Charlotte–Mecklenburg ALERT:

Development of the Advanced Local Emergency Response Team

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Contents

I. Introduction

This report examines how a jurisdiction conceived and institutionalized a multidisciplinary approach to terror attacks. The impetus was a bomb incident with an added chemical threat. Agencies responded to the incident in a typical law enforcement fashion but soon realized that such a one-dimensional approach was not effective.

In 1997, a man named John Bernard Koch entered the Mecklenburg County, North Carolina, courthouse carrying a suspicious package. The package set off alarms on the portal entry security device. Deputies could not retrieve the package quickly enough, and Mr. Koch grabbed it and told them it was a bomb that contained a chemical that could harm many people. When local police and FBI agents entered the suspect's residence, they found a tape of him making the device and discovered information on biological and chemical agents. The incident was resolved successfully in about eight hours. The device was, in fact, a bomb, but no chemicals were found.

This incident was the "wake-up call" that made Charlotte–Mecklenburg authorities realize they were not prepared for a major critical threat to their community. The Charlotte–Mecklenburg community (City of Charlotte and County of Mecklenburg) is one of the nation's largest financial centers, a national airline hub, and home to two nuclear power plants. Local authorities became concerned about their readiness to handle a large-scale disaster, particularly one involving chemical, biological, or nuclear weapons. Consequently, in 1998 Dr. Tom Blackwell of the Carolinas Medical Center headed an effort by the city and county to develop a metropolitan medical strike team that could deploy rapidly and handle mass medical casualties. The new group was named the Advanced Local Emergency Response Team (ALERT).

The ALERT program uses a multidisciplinary team approach involving collaboration among emergency responders, including law enforcement agencies, a fire department, emergency medical units, public health organizations, the local trauma center, and other agencies. Instead of leaving each agency to perform its own planning, training, and equipping in isolation, ALERT brings all its member agencies together to work as one unit. The team is currently composed of personnel from the following agencies:

- Carolinas Medical Center
- Mecklenburg Emergency Medical Services (MEDIC)
- Charlotte Fire Department
- Charlotte–Mecklenburg Police Department
- Federal Bureau of Investigation
- Mecklenburg County Sheriff's Department

- U.S. Marshals Service
- Mecklenburg County Public Health Department
- Medical Examiner's Office
- U.S. Environmental Protection Agency

II. Funding

Funding for the startup of the ALERT program came from the Department of Defense. The initial development group (consisting of representatives of the FBI, Charolotte–Mecklenburg Police Department, Charlotte Fire Department, Mecklenburg Emergency Medical Services, and Carolinas Medical Center) traveled to Washington, D.C., to meet with Senator Lauch Faircloth (R-NC) to seek his assistance in getting funding for the project. The senator helped the group obtain a $1 million grant to initiate a pilot program for terrorism preparedness. In 2001, Senator Jesse Helms (R-NC) helped the Carolinas Medical Center obtain a $1.4 million grant from the Health and Human Services Bill to further the ALERT program. In addition, Mecklenburg County made a one-time contribution of $500,000 toward the establishment of the ALERT team.

III. Organization

ALERT is organized around a team concept that builds on and supports existing emergency resources that would be called upon to respond to a mass casualty incident. Those resources include law enforcement (police, sheriff, FBI, and U.S. Marshals), fire, and medical (public health, emergency medical services, and hospital). The system is designed to ensure that victims of a terrorist incident are properly cared for and that the community infrastructure is safeguarded and its functionality maintained. ALERT functions as an interagency cadre of experts who are highly skilled and cross-trained so that terrorist incidents may be mitigated quickly and appropriately. Regardless of expertise or discipline, all ALERT members are capable of establishing disaster scene zones of operation for protection, establishing decontamination corridors for ambulatory and nonambulatory patients, performing patient decontamination procedures, assisting in patient movement, and helping medical personnel with triage and treatment algorithms. ALERT currently has more than 100 individual participants.

What makes ALERT unique is its multidisciplinary approach to preparedness. This team approach applies to plan development and implementation, purchase of equipment, enhancement of medical infrastructure, training exercises, and continued planning and adjustments as developments in the wake of the September 11 attacks warrant.

ALERT is guided by two groups:

1. The **policy group** consists of the chiefs or directors of all member organizations. This group makes all decisions relating to operations and finances.

2. The **operational group** consists of the working-level command staff who actually respond to critical incidents in the field. This group also conducts planning and develops budgets to submit to the policy group.

The incident commander within the ALERT structure is the chief of the Charlotte Fire Department.

IV. ALERT Member Roles

This section describes the specific roles played by each agency that is a member of the ALERT program. The descriptions are grouped by category—that is, law enforcement, fire, and medical.

A. Law Enforcement Agencies

Charlotte–Mecklenburg Police Department

Members of the Charlotte–Mecklenburg Police Department (CMPD) who serve on ALERT are divided into three primary elements. The first element includes members of the Special Weapons and Tactics Team. Their primary function is to assist in situations where there is an identified suspect or suspects at an incident location and a tactical resolution is required. The second element of CMPD officers is made up of members from the Explosive Ordnance Disposal/Bomb Squad (EOD). This element is deployed when there is a report of an explosive device that needs to be rendered safe or when a rescue area needs to be cleared of potential secondary explosive devices. Members of this element can also assist in post-blast investigations. The third element from the CMPD represents members of the Field Force/Civil Disturbance Unit. These officers are trained in the proper procedures for handling a large group of disorderly persons. There is little doubt that most large-scale critical incidents will involve the movement and possibly containment of a large group of citizens. In addition to these specific areas of responsibility, all of the CMPD officers in ALERT are cross-trained in the various tasks required at a mass casualty/mass decontamination incident. If the situation does not require the expertise of a SWAT officer, bomb technician, or crowd control expert, the officer can be placed in another role at the incident location.

