



WCARS.org  
February 2012

*The Official Publication of*  
The Western Carolina Amateur Radio Society, Inc

### President's Microphone

There seems to be a lot of serious illness running through the club so if you will in the way you do please remember the club members in your prayers and thoughts.

If you have an idea for a meeting program please help Russ for a couple of months while he recovers and put on a program.

Very good meeting in Feb thanks for coming out.

### Meeting Minutes for February 9, 2012

The February 9, 2012 meeting of the Western Carolina Amateur Radio Society was called to order at 1934 hours by Scott McCabe W4IYS, Club President.

He invited everyone to join him in the Pledge of Allegiance to the Flag.

Each attendee was invited to introduce themselves by name, call-sign (if any), and QTH. A sign-in sheet was passed around to everyone.

The Minutes of the previous meeting were published in SMOKETEST (club newsletter). No changes or additions were presented and the Minutes stand as published.

**Meeting for March is on the 1st  
W. Asheville Library  
7:30 PM**

### INCLEMENT WEATHER NOTE

**Club meetings are subject to the following:**

**Should Buncombe County offices close due to inclement weather, the library will close. If that happens, our meeting will be canceled.**

### BCARES - Update

By Carl Smith, N4AA, EC Buncombe County

I am pleased to report that BCARES is off to a fine start for 2012. Our first meeting was January 19th at the Classroom/Operating room at the EOC.

Thirteen members attended and were given a "tour" and a thorough explanation on the TAR HEEL EMERGENCY NET (THEN) by the net manager Mark, KD4IMA. This was followed by a demonstration by Tommy, K4BNP using the BCARES HF Radio (Ten Tec) to check into the net on 3923 at 7:30, as NN4BC. The use of that call on the net brought several comments but did establish the fact that we could do it if and when needed. Thanks to Mark for his excellent explanation and response to questions from the attendees.

## Meeting Minutes for February 9, 2012

The Treasurer, Steve Emory N4SET presented the Treasurer's Report for the period of January 5-February 8.

Scott relayed information from Dean Blair about Ms. Eleanor Maxwell who became a silent key. Ms. Maxwell was the XYL of Robert Glenn "Max" Maxwell K4TAM. Both were members of WCARS.

Scott announced that the net on 3.923 (1830hrs) was needing check-ins from western NC to send and receive traffic into our area.

Scott also announced that 60 meter rules (new) go into effect on March 5 and invited everyone to check QRZ.com for more information.

Field Day information is now available and will be published in SMOKETEST. Field Day will be the last weekend in June (June 30) and is planned for the Fireman's Training Center (same site as last year).

Norman Harrill N4NH announced that due to medical reasons, he would be going to Baltimore when the new ham classes start. Steve Emory N4SET will be starting the classes as scheduled. Keep Norman in your thoughts and prayers.

John AD8J presented information about taking FEMA courses to enable you to operate from an EOC in the state.

Scott announced that Russell (WCARS VP) is recovering well from a stroke. Add him to your thoughts and prayers as well. Ideas for future programs for WCARS meetings are being invited/requested. Present your ideas to Scott.

## BCARES - Update

By Carl Smith, N4AA, EC Buncombe County

The group was then given a demonstration on setting up the VHF/UHF radios purchased last year. We have capability from the EOC to operate on HF, 2 meters, 220 and 440 and expect to have a packet capable station this year. Each radio is colored coded to match a "desk" and an antenna connection on the patch panel mounted on the outside wall. Each radio was tested to determine its capability to access various repeaters. A test was conducted with our "sister group" at Hendersonville Red Cross to determine the capability of communicating between Asheville and Hendersonville using SIMPLEX or various repeaters.

During the next year we will be having one meeting each quarter at EOC to stay familiar with the site, the equipment and the procedures to be used when we are called upon.

Our **next meeting** will be held at the **Red Cross building off Merrimon Avenue** in North Asheville, **February 16th at 7-PM in room 214**. As usual, you may enter the door at the back of the building. For those not familiar with the location, turn off Merrimon onto EDGEWOOD ROAD, come approximately 100 yards and turn right into parking lot (thru the gate), then turn left. Come around the building and go to the far end to park. The entry door is near the end of the building. Come thru the two doors and turn right down the hall. Room 214 will be on the left. We will meet for 1 to 1-1/2 hours.

