





# 2011 Annual Report

### An Introduction From the Director



ayor McFarlane, Members of Council, Mr. Allen, and WECO Board Members: It is with great pleasure that I present to you the 2011 Annual Report of the Raleigh-Wake Emergency Communications Center and the City of Raleigh Communications Electronics Maintenance Shop.

Once again, staff handled another year of record demand, including a number of high-profile incidents such as an active shooter in a supermarket. However, none surpassed the stress placed on the system by the tornadoes of April 16. During this event, the primary and back-up 9-1-1 centers were both brought online simultaneously for the first time ever, and emergencies were being dispatched at the rate of one every eleven seconds. The exemplary duties performed by our staff that day did not go unrecognized, as they were collectively

honored with the "Heroes of the Year" award from the Greater Raleigh Chamber in September.

During the past 12 months significant changes to service were provided; most visibly through the addition of Emergency Fire Dispatching (EFD) protocols and the use of Automatic Vehicle Location (AVL) to dispatch high-priority calls for Raleigh Police. Our Emergency Medical Dispatch (EMD) scores once again improved, and our Quality Assurance efforts were doubled through the temporary assignment of a second person to this task. In January of 2012 our organization celebrated our 40th anniversary. Since 1972 our personnel have been providing dedicated service to the City of Raleigh, and in some form or another, to every citizen of Wake County. Our plans for the upcoming year include the maintenance of certifications already received, as well as the continuation of this same dedicated service.

Respectfully submitted:

Barry Furey

Director



As always, in consideration of the environment, this report is distributed in electronic format only.

Raleigh-Wake Emergency Communications 2011 Annual Report

### **Table of Contents**

Page I
Page 2
Page 3
Page 4
Page 5
Page 6
Page 9
Page 11
Page 12
Page 13
Page 14
Page 15
Page 16
Page 17
Page 24
Page 25
Page 30
Page 36
Page 44
Page 45



Our thanks to Mike Legeros and Lee Wilson for photo support throughout the year.

### **Agencies Served**

**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

**Stony Hill Fire** 

Wake County Fire / Rescue

Wake Forest Police

Wake-New Hope Fire

Wendell Police

Western Wake 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

Wake County EMS

Wake Forest Fire

Wake Forest Public Works

Wendell Fire

Wendell Public Works

**Zebulon Fire** 

**Zebulon Police** 

972 - 2012



### Raleigh - Wake ECC 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 Suni Wilkenshoff, Training & Compliance Coordinator

Craig Schulz, ENP, Systems Manager
Bill Eagen, GIS Database Manager
Bob Leap, Senior Systems Administrator
Matt Boyd, Senior Systems Administrator
Chris Kardos, Senior Systems Administrator
Damion Blake, Senior Systems Administrator
Bill Passerino, Communications and Electronics Maintenance Supervisor
Kevin Whelan, 800MHz Technician

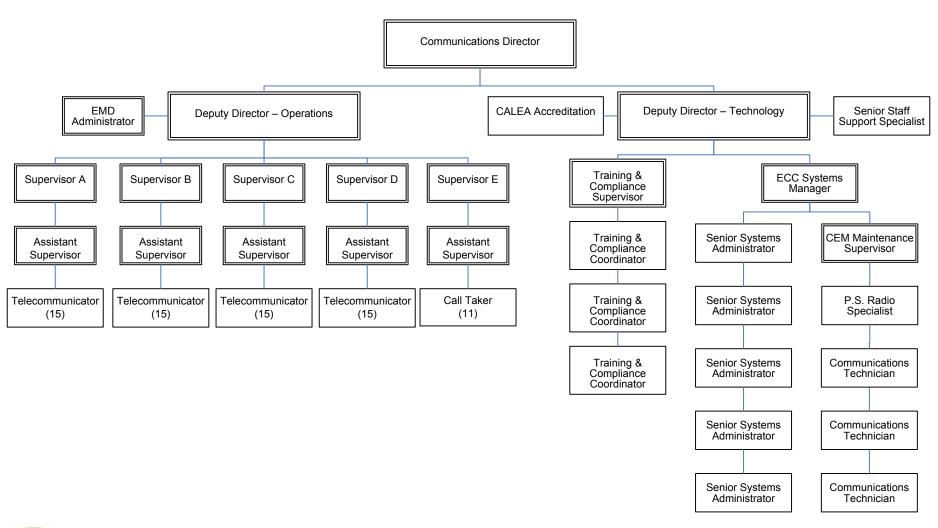
Angie Schulz, ENP, Training Supervisor Amanda Davis, Training Coordinator John Franks, ENP, Training Coordinator

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 ECC Organizational Chart





### Telephone Statistics - 2011

in 2011, the ECC experienced an increase of over 9,000 incoming 9-1-1 calls compared to 2010. As has been the intended trend there was again a decrease of just over 11,000 ten digit calls received in the center. The reduction of 10-digit / non-emergency calls has been a priority for staff, and is attributed to education, procedures, and use of new technologies.

he increase in incoming 9-1-1 calls was very evident in the last half of calendar 2011 when 7,400 of the more than 9,000 additional calls were received. The only observed drop for the year came in the first quarter, where we had just over 550 fewer calls than the same period in 2010. Increases were experienced in wireless, business and VoIP calls, while we saw decreases in residential, pay phones and abandoned (hang-up) calls. The recently authorized decommissioning of the Emergency Reporting Boxes in the City of Raleigh Parks has not yet had an impact upon statistics, however it is predicted that a measurable decrease in false reports will be seen in the 2012 statistics.

Wireless calls now make up 72% of all 9-1-1 calls.

	<u>2010</u>	<u> 2011</u>
9-1-1 Calls Received	500,359	509,171
10-Digit Calls Received	286,055	274,342
Total Phone Calls	786,414	783,513
General 201	I Telephone Statistics	
Total 9-1-1 calls received Total 10-Digit calls received Monthly average 9-1-1 calls Daily average 9-1-1 calls rece Total number of outgoing cal Language Line Calls	509,171 274,342 42,431 1,395 246,548 4,702	
Monthly average Wireless 9- Monthly average Residential Monthly average Pay Phone Monthly average Business 9 Monthly average Abandoned	9-1-1 calls received 9-1-1 calls received -1-1 calls received	30,356 5,519 241 5,495 5,521



# Telephone Statistics - Call Answering Efficiencies

uring 2011, RWECC changed the way we measure call answering efficiencies, going from "rings to answer" to "seconds to answer" for 9-1-1 calls. This change is in keeping with National Emergency Number Association standards and compatible with proposed future standards from the North Carolina 9-1-1 Board.

