GASTON COUNTY BACK-UP PSAP PLAN

• BACKGROUND

Gaston County has a population of approximately 210,000. The County covers an area of 365 square miles. The primary PSAP provides multi-agency 911 Police, Fire and EMS dispatch service throughout the County. We handle approximately 138,000 911 calls annually. We employ 55 full-time direct dispatch operations personnel.

Gaston County has established a fully functional, redundant PSAP capable of maintaining and delivering emergency 911 service during either a partial or total interruption of functionality of the primary PSAP. It mirrors the capability of the primary PSAP.

• LOCATIONS

<table>
<thead>
<tr>
<th>PRIMARY PSAP</th>
<th>BACKUP PSAP</th>
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<tbody>
<tr>
<td>GASTON COUNTY EOC BLDG</td>
<td>GASTONIA POLICE DEPT BLDG</td>
</tr>
<tr>
<td>615 N HIGHLAND ST</td>
<td>200 E. LONG AVE</td>
</tr>
<tr>
<td>GASTONIA</td>
<td>GASTONIA</td>
</tr>
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The two locations are approximately 1.3 miles apart. There were a number of reasons why the specific Back-Up site was selected:

✔ The location is within the premises of the Gastonia Police Department building. It is a 24/7, fully secured location.
✔ It has generator backup and UPS power. The generator is sized to deliver full building power and has fuel to run for extended periods.
✔ The building has its own 350’ Communications tower adjacent to the building.
✔ A dedicated room has been designated as the Back-Up PSAP. It has restricted, controlled entry. There is an adjacent room for associated Telco and radio equipment.
✔ There are kitchen and rest areas on-site.
✔ A current MOU is in effect between Gaston County and the City of Gastonia for the use of this facility (MOU attached).

• SYSTEM DESIGN

The Primary and Back-up PSAPs are designed to be free-standing, fully independent facilities. The call-taking and dispatch capabilities of the Back-Up mirror those of the Primary. All systems at the Back-up are fully functional and operational at all times.
There is no power-up or hardware transfer or installation from the Primary required to activate the facility. A service contract exists for maintenance and repair of the 911 telephone equipment at both facilities. The City of Gastonia has a support staff of electricians and radio technicians to maintain their building and equipment.

<table>
<thead>
<tr>
<th></th>
<th>PRIMARY PSAP</th>
<th>BACK-UP PSAP</th>
</tr>
</thead>
<tbody>
<tr>
<td>911 PHONE SYSTEM</td>
<td>CASSIDIAN PATRIOT</td>
<td>LIFELINE 100</td>
</tr>
<tr>
<td>Number of 911 TRUNKS</td>
<td>15</td>
<td>15</td>
</tr>
<tr>
<td>Number of ADMIN LINES</td>
<td>8</td>
<td>8</td>
</tr>
<tr>
<td>CAD/ RADIO WORKSTATIONS</td>
<td>14</td>
<td>14</td>
</tr>
<tr>
<td>CAD SYSTEM</td>
<td>NEW WORLD</td>
<td>NEW WORLD</td>
</tr>
<tr>
<td>RADIO SYSTEM</td>
<td>FULL NETWORK FUNCTION</td>
<td>FULL NETWORK FUNCTION</td>
</tr>
<tr>
<td>LOCAL TRANSMITTERS</td>
<td>YES</td>
<td>YES</td>
</tr>
<tr>
<td>VOICE RECORDERS</td>
<td>❖ Multi-channel master</td>
<td>❖ Multi-channel master</td>
</tr>
<tr>
<td></td>
<td>❖ Independent call-check units at each workstation</td>
<td>❖ Independent call-check units at each workstation</td>
</tr>
</tbody>
</table>

- **CONFIGURATION**
  - Both facilities are outfitted with similar workstation configurations and equipment displays.
  - Both facilities are 911 Phase II compliant.
  - Each facility has independent, diverse routing back to the Telco facility.
  - Each of the 911 telephone switches and workstation trunks and lines are independent - no sharing of trunks or lines.
  - Each set of lines use diverse paths.
  - There is redundant fiber between the two facilities
  - ANI / ALI are independent of each other at each facility.
  - Each facility has a full Cad system with mapping. There are redundant servers at each location that run real-time and will remain operational should the other facility lose connectivity.
  - The radio consoles have independent connections to the radio network, as well as local, stand-alone transmitters.
  - Electrical power to the two facilities comes from different transformers.

- **ACTIVATION**
  - Should there be time for an orderly transfer to the Back-Up facility; half the staff will be placed at the Back-Up prior to full telephone transfer. Since the Back-up has different lines, both locations can be “live” simultaneously. Both radio and CAD systems can also be run concurrently.

