



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
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

APRIL 2008

This month's Meeting will be held at Julia's Tally House. APRIL 9, 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
March 12, 2009

The Iredell County Amateur Radio Society met at Julia's Tally House for the regular monthly meeting. Vice President Dennis White, N4WHK, called the meeting to order at 7:00pm. There were fifteen (15) attending – twelve (12) members and three (3) visitors.

Minutes- A motion to approve the February 12, 2009 minutes, as published, was made and seconded. Motion carried.

Treasurer's Report – Treasurer John Lamson, WB4WRY, presented and submitted a written report dated March 12, 2009.

A motion was made and seconded that the report be accepted. Motion carried.

ARES – Dennis, N4WHK, reported:

1. The March of Dimes Walk America event is scheduled for April 4th. Please sign up with Dennis as soon as possible if you wish to participate. Two vans will be used and there needs to be a driver and a radio operator in each. Two canopies will be set up and weather permitting; a radio station will be set up as well in hopes of generating some public interest in Amateur Radio and ICARS.
2. Communications was tested from 23 of the designated Red Cross shelters in Iredell County on January 31st. We found that from some sites communications was difficult if not impossible, so more testing will take place in the spring from the southern part of the county. Anyone interested in participating should contact Dennis with preferred dates.
3. Don recommends using a 2M beam antenna if deployed to a location that's more than 8 to 10 miles from the repeater antenna.
4. The ARES Area 11 quarterly meeting will be held at Shoney's in Statesville on Saturday, May 23, from 9:30am until approximately 11:30am. A presentation will be given concerning digital modes of communication.
5. Dennis will hold an ARES meeting for our local group in April or May. Monitor the ARES website (<http://www.iredellares.org/index.htm>) for the meeting date and any additional ARES news.
6. Howard, W1HO, volunteered to write a press release for the next ARES exercise and submit it to the newspaper in order to get some publicity.

Technical – Don, W4DON, reported:

1. Due to all the repeater interference problems and after Society discussions, the Mark 4 repeater will be using the sub-audible CTCSS tone of 77.00 Hz effective Wednesday, March 11, 2009.
2. ICARS Members that don't have tone capability must use the WAKEUP User Function code to access the repeater. See your "User Function Code List" for the proper code.
3. If you want a "User Function Code List" you must be an ICARS Member with Dues paid up. Tim, KC4MJC (Trustee) is the person you need to contact for that Listing.
4. Iredell County ARES Members that don't have tone capability should contact Dennis, N4WHK, your EC, for the Wakeup code.
5. The repeater coax and connectors still need to be replaced.

Membership – Don, W4DON, mentioned that 18 Membership Dues reminder letters were mailed to those members who have not paid dues for 2009. Some members sent too much money and John, WB4WRY will address those on an individual basis.

Walt Schwarzl has antennas down and needs help getting them back in the air. Anyone interested in helping one Saturday should contact Dennis, N4WHK.

OLD BUSINESS

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

Field Day –Dennis, N4WHK, reported:

1. Please sign up for Field Day as soon as possible. Dennis needs the hours and bands you wish to operate. This information will also be used to determine what Class we will be in.
2. Field Day will be celebrated from June 26 to June 28, at McClure Park.
3. Setup will begin on Friday morning, June 26. Operating will begin on Saturday, June 27.

Boy Scouts – Howard, W1HO, reported:

1. Howard has been in contact with Debra, the Scout Master that previously came to an ICARS meeting. The Scout troop has been invited to our Field Day exercise to help them earn a Radio Merit Badge and an Emergency Preparedness Badge.
2. Howard volunteered to be in charge of setting up a station for the Scouts during Field Day. He will provide the radio and antenna materials and possibly have the Scouts set up the antenna themselves.

NEW BUSINESS

Howard, W1HO, met with Don Daso, K4ZA, who had some 11 element, 2M beams he wanted to give away. While Howard was picking up the 2M beams Don also gave him some vertical antennas that are in need of repair. The verticals are free to ARES if ARES wants them. If so, then a Thank You letter needs to be sent to Don thanking him for the donation.

A motion was made to accept Barry Givens, K4BSG, as a member into ICARS. The motion carried. Welcome to the club, Barry.

Don, W4DON, mentioned that someone may come to a club meeting and present a presentation on Ten-Ten (Ten-Ten International Net, or 10-10 for short, is an organization of amateur radio operators dedicated to maintaining high levels of amateur radio communications on the 10-meter amateur band).

Send an email to Dennis, N4WHK, with any ideas for presentations at a club meeting.

It was reported in the press that a group from Mitchell Community College is soon going to launch a model rocket as part of a NASA sponsored program. Howard, W1HO, volunteered to contact the college to see if someone would come to a club meeting and give a presentation.

A motion was made to adjourn at 7:43pm. Motion Carried.

