

Rock County, Wisconsin



Communications Center
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911 COMMUNICATIONS COMMISSION

Wednesday, July 17, 2013, AT 1:30 PM

ROCK COUNTY COMMUNICATIONS CENTER

Agenda

1. Call to Order and Approval of Agenda
2. May 15, 2013 minutes approval
3. Comments from the Public
4. Policy Updates:
 - a. F1-Fire and EMS
 - b. I1-Information Release (former N1-News Media Information Release)
 - c. R1-Radio/Multiple Jurisdiction Notifications
5. Spillman Records - Update
6. Mobile Data System - Update
7. Radio System - Update
8. Informational Items & Updates
9. Adjournment

Commission members:

*Please contact the Communications Center
if you are unable to attend.
In order to conduct official business,
A quorum must be present*

SUMMARY

Policy: It is the duty and intent of the Rock County Communications Center to provide expedient and accurate communications services for all Fire/EMS agencies in Rock County.

A. OVERVIEW

1. The make up of the Rock County Fire and EMS services consists of two (2) full-time fire departments (that provide paramedic emergency medical services), (8) volunteer fire departments, and (6) EMT emergency medical services. All Fire and EMS radio transmissions will be completed in "PLAIN ENGLISH", with NO 10-CODES approved (with the exception of 10-4 which is a universally accepted 10-code). Telecommunicators will use the "ECHO" technique when acknowledging Fire and/or EMS units.
2. All Fire and EMS paging will be performed on the Rock County Fire paging frequency (**RF PAGING**). The dispatch messages for **ALL AGENCIES** will be given in the following format: "DEPARTMENT NAME, UNITS, (if applicable) respond to ADDRESS (proper format-see General Dispatch policy) COMMON NAME for a BRIEF DESCRIPTION/NATURE OF CALL. End with cross streets (twice in reverse order) and time."
3. As the Fire/EMS unit(s) go in service, they are to switch from the **RF PAGING** frequency to the repeated "talk" frequency (**RF MAIN RPTR**) to advise the dispatcher that they are enroute or in service. Units should use their assigned radio number/identifier and advise the address that they have been dispatched to when going into service. On single unit responses the Communications Center will repeat the address along with the cross streets and reporting district in their acknowledgment. On multi-unit responses the address, cross street, and reporting district information will be given when the last unit goes into service. The same shall hold true for any updated information or premise flag information. **RF MAIN RPTR** will be used for all voice communications with the fire dispatcher after the initial paging.

4. Fire/EMS response times will vary depending on the type of agency and the time of day. Generally full-time agencies should have a 1-2 minute response time and volunteer agencies should have a (5) minute response time. If no Fire/EMS response is received within (5) minutes (after the second page) for a volunteer agency, a 3rd "ALL AVAILABLE" page will be completed on RF Paging Standby. The first (2) people on the agency's emergency contact list will also be contacted via phone after the "ALL AVAILABLE" 3rd page is completed. If contact cannot be made via telephone and there is still no response after the 3rd "ALL AVAILABLE" page is completed, automatic-mutual aid will be sent. If there is no mutual aid programmed in CAD, an adjacent Fire and/or EMS agency that is available will be paged for mutual aid, along with the primary agency again. (Dispatchers should refer to the primary agency's MABAS card for equipment recommendations.)
5. The "INCIDENT COMMAND" concept and the use of "Fire Ground" or "TAC" channels is encouraged on major or long-term incidents to reduce overloading of the countywide repeated fire frequency.
6. All status changes (i.e., en-route, on scene, etc.) are to be logged as they occur. Other pertinent information should be logged in the notes of the incident for future reference.
7. When multiple calls for service are received, they shall be toned out in the order in which they are received without waiting for the previously toned out units to come into service. Once all calls have been toned out, assigned responder unit status should be verified to confirm that the assigned units are enroute, etc. Good common sense and judgment must be used during times of multiple calls. Life threatening incidents obviously have a higher priority.
8. Dispatchers are responsible for viewing all premise information entered into the computer aided dispatch system (except keyholder information) and relaying pertinent premise information to responders.
9. Each fire department and/or EMS agency provides different types of service for their community or contacted coverage area. There may also be a difference in the amount or type of equipment assigned to a similar incident.