		2010			2011				
<u>MONTH</u>	2 RING	3 RING	5 RING	<u>MONTH</u>	10 Sec	<u>20 Sec</u>	30 Sec		
January	90%	96%	99%	January	90%	99%	99%		
February	87%	96%	99%	February	87%	98%	99%		
March	97%	95%	99%	March	88%	98%	99%		
April	89%	97%	99%	April	88%	98%	99%		
May	92%	97%	99%	May	86%	98%	99%		
June	92%	98%	99%	June	85%	97%	99%		
July	90%	97%	99%	July	83%	97%	99%		
August	90%	97%	99%	August	84%	97%	99%		
September	90%	96%	99%	September	85%	97%	99%		
October	88%	95%	99%	October	<b>8</b> 7%	98%	99%		
November	92%	97%	99%	November	84%	97%	99%		
December	91%	97%	99%	December	81%	96%	99%		
Total Avg.	89%	96%	99%	Total Avg.	83%	98%	99%		



# Call Handling and Event Statistics - 2011

	Monthly	Daily		YTD		Total	% answered	% answered	% answered	Outgoing
	911	911	Quarterly	911	10 Digit	Calls	within	within	within	Calls
	Total	Average	Total	Total	calls	Answered	10 sec	20 sec	30 sec	Total
January	38,442	1,240	117,721	38,442	22,055	60,497	89.8	98.6	99.7	20,002
Feburary	37,139	1,326	,	75,581	20,141	57,280	87.1	98.1	99.6	18,208
March	42,140	1,359		117,721	22,983	65,123	88.3	98.2	99.5	20,806
April	44,362	1,479	131,646	162,083	24,587	68,949	87.5	98.0	99.5	21,520
May	43,819	1,414	,	205,902	24,445	68,264	86.4	97.9	99.4	21,563
June	43,465	1,449		249,367	24,279	67,744	84.8	97.3	99.2	20,796
July	44,110	1,423	131,461	293,477	24,585	68,695	83.4	96.9	99.1	20,608
August	45,223	1,459	- , -	338,700	24,259	69,482	84.1	96.8	99.1	21,603
September	42,128	1,404		380,828	22,570	64,698	84.5	97.2	99.3	20,214
October	44,231	1,427	128,343	425,059	22,542	66,773	86.6	97.8	99.4	21,530
November	42,157	1,405	120,040	467,216	20,882	63,039	84.4	97.3	99.2	19,956
December	41,955	1,353		509,171	21,014	62,969	81.1	96.4	99.1	19,742
Total	509,171	1,395	509,171	509,171	274,342	783,513	85.7	97.5	99.3	246,548



Ten digit calls were once again reduced due to initiatives that utilize Twitter and Google Maps to make information more readily available.

# Dispatch Statistics - 2011

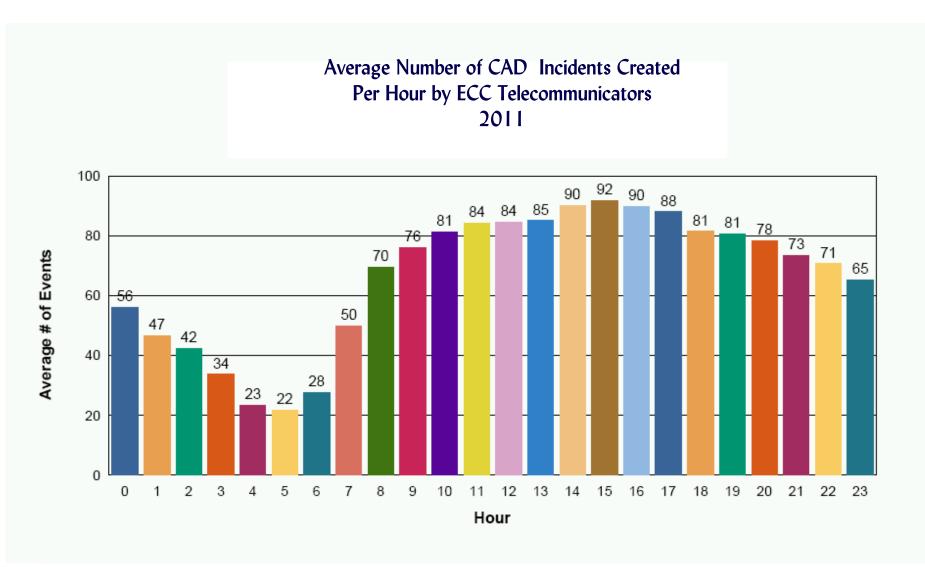


Public Safety			
Agency Type	<u> 2010</u>	2011	
Law Enforcement	308,816	316,439	
Fire	61,334	61,805	
EMS	78,615	80,861	
Dispatch Total	448,765	459,105	
Non-Public Safety			
Public Service	2,872	2,924	
Towing	7,928	7,325	

Public safety dispatches increased by more than 10,000 between 2010 and 2011



### Average Telecomunicator Created Incidents Per Hour





### Attrition Analysis - FY 2007 - FY 2012

			٥,	Experience	0/ 5	Experience	0/ 5	Experience	
	Authorized		%	More Than 1	% of	1 Year or	% of	6 Months or	% of
Fiscal Year	Staffing	Attrition	Turnover	Year	Attrition	Less	Attrition	Less	Attrition
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	14	14%	11	79%	2	14%	1	7%
FY2012 (YTD)	102	12	12%	7	59%	1	8%	4	33%
Average Attrition FY	7-12 YTD		17%	48	51%	23	24%	24	25%
Total Attrition FY07-	12 (YTD)	95							

			% of
Reason FY11-FY12	(YTD)	Attrition	Attrition
Family/Personal Reasons		6	23%
Death		1	4%
Other Employment - COR		1	4%
Other Employment - Extern	nal	9	34%
Job Dissatisfaction		1	4%
Retired		1	4%
Terminated (or resigned in	leiu of)	7	27%
Total Attrition FY11-F	Y12 (YTD)	26	100%

ike many 9-1-1 centers, RWECC suffers the adverse effects of attrition. During the six year period from FY 07 until the year to date, 95 people have separated from service. This is 14 more people than are currently authorized to staff positions on the operations floor. This manifests itself in constant training, costs associated with training, and lack of experience in the center itself. On average, only 77% of authorized staff is fully trained and available, which places a burden on call handling and dispatch. The chart to the left focuses on the previous 18 months of experience, which included both a death and a retirement. Moving forward, RWECC expects the number of annual retirees to increase. Despite attrition, we still maintain several employees who are approaching that career milestone.



### Major Accomplishments - 2011

hile there were a number of major improvements made during 2011, two bear particular mention. The utilization of AVL, or Automatic Vehicle Location, for the dispatch of priority law enforcement calls within the City of Raleigh reduced police response time to the most critical incidents. AVL has been used for several years to help manage Emergency Medical calls, and will soon migrate to all law enforcement calls dispatched by the center. The use of AVL for Raleigh Police marks the first step in a program designed to provide better service and improve officer safety.





mergency Fire Dispatching, or EFD, was another tool added to the ECC arsenal during 2011. Based on a scripted list of questions similar to those used for Emergency Medical calls, EFD gathers incident specific information that allows for better recommendation of resources. There is also a provision for providing instruction to callers, which further enhances citizen safety. Representatives from city and county fire departments have been directly involved with staff in the design and quality assurance aspects of this effort. Since the program has not been in effect for a full year, data is incomplete. However, early indicators suggest that this will be beneficial in both resource management and injury reduction.



