Raleigh—Wake Emergency Communications Annual Report

2010

Introduction from the Director

Raleigh-Wake Emergency Communications
PO Box 590
Raleigh, NC 27602

Mr. Allen, Mayor Meeker, Members of Council, and WECO Board Members:

It is with great pleasure that I present to you the 2010 Annual Report of the Raleigh-Wake Emergency Communications Center and the City of Raleigh Communications Electronics Maintenance Shop.

During the past twelve months we have achieved several significant milestones, both in terms of process improvement and national recognition for our efforts. In March, the ECC was honored by the E 9-1-1 Institute in Washington, DC. In April, the Association of Public-safety Communications Officials (APCO) selected our agency for the Horizon Award for our widespread use of cutting edge technology. In August, our Training Academy received APCO Project 33 certification, in September we received an award for our handling of an active shooter incident earlier in the year, and by November we had successfully re-accredited in both CALEA (Commission on Accreditation for Law Enforcement Agencies) and NAED (National Academy of Emergency Dispatch) protocols. While there are more than 6,100 Public Safety Answering Points in the United States, only four can boast having the combination of accreditations and certifications possessed by Raleigh-Wake.

In September we conducted a week long test of our backup facility while additional consoles were installed in our primary facility. No further expansion is currently possible. As we begin the new year, our sights are focused on the implementation of features such as Emergency Fire Dispatching which will help to improve and standardize this important discipline, and on working towards the relocation of services to a facility designed to deal with current staffing and service demands.

Barry Furey, Director

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Raleigh-Wake Emergency Communications Annual Report

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Training and Technical Services Reports are produced by their respective divisions, and are included herein.

Special thanks is given to Mike Legeros and Lee Wilson for their photographs which are used throughout this document.

Administrative Staff

Barry Furey, Director

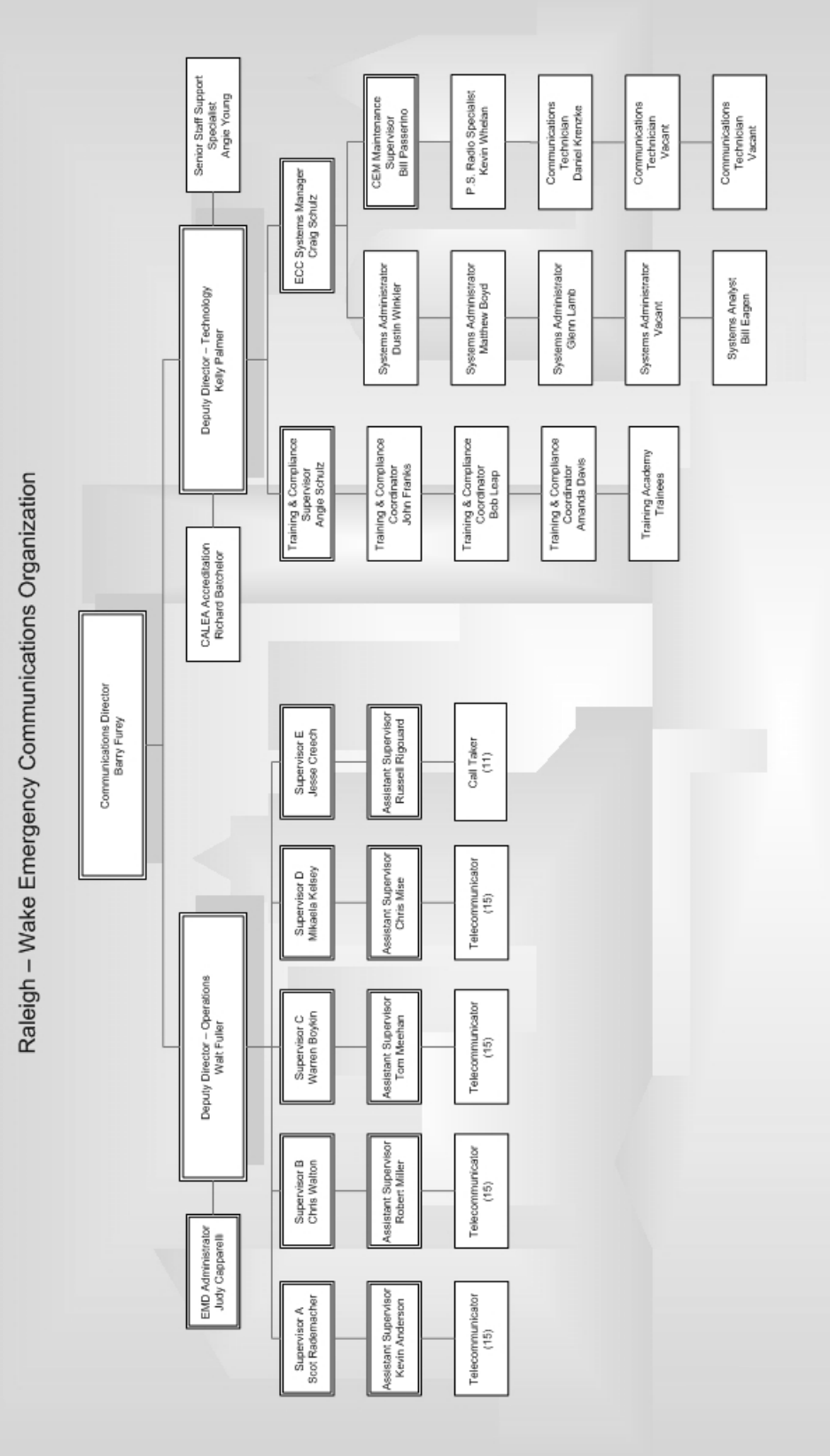
Walt Fuller, ENP, Deputy Director Operations
Kelly Palmer, ENP, Deputy Director Technology & Staff Services

Richard Batchelor, ENP, CALEA Accreditation Manager
Judy Capparelli, ENP, Quality Improvement Supervisor
Craig Schulz, ENP, Systems Manager
Bill Eagen, GIS Database Manager
Dustin Winkler, Systems Administrator
Matt Boyd, Systems Administrator
Glenn Lamb, Systems Administrator / GIS
Bill Passerino, Communications and Electronics Maintenance Supervisor
Kevin Whelan, 800MHz Technician
Angie Schulz, ENP, Training Supervisor
Amanda Davis, Training Coordinator
John Franks, ENP, Training Coordinator
Bob Leap, Training Coordinator

Angie Young, Sr. Staff Support Specialist

**ENP signifies recognition as an Emergency Number Professional, a knowledge-based achievement awarded by the National Emergency Number Association.*

Raleigh-Wake Emergency Communications Organizational Chart



Raleigh-Wake Emergency Communications

Our User Agencies

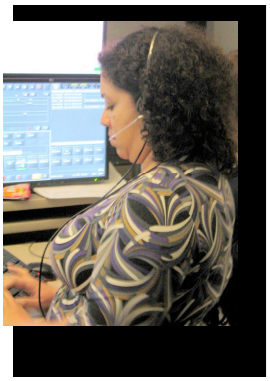
Apex EMS
Bay Leaf Fire
City-County Bureau of Identification
Eastern Wake EMS
Fairview Fire
Fuquay-Varina Fire
Fuquay-Varina Public Works
Garner Police
Holly Springs EMS
Hopkins Fire
Knightdale Public Works
Morrisville Police
North Carolina Forestry
Raleigh Police
Raleigh-Durham Int. Airport
Rolesville Police
Six Forks EMS
Wake County EMS
Wake Forest Fire
Wake Forest Public Works
Wendell Fire
Wendell Public Works
Zebulon Fire

