

CARS members work to extricate victim of auto crash Fall 2008



CARS Annual Report 2008

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MISSION STATEMENT (1959)

The Articles of Incorporation of the Albemarle Rescue Squad dated January 14, 1958, set forth the following statement of purpose:

To save life and administer first aid, to teach methods of safety and first aid to the general public and in the schools; to serve in time of flood, fire, hurricane and famine; to render assistance in case of accident, casualty and illness; to instruct its members in principles and applications of the life saving and first aid.

The *Albemarle* Rescue Squad became the *Charlottesville - Albemarle* Rescue Squad soon after beginning operations in November of 1960. The Squad carries on the original mission by:

- Training and equipping members to respond to calls for assistance and provide basic and advanced life support care;
- Maintaining specialized rescue teams to provide vehicle extrication, water rescue, and technical rescue;
- Providing technical rescue training classes to local EMS agencies;
- Providing logistical support for the fire departments when needed.



AGENCY OVERVIEW

The Charlottesville-Albemarle Rescue Squad (CARS) provides rescue and emergency medical transport service to the City of Charlottesville, the University of Virginia and Albemarle County.

The Charlottesville-Albemarle Rescue Squad operates 24 hours a day, 365 days a year. CARS is a volunteer rescue squad with approximately 160 active members. We also have career firefighter/paramedics from Albemarle County Fire & Rescue that supplement our staffing on weekdays. The organization is headed operationally by L. Dayton Haugh, who has served as Chief for the past 15 years. Administratively, the department is run by President Larry Claytor. We are a member of the Virginia Association of Volunteer Rescue Squads assigned to District I. In 2007, we ran over 12,000 incidents and in 2006 *Firehouse Magazine* ranked us as the busiest volunteer rescue squad in the country.

The CARS fleet includes eight advanced life support ambulances (medic units), two advanced life support quick response cars (zone cars), two heavy rescue trucks (squads), a water rescue truck with two boats, a technical rescue truck, a collapse rescue trailer, two command cars, a mass causality incident truck and a special events bicycle response team with support trailer. All current apparatus is owned by the department and was purchased primarily with funds raised through donations from our community. Albemarle County has adopted an apparatus replacement plan and has reimbursed the cost of one ambulance in FY 2006.

CARS always has a supervisor on duty who is known as a Duty Officer. The Duty Officer is available to actively manage the operational and administrative issues of the agency while insuring that Emergency Medical Services are provided to the community in the most effective manner. Specially selected personnel take turns for 12 hour shifts to ensure that operating procedures and guidelines are being followed consistently. They manage the department's tactical resources on a minute-to-minute basis, and provide Incident Management System services at major incidents. These commanders, while on duty, maintain the rank of Deputy Chief and carry the delegated authority of the Chief. They are authorized to modify incident assignments, execute policy, conduct investigations, and initiate corrective actions.

The Charlottesville-Albemarle Rescue Squad has over 110 personnel trained in advanced life support and over 100 certified at the EMT-B level. ALS certification includes over 600 hours of classroom training and months of practical rotations in the hospital, along with a minimum of 40 hours of continuing education annually. ALS certified personnel can initiate complex medical and airway procedures for critically injured trauma and medical emergency patients. EMT-B providers receive 121 hours of schooling and are trained with basic intercessory procedures to react to most any emergency situation. All personnel must be precepted by experienced personnel before being released. These technicians are also able to assist patients with administering their own medications.

We are dispatched on emergency calls by the Emergency Communications Center (ECC). Assignment of apparatus to emergency calls is predetermined based on response time and distance. Most members carry department issued pagers which alert them to major emergency calls and assist in bringing in additional staffing during peak call loads.

AGENCY LICENSURE

CARS is licensed by the Virginia Department of Health as an Emergency Ground Transport - Advanced Life Support (Intermediate/Paramedic) agency pursuant to the Rules and Regulations Governing Emergency Medical Services. Every two (2) years the agency license must be reissued, and, to be eligible for licensure, the agency must be inspected by the Field Representative of the Office of Emergency Medical Services. The agency is required to have available for inspection, among other things, its Standard Operating Procedures, training and personnel records, vehicle maintenance records, medical equipment and supplies, and vehicles.

AGENCY MANAGEMENT

Board of Directors

CARS is a volunteer, non-profit, Virginia non-stock corporation, which qualifies as a 501(c)(3) charitable corporation under the Internal Revenue Code. Control of the corporate business is vested in the Board of Directors. Current members of the Board include:

Larry Claytor – President	(07-09)
Pete Davidson – Vice President	(08-10)
Dayton Haugh, J.D. – Chief	(07-09)
Page Williams, J.D. – Squad Attorney	(08-10)
Wick Hunt, M.D. – Squad Physician	(07-09)
Ashley Blair – Active Squad Member	(07-09)
Laura Johnson – Active Squad Member	(07-09)
Benjamin Sojka – Active Squad Member	(07-09)
John Burruss – Active Squad Member	(08-10)
Chris Mehta – Active Squad Member	(08-10)
Sarah Lawson – Active Squad Member	(07-09)
William Spencer – Active Squad Member	(08-10)
Jay Levine – Active Squad Member	(08-10)
Michael Berg – Active Squad Member	(08-10)
Landon Harris – Retired Life Member	(08-10)
Ron Williams – Retired Life Member	(07-09)
Jim Carpenter - Non-Member Director	(08-10)
Richard Crampton, M.D. - Non-Member Director	(07-09)

Corporate Officers

The Corporate Officers are responsible for matters pertaining to the Squad policies and operations as set forth in the Constitution and by-laws. The Corporate Officers transact business for the Squad.

President – Larry Claytor
Vice-President – Pete Davidson
Secretary – Michael Berg
Treasurer – Jay Levine

Operations Officers

The Operations Officers are responsible for day-to-day operations of the squad, including human resources and training, incident response and management, etc. The squad has a “flat” organizational structure, and refers to its chief operations officer as ‘Chief’. The following serve as Line Officers:

Chief – Dayton Haugh
Assistant Chief Operations – Benjamin Sojka
Deputy Chief Night Operations – Rob Walker
Deputy Chief Day Operations – Sarah Lawson
Monday Night Crew Captain – Zane Shuck
Tuesday Night Crew Captain – William Spencer
Wednesday Night Crew Captain – Shravan Kumar
Thursday Night Crew Captain – Carrie Weber
Friday Night Crew Captain – Mike Berg
Rotation Crew Captain – Chris Mehta
Sunday Day Crew Captain – Alex Belgard
Sunday Night Crew Captain – Laura Bonner
Monday Day Crew Captain – Bobby Rose
Tuesday Day Crew Captain – Tom Souter
Wednesday Day Crew Captain – Jason Inofuentes
Thursday Day Crew Captain – Larkin Hamrick
Friday Day Crew Captain – Cynthia Garrett



One of the Operations Officers (or other senior member) serves as the "Duty Officer", and is on call 24 hours a day for emergency management and administrative matters, complimenting the on-duty supervisor (crew captain).