Respectfully submitted,
Greg Cason, KJ4ENR
Secretary

Being an ICARS member you know by now that we began operating the W4SNC Repeater in March 2009 with the CTCSS tone requirement. This was due to unknown source or sources of intermittent interference. We will continue operating in this mode until this interference source(s) can be found and eliminated. Having said that maybe its a good time to discuss the ABC's of tone operation for analog systems.

Sub-audible Tone Encoders and Decoders

Many older *senior* transceivers, 1970's - 1980's didn't even have Encoders or Decoders. Many *middle-aged* transceivers, 1980's - 1990's have **Encoders** only with Decoders being an option. The **Decoder** option cost a little extra so the manufacturers left them off to keep selling price lower.

Many new transceivers come with both **Encoders** and **Decoders**. Always read the specifications before purchasing a transceiver, new or used. Today you need to purchase a transceiver having both an Encoder and Decoder.

ENCODER

A Device **in a transmitter** used to INJECT a sub-audible tone onto its carrier, with or without voice modulation, to perform a function.

1. That tone opens the tone squelch on a monitoring **receiver** to allow voice-modulated signals to be heard or retransmitted. The W4SNC repeater **transmitter** has an Encoder and it transmits its own sub-audible tone along with voice modulation. Presently the Encoder tone is set to 77.0 hertz.

DECODER

A Device **in a receiver** used to DETECT a sub-audible tone modulated carrier, with or without voice modulation, to perform a function.

1. Receiver must have a Decoder to detect a sub-audible tone. A Decoder IS NOT required to receive repeater transmissions.
2. The W4SNC repeater **receiver** has a Decoder and is presently set to detect a 77.0 hertz tone. When that sub-audible tone is detected it turns on the repeater transmitter to retransmit incoming voice transmissions of repeater users. No incoming sub-audible tone, no transmission from repeater. Repeater users **Encoder must be turned on** and set to 77.0 hertz tone.
3. If your transceiver is programmed to detect a *certain* sub-audible tone nothing will be heard from its speaker unless the incoming signal has that *certain* sub-audible tone. This prevents hearing transmissions from distant repeaters or other transceivers operating on frequency being monitored. If you don't want to hear transmissions from other repeaters operating on 146.685 Mhz then turn ON your Decoder function. This is the purpose of the repeater transmitting, Encoding, is own sub-audible tone.
4. The Decoder function on your transceivers can be selected or Unselected. Refer to your transceiver manual on setting up your Encoder and Decoder. If you don't have an operators manuals search the Internet for one.

LCD display **symbols** that may appear on some transceivers are:

1. Musical-note, T or TONE - indicates your **ENCODER is turned ON**. Refer to your manual.
2. Speaker - indicates your **DECODER is turned ON**. Refer to your manual.

Summary:

It is not necessary for your transceiver to have the Decode function to hear a repeater but it is necessary for your transceiver to have the Encode function to use repeaters having a sub-audible tone requirement. Refer to your SERA Journal for the various tones being used.

Old HT's and mobile type transceivers may be retrofitted with an Encoder so it will transmit a selected sub-audible tone. This can be installed internally for using only one repeater. If you use many repeaters an external Encoder with selectable tones must be used. AR

Written by W4DON

You Might be Addicted to Ham Radio if:

1. When you look at a full moon and wonder how much antenna gain you would need.
2. When a friend gets a ride from you and remarks that you have a lot of CBs in your vehicle, it turns in to an hour long rant on how ham radio is not CB radio.
3. When someone asks for directions, you pause, wondering if long or short path would be best.
4. When you can look at a globe and be able to point to your antipode (and you know what an antipode is).
5. Your cell phone ring tone is a Morse code message of some kind.
6. You have accidentally said your Amateur Radio call sign at the end of a telephone conversation.
7. Your favorite vacation spots are always on mountain tops.
8. You notice more antennas than road signs while driving your car.
9. You have driven onto the shoulder of the road while looking at an antenna.
10. Porcupines appear to be fascinated with your car.
11. If you ever tried to figure out the operating frequency of your microwave oven.
12. When you look around your bedroom of wall to wall ham gear and ask: Why am I still single?
13. The local city council doesn't like you.
14. You think towers look pretty.
15. Your family doesn't have a clue what to get you for Christmas, even after you tell them.
16. Your HF amplifier puts out more power than the local AM radio station.
17. The wife and kids are away and the first thing that goes through your head is that no one will bother you while you call "CQ DX" a few hundred times.
18. When you pull into a donut shop and the cops there on their coffee break ask if they can see your radio setup.
19. You refer to your children as your "Harmonics".
20. Your girlfriend or wife asks: "You're going to spend \$XXXX on what???"
21. You actually believe you got a good deal on eBay.
22. When you see a house with a metal roof, and your only thought is what a great ground plane that would be.
23. You have pictures of your radio equipment as wallpaper on your computer's desktop.
24. Every family vacation includes a stop at a Ham radio store.
25. The first question you ask the new car dealer is: "What is the alternator's current output"?
26. **You buy a brand new car based on the radio mounting locations and antenna mounting possibilities.**
27. You have tapped out Morse code on your car's horn.
28. A lightning storm takes out a new Laptop, Plasma TV, and DVD Recorder, but all you care about is if your radios are okay.
29. Your wife has had to ride in the back seat because you had radio equipment in the front seat.
30. Your wife was excited when you were talking about achieving that critical angle, but very disappointed when you finally did.
31. During a love making session with your wife, you stop to answer a call on the radio.
32. Your wife threatens you with divorce when you tell her that you are going on a "fox" hunt.
33. Talking about male and female connectors makes you feel excited.
34. You dream of big, comfortable, knobs, but not on women.
35. You always park on the top floor of the deck, just in case you might have to wait in the car later.
36. When house hunting, you look for the best room for a radio shack and scan the property for possible tower placement.
37. When house hunting, you give your realtor topographical maps showing local elevations.
38. The real estate agent scratches his head when you ask if the soil conductivity is high, medium, or low.