  - **Staffing**
    - The Primary and Back-Up facilities are proximate enough so that transfer of staff should not incur significant delay. A 15 passenger van is kept on-site for immediate staff transport.
    - All Dispatch staff are cross-trained at every position
911 phone transfer-
- Procedures for the transfer of both 911 and Administrative lines are in place with AT&T. A single phone call (with authorization code) is all that is required to transfer calls from one facility to the other (attached).
- Activation Protocol- There is a section in the Agency SOG's that directly addresses facility transfer process (attached).

INTERIM MAINTENANCE OF SERVICE
Physical relocation of staff should take only minutes. There is a cache of portable radios in the Comm Center that would be deployed to our personnel during relocation to maintain contact with the various client departments until dispatch personnel arrive at the Backup PSAP.

FACILITY MAINTENANCE
- The Back-Up PSAP is monitored and checked on a regular basis.
- Service contracts are in effect for all critical system components.
- Full Back-up activation and operation on an annual basis.

BACK-UP FACILITY COST
- There are no lease or rental costs associated with the Back-Up PSAP site.
- The 911 phone switch is wholly owned by the County.
- No extra CAD licenses from vendor required for Back-Up facility
- Recurring costs are not expected to be substantial:
  - Telco 911 switch maintenance contract- time and materials
  - Lease cost of Telco lines and trunks
  - Lease of multi-channel recorder
- At some point in the not too distant future, we would expect to replace the Lifeline 100 switch with newer technology.
- CAD workstations would need to be replaced at same time as the pc's in the Primary PSAP- also relatively soon.
CERTIFICATES

1. This instrument has been preaudited in the manner required by the Local Government Budget and Fiscal Control Act, Article 3, Chapter 159 of the General Statutes of North Carolina.

This the 29th day of November, 2010.

Cynthia A. Fortune
Financial Services Director
City of Gastonia

2. Reviewed as to form this 29th day of November, 2010.

[Signature]
Purchasing and Warehouse Manager
City of Gastonia
STATE OF NORTH CAROLINA

COUNTY OF GASTON

INTERGOVERNMENTAL AGREEMENT
FOR THE OPERATION AND MAINTENANCE OF
THE GASTON COUNTY BACKUP PSAP FACILITY

THIS AGREEMENT, made effective this ___ day of __________, 2010, by and between the COUNTY OF GASTON, a body politic organized under the laws of the State of North Carolina, (hereinafter referred to as “County”), and the CITY OF GASTONIA, a municipal corporation organized under the laws of the State of North Carolina, (hereinafter referred to as “City”).

WITNESSETH:

WHEREAS, the operation and maintenance of the 911 PSAP (Public Safety Answering Point) emergency dispatch system is a proper governmental function and benefits both City and County; and

WHEREAS, both parties desire to enter into an intergovernmental agreement for the reliable operation of the 911 Emergency system; and

WHEREAS, The County currently provides E911 telephone receipt and emergency dispatch services to the City; and

WHEREAS, this Agreement is intended to define the rights and responsibilities of the parties hereto with respect to the facilities and equipment defined hereto; and

WHEREAS, City and County are authorized to enter into this Agreement, by virtue of N.C.G.S. Section 160A-461.

NOW, THEREFORE, for and in consideration of the following mutual promises and covenants, City and County hereby agree as follows:

1. **Purpose:** The E911 facility located at the Gastonia Police Department facility is for the purpose of providing continuation and continuity of Public Safety call receipt and emergency dispatch capability in the event of a severe service disruption at the Gaston County 911 Communications Center (PSAP).

2. **Facility location:** Gaston County maintains a backup 911 emergency dispatch facility within the premises of the Gastonia Police Department at 200 E. Long Avenue, Gastonia, N.C.

3. **Use of Facilities:** The City shall make available certain specified spaces within the Gastonia Police Department facility for the use by the County for the installation and operation of a public safety answering point backup emergency 911 dispatch system. The spaces are commonly designated as the “Communications Room” and the “Telephone / Equipment Room”. The County shall be responsible for the upkeep and maintenance of any equipment located at the Facility except for such equipment owned by the City of Gastonia. The maintenance of the County owned equipment located at the Facility is controlled by a separate agreement between the parties.

4. **Site Access:** Access by the City shall be provided to County 911 personnel and staff as required for the operation and maintenance of the backup PSAP when and as necessary. Maintenance to be scheduled during “normal business hours” unless of an emergency nature.

5. **Lease of Sites:** The City shall provide the agreed upon area for the use by the County as a backup-up site at no cost to the County, as the facility is of mutual benefit to both parties.
6. Description of lease spaces: The area of the City facility located at 200 E. Long Avenue, Gastonia, commonly defined as:
   - 911 Communications Room
   - Telephone equipment room
   - The area immediately adjacent to the Communications Room commonly referred to as the “Conference Area” (with the provision that this space is not normally occupied by any County 911 equipment or personnel; and will only be used on an “as needed” basis should 911 Dispatch operations be required to actually be conducted from the City location.

