I. OPERATIONS

A. The department's organizational structure is designed in a way that establishes a chain of command.

1. The order of rank is Chief, Deputy Chief, Assistant Chief, Captain, Lieutenant, Safety Officer, Engineer, and Firefighter.

2. During non-emergency operations, this structure will be used in the operations of the department.

   i.) On emergency incidents, every level of officer may not be present.

3. A first-arriving Chief may be required to perform a rescue or a firefighter may find him / her serving as the Incident Commander until sufficient personnel and officers arrive to assume more traditional roles.

4. In situations where members are capable of performing emergency actions that they are not normally responsible for, they are expected to act in the best interest of all involved.

5. By conducting operations under the Incident Command System, members can fill a variety of roles regardless of rank.

II. RESPONSE TO CARBON MONOXIDE INCIDENTS

A. **Purpose:** To establish a procedure for locating and mitigating carbon monoxide hazards.

B. **Policy:** The Fire Department will respond to and investigate all reports of possible carbon monoxide incidents occurring in occupied spaces.

C. **General:** Carbon Monoxide (CO) is an odorless, colorless, and tasteless gas that is deadly. It is a by-product of combustion.

1. Many appliances such as furnaces, kitchen stoves, hot water heaters, automobiles, etc., can produce Carbon Monoxide.

2. When a faulty device or unusual conditions exist, Carbon Monoxide may be vented into areas where people are present.

3. Carbon Monoxide poisoning may be difficult to diagnose.

i.) Its symptoms are similar to that of the flu, which may include headache, nausea, fatigue, and dizzy spells for low levels and convulsions, unconsciousness, and death for high levels.

D. Emergency or non-emergency responses to reports of Carbon Monoxide will be determined by the following criteria:

1. Emergency response

i.) Caller indicates or suspects any signs or symptoms of Carbon Monoxide poisoning.

a.) In this event, the Catawba County Emergency Communications Center will advise the caller and all occupants to evacuate the building and await the fire departments arrival

2. Non-Emergency response

i.) Caller reports a Carbon Monoxide detector activation or suspects there may be Carbon Monoxide present in the building.

a.) Anytime the Catawba County Emergency Communications Center dispatcher feels the caller is in jeopardy, the dispatcher can immediately initiate an emergency response, even if the initial dispatch was considered non-emergency.

3. All emergency responses will require use of full protective clothing and SCBA

4. All non-emergency responses will require use of full protective clothing, but no SCBA unless the situation calls for them.

5. Once the Fire Department personnel arrives on scene, an Engineer and / or fire officer should first interview the occupant(s) to determine the following:

   i.) The interviews should take place outside of any suspected contaminated areas.

      a.) If any occupant(s) are or have been feeling ill.

      b.) The number and location of any CO detectors which have been activated

      c.) The location of combustion equipment/appliances.

   ii.) After the interview, zero the CO meter in fresh air and comply with all start-up procedures as recommended by the manufacturer of the metering equipment.

      a.) Take the first reading just inside the doorway to determine initial CO level.

      b.) If a reading of 35 ppm or greater is detected, the building or effected area will be evacuated immediately and full protective clothing and SCBA will be utilized during the investigation.

   iii.) Personnel will begin monitoring the lower levels of the building and then proceed to the higher levels.

      a.) Check all areas including utility spaces, kitchens, and attached garages.

      b.) Appliance service personnel should be contacted by the occupant to check the proper operation of appliances.

6. The respective gas company is an important resource during CO investigations and should be contacted anytime a gas appliance must be turned off.

E. If a reading of 9 ppm or less is detected

1. Inform the occupant(s) that our instrument did not detect an elevated level of CO at this time.

2. Recommend occupant(s) check their CO detector per manufacturer's recommendations.

3. Advise the occupant(s) to reset the CO detector (if applicable) according to the manufacturer's instructions.

4. Inform the occupant(s) that, if the detector re-activates or they feel there may be a problem, to call 911.

F. If a reading above 9 ppm and below 35 ppm is detected:

1. Any reading above 9 ppm will be considered above normal reading.

2. Occupant(s) will be informed that an elevated level of CO has been detected.

i.) If it is determined that an appliance is malfunctioning and thereby producing CO, it should be shut down and the respective gas company should be notified to respond.

3. Once the premises has been ventilated and reduced to a safe level of CO, it may be occupied, at the discretion of the occupant(s).

4. Advise the occupant(s) to reset the CO detector (if applicable) according to the manufacturer's instructions.

5. Inform the occupant that(s), if the detector re-activates or they feel there may be a problem, to call 911.

G. If a reading of 35 ppm or greater is detected:

1. Any reading above 9 ppm will be considered above normal reading.

2. Occupant(s) will be informed that an elevated level of CO has been detected.

i.) If it is determined that an appliance is malfunctioning and thereby producing CO, it should be shut down and the respective gas company should be notified to respond.

3. Once the premises has been ventilated and reduced to a safe level of CO, it may be occupied, at the discretion of the occupant(s).

4. Advise the occupant(s) to reset the CO detector (if applicable) according to the manufacturer's instructions.

5. Inform the occupant(s) that, if the detector re-activates or they feel there may be a problem, to call 911.

H. Perform any other actions which may be necessary.

III. A/C HOT STICK OPERATIONAL USE

A. The intent of this procedure to instruct department personnel in the use of a specific piece of equipment.

1. It is expected that all personnel train with, and become familiar with the operation of this device.

2. Authority to deviate from this procedure rests with the Incident Commander.

B. **Purpose:** To establish a standard procedure for the use of the A/C Hot Stick. The A/C Hot Stick is a commercially produced device designed to assist emergency scene personnel with the location of A/C current.

C. **General:** Initiation of the following safety procedures is required when a potential electrical hazard exists for personnel, or if the necessity to determine the location of electrical current exists.

D. Personnel Considerations

1. All Fire Personnel will consider **ALL** electrical wires to be **LIVE**, until determined otherwise by Florida Power.

2. Request a response from the appropriate Power Company.

3. The A/C Hot Stick is designed for use whenever possible to detect unshielded A/C voltage either inside or outside of structures.

4. User Warning:

a) The A/C Hot Stick is meant for professional use only.

b) It is an aid in detecting unshielded, live wires and dangerous AC potentials.

c) It is not a substitute for voltage measuring devices.

(1) Treat all wires as if they are voltage carrying.

d) The unit will not detect DC voltages or AC voltages when conductors are fully enclosed and shielded as in a grounded metal conduit or solid metal enclosures.

B. Operational Considerations:

1. The **AC Hot Stick** is a safety device that provides warning of exposed electrical current from a safe distance.

2. The AC Hot Stick will give early audible ("beeping") and visual (flashing LED) warning of the presence of dangerous voltages without the need to contact the surface carrying the current.

3. The closer the user comes to the source of the voltage, the more rapidly the unit beeps and flashes.

C. Operation

1. Turn A/C Hot Stick on to the high sensitivity mode and let unit go through self-test.

2. Do not use the device if it fails to "beep" or omit a flashing light after being turned-on.

3. If the device is ready for normal operation it will display a steady, audible tone, or it will chirp and or go through the self-test when tapped.

4. After a successful self-test of the device, the operator should move the A/C Hot Stick around slowly.

5. The operator should continue the use the high-sensitivity mode until the general location and direction of the unshielded A/C voltage is determined.

6. Turn the A/C Hot Stick to the low sensitivity mode, and then front focused mode to isolate the location of the unshielded A/C Voltage.

D. Special Considerations

1. When NO life or property hazard exists:

a) If no life hazard or property conservation concerns exist, establishment of a safe zone of 15 feet around the voltage source is acceptable.

b) Personnel should consider safety zones with distances greater than 15 feet during inclement weather (rain).

2. When obvious electrical hazards to human life exist:

a) Personnel who must enter an area where the potential for an electrical hazard exist shall:

(1) Receive a NEGATIVE reading on the A/C Hot Stick, in the low sensitivity mode for a minimum of one minute.

(2) If personnel are to enter a potentially hazardous hot-zone, the establishment of a Rapid Intervention Team should be implemented.

(3) The Rapid Intervention Team and the entry team will monitor the device, continuously during the operation.

b) The operator will order an immediate evacuation of the hot-zone anytime the device detects live-voltage, or anytime personnel are in imminent danger.

c) This procedure would not be required for entry during structural fire fighting procedures.

(1) It is recommended that the RIT team have an A/C hot stick detection device ready for use by the entry team.

3. Operational Uses

a) Fire:

(1) Identification of nearby high voltages and dangers from electrical wires during size-up, and after fires, during overhaul and investigations.

b) Vehicular Extrication:

(1) Quick check of site and vehicle for potential exposure to AC voltage. Verification and monitoring of power disconnect.

c) Confined Space Rescue:

(1) To verify power shut-off and proper lockout at the entry site and of the machinery and equipment posing hazard through accidental activation.

d) Urban Search & Rescue:

(1) Detection of unknown sources of unshielded and potentially hazardous AC voltages. Verification of proper power disconnects.

e) Hazmat:

(1) Avoid dangers of electrical shock or explosion caused by electrical shorts/arcs.

f) Disaster Operations:

(1) After earthquakes, wind and ice storms or floods, used to identify energized wires on roads or structural parts in collapsed buildings and flooded sites. Quick check of extent of power outage.

g) Power Restoration:

(1) Warning of energized wires hidden by fallen trees or caused by back feeding from motor generators.

h) Industrial:

(1) During plant modification or industrial rescue to prove power disconnect, identify alternate sources or ungrounded machinery.

i) Trench Rescue:

(1) Locate potential sources of electrical shock during rescue operations.

IV. BOMB THREATS

A. With the dangers of various types of explosives present today, Bomb Threats have become a problem that the Fire Department must face.

B. Locating and securing a potential "Bomb" or an actual device is not directly related to our operating procedures, there are still responsibilities that the Fire Department and Fire Department personnel must consider.

1. The purpose of this standard is to identify the responsibilities as they relate to Bomb Threat incidents in an effort to provide for Life Safety and effective fire ground operations.

C. A Bomb Threat is an incident where the threat of a Bomb activating within a building, vehicle, vessel, or other area where the danger to the public exists.

D. Responsibilities / Guidelines

1. Upon notification of a bomb threat, Catawba County Emergency Communications Center will alert pagers and announce, "Station 15 monitors 1045."

i.) At this point all personnel should report to the station routine traffic.

ii.) An engine company will respond along with personnel, routine traffic, and stage approximately 1000 feet away from the incident.

iii.) All radio traffic will be only limited to enroute and on the scene, and at least one (1) block away from the staging area.

a.) After these radio transmissions there will be no more communications via radio.

iv.) Fire officer(s) of initial apparatus will have the authority to request detailed information from Catawba County Emergency Communications Center if available.

a.) This vital information may be used by Fire Operations, fire officer(s) and other personnel to assess the incident duration.

2. There will be no Fire Department personnel involved with search operations or any part of locating and securing a Bomb.

i.) These duties are the responsibilities of local Law Enforcement personnel and other authorized agencies.

ii.) All personnel will remain with the apparatus, and await an assignment or termination decision from the Incident Commander.

V. RESPONSE TO BUILDINGS WITH AUTOMATIC FIRE ALARM SYSTEMS

A. **Purpose:** To establish a procedure for Fire/Rescue personnel to follow when responding to buildings with Automatic Fire Alarms Systems.

B. **Scope:** This procedure is to be followed by all Fire/Rescue employees.

1. Authority to deviate from this procedure rests with the Fire Chief or designee, who is solely responsible for the results of any deviation.

C. **General:** When responding to any property equipped with an automatic fire alarm, or manually operated alarm system the following procedures are to be followed:

D. Operational Guidelines for Automatic Fire Alarm Responses:

E. First arriving apparatus and or fire officer will locate the proper building or buildings and or any part of the building involved by the enunciator panel and informs the other arriving units of the status of the system.

1. Search building or buildings, perform rescue and evacuation, control fire or, if there is no apparent problem, try to determine why the system activated.

2. After completion of the above, the alarm system should be placed back in operation by the building maintenance personnel.

3. Fire personnel should not become concerned with the placing back into service any fire alarm system.

i.) Do not call the maintenance company that is responsible for maintaining the system unless directed by the owner or as a last resort.

a.) This is the responsibility of the building and or structure owner / occupants.

ii.) Notify the owner, manager or other personnel acting in the above capacity of the actions taken by the fire department, what was found and whether the system is in operating condition, or what part of the system is not operating.

4. Get the name of the owner, manager or other personnel you notified of the system's condition. Include this information in the fire report.

5. Do not, for any reason, make any derogatory remarks of inadequacy of the alarm system, or the maintenance of the organization.

6. All alarm systems are inspected for Code compliance.

    i.) Any time an alarm system is left out-of-service, or part of the system needs maintenance, the responsible Engineer and or fire officer to notifying the either the Fire Marshal and or Fire Inspector.

        a.) They, in turn, will follow through with the owners or monitoring agency of the property.

7. Alarm systems are mandated by Code in much occupancy and should not be taken out-of-service by Fire Department personnel.

8. As an absolute last resort, a system should only be taken out-of-service by the owner or an authorized representative of the owner.

    i.) If this is done, include the owners name and address in the fire report.
    ii.) The Fire Marshal should be notified as soon as possible of any problems with any alarm system.

9. Before a system is considered re-set, the enunciator panel should show all systems normal.

    i.) A call to the monitoring agency is usually needed.

10. The alarm company will always be referred to as the "monitoring agency" so as not to draw attention to one particular agency that may be experiencing a problem.