Telecommunicators will dispatch the units as recommended by the CAD system. Should this be incorrect, the agency involved will be required to provide the Communications Center with updated or corrected information in writing, so that an update can be made in the CAD system. The OIC (Officer in Charge) can upgrade or downgrade the amount of equipment or personnel dispatched to a call, at their OIC's discretion.

B. DEFINITIONS

1. MEDICAL BASIC (MB): Routine medical call that is of a single person nature where the patient is reported to be alert, conscious and breathing is uncompromised.
2. CARDIAC/BREATHING DIFFICULTY (CA): Medical emergency where patient is reported to be conscious, but is experiencing difficulty breathing and/or chest pains, has a history of cardiac problems, or has stroke-like symptoms.
3. CARBON MONOXIDE ALARM W/ILLNESS (CO): Report of carbon monoxide detector/alarm sounding in structure and person(s) are feeling ill.
4. MEDICAL ADVANCED (MA): Medical emergency where the patient is reported to be unconscious or not breathing.
5. TRAFFIC ACCIDENT (TA): Any reported injury traffic accident regardless of patient condition where extrication is not needed.
6. EXTRICATION (EX): Any report of person(s) trapped or unable to get out of a vehicle, equipment, machinery or other circumstances requiring the use of rescue equipment (jaws).
7. COMMERCIAL FIRE (CF): Any report of fire, smoke or gas odor in a commercial, industrial, mercantile building or multi-family apartment complex with (8) or more units. This would include hospitals, schools and public facilities.
8. RESIDENTIAL FIRE (RF): Any report of fire, smoke or gas odor in a single family home, duplex, apartment complex (with less than (8) units), garage, shed or other small structure.
9. SINGLE ENGINE (SE): Brush, grass or trash fire, vehicle fires, arcing wires, odor investigations (excluding gas odors),

downed wires and special duty calls will fall under a single engine response.

10. TRANSFERS (TR): Medical transfers of patients to medical facilities that are usually outside of Rock County. Primarily used by City of Beloit and can only be initiated by the EMS agency.
11. HAZARDOUS MATERIAL INCIDENT (HZ): Any chemical leak or spill having the potential to cause environmental harm or an immediate or significant health hazard.
12. WATER RESCUE (WR): Rescue attempt for person(s) in danger in any river, stream, lake or other body of water.
13. AMBULANCE INTERCEPTS: Beloit and Janesville Fire Departments provide Advanced Life Support (ALS) service to all Basic Life Support (BLS) ambulance services in and adjacent to Rock County. The ambulance intercept program is subject to the availability of an ALS unit.
14. SPECIAL DUTY: A non-emergency call for service. Some examples of a "SPECIAL DUTY" include: residential unlocks or silencing a fire alarm. Agencies shall be advised of the nature of the non-emergency call during the initial page.

C. BELOIT FIRE DEPARTMENT

Dispatch Procedures:

1. Bring up the "FIRE PAGE" screen and select the **BELOIT MEDICAL** icon for all medical calls, or the **BELOIT FIRE** icon for all fire calls. Only (1) button should be selected for any one call. There are many times that both an ambulance and an engine are recommended for a single incident, with the determination of which tones to choose made according to the nature of the call (whether it is primarily medical or fire). After the tones have cycled, deliver the voice message on **RF PAGING** in the proper format.
2. If an acknowledgment does not occur within an appropriate time frame (1-2 minutes) and the CAD recommended unit(s) is/are shown in quarters, call the station by phone to alert the units of the call (and the possibility a radio system failure). If the CAD shows the unit(s) available by radio, call the unit(s) on **RF MAIN RPTR**. If no answer is

- received immediately, page out secondary unit(s). Do not hold the call while attempting to locate the primary unit(s).
3. There may be occasions where an "ON-CALL" team from the Fire Department is required. When requested to page those units use the telephone paging system to notify the on-call team.