Newcomers are welcome to join us for this meeting. We have some upcoming activities to discuss and we're looking for volunteers, especially for an event in MAY.

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See map on last page for location and directions.

## Meeting Minutes for February 9, 2012

The door prize (WCARS coffee mug) was won by Buddy N4GMR.

Future WCARS meetings are scheduled for March 1, April 4, and May 24.

Tickets for the 50-50 drawing were sold prior to the meeting (50 % of the proceeds go as the prize and 50% go into the club treasury for projects).

The winner of the 50-50 drawing was won by Norma KD4OKU.

There being no further business, the meeting was adjourned at 2017 hrs with refreshments and fellowship following.

SUBMITTED BY BOB DOCKERY - WD4CNZ,  
WCARS SECRETARY

## Technician Licensing Class

**TECHNICIAN** Licensing Class  
begins **February 14**

This is the entry level licensing with no code requirements with only basic math skills needed.

Classes will be held each Tuesday and Thursday evening until exam night at the end of the class.

**6 - 9 PM at AB Tech,  
Victoria Road, Asheville  
Elm Building, Room 314**

For information & registration contact:

Steve Emory  
n4set.wnc@gmail.com  
828-658-0261 (After 4-PM weekdays)

## WCARS / VEC Exam Schedule

**Asheville** - AB-TECH, Rm 134, Elm Bldg

**9:00 AM on the THIRD SATURDAY of:  
January, April, July and October**

VE Team Leader: Bob Helton - KS4FX  
Phone: 828-684-0249

**2:00 PM on the THIRD SUNDAY of:  
February, May, August and November**

VE Team Leader: Steve Lankford - AG4BY  
Phone: 828-768-2141

**Burnsville** - Yancey County Library

Contact:

VE Team Leader: David McCarty - W4TDM  
Phone: 828-657-1044

**Marion**

Contact:

VE Team Leader: Harriet Fullbright - K4ICU  
Phone: 828-291-7521

**Rutherfordton** - Isothermal College

Contact:

VE Team Leader: Bruce Tessineer - AD4OJ  
Phone: 828-657-5464

**Waynesville**

Contact:

VE Team Leader: Al Sanders - WD4A  
Phone: 828-926-8244

**Weaverville** - Reems Creek FD

9:00 AM on the First Saturday of:

April, July, October and December

VE Team Leader: Harley Bullman - AJ4PI  
Phone: 828-645-0889

**For other locations contact:  
Norman Harrill  
N4NH@arrl.net / 828-253-1192**

## Antenna Project

Design exercise: an 80-foot 75-m dipole antenna  
by Dick Smith, W4ZQV

I attended a meeting of Buncombe County ARES (BCARES) recently, and realized the importance of the 75-m SSB Tarheel Emergency Net, which meets daily at 7:30 pm at 3.923 MHz. “Uh-oh,” I thought, “I’ve got a problem.” No 75-m antenna. My house is on a small lot, and the neighborhood Homeowners Association is pretty strict about what can be installed outside. Not much chance of raising a 119 ft halfwave dipole outside.

So I began the design process to squeeze a center-fed dipole into the attic, using loading coils to shorten the dipole legs to fit the 84-foot available space. The antenna will install at only 15 feet ( $1/16 \lambda$ ) above ground level, so it’ll operate as a Near Vertical Incidence Skywave (NVIS) radiator. For an antenna so near the ground, radiation is launched nearly vertically and on reflection reaches the ground out to a radius of maybe 400 miles. Bad for DX operation, but perfect for use with the Tarheel Net.

### INCREASING THE ELECTRICAL LENGTH

I chose 80 feet for the length of the shortened dipole, allowing a few feet for insulators and attachments. This physical length is shorter on 80 m than the resonant half-wave length of  $\lambda/2=119$  ft, and the antenna impedance at the center feed point is capacitive, as discussed in the *ARRL Antenna Book, 22nd Edition, Ch. 2*.

The impedance can be moved toward the pure resistance characteristic of a resonant antenna by adding a compensating inductance in each leg of the dipole. This inductance is called a *loading coil*, and by transforming the feedpoint impedance from capacitive to pure resistive, the antenna becomes resonant at the driving frequency. The transmitter thinks it is driving a resonant 119 ft antenna!