Apex Fire
Cary EMS
Durham Highway Fire
Eastern Wake Fire
Falls Fire
Fuquay-Varina Police
Garner Fire
Garner Public Works
Holly Springs Fire
Knightdale Public Safety
Morrisville Fire
Morrisville Public Works
Raleigh Fire
Raleigh Public Works
Rolesville Fire
Rolesville Public Works
Stony Hill Fire
Wake County Fire / Rescue
Wake Forest Police
Wake-New Hope Fire
Wendell Police
Western Wake Fire
Zebulon Police

Our Mission Statement

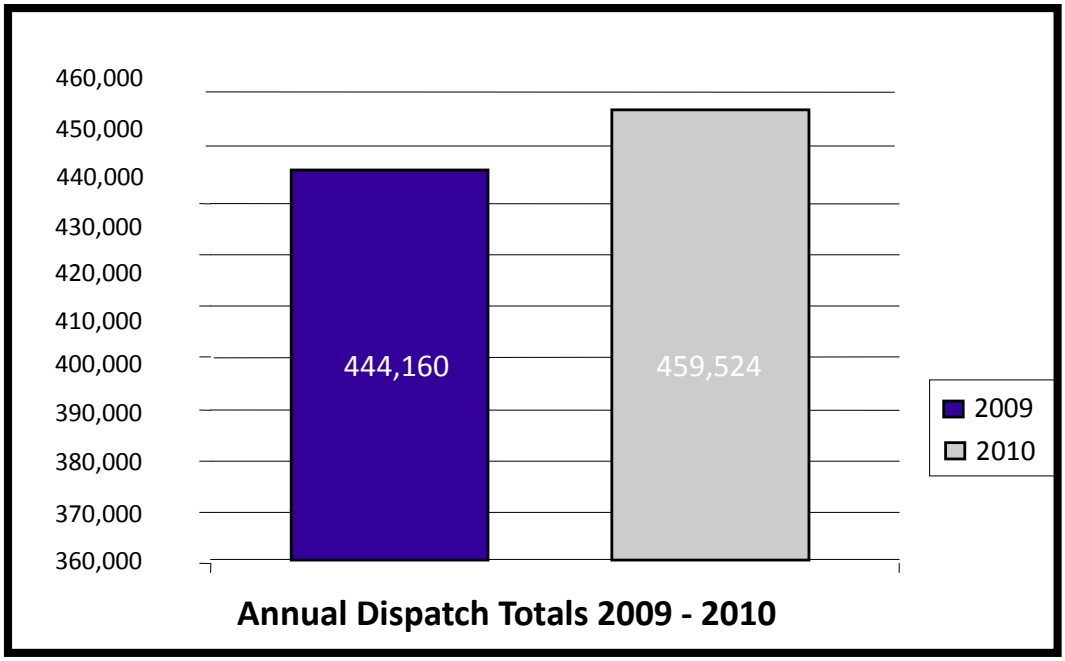
The Raleigh-Wake Emergency Communications Center is the true first responder to all emergencies. Our mission is to act as a vital and critical link between our public safety agencies and the citizens they protect and serve. We strive to ensure the preservation of life and property by treating all who use our services with professionalism, courtesy, and compassion and by relaying accurate information in a timely and efficient manner.

Dispatch and Call Taking Statistics



One of the main purposes of any communications center is to serve as an interface between the public and public safety. During 2010, Raleigh-Wake Emergency Communications once again dispatched a record number of calls for assistance, keeping pace with community growth. During 2010, incident numbers increased for every category of RWECC user agencies.

During the past five years, public safety incidents have continued to rise. Raleigh-Wake Emergency Communications now dispatches almost 1,300 incidents per week more than we did just five years ago.



Dispatch and Call Taking Statistics

Public Safety Dispatch Comparisons 2000—2010*

Agency	2000 Dispatches	2010 Dispatches	Increase
County Fire	14,228	25,842	81.6%
EMS	40,449	78,615	94.4%
Raleigh Fire	24,114	35,492	47.2%
Raleigh Police	228,862	265,801	16.1%
Municipal Law	29,407	43,015	46.3%
Total	337,060	448,765	33.1%

** Total number of **public safety** dispatches does not count incidents handled for service agencies such as CCBI. These events are reflected in total dispatch figures on page 7.*

An analysis of dispatch statistics since 2000 shows double digit growth in all agencies except municipal law, who totaled 9.1%, with the greatest percentage increases noted in EMS and County Fire. Municipal law did, however, make the biggest percentage increase during 2010, followed by EMS. Errata concerning municipal law data (which was not used for billing) contained in the 2009 report has been corrected herein. Detailed dispatch counts for all public safety agencies served by RWECC are included on the overleaf.

Public Safety Dispatch Comparisons 2009—2010

Agency	2009 Dispatches	2010 Dispatches	Change
County Fire	25,206	25,842	2.5%
EMS	73,946	78,615	6.3%
Raleigh Fire	34,210	35,492	3.7%
Raleigh Police	260,135	265,801	2.2%
Municipal Law	39,336	43,015	9.4%
Total	432,833	448,765	3.7%

2010 Dispatch Statistics

	RPD	FVPD	GPD	HSP	KPD	MPD	ROP	WFPD	WEP	ZPD	RFD	WCF	EMS	LE Total	FD Total
January	19,059	28	1,145	0	579	430	104	40	168	510	2,942	2,130	5,965	22,063	5,072
February	17,572	25	1,141	0	571	403	103	26	169	465	2,744	1,957	5,691	20,475	4,701
March	20,377	40	1,237	0	631	458	104	54	158	468	2,961	2,204	6,405	23,527	5,165
April	20,729	33	1,265	0	607	464	153	54	180	526	2,707	2,074	5,949	24,011	4,781
May	23,834	40	1,260	0	677	470	104	65	196	587	2,874	2,159	6,212	27,233	5,033
June	23,700	50	1,367	0	651	514	119	40	197	509	2,775	2,084	6,214	27,147	4,859
July	23,738	48	1,311	0	607	508	111	54	183	757	2,957	2,181	6,279	27,317	5,138
August	23,759	50	1,278	0	637	495	110	47	174	580	2,973	2,115	6,447	27,130	5,088
September	22,699	47	1,205	0	597	491	116	43	160	569	2,837	1,964	6,010	25,927	4,801
October	22,885	34	1,294	0	621	584	120	52	158	565	2,887	2,253	6,525	26,313	5,140
November	20,963	41	1,342	0	576	452	112	31	191	530	2,808	2,074	6,161	24,238	4,882
December	20,820	32	1,304	0	638	495	128	42	167	464	2,745	2,011	6,088	24,090	4,756
Totals	**260,135**	**468**	**15,149**	**0**	**7,392**	**5,764**	**1,384**	**548**	**2,101**	**6,530**	**34,210**	**25,206**	**73,946**	**299,471**	**59,416**

	Public Safety Dispatch	Daily Average	Quarterly Total	YTD Dispatch Total	NON Public Safety	Public Service	CCBI	YTD Total Dispatch	WC-1	WC -7	Tow	Total Non PS Dispatch	800 Radio PTT
January	33,100	1,067.7		33,100	Jan	317	612	34,029	40	69	709	1,747	197,024
February	30,867	1,102.4		63,967	Feb	163	507	31,537	32	77	541	1,320	187,472
March	35,097	1,132.2	99,064	99,064	March	275	616	35,988	38	82	683	1,694	205,426
April	34,741	1,158.0		133,805	April	187	813	35,741	37	72	595	1,704	193,618
May	38,478	1,241.2		172,283	May	258	786	39,522	26	64	664	1,798	191,395
June	38,220	1,274.0	111,439	210,503	June	202	859	39,281	40	57	576	1,734	193,467
July	38,734	1,249.5		249,237	July	235	809	39,778	14	46	536	1,640	195,066
August	38,665	1,247.3		287,902	Aug	190	762	39,617	17	47	718	1,734	172,907
September	36,738	1,224.6	114,137	324,640	Sept	168	783	37,689	19	46	670	1,686	194,618
October	37,978	1,225.1		362,618	Oct	211	766	38,955	15	43	694	1,729	196,642
November	35,281	1,176.0		397,899	Nov	189	685	36,155	23	39	764	1,700	188,640
December	34,934	1,126.9	108,193	432,833	Dec	209	725	35,868	24	56	669	1,683	191,196
Totals	**432,833**	**1,185.4**		**432,833**	**Totals**	**2,604**	**8,723**	**444,160**	325	698	7,819	**20,169**	2,307,471

RALEIGH—WAKE EMERGENCY COMMUNICATIONS

Incoming Telephone Calls Workload

	2006	2007	2008	2009	2010
9-1-1 Calls Received	494,305	514,364	516,706	515,165	500,359
10-Digit Calls Received	357,104	340,925	308,451	289,942	286,055
Total Phone Calls	**851,409**	**855,289**	**825,157**	**805,107**	**786,414**

In 2010, Raleigh Wake Emergency Communications handled over a million total telephone calls, making it the second busiest 9-1-1 center in the state.