The City of Gastonia will make available the necessary space in these defined areas for the installation, and storage of equipment and appliances necessary for the operation of the 911 Backup facility.

7. Lease Termination: Should the space defined above no longer be necessary to the needs of the County, the County shall relinquish its spaces at the Gastonia Backup PSAP site upon 10 days’ written notice. Should the City desire to terminate the agreement, it shall give the County written notice of its intent to terminate this agreement and will permit the County to continue using the agreed spaces until such time as a suitable replacement facility can be procured and provisioned but in no event, more than six months’ from the date of the written notice to terminate, unless an extension is requested by Gaston County and granted by the City of Gastonia.

8. Non-Liability: City and County agree that in no event shall either County or City be liable or responsible to each other, or to other persons resulting from acts of God, fire, war, legal, or equitable proceeding, or any other cause which is outside the control of City or County.

9. Term: (a) City and County agree that the duration of this Agreement shall begin upon date of signature of both parties and extend for a period of five (5) years. This agreement shall automatically renew for successive five (5) year terms unless terminated as provided in this Agreement.

10. Notice: Any written notice to be given hereunder by either party to the other party shall be affected by certified mail, return receipt requested. Notice to the City shall be sufficient if made or addressed to the City Manager, 181 South Street, P.O. Box 1748, Gastonia, North Carolina, 28053. Notice to the County shall be sufficient if made or addressed to the County Manager, P.O. Box 1578, Gastonia, North Carolina, 28053. Either party may change the address for notice to it by giving written notice of such change in accordance with the provisions of this section.

11. Entire Agreement: This Agreement and any attached Exhibits constitute the entire Agreement between City and County, and neither City nor County shall be bound by any requirement which is not specifically stated in this Agreement.

12. Waiver of Immunity/Third Party Liability: No portion of this Agreement shall be deemed to constitute a waiver of any immunities which City or County or their officers or employees may possess, nor shall any portion of this Agreement be deemed to have created a duty of care on the part of either party to any persons not a party to this Agreement.

13. Severability: If any section, subsection, paragraph, sentence, clause or phrase of this Agreement is for any reason held or decided to be invalid or unconstitutional, such a decision shall not affect the validity of the remaining portions. The parties hereto declare that they would have entered into this Agreement and each and every section, subsection, paragraph, sentence, clause, and phrase thereof, irrespective of the fact that any one or more sections, subsections, paragraphs, sentences, clauses, or phrases might be declared to be unconstitutional or invalid.
14. **Applicable Law:** This Agreement shall be interpreted, construed, and governed by the laws of the State of North Carolina.

15. **Amendments:** Amendments, which are consistent with the purposes of this Agreement, may be made in writing duly executed by the parties hereto.

16. **Personnel and Financing:** No joint agency under G.S. 160A-464(3) is to be established as a result of the execution of this Interlocal Agreement, and each municipality shall manage its own personnel, respectively, and is responsible for its own financing, if any, as necessary for the execution of this undertaking.

17. **No Doctrine of Construction Against the Drafter:** Both parties acknowledge and stipulate that this Agreement is the product of mutual negotiation and bargaining and that it has been drafted by Counsel for both City and County. As such, the doctrine of construction against the drafter shall have no application to this Agreement.

IN WITNESS WHEREOF, City and County have signed and sealed this Agreement this 6th day of December, 2010.

CITY OF GASTONIA

By: [Signature] Jennifer T. Stultz, Mayor

NORTH CAROLINA

ATTEST:

[Signature]
City Clerk

GASTON COUNTY

By: [Signature] 12/6/2010
Chairman, Gaston County Board of Commissioners

APPROVED AS TO FORM:

[Signature] 12/6/2010
County Attorney

APPROVED AS TO FORM:

[Signature]
County Attorney
This document has been pre-audited in the manner required by the Local Government Budget and Fiscal Control Act.

Finance Director

STATE OF NORTH CAROLINA
COUNTY OF GASTON

Sandra Smith, a Notary Public of the aforesaid County and State, do hereby certify that Virginia L. Creighton personally appeared before me this day and acknowledged that she is the City Clerk of the City of Gastonia and that by authority duly given and as the act of the municipal corporation, the foregoing instrument was signed in its name by its Mayor, sealed with its corporate seal and attested by her as its City Clerk.

WITNESS my hand and Notarial Seal, this the 11th day of November, 2010.