### HOW MUCH INDUCTANCE?

The amount of inductive reactance to be added increases as the loading coil is moved away from the feed point. At the same time, it’s desirable to maximize the Q (ratio of reactance to resistance) of the coil so as to reduce the amount of RF power in the antenna which goes into heat and not into radiation. With all these variables, it’s helpful to use a comprehensive calculation program such as the one found at <http://www.k7mem.com>.

Using this program and an operating frequency of 3.900 MHz, the midpoint of the General Class 75-m band, I chose a coil installation point 28.0 ft from the center feed point, at which point the required inductance is 39.7  $\mu$ H. Identical coils are to be inserted into both dipole legs.

# Antenna Project

## DESIGNING THE COILS

There are many combinations of coil length, diameter and number of turns which will produce an inductance of  $39.7 \mu\text{H}$ . I was interested in choosing a combination which would maximize the Q of the coil, as noted above. Such a coil is obtained when the length of the loading coil is half the diameter,  $L/D = 0.5$  (*ARRL Antenna Book, 22 Ed.*, p 21-8).

The K7MEM website cited earlier also includes a good coil design program, the results of which are:  $D = 2\text{-}3/8''$  (2" PVC),  $N = 26$  closed-packed turns of #16 AWG enameled wire, resulting in a coil length of  $L = 1\text{-}7/16''$ .

## FEED POINT IMPEDANCE

The feed point impedance of a halfwave dipole in free space is 72 ohms when driven at its resonance frequency. Thus if it's fed with 50-ohm RG-8X coax, the mismatch is only moderate, resulting in a SWR of only  $72/50 = 1.4$ , a figure which can easily be lowered through use of an antenna transmatch at the transceiver. But the resonance is fairly narrow, resulting in need for retuning when the operating frequency departs significantly from its design point.

## FURTHER STUDY

It is apparent that antennas are one big hairy challenge, and I've only scratched the surface here. There is a huge amount to learn about loading coils and their effect on current flow in the antenna. Also, I'm particularly interested in understanding the role of baluns and common mode chokes when a coax feedline is connected to a balanced dipole. I hope to describe these studies in a future edition of *Smoketest*.

## ACKNOWLEDGMENT

I'm grateful to Carl, N4AA, for a very useful discussion on this subject.

## 2012 WCARS Dues

Reminder to club members that WCARS Dues were due in January, if you have not yet renewed please take a moment to fill out the membership form included in this edition of Smoke Test and submit it to Steve - N4SET.

Smoke Test is a club members' publication and your name will be removed from the mailing list if you do not renew your membership.

If you were at the February meeting and renewed your Dues on Feb. 9, 2012, Steve - N4SET has requested that you contact him by email or phone.

To contact Steve:

n4set.wnc@gmail.com  
828-658-0261 (After 4-PM weekdays)

## NC QSO Party 2012

By Dean - K2JB

WCARS will participate in the NC QSO Party on Feb. 26 operating from the EOC Training Room at the Buncombe County EOC. The contest hours are from 12:00 Noon until 10:00 PM. This is an opportunity for technician license holders to operate low band under the W4MOE call. Come out and get a taste of contesting and low band operation as we compete with other clubs in North Carolina during the NC QSO Party. Contest information is available at:

[www.w4nc.com/qso\\_party\\_2012.htm](http://www.w4nc.com/qso_party_2012.htm)

## Field Day 2012

By Carl Smith, N4AA, EC Buncombe County

As the EC, I have volunteered to Chair Field Day again this year. It will be held at the same location as 2011, the County Fireman Training Center. Reservation has already been made.

We should have access to all the facilities we had for 2011, and more if I can think of anything we didn't have last time. Field Day will be The last weekend of JUNE....please mark your calendars. I can tell you that 40 and 20 meters are spoken for this year, but all other bands are open for anyone to volunteer for.

## Hamfest 2012

Update by Randy - KI4VLW

Vendors that are confirmed to attend the Hamfest are:

AC/DC Electronics  
DEBCO  
DBJ Electronics  
TAW Electronics  
Ham World  
The Wireman  
Satellite Sam

We still need volunteers to help out with the Hamfest, please contact Randy - KI4VLW at 828-298-6685 or e-mail [rtsp71@aol.com](mailto:rtsp71@aol.com).

## Meals on Wheels Relay

The Meals of Wheels Relay is coming up in May

More information about who to contact for volunteering will be available at a later date.

