

## Narrative Statement

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### Project Description

\* Please provide your narrative statement in the space provided below (1) **Project Description**, (2) **Financial Need**, and (3) **Cost-Benefit of Request**:

#### ABSTRACT

The City of Raleigh Fire Department has identified a critical shortcoming in its ability to communicate with other public safety agencies in the county and/or region. Virtually all other public safety agencies in Wake County either have already or will integrate into a new trunked 800 MHz radio system by June of 2004. Currently, the Raleigh Fire Department, which is the largest department in the county, is operating on the original VHF radio system and unable to communicate with these agencies which are already on the new 800 MHz system. The lack of interoperability with other public safety disciplines and agencies creates a number of operational challenges for all parties involved.

The acquisition of 800 MHz radio for Raleigh Fire Department emergency apparatus will:

Benefit and meet the daily and emergency communications platform throughout the Wake County region.

Provide interoperability among all public safety agencies in the Wake County region.

Provide interoperability for the Raleigh Fire Department Urban Search and Rescue (USAR) & Hazmat regional response team with other partner agencies.

Provide a much safer emergency scene for all emergency responders.

Update the aging VHF radio equipment which is becoming obsolete and difficult to replace/repair.

The purpose of this grant application is to provide the Raleigh Fire Department funds with which to acquire the necessary radio system equipment to interface with other public safety agencies on the new 800 MHz radio system. This grant application is part of a coordinated and countywide, regional effort involving fire, EMS/rescue and law enforcement agencies throughout Wake County.

#### PROJECT DESCRIPTION

The Raleigh Fire Department 800 MHz Upgrade Project will involve purchasing forty-one 800 MHz radios for the Raleigh Fire Department. These radios will supplement the two 800 MHz radios currently available. The Raleigh Fire Department has 507 members and is responsible for providing fire and life safety protection to an area covering 127.25 square miles with a population of 316,979 residents in the primary response area. The Raleigh Fire Department responded to 26,979 emergency calls in 2003. In addition, the Raleigh Fire Department routinely provides and receives mutual and automatic aid with Wake County EMS and the twenty six county fire departments. Each of these departments has recently transitioned or will transition in June 2004 to the new Wake County 800 MHz system and will no longer use the VHF system on which the Raleigh Fire Department is operating.

Some of the deficiencies and shortcomings identified include:

No operability among public safety agencies, including but not limited to, day to day interoperability, mutual aid interoperability, and Regional Response Team interoperability.

Inability to group agencies working at a major emergency. Raleigh Fire Department recently responded to a mutual aid request to a plane crash and only three of the Raleigh Fire Department units had the ability to communicate directly with the Raleigh Durham Airport Emergency Services personnel who were in command of operations on the trunked 800 MHz system. All other units were seriously hindered by the lack of communications.

Lack of effective communication compromises firefighter safety on emergency scenes. Many firefighter injuries

and deaths have been attributed to inadequate fire ground communications systems.

Incomplete coverage countywide

The VHF radio equipment is aging and difficult to replace or repair.

The lack of available channels leads to interference and overcrowding of communications

### FINANCIAL NEED

In fiscal year 2003 the City lost \$5.6 million in State reimbursements and we will not receive these reimbursements in the future. The sluggish economy and statutory changes have caused the City's sales tax receipts, the second largest revenue source, to experience negative growth in both fiscal years 2002 and 2003. Due to current economic conditions and other factors, the growth in sales tax is expected to be minimal over the next two years; therefore, the sales tax will not be able to supplement general fund programs as it has historically.

### COST-BENEFIT OF REQUEST

Implementation of this project will directly benefit the 316,979 residents of our city by addressing the critical interoperability shortcomings that currently exist. In the event of a major disaster, county and state resources would likely be requested and, without the 800 MHz Upgrade Project, communication among the agencies would be greatly hampered. The equipment will enable the Raleigh Fire Department to communicate and interface with the twenty-six other Wake County fire departments and Wake County Emergency Management. In addition to fire agencies, the ability to communicate effectively with the Wake County EMS and area hospitals was critical during the 16,248 emergency medical incidents that the Raleigh Fire Department responded to last year. The need to communicate with these agencies is imperative due to early Trauma Team notifications and Cardiac arrest notifications. The 800 MHz radios will enhance and enable communication with the Wake County Sheriff's Department and the North Carolina State Highway Patrol. The Raleigh Fire Department routinely interfaces with these agencies during major disasters and incidents which occur on the major highways and interstates which run through the city. Furthermore, the Raleigh Fire Department provides USAR and Hazmat regional response teams which currently suffer from communication interoperability issues when responding outside the city. Providing these teams with 800 MHz radios will greatly increase interoperability, not only locally, but statewide.

### PURPOSE OF THE GRANT

The purpose of this grant application is to provide funding for the Raleigh Fire Department to acquire the necessary equipment to provide each critical emergency response apparatus with an 800 MHz radio. Currently, the Raleigh Fire Department has two 800 MHz radios. The grant funds will provide the Raleigh Fire Department with the following equipment:

- 36 Portable Radios
- 5 Mobile Radios
- Other Equipment (batteries and battery chargers)

This equipment will allow the Raleigh Fire Department to make full use of the capabilities of the new trunked 800 MHz radio system in Wake County. Furthermore, this requested equipment will:

Make emergency communications system interoperability among all public safety agencies a reality in Wake County.