Last year tele-communicators made 258,831 outgoing calls in support of field units.

For the purpose of analysis, a "call" refers to a telephone call answered by ECC personnel. The terms "dispatch" and "incident" synonymously apply to an event to which public safety personnel are assigned. Since not every telephone call results in a dispatch, and because multiple calls may be received for the same incident, the number of calls in any given year will exceed dispatches.

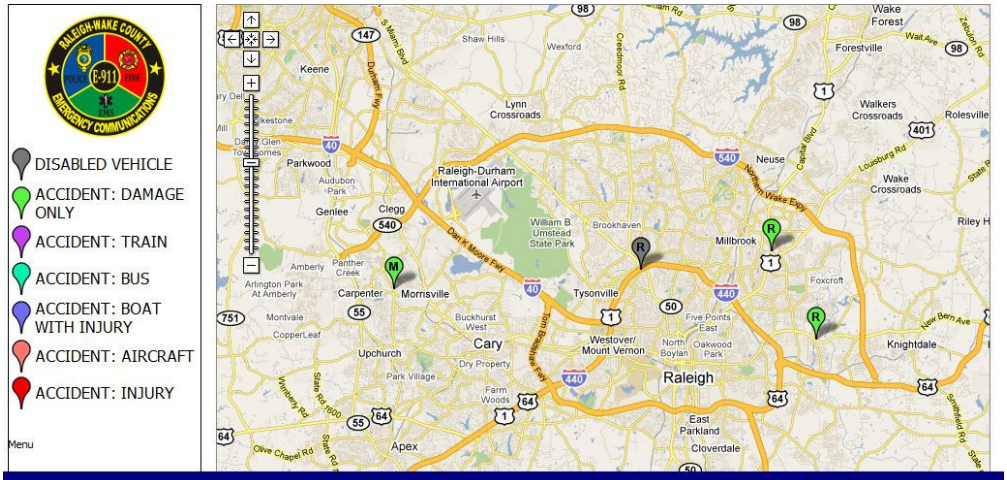
Non-Emergency Calls Reduced

In 2007, the Raleigh-Wake Emergency Communications Center began an initiative to reduce non-emergency calls. Several steps were taken, including the provision of web-based applications that provide direct access to information formerly gained through phone calls to telecommunicators, and an online traffic application using Twitter and Google Maps.

Seven digit calls to the center have decreased by more than 71,000 since 2006 - almost 20% - largely as a result of our actions.

Accident information can be found online at http://incidents.rwecc.com

Raleigh - Wake County 911 Incident Data

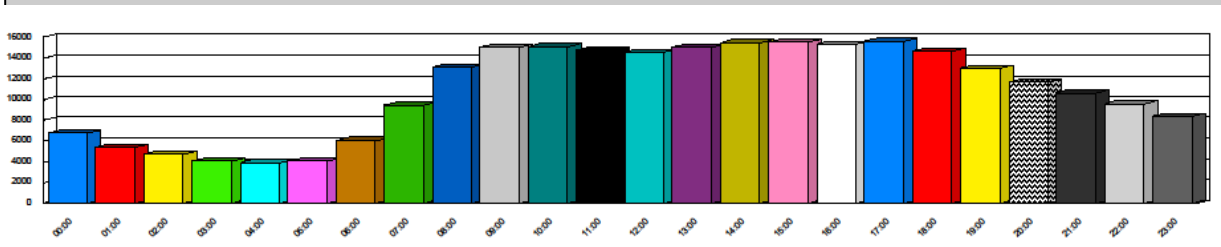


All data provided for informational purposes only.

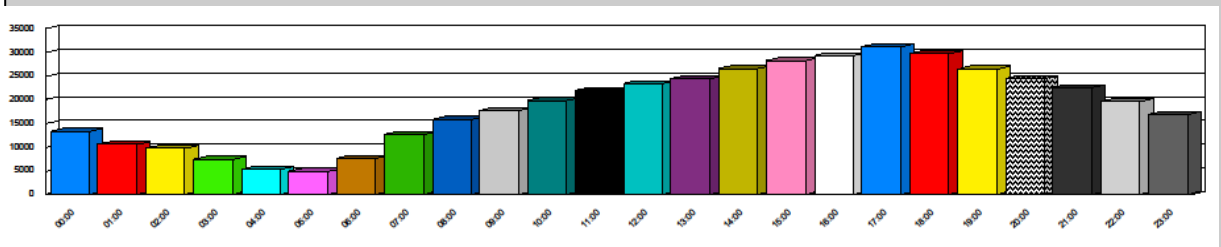
2010 Telephone Statistics

	Monthly 911 Total	Daily 911 Average	Quarterly Total	YTD 911 Total	7 digit Calls	Total Calls Answered	% answered within 2 rings (12 sec)	% answered within 3 rings (18 sec	% answered within 5 rings (31 sec)	Outgoing Calls Total
January	39,820	1,285		39,820	22,071	61,891	89.8	96.0	99.1	22,076
Feburary	36,117	1,290	118,307	75,937	20,927	57,044	88.6	95.8	99.2	19,842
March	42,370	1,367		118,307	24,070	66,440	86.5	94.8	98.9	21,759
April	42,220	1,407		160,527	23,972	66,192	88.7	95.9	99.8	21,852
May	44,699	1,442	129,648	205,226	25,192	69,891	91.9	96.8	99.3	23,015
June	42,729	1,424		247,955	24,849	67,578	92.3	97.5	99.6	21,712
July	43,705	1,410		291,660	25,834	69,539	89.9	96.5	99.3	21,938
August	42,820	1,381	128,789	334,480	25,099	67,919	90.0	96.5	99.3	21,740
September	42,264	1,409		376,744	24,083	66,347	87.7	95.5	99.1	21,187
October	43,790	1,413		420,534	24,719	68,509	87.7	95.3	98.9	22,072
November	39,292	1,310	123,615	459,826	22,083	61,375	91.9	97.3	99.5	19,904
December	40,533	1,308		500,359	23,156	63,689	91.0	96.8	99.4	21,734
Total	**500,359**	**1,370**	**500,359**	**500,359**	**286055**	**786,414**	**89.7**	**96.2**	**99.3**	**258,831**

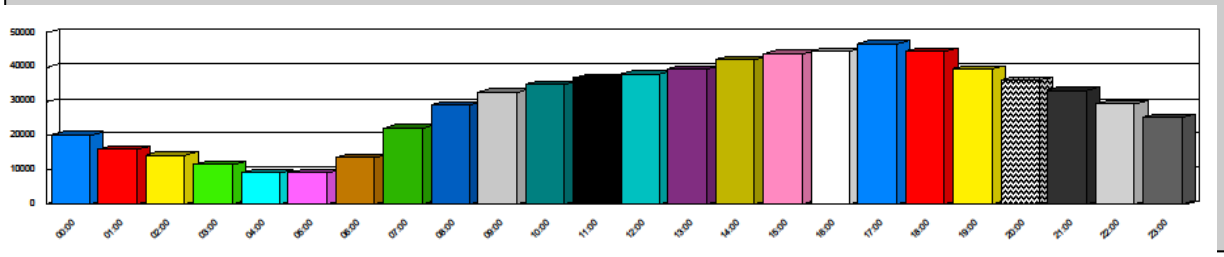
Seven Digit Calls Received by Time of Day—2010



9-1-1 Calls Received by Time of Day—2010



Aggregate—All Calls Received by Time of Day—2010



The above graphs show the telephone call distribution for RWECC by hour on an average day. As staffing approaches authorized levels, we are better able to coordinate our schedules with these peaks and valleys.