Mecklenburg County Sheriff's Department

Currently, eight deputy sheriffs are assigned to the ALERT program. Their primary responsibility is evidence collection, preservation, and custody. They are also trained to perform such duties as scene security, patient assessment, and mass decontamination.

Federal Bureau of Investigation

By federal mandate, the FBI is the lead agency in any incident involving weapons of mass destruction (WMDs). FBI agents assist at all scene interactions, are trained in decontamination and triage/treatment initiatives, and participate in the incident command structure. While the role of the FBI is primarily to coordinate law enforcement efforts, it also assists in consequence management efforts, providing a hazardous materials response team to help define the nature of the attack. The FBI also provides intelligence to both crisis and consequence managers.

The FBI shares its hazardous materials training with participating agencies and meets local training requirements, as well. The FBI team consists of at least five trained personnel for response deployment and one team leader for command and control, liaison, communication, and advisory purposes.

The FBI also offers guidance on evidence collection, chain-of-custody issues, submission of samples to approved laboratories for examination, and the obtaining of federal process for investigative purposes through coordination with the appropriate United States Attorney's Office.

United States Marshals Service

Currently, six U.S. marshals are assigned to ALERT. They have been a part of the team since June 2002. Marshals are trained to perform scene security, patient assessment, mass decontamination, and evidence recovery. The Marshals Service assisted ALERT in a unique way by swearing in all law enforcement members of the team as special deputies of the U.S. Marshals Service. That designation enables all ALERT team members to cross into other states, counties, and cities for ALERT-related duties without concerns about jurisdiction. The Charlotte area is home to two nuclear power plants, one of which lies in nearby South Carolina. If a large-scale disaster occurred, the deputizaton would allow highly trained ALERT team members to respond across state lines. The deputization applies during ALERT callouts only.

B. Fire Department

In the ALERT program, the Charlotte Fire Department (CFD) coordinates the response of hazardous materials technicians. Once they are on the scene, they begin the work of hazardous substance detection and identification. Then the hazardous materials officer relays the following information:

- level of personal protective equipment needed
- decontamination needs
- numbers of victims
- need for evacuation

Forty members of the CFD participate in ALERT, and they are all hazardous materials technicians. Among them are two command staff and a representative of the Office of Emergency Management. In ALERT, the CFD is the lead agency in the following matters:

- training of other ALERT members
- the maintenance equipment
- rescue of trapped or incapacitated victims

CFD ALERT members work in unison with the medical component to triage victims for treatment before and during decontamination. They also train the rest of their own department on WMD issues and their roles in supporting ALERT. CFD ALERT members work closely with the Explosive Ordnance Division of CMPD regarding unopened or unexploded devices, and the two groups have developed a joint entry team. The CFD is now developing its urban search and rescue capabilities so that staff can rescue victims from building collapses after WMD attacks.

C. Medical Agencies

Mecklenburg County Health Department

The role of the Mecklenburg County Health Department (MCHD) in ALERT is to communicate public health information to ALERT member agencies and between ALERT and the state health department. If the ALERT incident commander requests that the MCHD respond to the scene of an incident, the health director or a designee evaluates the incident and determines any action necessary for public health. The MCHD also ensures smooth, timely information flow between the state health department, the state laboratory of public health, responding agencies, and persons exposed or potentially exposed to a nuclear, biological, or chemical agent. In addition, the MCHD takes the lead in providing health-related information to the media and to the community at large.

Carolinas HealthCare System

The Carolinas HealthCare System is a large network of hospitals, other healthcare facilities, and physician offices throughout North and South Carolina. Its flagship hospital is the Carolinas Medical Center, which is the only level-1 trauma center in the region. The Carolinas Medical Center has developed plans to respond to any mass casualty incident involving a nuclear, biological, or chemical weapon and to keep the trauma center secure and protected. A system of portable showers has been developed to decontaminate ambulatory patients on arrival and prior to entry, and the emergency department entrance has been retrofitted to keep patients from entering before decontamination. Appropriate personal protective and communication equipment (Level C protection with Tyvek suits, gloves, boots, and power air-purifying respirators) has been procured for physicians, nurses, and technicians at the medical center for use as they receive ambulatory and

nonambulatory patients. All hospital emergency nurses and physicians have been trained in the response plan. They have been taught how to prepare the infrastructure and how to use the equipment required for personal protection and agent detection.

In the event of a chemical terrorist attack, treatment options depend primarily on the agent used. Therapeutic modalities for pulmonary agents, vesicants, nerve agents, and cyanide all differ. Additional pharmaceutical resources have been identified by personnel at the Carolinas Poison Control Center to assist in identifying antidotes for various agents. Algorithms have been developed to assist in quickly locating additional antidotes, antibiotics, and other resources in the event of a mass casualty terrorist attack. These resources may be mobilized to the field or clinical environment, depending on the situation. However, additional stock is required to be able to treat up to 1,000 patients immediately. It is understood that federal resources would be available on request following notification from the Charlotte-Mecklenburg Office of Emergency Management.