Sandra H. Smith
Notary Public

My Commission Expires: 12/16/2014

STATE OF NORTH CAROLINA
COUNTY OF GASTON

I, Angela Stacks, a Notary Public of the aforesaid County and State, do hereby certify that Martha M. Jordan personally appeared before me this day and acknowledged that she is the Gaston County Clerk and that by authority duly given and as the act of the municipal corporation, the foregoing instrument was signed in its name by its Chairman of its County Board of Commissioners, sealed with its corporate seal and attested by her as its County Clerk.

WITNESS my hand and Notarial Seal, this the 16th day of December, 2010.

Angela. Stacks
Notary Public

My Commission Expires: August 9, 2014
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CHAPTER 3-1 – EMERGENCIES IN THE TELECOMMUNICATIONS CENTER

1. We must handle any emergency that occurs in the telecommunications center as quickly as possible so it will have minimum impact on our ability to maintain operations and dispatch emergency units. Notify the shift supervisor immediately of any emergency and he/she will take appropriate action; as well as notifying the Telecommunications Administrator when possible. Such emergency conditions include:

A. Injury to personnel on duty.

B. Any condition that is severely restricting effective operation of the center.

C. Any equipment or operating problem that cannot be corrected that has rendered the telecommunications center inoperable.

D. Any emergency that requires evacuation of the center and/or the building.

If the building must be evacuated, follow the instructions in Chapter One Section Four of the procedure manual. Upon direction by Communications Administration; the backup PSAP will be activated or other appropriate action taken.

2. **Electrical fires:** Any fire in the telecommunications center can cause a hazardous condition and the safety of the Telecommunicators must be assured. Electrical fires in the telecommunications equipment even from small components can give off much smoke. In case of electrical fire cut off the power to the equipment using the breaker box in the mechanical room and call the city fire department.

The use of portable electrical space heaters in the Communications Center Radio and Call-taking Rooms is **expressly forbidden**. Use of such devices is hazardous as well as having the potential to trip circuit breakers due to the large electrical draw of the devices; which could cause the loss of power to workstations, CAD, or other essential equipment.

Do not discharge any chemical power extinguisher on an electrical fire in equipment and never use a liquid. First cut off the power and then use a halon type extinguisher. The chemical power extinguisher can be more costly in damage and cleaning than replacing the components. The halon type
extinguishers are in the telecommunications room and marked with a yellow "H." Follow the instructions on the bottle. We should evacuate the room before using fire extinguishers. Do not enter the room until the fire department has said that doing so is safe. Burned halon chemical can give off toxic byproducts.

Once the fire is out and the room safe to enter we should notify the radio shop of any telecommunications equipment damaged during the fire.

2. **Small fires:** For small fires use a fire extinguisher to put the fire out and then call the Gastonia City Fire Department to verify fire extinguishment. **PERSONNEL SHOULD ONLY ATTEMPT TO EXTINGUISH INCIPIENT FIRES WHEN THERE IS NO DANGER TO THEMSELVES OR OTHERS.** After extinguishment, immediately notify Communications Director of incident. Make sure that maintenance people are aware that the fire extinguisher needs to be recharged.

3. **Large fires:** For a large fire that we cannot extinguish, notify the Gastonia City Fire Department. Evacuate the building. All personnel within the EOC building should immediately be notified of an existing emergency condition or evacuation.

4. **Intruders or hostile persons:** In case of intruders or hostile persons in the telecommunications center, simulcast to city and county police on the radio and give any information possible for a quick response.

We will handle unforeseen emergencies with a common sense approach. Personnel are directed to take measures to insure the life and safety of the Telecommunicators over property during any emergency at the telecommunications center. Do not take risks, summon the appropriate assistance when needed.
CHAPTER 3-2 – EMERGENCY POWER

1. MAIN BUILDING EMERGENCY POWER SUPPLY

A. During a commercial power failure; backup power is normally provided by an on-site generator. Emergency power for critical dispatch systems is also maintained by an uninterruptible power source (UPS). The UPS system is designed to provide power during the period that the generator is starting up. The UPS also provides temporary backup power to essential systems should the generator not start or power not automatically switch over. The UPS unit is located in the equipment room in the fenced section behind the covered parking area. Power is supplied by the UPS through built-in batteries until the emergency generator comes on-line and assumes the full building load within approximately 8 seconds of commercial power failure. Power is normally automatically switched over by the ATS (Automatic Transfer Switch) unit that senses the loss and restoration of commercial power. This is an automatic operation that should require no operator action unless the automated system fails.

Should the automatic system fail, and the generator not start; the UPS will supply power to the critical systems (telephones, radios) for approximately 2 hours (depending on power consumption). A flashing strobe light in the Communications Radio Room will activate when the building is running on UPS reserve battery power.

If generator power fails to come on-line, immediately take the following action:

• Notify the 911 Administrative personnel of the situation through the use of the After Hours Emergency Repair Procedure.
B. ANNUNCIATOR PANEL

A generator status annunciator panel has been installed and is located on the wall behind the Supervisor Desk.

