

I Have a DMR Radio You Mean There's More?

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Len Rust, W2LJR



**Gloucester County
Amateur Radio Club
W2MMD**

Celebrating 64 Years Of Service To Our Community & Amateur Radio

Established In 1959



Today's Session – DMR, There's More?

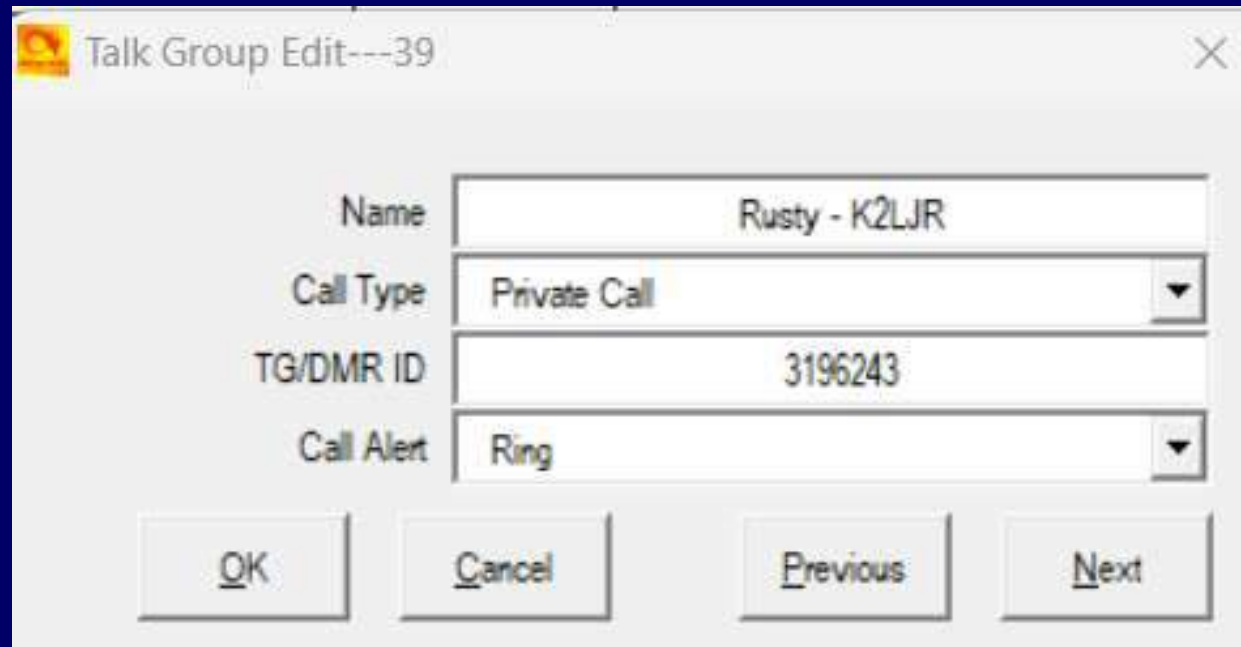
- Private Calling
- Texting (SMS)
- Roaming
- GCARC Talk Group

Private Calling

Private Calling

- You can talk privately to any Ham using their DMR ID
 - Create a New Contact / Talk Group
 - Create a New Channel
 - Assign Channel to Zone

Create a New Contact / Talk Group



The image shows a software dialog box titled "Talk Group Edit---39". It contains four input fields and four buttons. The fields are: "Name" with the value "Rusty - K2LJR", "Call Type" with a dropdown menu showing "Private Call", "TG/DMR ID" with the value "3196243", and "Call Alert" with a dropdown menu showing "Ring". The buttons are "OK", "Cancel", "Previous", and "Next".