After an attack, the ALERT team would decontaminate as many ambulatory and nonambulatory patients as possible before they are leave the scene. Still, many patients or exposed individuals may leave the scene and self-triage to area hospitals before being decontaminated. Therefore, emergency department personnel in all local Carolinas hospitals have been introduced to level C personal protective equipment and have the capability to perform patient care activities at that level.

Mecklenburg Emergency Medical Services

The Mecklenburg Emergency Medical Services Agency (known as MEDIC) provides emergency and non-emergency medical services to the citizens of Mecklenburg County. The agency's paramedics and emergency medical technicians answer more than 70,000 calls for medical help each year. They also conduct frequent community education programs on health, safety, injury prevention, and emergency-related issues.

MEDIC was created in 1996 to improve emergency medical services in the community. It is now part of a unique partnership between Mecklenburg County, Carolinas Healthcare System, and Presbyterian Healthcare/Novant Health. Since fiscal year 1997, MEDIC has reduced ambulance response times, experienced staggering growth in service requests, and developed even higher clinical standards, even as it reduced its dependence on county taxpayer dollars.

MEDIC is one of fewer than 100 ambulance services in the nation to earn accreditation from the Commission on Accreditation of Ambulance Services (CAAS) for its compliance with the industry's highest standards for patient care and overall operation.

V. Training and Other Challenges

The special safety requirements for a first responder arriving at the scene of a chemical, biological, or nuclear terror attack are so challenging that it simply is not practical to train all law enforcement offices to that level. Early on, ALERT members realized that train-

ing was the greatest hurdle to overcome. The ALERT command staff quickly learned that most of the cross-trained skills (use of self-contained breathing systems, personal protective equipment, hazardous material detection devices, and paramedic skills) would be lost quickly without practice. The need to have team members maintain proficiency in their own specialties while keeping their cross-trained skills sharp was of paramount importance.

In ALERT's early years, training was conducted monthly until each team member because proficient in the desired basic cross-trained skills. A representative from each ALERT agency facilitated training and focused on mass decontamination procedures, medical triage protocols, scene security, evidence preservation, and the identification, characteristics, and symptoms of various chemical, biological, and nuclear agents. The biggest challenge in the initial training exercises was that police, paramedics, and physicians had never worn the personal protective suits or breathing apparatus that have to be used in case of a bioterrorism event.

The primary law enforcement functions at a potential or confirmed nuclear, biological, or chemical scene are these:

- assisting with evacuation of citizens in the hazardous area
- assisting medical response personnel with movement of persons if it is a mass-casualty event
- ensuring containment of the hazardous area and controlling re-entry
- providing security for subsequent evidence collection

None of those tasks can be performed unless the responding personnel have at least the basic personal protective equipment and some type of self-contained breathing apparatus.

There are three kinds of breathing apparatus, used in different situations (NBC filter system, self-contained system, and forced air system), and only the fire department had expertise with all three. The fire department's experience and training skills in the use of personal protective equipment and self-contained breathing apparatus were an integral part of the cross-training experience.

Training is conducted with the entire ALERT group on a quarterly basis, and its focus is scenario-style exercises that measure the overall deployment logistics of the team. Each response agency in the ALERT program conducts regularly scheduled training for its members, and then the whole team comes together quarterly for a training exercise. The four main ALERT agencies (police, fire, medic, and sheriff's office) take turns developing training scenarios for the group and then staffing those scenarios.

VI. Conclusion

ALERT is organized around a team concept that builds on and supports the existing emergency resources that would be called on to respond to any critical incident in the community. The system is designed to ensure that victims of a major incident are properly cared for and that the community infrastructure is safeguarded and maintained. What makes ALERT unique is its multidisciplinary, team-oriented approach to handling any major incident that affects the community.

Appendix A:
Charlotte-Mecklenburg Interagency Response Protocols for Suspected Chemical-Biological Incidents

1. Call originates in the CMPD Command Center regarding suspicious letter, package, or substance.

2. The Police Department screens and evaluates the situation by phone. If deemed no threat, then there is no response from emergency services and the situation ends. If the complainant is still concerned, he or she can simply throw the package away.

3. If there is a possible threat, PD and FD respond.

4. If letter is sealed and unopened, engine company seals it in triple bags and destroys it.

5. If package is unopened, bomb squad (to rule out explosive) and haz mat team respond. If a possible device is suspected, the bomb squad will handle the package. If testing reveals no bomb is present, package is turned over to haz mat team to resolve. They run chemical and radiological testing. If positive, evidence is turned over to FBI. If the investigation on scene by first responders indicates that the package is suspicious, the package will be evaluated by FBI [meets investigative criteria]. FBI sends the package to state lab for further evaluation. FBI will notify the department of public health with follow-up results. The department of public health will notify the public with the results. If the on-scene testing and investigation determines that package is not a threat, the citizen can either keep or FD will destroy. Incident commander will communicate with the media if needed to advise good intent call, but no problem.