### Our Accreditations - What They Mean





RWECC is accredited through the National Academies of Emergency Dispatch in Emergency Medical Dispatch (EMD). An accredited agency must meet the 20 points of accreditation which range from how an agency processes a medical call to having ongoing continuing education to having an oversight committee to ensure compliance. In addition to the 20 points, an accredited center must audit a percentage of all medical calls. Each audited call will have an individual score. The overall score for an accredited center must be a minimum of 95%. The academy reviews all parts of the application, including the 20 points. The academy also reviews some of these calls to ensure compliance to the protocols. Once accredited, a center must maintain the 20 points achieved in the original accreditation process and maintain the minimum compliance score of 95%. The agency must have continuing education each year to maintain individual certification. A center is re-accredited after a period of 3 years, ensuring all 20 points and compliance to calls is still maintained.

The CALEA Public Safety Communications Accreditation Program provides a communications center with a process to systemically review and internally assess its operations and procedures. Since the first CALEA Communication Accreditation Award was granted in 1999, the program has become the primary method for a communications agency to voluntarily demonstrate its commitment to excellence. The standards upon which the Public Safety Communications Accreditation Program is based reflect the current thinking and experience of public safety communications executives and accreditation experts.



The Raleigh-Wake Emergency Communications Center became APCO Project 33 Certified in 2010. The certification is a direct result of the training standard developed by APCO International. The training standard is competency based and seeks to identify basic skills, knowledge and attitudes required to successfully serve in the critical role of a public safety telecommunicator within any public safety communications center or dispatch agency. To successfully receive the certification and maintain, all training materials, instruction, methodologies are managed and reviewed for standardization and compliance. The Raleigh-Wake Emergency Communication Center Training Division manages the certification to ensure that all new employees receive the highest standard of training consistent with the APCO Project 33 Standard and Certification Program.



### **ENP and EMD**

#### **Emergency Number Professional**

he 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 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
_	

Congratulations to Heather Fletcher (right) on delivering two babies, and to LaShundra Young (far right) on delivering a baby and having a cardiac save!

#### **Cardiac Saves**

RWECC had five confirmed cardiac saves last year, where employees directly provided interactive CPR instructions. These employees are:

Brent Boykin	Jessica Davis	Annie Griffin
LaTasha McGirt		LaShundra Young

#### **Emergency Childbirth**

During 2011, RWECC personnel delivered eight babies via Emergency Medical Dispatch protocol. Those employees were:

Bill Cooke	Heather Fletcher (2)	Julie McDow
Corey Saddler	Alan Sanders	Chris Walton
·	LaShundra Young	







# Unusual Calls - Expecting the Unexpected

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ne aspect of providing 9-1-1 service is to expect the unexpected; and in this regard, 2011 was a prime example. While many of the hundreds of thousands of calls managed throughout the year may be repetitive in nature, each is unique and must be carefully processed as such.

Two prime examples of unusual incidents from this past year are highlighted on the right. At top is a City of Raleigh press release from June 21, dealing with smoke conditions throughout the Triangle that resulted in numerous 9-1-1 calls. The source of this haze was a series of wildfires in the eastern portion of the state.

he bottom clip by Matt Garfield comes from the August 24 issue of the News & Observer concerning the East Coast earthquake. Although centered more than 200 miles away in Virginia, it was the source of more than 200 nine-one-one calls in a short period of time. Only one call resulted in dispatch; a request for assistance in a precautionary evacuation of an older building.

#### Smoky Conditions Prompt Calls to Raleigh-Wake 9-1-1 Center

The Raleigh-Wake Emergency Communications Center (ECC) is receiving more 9-1-1 calls than normal because of the smoky haze that is blanketing Raleigh and the Triangle. Wildfires in Pender, Dare and Hyde counties are contributing to the smoky conditions in the Raleigh area. Though citizens are encouraged to report any signs of heavy smoke or fire, the ECC said they should be mindful that that the haze from the wildfires is expected to continue in the area throughout most of the day. Reporting these conditions to the 9-1-1 Center could delay responses to actual local emergencies.

#### Quake Calls Tie Up 9-1-1 Lines

Inside a bunker under City Hall, Raleigh-Wake County 911 telecommunicators felt the tremors from Tuesday's earthquake. Almost instantly, the calls started rolling in. One woman wanted to check on the safety of the nuclear plant. Another said she awoke from a nap and discovered her home was shaking. A visitor to the Triangle from California called just to say that she knows what an earthquake feels like."She said, 'I feel like I'm right at home,' " recalled telecommunicator Shannon Tessari. The 911 center received 210 earthquake-related calls in 20 minutes, director Barry Furey said. None of the calls involved actual damage or injuries. "Throughout that period, emergencies throughout the county didn't stop," Furey said. "And yet we tied people up in here for an event 200 miles away. Any time that happens, it slows our response to the real emergencies."

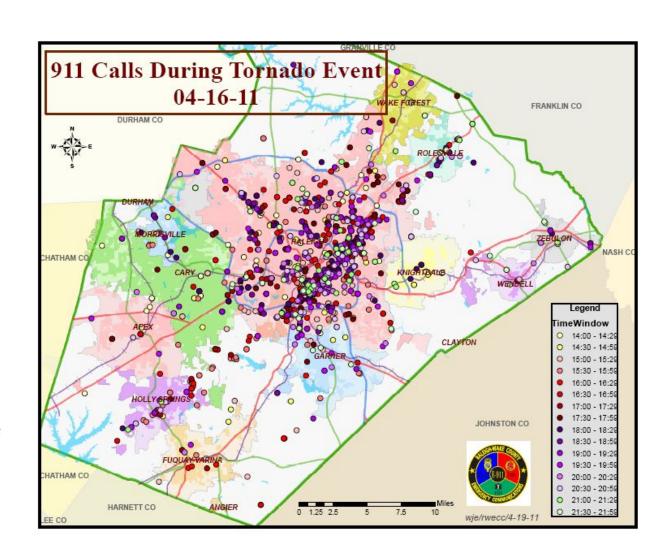


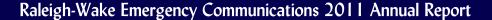
### The Tornadoes of April 16, 2011

hortly after 2:00 PM on Sunday, April 16, Raleigh-Wake Emergency Communications staff began receiving calls reporting tornado damage in Southern Wake County and the City of Raleigh. The center had been monitoring the progress of these storms all morning, and had remained in contact with key administrative staff throughout the day. Early in the lifecycle of the event, the Holly Springs 9-1-1 Center became compromised, and all calls from this facility were assumed by Raleigh-Wake.