Support Officers

Support Officers are selected by the Chief and they are charged with the running of their respective sub-specialty group. Each position is for a minimum one-year term.

Fleet Operations Officer (Benjamin Sojka) - responsible for maintaining the fleet of vehicles, performing minor repairs, coordinating major repairs and maintaining service records. Most ambulances are covered by a fleet protection program through the manufacturer.

Supply Officer (J. W. Albright) – responsible for maintaining a sufficient stock of first-aid equipment and supplies for use on calls. Also maintains awareness of changes within industry and recommends substitution of supplies or additions to stock to the Investigation Committee to insure equipment and supplies are state-of-the-art and function to level of expectation.

Deputy Chief of Special Operations (John Burruss) – supervises the water rescue, vehicle rescue, special event medical management and technical rescue captains. Primarily responsible for supervision of all special operations teams captains.

Water Rescue Captain (Jim Miller, R.N.) – in charge of the water rescue team and supervises its functions. Primarily responsible for setting team goals, training and management of the budget.

Technical Rescue Captain (Jake Benner) – in charge of the technical rescue team and supervises its functions. Primarily responsible for setting team goals, training and management of the budget.

Vehicle Rescue Captain (Landon Harris) – in charge of the vehicle rescue team and supervises its functions. Primarily responsible for setting team goals, training and management of the budget.

Special Event Captain (Andrew Barros) – in charge of the special event team and supervises its functions. Primarily responsible for coordinating all stand-by events, works closely with SEMM, sets team goals, training and management of the budget.

Training Officer (Anthony Judkins) - responsible for all the training, certification and re-certification of all active members. The Training Officer is also responsible for handling the preliminary investigation of all complaints against Squad members performing in an emergency. Reports of the findings are made to the Chief.

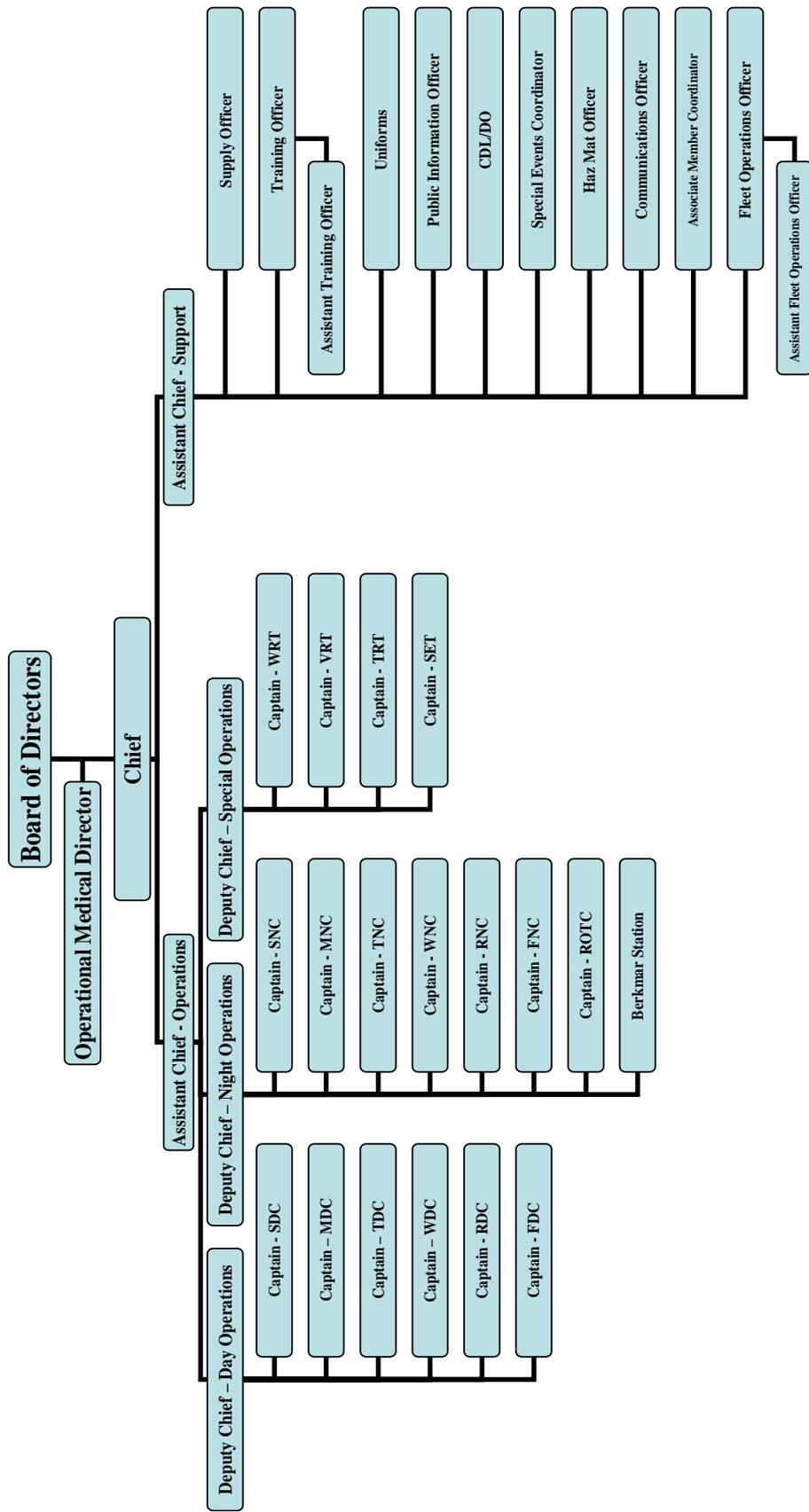
Communicable Disease Liaison / Designated Officer (Carrie Weber & Erica Randolph) - are the communicable disease liaison officers who maintain oversight and provides information to prevent exposure to infectious disease and investigates all incidents of exposure to infectious disease.

Uniforms (Chris Meheta & Kirstin Cooney) – responsible for the research, procurement and distribution of all uniforms, safety apparel and personal protective equipment.

Associate Member Coordinator (Andy Anderson) – is responsible for coordinating associate member running schedules, maintaining records and advising the Manpower & Training Committee quarterly on number of hours each associate member has run.