## JOTA 2012

The Boy Scout Jamboree On The Air will be held on October 20 - 21, it is far off now but it will be here before you know it, now is a good time to start thinking about how you can help out.

## For Sale

Ameriton AL-811 amp 600 Watts \$450.00 in good condition. Anyone interested should contact Lewis McCracken - WA4MTY at 828-627-2400.

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Putting up a beam and need a rotor/control unit?

I have a Hy-Gain rotor and control unit sitting on my bench and do not need it! Free to new ham or any ham putting up/planning to put up a beam and needs such!

Call Bob Dockery - WD4CNZ  
(828) 254-0513 you pick up unit

## From the Editor

This past month has had quite a lot happening, from the 1st BCARES meeting of 2012 which went really well to James McNichols' - KK4ETE, senior project of tracking a weather balloon with ARPS.

Dean - K2JB has arranged for James to speak to WCARS at a future time, be sure to come out and show support.

Just a reminder to WCARS members that the WCARS information net is held every Monday at 9 PM all are welcomed to call into the net.

And on Wednesday nights at 9 PM BCARES net is held, members are encouraged to call in and participate. If you are monitoring and the net is not called after a couple of minutes have passed with no one starting the net; you are encouraged to call the net and make a log of call ins. This is good practice in case there is a real emergency where the usual operators are not able to call the net.

If you have something you would like to send to Smoke Test please send it to [kk4brd@gmail.com](mailto:kk4brd@gmail.com).

## Notable Key

W9YZE - Harry A. Turner, held the Morse code speed record at 35 words per minute with a hand telegraph key on November 9, 1942, while serving in the U.S. Army Signal Corps; during this time he was listed in the Guinness Book of Records beginning in 1981.

## Silent Key

It is with sadness that we report that Eleanor Maxwell, WD4AWH (A Woman Ham) became a silent key on Feb. 5, 2012. Eleanor was a WCARS Member all throughout the 80's and 90's and assisted her husband, Glenn Maxwell, K4TAM (SK) in calling the Bay Window Net (Now Good Morning Net) on 146.760 on Monday-Wed-Fri mornings at 9:00 AM. Glenn and Eleanor were both widowed for a number of years and became acquainted via Amateur Radio. Their relationship blossomed on the air and it was a joy to hear them converse in a polite but affectionate manner that is seldom heard anywhere. They eventually married and were a staple at Hamfests where Glenn sold his many hand-carved ducks and birds. Check Citizen-times.com for funeral arrangements.

Dean - K2JB

### **Eleanor Maldaner Maxwell**

(December 10, 1917 - February 5, 2012)

Columbus, N.C. – Eleanor Winkle Maldaner Maxwell went to be with the Lord on February 5, 2012, trusting in the promise found in God's Word: "And this is the record, that God hath given to us eternal life, and this life is in his Son. He that hath the Son hath life; and he that hath not the Son of God hath not life." 1 John 5:11,12

Born December 10, 1917 in Evanston, IL, she was the daughter of the late Edward and Julia Winkle. She was the widow of William H. Maldaner to whom she was married for 37 years and Robert Glenn Maxwell (K4TAM) to whom she was married for 10 years. Eleanor was an amateur radio operator (WD4AWH) and had resided in Polk County for the past 36 years. She attended Midway Baptist Church.

Surviving are two sons, Richard Maldaner (Candace) of Deerfield Beach, FL and Gary Maldaner (Cathy) of Columbus, NC; two brothers, Leonard Winkle (Bonnie) of Phoenix, AZ and Robert Winkle of Milwaukee, WI. Also surviving are 6 grandchildren and 4 great-grandchildren. She was preceded in death by three sisters, Grace Winkle, Marjorie Elkjer and Lorraine Hallock.

Funeral services will be held 2:00 p.m. Wednesday, February 8, 2012 in the McFarland Funeral Chapel with Rev. Gary Lockee and Rev. Nathan Deatruck officiating.  
Burial will be private.





## The ARRL Letter

Materials in the ARRL Letter are taken from The ARRL Letter online, full credit is given to The ARRL Letter and the American Radio Relay League, as per republication guidelines require.