D. JANESVILLE FIRE DEPARTMENT

Between the hours of 0630 and 2130 hours all calls for service will be toned out on an "ALL CALL" basis. After 2130 hours, and prior to 0630 hours, if the incident requires only unit(s) from (1) station, only the needed station's tones will be transmitted. If an incident requires units from more than (1) station or if there is a water rescue*, then the **JSVL FD ALL CALL** icon should be used regardless of the time.

Dispatch Procedures:

1. Bring up the "FIRE PAGE" screen, select the correct icon (**JSVL FD ALL CALL, JSVL FD STA #1, 2, 3, 4, 5**) depending on the nature of the call and/or the time of day. After the tones have cycled, deliver the voice message on RF PAGING in the proper format.
2. If an acknowledgment does not occur within an appropriate time frame (1-2 minutes) and the CAD recommended unit(s) is/are shown in quarters, call the station by phone to alert the units of the call (and the possibility of a radio system failure). If the CAD shows the unit(s) available by radio, call the unit(s) on **RF MAIN RPTR**. If no answer is received immediately, page out secondary unit(s). Do not hold the call while attempting to locate the primary unit(s).

Special note:* Water rescue calls will only recommend JC5. JC5 will make the determination as to which stations will respond. Therefore all water rescue calls will be paged via radio, no matter what time it is, so that **all stations are aware of the incident.

E. TOWN OF BELOIT FIRE DEPARTMENT

Town of Beloit Fire Department is a combination full-time paid and volunteer department with a response area north and west of the City of Beloit. They are alerted by using the **BTFD ALL CALL** icon.

Dispatch Procedures:

1. Bring up the "FIRE PAGE" screen. For all incidents use the **BTFD ALL CALL** tones. After the tones have cycled deliver the voice message on **RF PAGING** in the proper format. For calls requiring more than (1) unit, repeat the above process no sooner than 360 seconds and no longer than 690 seconds. Await acknowledgments of the responding units.
2. If an acknowledgment does not occur within an appropriate time frame (1-2 minutes) and the CAD recommended unit(s) is/are shown in quarters, call the station by phone to alert the units of the call (and the possibility of a radio system failure). If the CAD shows the unit(s) available by radio, call the unit(s) on **RF MAIN RPTR**. If no answer is received immediately, page out secondary unit(s). Do not hold the call while attempting to locate the primary unit(s).

F. CLINTON – EDGERTON – EVANSVILLE – FOOTVILLE – MILTON ORFORDVILLE – TOWN OF TURTLE FIRE DEPARTMENTS

All of these volunteer departments have specific coverage areas throughout Rock County. Clinton, Edgerton, Evansville and Milton also have contract coverage area outside Rock County.

Dispatch Procedures:

1. To page each agency, bring up the "FIRE PAGE" screen and select the appropriate icon for each agency. After tones have cycled, deliver the voice message in the proper format on **RF PAGING**. Repeat the process no sooner than 360 seconds and no longer than 690 seconds. Await acknowledgement of the responding unit(s).
2. The amount and type of equipment dispatched will be from the CAD recommended screen. In the absence of any specific piece(s) of equipment, the alert voice message will

be GENERAL in nature and each department will determine what equipment shall be dispatched to the scene.

3. In the event that the nature of the call is for "MUTUAL AID" and specific piece(s) of equipment are requested, that request will be included in the dispatch message. Each department will make their own decision as to what they will send.
4. It will not be uncommon to have more than (1) unit out at one time. For this reason, the "ECHO" technique mentioned previously must be used. Units will be communicating on one repeated frequency throughout Rock County and at times may cover each other with the multi-agency radio traffic. It is important that when answering units the telecommunicator repeat the unit number back so that the unit knows they were copied. It is also extremely important that the telecommunicator monitors the **RF MAIN RPTR** and, if activity levels permit, the TAC channels so that information is not missed.