Accreditation—Maintaining High Standards

In November of 2007, the Raleigh-Wake Emergency Communications Center became the first 9-1-1 facility in the state to become accredited by CALEA; the Commission on Accreditation for Law Enforcement Agencies. By so doing, we committed to achieving the highest level of standards possible.

For the past three years, ECC staff has been heavily involved in preparing for our first re-accreditation in 2010, and have taken action to meet 80% of those standards declared "optional" in our first review. Additional training and procedures that further bolster our compliance are now also in place.

In August 2010, an on-site evaluation and review was conducted by CALEA assessors, which resulted in our reaccreditation in November. Excerpts from the review document are contained on the following page.

During 2011, RWECC is preparing for CALEA Accreditation of our training academy. We received APCO (Association of Public-safety Communications Officials (APCO) International Project 33 certification of the academy during 2010. CALEA accreditation provides the benefit of a standardized, independent review that serves as a recognized measure of excellence.

CALEA

- Raleigh-Wake Emergency Communications is the first CALEA accredited 9-1-1 Center in North Carolina, and is one of only 66 centers worldwide to receive this honor.
- Less than one percent of 9-1-1 centers nationwide are accredited.

2010 also marked our third complete year as an Accredited Center of Excellence, as recognized by The National Academy of Emergency Medical Dispatch. Raleigh-Wake Emergency telecommunicators helped to deliver 14 babies and resuscitate 9 individuals via pre-arrival instructions over the telephone and were recognized for their efforts during a ceremony in May. Judy Capparelli, Quality Improvement Supervisor, assures that all personnel meet or exceed national standards, with center personnel averaging over 99% compliance based upon more than 4,300 reviews conducted during 2010. RWECC was also successfully reaccredited by NAED during July 2010, helping to make this a banner year.

Accreditation—Maintaining High Standards

CALEA assessors Sheriff Brad Slater and Director Tony Wheeler pose with Accreditation Manager Richard Batchelor and RWECC Director Barry Furey during the August 2010 reaccreditation.

Improvements since 2007 (from the CALEA assessors' report):

During this on-site assessment, no applied discretions were issued and one file was returned for additional proofs of compliance that was already in possession of the agency. During the previous assessment 28 files were returned for file maintenance and 14 standards were listed as applied discretion.

From the RWECC CALEA report summary:

The RWECC has worked diligently over the past three years to address the applied discretion and file maintenance issues of the previous on-site. During this assessment period, the assessment team found time sensitive standards to be timely and in compliance. The agency has filed all required annual reports in a timely manner. Performance activities were appropriately tracked, reviewed and analyzed.

All of the comments received by the assessment team were very positive and supportive of the agency. The common thread of comments received stressed the professionalism of the Director and his staff.

The Raleigh-Wake County Emergency Communications Center is a professional organization dedicated to delivering high-quality service to the community. The agency's commitment to its mission statement is evident. The agency has shown commitment to continuing superior quality service to its constituents, as well as accountability to the community and employees. While conducting file reviews, the Assessment Team noted the files contained ample proofs of compliance. It was evident the RWECC has been practicing the CALEA philosophy. The assessors reviewed all standards applicable to this agency and found its members to be in compliance with agency practices meeting the intent of CALEA standards.

2010 The Year In Pictures

Holly Parker is Just Ducky!

Call taker Holly Parker shows off her yellow rubber duck presented to her as part of the "You're Just Ducky" campaign. Employees who display exceptional customer service are given these ducks as a visible reward for their efforts. This is just one of many forms of employee recognition in place at Raleigh-Wake Emergency Communications.

In June, RWECC presented employees with their City of Raleigh Service Awards. We are honored to have many staff members with five years or more experience with our agency.
As budgets tighten, we continue to look for new and innovative ways of continuing our employee recognition efforts in order to honor those many hardworking individuals who make our agency function on a daily basis.

Deputy Director Kelly Palmer presents Jacqueline Robinson with a service award in a June ceremony.

Lifesaving Efforts Rewarded

Joye Greene, Corey Saddler, Chris Mise, Rob Miller, Chris Walton, Neal Slohn, and Stephanie Barnard were among several RWECC, Fire, and EMS employees honored on May 10th for their lifesaving efforts the previous year. RWECC was cited for our use of pre-arrival instructions to callers, particularly during childbirth and CPR.

Raleigh-Wake Emergency Communications 2010

Who needs the Super Bowl when you can participate in the Raleigh-Wake ECC Procedure Bowl? In April, teams from all shifts competed against one another to see which squad had the most knowledge about rules and regulations and the fastest fingers on the button. The winners (E2 Shift members Jackie Robinson, Heather Corbett, and Robert Heckler) took home the bragging rights and a home cooked breakfast for their squad.

Procedure Bowl Winners!

Dustin Winkler Wins Award

In 2010 Raleigh-Wake Emergency Communications won the prestigious APCO "Horizon Award" for their use of technology. Of course, all these bells and whistles need somebody to keep them running. The ECC IT staff did their usual great job in 2010, and Systems Administrator Dustin Winkler was presented with a Director's Award for his work on the Computer Aided Dispatch system.

National Telecommunicators' Week is supported in Raleigh by an annual mayoral proclamation each April. A variety of activities, such as a pre-softball game cookout, are organized as a way of saying thanks for the year-round efforts of Raleigh-Wake Emergency Communications employees. On the right, employees and their families share a meal before the annual all-star softball game.

Telecommunicator Week 2010

2010 The Year In Pictures (continued)

Console Reconfiguration

In September, consoles within the primary 9-1-1 center were rearranged in order to add two more positions. In 1983 this space held eight consoles, however community growth and delays in the public safety center project made this work necessary. There are now 20 consoles operational at 222 West Hargett. Staff relocated to Barwell Road during this weeklong project.

Some people are born telecommunicators. It seems that they catch on instantly, and seemingly without effort. Others have to work hard at it. Lloyd "Butch" Montgomery is one of the latter; but we don't say that in a bad way. Throughout the ECC Academy and his probationary period, Butch put countless time and effort into making sure he did the job correctly. His efforts paid off and were formally recognized by the presentation of a Director's Award in April.

Lloyd Montgomery Gets Recognized by Director Barry Furey

Walt Fuller Leads Center Tour

In February, Deputy Director Walt Fuller conducted a tour of the 9-1-1 center for governmental officials including Congressmen Price, Etheridge, and Miller—Wake County Commissioner Ward—Sheriff Donnie Harrison (not pictured) - and Raleigh Mayor Charles Meeker. The purpose of the visit was to explain how federal funding helped to support the technology used in public safety communications.

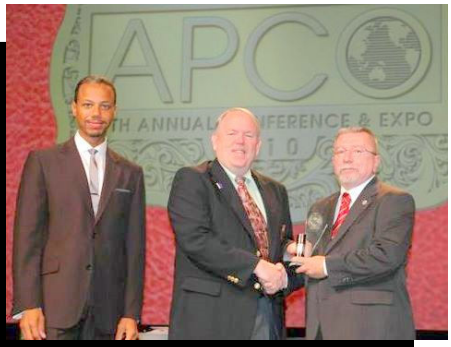
Honors and Awards

During 2010, RWECC employees received several awards for service. We congratulate these deserving employees for their accomplishments.