Communications Officers (Alex Belgard & Andrew Barros) – responsible for the research, procurement and maintenance of all radio equipment including pagers, mobile radios and station alerting systems.

Operations Organization Chart



AGENCY OPERATIONS

RESPONSE TIMES

The “Response Time” is made up of the following elements:

- processing time at the 9-1-1 Center;
- time dispatched to unit responding;
- travel time to scene of the emergency for the first responder (may be a fire engine, ambulance or other vehicle);
- travel time to the scene of the emergency for advanced life support personnel (may be fire engine, ambulance or other vehicle);
- travel time for the transport unit (ambulance).

On all EMS calls, the National Fire Protection Association (NFPA) 1710 Standard* establishes a turnout time of one minute and four minutes or less for the arrival of a unit with first responder or higher level capability at an emergency medical incident. This objective should occur 90% of the time.

The standard recommends an arrival of an ALS company within an eight-minute response time to 90% of incidents. This does not preclude the four-minute initial response.

No response time standard for the ambulance is suggested.

*NFPA 1710 (Standard for the Organization and Deployment of Fire Suppression Operations, Emergency Medical Operations, and Special Operations to the Public by Career Fire Departments)

(The NFPA 1720 standard for volunteer fire departments does not lay out specific time responses, licensure levels or staffing criteria for medical emergencies, but merely defines what an EMS system is and its various functions.)

The EMS Oversight Committee in their report *Emergency Medical System Delivery – Analysis of System Performance and Recommendation to Improve Service* set the following benchmarks for response times in the City:

- 5 minute response time goal for BLS first response resource on-scene, 90% of the time;
- 9 minute response time goal for ALS first response resource on-scene, 90% of the time;
- 13 minute response time goal for an ambulance on-scene, 90% of the time;

The following chart shows CARS response times in 2008:

Response Time Performance Report CY 2008

	January 2008	February 2008	March 2008	April 2008	May 2008	June 2008
Total CARS Incidents	865	849	938	895	925	949
Total Hours Volunteered at CARS / Total <u>Minimum</u> Dollar Value of Volunteers Time (@ US BLS 2007 hourly rate)	7,668 / \$ 143,928.36	7,164 / \$134,468.28	7,836 / \$147,081.72	7,284 / \$136,720.68	7,872 / \$147,757.44	6,948 / \$130,413.96
Total Incidents – CARS City Area	397	393	441	447	447	488
Percent Within 9 Minutes of Dispatch (All Priority EMS Calls)	97%	91%	95%	93%	95%	94%
90% Response Time (1.0 = 60 sec.)	7.97	8.58	8.09	8.55	8.12	8.19
Percent Within 10 Minutes of Dispatch (All Priority EMS Calls)	98%	95%	97%	96%	98%	97%
Total Incidents – CARS County Area / Total CARS to All Co. Areas	454 / 468	441 / 456	473 / 497	426 / 448	461 / 478	437 / 461
Average Response Time (Dispatch to Arrival)(1.0 = 60 sec.) (All Priority EMS Calls)	9.23	9.19	8.85	9.06	8.99	9.31
Median Response Time (Dispatch to Arrival)(1.0 = 60 sec.) (All Priority EMS Calls)	8.12	8.07	7.63	8.04	7.87	8.00
No. CARS Calls to ACRR Hollymead First Due Area (CARS/Total Calls Hollymead First Due Area)	11 / 84	11 / 72	20 / 85	18 / 74	15 / 81	14 / 70
No. CARS Calls to Western Albemarle RS First Due Area (CARS/Total Calls Western First Due)	1 / 86	2 / 73	2 / 84	0 / 86	1 / 82	4 / 81
No. CARS Calls to Scottsville RS First Due Area (CARS/Total Calls Scottsville First Due)	2 / 89	2 / 80	2 / 72	4 / 78	1 / 55	6 / 85
No. CARS Calls to ACFR Monticello First Due Area (CARS/Total Calls Monticello First Due)	N/A	N/A	N/A	N/A	N/A	N/A

Response Time Performance Report CY 2008

	July 2008	August 2008	September 2008	October 2008	November 2008	December 2008
Total CARS Incidents	899	876	894	852	844	844
Total Hours Volunteered at CARS / Total Minimum Dollar Value of Volunteers Time (@ US BLS 2007 hourly rate)	7,140 / \$134,017.80	7,452 / \$139,874.04	7,236 / \$135,819.72	7,620 / \$143,027.40	8,256 / \$154,965.12	8,508 / \$159,695.16
Total Incidents – CARS City Area	439	427	477	447	453	426
Percent Within 9 Minutes of Dispatch (All Priority EMS Calls)	97%	95%	96%	95%	93%	94%
90% Response Time (1.0 = 60 sec.)	7.94	8.07	7.82	7.99	8.52	7.99
Percent Within 10 Minutes of Dispatch (All Priority EMS Calls)	99%	97%	97%	97%	97%	97%
Total Incidents – CARS County Area / Total CARS to All Co. Areas	442 / 460	426 / 449	386 / 417	379 / 405	347 / 391	398 / 418
Average Response Time (Dispatch to Arrival)(1.0 = 60 sec.) (All Priority EMS Calls)	9.39	8.6	9.32	8.6	8.86	8.92
Median Response Time (Dispatch to Arrival)(1.0 = 60 sec.) (All Priority EMS Calls)	8.13	7.55	7.61	7.42	7.77	8.13
No. CARS Calls to ACRR Hollymead First Due Area (CARS/Total Calls Hollymead First Due Area)	12/73	17/77	9/62	9/75	24/109	11/91
No. CARS Calls to Western Albemarle RS First Due Area (CARS/Total Calls Western First Due)	6/94	5/84	2/96	2/94	4/98	2/96
No. CARS Calls to Scottsville RS First Due Area (CARS/Total Calls Scottsville First Due)	0/85	1/67	2/74	1/61	3/53	1/74
No. CARS Calls to ACFR Monticello First Due Area (CARS/Total Calls Monticello First Due)	N/A	N/A	18/68	14/75	13/75	6/67