G. EMERGENCY MEDICAL SERVICES

1. The cities of Beloit and Janesville provide ALS service as a direct function of their fire departments.
2. The Cities of Edgerton, Evansville and Milton, the Town of Beloit and the Villages of Clinton, Footville and Orfordville provide BLS service either as a separate entity or private contractor.
3. Alerting and dispatching of EMS agencies follows the same guidelines as the corresponding fire departments even though the EMS agency may be a separate entity from the fire agency.
4. Each Fire/EMS provider is responsible for providing the Communications Center with their current contract coverage area and supplying the updated information that would change same. All calls for service will be dispatched based on the CAD recommendations as they occur.
5. Any changes to contract coverage areas shall be submitted to the Communications Center in writing so that the changes can be made in CAD and to the maps within the dispatch area. Likewise, if the amount of, or type of ancillary

equipment dispatched with ambulances change, those changes shall be submitted in writing to the Communications Center.

H. AMBULANCE INTERCEPTS

1. In the event that a request for an "AMBULANCE INTERCEPT" is received, it is important that the fire dispatcher obtain the hospital destination. Hospital destination will determine which ALS service will be dispatched.
2. Ambulance intercepts are based on the availability of an ALS unit. Once a request for a paramedic intercept is received the telecommunicator will advise both EMS agencies to switch to **MARC 1** repeater for their intercept communications. (If **MARC 1** is being utilized by law enforcement for another purpose, then intercept communications will remain on the **RF MAIN RPTR** frequency.) The telecommunicator must then activate the **MARC 1** repeater. While the telecommunicator is not responsible for transmissions that occur on **MARC 1**, they may monitor as time/activity level permits. All priority radio traffic should be communicated on the **RF MAIN RPTR** frequency. Once the responders have arrived on scene at the intercept the telecommunicator will de-activate the repeater.

I. CORONER REQUESTS

1. Deceased at the scene
 - a. Dispatch law enforcement, notify of request for coroner.
 - b. Contact coroner with decedent's location.
 - c. Document contact information into call notes.
2. Deceased in ambulance
 - a. Obtain callback number to have coroner make contact with EMS crew for further instructions.
 - b. Document contact information into call notes.
3. Nursing Homes/Hospice

- a. Coroner requests reporting a non-suspicious death will be called in on the non-emergency line.
- b. If it is not clear that the caller is requesting a non-emergency page for the coroner, the caller will be asked if emergency responders are also required.

J. ADJACENT AGENCY NOTIFICATION

When an adjacent Fire/EMS agency is required, contact will be made via telephone or point-to-point, whichever method is most efficient depending on situation and confidentiality considerations.

K. MUTUAL AID REQUESTS

1. The Rock County Communications Center will facilitate communication of mutual aid requests from agencies.
2. When a request for mutual aid is received by the Communications Center, the Center staff will page/contact the requested agency and relay any pertinent information about the locations, incident, and type of equipment needed.
3. Automatic mutual aid is available to fire/EMS agencies that wish to have the CAD pre-programmed to recommend neighboring Fire/EMS agencies for automatic dispatch when the primary agency/unit is unavailable or additional resources are required on certain call types. Agencies will utilize the Automatic Mutual Aid Response Authorization form to authorize the Communications Center to pre-program this information into CAD.
4. For events where the primary agency is unavailable and automatic mutual aid is recommended, the dispatcher will tone out the pre-programmed mutual aid agency and will also contact the primary agency on the **RF MAIN RPTR** as soon as possible so they are aware of another call in their area.
5. See the MABAS policy for further mutual aid considerations and procedures.