- Mayor Charles Meeker issued a proclamation for "Telecommunicators' Week" in April during a City Council meeting.
- Telecommunicator Stephanie Barnard received the "Rookie of the Year" award.
- Systems Administrator Glenn Lamb received the "Employee of the Year" award.
- Deputy Director Kelly Palmer served as President of the North Carolina Chapter of the National Emergency Number Association (NENA).
- Training Supervisor Angie Schulz was sworn in as the Second Vice-President of North Carolina Chapter of NENA.
- QI Supervisor Judy Capparelli was elected Secretary for the North Carolina Chapter of APCO (Associated Public-safety Communications Officials).
- Accreditation Manager Richard Batchelor was elected as the Region "B" Ambassador for the North Carolina Chapter of APCO.
- Director Barry Furey was appointed as the Legislative Committee Chairman for the North Carolina Chapter of APCO.
- Systems Manager Craig Schulz was named Technician of the Year by the E 9-1-1 Institute in Washington, DC.
- ECC "A" and "E" shifts were presented the NC NENA "Communications Team of the Year" Award for their handling of an active shooter incident in a crowded department store on Memorial Day weekend.

Citizens evacuate the Target store in Apex during an active shooter incident in May. Members of the Raleigh-Wake and Apex staffs received recognition by the North Carolina Chapter of the National Emergency Number Association for their joint efforts in controlling this volatile situation.

2010 Awards and Commendations



Furey accepts the Horizon Award at the Annual Conference of the Association of Public-safety Communications Officials

In August, Director Barry Furey was presented with APCO's "Horizon Award" for the innovative use of technology in a larger 9-1-1 center. Among the reasons cited for this honor were the embracing of applications such as Google Maps and Twitter, as well as concepts such as server virtualization. APCO President Richard Mirgon does the honors, while Executive Director George Rice looks on.

Systems Manager Craig Schulz received the "9-1-1 Technician of the Year" award from the E 9-1-1 Institute at a ceremony held in Washington, DC. Here Congressman Bob Etheridge takes the podium to present Craig with his plaque. This was one of many significant awards and achievements garnered during the year 2010 by ECC staff.

Schulz is 9-1-1 Technician of the Year

ECC Staff recognized at the First Responders' Appreciation Breakfast

Raleigh-Wake Emergency Communications staff are proud to participate in the annual First Responder's Appreciation Breakfast sponsored by the Raleigh Chamber. This local recognition is greatly appreciated by our personnel, who are truly the *first* first responders to any emergency. It is gratifying to receive local, state, and national acknowledgements for our efforts.

Raleigh-Wake Awards in the News...

June 1, 2010, Alexandria, Va. - The Association of Public-Safety Communications Officials (APCO) International today announced the winners of its Horizon Award. The Horizon Award acknowledges the efforts of communications centers that have proactively assessed and met the technological and operational needs of their center, employees and service population and are presented to one large center and one small center. The awards will be presented at the APCO International 76th Annual Conference and Exposition in Houston, Texas on August 3. The 2010 Horizon Award for a Large Center is being presented to Raleigh-Wake (NC) Emergency Communications. Raleigh-Wake (NC) Emergency Communications used Twitter connected with Google maps to provide a near real-time display of traffic incidents to the media and the public, reducing non-emergency calls and improving call handling during high-volume times.

Raleigh-Wake Emergency Communications Center Receives Reaccreditation

The Raleigh-Wake Emergency Communications Center (ECC) has been officially reaccredited as an Accredited Center of Excellence for emergency medical dispatch by the National Academies of Emergency Dispatch (NAED). The certification is valid for three years and recognizes the high degree of professionalism displayed by the Raleigh-Wake ECC staff in providing lifesaving medical instruction to 911 callers prior to the arrival of emergency crews. Of the estimated 6,100 emergency communications centers in the country, fewer than 90 are accredited for emergency medical dispatch by NAED. The reaccreditation is based on an independent review of a sampling of calls selected from the more than 76,000 emergency medical responses processed last year. Compliance with best practices standards is also reviewed. NAED is a non-profit organization that promotes safe and effective emergency dispatch services worldwide.

November 20, 2010 Garden Grove, CA. - The Commission on Accreditation for Law Enforcement Agencies, Inc. (CALEA) announced today that the Raleigh-Wake 9-1-1 Center of Raleigh, NC has received reaccreditation status for a period of three years. This award was presented at the Agency's Fall Conference in Garden Grove. The purpose of CALEA's Accreditation Programs is to improve the delivery of public safety services, primarily by: maintaining a body of standards, developed by public safety practitioners, covering a wide range of up-to-date public safety initiatives; establishing and administering an accreditation process; and recognizing professional excellence.

ENP, TERT, and Babies!

ENP
Emergency Number Professional

The National Emergency Number Association (NENA) awards the certification of Emergency Number Professionals to those individuals who demonstrate their proficiency in and understanding of 9-1-1 technology, management and supervision.

Raleigh-Wake Emergency Communications is proud to employ more ENPs than any other 9-1-1 center in North Carolina. The following individuals have successfully completed this examination, and are recognized for their efforts:

Richard Batchelor **Brent Boykin** **Judy Capparelli**
Jesse Creech **John Franks** **Walt Fuller**
Mikaela Kelsey **Robert Miller** **Kelly Palmer**
Scot Rademacher **Russell Rigouard** **Angie Schulz**
Craig Schulz **Chris Walton**

Telecommunicator Emergency Response

TERT

"Who does 9-1-1 call for help?" has long been a question asked by many individuals. The answer is "TERT"; the Telecommunicator Emergency Response Taskforce. Raleigh-Wake ECC Supervisor Jesse Creech is the statewide chair of this group of emergency service personnel who are trained to deploy during disasters to provide personnel resources to 9-1-1 centers impacted by disasters.

"Cheaper by the Dozen—Plus Two"

Raleigh-Wake Telecommunicators helped to deliver 14 babies during 2010 by providing emergency medical instructions over the phone.
This is a new record for our agency, surpassing the even dozen births assisted during 2008 and 2009.

Raleigh-Wake Emergency Communications Technical Services Division

2010—A Year of Awards and Milestones

The Raleigh—Wake Emergency Communications (RWECC) Technical Services Division has had another very eventful year. We continue to see growth in all avenues of technology around the public safety arena.

The Technical Services Division is made up of three groups:

Communications—Electronics Maintenance Shop (CEMS): Responsible for the City's radio interests, including public safety and non-public safety equipment, infrastructure and maintenance.

GIS: Responsible for the geographic features and configuration of the CAD system and other geographic services within the ECC.

Systems Administration: Responsible for the various workstations, servers, networks, applications and PSAP systems within the ECC.

Highlights:

CAD Upgrade: In February we went live with new hardware and software for CAD. This upgrade was a huge step in providing the continued level of service expected by the RWECC and our many user agencies.

RPD Beat Restructuring: Raleigh Police initiated a beat restructuring project that involved work with the geographic layer attributes and substantial CAD configuration. This restructuring was also made possible by the newest version of CAD.

Rebanding: Assisted and oversaw the reprogramming of 1700 Raleigh Police radios to comply with the Wake County rebanding process. We provided oversight and issue resolution which resulting in a smooth transition the new channels.

Locution: Locution was upgraded to the most current version. This provided a more "off-the-shelf " installation which allows us to better utilize the available features and make upgrades much more seamless. Raleigh Fire continues to use Locution for in-station alerting with great success.

UHF Conversion: CEMS staff nears completion of the radio system conversion allowing all users to intercommunicate. By reusing radios from the Raleigh Police Department, staff estimates saving the City of Raleigh approximately $300,000 while significantly improving service.