11. A reported Automatic Fire Alarm will require the response of two engine companies and one ladder company

12. During times when multiple calls are being answered, (i.e. during Storm Status) the Fire Chief or designee may alter response assignments to reports of activated automatic fire alarms.

    i.) A minimum of one engine must respond to all reported Automatic Fire Alarms, no matter the conditions.

13. In situations when easy access is not available to the structure, fire personnel should use any and all means necessary to determine if a fire actually exist within the building.

    i.) This would include utilization of Know Box to access keys, raising ladders to upper floors, viewing through windows etc.

14. Crews should be on the scene for a minimum of 20 minutes before considering the alarm false and leaving.

    i.) Conditions while operating under Storm Status may dictate a need to leave the scene prior to the 20 minutes.

15. If the officer in-charge is satisfied that no fire exists within the structure without gaining full access to the building, the scene may be released and the alarm regarded as false.

16. If on the other hand, it cannot be determined from an exterior examination of the building that a problem exists, the officer in charge should decide if forced access is required.

    i.) If forced access is required, care should be taken to reduce the amount of damage.

17. A building representative should be contacted to respond to the scene to assist with gaining access.

    i.) If no one is available and the Incident Commander is not satisfied that the building is safe, forced entry will be required.

    ii.) If the decision is made to make forced entry to a property, the Incident Commander will contact Catawba County Emergency Communications Center and request the assistance of the Police Department.

18. All means available should be used to determine the nature of the alarm and its validity before the release of the scene by the Incident Commander.

VI. ELECTRICAL SAFETY

A. Electrical current can injure and kill, even at low voltages.

1. By knowing and understanding the effects which electricity can have upon the human body, the fire fighter can develop a respect for electrical hazards.

2. Fire fighters that are aware of electricity and the associated hazards can take effective measures to protect themselves and the public.

B. The purpose of this standard is to identify responsibilities that are to be followed when dealing with emergencies involved with electricity.

C. All personnel must realize the primary objective on any emergency incident, is of course life safety.

1. And not to become part of the problem attempting a rescue effort.

D. It may be necessary to confront live energized electrical wires to save a life.

1. This is a very hazardous procedure for personnel to attempt and all factors should be carefully considered.

E. Definitions

1. Electricity The flow of electrical charge through a conductor placed between two objects having a different voltage.

2. Voltage The "Pressure" that pushes an electrical charge through a conductor.

3. Amperage or Current The amount of electrical charge flowing past a given point per unit of time, measured in amperes or amps. Amperage is the measure of electrical current flow.

4. Resistance The opposition to electrical current flow, measured in ohms.

5. High Voltage Voltage installations are those over 600 volts. Buildings which utilize high voltage electricity will have high voltage switch gear and transformers, which may be in the building or in a separate switch house or switch yard.

6. Low Voltage Energized at 600 volts or less. Practically every building that a fire fighter enters will contain low voltage wiring.

F. Guidelines

1. Electric company linemen are trained and experienced in the handling of energized electrical conductors.

2. IN THE EVENT OF AN EMERGENCY OR FIRE INVOLVING ELECTRICAL EQUIPMENT OR WIRES, IMMEDIATELY REQUEST ASSISTANCE FROM THE ELECTRIC COMPANY.

3. In most cases, the fire fighter should wait for trained electrical company personnel to arrive on the scene before attempting to perform any work around energized wires or lines.

4. A dead or injured fire fighter only adds to the tragedy of an accident or fire.

   i.) The primary responsibility of personnel on an emergency incident is the protection of lives, including your own.

G. Scene Size Up

1. Upon arrival at any emergency incident, the first task to be performed is size up.

   i.) Size up involves the identification of all problems that exist, might exist, or that may develop during emergency control operations.

   ii.) Fire Department personnel should also consider electrical hazards during size up.

2. ASSUME ALL WIRES TO BE ENERGIZED AT HIGH VOLTAGE!

   i.) All wires should be considered to be electrically energized.

      a.) Telephone and television cables may be energized if contact has been made with electrical wires.

H. Disconnecting Electrical Service

1. One of the best places to interrupt electrical service is at the service disconnect panel.

2. Fuses can be removed or circuit breakers tripped to shut off electrical power to the fire affected sections of the building.

i.) Disconnect switches should not be operated unless the fire fighter, building floor, and switch panel are all dry.

ii.) Fire Department personnel should not enter a flooded basement to disconnect electrical service.

iii.) Fire Department personnel should not operate any switches or electrical devices if combustible vapors or gases are present.

a.) The operation of even a simple light switch could result in an explosion or fire.

I. Cutting Wires and Pulling Meters

1. Pulling an electrical meter can create an electrical arc and possibly an explosion.

i.) The potential electrical arcing and meter explosion can seriously injure the person who is attempting to pull the meter from its base.

ii.) After an electrical meter is removed, the energized contacts in the meter base are left exposed.

a.) The exposed contacts present an electrical safety hazard to anyone who is working near the meter base, therefore, firefighters may pull meters only in a life and death situation and the Incident Commander approves the action.

iii.) Incident Commander should request the Power Company to respond to the scene to pull the meter.

J. Electricity and Firefighting

1. Personnel operating on the fire ground should always be alert for electrical hazards.

i.) If visibility is poor, adequate lighting should be provided to ensure that all possible hazards can be seen and identified.

2. Electrical hazards can also exist on the outside of a building.

i.) Personnel should stay alert for downed wires, wires that could possibly fall, and other electrical hazards associated with the incident.

ii.) The location of overhead and underground wires should be determined and continually monitored.

3. Extreme caution should be exercised with parking fire apparatus at the scene of a fire.

i.) Personnel should avoid positioning any vehicle directly beneath overhead electrical lines.

4. Ground ladders can also create electrical problems.

i.) Personnel operating on the fire ground should locate all ladders away from electrical service entrances and overhead wires.

ii.) Personnel should also exercise extreme caution while raising a ladder or moving the ladder in a vertical position.

K. Downed Wires

1. Many hazards can be created by a fallen electrical wire.

i.) The energized wire may land on a vehicle, pool of water, metal fence, or a metal covered building.

ii.) The wire may also land directly on the ground.

iii.) Automobile accidents can also create an emergency situation that involves downed or broken electrical wires.

iv.) Whenever an energized conductor falls, it presents a danger to both fire fighters and the public.

a.) It is impossible to determine if a conductor is energized by its appearance.

b.) Personnel should never assume that a wire is “dead”.

c.) Even if all of the conductors are cut or broken, a hazard may still exist since the wires may be energized from both directions.

L. Establishing a Danger Zone

1. Damaged or downed electrical conductors, insulators, poles, or towers, requires that the incident commander or division officer establish a danger zone.

2. The danger zone is the area that all persons and vehicles must be kept out of.

3. The danger zone for overhead electrical conductor accidents should extend at least one full conductor span beyond the damaged poles or wires.

4. The danger zone should be extended if the ground is wet, if objects such as fences, guardrails, or railroad tracks are involved, or if it appears that additional poles or towers may fail.

    i.) The danger zone should be roped off to clearly mark the outer edge of the danger zone; unauthorized personnel shall be kept out of the danger zone.

5. Fire fighting personnel entering the danger zone shall:

    i.) Wear full protective clothing.

    ii.) Have back-up personnel in place for any unforeseeable incidents.

    iii.) Have back-up lines or extinguishing agents at hand.

    iv.) Be assigned to a Division / Sector and have a specific task.

M. Incident Command Responsibilities

1. As with any fire or emergency scene, the first arriving apparatus / fire officer should size up all of the potential hazards at the scene of an emergency that involves electricity.

    i.) Personnel operating within the danger zone should not attempt to deal with the electrical hazard directly, but should protect all persons in the area by keeping them away from the hazard.

    ii.) The best procedure in the majority of incidents is to stand by at a safe distance from the hazard until an authorized representative of the electric company arrives on the scene.

2. The following additional command responsibilities shall be accomplished by the first arriving apparatus:

    i.) Establish a Danger Zone as listed above, by use of fire line tape, rope, traffic cones, etc.

ii.) Notify the appropriate electric company.

iii.) Alert all incoming units and personnel of the hazard.

VII. INCIDENT MANAGEMENT SYSTEM

A. The Incident Management System is a system used for the effective management of a fire department operation.

1. It is flexible enough to be used on any incident ranging from a small grass fire or traffic accident to a large structure fire.

   i.) Not every element is necessary on every incident.

2. The Incident Management System is based on the division of areas, tasks, and responsibilities.

   i.) This division allows officers to maintain a manageable span of control while directing a large amount of work.

3. The Incident Commander is ultimately responsible for the incident operations and outcome.

4. All members should be familiar with the entire the Incident Management System.

   i.) The most important component of the Incident Management System is personnel accountability.

B. Components of The Incident Management System are:

1. COMMAND: Locate for best visibility and least interference.

2. SAFETY: Observes scene and operations for safety hazards or unsafe acts.

3. DIVISION 1: Located at the front of the main activity area of the incident.

4. DIVISION 2: The main activity area of the incident, usually the interior.

   a.) May be sub-divided if necessary: 1st Floor, 2nd Floor, etc.

5. DIVISION 3: The area to the rear of Division 2

6. DIVISION 4: The area to the left of Division 2

7. DIVISION 5: The area to the right of Division 2

8. DIVISION 6: The roof of a structure.

9. STAGING – Position where practical. Near to, but not inside the main activity area.

   i.) Should be readily visible to arriving apparatus and personnel.

10. WATER SUPPLY: Position as needed.

C. Incident Commander / Establishment of Command

1. The first arriving member with radio communication should assume the role of Incident Commander.

2. The Incident Commander should conduct a quick size-up of the situation and transmit a brief report for the benefit of responding apparatus and members.

   i.) For example: "Engine 1 is on the scene at Conover Coatings, this is a working structure fire."

   ii.) The Incident Commander will determine the need for a second alert, mutual aid assistance, and medical assistance as transmit the appropriate request as soon as possible.

D. Incident Action Modes

1. The Incident Commander should assume one of the following modes:

   i.) Investigative Mode

      a.) If the status of the incident cannot be determined quickly, the Incident Commander may investigate personally or assign another member to investigate and report.

   ii.) Fast Attack Mode

      a.) If immediate action is required to prevent injury or death, the Incident Commander may participate in the initial search and rescue, fire attack, extrication, or medical treatment. The Incident Commander should keep in mind the 2 in/2 out policy of this department.

   iii.) Command Mode

a.) If the incident is major, strong control and effective scene management are needed from the beginning. The Incident Commander will establish the position and maintain a strong presence.

E. Transfer of Command

1. Any member may initially serve as the Incident Commander; Command may be transferred to a Captain or Chief upon their arrival on the scene.

   i.) The Fire Chief reserves the right to assume command of any and all incidents.

2. This will depend upon the size of the incident and incident circumstances.

3. On-Duty Engineer will initiate Incident Command and may transfer to the first arriving Officer.

F. The transfer of command should be conducted as follows:

1. The transfer may be by radio, but face-to-face communication is preferred.

2. Brief details of the situation initially, actions taken and their effectiveness, current situations and actions taken will be included.

3. A listing of the current resources in use and anticipated needs, and the Personnel Accountability System should also be transferred.

4. The Incident Commander will be responsible for all incident operations from the assumption of command through the termination of the incident and the completion of all duties.

   i.) See Incident Investigation and Termination.

5. A chief officer may choose to serve as an advisor and allow the Incident Commander to remain in the position to gain experience.

G. Special Note Concerning Radios

1. All mobile radios and all portable radios issued to officers will operate off of the repeater system under normal conditions.

2. All radio traffic on Fire Channel One will be heard throughout the county when operating off of the repeater.

3. Avoid unnecessary communications on Channel One, especially during nighttime hours

4. Switch departmental and incident scene communications off of the main channel as soon as practical. County Channel 2, State Fire, or Conover channel may be used

5. Keep transmissions brief and to the point

6. Long transmissions may be automatically cut-off by the "timing out" of the repeater

7. Do not attempt to transmit while alert tones are being transmitted

8. If Baker Mountain repeater (Channel 1) is inoperative, switch to Anderson Mountain (Channel 4)

9. If both repeaters are inoperative, switch to Simplex (or "talk-around") mode (Channel 5)

H. The Catawba County Firefighter's Association has adopted a standard channel list, which should be in use by most departments in the county. It is as follows:

1. Channel 1 – Fire Channel 1 (Baker Mt.)

2. Channel 2 – Fire Channel 2

3. Channel 3 - State Fire

4. Channel 4 – Fire Channel 1 (Anderson Mt.)

5. Channel 5 – Simplex (or "talk-around")

6. Channel 6 – Conover tactical channel (departmental option)

I. Following the arrival of the second unit, incident communications will be switched to the Conover tactical frequency known as "Channel Six".

J. On incidents where mutual aid departments will be responding, communications should be switched to Channel Two to allow all responders to communicate within the Incident Commander System.

VIII. INCIDENT PRIORITIES

A. Rescue

1. Rescue may be a difficult and complex task, requiring other operations to be conducted prior to or in conjunction with the efforts of the rescue team. Forcible entry, ventilation, fire containment, and search operations are frequently needed to access the structure, enter the interior, and locate the victim. Ladders or other means may be needed to reach the victims. There may be situations when rescue is impossible due to fire conditions.

B. Exposure protection

1. Exposure protection is the second priority. Fire streams should be directed onto the threatened structures to prevent them from becoming involved. Hand lines or master streams may be used.