<http://www.arrl.org/arrlletter>

### **Public Service: Hams in Arkansas and Alabama Help Provide Assistance to NWS During Severe Sunday Storms - January 26, 2012 issue**

Strong winds and tornadoes moved through Arkansas and Alabama on Sunday, January 22. In response to the storms, the National Weather Service office in Little Rock activated Arkansas SKYWARN the same afternoon, while ARES<sup>®</sup> members were activated in parts of Alabama.

Arkansas SKYWARN Program Coordinator Danny Straessle, KE5WLR, summoned a team of radio amateurs and headed to the NWS office to provide communications support to the forecasters. While Straessle was enroute to the NWS office, Daryl Stout, AE5WX, brought up the Weather Watch Net, a pre-net for Arkansas SKYWARN. By 6 PM, the Arkansas SKYWARN net control team was in place and the NWS issued the first tornado warning for the area. At this time, Straessle and Shane Lee, KF5FBR, took over as Net Control for the Arkansas SKYWARN net. They were assisted by Mona Blacklaw, KM5ONA. The NWS received reports of tornadoes in Arkansas, Dallas, Lonoke, Prairie and Cleveland Counties.



In addition to activity by Arkansas SKYWARN, ARES<sup>®</sup> members in Alabama also helped to provide communications support in that state. According to David Gillespie, W4LHQ, of the Jefferson County Emergency Management Agency, hams across Central Alabama began monitoring the storm conditions in preparation for a possible activation. "Hams deployed to the National Weather Service office to relay storm observations and damage reports," he told the ARRL. "When the NWS issued a tornado warning that evening, local ARES<sup>®</sup> members began an emergency communications net. Net Control logged reports from 34 stations through the night. When the storms cleared, these damage reports were used to dispatch first responders to the areas that sustained the most severe damage." Fourteen hams reported to the Jefferson County EMA, where Gillespie coordinated communications for three shelters run by the American Red Cross.

Willie Gillmore -- a meteorologist at the National Weather Service in Little Rock, Arkansas -- watches storms develop in Grant County. [Photo courtesy of Arkansas SKYWARN]

## **Arkansas**

“In Arkansas, darkness fell as activity picked up, most of which was south and east of Little Rock, in the less-dense populated areas of the Delta region of the state,” Straessle told the ARRL. “In the dark, it was extremely difficult to see storm development and more so dangerous to try and spot it. Arkansas SKYWARN relied upon certified Amateur Radio storm spotters from the area to be the eyes and ears of the National Weather Service. Troy Singleton, N5ARK, was the most valuable player of the entire night. Troy was raised in Southeast Arkansas and knew the area like the back of his hand, which was instrumental in his safe navigation of the farm roads in the area to safely spot developing tornadic supercells.”

Straessle said that at times, the only information coming from that part of the state came from Singleton, and both Arkansas SKYWARN and the forecasters at the Little Rock NWS office were glad to have them. “A little further to the east, in Arkansas County, members of the Grand Prairie Amateur Radio Club collected weather reports through a simplex net,” Straessle explained. “Club members relayed the reports to their president Randy Geater, K5NDX, who in turn relayed to Arkansas SKYWARN at the National Weather Service.”

According to Straessle, a rain-wrapped tornado headed toward Geater and his crew, and they had to seek shelter in the Country Sheriff’s bunker for about 20 minutes: The tornado was completely rain-wrapped and all they could see were power flashes as the tornado took down high-voltage transmission lines.” The storms quickly moved out of the Little Rock County Warning Area and left the state around 10 PM. Shortly after this, Straessle closed the Arkansas SKYWARN net. In all, more than 60 radio amateurs were involved with providing reports during the storm.

According to the Little Rock NWS office, the day in Arkansas started out pleasant. “It did not look at all like a severe weather day early on January 22,” the NWS office in Little Rock noted on its website. “Temperatures at 6 AM CST were mostly in the 30s to lower 40s, and there were areas of fog and drizzle. Even so, forecasts called for dramatic changes and severe storms by evening. One storm in particular had a history of producing tornadoes over at least a five-county area. The storm moved through Fordyce (Dallas County), where a tornado (rated EF2) damaged houses on the north side of town. A woman was trapped for a time in one of the homes. The storm caused structural damage north of Kingsland (Cleveland County), and hit a 150 year old church. North of Rison (Cleveland County), the storm snapped dozens of trees. Farther northeast along the storm track, there was evidence of tornadoes at Sweden (Jefferson County), near Lodge Corner (Arkansas County) and south of Almyra (Arkansas County). At the latter location, a transmission tower was mangled and lines were downed. There may have been more than a half-dozen tornadoes spawned during the event.”