Pictometry: Aerial Oblique photography used with CAD mapping application to provide more precise information to telecommunicators and call takers was tested and installed.

"Geek Squad"

Our Sys Admin group has frequently been described as being responsible for everything with a power-cord within the RWECC. This group provides around-the-clock dedicated service to insure high uptime and reliability of our many systems. This past year has been full of CAD upgrades, software installations, network migrations and troubleshooting.

The forklift upgrade of the CAD system was a huge process and involved many hours of tedious testing and verification. We continue to tweak the CAD system to make sure it is functioning at the optimal level we require. This group continues to provide cost savings through the use of virtualization. With almost 90% of server resources (and soon workstation resources) operating in a virtual environment, not only is there significant cost savings but also increased functionality for situations like disaster recovery. Upgrades are more seamless to users as full testing can be accomplished prior to rollout.

Statistics

- 66 ledgers for update to the county MSAG were completed for areas within the corporate limits and ETJ of Raleigh.
- 232 plats were viewed for the addition and editing of roads located within the boundaries of the City of Raleigh.
- 36 new streets were added to the geofile and sent to CAD for activation within the City of Raleigh.
- 116 inquiries for the correction of ANI/ALI information were researched and processed through 911net in 2010.
- 18 updates were sent to the CAD system in 2010.
- 23 refreshes were sent to the CAD system in 2010, 2 of which to accommodate Raleigh's regular annexation schedule.
- 333 Created/Removed/Modified Users (CAD, AD, Phone)
- 175 CAD Hazards Added
- 150 CAD Hazards Removed
- 3912 CAD Configuration Changes
- 455 Stuck Calls Removed from CAD
- 158 Motorola warranty repairs for the Raleigh Police Department radios
- 82 radios programmed and issued to new Raleigh Police Officers
- 6 programming, configuration and issue of vehicular repeater systems
- 152 after hours call-outs
- 3549 tickets handled by 5 technicians

Raleigh-Wake Emergency Communications Technical Services Division

In The Shop

The Communications—Electronics Maintenance Shop provides electronics installation, repair and maintenance service to numerous City of Raleigh departments; assisting customers with everything from warning signal installs, to repeater repair to radar certifications for the Raleigh Police Department. During the last year, the shop has been very busy providing the services needed to move departments from the VHF spectrum to the UHF spectrum. While this may sound complicated, CEMS staff takes the pain out of this process by offering a single source solution. City Departments now benefit from utilizing radio equipment that allows them to communicate between departments like never before. This interoperability has been made possible at significant savings through the recycling of additional resources.

The shop has also been instrumental in providing communications at new RPD facilities and RWECC by installing signal amplifiers.

CEMS staff continue to provide routine maintenance to most of the radio infrastructure, both public safety and non-public safety. This preventative maintenance helps to insure all systems are operational which is especially critical during snow events like we have had this year.

Around The Map

The GIS group has seen numerous projects over the last year also. Their job is to maintain the extreme accuracy of CAD records our users have come to expect. While continuing to insert streets, common places, CAD hazards, and run card changes, this group was very instrumental in bringing online significant changes for Apex Police, Garner Police, Garner Fire and EMS. Several departments requested a realignment of their territory, which in turn generates CAD reconfiguration.

Over the years we have added several GIS enhancements to the tools available to the telecommunicators and call takers as well as the user community. As we continue to evolve technically, so do we evolve in our use of GIS/Mapping. With such applications as PowerMap, ATM (Advanced Tactical Mapping), Pictometry and IVN (In Vehicle Navigation), the GIS group is always working on the next map update or feature enhancement for these applications.

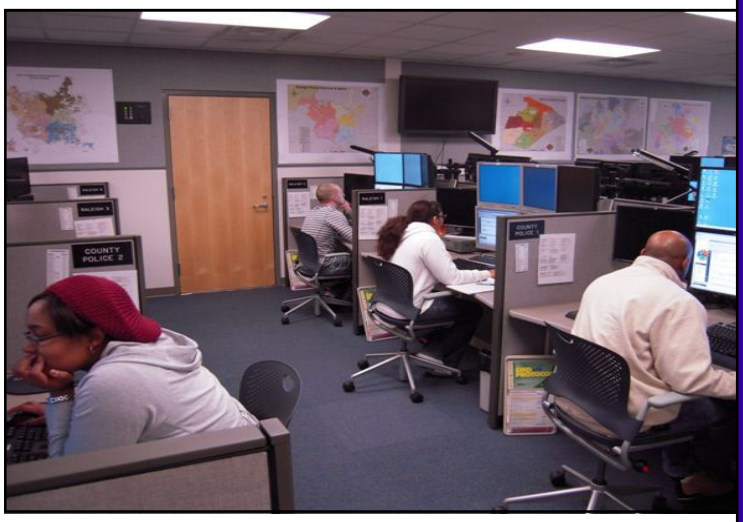
The GIS group is also responsible for road closures or barriers on the various maps. These are critical to provide accurate routing and recommendations.

Raleigh-Wake Emergency Communications Training Division

The Training Division is dedicated to providing quality professional development to all RWECC employees. This year was no exception. Now that 2010 has come to a close, it is fitting to look back at all of the achievements of the RWECC Training Division.

One of our proudest accomplishments was the receipt of APCO (Association of Public-safety Communications Officials) Project 33 Certification. There are only 16 other agencies in the United States to have earned this prestigious award. As part of this process, our training curriculum was reviewed by other 9-1-1 professionals to ensure that we maintain high standards. In August of 2010 at the APCO International Conference, our agency was presented with a certificate.

Another noteworthy project was end user training on the CAD system. In January, all employees and users of the Computer Aided Dispatch system attended training regarding a required update. RWECC, Holly Springs, Apex, Wake County Sherriff's Office, and Raleigh Police Information Response Technicians attended the class provided by the Training Division. Over a 100 users were trained. Each year there are progressive advances made to ensure quality service to citizens and first responders. The Division continually strives to provide required training throughout the year through workshops, in-service and online delivery. By developing RWECC employees, we accomplish this task. This report highlights the training programs for 2010.



TRAINING ACADEMY MISSION STATEMENT

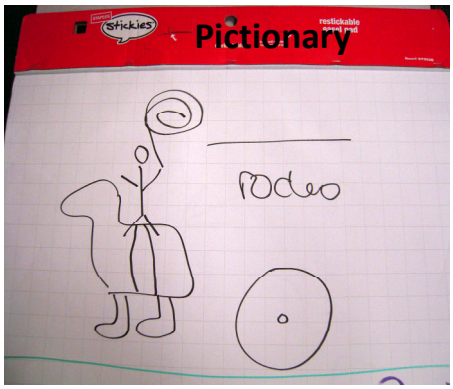
The 9-1-1 Training Academy is committed to providing its students with the best training available in order to support and accomplish the mission of the Raleigh-Wake Emergency Communications Center. It is our goal to create an atmosphere that is conducive to the learning process, and to impart to students the skills and knowledge necessary to successfully carry out departmental objectives while embracing the core values of professionalism, courtesy, and compassion.

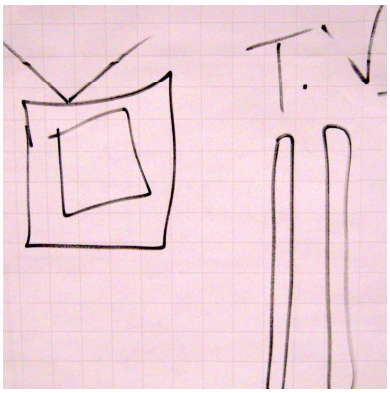
Raleigh-Wake Emergency Communications Training Division

2010 TRAINING MEETINGS

Throughout the year operational employees are provided monthly updates in the form of a training meeting. These short workshops are used to discuss hot topics, industry trends and general review. The 2010 subjects ranged from human resources to geography to health/wellness. With only an allotted time of 45 minutes, lesson plans were created to be fun and interactive. This year was no exception. There were two meetings that outdid the rest: Pictionary and Health/Wellness.