The graphic to the right shows the dispersion of calls received regarding these killer tornadoes. During the period of peak activity, both the primary and backup 9-1-1 centers were brought on line simultaneously for the first time ever, in order to handle the enormous volume of emergency requests.

For a protracted period of time RWECC telecommunicators dispatched first responders to an average of more than five events every minute.





### The Tornadoes of April 16, 2011

aturday, April 16 saw a band of tornadoes rip through North Carolina, killing 24 and doing millions of dollars in damage. In Raleigh, four children were killed in the same mobile home when a tree crashed through the structure. Within the city limits alone 146 homes and businesses were destroyed, another 2,269 were damaged, and losses exceeded \$115 million. Bertie County, to the east, accounted for half of the state's fatalities. Here 67 homes were completely destroyed and another 16 damaged. These were but two of the 18 counties eventually declared disaster areas. Statewide, more than 450 homes or buildings were completely destroyed, and at least 135 people seriously injured. Over 2,000 had lost their place of employment. Some of the earliest damage recorded in the Tar Heel State came in Lee County, where a Lowe's Home Improvement Center was almost totally obliterated while about a hundred customers and staff took refuge in restrooms. Debris from this vicinity was later found in North Raleigh; a distance of about 50 miles.

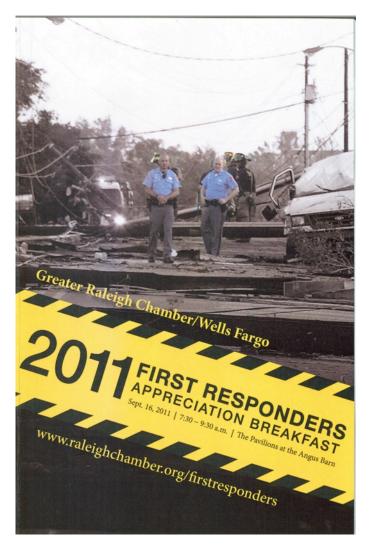
As indicated, it was this system that moved in a north-northeasterly pattern wreaking havoc as it went. In Raleigh, two EF 3 tornadoes ran a parallel line, and stayed on the ground for a majority of their path through Wake County. More than 3,750 telephone calls were answered at the 9-1-1 center in the period between noon and eight PM. During the four o'clock hour alone, 322 dispatches were made; an average of more than five a minute.







# Awards and Recognition - 2011 "Heroes of the Year"



n September 16 - five months to the day of the deadly tornadoes -Raleigh - Wake Employees were honored as "Heroes of the Year" at the Raleigh Chamber's Annual First Responders Appreciation Breakfast. To the right, Director Barry Furey and **Assistant Supervisor Kevin** Anderson accept the plaque from a Chamber official. Below, ECC employees Theresa Melvin, Alan Sanders. Jenine Wells and Julie McDow are all smiles after the win. This is the first time in the brief history of the award that ECC has taken home top honors.







### Awards and Recognition

- In April, Mayor Charles Meeker issued a proclamation for "National Telecommunicator Week" and recognized the ECC for our dedicated work to public safety.
- Chris Miller achieved APCO (Associated Public-safety Communications Officials) Certified Radio Technician status.
- Telecommunicator Dawn Lauzon received the "Rookie of the Year" award.
- Telecommunicator Mike Suzik received the "Telecommunicator of the Year" award.
- Richard Batchelor, Judy Capparelli, and Alan Sanders received Director's Awards.
- Supervisor Jesse Creech was reappointed as the coordinator for the North Carolina Chapter of NENA (National Emergency Number Association) TERT (Telecommunicator Emergency Response Task force) Team.
- EMD QI Supervisor Judy Capparelli is in her second year of her 2-year term as Secretary for the North Carolina Chapter of APCO, is a member of the Readers Board for the National Academies of Emergency Dispatch and is a member of a EMD sub-committee for the North Carolina College of Emergency Physicians.
- Six employees received perfect EMD scores for 2011, they were Assistant Supervisors Tom Meehan, Rob Miller and Chris Mise, Telecommunicators LaShundra Young, and Suni Wilkenshoff and , Call Taker Joye Greene. Congratulations to these employees for a "Job Well Done."
- Angie Schulz served as 1st Vice President of NENA. Deputy Director Kelly Palmer served as NENA Treasurer; Richard Batchelor served as APCO Ambassador.



# **Awards and Recognition**



uring 2011, RWECC and RWECC staff received several acknowledgements and commendations. In August, Director Barry Furey (left) accepted a reaccreditation award from James Brown of CALEA and President Bill Carrow of APCO. Below left, Kelly Palmer and Judy Capparelli served as officers of NC NENA and NC APCO. Below, Richard Batchelor was selected as Support Person of the Year by both NC APCO and NC NENA; the first time that both organizations presented their awards to the same individual.







Raleigh-Wake Emergency Communications 2011 Annual Report

### Awards and Recognition - Positive Feedback

On behalf of the Wake County EMS system, I would like to personally thank each of you for standing up and meeting the challenge from the EMS Division to configure and deploy four new vehicles in less than 8 hours. From the configuration of units in CAD and AVL, to changing the various servers to ensure the systems all properly communicate, to programming hardware on short notice - everyone worked together to meet the objective within a very short timeframe. The attention to detail you provided and clearly going above and beyond what is regularly expected of your positions is graciously appreciated.

A special thanks to the managers that allowed these personnel to put aside what they otherwise had planned for the day to attend to these issues in a

professional and expeditious manner.

Sincerely,

Jonathan Olson, MBA, MHA, NREMT-P Assistant Chief, Operations Wake County Department of EMS Please pass along my thanks to the dispatchers working the Green Road fire on Christmas morning. The dispatcher called E-11 as we got in route and suggested a second alarm based on the number of call. This was very beneficial in getting the resources we needed to this incident early enough to remove occupants and protect buildings on both sides of the involved building.

Scott White
Captain Engine 11 A Platoon
Raleigh Fire Department



I have worked a lot with Bill Passerino and Daniel, and these gentlemen are a very valuable asset to ECC and the City of Raleigh as well. Now that I have worked with Kevin, he fits in that same mold. I appreciate them all. I'm unsure who they subordinate to structurally, but please pass along my appreciation for such an awesome team that has clearly supported the organization's core values and made a customer service difference over the last several years!!!

Louann I. Pittman

Senior Staff Analyst

City of Raleigh Parks & Recreation



I just wanted to let you know that Telecommunicator LaShundra Young worked with us on 12-31-2011 during the First Night celebration. She did an outstanding job keeping track of events and monitoring the radio traffic associated with the event. Please pass along to her our appreciation for her hard work and dedication. She made my job a lot easier.