SUMMARY OF RESPONSE

TYPE	2004	2005	2006	2007	2008
Abdominal Pain	352	355	404	437	437
Allergic Reaction	113	142	162	112	113
Animal Bite	19	14	23	11	19
Assault/Rape	214	282	263	255	197
Back Pain	126	165	149	150	161
Breathing Problems	1,128	1,152	1,148	1,099	1,037
Burns	17	20	15	16	10
CO Poisoning	13	14	12	20	14
Cardiac Arrest	143	142	154	135	140
Chest Pain	1,135	1,338	1,274	1,145	1,163
Choking	53	62	49	47	54
Convulsions (seizures)	476	469	477	479	465
Diabetic	275	284	310	260	289
Drowning (near)	5	13	7	10	11
Electrical Injury	2	5	2	0	4
Eye Problems	17	22	9	25	11
Falls	1,158	1,200	1,225	1,244	1,188
Headache	0	0	0	0	0
Heat/Cold Exposure	25	41	32	25	27
Hemorrhage	243	281	291	288	260
Industrial/Farm Accident	4	27	4	10	7
Overdose	293	316	371	411	387
Pregnancy	99	82	88	100	121
Psychiatric	34	38	32	44	57
Sick Person	1,457	1,441	1,662	1,610	1,737
Stabbing/Gunshot Wound	48	48	54	51	36
Stroke	286	306	309	270	255
Traffic Accident Injuries	1,709	1,638	1,508	1,419	1,198
Injured Person	431	484	507	501	719
Unconscious Person	605	596	631	597	563
Unknown Problem	286	354	345	416	445
Agency Assist (Fire & PD)	382	422	377	221	151
Mutual Aid Assist	105	143	54	37	48
Aircraft Emergency	6	9	5	7	6
Lifeline Alarm	156	201	168	213	203
Public Service Call	221	232	215	202	220
Special Rescue Situations	25	34	32	16	14
Standby Ambulance					78
TOTAL	11,661	12,372	12,368	11,883	11,845

APPARATUS RESPONSE

UNIT	#	2004	2005	2006	2007	2008
Car	130	367	281	169	204	241
Car	131	478	443	185	385	458
Car	132	897	1,054	890	1,122	1,417
Squad	133	329	362	316	321	97
Squad	134	210	179	75	36	112
Squad	135	130	225	175	128	176
Water	136	11	26	24	15	15
Logistics	137	12	12	7	3	4
Support	138	41	39	43	24	42
Car	139	207	293	355	300	246
Medic	140	2,287	2,227	685	796	2,492
Medic	141	1,882	1,752	2,527	2,533	1,821
Medic	142	2,586	1,898	1,341	1,746	1,017
Medic	143	1,971	1,318	996	1,821	1,632
Medic	144	1,785	2,016	2,747	2,509	993
Medic	145	1,609	2,012	561	1,683	908
Medic	146	903	1,901	3,376	1,532	1,958
Medic	147		631	1,751	366	1,784
Car	148				22	20
Car	149				31	17
Duty 1		946	1,261	1,266	1,341	1,150
SUB		16,651	17,930	17,489	16,918	16,600
BERKMAR		795	885	600	260	213
TOTAL		17,446	18,815	18,089	17,178	16,813

AVERAGE NUMBER OF CALLS DAILY PER TRANSPORT STATION

Rescue 1 - CARS (McIntire Station)	32.0
Rescue 5 – Western Albemarle Rescue Squad	3.3
Rescue 12 - Hollymead (ACFR)	2.8
Rescue 7 – Scottsville Volunteer Rescue Squad	2.7
Rescue 11 - Monticello (ACFR)	2.6
Rescue 8 - CARS (Berkmar Station)	<1.0

(NOTE: Medic-111 start-up date was 8-21-08 which was factored in)

PARTNERSHIPS

The Alpha Phi Omega service fraternity came in twice this past year to help us by washing trucks and cleaning windows.

The Virginia Army National Guard's Charlie Company, 429th Brigade Support Battalion had 20 medical personnel come in to ride-along with ambulance crews to learn about civilian pre-hospital care. Charlie Company's mission is to provide medical care to all of the units in the 116th Infantry Brigade Combat Team and units that serve in their area of operation. The ride-along training helps with their ability to interact with local medical care providers while they taught our personnel the techniques of dealing with gunshot trauma.

For the past several years, CARS has participated in the *UVA Physician Ride-along Program*. The program allows fourth year UVA medical students who are interested in pre-hospital EMS the opportunity to ride along with our medical crews and observe first-hand the pre-hospital care environment.

For the first time, CARS partnered with the UVA School of Medicine in their *Social Issues in Medicine – Community-based Service Learning Experience* by allowing two medical students the chance to spend an entire semester interacting with our crews. The Social Issues in Medicine course is designed to familiarize students with the interrelationships between the socio-cultural environment and the occurrence, prevention and treatment of disease.

The United Way *Day of Caring* in September brought three volunteer business groups to our Berkmar station for a day of cleaning, painting and landscaping. The improvement in the aesthetic appearance of the station was remarkable.

Technical Rescue Team (TRT) personnel trained 12 Charlottesville Gas Department personnel in confined space awareness so their department can meet mandated OSHA regulations. The gas department has a limited confined space rescue capability which is used primarily at their work sites, but their personnel can be called in to assist the TRT on major incidents.

This spring, CARS partnered with local law enforcement agencies and emergency incident planners by participating in a mock active shooter exercise on the UVA grounds.

For the third straight year, the CARS technical rescue team monitored the State Farm Insurance Company's confined space rescue team during their annual training day and mock rescue. CARS TRT provides local industry with technical expertise and acts in an advisory role for confined space rescue teams.

This year, CARS partnered with State Farm Insurance to publish teenager driver safety information on our web site.

CARS has partnered with the UVA Environmental Health & Safety Department to provide technical rescue expertise and to educate their staff on working with emergency responders in our community.

RECOGNITION

Performance Awards:

Each June, at our annual awards banquet, we honor individuals who have stood out among the membership. While each of our members shows a high level of commitment, in 2008 the following individuals have gone past the norm of what is expected by meeting the criteria set out for each of the following awards...

- Squad Member of the Year – JV Nable
- Advanced Life Support Technician – Anthony Judkins
- Rookie of the Year – Sam Kim
- Most Calls of the Year – Will Barnhardt (768 calls)
- President’s Award – Pete Davidson
- Chief’s Award – Sarah Lawson & Rob Walker
- Joel M. Cochran Award – JW Albright
- Nikki D. Kielar Memorial Leadership – Benjamin Sojka
- Community Partner Commendation – Wright’s Salvage Yard

Member of the Month Awards:

The Member of the Month is someone who has been nominated by a fellow member that they feel has gone beyond the call of duty.

