

# NEW FIRE RADIO NETWORK

## FREQUENTLY ASKED QUESTIONS (FAQ) FOR FIRE CHIEFS

(As of August 8, 2012)

### **Question: What is the history behind the grant used to help purchase Radios?**

The number of mobiles and portables needed by in-county fire agencies was calculated and specified in a March, 2008 FEMA Assistance to Firefighters Grant (AFG). This grant was prepared by Fire Coordinator Steven Alpaugh and submitted via the Washington Borough Fire Department. The grant allowed departments to request a mobile and portable for the Chief, mobiles for department owned *apparatus* (excluding gators, etc.), and one portable radio for each riding seat on engines, ladders, tenders, rescues, mini-pumpers, brush units, etc. A portable radio for each support vehicle such as pickups, multi-seat passenger vans, and a municipal fire police vehicle could have also been requested. Vehicles such as SUVs, multi-seat passenger vans, and the Chief's car qualified for only one portable per vehicle. These original radio counts were provided by the fire chiefs nearly four years ago.

The AFG grant was awarded based on those numbers. It provided about  $\frac{1}{4}$  of the cost of these radios, with Warren County providing the remaining  $\frac{3}{4}$  of the cost and basic installations. Since that time, several fire departments have added, eliminated, or replaced vehicles, thus raising or lowering their number of vehicles and riding seats. In addition, the grant only permits funding of as many portables as riding seats available per department or the total number of active firefighters, whichever is less. Thus, as grant administrator, Steve Alpaugh has modified some radio counts per department to allocate the radios a manner that better suits today's needs. However, the total number of radios purchased overall remains the same as the original count totals. Thus, some companies may receive a different number of mobiles or portables than the original grant counts provided for. Additional radios cannot be purchased by the grant or by Warren County. No additional portable radios beyond the quantity originally requested by an agency will be provided to the requesting agency.

### **Question: How are these radios to be allocated in my department?**

#### **Base Stations**

- There is only one base station allocated per department.

#### **Mobile Radios**

- **Chief's Car:** One mobile radio per department is designated for the Chief's department issued car or his/her personal vehicle. It may not be installed in a different vehicle other than a Deputy or Assistant Chief's vehicle. Otherwise, there are no provisions in the grant for a Deputy or Assistant Chief getting a mobile radio.
- **Apparatus:** Mobile radios should be available for each piece of apparatus (engines, ladders, mini-pumpers, tankers/tenders, etc.).
- **Auxiliary Vehicles:** Mobiles may be available for some secondary vehicles, such as vans, pickups, etc. – however apparatus radios receive first priority.
- **Fire Police:** One department (municipal) owned fire police unit per agency may have been requested.
- **Fire Prevention:** There are no provisions in the grant for mobile radios for fire prevention vehicles.
- **Other Vehicles:** There are no provisions in the grant for mobile radios for gators, ATVs, trailers, and other typical one or two seat vehicles not normally used for common fire responses.

#### **Portable Radios**

- **Chief:** One portable and single bay charger is provisioned in the grant for the Fire Chief.
- **Other Officer Portables:** There are no portables in the grant specifically provisioned for Deputy Chiefs and Assistant Chiefs – however, portables can be assigned from the overall allocation of portables originally intended for riding positions. If a Federal audit occurs in the future, all assigned personal portables and chargers must be

at the firehouse on the day of the audit. Portables will be programmed and ID'ed for only 3 officers: xx-60, xx-70, and xx-80 (no letter designations allowed such as xx-80A and xx-80B). Please note that the Warren County Communications Center will only acknowledge radio transmissions and requests made by 60, 70 or 80. Other officers and firefighters will have to establish command as Incident Commander or Fire Division when 60, 70 or 80 are not present.

- **Apparatus:** One portable per driver and riding seats should be available if enough portables remain. Again, the total count of portables will be dependent upon any changes that were made to the number of apparatus and riding positions that change since the grant was originally written and if portables were personal assigned to officers numbered 70 and 80.
- **Auxiliary Vehicles:** Portables may be assigned on a secondary basis to auxiliary vehicles, such as vans, pickups, etc. – however apparatus portables receive first priority.
- **Fire Police:** There were no provisions in the grant for portable radios for fire police other than one for a department (municipal) owned fire police vehicle. It is highly recommended that fire police members be given existing low band equipment to operate on. The department may optionally purchase a VHF high band portable for assignment to the Fire Police OIC at incidents, with fire police radio traffic to occur as much as possible on ground channels with the incident commander and units on scene rather than with the Communications Center.
- **Fire Prevention:** There are no provisions in the grant for portable radios for fire prevention vehicles or officers.
- **Other Vehicles:** There are no provisions in the grant for portable radios for mobile radios for gators, ATVs, trailers, and other typical one or two seat vehicles not normally used for common fire responses.

