WARREN AMATEUR RADIO ASSOCIATION







### How the Repeater Works

#### Continued on page 5

An Amateur repeater can be located at an ideal location, with a gain antenna, and higher power than many mobiles and other users. The repeater is constantly listening on an amateur frequency authorized for repeater operation. The repeater then automatically retransmits (Repeats.) signals heard on its receiving frequency on it's transmit frequency.

On two meters these two frequencies are normally separated by 600 KHz.. On 440 MHz these two frequencies are normally separated by 8 MHz., the band plan is designed by the FCC. The repeater coordination (What frequencies are used in what area.) is done by each states repeater council, an Amateur organization.

Simultaneous receiving and transmitting on the same antenna, band, and feed line is a very difficult task. We can overcome this by either separate receive and transmit sites, or by a device called a duplexer. A duplexer is a very high quality set of filters. One tuned to the receiving frequency and one tuned to the transmitting frequency. Often having a band

### Winter Storms

A winter storm can range from a moderate snow over a few hours to a blizzard conditions with blinding wind-driven snow that lasts for several days. Many winter storms are accompanied by low temperatures and heavy or blowing snow, which can severely reduce visibility.

Some winter storms may be large enough to effect several states, while others may effect only a single community.

Winter storms are defined differently in various parts of the continued on pg 2

country. Check with your local emergency management office, the National Weather Service (NWS) office, or local chapter of the American Red Cross for terms and definitions specific to your area.

Winter storms are considered PAGE 2



REALLY EASY

1 can beef stew (buy a reputable, good brand with potatoes and carrots since this is the base of the soup.)

1 can green beans, not drained

1 can corn, not drained

1 can tomatoes, not drained

1 small onion, chopped fine

1 tsp sugar (optional, but helps with the acid in tomatoes.)

Mix all in a large saucepan and cook on stove for 2-3 hours on low; or in a crock pot on low for 2 hours or so.

Notes:

You can use a package of mixed frozen vegetables. Some Watkins 6 onion soup base is very good added to this.

Submitted by Sue Wagner KC8VHC http://www.foxitsoftware.com For evaluation only. оматсн NOVE

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# Winter Storms

Continued on page 4

deceptive killers because most deaths are indirectly related to the storm.

Automobile or other transportation accidents \* Exhaustion and heart attacks \* Hypothermia and asphyxiation \* House fires

## The elements of winter storms include:

Heavy snow \* Ice \* Winter flooding \* Cold

### Heavy snow can:

Immobilize regions and paralyze cities \* Strand commuters \* Close airports \* Disrupt emergency and medical services

Accumulations of snow can cause roofs to collapse and knock down trees and power lines. Homes and farms may be isolated for days, and unprotected livestock may be lost. The cost of removing snow and repairing damage, and the resulting loss of business can have severe economic impacts on cities and towns.

In the mountains, heavy snow can lead to masses of tumbling snow called avalanches. More than 80% of midwinter avalanches are triggered by a rapid accumulation of snow, and 90% of those occur within 24 hours of snowfall.

An avalanche may reach a mass of a million tons and travel at speeds of up to 200 miles per hour (mph)

### The different kinds of snow fall includes:

Blizzards \* Blowing snow \* Snow squalls \*Snow showers

### Ice

Heavy accumulations of ice can disrupt communications and power for days while utility companies repair extensive damage. Even small accumulations of ice can be extremely dangerous to motorists and pedestrians. Bridges and overpasses are particularly dangerous because they freeze before other surfaces.

### The different kinds of ice include:

Sleet \* Freezing Rain \* Ice storm

### Winter Flooding

Winter storms can generate flooding, resulting in significant damage and loss of life.

\* Coastal floods \* Ice Jams ' Snowmelt

### Cold

Exposure to cold can cause frostbite or hypothermia and become life threatening. Infants and the elderly are the most susceptible.

### What constitutes extreme cold varies in different parts of the country:

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To find the best ways to prepare for a disaster, consider the following questions:

- What kinds of disasters may occur in your area?
- How are residents informed of possible disasters?
- What are the effects of disasters on you and your community?

Contact your local Red Cross chapter, your city/county emergency management office, or your local fire department. You can get information about the kind of disasters that happen in your area and how often they occur. Check with your insurance agent about whether your insurance policies cover the types of disasters that can happen where you live.

### Know the difference between a "watch" and a "warning"

The National Weather Service gives information to the public about some severe weather events, such as thunderstorms, winter storms, hurricanes, floods, flashfloods, and tornadoes.