For September, the game of "Pictionary" was used for geography training. Telecommunicators and call takers had to draw a common place such as a park or shopping center. Once the common place was guessed, students had to tell where the site was located in Wake County. Drawing was quite a challenge for many ECC employees. The interaction and the fun was an ideal way to teach a normally uninteresting topic. Employees enjoyed this approach and the team competition.





MEETING TOPICS

- You Can Quote Me
- Standards of Conduct
- Stats We All Love
- Pictometry Aerial
- Mapping System
- TDD/TTY Call Recognition & Call Review
- Detergent Suicide
- Common Place Pictionary
- Stress & the Emergency Dispatcher
- R.E.D.S Team Overview - Guest Speaker David Pease
- Health/Wellness Program Kickoff

The last meeting in 2010 was the kick-off for the RWECC Health/Wellness program. The Training Division created a wellness video with the assistance of members of Administration. The team donned leg warmers, headbands and other athletic attire to get into their roles for the video. The theme for the film was "You Have the Power." Members were asked to follow a choreographed dance routine and engage in various exercises to promote overall fitness for ECC staff. For 2011, employees will be given the opportunity to participate in several events including a Biggest Loser program.

40TH 9-1-1 Training Academy

The Training Division began the year with another cycle of recruiting, hiring, and testing applicants for the 40th 9-1-1 Training Academy. The Academy started in March and graduated seven telecommunicators and two call takers in June. Throughout the Academy students were given the basics of call taking, dispatching and status keeping, computer and radio skills and geography.

This Academy saw the introduction of two new geography field exercises to enhance the learning experience by actually seeing locations first-hand. The first was the R-Line Scavenger Hunt. The R-Line is Raleigh's new hybrid-electric "eco-friendly" bus system that transports people for free in the downtown area. Trainees were instructed to ride the R-Line to specific bus stops then find pre-selected intersections, businesses, landmarks, and other locations of geographical importance.

The second geography field exercise was The Amazing Race: Raleigh 9-1-1 Edition. Based on the popular television program, students were divided into two-person teams then raced on foot to designated locations to find their next clue. Along the way students met Raleigh Fire Chief McGrath, Sir Walter Raleigh, Clyde Cooper, and two pterodactyls. (At one location, citizens actually thought that it *was* the real tv show, and asked the participants where the cameras were.) Congratulations to Team-3 (Brian Duvall & Lauren Spinell) who finished the inaugural Amazing Race in first place with a time of 2:55.

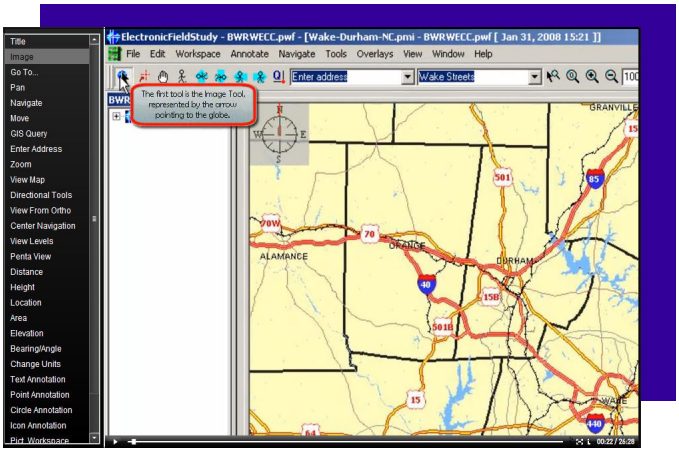
THE AMAZING RACE

Raleigh-Wake Emergency Communications Training Division

HIRING & SELECTION

During the winter of 2009-2010 the ECC began its hiring session for the 40th Training Academy. Job postings for telecommunicator and call taker were placed on the City's website, Craigslist and the Yahoo! group server. A total of 439 applications were received for 11 vacant positions, including 54 for telecommunicator, 119 for call taker, and 133 for both. From the total number of applicants, 171 were contacted to begin the next phase of the process using CritiCall skill testing software. Of those, 30% were successful, and scheduled their own interviews using the ECC Employment Testing Results website. By allowing candidates to choose the most convenient times from available slots posted on the Internet, we have eliminated hours of staff time that were formerly utilized in playing "telephone tag" to accomplish the same results. During the interview phase, 18 applicants were selected to proceed to the psychological evaluation. In the end, 11 candidates were extended job offers, and 9 accepted. The 40th Training Academy began its employment on Monday, March 1, 2010. Miscellaneous facts about this academy are that 27 applications were received from states other than North Carolina; 1986 was the most common applicant year of birth with the latest being 1990; the top male applicant name was Michael, and the top female applicant name was a tie between Judy and Jessica.

CAMTASIA & PICTOMETRY



In June of 2010 a new mapping resource, Pictometry EFS (Electronic Field Study), was implemented in the ECC. Due to the large number of employees that needed training on Pictometry and the shortage of funds in the budget, the screen recording software Camtasia was used to create an instructional video for all employees. The 24-minute presentation outlined all of the tools, icons and functionality of Pictometry as well as how it integrated with the current mapping system being used; ATM. The utilization of Camtasia achieved two goals: it significantly reduced costs of overtime for the ECC and gave employees an enhanced and alternate way of learning a vital new technology.

MONTHLY CONTINUING EDUCATION HOURS

January—550
February—200
March—450
April—950
May—128
June—89
July—656
August—215
September—431
October—561
November—165
December—120

PUBLIC EDUCATION EVENTS

Participated in the Raleigh Fire Department's *Fire Watch* public education television program on the Raleigh Television Network (RTN).

Created RWECC webpage for the City of Raleigh's web portal; updated monthly.

Created and managed a *Facebook* and *Twitter* page for the RWECC.

Red Cross Presentation

Raleigh Neighborhood College

ONLINE CONTINUING EDUCATION

1st Quarter
Manual Call Taking, Paging and Dispatching on Cards
Porta-CAD
The New Phenomenon of "Swatting"
Procedure Review
CPR Review
EMD Card Review

2nd Quarter
Accelerator Stuck / Can't Stop Protocol
Americans with Disabilities Act (ADA)
Call Transcript Review
EMFinders (Emergency Locator System)
Procedures Review
EMD Card Review
EMD Journal "Snakebites"
Protocol 9 (Cardiac Arrest)

ONLINE CONTINUING EDUCATION

3rd Quarter
Back to Basics: Incident Types
CAD…From the Command Line
Geography Homonyms
I-Call & I-TAC Radio Channels
Procedure Review
EMD Card Review
EMD Journal "Prescription Drug Use"

4th Quarter
Incident Types
Geography: How Do You Spell That?
Shots Fired! Active Shooter Article
Procedure Review
EMD Card Review
EMD Journal "Electrocution and Lightning"

Quality Assurance and Feedback Analysis

2010 Emergency Medical Dispatch (EMD) Scores	
"A" shift	98.97%
"B" shift	99.35%
"C" shift	98.99%
"D" shift	99.19%
"E" Shift	98.93%
ECC Average	**99.06%**

The Raleigh-Wake Emergency Communications Center is committed to providing the best service possible to our community. As such, independent reviews are regularly conducted of randomly selected calls to ensure compliance with protocols and professional demeanor. Last year, 4,328 emergency medical incidents alone were analyzed and scored based upon established guidelines.

The text box to the left shows a shift-by-shift breakdown of the monitoring and grading of a variety of components including provision of pre-arrival instructions, case entry, and appropriate diagnosis. This was slightly lower than last year, however scores in the upper nineties show a continued commitment to service excellence.

Community Satisfaction Survey

In order to better gauge our service to the public, the Raleigh-Wake Emergency Communications Center makes available a web-based tool whereby citizen callers can leave input or ask questions regarding their experiences in reporting an emergency.