C. Fire Control or Confinement

1. Fire Control and or Confinement stop the progress of the fire past its present involvement. This may be done by exposure control, removal of fuel, and/or fire attack.

D. Salvage and Overhaul

1. Salvage and Overhaul are two separate but important duties often carried out immediately after the fire is controlled. Salvage is conducted to prevent further damage to the building and its contents from water or weather. Overhaul is conducted to insure that no fire is concealed in walls, floors, ceilings, or other voids.

E. Safety

1. Safety is always a top priority of all personnel. Anyone on the scene should notify the IC immediately of any hazardous condition. If unsafe conditions such as possible explosion or collapse exist, the **evacuation signal** will be sounded. All apparatus on the scene will sound long blasts on the air horns. All personnel will evacuate the structure or area as quickly and safely as possible.

F. Incident Priorities

1. Rescue – Assist or remove victims – provide medical aid if necessary

2. Exposures – Direct hose streams to prevent fire from involving unburned areas or structures

3. Confinement – Direct hose streams and perform ventilation to confine fire to area involved

4. Extinguishment – Accomplish by removing heat, oxygen, or fuel

5. Overhaul – Ensure that all fire and hot spots are extinguished and atmosphere is safe

G. The following actions are to be considered and performed as necessary upon arrival at an emergency scene.

1. First Arriving Personnel and Apparatus

i.) Properly position apparatus, attack lines, and/or master stream devices to protect exposures, facilitate search and rescue, extrication, and/or control fire.

ii.) Establish water supply

iii.) Assemble fire attack/search team and safety team

iv.) Conduct primary search for victims and perform rescue if necessary

v.) Obtain/assist with medical treatment of victims

vi.) Confine and extinguish fire

vii.) Ventilate to improve interior conditions

2. Additional Personnel and Apparatus

i.) Secondary Search, Rescue, and Treatment of victims

ii.) Establish additional water supply

a)

iii.) Raise ladders

iv.) Ventilation

v.) Check fire extension

vi.) Provide relief for first-in personnel

vii.) Control utilities

viii.) Provide lighting

ix.) Provide support activities (SCBA cylinder change)

x.) Salvage and Overhaul

H. DIVISION OFFICERS

1. Present in and in charge of a sector, responsible for accountability and safety of members working in the sector.

I. SAFETY OFFICER

1. Patrols the scene looking for unsafe acts or conditions that may be dangerous to firefighters or the public.

2. Has the authority to correct unsafe situations.

3. If unable to correct immediately, will report situation to the Incident Commander.

J. STAGING OFFICER

1. Manages resources including personnel, apparatus, and equipment.

2. Fills request of the Incident Commander and maintains adequate resources according to needs.

3. Rehab area may be included in Staging Area.

K. ACCOUNTABILITY OFFICER

1. Maintains a complete record of members on the scene and each individual's location and/or assignment.

L. REHAB OFFICER

1. Establishes and operates rehabilitation area for firefighters and other emergency personnel involved in incident.

2. Will provide area away from incident for rest, refreshment, and medical monitoring or treatment.

3. May require medical assistance from EMS/Rescue.

M. WATER SUPPLY OFFICER

1. Normally needed only when the incident involves tanker shuttles, multiple hydrants, or relay pumping.

2. Assures an adequate and uninterrupted water supply to apparatus.

N. TEAM LEADERS

1. The fire department officer in charge of a team; responsible for the accountability and safety of all members assigned to the team.

2. Receives assignments, directs the team, and makes progress reports and decisions as needed.

3. The team leader maintains radio contact with the Incident Commander.

O. TEAM MEMBERS

1. Under the direction of the team leader, members are responsible for the accountability and safety of other members assigned to the team.

2. Members remain with the team at all times.

IX. ACCOUNTABILITY SYSTEM

A. Accountability Tags

1. Each member is issued two nametags.

   i.) Tags should be attached to the inside rear brim of the each members helmet. Each apparatus has two sets of tickets on-board.

2. Upon arrival at the scene, teams should be established.

   i.) Teams should be at least two members, but not more than six, with the ideal number being four.

   ii.) The team leader should be a department officer with a portable radio. Each member should give both nametags to the team leader.

   iii.) The leader will make up two tickets, keeping one and giving one to the accountability officer, staging officer, or the Incident Commander.

   iv.) If the team must act immediately upon arrival, the nametags will be placed on the ticket and left on the truck.

   v.) The team will be assigned a number (Team 1) or a name (Ventilation Team) for reference and communications.

   vi.) Teams not needed immediately will remain in staging until they are assigned.

   vii.) Upon completion of the assignment, the leader will report to staging or command for rehab or reassignment.

   viii.) An accounting of all personnel must be conducted any time there is a doubt or a possibility that a member may be unaccounted for.

   ix.) Team leaders will report team status to the Incident Commander.

B. Structural Firefighting Operations

1. OSHA respiratory protection requirements contain regulations that are commonly referred to as “two in/two out”.

2. Any fire in a structure beyond the incipient (beginning) stage makes the environment an IDLH (Immediately Dangerous to Life and Health) atmosphere.

i.) When operating in IDLH atmospheres, OSHA requires that a minimum of two qualified firefighters wearing full protective equipment (including SCBA) enter the structure together and maintain constant voice, visual, or physical contact with each other.

ii.) Voice contact must be direct; portable radios do not meet the requirement.

iii.) Physical contact may be accomplished by touching or by both firefighters holding a rope, pike pole, etc.

3. A minimum of two equally qualified and equipped firefighters must assemble outside of the IDLH atmosphere and stand ready to immediately assist the interior team.

i.) Exceptions to the two in/two out rule are allowed under certain conditions that are outlined elsewhere in this document.

4. Fire Attack Team (Two In)

i.) A fire attack team consisting of a minimum of two qualified interior firefighters will be assembled.

ii.) The team will don full personal protective equipment (structural gear and SCBA) and be equipped with a portable radio, hand light, and a minimum of a 1 3/4 inch attack line.

a.) (A portable extinguisher may be used if the fire is known to be in the incipient phase and small in size.)

iii.) The use of the thermal imaging camera should also be strongly considered to aid in the primary search and location of the fire.

5. Safety Team (Two Out)

i.) A safety team consisting of a minimum of two qualified interior firefighters will be assembled.

a.) The team will don full personal protective equipment (including SCBA) and be prepared to enter and assist the attack team if necessary.

b.) One member of the safety team will monitor the status of the fire attack team at all times.

1.) This may be done from the point of entry, and the monitoring member may assist with hose movement.

c.) The second member of the safety team may perform another fire ground function, provided that the member can immediately enter the structure and assist the attack team without jeopardizing the safety of the firefighting operation.

1.) For instance, the second member may function as incident commander, passing command to the apparatus operator upon entry.

2.) Likewise, the second member may function as an apparatus operator, with the incident commander assuming responsibility for those duties upon the operator's entry.

d.) Regardless of the functions that the members of the safety team may be involved in, both members must be in full protective clothing and SCBA (except mask) and ready to immediately enter and assist the attack team.

6. Exceptions

i.) OSHA allows exceptions to the two in/two out rule if lives are in immediate danger.

C. Rapid Intervention Team

1. OSHA states that when firefighter accountability can no longer be controlled through a single point of entry (for example in a large structure) or where the need for immediate rescue exists (for example as with a building collapse), a Rapid Intervention Team will be assembled.

2. The RIT is a level above the "two out" in that the RIT must remain totally uncommitted and ready for immediate action.

3. In addition, the RIT team must be equipped with a portable radio, hand light, 100 feet of lifeline, and each member must carry a 20-foot personal safety rope.

4. The right front high side compartment on Engine 1 will serve as the RIT equipment compartment.

i.) With exception of the thermal imaging camera, no equipment will be removed from this compartment for any reason other than use by the Rapid Intervention Team.

X. FIRE INVESTIGATION

A. Cause and Determination

1. If fire results in damage to property or structures, involves injuries or fatalities, or is of a suspicious or undetermined nature, the cause and origin of the fire must be determined.

   i.) While the legal responsibility for investigation is placed on the Fire Chief, it is the responsibility of the Incident Commander to see that this investigation is initiated.

   ii.) Some incidents may be quite simple while others will require more detailed investigations.

      a.) It will be the responsibility of the City of Conover Fire Department Marshal's Office to investigate the cause and determination of all fire as described above.

         1.) It will be the responsibility of the Incident Commander to notify the City of Conover Fire Department Marshal's Office to have a representative to report to the scene.

   iii.) If one of the department's investigators is not available, the Incident Commander should request an investigator from the Catawba County Fire Marshal's Office to respond to the scene.

B. Scene Preservation

1. Care should be taken to preserve the scene as much as possible.

2. Do not remove items such as furniture from the structure unless absolutely necessary.

3. If any items must be moved the firefighter should note its exact location, or even better, allow the investigator to examine it before removal.

4. Fire fatalities should not be moved by firefighters, as these investigations are extremely important and are conducted separately from the fire investigation.

5. All fire scenes are potential crime scenes and must be secured.

6. A fire apparatus should remain on the scene until relieved by the fire investigator.

7. Access will be limited to only those persons necessary for the incident.

8. The names of all individuals with access must be recorded.

C. Special Situations

1. Special situations may warrant the response of a representative from the department's Fire Marshal's Office.

i.) Examples:

a.) Industrial facilities not evacuated during alarm activation, fire, etc.

b.) Undetermined alarms or out of the ordinary circumstances at nursing home facilities

c.) Numerous alarms at the same address

d.) Incorrect information and or keys in the Knox Box

e.) Non-response of property owners or key holders

f.) Out-of-the-ordinary circumstances

2. It will be the responsibility of the Incident Commander to notify the Fire Marshal's Office to have a representative to respond to the scene or for follow-up at the incident.

XI. INCIDENT TERMINATION, REPORTING, AND CRITIQUE

A. Incident Termination

1. When department operations have been completed and personnel and equipment are no longer needed, the incident will be terminated.

2. All members and apparatus should return to the station so that everything may be returned to in-service condition.

3. The Incident Commander should notify the property owner that the property is being released back to the owner, and that the fire department's responsibility has ended.

B. Reporting

1. The Incident Commander should gather and record all relevant information regarding the owners and occupants, including names, addresses, phone numbers, etc.

   i.) The Incident Commander will complete the narrative section on the Incident Report

2. The Incident Commander should insure that all members return to the station and assist in cleaning and returning the apparatus and equipment to service.

3. The Incident Commander and the first-in engineer are responsible for the completion of the incident report upon termination of the incident.

4. The North Carolina Incident Reporting System will be used.

5. All required information on the Incident Report will be completed by the Incident Commander.

6. All personnel responding will be responsible for initialing the attendance report.

C. Critique

1. The Incident Commander will also be responsible for conducting a critique of each incident.

2. Small-scale incidents may be informally critiqued immediately following the incident, while larger incidents may need to be formally critiqued at the next regular meeting or at a special called meeting.

3. Regardless of the type critique, all members participating in the incident should be present to contribute to the discussion.

XII. CALLS FOR MEDICAL ASSISTANCE

A. Conover Fire Department does provide Medical Assistance when dispatched to medical incidents or when response by the department can provide assistance to the citizens of Conover.

1. Dispatch will be from Catawba County Emergency Communications Center.

2. Fire Station 1 and Fire Station 3 are in close proximity of senior adult facilities that require frequent medical assistance.

   a) The Conover Fire Department does respond to each of these facilities on a regular basis to provide medical assistance and are a primary dispatch on Delta incidents to these locations.

3. Conover Fire Department along with all Catawba County Fire Departments does have an agreement to be dispatched and respond to provide assistance to the Catawba County Emergency Medical Services and the respective rescue squad on all “Delta” and “Echo” incidents:

   a) Cardiac Arrest Incidents

   b) Unconscious / unresponsive Incidents

   c) Seizure Incidents (Delta response or greater)

   d) At times when area rescue squad(s) are un-staffed and or committed on another incident

   e) As the rescue squad deems necessary for assistance from the fire department

1. In the event that the fire department is dispatched for assistance on a medical call

   i.) Only members who are currently North Carolina State Certified Medical Responder through OEMS or higher are authorized to respond to the scene of the incident.

   ii.) Only personnel trained at North Carolina State Certified Medical Responder through OEMS or higher will be incident commander(s) at Medical Incidents.

   iii.) Only personnel trained at North Carolina State Certified Medical Responder through OEMS or higher will be / provide patient

contact at Medical Incidents unless directed by a Medical Responder or higher.

iv.) Conover Fire Department will follow protocols established by Catawba County Emergency Medical Services on Medical Incidents in which the department is providing medical assistance.

B. Members who are not currently North Carolina State Certified Medical Responder or higher will not be credited with attending the call, and will not receive reimbursement.

C. The following guidelines will be used when the Department is dispatched to medical-related calls.

D. Medical Call Response

1. The Conover Fire Department does provide mutual aid to the Catawba County Emergency Medical Service to the following incidents resulting in a “Delta” and / or “Echo” response.

i.) All Catawba County Fire Departments are to be dispatched and respond on the following types of incidents in conjunction with Catawba County’s Emergency Medical Dispatch (EMD) protocol and procedures within the Catawba County Communications Center.

a.) Burns / Scalds / Explosions

1.) Control, extinguish, & investigate fire and or explosion(s)

2.) Provide medical aid as needed and / or as required

b.) Carbon Monoxide / Inhalation / Hazardous Material

1.) Check air quality using multi-gas meter.