Thanks
Sergeant GM Smith
Raleigh Police Department
Special Operations Division



### Awards and Recognition - Positive Feedback



I wanted to take the time to shoot you a message about what a great job the young man working R1 during my shift did. I usually have 2 other Sgts. and an Lt. working with me, but I was working alone on this particular day. As you well know, it tends to get busy and with the adjustments we are all trying to make to adapt to 'AVL' dispatch, the stress can pile-up in a heartbeat. The dispatcher on R1 today was the definition of a professional and made my tour very manageable. He kept me advised of things and answered questions that I had for certain incidents without missing a beat. Please tell this individual to keep up the outstanding work!

Please allow me to extend my thanks to your 911 operator as well as Station 5's fire personnel and EMTs who responded to my emergency on Friday, November 4, 2011 at approximately 4:30pm.

My daughter's head (she is three years old) was stuck between a wall and a horizontal steel beam in our home. I am grateful for the clear instruction provided by your 911 operator as well as the fast response of the RFD and EMTs. I don't think I was on the phone with the operator for more than a minute when I heard the fire engine siren as the truck left the station.

What was most impressive - other than the EMTs getting my daughter "unstuck" - was the seedless interaction of the 911 operator, RFD, and EMTs. I felt that everyone was on the same page as the situation was assessed and a plan was executed.



...to the telecommunicators sending help to our crew this evening when they found themselves needing assistance while trying to protect a patient from harm.

It is my understanding that help came swiftly and abundantly, and we can't ask for more than that. I'll call with details.

We appreciate what the RWECC does for us daily, but are particularly grateful for the special assistance tonight.

RSL Ryan S. Lewis Chief Clinical Officer Wake County EMS System

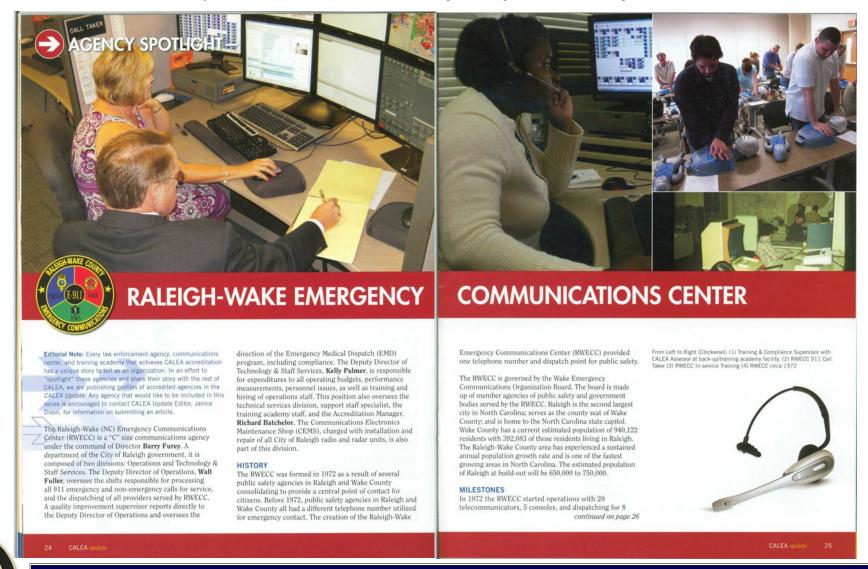
Shirley and I want to say thank you to Stephanie Barnard for her courtesy and professionalism in how she handled the communications dealing with Shirley's wreck. She let me know that my wife was OK, and that fire and EMS were on the way. This speaks highly of her training and expertise.



### Awards and Recognition - RWECC In The News

In a typical year, RWECC and its personnel are featured in a number of national magazines. This year was no exception.

The February 2011 issue of the CALEA update profiled our organization.





### Feedback Analysis

very year, RWECC conducts an analysis of feedback received from user agencies and the public concerning our performance. This information is placed into three categories: Commendations, Complaints, and Inquiries. An inquiry is established any time a question regarding service is raised. Most often, inquiries consist of questions concerning units assigned, the jurisdiction of the call, or procedural matters. If during the investigation of an inquiry any wrongdoing is discovered, the incident is automatically reclassified as a complaint. The table to the left shows a comparison of the past five years of experience. The table on the right deals with 2011 only. While there have been minor fluctuations in numbers since 2007, complaints still remain statistically small, given the call and incident volume managed by the center.

Feedback Comparison 2007 - 2011					
	<u>07</u>	<u>08</u>	<u>09</u>	<u>10</u>	<u>11</u>
Total formal feedbacks	109	63	82	65	83
Commendations	24	17	24	16	18
Inquiries	21	11	23	19	25
Citizen complaints	22	18	10	14	17
User complaints	39	17	31	15	21
Total complaints	61	35	42	30	40 *
Valid complaints	31	15	23	18	27
Unfounded complaints	13	08	07	01	04
Exonerated by investigation	17	12	12	11	09

2011 Feedback Received	83
Commendations	18
Specific Employee	13
Crews / Divisions	05
Complaints	40
Valid	27
Unfounded	04
Exonerated	09
Inquiries	25
Valid Complaint Natures (Top 4)	
Call Handling Dispatch	13
Call handling Call Taking	05
Rudeness	05
Slow Response Time	04



### **Training Division**

#### **Training Academy Mission Statement**

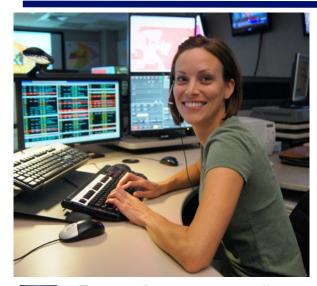
The 9-1-1 Training Academy is committed to providing its students with the best training available, in order to support and accomplish the mission of the Raleigh-Wake Emergency Communications Center. It is our goal to create an atmosphere that is conducive to the learning process and to impart to students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

The Training Division is dedicated to providing quality professional development to all RWECC employees. This year was no exception. In January of 2011, the Training Division organized a Health and Wellness Program. Employees were given the opportunity to participate in crew and individual challenges. A Biggest Loser competition for the center began in January and ended in March. The center participants lost cumulatively 310 pounds. Two training academies were conducted in 2011. The 41st academy began in February and graduated six (6) telecommunicators to begin their on-the-floor training. The 42nd academy began in November and will graduate in the first quarter of 2012.





# Training Division - Activity Log



he Training Division continually strives to develop all RWECC employees. Training programs are reviewed and updated to maintain the high level of training that has become the expectation. For the upcoming year, the focus will be to develop the Communications Training Officer program and on-the-job training for new hires and tenured employees. By developing our employees and continually advancing our programs we ensure quality service to the citizens and responders of Wake County.