- The panel has a series of indicator lights
  - Yellow lights indicate **warnings**
  - Red lights indicate **failures**
  - The **exception** is the yellow “GENERATOR SUPPLYING POWER” light. This indicates that the Comm Center is **actually being supplied** by power from the generator and is a “normal” light in this situation.
    - **Note**- this light will **NOT** be lit when the generator is being tested or run without actually powering the building.

- There is an “Alarm Acknowledge” Button on the panel. Pressing this will **silence** the alarm tone, but does **NOT** “fix” any problems.

- The Admin staff should be contacted in accordance with the After-Hours Emergency Repair Procedure Guide **IMMEDIATELY** whenever ANY light is activated, with exception of the “GENERATOR SUPPLYING POWER” light.

- IF directed to do so, the Shift Supervisor shall contact the generator vendor at the following numbers:
  - (Regular business hrs): 800-277-6010
  - (Off hours) 704-533-9730

The only control on the generator itself that is accessible is the Emergency Shutoff. This is a large red button on the side of the unit closest to the building. Pressing the button will immediately shutdown the generator. This should only be done in EMERGENCY situations.
in which IMMEDIATELY stopping the generator is necessary to prevent personal injury or to prevent risk of major damage to building facilities.

C. ATS and Generator Area Layout

D. ATS (Automatic Transfer Switch)

The Communications Center is equipped with an ATS unit that senses any loss of commercial electric power to the building and automatically starts the emergency generator and switches over to it for power. The unit also automatically returns the
building to normal power and turns off the generator after commercial power has been restored. It is also possible to manually switch to generator power, as well as “locking out” commercial power if necessary.

The ATS switch is designed to “Start On Fail”, which means that any failure of the unit should cause the generator to come on and pick up the building load.

As a safety feature, all status indicators and user controls are located on the panel within the weatherproofed front cabinet door. There is normally NO NEED to access the interior components of the switch.

E. ATS Switch Operation

1. Component description
   a. Bypass Handle
   b. Isolating Handle
   c. ATS Status Indicator Panel
   d. Bypass Switch Indicator Panel

2. Normal power configuration.
   a. Bypass handle up.
   b. Isolating handle up.
   c. CPU RUNNING green LED lit.
   d. ATS IN NORMAL POSITION green LED lit
   e. Bypass switch panel yellow NORMAL POWER AVAILABLE light lit.

3. Emergency (generator running) power configuration.
   a. Bypass handle up.
   b. Isolating handle up.
   c. CPU RUNNING green LED lit.
   d. ATS IN EMERGENCY POSITION red LED lit
   e. Bypass switch panel yellow EMERGENCY POWER AVAILABLE light lit.

   a. It is possible to lock the Transfer Switch into either only commercial power or emergency generator power sources.

   b. This should be done **ONLY** upon specific direction to do so by either a County electrician or a member of the Administrative Staff.
i. Since the ATS unit will NOT be able to automatically switch if in **BYPASS** Mode, the Bypass Switch indicator panel **MUST** first be showing the type of power desired is “available” as indicated by the yellow lights.

ii. To lock power, the **BYPASS** Handle should be slid either left or right to the desired power source, and pulled all the way down (this is a spring-loaded switch and requires effort).

iii. When in the desired bypass position, the associated light will be lit on the **BYPASS SWITCH INDICATOR PANEL** (green for **NORMAL**, red for **GENERATOR**).

iv. The **ISOLATION** Handle is used for powering off the ATS switch contacts, and is not normally user-operated.

5. Failure Indicators

Should the ATS unit fail, the green **CPU RUNNING** LED on the ATS Status Indicator Panel will not be lit (it will still be possible to manually switch power sources using the **BYPASS** Handle).

**Note:** If the generator is running and supplying building power, do not attempt to manually turn off the unit or reset systems in any way until the arrival of an electrician to verify system status.

6. System Time Settings

a. Generator starts 3 seconds after commercial power fails.
b. Power transferred 8 seconds after commercial power fails.
c. ATS automatically switches back from generator 5 minutes after commercial power is restored.
d. Generator shuts down 15 minutes after building switched back to commercial power.
2. TOWER EMERGENCY POWER

   A. **Portable Generator Procedure**
      If there is no power to the shelter due to a main generator or transfer switch failure:

1. **IMMEDIATELY** make notifications in accordance with the After Hours Emergency Repair Procedure

2. **IF DIRECTED** TO TROUBLESHOOT POWER PROBLEM- Ensure that the 200A main breaker is not tripped.

3. Turn the breaker labeled “HVAC” off.

4. Pull the portable generator to the generator receptacle on the side of the shelter and hook it up using the yellow cord.

5. Fuel and Crank the portable generator.

6. Go inside the shelter to the double-throw switch and move its lever all the way down past “Off” to “Portable Generator”.