Name	Rusty - K2LJR
Call Type	Private Call
TG/DMR ID	3196243
Call Alert	Ring

Buttons: OK, Cancel, Previous, Next

Create a New Channel

Channel Information Edit---27

Channel Name: Rusty Rust

Receive Frequency: 446.52500
Transmit Frequency: 446.52500
Correct Frequency[Hz]: 0

Channel Type: D-Digital
Transmit Power: Low
Band Width: 12.5K
TX Permit: ChannelFree
Scan List: None

Exclude channel from roaming: off
DMR MODE: Repeater
Analog APRS Report Freq: 1

PTT Prohibit Talk Around(Simplex) APRS RX
 Work Alone DataACK Disable Auto Scan

Digital

Contact: Rusty - K2LJR
Radio ID: Len W2LJR
Color Code: 1
Slot: Slo2
Receive Group List: None
Digital Encryption: Off

AES Digital Encryption: Off
Multiple Key: Off
Random Key: Off
SMS Forbid: Off

Send Talker Alias Call Confirmation Ranging
 Slot Suit SMS Confirmation

Assign Channel to Zone

Zone Edit---10

Zone Name:

A Channel:

B Channel:

Zone Hide

Available Channel

24	Chris Prioli - R
26	Frank Romeo - R
27	Rusty Rust
28	YSF AmericaLink
30	NJ TRBO TriState
32	Jon Pierce - R
33	BRARC
34	BRARC Net