6. If the package is open with obvious substance observed, haz mat team responds, runs chemical and radiological tests, and performs other investigations. If negative, they provide FAQ sheet. The citizen will keep package or FD will destroy. Incident commander will communicate with the media if needed to advise good intent call, but no problem. If positive, haz mat will triple-bag and give to FBI for testing at state lab. Incident commander will notify public health department of a positive hit (even if no one is exposed). FBI will notify the department of public health with follow-up results. Public health department notifies the public of the results.

7. If there is a package, envelope, or substance on scene with a complainant who is exposed and has symptoms, MEDIC is activated along with the engine company, haz mat response, and CMPD. (If symptoms without package or substance, standard MEDIC response.) The engine company decontaminates the victim and

hands off to MEDIC. Haz mat arrives and package will be evaluated. Package is triple-bagged and turned over to the FBI. Incident commander notifies public health department of a symptomatic patient and suspicious package. CMPD notifies FBI. FBI will notify the department of public health with follow-up results.

8. It there is a package, envelope, or substance on scene with a complainant who is exposed and has no symptoms, haz mat responds and run chemical, biological, and radiological tests and performs other investigations. If negative, haz mat provides FAQ sheet. The citizen will keep package or FD will destroy. Incident commander will communicate with the media if needed to advise good intent call, but no problem. If positive, haz mat will triple-bag and give to FBI for testing at state lab. Incident commander will notify public health department of a positive hit and public exposure. FD collects contact information on those exposed. If negative, FD provides FAQ sheet. The citizen will keep package or FD will destroy. Incident commander will communicate with the media if needed to advise good intent call, but no problem. If positive, haz mat will triple-bag and give to FBI for testing at state lab. Incident commander will notify public health department of a positive hit (even if no one is exposed). FBI will notify the department of public health with follow-up results. The department of public health will notify the public with the results.

9. If 10 patients or more are contaminated on scene, the incident commander requests a page of the ALERT command group to consult regarding possible activation of ALERT team. ALERT coordinators make decision on activation of team. Dispatch center controlling working channel activates the team via the dialogic and calls all other member agency communication centers to include information on response and staging.

10. Substances that the FBI will not take for testing at the state lab will be transported to Mecklenburg County hospital labs for culture. Test reports will be given to the public health department. Environmental sample is logged in with haz mat numbers.

Appendix B:
The Special Needs of Police as First Responders

This section presents information from the Charlotte–Mecklenburg Police Department (CMPD) for jurisdictions seeking to develop a program similar to ALERT.

What special safety needs are presented by a response to (1) a call for service involving a white powder or (2) a similar chemical/biological incident?

The needs for police officers in this type of event are primarily educational and equipment-related.

Training. Everything from the incident involving an elderly woman who received a sample of laundry soap in the mail on September 18, 2001, and thought she had an anthrax letter, to a credible threat at a nuclear power plant may generate a call to the local 911 system. The preliminary response protocol will always involve the dispatch of police patrol personnel to the scene. Notably, they are the members of the organization who have typically received the least amount of training on a nuclear, biological, or chemical (NBC) or weapons of mass destruction (WMD) event. Some CMPD employees have received extensive training on the standard operating procedures associated with a WMD response: personal protective equipment, air monitoring devices, powered air respirators, and self-contained breathing apparatus. Even if they are not actually issued the equipment, they can take it from a responding fire department unit, protect themselves, and perform their assigned functions. While their capabilities are a huge asset, it is simply not practical to train all police officers to that level.

The remaining group of officers who routinely respond to the original request for service receive awareness-level training on domestic preparedness. The training program was implemented before the recent terrorist incidents and educates officers on the potential types of threats, dissemination devices, chemical and biological agent characteristics and symptoms, and initial scene management skills. In addition, CMPD periodically sends out notices on specific WMD threats (such as anthrax letters) and on the department's current response guidelines to such events.

It is imperative that law enforcement agencies continuously assess their training needs and ensure that their officers have the latest knowledge on the potential threats they may encounter. When hundreds of anthrax-related calls came in, CMPD was fortunate to have already brought together, through the ALERT team, representatives from all the local first responder disciplines. A group was immediately brought together to draft the response protocols needed to address this new type of threat. (See Appendix A, above.) The information was quickly disseminated throughout all levels of CMPD and was shared with all the other law enforcement agencies in the jurisdiction. The catalyst for a serious event could easily be an untrained patrol officer who inadvertently opens the terrorist's package and creates a mass casualty incident. At the same time, a properly

trained police first responder can help to allay some of the community's concerns and focus the agency's attention on incidents that genuinely require its attention.

Equipment. No police department would require officers to respond to an armed robbery without first providing them with the equipment needed to ensure their safety and the safety of the public. The primary law enforcement functions at a potential or confirmed NBC/WMD event include assisting with citizen evacuation, helping medical response personnel with the movement of persons if it is a mass casualty event, ensuring containment of the hazard area and controlling re-entry, and providing security for subsequent evidence collection.

None of these tasks can be performed by an officer who lacks basic personal protective equipment (PPE). CMPD has made it a high priority to procure NBC respirators for all sworn officers in the department. However, given the agency's size, the initial expenditure for that equipment would exceed $250,000. OSHA-mandated training on the apparatus can normally be performed by fire department personnel. Current threat information suggests some risk that terrorists may use chemical or biological devices. NBC respirators would at least enable officers to perform their duties during the incident management phase of an event. Currently, if a suspect package or incident meets the initial screening criteria, police officers are dispatched with equipped fire department personnel.