CHAPTER 3-3 – SYSTEMS FAILURES AND EMERGENCY ALARM ACTIVATIONS IN COMM CENTER

There are a number of systems that, although they may fail, do not create the need for immediate emergency action. The Shift Supervisor should consult the AFTER HOURS EMERGENCY REPAIR PROCEDURE FORM for guidance in making necessary notifications or taking appropriate action.

1. Server Room High Temperature Alarm

A. A monitoring unit has been installed to the side of the Supervisor’s console, which indicates excessive temperature in either the Server or the Hub rooms (located just outside the Communications Center Radio Room).
   1. Should the temperature in either room rise above the preset limit, an audible alarm in the unit will sound and a red indicator light will illuminate.
   2. There is a “silence” switch on the unit to stop the sound, but the red light will remain on as long as the temperature is too high.
   3. Should the alarm activate, the following actions should be taken immediately:
      A. Silence the alarm
      C. Investigate the temperature levels in both rooms.

B. If the temperature is normal:
   2. Recheck the rooms periodically to confirm they remain cool.

C. If it is hot in either or both rooms:
   1. Open both sets of doors to ventilate the room(s).
   2. There is an auxiliary air conditioner in the larger server room. It is located behind the tall beige cabinet.
   3. There is a handheld remote unit on the back of the air conditioner. Use the remote to turn the power on and set the unit to “Mega-Cool” (If the remote cannot be used, the small “Power” button on the front of the A/C unit will also turn the unit on).
4. **Immediately** contact and notify a member of the Administrative staff so that repairs to the A/C can be ordered.

IT IS ESSENTIAL THAT THESE STEPS BE TAKEN WITHOUT DELAY. EXCESSIVE HEAT WILL CAUSE THE CAD SYSTEM TO SHUT DOWN, AS WELL AS POSSIBLY DAMAGING OTHER ESSENTIAL EQUIPMENT IN THE ROOM.

3. **EMERGENCY BACKUP POWER FAILURE**

   A. An indicator strobe light is located on the wall to the rear of the supervisor’s desk, above the door to the telephone room. This light signals that there has been a loss of City power, and that the generator has either not started or not picked up the electrical load for the Comm Center.

   B. This alarm light means that all systems in the building are now running on **EMERGENCY BATTERY POWER**.

   C. Since the batteries provide limited run time, the Supervisor must IMMEDIATELY notify the Comm Center Management staff of the condition. Although the pager may be used as for initial notification, if no one calls in within 5 minutes the emergency contact phone numbers MUST be used.

   D. If for some reason contact cannot be made with Management staff; then the Department electricians should be notified immediately.

   E. While running on batteries, all non-essential systems should be shut down, including:
   
   1. Air conditioning
   2. Printers
   3. Fans at positions
   4. The console lifts at each workstation should also NOT be used.

4. **TELEPHONE FAILURES**

   A. **E911 Cellular Phase II Failures** - Should any 911 cellular calls be received that display NO ALI data at all (no lat/long information), note the time and callback number and immediately contact TCS Services at 1-800-959-3749 with the information. They will provide a “Repair Ticket” number. The supervisor should note the details of the failure in the Shift Report.

   B. **Interruption of PSAP phone service** - The following guide lists procedures to be followed for partial, serious, or total interruption of critical PSAP telephone service. Serious service interruptions should also be brought to the attention of the Communications Director as necessary.

   1. Should the failure be serious enough to undermine effective operation of the Communications facility, SOG Section 3, Chapter 6 shall be consulted for
2. Once the appropriate squad has been notified, the County Mobile Command vehicle may be activated and manned with a Telecommunicator. It will be directed to respond to the rescue squad quarters to set up a command post for relay of incoming emergency telephone calls from the affected community to County 911 Communications for dispatch.

3. The shift supervisor shall cover any manpower shortage created by the assignment of the Telecommunicator to the Mobile Command.

3. Should a major outside telephone failure occur that results in the interruption of critical telephone service to the Communications Center, and upon authorization from the Director of Communications or his designee; BellSouth shall be contacted and directed to reroute telephone service to the Backup PSAP in accordance with procedures outlined in SOG SECTION 3.6– BACKUP PSAP OPERATIONS.

4. Should a major outside telephone failure occur that is so serious or widespread that service cannot be re-routed to the backup PSAP, the BellSouth MAC Center shall be directed to route incoming calls to the Lincoln County PSAP (BellSouth designation “20LINE”).