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Zone Channel Member

21	Carl Wittig
31	Jon Pierce
25	Frank Romeo
23	Chris Prioli
29	GCARC

Order By

ID

Private Call Demonstration



Texting

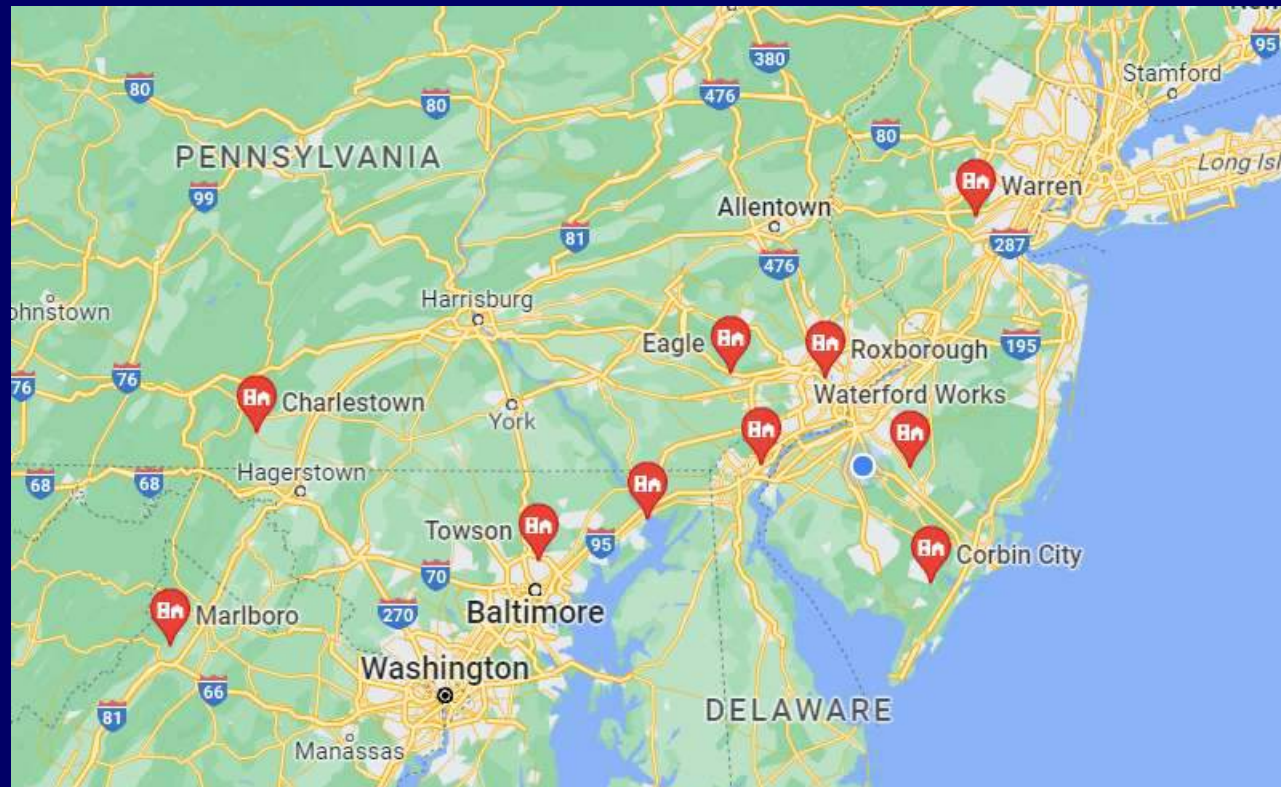
Texting (SMS) Demonstration



Roaming

What is Roaming

“Roaming refers to setting the radio to automatically move between repeaters based on which repeater has the strongest signal”



Roaming - Configuration

- Channel
- Zone
- Roaming Channel
- Roaming Zone
- Optional Settings
 - Auto Repeater
 - Repeater Check
 - Reconnections
 - Notify
 - Auto Roaming
 - Roaming Zone

Channel

Channel Information Edit---2003

Channel Name: Wilm Tri-State

Receive Frequency: 448.42500
Transmit Frequency: 443.42500
Correct Frequency[Hz]: 0

Channel Type: D-Digital
Transmit Power: Turbo
Band Width: 12.5K
TX Permit: ChannelFree
Scan List: None

Exclude channel from roaming: off
DMR MODE: Repeater
Analog APRS Report Freq: 1

PTT Prohibit Talk Around(Simplex) APRS RX
 Work Alone DataACK Disable Auto Scan

Digital

Contact: Tri-State
Radio ID: Len W2LJR
Color Code: 1
Slot: Slot2
Receive Group List: None
Digital Encryption: Off

AES Digital Encryption: Off
Multiple Key: Off
Random Key: Off
SMS Forbid: Off

Send Talker Alias Call Confirmation Ranging
 Slot Suit SMS Confirmation

Zone

Zone Edit---9

Zone Name:

A Channel:

B Channel:

Zone Hide

Available Channel

1	USA 3100
2	North America
3	New Jersey
4	South Jersey
5	TAC 310
6	TAC 311
7	TAC 312
8	TAC 313
9	TAC 314
10	TAC 315
11	TAC 316
12	TAC 317
13	TAC 318
14	TAC 319
15	World Wide
16	WW TAC 901
17	WW TAC 902

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Zone Channel Member

2003	Wilm Tri-State
2004	Wilm Parrot
2005	Wilm TAC 310
2006	Wilm TAC 311
2007	Wilm TAC 312
2008	Wilm TAC 313
2009	Wilm TAC 314
2010	Wilm TAC 315
2011	Wilm TAC 316
2012	Wilm TAC 317
2013	Wilm TAC 318
2014	Wilm TAC 319
2102	PHL Tri-State
2103	PHL Parrot
2104	PHL TAC 310
2105	PHL TAC 311
2106	PHL TAC 312

Order By

ID

Name

Up

Down

Roaming Channel

Roaming Channel Edit---10

fast select

Receive Frequency

Transmit Frequency

Name

Color Code

Slot

Roaming Zone

Roaming Zone Edit---2

Roaming Zone Name

Available Roaming Channels

1	IRS Wilm T/S 1
2	IRS PHL T/S 1
3	IRS Water T/S 1
4	IRS Corbin T/S 1
5	IRS W/C T/S 1
6	IRS Harve T/S 1
7	IRS Towson T/S 1
8	IRS Marbo T/S 1
18	VA Vienna T/S 1

Roaming Zone Channel Member

9	IRS Wilm T/S 2
10	IRS PHL T/S 2
11	IRS Water T/S 2
12	IRS Corbin T/S 2
13	IRS W/C T/S 2
14	IRS Harve T/S 2
15	IRS Towson T/S 2
16	IRS Marbo T/S 2