39. You have Ham radio magazines in the bathroom.
40. When your doorbell rings, you immediately shut down the amplifier.
41. Fermentation never enters your mind when "homebrew" is mentioned.
42. Instead of just saying no, you have said "negative".
43. You have used a person's name to indicate acknowledgement.
44. You become impatient waiting for the latest AES catalog to arrive.
45. You have found yourself whistling "CQ" using Morse code.
46. You always schedule the third weekend in May for vacation.
47. You walk carefully in your back yard to avoid being close-lined.
48. You have deep anxiety or panic attacks during high winds or heavy ice.
49. You and the FedEx/UPS men are on a first name basis.
50. You really start to miss people that you've never seen.
51. Your exercise machine is a Morse code keyer.
52. You walk through the plumbing section at the hardware store and see antenna parts.
53. Your neighbors thought you were nuts when you ripped up your lawn to bury chicken wire.
54. Your next door neighbor thinks that your wife is a widow.
55. Your wife has delivered meals to your Ham shack.
56. If you sold all your Ham radio equipment, you could pay off your mortgage.

Food for thought

The EM PHILOSOPHY

Cactus 1549

"For 42 years, I had made small, regular, deposits of education, training and experience. And the experience bank was sufficient that on January 15, I could make a sudden large withdrawal." - Capt. Chesley B. "Sully" Sullenberger

Unless you have been living in a cave, you have heard the story of U.S. Airways Flight 1549, "Cactus 1549," that struck birds shortly after takeoff from New York City's LaGuardia Airport, lost power in both engines and "splash landed" in the Hudson River. The cool, calm, and disciplined actions of Capt. Sullenberger, the other four crew members, the air traffic controllers, and the first responders (both professional and volunteer) who assisted in the rescue resulted in 155 lives saved with only a few injuries.

The Airbus 320 is a complex, state-of-the-art aircraft. Much of it is controlled by onboard computers. Immediately after the loss of power, the computers failed, and Capt. Sully disengaged the automated systems and took control of the aircraft.

The voice recordings of the air radio traffic* is an example of proper procedures** for emergency communications by voice radio. E.g. - they used SAY AGAIN as opposed to in the improper "please repeat". There were a few "breaches" in proper procedure, but considering the critical nature of the emergency, they performed well.

Radio amateurs who are serious about public service and emergency communications make regular deposits to their "experience bank" whenever they pick up a mic or put their hand on a key. They practice and use proper operating procedures *every time they are on-the-air*. Not just during nets or actual emergency incidents. In other words, they make "small, regular, deposits of education, training and experience." Then, when an actual emergency occurs, they are *PREPARED*, and ready to make "a sudden large withdrawal" if needed.

Well done Capt. Sullenberger...and also to your entire crew! You are an example for all of us to follow. - *Editor*

* Audio file at: <http://www.emcomm.org/audio/>

** Review proper 'phone OPERATING PROCEDURES at: www.wrrl.org/operating

***"Make small, regular, deposits of education, training and experience," and...
"Keep yer batteries charged, yer hubs locked, and yer powder dry!"***

I C A R S

FM and HF Nets

2009

April

Net Manager: W4DON

2m FM NET 2100 L 146.685		10m CW Net 2000 L 28.150		10m SSB Net 2100 L 28.468 USB	
Date	NCS	Date	NCS	Date	NCS
1	KC4MJC	4	WB4WRY	4	W4DON
8	KF4AEX	11	WB4WRY	11	W4DON
15	K4ELP	18	W4DON	18	KF4AEX
22	KC4MJC	25	N4WHK	25	N4ACF
29	N4ACF				

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 file 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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