2.) Provide medical aid as needed and / or as required

c.) Electrocution / Lightning Incidents

1.) De-energize electrical source if possible

2.) Check for damage and or fire danger and or extension

3.) Provide medical aid as needed and / or as required

d.) Traumatic Related / Industrial / Machinery Accidents / Falls of height greater than 10 feet

1.) De-energize power sources (electric/hydraulic/air) if action does not cause further injury, assist with or perform extrication in concert with medical personnel

2.) Respond to and assist with any "traumatic related" incident requiring a "Delta" or greater response through EMD protocols.

3.) Provide extrication and / or medical aid as needed and / or as required

e.) Cardiac Related Incidents

1.) Respond to and provide assistance

2.) Provide medical aid as needed and / or as required

f.) Traffic / Transportation Accidents / Motor Vehicle Crashes resulting in an injury or injuries

1.) Respond to and mitigate the probability of and / or confirmed fire, fluid release, hazardous material release, electrical hazard, multiple vehicles, multiple patients, etc.

2.) Respond to and mitigate any motor vehicle crash resulting in personal injury to one or more victims

3.) Provide extrication and / or medical aid as needed and / or as required

E. Mutual Aid Assistance

1. The Fire Department does respond to direct requests from Catawba County Emergency Medical Service and / or Rescue for assistance on medical calls.

i.) North Carolina Medical Responder certified or higher certified personnel are only to respond.

2. Conover Fire Department does provide Medical Assistance to the area rescue squads and Catawba County Emergency Medical Service when dispatched on medical incidents.

f) Dispatch will be from Catawba County Emergency Communications Center.

4. Fire Station 1 and Fire Station 3 are in close proximity of senior adult facilities that require frequent medical assistance.

a) The Conover Fire Department does respond to each of these facilities on a regular basis to provide medical assistance and are a primary dispatch on Delta incidents to these locations.

5. Conover Fire Department does have an informal agreement with Newton-Conover Rescue Squad to provide assistance to the rescue squad on:

a) Cardiac Arrest Incidents

b) Unconscious Incidents

c) Seizure Incidents

d) At times when they are un-staffed and or committed on another incident

e) As the rescue squad deems necessary for assistance from the fire department

F. Extrication

1. Only members who are qualified to operate extrication equipment will handle and operate and or participate in any extrication activities.

i.) Other personnel will stage at the respective Engine.

G. Patient Treatment

1. When responding as a member of the Conover Fire Department, only certified Medical Responders and or Emergency Medical Technicians through OEMS will participate in patient treatment.

i.) Members who hold current CPR certification may assist with CPR.

H. Patient Movement / Loading / Unloading

1. Any member may participate in assisting Catawba County Emergency Medical Service and / or Rescue personnel with patient movement, loading, and/or unloading.

    i.) Proper PPE will be required in these situations.

        a.) At a minimum, rubber gloves will be required.

2. Only certified Emergency Medical Technicians or higher may direct and or command such activities.

3. Non-certified members will assist only, and will do so under the direction of a qualified Catawba County Emergency Medical Service and / or Rescue member or Fire Department Emergency Medical Technician.

XIII. GAS LEAKS (NATURAL GAS, PROPANE, LIQUID PROPANE, INDUSTRIAL GASSES, ETC.)

A. If the leak is reported on a street or highway, or the right-of-way, a standard initial response of two engines will be dispatched to the incident.

B. If the leak is reported in or near (within 50 feet) of a structure, a structural response of two engine companies and a ladder company will be dispatched to the incident.

C. The first arriving apparatus or officer will determine the location of the leak and the wind direction, if present.

1. Contact should be made with Fire Central to gather information concerning wind direction, temperature, etc. if possible.

2. Apparatus and personnel will then be directed to stage a minimum of 100 feet upwind of the leak site.

3. A "hot" zone of 50 feet will be established, within which no one will be allowed to enter, unless absolutely necessary for rescue or preservation of human life.

4. All persons will be ordered out of the 100-foot warm zone.

   i.) Only qualified fire personnel properly equipped with full Personal Protective Equipment (PPE), including Self-Contained Breathing Apparatus (SCBA), will be allowed inside the warm or hot zone.

   ii.) No apparatus will be allowed in the warm zone, including apparatus and / or vehicles from other agencies.

5. The multi-gas detection instrument will be calibrated well outside of the leak area in known clean air.

   i.) The detector will then be used to determine if the hazardous area extends beyond the hot zone.

   ii.) If the hazard is determined to extend beyond the standard hot zone, it will be enlarged to include the hazardous area(s).

      a.) The warm and cold zones will be adjusted accordingly.

6. Gas company personnel will be allowed to operate on the scene according to their protocol.

i.) Fire Department personnel will stand ready on a charged hose line of sufficient size to provide protection and rescue capabilities while the personnel are in the warm or hot zones.

7. If a charged hose is to be deployed, only qualified personnel are to be staffed on the hose line.

XIV. ASSISTANCE TO LAW ENFORCEMENT SPECIAL OPERATIONS

A. Purpose

1. This is a guideline to assist the City of Conover Fire Department personnel in making decisions to support law enforcement agencies during special operations.

B. Scope

1. The City of Conover Fire Department's role in supporting law enforcement operations is to:

   a) Provide special assets and equipment managed by the fire department.

   b) Provide fire suppression services.

   c) Assist with hazardous materials identification, containment and advice on disposal.

2. The City of Conover Fire Department, when assisting law enforcement, will not involve personnel in active danger areas.

   a) Personnel and apparatus are to be staged in cleared and or safe areas away for the scene.

C. Responsibility

1. City of Conover Fire Department will respond with one Engine Company, one engineer, three fire fighters and one officer.

   a) All other personnel are to stand-by at Fire Station 1 to provide coverage and staff fire stations as needed.

   b) City of Conover Fire Department response will be routine traffic unless otherwise directed by Catawba County Communications, who will be receiving information from the Incident Commander at the scene.

2. City of Conover Fire Department will respond to the scene to assist with fire suppression efforts and equipment as the need may arise.

3. Law enforcement personnel, prior to any fire department actions being taken will neutralize any and all circumstances at the incident.

a) The Incident Commander will direct City of Conover Fire Department as to the services that are required of the fire department and or fire personnel.

4. The responding fire officer will report to the Incident Commander to determine what type of assistance that the City of Conover Fire Department is to provide.

a) This can include equipment requests; safe staging areas determine fire or explosive potentials and hazardous materials potentials.

D. Procedures

1. Responding apparatus responding to active law enforcement actions will stage in a safe staging area.

a) Response will be routine unless otherwise directed by Catawba County Communications Center.

2. Equipment delivery such as fans, ladders, Self Contained Breathing Apparatus, forcible entry tools, etc. may be requested for use in police operations.

a) The fire department role is to deliver the equipment to a safe staging area near the incident and instruct law enforcement officers in its use for deployment within the danger areas.

3. Hazardous Materials response will consist of fire department personnel providing materials identification using the "North American Emergency Response Guidebook" with recommendations for safe zones, hot zones, evacuation distances, etc.

a) Also provide information to contact hazardous materials clean-up teams.

4. Fire suppression will only be done after law enforcement verifies the area is secure and safe for suppression to be done.

a) The area is to be considered a crime scene and will be treated as such.

(1) Minimize personnel use in and around the action area.

(2) In fire suppression efforts, do not destroy vital evidence that law enforcement will need to collect.

(i) If in doubt, ask the commanding law enforcement officer.

5. All communications will be minimized to prevent citizens, news media and felons' access to any law enforcement agency tactical operations.

   a) Landline telephone communications or (if necessary) cellular telephone is to be used.

6. The City of Conover Fire Department will not provide uniforms, bunker gear, apparatus or equipment to law enforcement agencies, where the intent is to mislead a suspect into identifying a law officer as a firefighter.

XV. SAFE POSITIONING WHILE OPERATING ON OR NEAR MOVING TRAFFIC

A. Overview

1. This procedure identifies parking practices for Fire Department apparatus and vehicles that will provide maximum protection and safety for personnel operating in or near moving vehicle traffic.

2. It also identifies several approaches for individual practices to keep firefighters safe while exposed to the hazardous environment created by moving traffic.

3. It shall be the policy of the Fire Department to position apparatus and other emergency vehicles at a vehicle-related incident on any street, road, highway or expressway in a manner that best protects the incident scene and the work area.

   i.) Such positioning shall afford protection to fire department personnel, law enforcement officers, tow service operators and the motoring public from the hazards of working in or near moving traffic.

   ii.) All personnel should understand and appreciate the high risk that personnel are exposed to when operating in or near moving vehicle traffic.

   iii.) Responders should always operate within a protected environment at any vehicle-related roadway incident.

4. Always consider moving vehicles as a threat to your safety.

   i.) At every vehicle-related emergency scene, personnel are exposed to passing motorists of varying driving abilities.

      a.) At any time, a motorist may be driving without a legal driver's license.

   ii.) Approaching vehicles may be driven at speeds from a creeping pace to well beyond the posted speed limit.

      a.) Some of these vehicle operators may be vision impaired, under the influence of alcohol and/or drugs, or have a medical condition that affects their judgment or abilities.

      b.) In addition, motorists may be completely oblivious to your presence due to distractions caused by cell phone use, loud

music, conversation, inclement weather, and terrain or building obstructions.

iii.) Approaching motorists will often be looking at the scene and not the roadway in front of them.

a.) Assume that all approaching traffic is out to get you until proven otherwise.

iv.) Nighttime incidents requiring personnel to work in or near moving near traffic are particularly hazardous. Visibility is reduced and driver reaction time to hazards in the roadway is slowed.

B. Terminology

1. The following terms shall be used during incident operations, post-incident analysis, and training activities related to working in or near moving traffic.

i.) **Advance Warning**- notification procedures that advise approaching motorists to transition from normal driving status to that required by the temporary emergency traffic control measures ahead of them.

ii.) **Block**- positioning a fire department apparatus on an angle to the lanes of traffic creating a physical barrier between upstream traffic and the work area. Includes 'block to the right' or' block to the left'.

iii.) **Buffer Zone**- the distance or space between personnel and vehicles in the protected work zone and nearby moving traffic.

iv.) **Downstream**- the direction that traffic is moving as it travels away from the incident scene.

v.) **Flagger**- a fire department member assigned to monitor approaching traffic and activate an emergency signal if the actions of a motorist do not conform to established traffic control measures in place at the highway scene

vi.) **Shadow**- the protected work area at a vehicle-related roadway incident that is shielded by the block from apparatus and other emergency vehicles.

vii.) **Taper**- the action of merging several lanes of moving traffic into fewer moving lanes.

viii.) **Temporary Work Zone**- the physical area of a roadway within which emergency personnel perform their fire, EMS and rescue tasks at a vehicle-related incident.

ix.) **Transition Zone**- the lanes of a roadway within which approaching motorists change their speed and position to comply with the traffic control measures established at an incident scene.

x.) **Upstream**- the direction that traffic is traveling from as the vehicles approach the incident scene.

C. Safety Benchmarks

1. All emergency personnel are at great risk of injury or death while operating in or near moving traffic.

i.) There are several specific tactical procedures that should be taken to protect all crewmembers and emergency service personnel at the incident scene including;

a.) Never trust approaching traffic

b.) Avoid turning your back to approaching traffic

c.) Establish an initial "block" with the first arriving emergency vehicle or fire apparatus

d.) Always wear at a minimum of Class II or Class III high visibility reflective vests during daylight operations

1.) When you feet hit the street, wear a Class II or Class III high visibility reflective safety vest.

e.) Always wear structural firefighting helmet

f.) Wear full protective clothing plus the highway safety vest whenever lighting levels are reduced due to inclement weather conditions

g.) Turn off all sources of vision impairment to approaching motorists at nighttime incidents including vehicle headlights and spotlights

h.) Use fire apparatus and police vehicles to initially redirect the flow of moving traffic

i.) Establish advance warning and adequate transition area traffic control measures upstream of incident to reduce travel speeds of approaching motorists

j.) Use traffic cones and/or cones illuminated by flares where appropriate for sustained highway incident traffic control and direction

k.) Establish a fire department member assigned to the "Flagger" function to monitor approaching traffic and activate an emergency signal if the actions of a motorist do not conform to established traffic control measures in place at the highway scene

D. Apparatus and Emergency Vehicle Benchmarks

1. Listed below are benchmarks for Safe Parking of apparatus and emergency vehicles when operating in or near moving traffic.

i.) Always position first-arriving apparatus to protect the scene, patients, and emergency personnel.

ii.) Initial apparatus placement should provide a work area protected from traffic approaching in at least one direction.

iii.) Angle apparatus on the roadway with a "block to the left" or a "block to the right" to create a physical barrier between the crash scene and approaching traffic.

iv.) Allow apparatus placement to slow approaching motorists and redirect them around the scene.

v.) Use fire apparatus to block at least one additional traffic lane more than that already obstructed by the crashed vehicle(s).

vi.) When practical, position apparatus in such a manner to protect the pump operator position from being exposed to approaching traffic.

vii.) Positioning of large apparatus must create a safe parking area for EMS units and other fire vehicles.

a.) Operating personnel, equipment and patients should be kept within the "shadow" created by the blocking apparatus at all times.

viii.) When blocking with apparatus to protect the emergency scene, establish a sufficient size work zone that includes all damaged vehicles, roadway debris, the patient triage and treatment area, the extrication work area, personnel and tool staging area and the ambulance loading zone.

ix.) Command shall stage unneeded emergency vehicles off the roadway or return these units to service whenever possible.

x.) At all intersections, or where the incident may be near the middle lane of the roadway, two or more sides of the incident will need to be protected.

xi.) Police vehicles must be strategically positioned to expand the initial safe work zone for traffic approaching from opposing directions.

a.) The goal is to effectively block all exposed sides of the work zone.

b.) The blocking of the work zone must be prioritized, from the most critical or highest traffic volume flow to the least critical traffic direction.

xii.) For first arriving engine or truck companies where a charged hoseline may be needed, block so that the pump panel is “down stream”, on the opposite side of on-coming traffic. This will protect the pump operator.

xiii.) At intersection incidents, consider requesting police response.

a.) Provide specific directions to the police officers as to exactly what your traffic control needs are.

b.) Ensure that police vehicles are parked in a position and location that provides additional protection of the scene.

xiv.) Traffic cones shall be deployed from the rear of the blocking apparatus toward approaching traffic to increase the advance warning provided for approaching motorists.

a.) Cones identify and only suggest the transition and tapering actions that are required of the approaching motorist.

b.) Personnel shall place cones and flares and retrieve cones while facing oncoming traffic.

c.) Traffic cones shall be deployed at 15 foot intervals upstream of the blocking apparatus with the furthest traffic cone approximately 75 feet upstream to allow adequate advance warning to drivers

d.) Additional traffic cones shall be retrieved from Police Department units to extend the advance warning area for approaching motorists.