CMPD wants officers to be educated about the potential threats they may face and use their knowledge in conjunction with issued equipment. It would be difficult to calm a community during another influx of biological threats if officers wore respirators to every call. Law enforcement agencies need to be knowledgeable enough about the facts of biological and chemical agents to set the tone for citizens, while at the same time having the right equipment if the need arises.

What complications are presented when such a scene may be both a crime scene and a call for fire/EMS backup?

A multitude of complications may be present during both the incident management phase and the consequence management phase of an event. Generally speaking, police and medical response personnel have very different roles during the incident management phase. Emergency medical responders are busy with treating injured victims. They are not going to be conscious of the evidentiary value of an injured person's clothes as they cut them off to provide medical treatment. Likewise, most on-scene law enforcement officers are not much use in the triaging and treating of victims. As the event shifts to the consequence management phase, medical personnel generally withdraw and law enforcement personnel begin to pick through the scene to begin a criminal investigation (assuming the event was precipitated by a terrorist).

The same course of events occurs at almost every homicide, assault with a deadly weapon, rape, or arson scene. There is an inherent conflict in the primary tasks associated with law enforcement and medical response. With that understanding, CMPD began the task of educating the various disciplines on each other's needs. Again, through CMPD's relationship with ALERT, the department facilitated instruction on each

ALERT member's job functions. Evidence collection experts from the FBI explained what they require at a scene and what can be done to preserve items that may later be considered evidence. Fire and emergency medical personnel were given an opportunity to examine the various types of physical evidence that law enforcement agencies rely on for successful investigations. In turn, the law enforcement members of the team were trained in basic triage and treatment functions so they could help medical responders during the critical phase of the incident where lives are at stake. The classes gave ALERT members a greater understanding of each other's functions and how those functions interface during a critical incident.

Appendix C:
ALERT Equipment, Training, and Personnel Requirements

This section outlines the resources needed for basic preparedness, as already achieved in Charlotte and Mecklenburg County, and the additional resources required for full preparedness. Required resources fall into three categories: equipment, training, and personnel.

Charlotte–Mecklenburg Police Department

Equipment, Basic Level of Preparedness

Bringing the Charlotte–Mecklenburg Police Department to a basic level of preparedness with regard to equipment has an associated cost of $308,482 and includes the following:

Personal Protective Equipment

Personal protective gear for the officers involved in a dangerous or potentially dangerous nuclear, biological, or chemical (NBC) environment is the primary issue and encompasses most equipment needs.

24 Level "B" personal protective suits	$720
18 Chemical/biological gas masks	$1,800
20 Nuclear/chemical/biological filters for gas masks	$2,200
10 Scott powered air purifying respirators	$6,500
20 Batteries for Scott PAPR units	$1,800
24 Chemical protective boots	$432
4 Scott "SWAT-PAK" self-contained breathing apparatus	$8,800

Communications Equipment

Specific items are required to communicate in an NBC environment that are not normally used in day-to-day police operations.

11 Motorola comm-port microphone/receivers with separate PTT switch	$3,630

Explosive Ordnance Disposal Equipment

These items are needed to help CMPD accurately detect and render safe any improvised explosive devices used by terrorists.

1 Explosive ordnance disposal equipment truck	$250,000

2 Explosive detection K-9 units	$15,000
1 Protective EOD suit	$17,600

Equipment, Full Level of Preparedness

The cost for CMPD to reach a full level of preparedness with regard to equipment is $1,590,810. This level includes all the equipment deemed necessary to reach a basic level of preparedness and additional equipment needed to better equip CMPD for response to a mass casualty event.

Personal Protective Equipment

At this level, personal protective equipment would be available to all sworn officers in the department. Officers without proper personal protective equipment would be forced to evacuate with the rest of the community and would thus be unable to assist in efforts to manage an NBC event.

1000 Level "B" personal protective suits	$30,000
1500 Chemical/biological gas masks	$150,000
1000 Chemical protective gloves	$9,000
1000 Chemical protective boots	$18,000
1500 Protective gas mask carriers	$52,500
2000 Nuclear/chemical/biological filters for gas masks	$220,000
42 Scott powered air purifying respirators	$27,300
84 Batteries for Scott PAPR units	$7,560
1000 Fire retardant utility uniforms	$80,000
25 Scott "SWAT-PAK" self-contained breathing apparatus	$55,000

Communications Equipment

Communications equipment at this level would enhance the communication ability of the department's SWAT team when deployed in a respirator device and would provide the ability to use radio communication when there is an interruption in the normal communication network.

67 Motorola comm-port microphone/receivers/separate PTT switch	$22,110
6 Mobile communication repeaters	$48,000

Explosive Ordnance Disposal Equipment

The following items are needed to increase a team's ability to detect and render safe improvised explosive devices used by terrorists.

