



# IREDELL WIRELESS

Newsletter

## W4SNC 146.685- Repeater

Published monthly as a service to the Iredell County Amateur Radio Community  
By the Iredell County Amateur Radio Society (ICARS)  
P.O. Box 142 Statesville NC 28687

[www.w4snc.org](http://www.w4snc.org)  
Click to go to ICARS Website

President: Rick McClure, KE4TEP~~Vice-President, Dennis White N4WHK  
Secretary: Greg Cason KJ4ENR~~Treasurer: John Lamson, WB4WRY  
Members-at-Large: Tim Misenheimer, KC4MJC ~~Howard Hecht W1HO

Wireless Editor, Tim Misenheimer KC4MJC

## FEBRUARY 2008

This month's Meeting will be held at Julia's Tally House. **February 12, 2009**. Come early (6:30PM) and eat or rag chew. The Meeting Starts at 7:00 PM. *All ICARS members and Families are encouraged to attend!*

**Iredell County Amateur Radio Society**  
**Meeting Minutes**  
**January 8, 2008**

The Iredell County Amateur Radio Society met at Julia's Tally House for the regular monthly meeting. President Rick McClure, KE4TEP, called the meeting to order at 7:00pm. There were sixteen (16) attending – twelve (12) members and four (4) visitors. Rick asked everyone to introduce him or herself.

**Minutes-** A motion to approve the December 11, 2008 minutes as published was made and seconded. Motion carried.

**Treasurer's Report** – Treasurer John Lamson, WB4WRY, presented and submitted a written report dated January 8, 2009. A motion was made and seconded that the report be accepted. Motion carried.

**Technical** – Don, W4DON, reported:

1. The repeater is still experiencing intermittent problems. Perhaps related to the weather.
2. He finished up the splice in the coax. Rick mentioned that when he hears the noise on the ICARS repeater that he also hears the noise on 146.52. Don suggested that it is similar to noise generated by BPL.
3. The certified climber has not responded to Don concerning replacing the coax. Don will continue trying to contact him.

**ARES** – Dennis, N4WHK, reported:

1. On January 31<sup>st</sup> ARES will test communications from the twenty nine (29) Red Cross Shelter sites across Iredell County. Dennis needs everyone who wants to participate to notify him as soon as possible so he can plan the exercise. One person will need to be located at EOC and others will travel to the various sites. Sites that have not been previously tested will be the first to be tested in this exercise.
2. Participants will need a current county map. Rick can provide one to be used on a PC for anyone who needs it.
3. January 24th is the quarterly ARES meeting for Area 11 at the Alexander County Rescue Squad. Anyone interested in going with Dennis let him know.
4. Dick, W3OA, has finished the To-Go-Kit and needs to be reimbursed for the money he spent. Dennis will find out how much he is owed.

**ARES** – Don, W4DON, reported:

1. Dennis needs everyone who serves as Net Control Station to fill out and forward the ICARS Net Control form to him.
2. Dennis needs all ARES members to submit a monthly report of ARES activity whether you participated in any ARES related activities or not. Report should be submitted by the fifth of the following month.

It was mentioned that Dick, W3OA, or Lou, N2TU, should be checking the radio at Lake Norman Regional Medical Center. Rick, KE4TEP, offered to test the radio at ECOM.

**Website** – Tim, KC4MJC, reported:

1. Website working correctly.
2. Tim invited everyone to send him links or ideas for the website.

**Audit Committee** – Greg, KJ4ENR, Audit Committee Chairman reported:

Committee members Greg, Rick and Dennis have reviewed the Treasurer's records for 2008 and all appear to be in order. A motion was made and seconded to accept the Treasurer's records. Motion carried.

## **OLD BUSINESS**

**SERA Membership** – Tim, KC4MJC, renewed the club's SERA membership for one more year at the request of the club officers. Tim and Rick will each receive a copy of the SERA Journal to share with the club members. Mike Lewis, a Reporter with the SERA Journal asked to be put on the distribution list for our club newsletter.

**2009 Membership** - After the February club meeting a letter will be sent to any club member who has not already paid dues for 2009. A letter will also be sent to past and prospective members inviting them to join or re-join the club. Members who have paid 2009 dues will receive a club directory around the end of March.

**Antenna Building** – Rick, KE4TEP, invited all members to his home for an antenna building party, possibly in March. Feedline and other parts are available.