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Order By

Optional Settings

Optional Setting

Work Mode | Vox/BT | STE | FM | Power Save | Key Function | Other | Digital Func

Alert Tone1

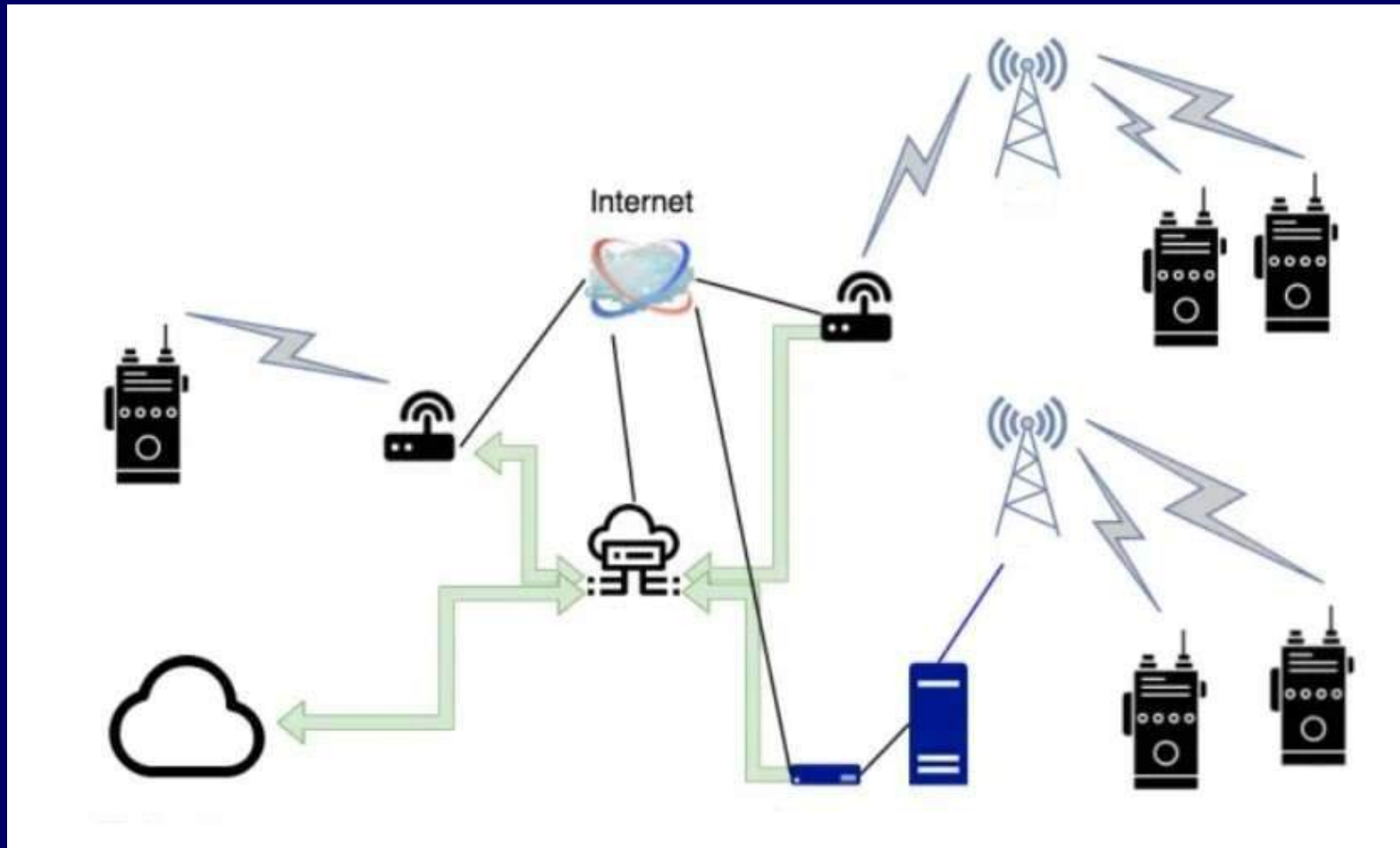
Power-on | Alert Tone | Display | GPS/Ranging | VFO Scan | **Auto repeater** | Record | Volume/Audio