#### 2011 Public Education

- ➤ Raleigh Neighborhood College (2 Sessions)
- ➤ Neighborhood College Seminar
- ➤ Weekly posting to Facebook and Twitter social networking sites
- ➤ Raleigh Police Training Academy: Overview of the RWECC
- ➤ Raleigh Police Department: New Sergeant Orientation (2 Sessions)
- ➤ Raleigh Fire Department "Overview of the RWECC" video.
- ➤ Raleigh Community Action Councils 3 sessions

#### 2011 Continuing Education

- ➤Online Education 1.652 hours
- ➤In-Service Training 106 hours
- ➤ Crew Meetings 104 hours
- ➤ Training Meetings 20 hours
- ➤ Certifications and Miscellaneous Classes 223 hours

Total Available Continuing Education Hours Provided for 2011 - 2,105



### Training Division - Continuing Education

For 2011, there is a notable decline in the number of training hours provided to the employees. This is due in part to reassignment of staff and the reduction of funds available to provide training.

#### **Online Continuing Education**

#### 1st Quarter

- ➤ Wheel of Procedures 1st Quarter Procedure Review
- Modern Day Slavery: Human Trafficking An Epidemic of World Proportions
- > EMD Protocol Review
- ➤ Universal and Customer Service Scoring Standards
- ➤ The Tale of ECCville: Incident Type Review

#### 2nd Quarter

- > Emergency Dispatch Universal Course
- Carrying Concealed Weapon Overview
- ➤ 2<sup>nd</sup> Quarter Procedure Review
- ➤ EMD Case Entry and Chief Complaint Scoring Standards
- > EMD Protocol Review
- ➤ Good Call, Better Call, Excellent Call

#### 3rd Quarter

- ➤ 3<sup>rd</sup> Quarter Procedure Review
- > EFD Protocol Review
- > EMD Protocol Review
- ➤ EMD Key Questions and Dispatch Life Support Scoring Standards
- ➤ EMD Journal Review: Water Worries
- ➤ Wake County Roads: Streets with Common Names
- ➤ Lessons Learned from the April Tornado

#### 4th Quarter

- > Terrorist Screening Center
- > DCI on CAD
- > EMD Protocol Review
- > EFD Protocol Review
- ➤ EMD Final Coding and Compliance Score Standards



### Training Division - In Service Training

#### **In-Service Training**

#### Spring

- > Emergency Fire Dispatch Certification
- ➤ Emergency Fire Dispatch ProQA Training

#### Fall

- Domestic Violence
- Quality Improvement Update

#### **Training Meetings**

#### **Meeting Topics**

- ➤ Next Generation 9-1-1 For Dummies
- Harris Nuclear Power Plant Overview by Wake County Emergency Management
- > State of the ECC
- ➤ DCI/NCIC Update
- > 9-1-1 Customer Service

#### Green Initiative



s a green initiative and to lower printing costs all trainees beginning with the 41st Academy were issued a repurposed laptop. The printing of manuals, study aids, handouts, purchasing of binders, etc. cost the RWECC an average of \$3,500, annually. The project also has proved to be a more effective way of maintaining up-to-date materials due to constant changes associated with updated procedures All study aids and materials are placed on the laptops as new information is presented. Trainees are allowed to take notes and access the RWECC Learning Management System for online education.





## Training Division - Hiring and Academy

- ➤ Application and Testing A total of 287 applications were received for the positions of call taker and telecommunicator. Selected applicants were chosen based on prior customer service, computer skills and work history, and 133 applicants were chosen for skills testing. Of the 133 applicants scheduled to test, 21 were from out of state. 14 applicants did not show for scheduled testing. 2 applicants left during the employment session due to being automatically disqualified due to criminal history.
- ➤ Interview and Background A total of 39 applicants successfully passed the employment section to move on to the interview stage. Due to mitigating factors, only 33 applicants were interviewed. Of those applicants, 22 were recommended for further consideration. Of those 22, 19 applicants were considered for final evaluation.
- ➤ 42<sup>nd</sup> Training Academy The 42<sup>nd</sup> RWECC Training Academy started on Monday, November 7 with 12 new employees. Of those 12, 6 of the employees had prior experience in the public safety profession.



During 2011, the Training Division was presented with a special Director's Award for their work in achieving APCO Project 33 Certification.



### **Technical Services Division**

he technical services division is responsible for the specification, acquisition, planning, operation, and maintenance of, in their own words, "anything that has a power cord." This covers a wide range of technology, from Computer Aided Dispatch systems and ancillary devices, to mobile, portable, and fixed radios through the City of Raleigh Central Electronics Maintenance Shop. During 2011, this division responded to hundreds of requests for service and performed numerous preventive maintenance activities. The highlights of these activities reside on the pages that follow.

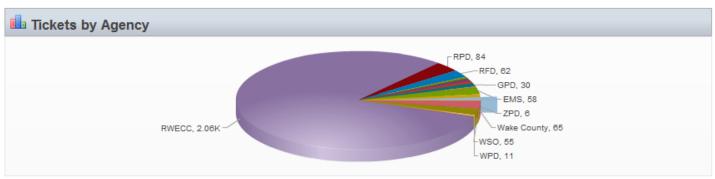


uring the calendar year several technical systems were upgraded to the latest versions, which includes involvement of many of our remote users

- o Motorola Premier CAD was upgraded to Version 7
- o Motorola Automated-Vehicle Locating System
- o Motorola Open Query (Used to automatically query people and vehicles thru CAD)
- Installed and went live on a new state of the art audio recording system which records all incoming and outgoing telephone and radio traffic. This project involved 3 sites and allows for remote agencies to now begin listening to radio traffic for training purposes and delivers a much more reliable system to ECC users.
- Installed and configured the EFD fire protocols which operate using a centralized management database.
- Fine-tuned the internal backup strategy which led to the purchase of a Barracuda backup appliance. This allowed for more detailed auditing and a much more friendly user interface.
- Added some additional storage space with the purchase of another Dell Equalogic SAN Array.
- Continued the fine-tuning of the internal ticketing and documentation processes, began the migration from an open source wiki to Microsoft One Note, which provides greater cross application compatibility.
- Added another instance of Splunk which helps to ensure standardized logging and auditing.