## **Alabama**

In Alabama, a number of tornados swept across the state during the early hours of Monday, January 23, 2012. “Tuscaloosa County had minimal structural damage in the northwestern part of the county, with Jefferson County had a lot of destruction centered in the Center Point area,” explained ARRL Alabama Section Manager David Drummond, W4MD.

“The National Weather Service issued a tornado warning for these areas around 2:30 AM. ARES® members in Jefferson County stood up a net on the Birmingham ARC repeater, taking reports from 34 check-ins. Once the storm was clear, these reports were used by the Homewood Police Department to dispatch first responders. ARES® volunteers responded to the Jefferson County EMA to coordinate shelter communications.” Homewood is a suburb of Birmingham.

Drummond said that the Alabama Emergency Response Team (ALERT) in Jefferson County supports Amateur Radio communications for the National Weather Service and they deployed members on Sunday evening in response to a tornado warning. “ALERT members collected spotter reports from area ARES® nets that the forecasters at the National Weather Service used to refine their forecast,” he said. “In addition, the Sylvan Springs Amateur Radio Club stood up a net at 4:30 AM, with a number of check-ins providing reports and health and welfare messages. As the day progressed Monday, local nets went to a stand-by mode, with KF4OUS -- the Amateur Radio Station at the Jefferson County Emergency Management Agency -- monitoring traffic and forwarding information for shelters and response volunteers. The hams in Alabama, particularly Jefferson County, are to be commended for their commitment and service to their served agencies. They provide a public service that is invaluable. A job well done!”

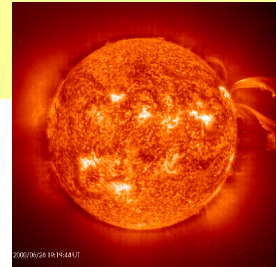
ARRL Delta Division Director David Norris, K5UZ, commended the hams in Arkansas, saying “Those radio amateurs involved with Arkansas SKYWARN have done yet another exemplary job during this severe weather outbreak. It’s good to know that hams in Arkansas and throughout the Delta Division are quick to respond when called upon to provide communications support.” Norris lives in Batesville, Arkansas, in the northern portion of the state.

Arkansas Section Manager Dale Temple, W5RXU, concurred: “I want to congratulate all the people who help provide communications support and weather spotting assistance during the extreme weather conditions on Sunday night. Troy Singleton, N5ARK, did a fantastic job. He was out there in his truck in the dark, caught between two tornados. He could only see them when the lightning flashed. Troy’s vehicle is equipped with APRS, and the hams at the National Weather Service office were able to track him through this. This was really helpful to the forecasters, as they could see, via APRS, right where the activity was that Troy was reporting.” ARRL Southeastern Division Director Greg Sarratt, W4OZK, said he was proud of the radio amateurs in Alabama who assisted served agencies in the state. “Alabama Amateur Radio operators spent the night in EOCs, National Weather Service offices and their homes to once again provide vital emergency communications in time of need,” he said. “Tornados, severe winds and deadly flooding gripped Alabama throughout Sunday night, and on Monday, caused devastation, hundreds of injuries and two fatalities. Many amateurs continue to volunteer and will not have time to rest before the next round of severe weather is expected later this week. I am proud of ARES® and the amateurs who stepped up to help people in need and for the offers from surrounding areas to help. Thank you.” Sarratt lives in Huntsville, Alabama, about 100 miles north of Birmingham.

“Spotter reports are crucial and the National Weather Service relies on radio amateurs to provide ‘ground truth’ reports to refine their forecasts and relay better information,” Gillespie told the ARRL. “Alert ARES® members relayed reports overnight to support that effort.”

The Arkansas SKYWARN net is streamed live on a RadioReference feed provided by the Central Arkansas Radio Emergency Net (CAREN Club).