Provide a radio communications system with the capabilities necessary to meet the needs of the Raleigh Fire Department and all other public safety agencies in the Wake County region.

Be available to the Raleigh Fire Department and all other public safety agencies on a daily basis as well as during emergency situations responding to all types of emergencies.

Provide the Raleigh Fire Department USAR and Hazmat Regional Response Teams with the interoperability necessary to effectively communicate with other public safety agencies.

Enhance firefighter safety during emergency incidents by ensuring clear lines of communications.

#### PROJECT IMPLEMENTATION

Grant funds in this proposal are being requested from the Operations and Firefighter Safety Program, specifically Equipment Acquisition. The purchase of the forty-one 800 MHz radios will increase firefighter safety and promote interoperability with neighboring jurisdictions. The acquisition of these radios will provide the first step toward the transition to the new 800 MHz system, replacing current VHF high band radios which are aging and difficult to repair due to lack of manufacturer support. Wake County Public Safety agencies began making the transition to the 800 MHz system in April 2004. The approval of this grant would allow the Raleigh Fire Department to immediately take advantage of this improved technology and increased interoperability.

6-01-04 Anticipated grant award.  
9-01-04 Radio equipment ordered.  
10-01-04 Radio equipment arrival  
11-01-04 System Operational

Total Item Cost (100%) - \$175,047

\$131,347 - 31 Motorola XTS 5000 MII portable radios including vehicle chargers and batteries  
\$ 22,560 - 5 Motorola XTS 5000 MIII portable radios including vehicle chargers and batteries  
\$ 21,140 - 5 Motorola XTL 5000 Trunk Mount mobile radios (includes installation charges)  
Shipping included in government orders

Grant Funding Requested (70%) - \$122,533

We are currently seeking this grant to assist in offsetting the lack of local funding due a loss of \$5.6 million dollars in State reimbursements in the fiscal year 2003. The sluggish economy and the change in situs rules has caused the City's sales tax receipts, which are the City's second largest revenue source, to experience negative growth in both fiscal years 2002 and 2003. Due to current economic conditions and other factors, the growth in sales tax is expected to be minimal over the next two years; therefore, the sales tax will not be able to supplement general fund programs as it has historically. There will not be local funds available to purchase the equipment requested under this grant. The FY2004 fire department budget is \$33,853,927. Eighty nine percent of this budget is allocated to salary and fringe benefit expense. The remaining \$3,797,812 has to be used to operate and maintain buildings and apparatus as well as pay for everything else required to operate a fire department including uniforms, breathing apparatus, hose, tools, EMS supplies, etc. There are no funds available locally to purchase additional 800 MHz radio equipment. Local funding would, however, be available for the 30% matching requirement.

#### ADDITIONAL INFORMATION

##### Description of the Fire Department

The Raleigh Fire Department is a full time career department with 507 personnel. There are 26 fire stations, 27 engines, 6 trucks, and 3 rescue units in addition to other specialty apparatus. The primary response area is 127.25 square miles with a population of 316,979 permanent residents in the first due response area. In addition to fire suppression responsibilities, the Raleigh Fire Department also provides first responder services to support Wake County EMS.

##### Specialty Teams

The Raleigh Fire Department is home to one of five Type 1 state Urban Search and Rescue (USAR) Regional Response Teams. Currently, the Raleigh Hazmat team responds not only in the city, but also in Wake and other surrounding counties and is currently involved in the bid process for the state Hazmat Regional Response Team, expecting a positive result.

#### CRITICAL INFRASTRUCTURES

The Raleigh Fire Department is located in the capital city of Raleigh and protects critical facilities associated with state, local, and county government.

The City of Raleigh Water Treatment Plant and water system generates 86 MGD and provides all of the water for the city and several adjoining municipalities. This is the single source of water for the area. In addition, there is also only one raw water pump station which provides all of the water used from Falls Lake. Any interruption or interference in these facilities would be devastating to the citizens in Raleigh and the surrounding communities.

There are many large assembly facilities in this area potentially attracting thousands of people. These facilities with their seating capacities include the RBC Entertainment and Sports Arena (24,000) which is home to the Carolina Hurricanes hockey team and North Carolina State Wolfpack basketball team, the BTI Conference and Convention Center (12,250), Walnut Creek Amphitheater (21,000), Carter Finley Stadium (57,000) and Dorton Arena (7,500). There are also five colleges and NC State University in the city with a total student population in 2002 of 34,347.

There are numerous major chemical facilities, including Mallinckrodt and Ajinomoto, both pharmaceutical manufacturers, and Ashland Chemical, a storage and distribution facility, which are all located in high density areas. Norfolk Southern and CSX railway also transport thousands of gallons of hazardous materials through the city daily, including anhydrous ammonia and phosphoric acid.

The home office of Progress Energy, one of the South's largest electricity providers, is located in Raleigh, along with an Energy Control Center that dispatches the power generation needs for all of the Carolinas. A disruption at this facility could result in a catastrophic power failure in both states.

The Shearon Harris Nuclear Plant, owned by Progress Energy, is located in southern Wake County. The Raleigh Fire Department's Hazardous Material Team would provide decontamination sites for the two designated receiving hospitals.

\* Please describe any grants that you currently have with DHS including the AFG, for example, 2002 AFG grant for vehicle or 2003 ODP grant for exercises. (Enter "N/A" if Not Applicable)

N/A