E. Incident Command Benchmarks

1. The initial-arriving company officer and/or the Incident Commander must complete critical benchmarks to assure that a safe and protected work environment for emergency scene personnel is established and maintained including;

i.) Assure that the first-arriving apparatus establishes an initial block to create an initial safe work area

ii.) Assign a parking location for all ambulances as well as later-arriving apparatus.

iii.) Lanes of traffic shall be identified numerically as “Lane 1”, “Lane 2”, etc., beginning from the right to the left when right and left are considered from the approaching motorist’s point of view.

a.) Typically, vehicles travel a lower speed in the lower number lanes.

iv.) Directions “Right” and “Left” shall be as identified as from the approaching motorist’s point of view left or right.

v.) Instruct the driver of the ambulance(s) to “block to the right” or “block to the left” as it is parked at the scene to position the rear patient loading area away from the closest lane of moving traffic.

a.) Assure that all ambulances on-scene are placed within the protected work area (shadow) of the larger apparatus.

b.) Assure that all patient(s) loading into Med Units is done from within a protected work zone.

vi.) The initial company officer and/or Incident Commander must operate as the Scene Safety Officer until this assignment is delegated.

vii.) At residential medical emergencies, Command shall direct ambulances to park at the nearest curb to the residence for safe patient loading whenever possible.

F. Emergency Crew Personnel Benchmarks

1. Listed below are benchmarks for safe actions of individual personnel when operating in or near moving vehicle traffic.

2. Always maintain an acute awareness of the high risk of working in or near moving traffic.

i.) They are out to get you!

ii.) Never trust moving traffic.

iii.) Always look before you move!

iv.) Always keep an eye on the moving traffic!

v.) Avoid turning your back to moving traffic.

3. Personnel arriving in crew cabs of fire apparatus should exit and enter the apparatus from the protected 'shadow' side, away from moving traffic.

4. Officers, apparatus operators, crew members in apparatus with individual jump seat configurations and all ambulance personnel must exit and enter their units with extreme caution remaining alert to moving traffic at all times.

5. Protective clothing, minimum of Class II or Class III safety vest, and helmet must be donned prior to exiting the emergency vehicle.

6. During normal daylight lighting conditions, don helmet and minimum of Class II or Class III safety vest or structural PPE and Class III vest when operating in or near moving traffic.

7. During dusk to dawn operations or when ambient lighting is reduced due to inclement weather conditions, don helmet, full protective clothing and minimum of Class II or Class III vest.

i.) All Junior Member(s) personnel arriving on an apparatus or emergency vehicle must don assigned helmet and Class III vest prior to exiting their vehicle.

8. Always look before opening doors and stepping out of apparatus or emergency vehicle into any moving traffic areas.

    i.) When walking around fire apparatus or emergency vehicle, be alert to your proximity to moving traffic.

9. Stop at the corner of the unit, check for traffic, and then proceed along the unit remaining as close to the emergency vehicle as possible.

10. Maintain a 'reduced profile' when moving through any area where a minimum 'buffer zone' condition exists.

    i.) Police Department personnel may place traffic cones or flares at the scene to direct traffic.

    ii.) This action builds upon initial Fire Department cone deployment and can be expanded, if needed, as later arriving Police Officers arrive.

        a.) Always place and retrieve cones while facing on-coming traffic.

11. Placing flares, where safe to do so, adjacent to and in combination with traffic cones for nighttime operations greatly enhances scene safety.

    i.) Where safe and appropriate to do so, place warning flares to slow and direct approaching traffic.

G. High-Volume, Limited Access

1. Highway Operations

    i.) High-volume limited access highways include the expressways and multi-lane roadways within the Fire Department response area.

    ii.) The law enforcement and Department of Transportation (DOT) have a desire to keep the traffic moving on these high-volume thoroughfares.

        a.) When in the judgment of Fire Department Command it becomes essential for the safety of operating personnel and the patients involved, any or all lanes, shoulders, and entry/exit ramps of these limited access highways can be completely shut down.

b.) This, however, should rarely occur and should be for as short a period of time as practical.

iii.) Unique Safe Parking procedures at expressway and limited-access, high-volume multi-lane roadway incidents;

a.) First-arriving engine company apparatus shall establish an initial block of the lane(s) occupied by the damaged vehicle plus one additional traffic lane.

b.) A second Engine company shall be automatically dispatched to all vehicle-related incidents on Interstate 40, confirmed pin-ins and entrapments and or at anytime additional personnel and or apparatus is needed or requested.

1.) The primary assignment of the second Engine Company and crew shall be to;

(i.) Establish blockage of additional travel lanes if required to provide personnel safety.

(ii.) The position of this apparatus shall take into consideration all factors that limit sight distance of the approaching traffic including ambient lighting conditions, weather-related conditions, road conditions, design curves, bridges, hills and over- or underpasses.

c.) Traffic cones on limited-access, high-volume roadways shall be placed farther apart, with the last cone approximately 150 feet “upstream”, to allow adequate warning to drivers.

d.) Personnel shall place cones and flares and retrieve cones while facing the traffic.

e.) Assign a Flagger person to monitor the response of approaching motorists as they are directed to transition to a slower speed and taper into merged lanes of traffic.

1.) Notify Command on the incident operating channel of any approaching traffic that is not responding to the speed changes, transition, tapering and merging directions.

2.) Flagger shall activate a pre-determined audible warning to operating personnel of a non-compliant motorist approaching.

iv.) Police Department vehicles will be used to provide additional blocking of additional traffic lanes as needed.

v.) Med Units shall always be positioned within the safe work zone.

vi.) Staging of additional companies off the highway may be required.

vii.) Ambulances may be brought onto the highway scene one or two at a time.

viii.) An adequate size multi-patient loading area must be established.

ix.) Command should establish a liaison with the Police Department as soon as possible to jointly coordinate a safe work zone and to determine how to most efficiently resolve the incident and establish normal traffic flows.

x.) The termination of the incident must be managed with the same aggressiveness as initial actions.

xi.) Crews, apparatus, and equipment must be removed from the highway promptly, to reduce exposure to moving traffic and minimize traffic congestion.

2. Officer's Safe Parking "Cue Card"

i.) "Block" with first-arriving apparatus to protect the scene, patients, and emergency personnel.

ii.) Block at least one additional lane

iii.) Block so pump panel is "down stream"

iv.) Block most critical or highest traffic volume direction first

v.) Consider requesting additional PD assistance

vi.) Crews wear proper PPE w/Helmet

vii.) Minimum of Class II or a Class III vests at all times

viii.) Helmet at all times

ix.) Full PPE plus Class II or Class III vest between dusk and dawn or inclement weather

x.) Establish more than adequate advance warning

xi.) Traffic cones at 15' intervals

xii.) Deploy minimum 5 cones upstream

xiii.) Cones only "Suggest" they don't Block!

xiv.) Expand initial safe work zone

xv.) Lane 1 is furthest right lane, next is Lane 2, then Lane 3, etc. from approaching motorist's point of view

xvi.) You are the Scene Safety Officer

xvii.) Consider assigning FF as upstream "Spotter" as necessary for approaching traffic

3. Night or Reduced Light Conditions

i.) Turn OFF vehicle headlights

ii.) Provide overall scene lighting

iii.) All personnel in PPE w/helmets

iv.) Illuminate cones with flares

v.) Consider additional Truck company for additional upstream "Block"

4. Limited access, high-volume highway incidents

i.) Establish initial block: minimum two lanes

ii.) Place cones and/or cones illuminated by flares upstream of apparatus

iii.) Establish Flagger position monitor approaching traffic sound emergency signal as necessary

iv.) Driver operator of second engine company sound a series of long blasts on apparatus air horn as necessary

v.) Use police department vehicles for additional blocking

vi.) Stage additional companies off highway

vii.) Establish liaison with Police Department

viii.) Terminate incident aggressively

APPENDIX A

I. Apparatus and Equipment

A. The Conover Fire Department operates eight pieces of firefighting apparatus.

1. This consists of the following:
   i.) 4 Engine Companies
   ii.) 1 Ladder Companies
   iii.) 1 Tanker / Service Truck
   iv.) 1 Mini Pumper / Brush Truck
   v.) 1 Support Truck / Air Supply
   vi.) 1 Mobile air supply trailer

B. **First-Due Engines** are responded by the on-duty Engineer and are all similarly equipped for initial operations.

Station One

Engine 1
1991 Pierce Pumper/Tanker
Pumper/Tanker
1500-gpm single-stage pump
1,000 gallon tank
Class A Engine Company

Station Two

Engine 2
2005 Pierce Enforcer
Pumper
1500-gpm single-stage pump
1,000 gallon tank
Class A Engine Company

Station Three

Engine 3
2005 Pierce Enforcer
Pumper
1500-gpm single-stage pump
1,000 gallon tank
Class A Engine Company

C. **Reserve Engines** are used as back-up apparatus when a first-due engine is out of service or on an incident scene.

Station Three

Engine 4
1971 Ward LaFrance Pumper
1,000 gpm two-stage pump
500 gallon tank
15 gallons AFFF concentrate

All engines are equipped with the following:
800 feet of 5 inch supply hose
400 feet of 3 inch supply hose
Minimum of two 1¾ inch preconnects
Minimum of four SCBA and spare cylinders

D. **Ladder Company** is required to respond on all structural fire / alarm incidents. This apparatus will be responded by either on-duty personnel, qualified volunteer / part-time personnel or off-duty personnel as available.

Station One

Ladder 1
2000 Pierce Quint
1,500-gpm two-stage pump
300 gallon tank
75 foot Heavy Duty Aerial Ladder/waterway
Full NFPA/ISO ladder complement (except 35 foot ladder)

E. The **Mini Pumper / Brush Truck** is stationed at Station One on a four-wheel chassis.

Station One

Truck 5
2007 Ford / CET
300 gpm pump
300 gallon tank
Electric winch
Hydraulic Extrication tools

F. **Truck 1** and **Truck 2** are used for support operations.

Station One

Truck 1
1990 Chevrolet Step-Van
Command Center
Firefighter Rehabilitation
Hazardous Materials support
Breathing Air refill system

Station Two

Truck 2
1983 GMC/Pierce
300-gpm pump
1,250 gallon tank w/ quick dump
1,500 gallon portable drop tank
Full NFPA/ISO ladder complement

800 MHz Implementation: XTS 2500 Model II 800 MHz Portable Radios

I. Purpose

A. The purpose of this document is to provide consistent use of the Catawba County 800 MHz Viper System and to provide guidance to assigned users with Conover Fire Department on the different aspects of the system.

II. Scope

A. This document applies to all Conover Fire Department system users and is specifically written towards Conover Fire Department.

III. Introduction

A. Careful planning and extensive preparations have occurred over the past 18 months to two years that will provide a superior radio communications with improved safety and better emergency operations, but the system will only be as good as each of us makes it. To be prepared, everyone is expected to read the attached standard operating guideline carefully.

B. As we start to use the new 800 MHz Viper System, everyone will need to have patience with one another and recognize that we are all adjusting to this major change together. There will a tremendous learning curve on our part with these radios, and your patience will be needed during the transition time.

C. At this time, Conover Police Department, Catawba County Emergency Medical Services and Newton-Conover Rescue Squad are using the 800 MHz radios now within their operations. Conover Fire Department interacts with these agencies on a daily basis, and in order to communicate with these agencies, it is necessary that we begin our transition to the 800 MHz Viper System. Use of the VHF system within Catawba County will still be intact and operational. We will continue to use the VHF System within our daily operations, which will be a coordination effort on our part. It is recommended that we start using the 800 MHz system as our primary communications with Catawba County Communications Center and maintain the VHF as our back-up and use it where and as needed.

D. The XTS 2500 Model II 800 MHz Portable Radio has been programmed with a common template for all Fire, Rescue and EMS operating in Catawba County. The assigned priority “Zone” and “talk group” for all fire service agencies operating in Catawba County in “Fire Dispatch” – “Zone A”, with the exception of Hickory Fire Department. All fire service radios have been programmed with “Zone A” as the priority zone. Hickory Fire Department has been assigned their own zone and talk group.

1. If the user of the radio is in another zone and / or talk group, by pressing and holding the “Home Button” for two (2) beeps will bring the radio back to the priority zone and talk group, “Zone A” – “Fire Dispatch”.