Jan - Charlie Smith
Feb - Angel Zhang
March - Riley Moore
April - Chris Mehta

May - Adam Cohen
June - Steven Song
July - Ran Lee
Aug - Jay Levine

Sept - Deb Grady
Oct - Bobby Rose
Nov - Kostas Alibertis
Dec - Tom Souter

Awards Received from Outside Organizations:

- TJEMS Council Award for EMS Administrator of the Year – Dayton Haugh
- TJEMS Council Award for EMS Provider of the Year – Jake Benner
- 2008 Elks Lodge 389 Emergency Medical Services Provider of the Year - John Burruss

President’s Call to Service Awards:

The following 28 members received the President’s Call to Service Award for donating over 10,000 hours of volunteer service to our community. The President’s Council on Service and Civic Participation created the President’s Volunteer Service Award program as a way to thank and honor Americans who, by their demonstrated commitment and example, inspire others to engage in volunteer service.

John Albright
Mike Berg
John Burruss
Larry Claytor
Pete Davidson
Glenys Dix
Glenn Glazebrook
Landon Harris
L. Dayton Haugh
William Henderson

Brett Henyon
John Herndon
Ty Hoeffler
John Hood
Amanda Hunt
Tom Joyce
Linda Kattwinkel
Jim Miller
Wayne Perry
Darlene Rea

Benjamin Sojka
William Spencer
Dinah Williamson
Kelly Southard
Paul Stoneburner
Roy Tomlin
Ron Williams
David Zimmerman

TRAINING

EMT Certification Level Training

EMT-Basic (5 classes taught in-house)	99
EMT-Enhanced	12 members
EMT-Intermediate	5 members
EMT-Paramedic	5 members

Other Medical Training

Advanced Cardiac Life Support (ACLS)	17 members
Pediatric Advanced Life Support (PALS)	8 members
International Trauma Life Support (ITLS)	9 members
Pediatric Education for Prehospital Professionals (PEEP)	1 member
Advanced Burn Life Support (ABLS)	1 member
Advanced Trauma Life Support (ATLS)	1 member

Heavy and Technical Rescue Certification Training Classes Taught In-House

Confined Space Rescue (awareness)	12 students
Confined Space Rescue (operations)	12 students (2 members)
Hazardous Materials (awareness)	39 students (8 members)
Heavy Truck Rescue (technician)	47 students (4 members)
Rescue Systems I	26 students (2 members)
Rope Rescue (operations)	22 students (3 members)
Swift Water Rescue (awareness)	24 students
Trench Rescue (operations)	21 students (3 members)
Vehicle Rescue (operations)	19 students (1 member)
VEHEXT	59 students (8 members)

Total Number of Students Taught (both CARS members and outside agencies)	281
Total Number of HTR Classes Taken by CARS Members (in-house & outside)	34

Water Rescue Team Training

Emergency Response Diving International (ERDi) Courses

ERDi-Supervisor	1 member
ERDi-1 Diver	4 members
ERDi-1 Tender	1 member

PADI Courses:

Rapid Deployment Ice Rescue Diver	1 member
Open Water Diver	2 members
Adv. Open Water Diver	2 members
PADI Emergency First Responder	1 member
UCI Underwater Vehicle Recovery	2 members
Drysuit	1 member
Full Face Mask	1 member

Rescue 3 Courses

Swiftwater Rescue Technician-1 (SRT-1)	2 members
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CARS In-House WRT Classes:

Boat Operations: Flat and Moving Water 5 members
Swiftwater Awareness 4 members

Management Classes

CARS Supervisor Survival 38 students (12 CARS members)

Officers Rob Walker, Noah Madden, Jason Inofuentes and Alex Belgard attended the *Beyond the Street – Essential Skills for the Aspiring EMS Supervisor* in St Petersburg, FL. This 3-day management class teaches how to a problem solver, manage time, be proactive and build trust with co-workers, bosses, and other agencies, while you earn respect from the people you used to work with on the ambulance. The faculty are widely read authors and experienced consultants and include Jay Fitch, PhD, Dave Williams and Mike Ragone.

Chief Dayton Haugh attended the Pinnacle EMS Executive Leadership Conference in San Diego, CA. Pinnacle is a chance to explore advanced business practices and to network with leading experts and discover real solutions to the toughest management problems.

Assist Training

We sent personnel and equipment to assist with the 3rd annual Walker Sisk Memorial Truck School which is part of the Albemarle County Regional Fire School.

For the fifth consecutive year, Assistant Chief Benjamin Sojka and Deputy Chief John Burruss traveled to Ashville, NC and taught management classes at the North Carolina Fire/rescue Instructor Conference.

Members Dayton Haugh, Benjamin Sojka, Jim Miller and Bill Brady taught classes at the 29th Annual Virginia Office of EMS Symposium in Norfolk, Virginia.

Miscellaneous

Emergency Vehicle Operators Course (EVOC) 21 members
OEMS Symposium 15 members
Firefighter I 2 members
EMS Today Conference 1 member

This year, following lessons learned from the Virginia Tech shooting incident, we developed a course on active shooter response. This course covers scene safety for first responders as well as treatment modalities and strategic and tactical command decision making. This course has been taught to our membership and now is incorporated into our basic EMT classes.

YEARLY CLASSES

CARS personnel teach several classes each year that attracts students from around the country and gives our personnel valuable teaching experience.

Supervisor Survival – taught the 2nd weekend of February, Supervisor Survival covers current management issues. This year we had 38 students attend.

VEHEXT – now in its 18th year, VEHEXT is a state-of-the-art vehicle extrication operations class that is taught the 2nd weekend of March each year. This year we had 59 students attend, some from Maryland and New Jersey.

“Super” EMT (SEMT) – taught each summer, SEMT was developed for UVA students who are in Charlottesville for the summer, who plan on joining CARS and wish to make an immediate impact on staffing. In addition to the standard EMT curriculum, SEMT includes eight other heavy & technical rescue (HTR) classes such as confined space rescue, vehicle rescue, rope rescue, trench rescue, swift water rescue, hazardous materials awareness, etc. This year we had 21 students pass the course.

Rescue Systems I - The Rescue Systems I course is a 32-hour National Fire Academy course designed to provide participants with the ability to apply basic search and rescue skills, approach rescue situations safely, and understand the organizational concerns at light-frame and ordinary structural collapse incidents. This year we had 26 students attend.



Heavy wreckers are used in the Heavy Truck Rescue course so students can learn what an aid they are in heavy vehicle rescues.

Heavy Truck Rescue (HTR) – one of the very few such classes taught nationwide, HTR has quickly grown to become the premiere such class in the country. The HTR curriculum has been adopted by the Virginia Department of Fire Programs and is taught as part of their heavy & technical rescue training program. This year we had 47 students, some from as far away as New Jersey and Florida.