1 Emergency critical incident response truck	$220,000

1 Equipment truck	$51,000
1 Explosive ordnance disposal equipment truck	$250,000
2 Explosive detection K-9 units	$15,000
2 Protective EOD suit	$35,200
8 Night-vision binoculars w/IR illuminator	$22,680
2 6500 watt portable generators	$5,000
6 1000-watt portable lights	$2,760
10 Tactical MEDIC packs	$1,200
1 Real-time X-ray unit for explosive ordnance disposal	$22,000
1 Total containment vessel for EOD	$180,000
1 Telescopic manipulator for EOD	$8,000
1 Hook and rigging set for EOD	$8,500
1 External helicopter rescue hoist	$50,000

Training, Basic Level of Preparedness

The cost to train CMPD members of ALERT to participate in a terrorism response program at a basic level is $3,000 and includes the following courses:

Domestic Preparedness Training Responder Awareness Course

Taught by the U.S. Army Chemical and Biological Defense Command to all sworn personnel for four hours $0

Domestic Preparedness Training Responder Operations Course

Taught by the U.S. Army Chemical and Biological Defense Command to CMPD command staff for four hours $0

Weapons of Mass Destruction: Incident Management/Unified Command

Taught by Texas A&M University System/U.S. Department of Justice to selected department personnel for 32 hours $0

National Incident Command System, (ICS) modules 1-12

Taught by the National Wildfire Coordinating Group/Charlotte Fire Department to select department personnel for 32 hours $3,000

Tactical Considerations to Terrorism

Taught by the Charlotte Fire Departmett/Mecklenburg County EM/CPCC to CMPD ALERT members for 16 hours $0

Training, Full Level of Preparedness

At this level, training would consist of what is required at the basic level of preparedness, plus courses in mass casualty decontamination procedures, basic medical triage techniques, and use of personal protective equipment.

Mass casualty decontamination procedures and basic medical triage techniques

Taught by CMPD ALERT instructors to all sworn personnel for eight hours for the cost of printing and expendables $2,000

Personal Protective Equipment (PPE)

Level "B" with respirators and practical exercises, taught by CMPD ALERT instructors to all sworn personnel for eight hours $47,000

Personnel, Basic Level of Preparedness

The total cost of personnel for a basic level of preparedness is $1,141,674. These positions are not assigned full-time to ALERT. All team members have other positions within the organization. It is difficult to determine what percentage of time is spent working on ALERT-related functions. An average of approximately 20 percent per week would be an appropriate figure. Some positions require a much greater involvement in ALERT activities, while others require only attendance at monthly training sessions and maintenance of issued equipment.

1 Major at an average salary	$83,304
6 Sergeants at an average salary	$380,172
17 Officers at an average salary	$678,198

Personnel, Full Level of Preparedness

From a law enforcement operations perspective, we did not identify any positions that would be required to enhance our level of preparedness. From a training perspective, there would be additional time dedicated to the heightened level of preparedness. The overtime due to training has been estimated at $100,000 per year.

Mecklenburg County Sheriff's Department

Currently, five deputy sheriffs are assigned to ALERT, and in January 2002 three additional deputies will be added to the team. Because of the unique makeup of ALERT, deputies who are part of ALERT are trained to perform a variety of duties, including scene security, patient assessment, mass decontamination, and evidence recovery. The following equipment is required to perform these duties in relative safety.

Equipment, Basic Level of Preparedness

Bringing five deputies to a basic level of preparedness with regard to equipment has an associated cost of $150,600.

5 Protective masks	$1,600
5 Replacement filters	$200
5 Carrying bag	=$150
5 Protective gloves	$325
10 Utility uniform sets	$600
5 Response vehicles	$115,000
5 Police radio packages	$26,000
5 Light packages strobes wig wags	$6,725

Equipment, Full Level of Preparedness

This additional equipment would support an additional three sheriff's deputies. This level includes enough protective clothing for officers to have three changes of clothing in case of contamination.

8 Self contained breathing apparatus	$6,224
8 Level B protective suits	$720
24 Level A fully encapsulated suits	$12,000
24 Cover boots	$432
8 Power respirator w/battery	$5,184

Training, Basic Level of Preparedness

All ALERT personnel receive training in mass decontamination of victims of a WMD event. This training would include instruction and practice in setting up decontamination shelters, water lines, heating elements, and patient assessment. Training is conducted one day a month for eight hours. The average hourly rate for deputies currently assigned to ALERT in the Charlotte–Mecklenburg area is $22 per hour and $33 per hour for those deputies who are training on their day off. The resulting cost for training five deputies at a basic level is $15,840 per year, calculated at the $33 per hour rate.

Training, Full Level of Preparedness

The cost of training the additional three deputies at the same rate is $25,344 per year.

Personnel, Basic Level of Preparedness

Deputies assigned to ALERT are charged with evidence recovery and retention and scene security. They share these responsibilities with the other law enforcement teams represented in ALERT. Two full-time deputies are assigned to ALERT for the purpose of fulfilling these functions. The salary for one ALERT deputy in Charlotte–Mecklenburg is $33,200 per year. Thus, the total cost for a basic personnel level is $66,400 per year.

Personnel, Full Level of Preparedness

An additional deputy, to reach a full level of preparedness, would add more personnel to train in conducting evidence recovery and retention and effecting scene security.

Charlotte Fire Department

Equipment, Basic Level of Preparedness

To bring the Charlotte Fire Department up to a basic level of preparedness has cost $506,350 over the past several years. The types of equipment and specific costs are listed below.

Chemical Protective Suits, Chemical Resistive Gloves, Chemical Resistive Boots

These items provide protection form vapor and liquid exposure to hazardous substances.