Auto repeater

Auto Repeater A	Off	Auto Roaming at Fixed Time[m]	1
Auto Repeater B	Off	Roaming Effect Wait Time[s]	None
Auto Repeater1(UHF)	5.00000 MHz	Roaming Zone	IRS T/S 2
Auto Repeater1(VHF)	600.00 KHz	Min Freq Of Auto Repeater1(VHF)	136.00000
Auto Repeater2(UHF)	5.00000 MHz	Max Freq Of Auto Repeater1(VHF)	174.00000
Auto Repeater2(VHF)	600.00 KHz	Min Freq Of Auto Repeater1(UHF)	400.00000
		Max Freq Of Auto Repeater1(UHF)	480.00000
Repeater Check	On	Min Freq Of Auto Repeater2(VHF)	146.00000
Repeater Check Interval[s]	20	Max Freq Of Auto Repeater2(VHF)	164.00000
Repeater Check Reconnections	3	Min Freq Of Auto Repeater2(UHF)	410.00000
Repeater Out of Range Notify	Voice	Max Freq Of Auto Repeater2(UHF)	470.00000
Out of Range Notify(times)	1		
Auto Roaming	On		
Auto Roaming start condition	Out Of Range		

OK Cancel

Roaming Demonstration



Roaming Repeaters

Repeaters – Interstate Repeater System

- <http://interstatedmr.com/>
- Networks
 - NJ-TRBO
 - DMR-MARC
 - Brandmeister
- Repeaters (cc-1)

• Charlestown, PA	440.200
• Corbin City, NJ	440.400
• Roxborough, PA	440.650
• Eagle, PA	441.300
• Waterford Works, NJ	443.300
• Warren, NJ	440.2875
• Wilmington, DE	448.425
• Harve de Grace, MD	443.650
• Towson, MD	441.400

Repeaters – IRS Talk Groups

- Time Slot 1
 - Full Time
 - 8801 - Delaware Valley
 - 8804 - Pack Rats
 - 3142 - PA Statewide
 - 3172 - Northeast US
 - PTT (10-minute Timeout)
 - 1 - Worldwide Calling
 - 3 - North America Calling
 - 13 - Worldwide English Calling
- Time Slot 2
 - Full Time
 - 2 - NJ TRBO TriState (31360 on BM)
 - 8 - PA / MD
 - 9 - Local Repeat Only

Repeaters – IRS Talk Groups

- Time Slot 2 (Continued)
 - PTT (10-minute Timeout)
 - 3169 - Midwest US Regional
 - 3172 - Northeast US Regional
 - 3173 - Mid-Atlantic US Regional
 - 3174 - Southeast
 - 3175 - South Plains
 - 3176 - Southwest
 - 3177 - Mountain
 - 3111 - Washington DC Regional
 - 3124 - MD Statewide
 - 3142 - PA Statewide
 - 3151 - VA Statewide
 - 31121 - First Coast (NE FL)
 - 310 to 319 - TAC 310 to TAC 319
 - 9998 - DMRX “Parrot” Echo Test
 - 9999 - NorCal Audio Meter

31xx = Brandmeister

GCARC & DMR

GCARC Hotspot

- **Simplex Hotspot**
 - Raspberry Pi Zero
 - 432.740 MHz
 - Color Code 1
 - Time Slot 2

- **Duplex Hotspot**
 - Raspberry Pi 3
 - RX = 442.500/ TX = 447.500
 - Color Code 1
 - Time Slot 2

Gloucester County Amateur Radio Club

GCARC DMR Talk Group

3198604

Questions?

73 de Len W2LJR

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