OPERATING COSTS

The following information was provided from the MATRIX Fire Service Consolidation Study.

OPERATING COST PER CALL – 2006

- CARS \$39.00 (with capital costs, about \$55.00) FY06/CY06 Incidents
- Albemarle County \$849.00
- City of Charlottesville \$1,193.00

OPERATING COST PER CAPITA – 2006

- CARS - \$6.70
- Albemarle County - \$75.00 (\$82.00 including cost of city-county fire contract)
- City of Charlottesville - \$194.00 (\$179.00 including cost of city-county fire contract)



In 2008, CARS volunteers worked nearly 91,000 hours. Based on statistics from the U.S. Bureau of Labor on the value of volunteer work, this work is worth about \$1.7 million.

It would require about 43 full-time employees to do the work that was done by volunteers in 2008.

WHERE DOES THE MONEY COME FROM?

CARS conducts an annual fund drive that typically raises 1/3 to 1/2 of the annual budget. Funding from Albemarle County makes up about 20% of the budget. The rest of the cost of budgeted operations comes from other donations (and sometimes grants) during the year, including a donation from the University of Virginia.

WHERE DOES THE MONEY GO?

Money donated to CARS is used to meet the current and future needs of the squad. CARS Fiscal Year 08-09 budget is approximately \$937,650. First aid supplies, oxygen, uniforms, fuel, vehicle maintenance, training, utilities and building maintenance are but some examples of budgeted items.

CARS is also faced with a number of major capital expenditures in the near future, including:

1. Replacement of 3 of 8 ambulances (approximately \$150,000.00 each) \$450,000.00
2. Replacement of one heavy rescue squad truck (Squad 133) \$600,000.00+
3. Renovation, repair and mechanical system upgrade to McIntire Rd. station – Several years ago a system evaluation discovered that the building and mechanical systems were in need of about \$300,000.00 in repair, replacement and upgrade. Major building renovation (dorms and bathroom facilities) are also needed to support the increased membership and use. A temporary building to house some vehicles now kept outside is needed at an approximate cost of \$160,000.00. However, the squad has not made these investments because there is a chance that the Meadowcreek Parkway will cause a loss of all or part of the building and that the money expended will be wasted. CARS awaits a definitive roadway design before it will commit to spending these funds. Complete replacement of the McIntire Building would cost in excess of \$5,500,000.00 now based on cost estimates for a combined CARS/Seminole Trail VFD building (see next paragraph), and the cost will continue to rise as time goes by.
4. Expansion of Berkmar Drive station – Several years ago an architect prepared an expansion concept that would double the number of beds and add one large truck bay to the existing building. The anticipated cost then was \$1,200,000.00. At the same time, Seminole Trail Volunteer Fire Department was in dire need of expansion and upgrades to its building located on the adjoining lot. CARS and Seminole Trail approached Albemarle County (which owns the property both building occupy) and the county authorized an architect to explore the feasibility of demolishing both existing stations and the construction of a new building to be jointly used by CARS and Seminole Trail on the combined lots. The cost of such a building was estimated to be in excess of \$5,500,000.00 in early 2007 dollars. The cost will certainly be more now and in the future based on the cost of construction materials. This project is ongoing.

ACCOMPLISHMENTS

TECHNOLOGY

After successful testing, Global Positioning System (GPS) receivers were added to all ambulances, cars and heavy rescues in order to improve response times. Crews are now able to locate hard-to-find addresses, especially in rural parts of the county, much faster and more accurately than ever before.

Two additional mobile data computers (MDC) were purchased and added to Car 130 and Car 148, in addition to the MDC already installed in the Duty Officer car. MDC's are radio-linked directly to 911 dispatcher consoles and enable command personnel to have much improved situational awareness and see exactly where system ambulances are in real-time. This results in better resource allocation and decreases the amount of mistakes.

As part of the area-wide MDC project, we allowed the Emergency Communications Center to install a Wide-Area Network (WAN) communications system so that local emergency units with MDC's can connect directly to the communications center via the Internet whenever they are in close proximity to our McIntire building.

We purchased a digital DVD recording system for the classroom. The system replaces the antiquated VHS recorder system and enables personnel that cannot attend training classes and business meetings to keep informed by watching the recorded DVD at their convenience at any station computer.

The Opticom traffic-control system was installed on response vehicles that didn't have it and the entire fleet was then programmed by City traffic engineers. Opticom is a signally system installed on emergency vehicles that when activated, gives the vehicle the green light through intersections which results in safer and quicker emergency response.

Battery back-up systems were installed on all building computers to prevent loss of data during power fluctuations.

A data back-up system was installed that automatically downloads and stores all important data on building computers. Now information is stored in three separate areas which gives us added redundancy.

SAFETY

We purchased and placed in-service 83 new traffic safety vests in service that meet the new class II requirements of ANSI/ISEA 207 standard for high-visibility public safety vests and NFPA Standard 1500, 2007 edition. Each riding position in each of our vehicles now has a safety vest assigned and personnel are required to don a vest anytime they are working in traffic.

Added a McDermott light bar to Car 130. The McDermott light bar has two arms that raise up over 10' to allow on-coming traffic to see an emergency incident zone much sooner, especially on Interstate calls.

We started our Safe Community Initiative (SCI) on our web site. The SCI gives relevant and important safety information as well as links to related safety web sites.

We replaced defective smoke detectors and installed Carbon Monoxide detectors in both of our stations.

All fleet vehicles received Passport accountability tags similar to what the fire departments are using. This enables fireground commanders to better track where our personnel are during firefighting and hazardous materials operations.

Members JW Albright, Brian MacMillan, JV Nable and Dayton Haugh attended the Ambulance Design & EMS Safety Conference presented by Internationally recognized author and lecturer Nadine Levick MD, MPH. The information gained will be used by our Apparatus Committee to design safer ambulances.

RECRUITMENT

2008 was a productive year for the Charlottesville-Albemarle Rescue Squad in terms of recruitment. A total of 55 new applicants joined CARS, making it one of the most successful recruitment years.

CARS members took part in a variety of recruitment events including the UVa Fall Student Activities Fair and the Charlottesville Health Fair. As a result of these efforts, EMT classes taught at CARS were filled to near capacity this year.

This year, CARS also began offering CPR classes to the public and those interested in taking our EMT classes. This allowed for a more seamless joining process, with CPR and EMT classes both being taught by CARS instructors. Previously, those interested in taking an EMT class had to locate the prerequisite CPR class on their own.



Also, this year we developed and produced a recruitment brochure for specific for UVA students. The brochure is designed to entice pre-medical school students to join CARS which gives us a steady and reliable stream of new members.