200 Level B protection	$5,000
25 Level A protection	$25,000

Self Contained Breathing Apparatus, Powered Air Purifying Respirators, and Nuclear, Biological, and Chemical Filters

These items protect the responder from inhalation exposure to hazardous substances.

48 Self-contained breathing apparatus	$120,000
48 Powered air purifying respirator	$31,200
200 Nuclear, biological, and chemical filter	$6,000

Nuclear, Biological, and Chemical Agent Monitors

These devices help staff quickly identify the presence of an agent at the scene of an event.

2 Chemical agent detectors (CAM)	$36,000
4 Four gas air monitors	$10,000
30 Biological SMART tickets	$1,500
10 Chemical detection tape (M8-M9)	$250

Decontamination Systems

These systems provide shelter for stripping and decontaminating persons exposed to a chemical agent.

8 Inflatable tent and equipment	$112,000
4 Water heater	$68,000
4 Roller system for non-ambulatory	$8,400
40 Litter and stretcher	$12,000
5000 Clothing for victim	$15,000

Basic Communications Systems

These provide radio communications solely to key positions in the response.

14 Portable radios	$56,000

Equipment, Full Level of Preparedness

To achieve a full level of preparedness would cost $1,385,200. The types of equipment would include all the above equipment on a larger scale to accompany large numbers of victims. This will also allow for more ALERT members to be engaged in rescue, decontamination, and treatment of victims. Necessary equipment would include additional chemical suits, SCBA, and air bottles for longer durations of work. This level of preparedness will consist of the equipment and training to conduct building collapse rescue safely and efficiently. This level will also provide continuous communication capability for all fire department personnel operating at the scene. Also needed is information technology to support the Charlotte Fire Department ALERT members in identifying important information on critical targets in the Charlotte–Mecklenburg area. This information would then be placed into a system that would be accessible to ALERT members on the scene of an incident.

Building Collapse Rescue Capabilities

Additional decontamination systems	$163,000
Additional SCBA, PAPRs, and Bottles	$64,800
Additional chemical protective suits, boots, and gloves	$109,400
Additional chemical agent detectors	$80,000
Maintenance and calibration of all monitors	$50,000

Enhanced Communications Systems

This would allow every person to have a radio and also allow the use of mobile repeater system to enhance radio capabilities. The new systems would also allow the use of computers to provide critical building information.

100 Portable radio	$400,000
6 Mobile repeater systems	$48,000
4 Laptop GIS mobile web computers	$20,000

Training, Basic Level of Preparedness

The need for training at the basic level is in the areas of personal protective equipment, WMD agent recognition and identification, mass decontamination, technical decontamination, and triage and treatment of WMD exposure. This training must be conducted with all personnel. For the hazardous materials team, nuclear, biological, and chemical monitoring techniques must be delivered on a regular basis to maintain proficiency. The total cost for annual training for basic preparedness is $50,000.

400 Protective clothing	$20,000
200 Nuclear, biological, and chemical filters	$5,000
Chemical agent monitor maintenance	$10,000
SCBA and respirator maintenance	$5,000
Repairs to heaters, tents, and equipment	$5,000
Printing of training materials; training props	$5,000

Training, Full Level of Preparedness

Achieving a full level of preparedness will cost $135,000 annually. Training will include all the basic-level courses. In addition, ALERT members will be trained and equipped to respond to any type of man-made or natural disaster, including terrorist acts and the release of WMDs. This level will include building collapse rescue training, otherwise known as urban search and rescue, such as that needed after the Oklahoma City and WTC attacks.

Development of a Urban Search & Rescue Facility	$50,000
Props:	
Expendables for USAR training for one year: wood, concrete, steel, and supplies	$30,000
Tool Maintenance and Repair	$30,000
Instructor Payments and Costs	$20,000
Printed Training Material	$5,000

Personnel, Basic Level of Preparedness

The cost to train Charlotte Fire Department ALERT members consists of overtime salaries to ensure that normal staffing of emergency response companies is not compromised. The total annual cost is $299,880.

Personnel, Full Level of Preparedness

There is a need for full-time personnel to manage the ALERT functions of the Charlotte Fire Department. This would include a battalion chief to oversee and coordinate the interaction and coordination of the Charlotte Fire Department with the ALERT agencies. This position would also be responsible for equipment purchasing and protocols for the operations of the ALERT. This position would develop an information technology system to identify important information on critical targets in the Charlotte–Mecklenburg area. This information would then be placed into a system that would accessible to ALERT members on the scene of an incident. Also, there is a need for an anti-terrorism specialist captain. This position would oversee the hazardous materials response team and the requirements of maintaining the WMD equipment. This position would develop and deliver the monthly training of ALERT. Cost is an additional $288,440 per year.

ALERT Members Overtime Costs per year	$149,940
ALERT Battalion Chief Costs per year	$75,000
Anti-Terrorism Specialist Captain per year	$63,500

Mecklenburg County Health Department

Equipment, Basic Level of Preparedness

Basic level of preparedness includes desktop/laptop computers with printers for personnel at this level. Cost is estimated at $42,000.

Equipment, Full Level of Preparedness

Full preparedness will require desktop/laptop computers with printers for personnel at this level, along with backup independent telephone communication as part of the ALERT network, as well as remote Internet access. Estimated cost for this level of preparedness is approximately $80,000.