5. Immediate notification shall be made to:
   A. Lincoln County 911 Center
   B. Director of Communications
CHAPTER 3-4 - RADIO SYSTEM FAILURES

1. RADIO CONSOLE SYSTEM FAILURE OR MULTIPLE RADIO CHANNEL FAILURES

In the case of an entire or partial radio console system failure or a multiple radio channel failure where multiple Telecommunicators cannot communicate with field units through their dispatch consoles; There are 5 rack-mounted small base stations in the cabinet near the Supervisor’s workstation. There are also 4 portable radios kept in the Telecommunications Center than can be used to maintain a level of contact with field units until maintenance staff can arrive to correct the situation or provide further guidance. It is essential to immediately contact the Technical Operations Supervisor and the Radio Shop On-Call staff through every means available should such a situation develop.

A. EMERGENCY BACKUP RADIO ACTIVATION PROCEDURE

1. There are five self-contained mobile radios located in the rack behind the Supervisor’s Desk. These radios operate independently of the Comm Center radio system and are connected directly to antennas on the roof of the building. As a result, they are relatively short range. Their purpose is to enable immediate communications with field units in the event of a major radio system failure. The radios would typically be used to notify units to switch to a backup channel that was still working, but the radios can be used for primary communications if all else fails, as long as the range limitation is recognized.

2. Default channels:
   - The radios are set to operate on the “normal” repeated channels. Should the repeater not be operational, the radios must be manually switched to the “Direct” channels to permit unit to unit communications. The default initial channels are:
     - County Police 1
     - City Police 1
     - County Fire
     - City Fire
     - GEMS

3. Activation:
   - Turn on main power strip on upper left, inside the cabinet.
   - Turn on the desired radio(s) by pressing power knob.
   - The radios default to the appropriate frequencies, but the channels can be changed using the channel selector on the radios themselves.
   - The radios are designed to be operated from the appropriate workstation, but they can be operated DIRECTLY by plugging in the microphone stored inside the cabinet.
B. RADIO RECEIVER VOTER DISABLE PROCEDURE

Should you get an indication of a “hung up” radio channel (constant noise or sound) in the Communications Center, the following procedure should resolve the problem:

1. Use the key that opens the tower shelter fence and door located in the “lock box”.

2. The racks of radio receiver Voting Pickups are on the right.

3. The shelves are labeled for which radio receiver channel they are for. Identify the channel shelf rack that is for the “hung up” receiver.

4. Each pickup site for that radio channel has a separate “card”.

5. The card of the hung up receiver should be displaying a steady green “VOTED” light.

6. There is a toggle switch on each card. There are two different style cards, but they have the same purpose. The toggle switch of the card with the steady green light should be switched from “NORMAL” to “DISABLE”.

7. This will turn off that receiver pickup and should stop the interference noise. BE SURE TO NOTE ON THE SHIFT REPORT THAT YOU HAVE TAKEN THIS ACTION.

8. If the switch is put back in “NORMAL”, it will reset if the problem has stopped.

   note: **DO NOT** TURN OFF A VOTER SWITCH IF IT’S LIGHT IS NOT LIT.

C. SPECIAL SITUATIONS:

1. If there is a “stuck button” causing interference, it may be received on more than one pickup for that channel. Disabling multiple pickups to stop the noise may result in NOT being able to hear other field units calling from the same area. The pickups receiving the interference will have yellow “RECEIVE” lights lit, with the primary one also having the green “VOTE” light on.

2. If ALL the pickups for the same site have the red “FAIL” lights lit, it means there is probably something wrong at the site.
VOTER RACKS

CHANNEL CARDS WITH TOGGLE SWITCHES AND VOTER LIGHTS
If a radio channel is not useable, have field units switch and operate from an alternate channel. Make notifications as per SOG guidelines. (Copies of pages have been posted next to the voter racks).
CHAPTER 3-5 - RADIO SYSTEMS REPAIR & MAINTENANCE

1. During the regular weekday workday, 8:00 A.M. to 5:00 P.M., contact the Technical Operations Supervisor for assistance with any radio equipment that needs maintenance or repair. If the Technical Operations Supervisor cannot be reached during the weekday or it is after normal working hours, the radio shop on-call personnel should be contacted for assistance (pager group “Radio Shop On-Call”). The radio shop personnel should only be contacted directly for equipment problems that degrade our ability to communicate with units in Gaston County (problems/failures listed in #1 below). Small problems should wait until the next workday and be handled by the Technical Operations Supervisor or his designee. If you are in doubt, contact the Technical Operations Supervisor for guidance.

2. Below is a copy of a procedure issued by the radio shop that should be used to assist in reference to the call out of an on-call technician.