PATIENT CARE

The following state-of-the-art medical equipment was added and members were given training to keep us current with best practices in pre-hospital patient care.

- Continuous Positive Airway Pressure (CPAP) devices
- Positive-End Expiratory Pressure valves
- Ambulance cell phones & 12-lead EKG monitors have been upgraded with Blue-Tooth communication capability.

As a result of lessons learned from our active shooter incident training, we developed and deployed Tactical Medic Packs (TMP's) on all ambulances and zone cars. The TMP's allow first responders to carry immediate life-saving equipment in a small kit, which is useful in the tactical environment.

CARS has become the first emergency medical services (EMS) agency in Central Virginia and one of the first in the mid-Atlantic region to offer the most effective drug available to counter the effects of cyanide poisoning.

Cyanide is one of the most deadly compounds known to man. One of the most common mechanisms of cyanide poisoning is via smoke inhalation during a residential or industrial structure fire. Nearly all homes and businesses contain numerous synthetic items that can put off smoke containing cyanide as a deadly toxin when they burn. A few of these items include mattresses/furniture, clothing (wool, silk), plastic dishes/cups, and plastic toys.

“I cannot overstate the importance of CARS having this drug available,” said William Brady, MD, CARS medical director and professor/vice chair of the UVA Department of Emergency Medicine. “The Cyanokit® is easy to administer, works amazingly fast, and can be life saving especially if administered prior to hospital arrival.”

“There are other cyanide antidote drugs available to many hospitals and EMS departments nationwide,” said Jake Benner, a paramedic and captain of the CARS technical rescue team. “The drawback with the other drugs is that they are very complicated to administer and all have multiple side-effects. While the Cyanokit® is more expensive at around \$800 per dose, it is a far more desirable treatment and has very few side-effects.”

Two Cyanokits are carried in the CARS shift supervisor car which can respond quickly to any incident where a suspected cyanide exposure/smoke inhalation has occurred. Medics have been trained in its use and will call the Blue Ridge Poison Control Center and speak to a physician toxicologist at the University of Virginia during drug administration.

ADMINISTRATION & OPERATIONS

All Standard Operating Guidelines (SOG's) were reviewed and updated.

We developed an orientation manual for new Board of Director's members to better prepare them for the challenges of leading our organization.

Strategic Planning clarifies the purpose of an organization, where the organization wants to be in the future and how it's going to get there. This year, the CARS Board of Directors formed a committee on strategic planning and charged its members to come with an action plan so the Board can plan for resource allocation in the near future.

This year we continued our participation in the bi-annual Full-Scale Exercise (FSE) at the Charlottesville-Albemarle Airport. The FSE was developed to test the city of Charlottesville, Albemarle County, and Charlottesville-Albemarle Airport's on-site incident management, emergency operation center management, communications, mass care, and emergency public information and warning capabilities. The exercise planning team was composed of numerous and diverse agencies, including the city of Charlottesville, Albemarle County, Charlottesville-Albemarle Airport, Civil Air Patrol, and the Virginia Department of Emergency Management. The exercise planning team discussed the issues that may be encountered regarding the decision-making process, communication, and coordination involved in response to an aircraft incident. The planning committee's design of the FSE of an aircraft incident at Charlottesville-Albemarle Airport was intended to test the aforementioned jurisdiction's capabilities in response to such an event. In addition to Albemarle County, The City of Charlottesville, and The University of Virginia the following also participated in the exercise: Virginia Department of Emergency Management, Virginia State Police, Virginia Department of Fire Programs, Virginia Department of Health, American Red Cross, Medical Reserve Corps, Transportation Security Administration (TSA) and Civil Air Patrol. Greene County Emergency Manager was on site as an observer. The exercise also satisfied the FAA exercise requirement for the airport.

As a member of Thomas Jefferson EMS Council, Assistant Chief Benjamin Sojka was on the search committee and hired a new Executive Director.

STANDBY EVENTS

In addition to running emergency 9-1-1 calls, CARS also provides personnel, equipment and management expertise at the following yearly events held around the Charlottesville area:

- UVA home Football Games - 7
- UVA home Basketball Games – 17
- UVA Spring Fest
- Albemarle County Fair
- Charlottesville 10-Miler
- Charlottesville Marathon
- Charlottesville Women's 4-Miler
- Foxfield (both Spring & Fall)
- UVA Commencement & Graduation
- Fridays After Five – every other event throughout the summer
- Western Albemarle Rescue Squad Installation



Standby events are “mass casualty” incidents with several weeks notice. For example, during the Spring Foxfield Race, CARS assisted UVA Special Event Medical

Management personnel with over 120 patients, 19 that required transport to local hospitals.

This year, the Charlottesville 10-miler had 2,400 runners and CARS had 3 groups of eight personnel who also ran. The proceeds from that race were given to CARS.

On July 4th, President George W. Bush came to Albemarle to give the keynote address at Monticello's naturalization ceremony. We provided planning and response for dignitary and crowd, deployed command staff and EMS personnel to protect the President, who showed his gratitude by having Assistant Chief Benjamin Sojka have his picture taken with him. This event was especially difficult with inherent access issues due to being on top of a mountain.

BUILDING & GROUNDS

Member Steve Hartman spent a month painting, laying new carpet and installing a state-of-the-art audio-visual system in the upstairs TV room. This refurbishment allows the room to be used for teaching CPR classes and crew training.

The McIntire station was inspected by the Fire Marshal and found to be 100% in compliance.

COMMUNITY OUTREACH AND INVOLVEMENT

CARS offers CPR classes to educate the public about the dangers of sudden cardiac arrest and stroke. The class follows the American Heart Association curriculum and utilizes teaching materials provided by donations. CPR has been shown to drastically increase survival rates of patients suffering from sudden cardiac arrest.

We developed a program called *When to Call 9-1-1* that teaches college students about the dangers of alcohol & substance abuse. Several members made a test presentation to over 60 members of the Alpha Delta Pi Sorority. Our plan is to expand this program to more UVA student organizations in the coming years.

Members John Burruss, Steve Hartman and Chris Fabian traveled to Lincoln, Nebraska to assist that community's fire departments in developing a vehicle rescue training program, the first in Nebraska to do so.

For the third straight year, CARS sent personnel and equipment to the University of Virginia Health System's *Remote Area Medical (RAM) Clinic*. Each year, 200 volunteer doctors, nurses and health care specialists travel to Wise Virginia to provide free dental care, eye checks, mammograms and colon cancer screenings as well as neurology, ultrasound and ear, nose and throat services to over 2,000 people that otherwise cannot afford such care. RAM Physician Coordinator Dr. Scott Syverud said, "A lot of these patients only get medical care once a year at this event...They wait in line for hours for us to see them but never complain."