### Technical Services Issue Submissions By Agency - 2011



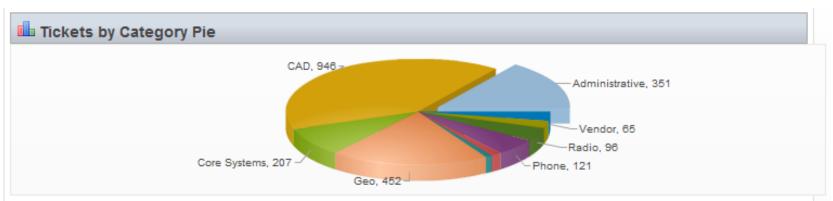
Raleigh - Wake Emergency Communications Center: Tickets by Agency

Shows the Tickets completed by agency (17 items)
Generated on Jan 19, 2012 @ 09:55 am

Agency	Number Of Tickets
Apex	29
CFD	21
EMS	58
FVPD	7
GPD	30
Holly Springs	21
KPD	17
MPD	8
Other	11
RFD	62
RPD	84
RWECC	2062
RoPD	3
WPD	11
WSO	55
Wake County	65
ZPD	6
4	h



# Technical Services Issue Submissions By Type - 2011



#### Raleigh - Wake Emergency Communications Center: Tickets by Category Pie Shows tickets by Category (10 items)

Generated on Feb 29, 2012 @ 10:50 am

Technical System	Number Of Tickets
Administrative	351
CAD	946
Core Systems	207
Geo	452
Hazards	18
Networking	31
Phone	121
Radio	96
Recording	53
Vendor	65
←	<b>•</b>



### Technical Services Division - CAD & GIS

Computer Aided Dispatch (CAD) and Geographic Information Systems (GIS) are just two of the many technological networks managed by our Technical Services Division. The following pages include highlights of changes made in, and support of, those devices that fall under their auspices.

- 131 ledgers for update to the county Master Street Address Guide were completed for areas within the corporate limits and Extra Territorial Jurisdiction of Raleigh.
- 250 plats were viewed for the addition and editing of roads located within the jurisdictional boundaries of the City of Raleigh.
- 93 new streets were added to the geofile and sent to CAD for activation within the jurisdictional boundaries of Raleigh.
- 84 inquiries for the correction of ANI/ALI (Automatic Number and Location related to E 9-1-1) information were researched and processed through 91 I net in 2011.
- 25 updates were sent to the CAD system in 2011.
- 25 refreshes were sent to the CAD system in 2011, I of which was to accommodate Raleigh's regular annexation schedule.
- 489 issues were handled via the online submissions forms on the ECC intranet.
- 208 CAD hazards were added in 2011.



### **CEMS - Central Electronics Maintenance Shop**

#### Among other tasks, during 2011, CEMS:

- Moved RFD HQ Voter panel from equipment room behind Dispatch, up to 6th floor radio room, removing rack of old voters in equipment room to provide for more 911 equipment.
- Made improvements for EOC Communications for RMB Room 305; installation of patch panels, tone remotes, programming of portable radios and general improvements of the 'crash cart' for simplification. Provided user-friendly instructions for setup.
- Provided support response to ECC during the tornadoes in April and before Hurricane Irene in August.
- Developed & Implemented improved Site Standards for radio Infrastructure, stored on CEMS shop server.
- Made numerous upgrades to housekeeping and wiring at existing radio sites in order to increase reliability.
- Replaced Federal Informer Tone Alert radios with CDM1250 at all RFD stations, in preparation for switching to Narrowband on RFD HQ channel; and updating & improving interface to station trip-lights & public address system. By re-using equipment removed from service during VHF to UHF conversions, estimated cost savings of equipment of over \$16,000 of major equipment vs. new purchase, and labor savings over outside contractors of minimum \$10,000. We have also improved the reliability of the page out system, uncovered other latent problems (station falsing, stations that required manual reset of lights after a call, bad audio, and others) which are being addressed as we visit stations to continue improvement of the alert system. A new paging code-plan has been developed & is ready for implementation to avoid false alerts altogether. In addition to Tone Alert Radios, CEMS reprogrammed about 50 VHF Minitor V pagers for RFD, at a cost savings of \$2500.



# **CEMS** (Continued)

- Approximately 375 RADAR certifications were issued to RPD, and CEMS provides a weekly update to RPD Front Street of all RADAR units certified in the previous week. This is a walk-in service to RPD, scheduling is never necessary. Forty RADAR repairs were performed during the last year.
- VHF to UHF conversion project was completed.
- CEMS is the Administrator of the conventional RF system of 16 individual UHF channels and 6 VHF channels still licensed under our control. CEMS administers all FCC licensing for the City.

#### Green Initiative



By reusing equipment removed from service during VHF to UHF conversions, an estimated cost savings of equipment of over \$16,000 in major equipment vs. new purchase, was realized and labor savings of \$10,000 when compared to outside contractors. Much surplus equipment was also put on the open market and the City received approximately \$10,000 in sales. These parts were then recycled by other agencies.



### 40 Years of Dedicated Service - A Retrospective



n January 26, 1972 representatives from the City of Raleigh, Wake County, and other municipalities entered in to an agreement creating WECO - The Wake Emergency Communications Organization for the purpose of providing cooperative public safety dispatching services. Prior to this time the individual entities all maintained separate - and often duplicative - facilities. Shown to the left is the desk

at the City of Raleigh Police Department where emergency calls for the City were processed prior to the creation of the Raleigh-Wake Emergency Communications Center. The photo is circa 1950s.

The original center, while consolidated, did not provide 9-1-1 service. This would come a decade later. Instead, the seven digit number 829-1911 was used. This number was a means of non-emergency contact to the center, and was a way for those out of the

area to reach us. A proof of a newspaper ad which ran shortly after going live is seen to the right. The photo to the bottom right illustrates the original location of RWECC in the Raleigh Police Headquarters. Note the large maps and card slots that represented the technology of the times.





### 40 Years of Dedicated Service - The Beginning

he following information and photos appeared in the 1972 edition of the Raleigh Police Department Annual Report. It provided a very basic description and inside look into consolidated dispatching; an idea just starting to catch on during that timeframe. During recent times, economic conditions have caused an increasing number of communities to avail themselves of consolidation.

In February of this year Raleigh's Emergency Communications
Center formally began operations. This Center is designed so that a
citizen of Raleigh, Cary, Garner, or Zebulon will only have to call
one number (829-1911) in order to summon emergency assistance
such as fire departments, police department, ambulances and rescue
squads. The Center contains status maps to show dispatchers which
Raleigh Police Officer is closest to a needed area, a terminal of the
Police Information Network, and a 20-Channel tape recorder.

The Emergency Communications Center represents a large step forward for Raleigh and surrounding communities.



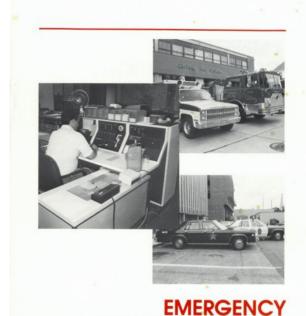


Raleigh Police Department Annual Report 1972



Raleigh-Wake Emergency Communications 2011 Annual Report

### 40 Years of Dedicated Service - The 1980's



**COMMUNICATIONS** 

CENTER

911

n undated brochure (left) describes the workings of the Raleigh-Wake Emergency Communications Center. Published sometime after 1982, the document goes on to reference the beginning of 9-1-1 service to our users, as the donation of a TTY device by the Rolesville Lioness' Club.