Some events happen very quickly, so warnings may not be issued or you may not receive them. Always pay attention to the weather around you. Take action when you think severe weather may be moving into your area, even if no official warning is given on the radio or television.

### **November Birthdays**

It is time again to wish everyone of our special birthday members a very Happy Birthday.

N8WER... Kay Parise

KC8UVY... Henry Snyder Sr.

KC8VHC... Sue Wagner

K8KBB.. Ed Chopco Jr.

K8NTD... Buzz Firster

KC8RFU... Jack Sullivan

N8VOR... Bill Eckenrode



Here's wishing each of these members a hearty ARL FORTH SIX for their special day.





### CLUB

#### Committees

Awards: KC8LRH

Christmas Party: KD8FVI

Field Day: K8OUA and all WARA Members

Net: KC8RAL \*\*KC8YHJ \*\*KB8OVA \*\*KC8URX

Program Director: K8OUA

Property Custodians: KA8LCW historian, KC8PVB equipment

50/50: KD8BIB

Refreshments: KD8FVI

Sunshine (welfare): KC8YHJ

VE exams:

Web Master: KC8PVB

Public Information Officer:: KC8VHC

Hamfest: KD8BHR

Repeater: KZ8T

Newsletter: Editor KC8RAL \*\* KC8VHC,

\*\*Jeannie

\*\* Co-Chair

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## Winter Storms

### Continued from pg 2

- In the south, near freezing temperatures are considered extreme cold. Vegetation may be damaged and pipes may freeze and burst.
- In the North, extreme temperatures are well below zero.

### When talking about cold, you should consider:

Wind Chill \* Frostbite \* Hypothermia

## Warning signs of hypothermia include:

Uncontrollable shivering., Memory loss, Disorientation, Incoherence, Slurred speech., Drowsiness, and Apparent exhaustion.

The National Weather Service (NWS) Storm Prediction Center issues watches and warnings of hazardous weather, including winter storms.

### The key steps in winter storm preparedness are:

- Understanding the risk
- Preparing your home
- Servicing snow removal equipment
- Keeping your car's gas tank full
- Paying attention to warnings
- Staying indoors and dress

warmly

- Eating and drinking regularly
- Conserving fuel
- If outside, protect yourself form hazards

### Take measures to protect yourself if you must drive during a winter storm:

- Winterize your car before the winter storm season.
- Keep a cell phone or two-way radio with you when traveling in winter weather
- Keep a disaster supplies kit
- Plan long trips carefully and notify someone of you destination, route, and expected time of arrival.
- If you get stuck, stay with the vehicle

Check the forecast when venturing outside. Even colder temperatures often follow major winter storms.

Submitted by Assoc. Member Jeannie Allen , information from Disaster Survival Manual



### CLUB OFFI-CERS:

President: Gail Wells, KC8LRH 330-394-3560 kc8lrh@hotmail. com

V-President: Kenneth Williams , KC8TML

Treasurer: Betsy Williams, KD8BIB, treasurer@w8vtd.org

Secretary: Emily Wells, KC8RAL,330-394-3560, , kc8ral@yahoo. com

1st Yr. Trustee: Gary Grimes KB8GAB

2nd Yr. Trustee Sherman Davidson, KC8YHJ

3rd Yr. Trustee: Kenneth Williams, KC8TML



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### How the Repeater Works

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pass filter for each frequency and a notch tuned to each frequency. The isolation between these frequencies must be 60 db or more. Some of the most common problems with repeaters are failures of this task. Loss of receiver sensitivity and squawking are common. PL (Motorola patented name.) is one way to cover up squawking. Anything that feeds back the output to the input will cause these problems. PL is also very good for eliminating many other undesired signals. If PL is used the repeater transmitter is keyed by the presence of PL rather than squelch opening of the receiver.

The generic name for PL is sub audible tone. GE called their version Private Line. Sub audible tones are below the range we hear well but we can hear them. Most of the time, we do not actually hear these tones unless the level is too high. If PL is used, the receiver will have a decoder board. This decoder detects the presence of the exact frequency tone desired. The decoder board then sends a signal to the repeater controller, which makes the decision to turn on the transmitter.