Training, Basic Level of Preparedness

The HMCHD has already begun training personnel through on-site seminars and satellite teleconferences. The training is needed to bring staff to a basic level of competency regarding communicable diseases and to maintain that level of expertise. Training at this level is estimated at $10,000.

Training, Full Level of Preparedness

To provide for the training needs of personnel at the full level of preparedness, $22,000 will be required.

Personnel, Basic Level of Preparedness

To bring the MCHD to a basic level of preparedness has cost $646,621 over the past several years. The department secured a surveillance director, two communicable disease nurses, a database manager, an applications specialist, a multicultural/multilingual coordinator, and a medical laboratory technician.

Personnel, Full Level of Preparedness

Full preparedness will require an additional four communicable disease nurses, one epidemiologist, and contract funding for 24/7 physician backup. Estimated additional cost will be approximately $278,110.

Carolinas Healthcare System

Equipment, Basic Level of Protection

Bringing Carolinas HealthCare System to a basic level of preparedness with regard to equipment has an associated cost of $225,545.

Personal Protective Equipment

15 Level B protective suits	$375
15 Pairs of protective boots	$180
15 Pairs of protective gloves	$975
15 Powered air purifying respirators	$9,750
30 Nuclear, biological, and chemical canisters	$900

Detection Equipment

2 SAW Minicad mkII CAD (Safeco)	$12,000
2 APD2000 (Safeco)	$14,400
2 APD CAM training kit (Safeco)	$700

Architecture and Building Infrastructure

1 Soffet and canvas tarp	$130,000

Patient Decontamination

6 Portable showers	$39,000

6 Propane space heaters and supplies	$600
500 Assortment-Tyvek scrub suits	$1,250

Communications Equipment

12 Portable radios	$9,600
15 Spare radio batteries	$1,275
12 Radio holsters/carrying straps	$1,140
12 Headsets	$2,400
2 Battery chargers	$1,000

Equipment, Full Level of Preparedness

The cost for Carolinas HealthCare System to reach a full level of preparedness with regard to equipment is $394,510. This level includes all the equipment deemed necessary to reach a basic level of preparedness and additional equipment needed to better equip the hospital and its staff for response to a mass casualty event.

Personal Protective Equipment

30 Level B protection suits	$750
30 Pairs of protective boots	$360
30 Pairs of protective gloves	$1,950
30 Powered air purifying respirators	$19,500
60 Nuclear, biological, and chemical canisters	$1,800

Detection Equipment

4 SAW Minicad mkII CAD (Safeco)	$4,000
4 APD2000 (Safeco)	$28,800
4 APD CAM training kit (Safeco)	$1,400

Architecture and Building Infrastructure

1 Soffet and canvas tarp	$130,000

Patient Decontamination System

6 Portable showers	$39,000
6 Propane space heaters and supplies	$600
1500 Assortment-Tyvek scrub suits	$3,750

Additional Monitoring and Patient Care Equipment

4 Hospital mobile vital sign stations	$5,000

2 Portable cardiac monitoring equipment	$24,000
5 Propac transport monitors	$40,000
3 Hospital decontamination stretchers	$18,000
2 Inflatable shelters	$30,000

Communications

20 Portable radios	$16,000
25 Spare radio batteries	$1,700
20 Radio holsters/carrying straps	$1,900
20 Headsets	$4,000
4 Battery chargers	$2,000

Training, Basic Level of Preparedness

To understand and test the complexities of responding to a nuclear, biological, or chemical incident, hospital emergency department personnel (technicians, nurses, and physicians) should receive 16 to 24 hours each year of continuing education. Of those hours, 8 would involve didactic classroom coursework and 8-16 hours would be dedicated to drills and exercises. A basic level of preparedness would include a smaller segment of employees and all physicians; a full level of preparedness would include all employees. Regardless of level, however, all physicians should be trained due to the leadership role that is required with such events.

The cost to train hospital emergency department personnel and other key hospital employees to participate in a terrorist/mass casualty response at a basic level has a cost of $103,800.

20 Technicians for 320 hours at $15/hr	$4,800
45 Nurses for 720 hours at $30/hr	$21,600
22 Physicians for 840 hours at $1,000/day	$66,000

Training, Full Level of Preparedness

The cost to train hospital emergency department personnel and other key hospital employees to reach a full level of preparedness is $143,400. This includes the basic level of preparedness.

35 Technicians for 840 hours at $15/hr.	$12,600
90 Nurses for 2160 hours at $30/hr.	$64,800
22 Physicians for 840 hours at $1000/day	$66,000

Personnel, Basic Level of Preparedness

A program manager/medical director for the Metropolitan Medical Response System and ALERT program is a faculty member in the Department of Emergency Medicine at Carolinas Medical Center. To perform administrative duties and provide quality oversight, dedicated time away from alternative administrative and clinical duties will be required. A basic level of preparedness would simply be to secure this time. A full level would include an administrative support component to provide the non-clinical daily oversight for program administration and additional personnel required at the health department. These personnel would assist in the active community surveillance program.

The total cost of personnel for a basic level of preparedness is $150,000 and consists of the salary for the medical director.

Personnel, Full Level of Preparedness

1 Medical director	$150,000
1 Disaster preparedness administrator	$200,000
Infection Control Personnel	$150,000
Lab Personnel	$91,400
Office Space/Equipment	$130,000