# Solar Weather



NOAA Solar Forecasts

**Sunspot Number: 33**

Updated at: 2012 Feb 09 2200 UTC

**Spotless Days**

Flare	0-24 hr	24-48 hr
Class M	05%	10%
Class X	01%	01%

Current Stretch: 0 days  
 2012 total: 0 days (0%)  
 2011 total: 2 days (<1%)  
 2010 total: 51 days (14%)  
 2009 total: 260 days (71%)

Geomagnetic Storms

Since 2004: 821 days  
 Typical Solar Min: 486 days  
 Updated 08 Jan 2012

Mid-latitudes	0-24 hr	24-48 hr
Active	30%	05%
Minor	10%	01%
Severe	01%	01%

**Interplanetary Magnetic Field**

$B_{total}$ : 3.5 nT       $B_z$ : 1.7 nT north

High-latitudes	0-24 hr	24-48 hr
Active	40%	10%
Minor	20%	05%
Severe	01%	01%

**The Radio Sun**

10.7 cm flux: 99 sfu

HF Conditions	Day	Night
80 m - 40 m	Fair	Good
30 m - 20 m	Good	Good
17 m - 15 m	Fair	Fair
12 m - 10 m	Poor	Poor
VHF Conditions	Day	Night
Aurora	Band Closed	Band Closed
6 m EsEU	Band Closed	Band Closed
4 m EsEU	Band Closed	Band Closed
2 m EsEU	Band Closed	Band Closed
2 m EsNA	Band Closed	Band Closed
EME Deg	Good	

# ***SMOKETEST***

*Official publication of the*

## **Western Carolina Amateur Radio Society, Inc.**

**PO Box 1488, Asheville, NC 28802**

**www.wcars.org**

**W 4 M O E**

**Repeater: 146.91 (PL-91.5)**

**Spivey Mountain, Asheville, NC**

### **2012 OFFICERS**

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**HF/VHF/UHF Net Information**

<b>NET NAME</b>	<b>Freq offset / PL</b>	<b>Day</b>	<b>Local time</b>	<b>Notes</b>
6600	145.190 +	Saturday	9-PM	Many check-ins-Wide area coverage
Blue Ridge Traffic	146.610 -	Nightly	9-PM	ARES/Skywarn in bad weather
BRARC	146.640 - 91.5	Sunday	9-PM	
Buncombe Cty Emerg. Mgt.	146.910 - 91.5	Wednesday	9-PM	Directed net, ARES/RACES
Carolinas Net - Early	3.573	Daily	7-PM	CW Traffic
Carolinas Net - Late	3.573	Daily	10-PM	CW - 15-18 WPM Traffic
Carolinas Net - Slow	3.571	Daily	8-PM	Slow CW - 8 to 10 WPM Traffic
Franklin, NC - Winesprings Bald	147.240 + / 151.4	Daily	9-PM	
Good Morning	146.760 -	M-W-F	9-AM	Informal, Everyone welcome
Haywood County Roundtable	147.390 + 94.8	Monday	8-PM	Informal, Everyone welcome
K4UUQ Morning	7.228	Daily	7-AM	Ragchew
Madison Cty-AmRadComTeam	224.660 100	Tuesday	9-PM	Madison County Emergency Comm
Mount Mitchell 220	224.540	Monday	8-PM	Informal, Everyone welcome
Mount Mitchell Ragchew	442.225 + 107.2	Monday	9-PM	Directed, Everyone welcome
Mount Mitchell Sunrise Net	442.225 + 107.2	Thursday	9-AM	Informal - Everyone welcome
Mount Pisgah 220	224.260	Sunday	9-PM	Informal, Everyone welcome
NC Evening Traffic	3.923	Daily	6:30-PM	SSB
NC Morning Traffic	3.927	Daily	7:45-AM	SSB
Oasis Shrine Radio Corp.	145.190 +	Sunday	9-PM	
SATERN	14.265	Daily	3-PM	Salvation Army Team-Emergency
Tarheel Emergency Net	3.923	Daily	7:30-PM	Directed, NC Emerg. Mgt - Traffic
Volunteer	147.180 + 136.5	Friday	9-PM	Info, News and Swap
WCARS Information	146.910 - 91.5	Monday	9-PM	Informal, Everyone welcome
???	224.600			WB4PLA on Spivey Mtn. ???
W4YK	53.630 - 100	Friday	9-PM	???
Traders Net	147.05 - 91.5	Tuesday	9-PM	
Skywarn	145.27 - 91.5	As Needed		
SC Hearts / NC Hears / SW VA Net	444.250 - 91.5	Daily	8-PM	
NC Hears	444.250 - 91.5	Daily	9:30 PM	
K4MFD Greenville - 440	444.200 + 173.8			Located on Bald Mtn. N. of Asheville
K4MFD Greenville - 6 Meter	53.400			Located on Bald Mtn. N. of Asheville Linked to N2GE 224.660 & KI4DNY 224.600 fulltime
Blue Ridge Weather Watch	145.190 +	T-T	9-PM	Directed net, Skywarn, everyone welcomed