All repeaters must have a method of controlling the repeater to be sure it works properly and stays within FCC rules. Most controllers are now microprocessor based. The controller is given a signal from the receiver telling the controller it is receiving a signal meeting our requirements. The controller then tells the transmitter to turn on and transmit audio being received from the repeater The controller is proreceiver. grammed with things like Identification (ID) and ID timers. Limit timer settings. (How long it will allow a station to transmit in one round of transmitting.) Ours is three minutes daytime and a minute and half late night. How long the transmitter stays on after the input signal goes away. (Tail timer.) Ours is set for five seconds. Touch Tone can also program the controller for things like turning off the repeater.

So lets say that w8xx Joe wants to talk to w8yy Mary using our 146.97 MHz repeater. Both transceivers are programmed to transmit on 146.37 MHz and receive on 146.97 MHz. Joe is mobile west of town, he keys his transceiver giving his call sign and Mary's call sign. His transceiver transmits this signal on 146.37 MHz. The repeater receives this signal and automatically retransmits it on 146.97 MHz. Mary receives this signal on her walky talky (Hand held transceiver.) located on the east side of town on 146.97, Mary then answers back using the same set of circumstances. So two Amateurs were able to communicate using conditions as if they were using a high gain antenna in a good location and 100 watts. Well almost.

Remote receivers can be used to fill in poor coverage areas or give low power stations better access. These receivers also listen on



Starting from top. Receiver for north link with cover removed. Receiver main site cover attached. Digital voice recorder, with Yaesu control receiver and soldering iron sitting on top. ACC controller with digital volt meter sitting on top. A paper with some notes and commands is taped to door.



From top, bottom half of cabinet. ACC repeater controller.

Voting panel. (Selects best of three receivers.) Receiver in a drawer for Newton Falls receiver. Fold out panel containing transmitter exciter, once also held receiver.

GE Power supply. AC voltmeter sitting on top. Duplexer is on the left.

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## Halloween Candy Warning

With Halloween fast approaching comes a warning to parents and kids regarding Sherwood brand Pirate's Gold milk chocolate coins imported from China .

The Canadian Food Inspection Agency is warning the public not to eat, distribute or sell the candy.

It is sold across Canada by Costco and may also have been sold in bulk packages or as individual pieces at various dollar and bulk

#### stores.

The chocolate contains melamine which is the same chemical responsible for killing several babies in China , and sickening thousands more.

Note: See pictures to the right of the candy coins....

http://www.snopes.com/food/warnin gs/coins.asp





### **Other Banquet Pic-**



### **Special Awards**

The Awards Banquet has come and gone leaving those that attended with a good feeling of camaraderie, and the enjoyment of the very good catered food from Aluzio's....The desserts for the banquet was provided by the great cooks of the membership...





Gail KC8LRH given Betsy KD8BIB, Treasurer Certificate, Sharon AB8ZT, Packard Certificate and Chris KC8BHR is giving a hamfest Certificate to Assoc. member Alice Davidson. Job well-done members and chairperson.

Now about the awards. most were the normal awards for the officers and chair men/women. Then came the awards that some of the members look forward too, and then some just wish they would go away and never be heard from again. To the left are a few of the official awards... There were just few of the more unusual а awards... Such as Betsy receiving the WAS Award.. (Worried About Special Award), Jackie KD8DNE received the Redneck Award for her rendition of 12 Days of Christmas (instead of 5 golden rings, she does 5 flannel shirts), then there was Reno Principi's KA8LCW Equipment Checklist Award for not checking his equipment for gasoline, so if you are

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## **Special Awards**

Continued from pg 6

curious about these awards please plan on attending the Banquet next year...

Now there was a few extra special awards given this year and they are as follows:

Peter Kozup K8OUA received Member of the Year Plaque...

Reno Principi KA8LCW received a 25 year membership Plaque...

And a very special Plaque went to Charles "Chuck" Simpkins KA8FUP on his retirement from Volunteer Examiner for the past 17 years for the Warren Amateur radio Association. He participated in a total of 63 Test Session starting June 7, 1990 and did his final one Sept. 23, 2007. congratulations to one and all for a great job ....

Gail Wells KC8LRH

**Special Awards Chairmen** 





Below : Chuck KA8FUP checking out his awards









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### How the Repeater Works

the input frequency. (146.37 MHz in our case.) The signals received by these receivers must be relayed back to the main site where the transmitter is located. We use UHF link transmitters, making a link somewhat similar to a repeater except this transmitter is only meant to be received by one receiver located at the main site. A device called a Voter is often used, and should be, to compare noise levels on various receivers and select the best signal to be repeated on the repeater output. During our transition period of changing from single site repeater to multiple receive sites this voting was our biggest stumbling block. Much time was spent making this process work. Due to improper voting our coverage actually decreased for a period of more than a year.