To the right is a clipping from the News and Observer from February 23, 1989 discussing the implementation of CAD, (Computer Aided Dispatching.) Then Director Marvin Heller was interviewed concerning the progress on the project. Featured in the photo, and in the article itself is RWECC employee Richard Batchelor. Richard is still with the organization today, and is currently serving as the CALEA (Commission on Accreditation for Law Enforcement Agencies) Accreditation Manager.



Richard D. Batchelor, foreground, and Michael C. Dreisbach dispatch police cars from Raleigh/Wake Emergency Communications Center in basement of municipal building



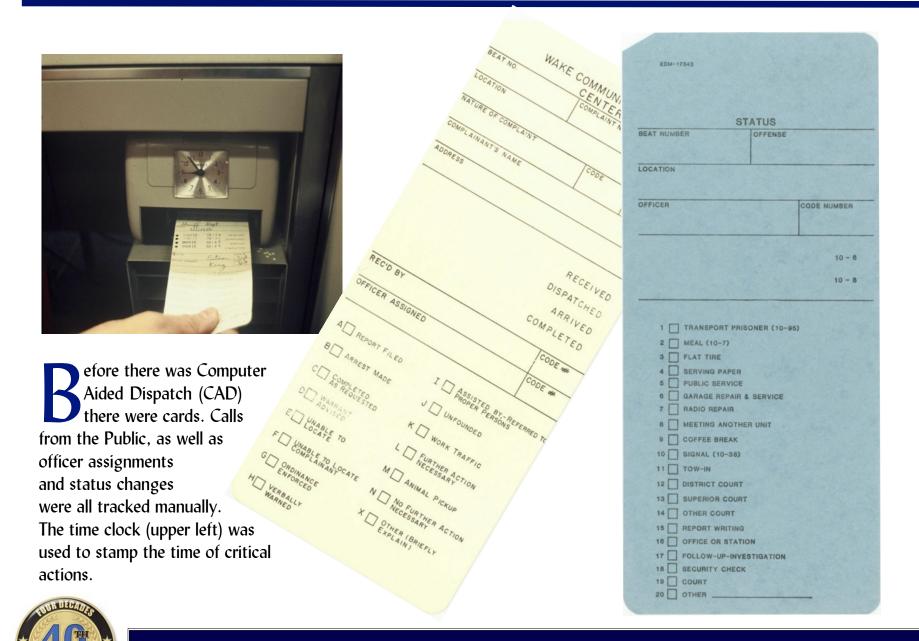
### 40 Years of Dedicated Service - Major Incidents



While not every one of the millions of calls handled by RWECC during our four decades of dedicated service were newsworthy, many were. Among those that made the greatest impact were (clockwise from upper left) the 2007 Pine Knoll Townes Fire, the 1988 and 1994 American Eagle crashes near RDU, the 2008 ConAgra explosion and collapse, and 1996's Hurricane Fran; which still holds the record for the most 9-1-1 calls generated in a single day.



# 40 Years of Dedicated Service - "Hands On" Technology



Raleigh-Wake Emergency Communications 2011 Annual Report

### 40 Years of Dedicated Service - Relics of the Past





he devices displayed on this page, while once considered to be state-of-the art, are all relics of the past. Clockwise (starting with the top left) a microfilm/microfiche reader once stored all utility billing information. In the early days, RWECC had a broader governmental focus. A conventional teletype with modem (top right) once serviced calls from the deaf. This technology is now built directly into the telephone system at each operating position. Below, an emergency call box waits on the pole, ready for use. Once numbering 237, the last devices are currently being removed from City of Raleigh parks this year. Those located on the beltline and in downtown had previously been decommissioned. Once a viable means of reporting fires, crimes, and accidents, they (like the telephone booth) were displaced by the wireless revolution. Finally, a Motorola Quik Call box for dispatching emergencies is also now a museum piece. Every console in the center currently has integrated technology that







performs the same function.

### 40 Years of Dedicated Service - A Timeline

	1972	RWECC goes live
Directors	1982	Basic 9-1-1 service begins
	1986	Enhanced 9-1-1 service implemented
Bill Curry	1988	First Computer Aided Dispatching
(1972 - 1977)	1997	Emergency Medical Dispatch begins
Marvin Heller	2001	Enhanced Wireless 9-1-1
(1977 - 1991)	2003	Backup 9-1-1 Center completed
Jim Hunt	2005	Locution automated dispatch on line
(1991 - 1998)	2006	Full scale live test of backup center
	2006	Raleigh Fire moves to 800 Mhz
Phil Penny (1998 - 2005)	2007	CALEA & EMD Accreditation
(1998 - 2005)	2008	Raleigh Police moves to 800 Mhz
Barry Furey	2010	Training APCO certified
(2006 - date)	2010	Center wins Horizon Award
	2011	<b>Emergency Fire Dispatch on line</b>



### 40 Years of Dedicated Service - Technology Moves Forward

When RWECC first began service, it did so via a seven digit number, paper maps, and file cards on which data was manually entered. In the forty years since, additions to technology have included every item on the list to the right, and more.

The computer revolution that changed society over these same years also changed 9-1-1 centers. In fact, nothing within our walls even resembles the standard telephone of yore, as even emergency calls are now answered on computers, as well.

Basic 9-1-1 Enhanced 9-1-1 (E 9-1-1) Wireless 9-1-1 VoIP 9-1-1

Computer Aided Dispatch (CAD)

Automatic Vehicle Location (AVL)

Computer Telephony Integration (CTI)

Integrated Mapping

Mobile Computer Terminals (MCT)

Locution Automated Dispatching

In Vehicle Navigation (IVN)

Emergency Medical/Fire Dispatching (EMD/EFD)

Conversion to 800 MHz radio service (Seven times more channels)

Creation of backup 9-1-1 center and supporting infrastructure Pictometry orthographic imagery



### **Key Facts and Figures**

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: 42

Population Served: 940,122

Employees: 102 total, all activities and positions

Budget: \$9,317,959 FY '11-12

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: 783,513 per year

Outgoing Calls: 246,548 per year

Total Dispatches: 469,951 per year

Radio Calls: 2,544,372 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.



Raleigh-Wake Emergency Communications 2011 Annual Report

### In Memoriam

he year 2011 was particularly difficult for the Raleigh-Wake Emergency Communications staff, as it was marked by the loss of several members of our extended family. It is difficult to remember any other period where so many of our employees lost loved ones.

No loss was closer to home, however, than that of telecommunicator Adam Brown, who died tragically in an automobile accident just one day after his birthday. Adam's spirit, wit, and smile will be missed by his co-workers.

Raleigh-Wake Emergency Communications would like to thank the many public safety agencies who provided support during this difficult time. We would especially like to recognize the staff of the Fairfax County, Virginia Emergency Communications Center for their assistance.









Raleigh-Wake Emergency Communications 2011 Annual Report