# WCARS MEMBERSHIP INFORMATION SHEET

\_\_\_ Full \$20 \_\_\_ Family \$30 \_\_\_ Student \$5

All information is requested to assist the officers and committee chairpersons in planning activities, programs and community service communications needs. If you so request by checking the appropriate space, the information in Section 1 will also be kept confidential and your call and/or e-mail will not appear in the WCARS roster when published. Article VI of the clubs By-Laws prescribes pro-rated Dues: = Annual dues amount divided by 12, multiplied by the number of months remaining in the year.

## I. PERSONAL INFORMATION:

NAME: \_\_\_\_\_ CALL: \_\_\_\_\_

MAILING ADDRESS: \_\_\_\_\_

STREET ADDRESS: \_\_\_\_\_ HOME PHONE: \_\_\_\_\_

CITY: \_\_\_\_\_ STATE: \_\_\_\_\_ ZIP: \_\_\_\_\_

EMAIL \_\_\_\_\_ All Smoke Test's now via e-mail

CHECK FOR NON-PUBLICATION OF CALL \_\_\_ OR EMAIL \_\_\_ ARRL Member? Yes ( ) No ( )

## II. LICENSE AND OCCUPATIONAL INFORMATION

CLASS OF CURRENT LICENSE (CHECK ONE): \_\_\_ TECH \_\_\_ GENERAL \_\_\_ ADVANCED \_\_\_ EXTRA

YEAR OBTAINED \_\_\_\_\_ YEAR FIRST LICENSED \_\_\_\_\_

PREVIOUS CALLS HELD: \_\_\_\_\_

EMPLOYER: \_\_\_\_\_ WORK PHONE: \_\_\_\_\_

OCCUPATION: \_\_\_\_\_

## III. COMMUNICATION CAPABILITIES

P-PORTABLE M-MOBILE F-FIXED

\_\_\_ 160 \_\_\_ 80 \_\_\_ 40 \_\_\_ 20 \_\_\_ 15 \_\_\_ 10 \_\_\_ 6 \_\_\_ 2 \_\_\_ 220 \_\_\_ 440 \_\_\_ PACKET/DIGITAL

OTHER: \_\_\_\_\_

I PREFER: \_\_\_ CW \_\_\_ FM \_\_\_ OSCAR \_\_\_ PACKET \_\_\_ RTTY \_\_\_ SSB

POWER OUTPUT: HF BANDS: \_\_\_\_\_ WATTS VHF BANDS: \_\_\_\_\_ WATTS

EMERGENCY POWER AVAILABLE: \_\_\_ BATTERY \_\_\_ GENERATOR \_\_\_ SOLAR

## IV. I AM INTERESTED IN PARTICIPATING IN THE FOLLOWING:

\_\_\_ ACTIVITIES SUPPORT TEAM \_\_\_ PROGRAM COMMITTEE

\_\_\_ EDUCATIONAL COMMITTEE \_\_\_ PUBLIC SERVICE COMM.

\_\_\_ ELMER PROGRAM \_\_\_ RFI / TVI PROGRAM

\_\_\_ EMERGENCY COMMUNICATIONS \_\_\_ SMOKETEST ARTICLES

\_\_\_ FIELD DAY TEAM \_\_\_ SPECIAL EVENTS

\_\_\_ HAMFEST COMMITTEES \_\_\_ VE PROGRAM

\_\_\_ MEMBER ASSISTANCE COMMITTEE \_\_\_ MEMBERSHIP COMMITTEE

OTHER \_\_\_\_\_

DATE \_\_\_\_/\_\_\_\_/\_\_\_\_

Received From: \_\_\_\_\_

(Member/Sponsor Name)

Membership dues for the year: \_\_\_\_\_ AMOUNT: \$ \_\_\_\_\_

RECEIVED BY: \_\_\_\_\_, \_\_\_\_\_, \_\_\_\_\_  
(Officer's Name) (Title) (Call Sign)

# Map to Red Cross Building

