

# Common Usage Guidelines for Using The WX4PCA DSTAR Repeater System

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## How to register a call sign as a new user on DSTAR

Before you can talk on any of the reflectors (anything other than the local repeater) you must register your call sign.

Since Paulding ARES now owns repeaters we have the ability to register call signs. Anyone who needs to register can go to <https://wx4pca.dstargateway.org> and click the registration link at the top left. An admin (currently Dan W4DTO) will be notified when someone requests registration and can finish up the process.

- 1) The VHF repeater will normally stay linked to REF030B so that we are linked to the other DSTAR repeaters in Georgia. Browse to <http://www.dstarinfo.com/repeater-maps.aspx> to see a list of all of the DSTAR repeaters in Georgia (or in the world!).
- 2) Feel free to link and unlink the repeater at any time. Listen first and announce your intention to be sure no one is using the repeater. But, then link at will. There is a list of all of the D-PLUS reflectors at <http://www.dstarinfo.com/reflectors.aspx>. You can create commands in your radio to link to any of these. Read over the list when you have a chance. Some pretty interesting reflectors out there.
- 3) If you link the repeater, drop the link when you are finished and link back to REF030B. The system will be configured to drop links and return to REF030B after a few minutes of inactivity in case someone forgets to drop the link.
- 4) Keep in mind that there may be many repeaters all around the world linked to the reflector, and you will be keying the transmitter on all of them up when you transmit. If you are going to do a long QSO and don't need to tie up all of the linked repeaters drop the link before starting so that your traffic stays local.
- 5) Observe normal repeater guidelines like allowing stations to break in if you are on an extended QSO.

## Programming Your Radio

For those of you who have DSTAR radios and the RTSystems software I have put together an RTSystems file with our two DSTAR repeaters – including linking and unlinking commands. The file is attached as an Excel spreadsheet. If you have the RTSystems software you can cut and paste from this spreadsheet to the RTSystems file for your radio. Let me know if you have trouble loading it. Ron (WB3ILX) and I have a collection of the RTSystems apps, so we can build RT-Systems files for most Icom DSTAR radios.

I will describe the channels in the file below, but first, let me describe my naming convention for channels on the radios. I try to follow the same standard on all of our (Paulding) frequencies. The first three letters of my channel labels (“PLD”) indicate that it is a Paulding County ARES channel. The fourth and fifth position indicate which repeater or frequency it is (“DV” = DSTAR VHF, and “DU” – DSTAR UHF).

Following is a list of the channels in the spreadsheet with a description of what the channel does. If you have questions about any of the channels (or find any of my bugs) please let me know.

### NAME

Description

### WX4PCA VHF Repeater

#### PLDDV

Normal talk channel for the VHF repeater with CQCQCQ in URCALL. If all you want do is talk on the repeater without changing the configuration use this channel.

#### PLDDVL

Local talk channel. Traffic doesn't go through the gateway to linked repeaters and reflectors. But, you can hear any traffic from currently linked repeaters.

### PLDDVS

Simplex on our VHF repeater's transmit frequency

### PLDDV02A

Command to link our VHF repeater to reflector REF002A (home of the Sunday night DSTAR weather net)

### PLDDV30A

Command to link our VHF repeater to reflector REF030A (Georgia special event use)

### PLDDV30B

Command to link our VHF repeater to reflector REF030B (Georgia linked repeaters)

### PLDDV30C

Command to link our VHF repeater to reflector REF030C (wide area linking)

### PLDDV30D

Command to link our VHF repeater to reflector REF030D (Georgia D-RATS)

### PLDDVUNL

Command to unlink our VHF repeater

### PLDDVINP

Info command to our VHF repeater. Tells if the repeater is linked.

### PLDDVECH

Echo command to our VHF repeater. Echos back what is transmitted

## **WX4PCA UHF Repeater**

Note: the UHF repeater isn't on the air at this time

### PLDDU

Normal talk channel for the UHF repeater with CQCQCQ in URCALL. If all you want do is talk on the repeater without changing the configuration use this channel.

### PLDDUL

Local talk channel. Doesn't go through the gateway to linked repeaters and reflectors. But, you can hear any traffic from currently linked repeaters.

### PLDDUS

Simplex on our UHF repeater's transmit frequency.

### PLDDU02A

Command to link our UHF repeater to reflector REF002A (home of the Sunday night DSTAR weather net)

### PLDDU30A

Command to link our UHF repeater to reflector REF030A (Georgia special event use)

### PLDDU30B

Command to link our UHF repeater to reflector REF030B (Georgia linked repeaters)

### PLDDU30C

Command to link our UHF repeater to reflector REF030C (wide area linking)

### PLDDU30D

Command to link our UHF repeater to reflector REF030D (Georgia D-RATS)

### PLDDUUNL

Command to unlink our UHF repeater

### PLDDUINF

Info command to our UHF repeater. Tells if the repeater is linked.

### [PLDDUECH](#)

Echo command to our UHF repeater. Echos back what is transmitted

## **So, How Does This “Linking” Thing Work?**

Example: If you want to link the VHF repeater to reflector REF030B follow these steps:

- 1) Listen first to be sure no one is using the repeater.
- 2) If no one is transmitting put your radio on channel PLDDV, give your call sign and announce that you are going to link the repeater to a reflector (give the name of the reflector you are linking to).
- 3) Put your radio on channel PLDDVINP and key the mic for 1 to 2 seconds to check the current link status. The repeater should respond telling you either that the repeater is linked or that it is not currently linked.
- 4) If the repeater is not currently linked go to step 6
- 5) If the repeater is linked put the radio on channel PLDDVUNL and key for 1 to 2 seconds to drop the link. The repeater should respond telling you that the system is not currently linked.
- 6) Put the radio on channel PLDDV30B and key for 1 to 2 seconds to link to REF030B. The repeater should respond with “remote system linked”.
- 7) Put the radio back on PLDDV after it is linked to begin your QSO.

I've read over this email several times, and I think the words keep changing because it seems different each time I read it! Please let me know if any of this is confusing or if you have questions or find errors.

Thanks, again, to all who have been involved in making this repeater system possible.

Dan  
W4DTO

View attachment: [WX4PCA-DSTAR-RepeaterConfig.xls](#)