**501(c)(3) Status** – Jim, W4ONS, has successfully e-filed with the IRS to retain the club's tax-exempt status for 2009.

## **NEW BUSINESS**

Don reported that the Field Day site at McClure Park has been reserved for Field Day 2009. He also reminded everyone about helping the Boy Scout Troop from Mooresville with their Radio Badge. The troop has been invited to attend Field Day to help prepare them for JOTA.

Rick encouraged all members to invite other hams to attend a meeting and join the club.

Dennis, N4WHK, has agreed to be Field Day Chairman again this year. He needs to know what band everyone wants to operate on during Field Day, and who will be available for setup/tear down duty.

A motion was made to adjourn at 7:51pm. Motion Carried

Respectfully submitted,  
Greg Cason, KJ4ENR  
Secretary

*I still need close up color photos of those members that have NOT already supplied one. Jpeg format preferred. Do not be concerned about size. I can crop as needed. Snail-mail or e-mail your photo to me ASAP. We are hoping to complete the Directory by March 1st, 2009. Your Membership Dues must be current through 2008 for your name, call, address and phone number, etc to appear in the ICARS Directory.*

*73, W4DON ICARS Directory Editor*

Here's a list of NC TV stations, analog and DTV. Note some stations have already shut down their analog channels. [http://en.wikipedia.org/wiki/List\\_of\\_television\\_stations\\_in\\_North\\_Carolina](http://en.wikipedia.org/wiki/List_of_television_stations_in_North_Carolina)

## Over the Air Digital TV Reception 101

**Analog** = A continuous none interrupted but varying signal (Example: 0 to 10 vac and anywhere between)

**Digital** = A continuous ON and OFF signal (Example: 1 = ON and 0 = OFF like a digital computers' signals 11010111. There's nothing in between)

### How do I receive the new UHF DTV channels?

First you will need a **manufactured DTV ready** or a **DTV converter**, sometimes called a Set Top Box (STB) to receive the DTV channels.

The STB converts the UHF DTV channels to VHF to an analog channel, 3 or 4, for your old analog TV receiver. With an **old analog TV receiver** you will NEVER see any High Definition TV programs. A HDTV is required for that.

### What type of outside antenna do I need?



If you are now using an outside antenna for channels 2 – 69 like this >>>>> the **UHF section** of your old VHF-UHF antenna **will receive the UHF DTV channels**. Regardless of what sales people tell you NO SPECIAL DTV antenna is needed to receive the UHF DTV channels. It **MUST** be a **UHF antenna or have a UHF section on it**. The very short elements are used for UHF TV reception. UHF only antennas are small in physical size.

ANY type **UHF antenna** is all that's needed. Rotator may be helpful.

OH, Yes the old rabbit-ears antenna will work inside home at some locations!!!

**Transmission lines, 300-ohm twin-lead or coax cable MUST be in GOOD condition.**

Two common types of UHF TV only antennas are:

#### 1-Corner Reflector



The short elements are the active elements. The corner arranged array is a reflector. The small end is pointed toward the station you want to receive. These have a very narrow path of reception but have lots of gain. Aiming is critical. Rotator is highly recommended.

#### 2- Bow-Tie

2-Bay



4-Bay



8- Bay



The little bow ties are the active elements. The rectangle areas are the reflectors. The larger antennas provide more gain and reception from greater distances. Bow-Tie's have a wider path of reception therefore aiming is less critical. Need for a rotator is somewhat less. These would be mounted on a mast.

If you own a **nice** VHF-UHF analog receiver the installation of a STB is very simple and inexpensive BUT you will still need some type of UHF antenna. Follow the STB Instructions.

## Over the Air Digital TV Reception 201

### **What is a virtual channel (VC)?**

The term is most often applied to [television](#), where [digital TV](#) (DTV) channels are [in-band adjacent](#) to analog ones. A station branded as Channel 8, for example, might actually use channel 32 for its [ATSC](#) or [DVB transmission](#), but a **virtual channel map** or **virtual channel table** (VCT) allows viewers to tune in the station on channel 8 on a digital set. **The most common reason for a television station using a virtual channel is to minimize viewer confusion when a digital transmission is airing on a different channel than the one the station used in analog mode.** The virtual channel thus enables viewers to tune in the station by choosing the same channel number as they would have previously.