E. Please review and read the operation manuals and technical cut sheets for the XTS 2500 Model II 800 MHz Portable Radios that you have been assigned. (XTS 2500 Model II 800 MHz Portable Radio Technical Sheet, attachment D)

F. It is important to remember, once you turn on the XTS 2500 Model II 800 MHz Portable Radio, you are on the VIPER System and you are assigned position on the hierarchical use of the system. What you broadcast and what talk group you broadcast on is known and can be heard by all that is currently on and currently monitoring the system.

IV. Definitions of New Terms

A. The new 800 MHz (megahertz) radio system uses significantly enhanced technology from the existing VHF (very-high frequency) radio system that the Catawba County emergency services have used for over three decades. The following are definitions of terms that apply to the new radios.

B. Channel: Frequency used for radio communications. In a trunked radio system, channels are shared by talk groups to maximize efficiency.

C. Talk group: From a user's standpoint this is the same as a radio channel, but actually operates over any available radio frequency in a range of frequencies. Computers automatically route the radio transmissions over available radio frequencies.

D. Templates, Zones and Modes: Templates are the layouts of the talk groups in a radio. XTS 2500 Model II 800 MHz Portable Radios that we are using can have up to 288 different talk groups or conventional radio channels. Templates can consist of up to 16 zones, which are like columns on a spreadsheet, with 16 modes per zone, like the rows of a spreadsheet. Talk groups and channels are located by zone and mode. Catawba County is using one basic template for Fire Department and Rescue Squad agency radios. (See XTS 2500 Model II Radio Template 02-2011, Attachment B).

V. Radio Assignment

A. All fire department officers, fire inspector and full time staff have been assigned a XTS 2500 Model II 800 MHz Portable Radio. All full time staff personnel that are assigned to shift duty are in possession of portable radios that has been assigned to their respective position for the duration of their shift. Each position has been assigned a radio ID Number; Station 1 Engineers will be assigned "1511" and "1514", Station 2 Engineers will be assigned "1512" and Station 3 Engineers will be assigned "1513". (See 800 MHz Portable Radio Assignment, Attachment A).

B. With these radios, there is one common template installed in each portable radio across Fire, Rescue and EMS, thus making our communications more operable.

All Conover Fire personnel assigned or that has access to a portable 800 MHz portable radio will have access to all Catawba County talk groups and in addition have access to an extensive number of North Carolina Public Safety Mutual Aid talk groups that has been assigned to the Viper System. (See XTS 2500 Model II Radio Template 02-2011, Attachment B).

C. Radios are to be handled carefully to avoid damage and are to be used responsibly by the assigned user. When wearing firefighting protective clothing, the portable radio(s) shall be inserted in the radio pocket with the Velcro flap secured and the lapel mike attached to the radio loop on the chest of the coat or secured in a fashion that it does not interfere with any fire ground operations and secured as such to avoid damage to the lapel mike.

D. Oncoming shift personnel shall ensure that they take possession of the assigned radio for their position on the respective day and that the portable radio is in operable condition and ready for use.

1. Each shift position will be given a battery once extra batteries are purchased, however only one radio will be purchased and shared with each shift.

E. Each XTS 2500 Model II 800 MHz Portable Radio issued has an Impres Charger assigned to it. The 800 MHz portable radios are designed for multiple day use prior to recharging the battery again. Our protocol for the 800 MHz portable radios that are assigned to the apparatus for fire ground operations will be to recharge the battery once it reaches a capacity of 50%-60%.

F. The 800 MHz portable radios are not designed to be used as a scanner. They are designed for and shall be used for Fire Department communications and for fire ground operations.

VI. Apparatus Assigned Radios

A. Each apparatus will be assigned a XTS 2500 Model II 800 MHz Portable Radio. Currently, Engine 1, Engine 2, Engine 3 is equipped with an Impres Vehicular Charger, which will contain the XTS 2500 Model II 800 MHz Portable Radio assigned to the respective apparatus. These radios are assigned to and shall stay with the assigned apparatus at all times, and not used for fire ground operations. Each apparatus will be assigned 800 MHz portable radios that will be for fire ground use, as currently with our VHF radios. Exception, Truck 1, Truck 2 and Engine 4 will not have an assigned 800 MHz portable radio. This is done so to allow Engine 1, Engine 2 and Engine 3 to have two (2) portable 800 MHZ radios for fire ground operations use. (See 800 MHz Portable Radio Assignment, Attachment A).

B. Conover Fire Department will use an Impres Vehicular Charger equipped one XTS 2500 Model II 800 MHz Portable Radio as the mobile radio for the

apparatus. Additional Impres Vehicular Chargers will be purchased as funding is available for them.

VII. Radio Test

A. Engineers will continue to test VHF radios on Channel 6 while conducting daily apparatus preventive maintenance. In addition, with the XTS 2500 Model II 800 MHz Portable Radios, engineers will additionally conduct daily radio checks radio checks when conducting apparatus preventive maintenance on "Zone A, 800 - Cat Tac 6".

B. As long as the batteries remain charged with a capacity of 50%-60%, most problems with the XTS 2500 Model II 800 MHz Portable Radio will be detected by simply turning the radio on and verifying the radio settings. Ensure that the apparatus radio is set to "Zone A – Fire Disp" and that the assigned 800 MHz portable radios for fire ground use are assigned to "Zone A – Cat Tac 6".

C. With radio traffic still on the VHF system, testing the of VHF system will still be required. Dispatch tones and dispatches from Catawba County Communications Center will remain on the VHF system.

VIII. Radio Numbering

A. As before, apparatus radios are identified by their vehicle, such as "Conover Engine 1," and individuals with radio identifications will continue to use those assigned IDs regardless of the radio on which they are communicating, such as "Conover 1501" or "Conover 1506." (See 800 MHz Portable Radio Assignment, Attachment A).

1. We will begin using "Conover" as our preamble or introduction instead of "15" in our communication beginning March 1, 2011.

a) Example: "Conover Engine 1"; Conover Engine 2"; "Conover Engine 3"; "Conover Engine 4"; "Conover Ladder 1"; "Conover Truck 1"; "Conover Truck 2"; "Conover Truck 5"; "Conover 150"; "Conover 159"; "Conover 1501"; "Conover 1502"; etc.

B. Each apparatus assigned a portable radio for fire ground operations operation will have an assigned ID.

1. Engine 1 Portable A: 15-E1A
2. Engine 1 Portable B: 15-E1B
3. Engine 2 Portable A: 15-E2A
4. Engine 2 Portable B: 15-E2B
5. Engine 3 Portable A: 15-E3A
6. Engine 3 Portable B: 15-E3B
7. Ladder 1 Portable A: 15-L1A

C. Portable radios will be limited until additional radios are purchased and assigned to the respective apparatus. As funding is available, additional 800 MHz portable radios will be purchased.

IX. Setting Radios to Scan

A. To enable fire officers and staff personnel to configure radios in a manner that best works for them, the scan feature is enabled on all 800 MHz portable radios. The "Fire Zone A" talk group is set on all radios as the first priority for scanning. It is highly recommended that the 800 MHz Portable Radios carried by personnel, are either locked on the "Fire Dispatch" talk group in Zone A with Scan turned off, or that they only scan only a few talk groups to ensure that an incident is not missed. The more talk groups scanned, the greater the chance of missing critical radio transmissions. Engineers shall turn off the scan feature and lock their radios on the "Fire Dispatch" talk group in Zone A while on duty or scan only "Fire Dispatch", "EMS Dispatch" and "Rescue Dispatch".

B. It is each individual's responsibility to ensure that he or she does not miss a call. Additionally, when assigned to an incident, all personnel shall turn off the scan feature and lock their assigned radio on the assigned talk group or assigned talk group for fire ground operations. Refer to the owner's guide for more information on how to set the scan features.

X. Busy Signal

A. To prevent a 800 MHZ portable radio from transmitting at the same time and interfering with another user attempting to transmit, if the microphone is keyed while there is another transmission on the talk group, the 800 MHZ portable radio will make a "bonk" tone, which indicated a busy signal and indicating that your message is not being transmitted. When this occurs, monitor the talk group and wait to transmit when no one else is speaking.

B. Because the 800 MHz Viper System is shared by many agencies, talk groups can become inaccessible if all radio frequencies are in use by other agencies and a busy signal will be received. When this occurs, wait for a moment and attempt to transmit again when radio traffic has cleared. As with all radio communications, it is important for the user to listen and ensure that communications are clear prior to transmitting.

XI. Use and Care of the Portable Radios

A. All Conover Fire Department staff that has been assigned a XTS 2500 Model II 800 MHz Portable Radio, is for their exclusive use. These radios need freshly charged batteries at least a minimum when the rated capacity is 50% or below.

B. Every effort must be made by the assigned user to protect the radios from damage, from theft, and / or unauthorized use of the radio. A lost, stolen or damaged radio must be reported immediately to the Fire Chief. To prevent unauthorized use of a lost or stolen radio, Catawba County Communications

Center can have the respective radio "turned off" so that use of the radio will not be possible.

C. Full-time staff personnel have a radio assigned to their position. At shift change, they will receive their radio from the off-going full-time staff position, and will check to ensure that the radio is functioning properly, and that it has a charged battery.

D. When wearing firefighting protective clothing, the radio will be carried in the radio pocket on coat with the Velcro flap secured and the lapel mike attached to the radio loop on the chest of the coat or secured in a fashion that it does not interfere with operations and such to avoid damage.

E. When not wearing firefighting protective clothing, personnel will hook the clip on the battery to their belt and the label mike to their shirt. Radios may be carried securely in radio straps as well.

F. When working in close proximity with others carrying radios, it may be necessary to place your hand other the lapel mikes to prevent feedback when someone in the group is transmitting. This also applies inside vehicles where there is more than one radio.

XII. VHF Radios

A. Fire Channel 1 (154.415 MHz) on the VHF radio system will continue to be used to alert fire stations and alert fire pagers. All radio transmissions by Catawba County Communications Center on the "800 Fire Dispatch" talk group will also be broadcasted on "Fire Channel 1" and dispatch tones will be heard on the "Fire Dispatch" talk group.

XIII. Dispatching and Working at Incidents

A. All "Fire Dispatches" on the VHF channels currently in use by Catawba County will remain (154.415 MHz). This frequency, 154.415 MHz will continue to be the frequency which is used to alert fire department pagers and monitors.

B. All "Rescue Dispatches" on the VHF channels currently in use by Catawba County will remain (155.220 MHz). This frequency, 155.220 MHz will continue to be the frequency which is used to alert rescue squad pagers and monitors.

C. All "EMS Dispatches" on the VHF channels currently in use by Catawba County will remain (159.960 MHz). This frequency, 159.960 MHz will continue to be the frequency which is used to alert EMS crews pagers and monitors.

D. By monitoring these frequencies, users will hear all tone and voice dispatches for all Fire, Rescue, and EMS agencies within the Catawba County Communications Center system.

E. Catawba County Communications Center will broadcast all "Fire Department" alarms over the 800 MHz Fire Dispatch (Fire Dispatch) talk group and the VHF Fire Channel 1 simultaneously.

F. Upon receipt of an alarm, the assigned user shall turn off the scan mode. The apparatus and / or vehicle radio will be used to report "Responding" to Catawba County Communications Center. Upon arrival, the vehicle's radio will be used to report "On the Scene," and to provide a situation report and to establish command and assign a tactical talk group as applicable.

1. If a fire officer arrives prior to the assigned apparatus, that individual will broadcast a "scene size up" and indicate the appropriate tactical talk group for fire ground operations and establish fire ground command. Incidents requiring little radio traffic such as a medical call or a vehicle fire will remain on the Fire Dispatch talk group; unless radio traffic and transmission indicate that a tactical talk group will need to be assigned.

G. Upon arrival at working incidents, such as structure fires and vehicle extrications, the apparatus radio will remain on the assigned Fire Dispatch talk group to monitor additional radio traffic and transmissions over this talk group. Fire ground operations will be switched to "800 - Cat Tac 6". Incident command will have Catawba County Communication Center broadcast fire ground operations assigned to "800 – Cat Tac 6" or other appropriate tactical talk group (s) as needed or as the incident dictates.

H. All 800 MHz portable radios at the incident will be switched immediately to the assigned fire ground tactical talk group for operations. The Incident Commander will monitor Fire Dispatch and additionally monitor the assigned fire ground operation tactical talk group.

I. At this point all communications between Catawba County Communication Center and the incident will be through the incident commander via the Fire Dispatch talk group.

J. Conover Fire Department will use "800 Cat Tac 6" as our primary fire ground operations tactical talk group. With the 800 MHz Viper System, additional responding agencies will have the capability to switch to and monitor "800 Cat Tac 6" and communicate with the Incident Commander and other on-scene units and agencies.

K. Catawba County Communication Center does have the capability to monitor and transmit on the Tactical talk groups 800 Tac 1 and 800 Tac 2 at the same time.

1. Tactical talk groups 800 Tac 3 through 800 Tac 8, Catawba County Communication Center has the ability to monitor and transmit on only one talk group at a time.

a) Talk groups 800 Tac 3 through 800 Tac 8 are set-up similar to a mobile radio application, which can only monitor and transmit on one talk group at a time.

2. Due to the limitations, it is imperative that the Incident Commander maintain contact with Catawba County Communication Center through the Fire Dispatch talk group to ensure communication is maintained with Catawba County Communication Center.