A personal note; after the initial contact we should consider only using your own call in order to shorten transmissions. Repeaters are a party line, many are listening and others may need to use the repeater, specially if there is some emergency or priority reason for traffic. Remember, the main reason for there existence are in these times of need.

Control operators monitor the repeater. (I hope.) These control operators are also responsible for keeping operations in line with FCC rules. The repeater controller can receive remote commands over its input or from a control receiver in order to insure compliance with the rules. Make no misContinued from page 5

take the Repeater Trustee and Repeater Control Operators are also responsible for the proper operation of a repeater. The FCC for improper operation of repeater users has sighted trustees.

Our repeater controller has a couple of features that might help users maintain their equipment. It can record and play back a user's audio. And it can read back decoded Touch Tones. (Duel Tone Multi Function or DTMF)

To test a user audio; Key your transmitter, speak your call sign, (The controller will not accept Touch Tones for the first four seconds.) send 4\*\*\*, un-key transmitter. The controller and Digital Voice Recorder will record the next transmission into the repeater and play it back. Key the transmitter to be tested and speak into the microphone, unkey. The repeater should play back your last transmission.

To test your Touch Tone pad; Key your transmitter, speak your call sign, enter Touch Tone digit 5 followed by other digits to be tested in one continuous transmission. For example; you want to test all the keys on your Touch Tone pad to see if they are being decoded by the repeater controller. Key microphone, speak call sign, enter digits 5 123456789\*0# in one continuous operation, unkey. The repeater controller will read back all the tones it decoded.

Dave KZ8T

**Repeater Coordinator** 



Starting from top.

Sinclair Four Pole.

Main repeater antenna. North link receiving beam.

Newton Falls receiving beam.

Control receiver receiving antenna.

Forty foot tower and guy lines



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#### Q МАТСН

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# November 2008

Sun	Mon	Tue	Wed	Thu	Fri	Sat
	l		I			1 Breakfast
2 Day light savings ends	3	4 WARA Meeting	5	6	7	8
9	10	11 Veterans day	12	13	14	15 Breakfast
16	17	18 WARA Meeting	19	20	21	22
23	24	25	26	27 Thanks- giving	28	29
30	WARA's 2 M net every Wednesday night on 146.970					70 at 9pm

### **Schedule of Events**

- November 1st ... Breakfast, Wayside Restaurant... 9 AM
- November 2nd... Daylight Savings Time Ends (Clocks Back)
- November 3rd ...Brunch.. West. Farmington Senior Center 10:30 AM
- November 4th ... Election Day / WARA Meeting, First United Methodist Church ,7:30
- November 10th ...Brunch.. West. Farmington Senior Center 10:30 AM
- November 11th... Veterans day / Remembrance Day (Canada)
- November 15th ... Breakfast, Wayside Restaurant... 9 AM
- November 17th...Brunch.. West. Farmington Senior Center 10:30 AM
- November 18th...WARA Meeting, First United Methodist Church ,7:30
- November 24th ...Brunch.. West. Farmington Senior Center 10:30 AM
- November 27th... Thanksgiving Day



www.kc8pvb.com (mirror site) www.w8vtd.org (under construction) WARREN AMATEUR RADIO ASSOCIATION P.O. BOX 309 WARREN, OHIO 44483

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The Q-Match is the official newsletter of the Warren Amateur Radio Association, **Inc** ~copyright © 2008. Send in any items such as shop-n-swap, birthdays, anniversaries, or any articles that might be of interest to the membership. The Q-Match comes out on the first of each month (generally), so have your submissions to me by 8 pm on the third Friday of the month. You have our permission to steal this newsletter but please do not modify it. If you use any material in our newsletter please give credit to WARA, the author, and the original publication, if given. ~Newsletter contact: kc8ral@yahoo.com...

Founded In 1938, The W.A.R.A. Has Been An Anchor For Amateur Radio Enthusiast Throughout North East Ohio. For The Past 70 Years We Have Encouraged Young And Old Alike To Enjoy Themselves While Participating In An Interesting And Truly Wonderful Hobby. We Hope That You Too Will Find Yourself Swept Up In The Spirit Of Ham Radio



Bob Maurer has the following items for sale; 150 Ft. Grand Coax

Cushcraft A35 2-/15/10 Meter Add-on (and control cable)

Yaesu G-450A Antenna Router and Controller

Included is the tower it is on. This must be taken down.

Price for all is \$500.00

Contact Bob At : rmaurer@sprynet.com