### **What is meant by Digital TV Subchannels?**

Because DTV can carry [multiple programs simultaneously](#), virtual channels also map out subchannels. Continuing the "Channel 8" example, if the station were in the [United States](#) and [Canada](#), typically its main programming would air on channel 8 (the "major channel") or **8.1 (the first "subchannel")**. Other programs could be found on channels 8.2, 8.3, and so forth, up to 99, with additional data channels ranging from 100 to 999. The subchannels can also be represented using a hyphen (8-1, 8-2, and so forth).

The channel numbers will appear this way when using the Emerson STB's.

Examples: Virtual channel 3.1 or 3-1 would be WBTW DTV but the physical DTV channel is 23  
9.1 or 9-1 would be WSOC DTV but the physical DTV channel is 34  
18.1 or 18-1 would be WCCB DTV but the physical DTV channel is 27

If you're new to DTV you will find that most DTV channels has multiple subchannels. For example WUNC and WTVI have at least 4 subchannels. Sometimes all of their subchannel may not be on the air all of the time.

You may notice that the sound on DTV is not in sync with the lips of people speaking or singing.

You may notice that the sound level is lower on DTV.

If you now own a manufactured DTV or HDTV and are using **cable** you can go to CHANNELS in your menu, select **cable**, then **auto-scan**. The TV will scan and lock-in analog and digital channels because it's capable of receiving both analog and digital TV signals.

Be advised though . . . those digital channels will probably have a complete different number than you've known. For example UNC-TV comes in on my DTV as 200, 201, 202 and 204. WCNC DTV will show up on 220-1 on my digital TV listing and cable analog channel 6 on 6 of listing. Gets confusing. Days of just one channel are gone.

**Note:** The commercial and PBS channels (aka Basic Channels on cable) are broadcasting in HDTV on cable and air. Cable companies cannot charge cable customer extra for that. WBTW, UNC-TV, WTVI, WCNC, WSOC, etc.

**Picture quality.** When shopping for a DTV you will see numbers such a 480, 720, 1080i or 1080p. This is the number of scanned lines that make a complete picture on the TV screen. Just like your digital camera the larger the number the more pixels making up the photo. Therefore when shopping the 1080i and 1080p have the highest picture resolution. 720 could be classified as low grade HD but not 480 therefore all DTV's are not HDTV's.

The "i" and the "p" indicates the method of scanning (painting) the picture onto the TV screen. The "i" stands for "Interlace" and "p" stands for "Progressive". These models are the most expensive in today's market but the prices are coming down. My HDTV is a 32" CRT model having 1080i resolution and cost was under \$500 one year ago. Each picture on an old TV is made up of horizontal lines typically 525 lines. First the electron gun would scan 262.5 lines from top to bottom of screen. This is called a "frame" Then the electron gun would return to the top of screen and scan another 262.5 lines **between** those first frame lines. This is called "interlacing"

This is the same method the 1080i HDTV paints a picture, 2 frames, EXCEPT the lines are scanned vertically from left to right. The 1080p HDTV scans vertically from left to right **ONCE** for each **complete** picture. All of this happens at electron or light speed, 186,000 miles per second, so our eyes never notice either method. If you get very close, 6 – 10 inches, you might see the individual vertical lines.

*Edited by Donald Summers, W4DON*

I C A R S  
FM and HF Nets  
**2009**

**February**

REVISION 1

*Net Manager: W4DON*

<b>2m FM NET</b> <b>2100 L</b> <b>146.685</b>		<b>10m CW Net</b> <b>2000 L</b> <b>28.150</b>		<b>10m SSB Net</b> <b>2100 L</b> <b>28.468 USB</b>	
<b>Date</b>	<b>NCS</b>	<b>Date</b>	<b>NCS</b>	<b>Date</b>	<b>NCS</b>
4	W1HO	7	WB4WRY	7	N4ACF
11	WA6KWW	14	WB4WRY	14	KF4AEX
18	KC4MJC	21	W4DON	21	KE4TEP
25	KJ4ENR	28	N4WHK	28	W4DON

*Thanks for volunteering to be a NCS*

Call your Net on time

If you're unable to call your Net find a replacement NCS

NCS please give a 5 minute notice before net time.

**Don't forget to send your Net Report to N4WHK & W4DON**

ARES Training Net each Monday at 2100 L

ICARS was organized on September 9, 1976

Nets have been running since 1977

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