XIV. Emergency Button

A. On the XTS 2500 Model II 800 MHz Portable Radios, a "hot button" or "emergency button" feature has been enabled. Use the "Emergency Button" once "MAYDAY" procedures have failed through communicating either by radio and/or verbally.

B. This will automatically open the microphone on the radio for 10 seconds after the button is pushed. The "emergency button" should not be used except in true emergencies only, especially situations occurring where voice communications is not possible.

1. The following situations will / could initiate use of the "Emergency Button" once "MAYDAY" attempts have failed:
   a) Trapped
   b) Entanglement
   c) Cut off by fire
   d) Cut off by collapse
   e) Through the floor/roof
   f) Pinned
   g) SCBA failure/Out of Air
   h) Firefighter Down
   i) Lost/Disoriented

C. When an "emergency button" is activated, all activity stops in the Catawba County Communications Center Center until the situation is clear. When the "emergency button" is depressed on a XTS 2500 Model II 800 MHz Portable Radio, several things happen at the same time.

1. First, the 800 MHz radio is automatically moved from "Emergency" talk group. This talk group is position 16 on all Catawba County 800 MHz Viper Radio System Zones. The user does not need to touch the radio to switch to the "Emergency" talk group. The radio will also automatically activate the "Press To Talk" button, allowing the user 10 seconds to broadcast any information about the emergency by simply speaking out loud.

2. At the same time, an alarm is received on all VIPER 800 MHz consoles in the Catawba County Communications Center that have the “Emergency” talk group active. The alarm preempts other traffic on their console and immediately brings up the “Emergency” talk group. The radio traffic broadcast via the “hot button” or “emergency button” will be heard on these consoles. Only radios in the system that are monitoring the “Emergency” talk group will hear those communications. After the 10 seconds is up, a dispatcher will contact the radio activating the emergency button to confirm their status. The alias or user ID for that radio on the system will identify the user.

D. When an “emergency button” is activated, the radios in the system will indicate that an emergency has been declared. If your radio remained on the talk group to which it was set, and not the “Emergency” talk group, then you were not the activator. No action is necessary on your part.

XV. Common Radio Terminology

A. The fire service's main tool of communication is the radio. The use of clear text and common terminology is a crucial part of effective communications during routine and emergency incidents. Conover Fire Department must be able to communicate within its own organization as well as with other agencies and jurisdictions. In addition, all emergency service and public service agencies must be able to effectively communicate with other emergency service and public service agencies. Clear text terminology includes painting a picture without the use of 10 Codes or other department specific codes. When all agencies are speaking the same language, confusion is reduced and effective communications is accomplished.

B. All Conover Fire Department radio communications are to occur in clear plain text, except for a few exceptions such as “Code 44”. Typical plain text radio terminology used by Conover Fire Department and other emergency service agencies includes but not limited to:

1. Affirmative: That is correct. A "yes" answer to a question. The opposite of "negative."

2. Available: A unit can respond if dispatched. (Do not say “in service” which is easily confused with “out of service.”)

3. Copy: Used to acknowledge receipt of a message. Not an affirmative answer to question. (See "affirmative.")

4. Disregard: Disregard the last message.

5. Enroute: Used when a unit is moving from one location to another, but not in response to an alarm. (See "responding.")

6. Negative: That is not correct. A "no" answer to a question. The opposite of affirmative."

7. On the Scene: Indicates that a unit has arrived at the location of an alarm.

8. Out of Service: Indicates that a unit cannot respond to alarm.

9. Responding: Indicates response to an alarm, whether the response is emergency or non-emergency.

10. Under Control: Indicates that the incident has been stabilized.

C. Common Radio Transmission examples:
1. "Conover Engine 1 responding to 211 3rd Ave NE for reported structure fire."

2. "Conover Engine 1 arriving on-scene at 211 3rd Ave NE"

3. "Conover Engine 1 is assignment complete from 211 3rd Ave NE"

4. "Fire Central to Conover 1505, on-scene of a single story residential structure with heavy fire and smoke conditions showing, all units operating on 800 Tac 6 for fire ground operations"

5. "Fire Central to Conover 1504, on-scene of a two vehicle head-on crash with heavy damage, all units operating on 800 Tac 6 for fire ground operations, Conover 1504 establishing 1st West Command"

D. In keeping with the intent of the National Incident Management System, the unit being called should be spoken before the unit calling. For example, "Fire Central to Conover 1503" or "Fire Central from Conover 1507" or "Fire Central to Conover Engine 2" or "Fire Central to Conover Ladder 1, Conover Ladder responding" etc. are all acceptable examples of correct communications meeting the intent of NIMS.

E. The last unit clearing a scene will be the one responsible for contacting the Catawba County Communications Center and clearing all units from the scene of the incident via the Fire Dispatch talk group. The Catawba County Communications Center will constantly monitor all Dispatch talk groups.

XVI. Communicating with Other Agencies

A. This joint capability can result in well coordinated operations. Agencies using the 800MHz Viper System in Catawba County and their talk groups are listed in XTS 2500 Model II Radio Template 02-2011, Attachment B. The Catawba County system also has access to North Carolina and national mutual aid talk groups for use during disasters.

B. It is vital that we not interfere with other agencies' emergency operations by transmitting unnecessarily on their talk groups or by transmitting without first monitoring. Like the Conover Fire Department, these are public safety agencies whose missions are to protect lives. Improper use of a talk group could result in death or injury.

C. Other agencies' talk groups will be used strictly for coordinating on the scene, not to request a response by the agency or to notify the agency of an incident. Those communications will continue to be coordinated through the Catawba County Communications Center.

D. When transmitting to another agency, identify yourself as "Conover (and your CFD unit number)." These agencies also have permission to use our talk groups and should be using the same protocol.

E. For communications with a responding Catawba County EMS unit, switch to EMS Dispatch on Zone A, monitor the talk group to ensure that you do not interfere with other radio traffic, identify yourself and call for the unit responding to your location, for example, "Conover Fire, Thornburg Drive Command to the EMS unit responding to Thornburg Drive." Then have the unit switch to the assigned "tactical talk group" and communicate further information on the tactical talk group.

XVII. Description of System "Zone" or "Talk Groups"

A. (Remember, once you turn on the XTS 2500 Model II 800 MHz Portable Radio, you are on the VIPER System and you are assigned position on the hierarchical use of the system. What you broadcast and what talk group you broadcast on is known and can be heard by all that is currently on and currently monitoring the system.)

B. Zone A: Fire Dispatch Zone, zone used by Fire Departments for communication. Includes Fire Ops, Rescue Dispatch, EMS Dispatch, Emergency talk group and Tactical Talk Groups for fire ground operational assignments

C. Zone B: Dispatch Zone, zone that includes all dispatch talk groups used within Catawba County 800 MHz Viper system. Includes Fire Dispatch, Fire Ops, Rescue Dispatch, Rescue Ops, EMS Dispatch 1, EMS Dispatch 2, Hickory Fire Dispatch, Conover PD Dispatch, Hickory PD Patch, Newton PD Dispatch and the Emergency talk group.

D. Zone C: Channel / Talk Group Announce Zone. Talk group will announce setting. Includes same talk groups as Zone A.

E. Zone D: Rescue Dispatch Zone, zone used by Rescue Squads for communication. Includes Rescue Dispatch, Rescue Ops, Tactical talk groups, EMS Dispatch, Fire Dispatch and Emergency talk group.

F. Zone E: Hickory Fire Department Dispatch Zone.

G. Zone F: Hospital Zone. Talk groups for area and regional hospitals / trauma centers.

H. Zone G: Mutual Aid Zone. Area and regional mutual aid talk groups to communicate with surrounding counties. Only used in the event of a declared emergency. Coordination will be through Emergency Management.

I. Tower Zone:

J. Roam Zone:

K. Zones 1 through 8: These zones or talk groups are State and National talk groups that are only used for large events, large emergency incidents, multi agency / multi jurisdictional events and/or emergency incidents. These zones and talk groups are not to be used as an alternate means of communications. They are used only by assignment through Emergency Management.

XVIII. VIPER Network Quick Facts

A. 240 total sites planned for statewide coverage.
B. 160 sites constructed and on-the-air
C. 55 sites are fully funded and under construction
D. 25 sites unfunded
E. VIPER is 67% complete (number of sites) with 160 sites on the air
F. VIPER infrastructure is 66% funded
G. VIPER infrastructure remains to be 34% funded
H. 52,000 total users (portables and mobiles) are currently on the network
I. 214 emergency responding agencies makeup the 52,000 users
J. South Carolina has the same type Interoperable System; N.C. /S.C. can talk to each other using the same type user device.

XIX. Critical Issues

A. VIPER is estimated to cost $191 million to build
B. $125.5 million funded to date
C. Pending: Additional $65.5 million left to be funded
D. $19M Remaining site construction for completion
E. $6.5M Network Operations Center (NOC) construction
F. $20M P25 Upgrade
G. $20M ITS Risk Requirement
H. VIPER is estimated to cost $7.5 million per year to maintain and support once the project is complete

I. Current funding is $2.5M recurring
J. Pending: An additional $2.1M recurring is needed to effectively maintain and support the existing network
K. (Available from North Carolina Department of Crime and Control; Updated 2/18/11; http://www.nccrimecontrol.org)

XX. Additional VIPER Information
A. Additional VIPER information is available from the following:

1. North Carolina Department of Crime and Control website at http://www.nccrimecontrol.org

2. North Carolina Statewide Communications Interoperability Plan at http://www.nccrimecontrol.org/cit/VIPER/InteroperabilityPlan.pdf

3. Training site for on-line VIPER radio training available from the NCOEMS at http://smrs.emspic.org/viper/

Attachment A

Conover Fire Department Radio Assignment

800 MHz Portable Radio Assignment

800 MHz Portable Radio Assignment

	Serial Number	Radio ID	Model Number	CFD Radio ID	Description	Assignment
1.	205CLT6667	748595	H46UCF9PW6BN	15-E1	Conover Engine 1	Engine 1
2.	205CLT6668	748596	H46UCF9PW6BN	15-E2	Conover Engine 2	Engine 2
3.	205CLT6669	748597	H46UCF9PW6BN	15-E3	Conover Engine 3	Engine 3
4.	205CLT6670	748598	H46UCF9PW6BN	15-E4	Conover Engine 4	Engine 4
5.	205CLT6671	748599	H46UCF9PW6BN	15-L1	Conover Ladder 1	Ladder 1
6.	205CLT6672	748600	H46UCF9PW6BN	15-T1	Conover Truck 1	Truck 1
7.	205CLT6673	748601	H46UCF9PW6BN	15-T2	Conover Truck 2	Truck 2
8.	205CLT6674	748602	H46UCF9PW6BN	15-T5	Conover Truck 5	Truck 5
9.	205CLT6675	748603	H46UCF9PW6BN	Chief 150	15-Chief 150	Fire Chief, Mark Hinson
10.	205CLT6676	748604	H46UCF9PW6BN	Chief 159	15-Chief 159	Deputy Chief, Bobby Hedrick
11.	205CLT6677	748605	H46UCF9PW6BN	Chief 1501	15-Chief 1501	Assistant Chief, Ronald Kaylor
12.	205CLT6678	748606	H46UCF9PW6BN	Chief 1502	15-Chief 1502	Assistant Chief, Jeff Kanupp
13.	205CLT6679	748607	H46UCF9PW6BN	1503	15-Captain 1503	Captain, Boyce Lineberger
14.	205CLT6680	748608	H46UCF9PW6BN	1504	15-Captain 1504	Captain, Bob Krogman
15.	205CLT6681	748609	H46UCF9PW6BN	1505	15-Captain 1505	Captain, Jason McRary
16.	205CLT6682	748610	H46UCF9PW6BN	1506	15-Lieutenant 1506	Lieutenant, Ricky Allen
17.	205CLT6683	748612	H46UCF9PW6BN	1507	15-Lieutenant 1507	Lieutenant, Justin Rink
18.	205CLT6684	748613	H46UCF9PW6BN	1511	15-Engineer 1	Terry Drum **(A-Shift)**
						Donnie Deal **(B-Shift)**
						Mark Stafford **(C-Shift)**
19.	205CLT6685	748614	H46UCF9PW6BN	1512	15-Engineer 2	Wayne Isenhour **(A-Shift)**
						Bruce Roseman **(B-Shift)**
						Mike Nelson **(C-shift)**
20.	205CLT6686	748615	H46UCF9PW6BN	1513	15-Engineer 3	Kevin Head **(A-Shift)**
						Gerald Clodfelter **(B-Shift)**
						Carl Pickle **(C-Shift)**
21.	205CLT6687	748616	H46UCF9PW6BN	1514	15-Engineer 1A	Matt Smith **(A-Shift)**
						Jeff Ervin **(B-Shift)**
						Chris Hicks **(C-Shift)**
22.	205CLT6688	748617	H46UCF9PW6BN	1535	15-Insp 1	Fire Inspector, TJ Patton
23.	205CLT6689	748618	H46UCF9PW6BN	15-E1A	Conover Engine 1 Portable	Engine 1 Portable A
24.	205CLT6690	748619	H46UCF9PW6BN	15-E2A	Conover Engine 2 Portable	Engine 2 Portable A
25.	205CLT6691	748620	H46UCF9PW6BN	15-E3A	Conover Engine 3 Portable	Engine 3 Portable A
26.	205CLT6692	748621	H46UCF9PW6BN	15-L1A	Conover Ladder 1 Portable	Ladder 1 Portable A