**Question: Are we getting microphones and cases for the portables?**

No. This was not requested in the grant. You fire company must purchase them. Remember to get a Motorola XTS-1500 portable radio microphone with an emergency button.

**Question: If I want to purchase additional portables or radios, what kind do I get?**

It is *highly desirable* to purchase the same model of radios so that they operate the same way and have the same feature sets (emergency button, channel layouts, scanning capabilities, etc.). In addition, any radio that interacts with the Warren County Communications Center must transmit a unique radio ID using the Motorola MDC 1200 Radio ID standard. If you purchase other brands of radios, they will have a different look and feel and the features may work differently. This will add confusion at fire scenes when operating these other radio models. Below are the specifications for the Motorola radios being placed in service.

**Base:**

Model M21KSM9PW1 N	XTL 2500 VHF 136-174 MHZ, 10-50W
G241	ENH: SOFTWARE ASTRO READY ANALOG OPERATION
G48	ENH: CONVENTIONAL OPERATION
G442	ADD: XTL2500 CONTROL HEAD
G444	ADD: CONTROL HEAD SOFTWARE
G66	ADD: DASH MOUNT
G89	ADD: NO ANTENNA NEEDED
W22	ADD: PALM MICROPHONE
G142	DEL: OMIT SPEAKER
G114	ENH: ENHANCED DIGITAL ID DISPLAY
G91	ADD: CONTROL STATION POWER SUPPLY
W665	ADD: CONTROL STATION OPERATION

**Portable:**

Model H66KDD9PW5BN	XTS1500 VHF MODEL 1.5 1-5 96 CHANNEL (DISPLAY
H223	ALT: BATT NICAD FM 1525MAH NTN9816
Q811	ENH: SOFTWARE P25 CONVENTIONAL
???	IMPRES SINGLE BAY DESK CHARGER

**Mobile:**

Model M21KSM9PW1 N	XTL 2500 VHF 136-174 MHZ, 10-50W
G241	ENH: SOFTWARE ASTRO READY ANALOG OPERATION
G48	ENH: CONVENTIONAL OPERATION
G442	ADD: XTL2500 CONTROL HEAD
G444	ADD: CONTROL HEAD SOFTWARE
G67	ADD: REMOTE MOUNT
G299	ADD: ANTENNA ¼ WAVE ROOF TOP VHF (150.8-162 MHZ
W22	ADD: PALM MICROPHONE
B18	ADD: AUXILARY SPKR SPECTRA 7.5 WATT
G114	ENH: ENHANCED DIGITAL ID DISPLAY

Quotes and current pricing are available via Eugene Caulfield at Motorola 856-649-3445 or via your Motorola Radio dealer. Vehicle or base station installation is not included in hardware price.

**Question: What channels do I have for fire department use?**

Radio channels are organized into “zones” (Motorola’s terminology for channel banks). Zone 1 contains FIRERESP and other fire ground channels and up to three frequently used mutual aid channels. Zone 2 contains other mutual aid channels. Zone 3 contains police channels in receive only mode. Zone 4 contains National Interoperability channels. You should have received a channel layout document when you received your radios from the grant. More detailed information is available online in the Radio Network tutorial at [www.wcpublicsafety.com](http://www.wcpublicsafety.com).

**Question: Can I use any channel programmed in my radio?**

Mutual aid, out of county, and frequencies licensed by individual agencies may be available in your radios for mutual aid purposes. *Some may only be programmed in receive mode (like police channels), and a continuous tone will be heard if attempting to transmit on them.* Most mutual aid channels can only be transmitted on only when providing mutual aid and when in the operating range specified in the FCC license for that channel (i.e. they are restricted for use to a specific geographical area). More detailed information and channel restrictions and operating ranges are available in the channel list tables found in the Radio Network tutorial at [www.wcpublicsafety.com](http://www.wcpublicsafety.com).

**Question: What training is available on the new radios, features, and overall radio network?**

Please view the Radio Network tutorial at the [www.wcpublicsafety.com](http://www.wcpublicsafety.com) website. Press the Radio Network button found near the bottom of the yellow Communications Center area. This will display a Radio Network Tutorial in Adobe PDF format that can be printed (note: it is in color). There is also an online quiz available to test the reader’s knowledge of the material. Persons passing the quiz will obtain a certificate of completion and will be listed as a certified radio operator in the county’s files. This training and quiz will be required for all fire officers in the future. It is highly recommended that all responders view this document and also become certified.

**Question: How are repairs to the radio equipment handled?**

Warren County has reserved funds for repair of the base station, mobiles and portable radios for a period of one year following installation. Repairs do not include abused, stolen or lost radios. Contact Gary Hill at Warren County Communications (908-835-2120) for assistance with repairs.

