in 2015	23,204	21,893
Grant revenues	64,553	59,343
Miscellaneous revenues (expenses), net	(23,213)	49,705
Total Nonoperating Revenues, net	<u>4,655,044</u>	<u>4,536,441</u>
Change in net position	(64,812)	534,442
Net position at beginning of year	<u>11,369,994</u>	<u>10,835,552</u>
Net position at end of year	<u>\$ 11,305,182</u>	<u>\$ 11,369,994</u>

AWARDS AND RECOGNITION

RAA AWARDS

2016 Virginia Governors' Award for Outstanding EMS Agency

Old Dominion EMS Alliance, Inc 2016 Regional Award for Outstanding EMS Agency

Mission: Lifeline Gold Award

RAA ANNUAL EMPLOYEE AWARDS

Operations Employee of the Year, Jason Roach

Paramedic of the Year, Julie Anderson

EMT of the Year, David Millhouse

Support Employee of the Year, Jeremy Morris

Administrative Employee of the Year, Ray Mallory

INDUSTRY-WIDE RECOGNITION

JEMS EMS 10 Award, Fleet Manager Dan Fellows

Telecommunications Dispatcher of the Year, Benjamin Gomes

American Ambulance Association 'AAA Stars of Life' Award, Sgt. Tiffany Samuels

HCA 'Live Excellence' Award, Paramedic Kelly Rawllins & EMT Danielle Pendergrass

Richmond Fire Department 'Life Saving Medal," Capt. Brian Hupp & EMT Chris Tenley

Governor's EMS Award and Scholarship for Outstanding Contribution to EMS by a High School Senior, EMT Nathan Welch

HCA 'Live Excellence' Award, Paramedic Laura Bowen

HCA 'Live Excellence' Award, Paramedic Caitlin Fredricks and EMT Art Schustek





AGENCY INFORMATION



OUR MISSION

To deliver patient centered care through measurable clinical and operational excellence with efficiency, outstanding customer service and employee engagement.

OUR VISION

The Richmond Ambulance Authority is an industry leader, providing World Class mobile integrated healthcare.

HISTORY

In 1990, the City Manager and the City Council of Richmond, Virginia recognized that fundamental changes were needed in the Emergency Medical Services (EMS) system and worked to implement an innovative system design that would provide for the unified provision of EMS services for the city. On March 20, 1991 the Virginia General Assembly created the Richmond Ambulance Authority and on September 23, 1991 the City of Richmond granted the franchise to the Richmond Ambulance Authority to provide EMS services to the City of Richmond.

Since its inception, the goal for the Richmond Ambulance Authority (RAA) has been to provide its community with clinical excellence, while ensuring response time reliability and fiscal responsibility. Although it has the highest call volume per capita in the United States, RAA has gained a national and international reputation as a premiere, high performing EMS system. RAA is one of only 23 systems in the United States that has received accreditation from both the National Commission on Accreditation of Ambulance Services (CAAS) and the National Academies of Emergency Dispatch (NAED). These accreditations are considered the "gold standard" for ambulance services, certifying distinction for quality patient care and ambulance operations.





RICHMOND AMBULANCE
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