During 2010, we received a total of 20 responses. Use of this tool has declined steadily during the past two years, but other agencies have reported similar experiences. During 2011 more public education will be provided regarding this avenue for feedback. Of the 20 respondents:

- **15 called for law enforcement assistance**
- **2 called to request an ambulance**
- **3 called to report a fire**
- **15 rated their services as "excellent"**
- **3 rated it "good"**
- **2 described it as "poor", but some comments related to the number of questions asked. These questions are critical to determining the proper response.**

Quality Assurance and Feedback Analysis

Every year the Raleigh-Wake Emergency Communications Center performs a detailed analysis of formal feedback provided by the public, and by user agencies. Independent of web-based comments, this feedback consists of letters, emails, and telephone calls made directly to the center administration concerning the handling of calls. This feedback is broken down into three categories; *commendations* which consist of formal compliments to service staff—*complaints*, which deal with alleged errors or rudeness—and *inquiries* designed to provide additional information regarding an incident. If at any time during the provision of this information, potential errors or misconduct on the part of the Emergency Communications Center staff is discovered, the incident is reclassified as a complaint.

Feedback Comparison

	07	08	09	10
Total formal feedbacks	109	63	82	65
Commendations	24	17	24	16
Inquiries	21	11	23	19
Citizen complaints	22	18	10	14
User complaints	39	17	31	15
Total complaints	61	35	42	30
Valid complaints	31	15	23	18
Unfounded complaints	13	8	7	1
Exonerated by investigation	17	12	12	11

Statistically speaking, complaints received on the day shift (6:30 AM—6:30 PM) accounted for almost 75% of the total, with 10 AM being the most active hour and Friday the most frequent day. However, since the total number of complaints remains extremely small, it is difficult to discover meaningful trends. The total number of feedbacks (both positive and negative) was down from last year. We saw citizen complaints increase by four, while user agency complaints were more than cut in half. Sixty percent of complaints investigated were found to be valid. Only one valid complaint was for rudeness, which indicates that continuing efforts toward improved customer service are having positive results. One citizen complaint is received for every 56,712 telephone calls, and one user complaint recorded for every 29,918 dispatches. Keep in mind that these figures relate to *all* complaints; not just ones that are valid. They do also not take into account outgoing telephone contacts (358,831), or radio transmissions made (2,307,471.)

Attrition and Turnover Analysis

Fiscal Year	Authorized Staffing	Total Attrition	Turnover	Experience > 1 Year	% of Attrition	Experience <1 Year	% of Attrition	Experience ≤6 Mos	% of Attrition
FY2006	78	13	17%	9	69%	3	23%	1	8%
FY2007	80	21	26%	9	43%	5	24%	7	33%
FY2008	94	18	19%	7	39%	3	17%	8	44%
FY2009	103	22	21%	10	45%	10	45%	2	10%
FY2010	102	8	8%	4	50%	2	25%	2	25%
FY2011	102	10	10%	7	70%	2	20%	1	10%
Average Attrition FY06-11 (YTD)			**17%**	**46**	**50%**	**25**	**27%**	**21**	**23%**
Total Attrition FY06-11 (YTD)		**92**							

An analysis of our most recent five year attrition experience places us at 17% for this period. As there are no recent national statistics with which to compare, it is difficult to draw a meaningful conclusion from these numbers. However, it is clear that there has been an improvement in retention since our last annual report, and this is good news. We have been continuing to focus on making better hiring decisions and restructuring our training in order to provide the best recipe for success. These improvements can be seen in the "least experienced categories" in the table above. RWECC is doing a better job in recruiting and retaining new employees than ever before. However, a troubling trend is the loss of *more* experienced personnel who take with them significant institutional knowledge. These losses place further burden on supervisory staff who must deal with an increasingly less experienced staff. Working conditions and low salary are among the reasons that influenced 1/3 of our departing staff to find new jobs; many with other 9-1-1 centers and government agencies. This attrition includes both telecommunicators and technical service personnel.

Only three percent of newly hired telecommunicators will remain in the job long enough to retire.

APCO International

Reason for Separation from Service

Reason FY10-FY11 (YTD)	Attrition	% of Attrition
Family/Personal Reasons	1	15%
Death	1	4%
Job Dissatisfaction	0	0%
Other Employment - COR	2	7%
Other Employment - External	8	26%
Relocated	1	0%
Retired	1	7%
Returned to School	0	0%
Terminated (or resigned in lieu of)	4	41%
Total Attrition FY10-FY11 (YTD)	18	100%

Giving Back

While the bulk of this report details performance indicators and service improvements made by RWECC during the past year, no review could be complete without looking into the relationship between our agency, our staff, and the community we serve. Throughout the year RWECC has collectively and individually participated in projects that gave back to the City, County, and surrounding areas. Some of our employees serve in charitable organizations, while others are members of volunteer fire or rescue squads.

As an agency, RWECC supports the recognition of young people and children who use 9-1-1 in the proper fashion. Groups also participate in food, clothing, and toiletry drives to help those in need. Director Barry Furey repeated his role as chair of the City's Combined Campaign which raised over $98,000 for local charities.

Deputy Director Walt Fuller presents Millbrook High Student Brittany Green with a Certificate of Appreciation for her calm demeanor in taking over a 9-1-1 call reporting an auto accident.

RWECC staffers Angie Young, Judy Capparelli, Walt Fuller, Kelly Palmer and Richard Batchelor pack toiletry bags for the Raleigh Rescue Mission. This has become an annual holiday ritual for the 9-1-1 center, along with our ongoing support of food and toy drives.

Perhaps the ultimate way of "giving back" is through green initiatives being put in place in the emergency communications center and electronics shop. During the past three years, our carbon footprint has been reduced largely through increased use of Energy Star rated devices and the virtualization of servers. While still maintaining the diversity and backup required in mission-critical public safety applications, ECC IT staff have been able to reduce the number of servers by more than 86%. This obviously carries with it a tremendous savings in electrical power, formerly used to both run and cool these devices. Increasingly efficient power supplies and higher content recycled material make our upgraded workstations and monitors more environmentally friendly, as well. But perhaps the most significant "green" initiative to date has been the recycling of former Raleigh Police Department radios into use by other city departments. In addition to providing interoperability for the first time, it is estimated that this project has resulted in a savings of over $300,000 when compared to the purchase of new transceivers installed by outside sources.

Raleigh-Wake Emergency Communications Quick Reference Fact Sheet

Agency:	Raleigh-Wake Emergency Communications
Address:	PO Box 590, Raleigh, NC 27602
Agency Head:	Barry Furey, Director
Telephone:	919-996-3530
Fax:	919-831-6859
Email:	barry.furey@raleighnc.gov
Agency Founded:	January 28, 1972
Services:	Emergency and non-emergency dispatching for the City of Raleigh and the majority of communities within Wake County; 9-1-1 PSAP (Public Safety Answering Point). Also provides technical services and communications support through the Communications Electronics Maintenance Shop.
Agencies Served:	43
Population Served:	940,122
Employees:	102 total, all activities and positions
Budget:	$9,071,107 FY '10-11
Funding Sources:	City of Raleigh; member communities of WECO (Wake Emergency Communications Organization) on a per-call rated basis; North Carolina State 9-1-1 Fund.
Incoming Calls:	786,414 per year
Outgoing Calls:	258,831 per year
Total Dispatches:	459,524 per year
Radio Calls:	2,566,782 per year
Certifications:	Accredited since 2007 by the Commission on Accreditation for Law Enforcement Agencies (CALEA). Accredited Center of Excellence (ACE) since 2007 by the National Academy of Emergency Medical Dispatch. Reaccredited in both 2010. APCO (Association of Public –safety Communications Officials) International Project 33 Certified Training Academy, 2010.