L. OTHER HOSPITAL CONSIDERATIONS

1. In an effort to prepare hospitals for unusual or critical medical incidents within Rock County, the Communications Center will make every effort to notify the supervisor of the local hospital's Emergency Department of the information. Reports of hazmat patients, major burn victims, severe head injuries, or any other unusual medical emergency that could potentially exhaust the local Emergency Department's resources should be relayed to hospital staff so they can make proper preparations before EMS arrives with the critical patient(s). These notifications are advisory in nature only. The Emergency Department may need to question the EMS agency further before they activate any internal emergency plans.
2. Dispatchers should consider prompting responders for paramedic intercepts, medical helicopters or the physician response team when information obtained from callers or other public safety responders is such that specialized medical treatment may be necessary. Dispatchers will not automatically send any outside resources without the permission of the primary agency.

M. HOSPITAL DIVERSIONS

In the event that a Rock County hospital notifies the Communications Center Supervisor that they are on diversion, the Fire dispatcher will notify all EMS agencies of the diversion information (full diversion, trauma diversion, etc.) regardless of whether it is in their city/primary area.

Diversion notifications will be made during the initial page of EMS calls that are received within the diversion timeframe.

Once the affected hospital has notified the Communications Center Supervisor that the diversion has been canceled, any agency that had previously been advised of the diversion will be notified (either by telephone or radio) of the cancellation. The Communications Center Supervisor may choose to have the dayshift fire dispatcher notify volunteer agencies when the cancellation is during third shift hours and there are no EMS calls before that time.

N. INTERSTATE ALTERNATE ROUTE NOTIFICATIONS

In the event of an interstate alternate route implementation, the Fire Dispatcher will notify fire/EMS agencies via RF Paging.

1. Perform an ALL CALL fan-out message on RF Paging notifying all agencies of the alternate route. To include:
 - a. Incident type
 - b. Incident location
 - c. Route color & direction
 - d. Highways/Roads included in re-route
2. When the interstate is re-opened the Fire dispatcher will do another ALL CALL fan-out message notifying agencies of this information.

O. CONTROLLED BURNS

1. Controlled burn requests will not be approved by the Communications Center. Citizens who directly contact the Communications Center to report a controlled burn will be asked if their local fire department or town board has been notified of the burn. If the citizen advises that they have made the proper notification this information will be documented within a controlled burn incident in the Computer Aided Dispatch (CAD) system (along with the caller's name, address, callback number, location of burn, and burn time). If the citizen has not made the proper notification the call taker will advise the citizen that the Communications Center will log the controlled burn, but that we cannot approve the burn. The citizen will be referred to their local fire department or town board to determine the proper procedure for approving controlled burns in their area.
2. Controlled burns reported by personnel from other Dispatch Centers, the Department of Natural Resources, City Parks Departments or the Rock County Highway Department will be logged into the CAD system without question.

P. TAC CHANNEL USAGE

In order to limit congestion on the main repeated fire channel, fireground (tac) channels will be used by all departments for on-scene communications at significant incidents. It will be up to the Incident Commander (IC) and that department's SOP's to determine if an incident warrants the use of fireground channels. It is strongly recommended that the IC utilize fireground channels whenever feasible. The failure to divert operations to these fireground channels could result in interference and loss of communications at an incident, disruption of dispatch activities, and interference with other departments. The fire dispatcher has the authority to divert an incident to a tactical channel whenever necessary to alleviate congestion on the main fire repeater channel. Tactical channel usage will be used in the following sequence:

1. RURAL DEPARTMENTS
 - a. Fireground Red
 - b. Fireground North or White depending on location
 - c. Fireground Blue
 - d. MARC 1 – Repeater (if available)

2. CITY OF BELOIT
 - a. Fireground White
 - b. Fireground Red
 - c. Fireground North
 - d. Fireground Blue
 - e. MARC 1 – Repeater (if available)

3. CITY OF JANESVILLE
 - a. Fireground North
 - b. Fireground Red
 - c. Fireground White
 - d. Fireground Blue
 - e. MARC 1 – Repeater (if available)

The Incident Commander (IC) for the department responding to an incident will select an available fireground channel based

upon the above preferences. If fireground channels are already in use at other incidents, the fire dispatcher may assist the IC in this selection by advising of open channels.