Attachment B

Catawba County Radio Template

XTS 2500 Model II Radio Template 02-2011

XTS 2500 Model II Radio Template
02-2011

	Fire Zone	Dispatch Zone	Ch Announce	Rescue Zone	Hickory FD Zone	Hospital Zone	M/A Zone	Tower Zone	Roam Zone
Zone Name	A-	B-	C-	D-	E-	F-	G-	10-	9-
Mode 1	FIRE DISP	FIRE DISP	FIRE DISP	RESCUE DIS	HKY FD DIS	CVMC	ALXNDR M/A	TWR TG 1	WEST ROAM 1
Mode 2	FIRE OPS	FIRE OPS	FIRE OPS	RESCUE OPS	HKY PD OPS	FRMC	BURKE M/A	TWR TG 2	WEST ROAM 2
Mode 3	CAT TAC 1	RESCUE DIS	CAT TAC 1	CAT TAC 1	CAT TAC 1	BAPTIST	CALDWL M/A	TWR TG 3	PED ROAM 1
Mode 4	CAT TAC 2	RESCUE OPS	CAT TAC 2	CAT TAC 2	CAT TAC 2	CALDWL MEM	CAT CO M/A	TWR TG 4	PED ROAM 2
Mode 5	CAT TAC 3	EMS DIS 1	CAT TAC 3	CAT TAC 3	CAT TAC 3	CLEVLD REG	CLVELD M/A	TWR TG 5	CNTL ROAM 1
Mode 6	CAT TAC 4	EMS DIS 2	CAT TAC 4	CAT TAC 4	CAT TAC 4	CHPL HILL	IREDEL M/A	TWR TG 6	CNTL ROAM 2
Mode 7	CAT TAC 5	HKY FD DIS	CAT TAC 5	CAT TAC 5	CAT TAC 5	CMC LINCLN	LINCLN M/A	TWR TG 7	EAST ROAM 1
Mode 8	CAT TAC 6	HKY FD OPS	CAT TAC 6	CAT TAC 6	CAT TAC 6	CMC MAIN	MRGTON M/A	TWR TG 8	EAST ROAM 2
Mode 9	CAT TAC 7	CAT LAW 1	CAT TAC 7	CAT TAC 7	CAT TAC 7	DAVIS REG	TRP F M/A	TWR TG 9	SW CALL
Mode 10	CAT TAC 8	CAT LAW 3	CAT TAC 8	CAT TAC 8	CAT TAC 8	DUKE MED	TRP F CO M2	TWR TG 10	SW LAW
Mode 11	CAT DIR 1	COPD DISP	CAT DIR 1	CAT DIR 1	CAT DIR 1	FORSYTH	LAKE NORMN	8 CALL 90	SW FIRE
Mode 12	CAT DIR 2	NPD DISP	CAT DIR 2	CAT DIR 2	CAT DIR 2	GRACE HOSP	LZ WEST	8 TAC 91	SW EMS
Mode 13	EMS DISP 1	HPD PATCH	EMS DISP 1	EMS DISP 1	EMS DISP 1	IREDELL MEM	8 TAC 91 D	8 TAC 92	SW GENERAL
Mode 14	RESCUE DIS	LZ WEST	RESCUE DIS	FIRE DISP	FIRE DISP	LKN REG MC	8 TAC 92 D	8 TAC 93	8 TAC 91 D
Mode 15	CAT COMMON	CAT COMMON	CAT COMMON	CAT COMMON	CAT COMMON	MISSION	CAT COMMON	8 TAC 94	8 TAC 92 D
Mode 16	EMERGENCY	EMERGENCY	EMERGENCY	EMERGENCY	EMERGENCY	VALDESE	EMERGENCY	DIRECT	CAT COMMON

VIPER System Talkgroups
VIPER Mobile Tower

Home Button Press = Fire Dispatch

Conventional Repeated
Conventional Non-Repeated

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XTS 2500 Model II Radio Template
02-2011

	Statewide Call	Pool Zone	NSP Reband	NSP Zone	DPR 8 Zone	DPR 7 Zone	SW Events E-H	SW Events A-D	Zone 1
Zone Name	8-	7-	6R-	6-	5-	4-	3-	2-	1-
Mode1	SW CALL	WEST POOL1	8 CALL 90R	8 CALL 90	DPR 8 TG 1	DPR 7 TG 1	ECHO 1	ALPHA 1	CATTAC 1
Mode2	SW LAW	WEST POOL2	8TAC91 R	8 TAC 91	DPR 8 TG 2	DPR 7 TG 2	ECHO 2	ALPHA 2	CATTAC 2
Mode3	SW FIRE	PIED POOL1	8TAC92 R	8 TAC 92	DPR 8 TG 3	DPR 7 TG 3	ECHO 3	ALPHA 3	CATTAC 3
Mode4	SW EMS	PIED POOL2	8TAC93 R	8 TAC 93	DPR 8 TG 4	DPR 7 TG 4	ECHO 4	ALPHA 4	CATTAC 4
Mode5	SW GEN	CNTL POOL1	8TAC94 R	8 TAC 94	DPR 8 TG 5	DPR 7 TG 5	FOXTROT 1	BRAVO 1	CATTAC 5
Mode6	VW ROAM 1	CNTL POOL2	8CALL90DR	8 CALL 90D	DPR 8 TG 6	DPR 7 TG 6	FOXTROT 2	BRAVO 2	CATTAC 6
Mode7	VW ROAM 2	EAST POOL1	8TAC91D R	8 TAC 91 D	DPR 8 TG 7	DPR 7 TG 7	FOXTROT 3	BRAVO 3	CATTAC 7
Mode8	LZ WEST	EAST POOL2	8TAC92D R	8 TAC 92 D	DPR 8 TG 8	DPR 7 TG 8	FOXTROT 4	BRAVO 4	CATTAC 8
Mode9	LZ CENTRAL	CAT CO M/A	8TAC93D R	8 TAC 93 D	DPR 8 TG 9	DPR 7 TG 9	GULF 1	CHARLIE 1	CAT DIR 1
Mode10	LZ EAST	8 TAC 91D	8TAC94D R	8 TAC 94 D	DPR 8 TG10	DPR 7 TG10	GULF 2	CHARLIE 2	CAT DIR 2
Mode11	8 CALL 90	LAKE NORMN	DIRECT R	DIRECT	DPR 8 TG11	LAKE NORMN	GULF 3	CHARLIE 3	WEST POOL2
Mode12	8 TAC 91	RESCUE DIS	CAT DIR 1	CAT DIR 1	DPR 8 TG12	TRP F CO M2	GULF 4	CHARLIE 4	GEN GOVT
Mode13	8 TAC 92	EMS DISP 1	CAT DIR 2	CAT DIR 2	8 TAC 91 D	8 TAC 91 D	HOTEL 1	DELTA 1	8 TAC 91 D
Mode14	8 TAC 93	FIRE DISP	FIRE DISP	FIRE DISP	8 TAC 92 D	8 TAC 92 D	HOTEL 2	DELTA 2	8 TAC 92 D
Mode15	8 TAC 94	CAT COMMON	RESCUE DIS	RESCUE DIS	CAT COMMON	CAT COMMON	HOTEL 3	DELTA 3	CAT COMMON
Mode16	CAT COMMON	EMERGENCY	CAT COMMON	CAT COMMON	EMERGENCY	EMERGENCY	HOTEL 4	DELTA 4	EMERGENCY

VIPER System Talkgroups
VIPER Mobile Tower

Home Button Press = Fire Dispatch

Conventional Repeated
Conventional Non-Repeated

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Attachment C

Voice Interoperability Plan for Emergency Responders

Statewide Event VIPER Talk Group Management

Statewide Event VIPER Talk Group Management

VTN303
Rev Date: 02/10/10

Introduction

Effective October 1st, 2009, the NCEM 24 Hour Operations Center became the responsible entity for assigning Statewide Event VIPER (Voice Interoperability Plan for Emergency Responders) Talk Group Channels.

Each radio programmed to operate on the North Carolina VIPER system is equipped with a series of standardized Talk Groups which are broken down into the following unique classifications:

- Statewide Calling Talk Groups
- Statewide Event Talk Groups
- State Highway SHP Common and Mutual Aid Talk Groups
- North Carolina Emergency Management Approved Talk Groups
- Statewide Roamer Talk Groups
- Statewide General Pool Talk Groups
- Statewide Domestic Preparedness Region (DPR) Talk Groups
- Statewide Aircraft Landing Zone (LZ) Coordination Talk Groups

GENERAL STATEWIDE EVENT VIPER TALK GROUP MANAGEMENT PROCEDURES:

VIPER Talk Group assignments are based on location/need and executed via Web-EOC using the "VIPER Resources" board.

The Statewide Event VIPER Talk Groups serve as a means for all VIPER users to have a method to direct radio traffic in the event of a multi-agency response that exceeds the scope of a normal occurrence or covers a larger than normal geographic area.

Statewide Event VIPER Talk Groups are assigned on an as needed basis and not permanently to any particular jurisdiction.

The Statewide Event VIPER Talk Groups are located in a zone or bank within the radio identified as "EVENT" or "EVT" and also have the standardized channel naming listed below:

1. **Alpha 1**
2. **Alpha 2**
3. **Alpha 3**
4. **Alpha 4**
5. **Bravo 1**
6. **Bravo 2**
7. **Bravo 3**
8. **Bravo 4**
9. **Charlie 1**
10. **Charlie 2**
11. **Charlie 3**
12. **Charlie 4**
13. **Delta 1**
14. **Delta 2**
15. **Delta 3**
16. **Delta 4**

Statewide Event VIPER Talk Group Management

VTN303
Rev Date: 02/10/10

REQUESTING A STATEWIDE EVENT VIPER TALK GROUP ASSIGNMENT FROM THE NCEOC:

Statewide Event VIPER Talk Group assignment requests will come through the Local Emergency Management Coordinator or the County 911 Center.

The preferred method for receiving a Talk Group assignment request should be in the form of an email. The requestor should send the email to nceoc@ncem.org. Upon receipt of the email, the NCEM 24-Hour Operations Center will acknowledge receipt and ensure the email has all the appropriate and required information (see below).

If there is an urgent need to assign a Talk Group, requests can be taken over the phone by calling the NCEM 24 Hour Operations Center (800-858-0368 or 919-733-3300).

All requests should include the following information:

Requestor Information
Agency (required)
Address
City, Zip
County
From: Date/Time
To: Date/Time
Event Type: Event, Exercise/Training, Incident
Explanation why Talk Group is needed

Requestor POC Information
First Name (required)
Last name (required)
Title
Office Phone (required)
Cell Phone
Fax Number
Email address (required)

All requestors should take note that there is no encryption on any of these Talk Groups. For encrypted transmissions, contact the VIPER Control Group in order to have radios programmed appropriately with encryption software. If an agency is using a Talk Group that already has been assigned, the NCEM 24 Hour Operations Center may request the unassigned agency to identify themselves and to contact the NC EOC via a land line. Once contact has been made, the NCEM 24-Hour Operations Center may allow continued transmissions or make a re-assignment to a different Talk Group.

Statewide Event VIPER Talk Group Management

VTN303
Rev Date: 02/10/10

Critical Operational Rules for Statewide Event VIPER Talk Group Management

During times of emergencies or disasters, the State EOC has the authority to recall previously assigned Statewide Event VIPER Talk Groups in order to coordinate the emergency or disaster response. If this is required, the requesting POC will be notified.

Talk Groups are not to be used as talk-around channels by any agency.

Talk Groups are not to be self-assigned.

Talk Groups are to be used for planned events, emergency incidents, or pre-planned training events ONLY.

Attachment D

XTS 2500 Model II 800 MHz Portable Radio Technical Cut Sheet

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XTS 2500 Model II

Model Number: H46UCF9PW6BN
Serial Number: 205CLT6766
FLASHCode: 500098-00148C-6

Buttons and Controls

Index	Description	Conventional	Trunking
1		Power/Volume	Power/Volume
2	Three Position Concentric		
	Position A	Blank	Blank
	Position B	Keypad Lock	Keypad Lock
	Position C	Scan	Scan
3	Rotary Control	Channel Select	Channel Select
4	Top Button	Unprogrammed	Emergency
5	Side Button - Top	Monitor	Site Displ/Srch
6	Side Button - Middle	Nuisance Delete	Nuisance Delete
7	Side Button - Bottom	TalkAround/Direct	Private Call
8	Data Button	TMS	TMS

Zones and Channels

Channels	Zone1	Zone2	Zone3
1	FIRE DISP	FIRE DISP	FIRE DISP
2	FIRE OPS	FIRE OPS	FIRE OPS
3	CAT TAC 1	RESCUE DIS	CAT TAC 1
4	CAT TAC 2	RESCUE OPS	CAT TAC 2
5	CAT TAC 3	EMS DISP 1	CAT TAC 3
6	CAT TAC 4	EMS DISP 2	CAT TAC 4
7	CAT TAC 5	HKY FD DIS	CAT TAC 5
8	CAT TAC 6	HKY FD OPS	CAT TAC 6
9	CAT TAC 7	CAT LAW 1	CAT TAC 7
10	CAT TAC 8	CAT LAW 3	CAT TAC 8
11	CAT DIR 1	COPD DISP	CAT DIR 1
12	CAT DIR 2	NPD DISP	CAT DIR 2
13	EMS DISP 1	HPD PATCH	EMS DISP 1
14	RESCUE DIS	LZ WEST	RESCUE DIS
15	CAT COMMON	CAT COMMON	CAT COMMON
16	EMERGENCY	EMERGENCY	EMERGENCY