On-call technicians are authorized to answer after-hours emergency service calls **ONLY** for the following failures:

- City Police (Channel 1 or 2) repeaters. (not channel 3)
- City Fire repeater.
- City Fire Base Stations.
- City Electrical Department repeater and remote control in the Electrical Department office.
- City Utilities repeater.
- City Public Works repeater.
- County Police (Channel 1 or 2) repeaters (provided back-up systems fail). (not channel 3)
- Dispatch consoles, if more than one is down.
- Mobile Data system MSC and base station system.
- Sheriff repeater.
- Sheriff dispatch control station.
- Ambulance Dispatch base stations.
- Gaston Memorial Hospital 340 base station.
- County Fire Department repeater.
- Power failures where generators and/or UPS systems fail to start.
- Heat alarms at Pasour Mountain and City PD transmitter buildings
- Loss of 9-1-1 telephone service
- Loss of non-emergency telephone service at the Filter Plant, Electrical Department, and Police Department front desk after hours.
- City Council PA system failure during meetings.
• City telephone Network PPN/EPNs. (Museum, City Police Dept., Operations Center, City Hall).
• County paging system and transmitters (if back-up unit fails).
• Microwave, Channel Bank and Simulcast Failures That Affect Radio Traffic on Dispatch Channels (when loop-switches or other redundancies fail to revert).
CHAPTER 3-6 – BACKUP PSAP OPERATIONS

A full-featured backup County E911 Communications facility (PSAP) has been established at the Gastonia City Police Headquarters. Upon activation, all critical emergency services operations will be supported from this location.

Upon suffering a loss of power, telephones, or other major interruption of service, and determination that it is unlikely that functionality will be restored to the Communications Center within an acceptable period; and upon SPECIFIC DIRECTION from the Director of Operations or his designee, procedures shall be implemented to transfer Dispatch Operations to the backup PSAP located at Gastonia Police Headquarters. Failures that may result in loss of operational capability at the primary PSAP (and necessary responses) include:

1. PRIMARY PSAP FAILURES

   A. If the failure condition is POWER RELATED and the Communications Center is running on UPS power due to the failure of the generator to start:

      1. IMMEDIATELY notify the on-call County Electrician to respond to the Communications Center.

   B. SHOULD ATTEMPTS TO START THE GENERATOR FAIL:

      1. Notify the on-call Radio Technician of the situation and the IMMEDIATE necessity of reconfiguring radios for operation at the Backup PSAP.

      2. Notify the AT&T Regional Service Center (MAC Center) at 800-553-2811 of the need to immediately reroute 911 and Administrative calls from the Gaston County PSAP (ID# 20GSTA911) to the Lincoln County PSAP (PSAP I.D: 20LINE911) until such time as the Gaston County backup PSAP is staffed.

      3. Notify the Lincoln County 911 Center of the nature of the situation.

      4. Have half the on-duty personnel transported to the Backup PSAP at the Gastonia Police Headquarters in anticipation of a transfer of operations. Remaining personnel to maintain dispatching operations for as long as UPS
power is available. All non-critical equipment and devices to be turned off to conserve power.

5. Upon confirmation that the Backup PSAP is operational, notify the BellSouth Regional Service Center to reroute all 911 and Administrative calls to the Backup PSAP (BellSouth PSAP I.D.- 20GSTI911).

6. Upon confirmation of the transfer of telephone service, remainder of Communications staff are to report to Backup PSAP.

C. If the problem is the result of wide-area power outages:

1. First contact Gastonia Police Headquarters at 704-866-6702. Verify that their building has power. Upon verification, advise them that the Backup PSAP in their building is going to be activated and staffed by County 911 Communications personnel.

D. If the failure is TELEPHONE RELATED:

1. Notify the BellSouth Regional Service Center (Mac Center) at 800-231-7003 of the need to immediately reroute 911 and Administrative calls to the Lincoln County PSAP (PSAP I.D: 20LINE911) until such time as the Gaston County backup PSAP is staffed.

2. Notify the Lincoln County 911 Center of the nature of the situation.

3. Notify the on-call Radio Technician of the situation and the IMMEDIATE necessity of reconfiguring radios for operation at the Backup PSAP.

4. Have all on-duty personnel transported to the Backup PSAP in anticipation of a transfer of operations. Upon confirmation that the Backup PSAP is operational and staffed; notify the BellSouth Regional Service Center to reroute all 911 and Administrative calls to the Backup PSAP (BellSouth PSAP I.D.- 20GSTI911).

E. If the failure is RADIO SYSTEM RELATED, Refer to emergency backup and notification procedures as outlined in SOG Section 3.

2. Should it be necessary to relocate operations to the backup PSAP; if possible, page all emergency service personnel with the message:

DUE TO A FAILURE AT THE EOC, 911 EMERGENCY OPERATIONS WILL BE CONDUCTED FROM THE BACKUP PSAP. QUALITY OF RADIO COMMUNICATIONS MAY BE AFFECTED.
3. The 911 Communications Director and Operations Supervisor shall be notified of all major facility failures.

**NOTE: Backup PSAP line i.d. information found in Chapter 3.3**
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