Units will switch to the selected fireground channel at the direction of the IC, either enroute or upon arrival at an incident per the responding department's SOP's. The IC will maintain communications with the fire dispatcher on **RF MAIN RPTR** and inform dispatch of what fireground channel will be utilized for a specific incident. The Communications Center will advise all responding units as to what fireground channel is being used for the incident. The fire dispatcher will try to monitor the fireground channels on full response incidents, if possible.

At larger incidents it is acceptable for a department to utilize more than (1) fireground channel to facilitate sectoring (interior – Rock Fireground North, water supply – Fireground White, etc.)

Q. MULTIPLE VICTIM CONSIDERATIONS

1. In the event of a medical emergency involving (2) or more seriously injured patients, the Communications Center will dispatch additional ambulance(s) from the primary jurisdiction. If the primary jurisdiction has no other ambulances available, the Communications Center will ascertain if automatic mutual aid is programmed into CAD and send those resources. If automatic mutual aid is not programmed into CAD, the dispatcher will contact the primary agency for direction.
2. In the event of a multiple victim incident involving (3) or more patients, the Communications Center will notify the supervisor of the local hospital's Emergency Department. If the hospital advises they cannot accommodate all patients, the dispatcher will immediately relay this information to the Incident Commander.

SUMMARY

Policy: The Rock County Communications Center may inform the public, news media and user agencies of events which occur within Rock County. Any information released will be completed in accordance with the information release guidelines established by the 9-1-1 Commission.

A. Information Release Involving User Agency Activity

1. Requests may be received for information regarding incidents that have occurred. Limited information may be provided by the Communications Center through the Shift Supervisor or Lead Telecommunicator. Information regarding incidents which have occurred shall not be given out to callers who inquire unless those individuals are threatened by the situation and, as a matter of safety, they require the information.
2. News media may be given information on road conditions or information that is required for safety of the public, but in no case shall information be released regarding complainants or victims of incidents. The only information provided regarding an incident is:
 - a. Incident type
 - b. Location
 - c. Time
 - d. Jurisdiction handling incident

For additional information the news media must be referred to the emergency service department handling the event.

3. Information concerning a specific user agency's activity may be released to another Rock County user agency supervisor or officer in charge for responder safety or investigative purposes.

B. Information Release Involving the Communications Center:

1. The Rock County Communications Center will assist media personnel in covering news stories that involve only

the Communications Center. The on-duty Lead Telecommunicator or Shift Supervisor will forward such requests directly to the Communications Director for release to the media.

2. In the event that the Director is unavailable for contact, the Operations Manager will make the decision on information release. The Director and Operations Manager are available for contact 24-hours daily to assist with information release and crisis within the agency.
3. The Director will coordinate all Communications Center agency news releases, to include:
 - a. Arranging and assisting at news conferences
 - b. Coordinating and authorizing the release of information about victims, witnesses, and suspects
 - c. Coordinating and authorizing the release of information concerning confidential agency investigations and operations.

C. Information Releases Involving Multiple User Agencies for (1) Incident:

Where more than one user agency is involved in an incident, the agency having primary investigative jurisdiction will be responsible for releasing, coordinating and approving the release of information.

D. Information Releases Involving the Communications Center Community Involvement Function:

The Community Involvement Function may include Public Service Announcements as a way to lead to more effective working relationships between the Communications Center, the community and media personnel. Part of the Public Service Announcement campaign may include a release to local news media. Shift Supervisors may prepare such releases regarding the Community Involvement Function and disseminate them with approval of the Director or Operations Manager.

SUMMARY

Policy: There are circumstances when it is necessary to notify an adjacent jurisdiction of an incident at the same time it is dispatched to the primary jurisdiction.