### **Question: What happens if someone presses the “Emergency Button” on a radio?**

An alarm will sound and the microphone will key up for 10 seconds automatically on the FIRERESP channel. This allows units receiving the emergency to possibly hear what is happening. The dispatcher will acknowledge the unit and specify the unit ID of the sending unit. All other Motorola XTS-1500 portable and XTL-2500 mobile radios operating on FIRERESP will receive an emergency alert signal showing the unit ID of the activated unit. Accidental trips may occur. Please see the Radio Network tutorial at [www.wcpublicsafety.com](http://www.wcpublicsafety.com) for more information.

If an emergency button is pressed on a mobile or portable and the fire company is not actively on a call, detail or event, the dispatcher will still acknowledge the unit. If no response can be obtained from the activated unit, it may become necessary to contact or page out a fire officer to help locate the distressed or accidentally tripped unit.

### **Question: How will pagers be affected?**

Motorola Minitor V pagers were previously purchased and distributed by the county. These pagers included a “channel 2” option. Members may *optionally* have the new FIRERESP channel programmed into their pagers so they can hear fire units signing on and responding. Once reprogrammed, putting the pager selector knob in position “D” will scan both the WCALEART and FIRERESP channels. A short interruption in the FIRERESP radio traffic will occur every second or so while scanning so the pager can check for alert tones back on the priority channel WCALEART. Reprogramming of pagers will occur during the day when the new mobile radios are being installed. Those members unavailable to stop in can leave their pager in a box in the morning before work and pick them up after work. Please have a box available, and a small notepad or sticky label pad, a pen, and some scotch tape available so members can mark their name on the pager.

### **How will I talk to my in-county mutual aid units that are still on low band until their radios are installed?**

The low band FIRE-1 channel and the new high band FIRERESP channel will be patched together until all installations are completed, allowing mutual aid fire units to talk to each other *while responding*. While on location, however, low band radios must still be used to converse on the existing low band fireground channels until all high band fire radios have been distributed and installed. You will be informed by the Communications Center when this process is complete.

### **Question: What can I do with my old low band equipment?**

Those radios purchased directly by the fire company can be re-used, sold or given away. Those purchased using your township funds cannot be given away as they probably remain township property. In either case, programmed channels should be deleted before selling or giving low band equipment away to out of county or non-fire agencies. Also consider giving the portables to your fire police members if you have a fire police division (see next question).

### **Question: What radio channels can Fire Police use?**

Many fire police members do not have portables to communicate or are using low powered family walkabout radios with very limited range. It is highly recommended that your low band portables be given to fire police to assist their membership with communications at assignments. Note that only the Fire Police Chief / OIC is allowed to operate on high band when talking to the Incident Commander, or to the dispatcher when toned out without the fire department for assignments. Individual Fire Police members (except for the Fire Police Chief/OIC) should not be operating on the new high band channels and should not be calling in via radio to the dispatch center per SOPs.

**Question: What is the procedure for having mobile radios installed?**

Each fire department chief will receive a call from Michael Sullivan from Royal Communications a few days prior to your installation date. Royal's crews can install between two to four mobile radio installations each day – thus it may take more than one day to complete your installations. Crews will arrive between 9 and 10 AM and depart around 4 pm. Thus, someone must be available to open the firehouse in the morning, and you may prefer to have someone available until 4 pm to monitor the installations.

**Pagers** will be optionally reprogrammed on the first day of your mobile installation to put FIRERESP in channel 2 for those members that want it. Please have any available members come to the firehouse during the scheduled installation hours. For those who work days, have them leave their pagers in the morning when leaving for work. They can be picked up after work on their way home. It is recommended you provide a specially marked box, a sticky notes pad, a pen and scotch tape so members dropping off their pagers can identify them with their name.

The **mobile radio** is a two-piece unit, consisting of a radio display “head” and a remotely mounted radio “box”. The radio head is mounted in the vehicle cab or an existing console. Mounting hardware (and a face plate if needed) is provided by the vendor. The radio head is about 7 inches wide, 2 ½ inches tall and 2 ¼ inches deep (add another inch of depth for the rear connectors). A power cable and remote connection cable come out of the back of the head and a microphone cable comes out of the front lower left corner. The radio box mounts remotely under or behind a seat or in an out of the way area. The radio box contains a second port if you decide to purchase a second display head for the rear of a vehicle or the pump panel. You must make your own arrangements and pay for your own connections to remote mics, speakers or headsets.

**It is highly recommended that you tape a paper cut-out of the cab radio head, microphone and speaker (see cutouts below) where you want them mounted.** Please write the vehicle number (example: 83-61) on the cutout for the radio display head.



Cut-out for mobile radio heads – tape to where it is to be mounted in vehicle

Cut-outs for mobile radio heads – tape to where it is to be mounted in vehicle



Cut-outs for mobile radio heads – tape to where it is to be mounted in vehicle  
(make additional copies as needed)



Cut-Outs for Mobile Microphone Placement - tape to where it is to be mounted in vehicle  
(make additional copies as needed)



Cut-Outs for Mobile Radio Speaker - tape to where it is to be mounted in vehicle  
(make additional copies as needed)