Last year CARS participated for the first time in the City's Summer Youth Internship Program and was pleased to have Maria Szakos as our intern. This year we again participated and Shaniqua Brown was our intern. This 6-week program enables low-income, high-risk high schools students an opportunity to work and be exposed to job settings. It also teaches participants workplace readiness skills and improves participants abilities to work with others in group settings. Teens that complete the program fill out an evaluation report that includes a reflection journal, internship mentor evaluations, participant data, number of internship hours and a workplace readiness portfolio.



Shaniqua (a Charlottesville High School senior) picked CARS as her choice for internship placement. Shaniqua plans on furthering her EMS education by attending Piedmont Virginia Community College and entering their paramedic training program.

For the fifth straight year, CARS sent personnel to teach at UVA Medical School's *Clinical Connections – Disaster Medicine Training Program*. There, third year medical students learn the basic medical skills that they can apply during a medical response to a community disaster.

For the fourth straight year, CARS members participated in Albemarle County's Government Day. This event brings local fire/rescue organizations together so citizens can view apparatus up close and interact with emergency service personnel. As part of the event, CARS and Seminole Trail Volunteer Fire Company joined forces and demonstrated a vehicle extrication.

This year, CARS sent personnel and equipment to State Farm Insurance Company's *Loss Mitigation Awareness Day*. Over 1,500 State Farm employees are allowed time off to tour booths and watch safety demonstrations put on by area public safety agencies.

CARS demonstrated a mock vehicle extrication for hundreds of Charlottesville High Schools students as part of their driver's education. Driver's education teacher Angela Amiss played the part of the "trapped" driver and jumped out of the car when she was freed, much to the delight of her students. Afterwards, students were able to view the rescue tools close up and ask questions with the squad crew.

APPARATUS

We refurbished Ambulance 142. Refurbishment entails inspection, replacing or repairing mission critical items as well as repairing body damage and complete re-stripping of the unit. Refurbishment allows us to continue using a nearly worn-out vehicle versus complete replacement, at a fraction of the cost of a new unit.

We replaced the worn-out transmission on Squad 133. Squad 133 is our 1986 Mack heavy rescue that has been constantly upgraded with the transmission being the final driveline component to be replaced. While these units are normally replaced at 20 years,

a strong preventive maintenance regime will allow this unit to continue serving the public until funds are secured for its replacement.

Car 149 (Operational Medical Director's car) reached the end of its useful life and we replaced it with a same-type low-mileage used vehicle.

We replaced an ALS transport ambulance (Medic 140) with a new 2008 Ford F-450.

MISCELLANEOUS

CARS Web Site visits for information topped 330,528. The site has been in continuous operation since 1996.

CARS received national recognition when the Journal for Emergency Medical Services published an article for using the portable electrocardiogram monitor (ECG). The portable ECG allows paramedics to transmit heart information directly from the ambulance to the hospital via cell phone so that doctors can dictate treatment directly to EMT's. Dr. William Brady, CARS medical director said, "In the treatment of certain types of heart attacks...time is life, and reductions in heart attack time by as short as 20 to 30 minutes make a significant difference in the patients outcome."

Life Membership was bestowed on Kostas Alibertis, Dinah Williamson, Glen Glazebrook and Darren Chen. Kostas is also the Chief of the Western Albemarle Rescue Squad and is the first CARS associate member to reach Life Member status. Life Membership is given to members with eight years of active service or sixteen years of associate membership.

Crew Captain Cynthia Garrett received local attention when the Daily Progress newspaper published a front-page article on how she overcame adversity and as a single-mother became an officer in the CARS organization.

We are saddened that this year saw the passing of Life Members John Hood and Maria Odum.



John Hood was a significant leader in the fire and rescue services in Central Virginia. John was a Life Member and past Line Officer of CARS as well as holding the position of Chief with the East Rivanna Volunteer Fire Company. Chief Hood was part of the core group of area Chiefs that helped elevate the emergency services to its current advanced level in Albemarle County and Central Virginia. During his life, among the honors he received is the Joel Cochran Award, given to the one individual that unselfishly puts the needs of the squad in front of their own personal needs and has basically dedicated much of their life to the improvement of the organization. John was a fire/rescue icon and will be sorely missed.

MATRIX REGIONAL FIRE & RESCUE CONSOLIDATION STUDY

The County and City jointly retained the Matrix Consulting Group to conduct the consolidation assessment during the fall of 2006. The purpose of the assessment was to evaluate opportunities for regional cooperation that might include a partial or complete consolidation of the fire and rescue services in both jurisdictions. The agencies studied include the Albemarle County Fire and Rescue Department and its volunteer components (ACFRO), the Charlottesville Fire Department (CFD) and the volunteer Charlottesville Ambulance Squad (CARS) that serves the City and the County. The study addresses the following questions:

Is a multi-jurisdictional approach feasible and appropriate in all areas or just for certain functions?

What issues or obstacles could affect the development of a more cooperative approach?

Furthermore, the Matrix study focused on the key objectives of:

- Improving efficiency
- Improving effectiveness
- Reducing duplication
- Increasing standardization
- Enhancing the coordination of services

EMS DELIVERY - ANALYSIS OF EMS SYSTEM PERFORMANCE & RECOMMENDATIONS TO IMPROVE SERVICE

A committee was formed in 2007 made up of individuals picked by Charlottesville City Mayor David Brown to look at issues involving local EMS. A subcommittee was then formed to analyze the City's EMS performance relative to a recommended standard and develop opinions to address any deficiencies found. The sub-committee was composed of Chief Charles Werner (CFD), Chief Dayton Haugh (CARS) and Chief Dan Eggleston (ACFR). A report of their findings was published on October, 2007 which contained the following information:

- Recommended an EMS response time standard and key performance indicators;
- Comparison of the system's performance against the recommended standard to define gaps in service;
- Developed various recommendations to address gaps in service.

Data from both studies were used in the formation of this year end report. Both entire studies can be viewed on the CARS web site at www.carsrescue.org under *Download Central – Reports and Manuals*.

AGENCY MEMBERSHIPS



Thomas Jefferson EMS Council, an extension of the Virginia Office of EMS



Charlottesville Regional Chamber of Commerce



Virginia Association of Volunteer Rescue Squads



National Collegiate EMS Foundation



GuideStar Exchange



Albemarle County Fire Rescue Association



Commonwealth of Virginia Campaign





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