A. Basic Criteria

Whenever there is an immediate threat to officer safety or the incident requires immediate law enforcement action all law agencies that may be affected will be alerted as well as the other two law enforcement dispatchers in the center.

B. Individual Jurisdiction Broadcast

Attempt to locate broadcasts for subjects/vehicles that are of a non-emergency nature or do not affect adjacent jurisdictions will be broadcast on the primary agency's radio frequency only. Dispatchers will provide brief, pertinent information to units so as not to monopolize the frequency. In situations where it is necessary to broadcast longer than 30 seconds, the dispatcher will pause after 30 seconds to allow emergency radio traffic from officers to be communicated, and then continue with the remainder of the information (pausing every 30 seconds) until complete.

C. Multi-Agency Simulcast Broadcast

Certain high priority incidents require immediate notification of all law agencies in Rock County. These incidents are limited to the following criteria:

- a. Armed Subject – gun or knife only
- b. Shots Fired – ~~confirmed injury only~~
- c. Hold Up Alarm – financial institution only
- d. Robbery – in progress or just occurred
- e. Amber Alert – within Rock County/adjacent county only
- f. 9-1-1 Center Supervisor discretion

D. Simulcast Broadcast Format

- a. Select Beloit Tac 1, Janesville Main, Rock County Main (or by using pre-programmed simulcast setup).
- b. Number 2 alert tones for approximately 3 seconds.
- c. "*Attention (primary agency) and listening units*"
- d. Give brief message to include; incident type, location and short description of incident (suspect information/direction of travel). This message will be limited to the important, relevant information only.
- e. Conclude message with the primary agency's unit assignment.
- f. The simulcast message must be as short as possible, with an immediate resumption of normal radio channel traffic.
- g. There may be times when the simulcast cannot be instituted; as such, telecommunicators will use discretion.
- h. Dispatchers **will not** assign or request assistance for mutual aid by other law agencies until authorized by the primary law agency supervisor.

Raytheon

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June 18, 2013

Kathren Sukus – Rock County: SUKUS@co.rock.wi.us

Rich Westgard – General Communications: Rich.Westgard@gencomm.com

Re: Raytheon JPS P25 Radio System Audio Levels

Dear Ms. Sukus and Mr. Westgard,

In response to your query, Raytheon JPS performed tests and received a compliance certification, based on the Project 25 (P25) Standards through the Compliance Assessment Program (CAP) administered by the US Department of Homeland Security (DHS) and the National Institute of Standards and Technology (NIST), for the P25Net System installed by General Communications for Rock County.

In legacy Analog radio systems, it was possible to adjust the "loudness" of a radio channel compared to others in the system by adjusting levels at the receiver voter/comparator. **In P25 Digital radio systems, level information is fixed and remains unaltered through the system.**

Users of P25 radios are only able to adjust **receive** audio levels by the volume knob on their mobile or portable radio. *(An exception to this is the Dispatch Console, where audio transmission levels may be adjusted before digital encoding.)* This is by design and is a requirement of the P25 Standard to ensure compatibility of equipment from manufacturer to manufacturer, and from one radio system to another.

When a user speaks into the microphone, the voice is encoded digitally by the P25 mobile/portable, and produces a bit stream that contains voice level information. This bit stream is converted to a radio signal, and transmitted to a repeater. At the repeater it is re-transmitted without alteration to the intended subscriber P25 radio, where it is converted back to intelligible voice.

Variations in audio levels are influenced by several factors:

- How loud or soft are the user speaks
- Placement distance of the microphone or portable radio relative to the user
- Type of microphone used (such as headset or shoulder mic)

If the Use Case is such that RADIO #1 is scanning channels where users normally speak at a lower volume, such that the RADIO #1 user sets the volume control on the radio based on the history of the normal users; then when an abnormal user (i.e., speaking loudly or other influencer) on a channel is heard (e.g., Fire Channel), the volume may be louder.

I hope this answers your question. Please contact us if you need further information.


Arthur Powers – VP-Contracts