



WCARC News

July 2005

www.wcarc.com

NVIS HF Antenna Fun

By Stuart Rohre, K5KVH

Try NVIS Mode for Something Fun During Low Sunspots and to reduce Summer Static Google "NVIS propagation" and you will get lots of information about this interesting and useful mode.

What is not described, is that on an NVIS 80m dipole over a chain link fence, Austin FD Station A was able to work skip and NVIS during late night. Coast to coast contacts were repeatedly made with this antenna.

This was an amazing experience. Signals varied in strength, but seemed to not dip below S5-6. IF a station was S5-S6 you could work him, even if the noise was higher on conventional antennas! As long as you could make out the calls, it seemed they would come back to you. The noise level was reduced as was thunderstorm summer static on the NVIS dipole. Estimates of S/N improvement over a conventional antenna were up to 20 dB!

The only complication in using this mode is the decrease in your dipole's impedance at center when fed there, with the dipole is low to the ground. Over a conductor, such as a reflector wire, or a wire fence, it seems the typical impedance is 15 ohms and with some reactance, thus a tuner is indicated.

However, upon reflection about this low impedance, (which needed a stub of two parallel coaxes to bring up near 41 ohms), I came to realize that use of a folded dipole antenna element might be just the thing to forego making stubs. Consider that the 15 to 25 ohms was in a 4:1 range below the needed 50 ohms to match a coax line with tunable SWR, (say 2:1 or less). It seems you could use 300 ohm line to good advantage. That is going to be my next NVIS antenna experiment.

A folded dipole element for 40m will be erected near the top rail of my six foot wood privacy fence. Then, I will see what its impedance is without a reflector wire, and perhaps operate with this mode,continued page 2

Join Us For Breakfast

WCARC Breakfast - Saturdays at 6:45AM
Monument Café
1953 S. Austin Avenue
Georgetown Texas 78627

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WARC Meeting Minutes

Williamson County Amateur Radio Club
July 7, 2005

The WCARC meeting was called to order by President Mark Stennett, NA6M. There were 30 members and visitors who signed the attendance sheet. I think I counted on the order of 40 at the meeting.

The minutes posted on the WCARC web site were approved as amended in the WCARC Newsletter. Dallas was not in attendance at the meeting and the repeater report was by N5TW.

Treasurer's Report – Galen Helmkamp, WA0YVQ

June, 2005

Beginning Balance	\$ 3,286.27
Receipts/Deposits	\$ 210.00
Expenditures	\$ 891.52
Ending Balance	\$ 2,604.75
ARES Funds Available	(\$ 159.31)
WCARC Funds Available	\$ 2,604.75

The June 2005 Treasurers report was approved as read.DX Report – Tom Whiteside, N5TW

The CTDXC program at Summerfest will be excellent. Tom encouraged WCARC members to attend.

Contest Report – none

Repeater Report – Tom Whiteside, N5TW

The repeater is working well. The air conditioning at the repeater site is marginal.

ARES Report – Tom Whiteside, N5TW

Reference the WCARES Report. Also Tom made an appeal to the WCARC members that "we are at war", and maybe it's time for more of us to commit to more direct involvement in ARES.

Old Business

Field Day Report – Dick Foster, W5TA

The grand total score for this year's Field Day was 5768. This included a QSO score of 4718 and bonus points of 1050. Dick thanked all participants with an extra thanks to Virgil, KD5KQV, for his excellent cuisine.

The WCARC members all agreed that Dick did an excellent job with Field Day!

Cub Scout Event – Jim Mischel, KB7UQD

Jim thanked several club members for helping out with

New Business

Heritage Garden Donation – Virgil Buell, KD5KQV
It was moved, seconded, and passed for WCARC to make a \$100.00 donation to the Herigage Gardens.

Women's Adventure Race – Jim Mischel, KB7UQD
Jim needs five more hams to support the Women's Adventure Race on July 17. Jim will post a note on the WCARC reflector

Summerfest – Joe Makeever, W5HS
Joe spoke to the club about the upcoming Austin Summerfest. In addition to the fine DX program, there will be a number of programs covering many aspects of the hobby. Joe also discussed the importance of the TX VHF FM Society meeting and stressed that all members and interested individuals support this effort.

August Refreshments
Dallas Mellichamp, KD4HNX, agreed to provide refreshments for the August meeting.

WCARC Program

The program for June was a discussion of spectrum analysis by .Bill Byrom, N5BB.

Minutes submitted by the honorable club secretary, Greg Worthington, AG5W.

**WC-ARES NET... Sunday's
8 p.m. on 146.640, PL 162.2**

2005 Officers and Committees

President -Mark Stennett, NA6M

Vice President - Dick Foster, W5TA

Guest Speaker Committee

Vice President - Dick Foster, W5TA, Chairman
Tom Whiteside, Bob Redoutey, N5KF

Secretary - Greg Worthington, AG5W

Treasurer - Jon Boles K5AEM

Pubic Information Officer - Virgil G. Buell, KD5KQV

Newsletter Editor – Paul Gilbert, KE5ZW

Emergency Coordinator - Tom Whiteside, N5TW

Webmaster – Dallas Mellichamp, KD4HNX

Williamson County Amateur Radio Club

PO Box 1644

Georgetown, TX 78627

Club Repeater: 146.640 -600 kHz Tone: 162.2 Hz

President's QRM

... Mark, NA6M

Howdy folks,

I want to express my condolences to Mel Cruts, KF6OZ, and his family for their tragic loss. May time and love heal what words alone cannot.

The shuttle is back in space and I have the NASA communications audio on the air on 444.525 MHz. I am carrying it via IRLP as provided by N6ICW in Sacramento and his C Band Satellite downlink.

In related news, the internet connection at the NA6M repeater tower was lost recently due to a lightning strike to a tower in Pflugerville. This is a good lesson in the "everything is vulnerable" department. Having multiple points of presence for the ARES TelPac nodes is the only way to solve this one. My internet provider has likely learned a few things as well, including the value of cold spares.

During a recent trip to Sacramento, CA, I was pleased to hear 147.080 traffic on UHF all over town. For the most part, it sounded like everyone was local. Who says Echolink isn't ham radio?

Hope to see you at the Austin Summerfest.

73,

Mark

NVIS HF Antenna Fun....

and then put in a hookup wire sized reflector wire 5 per cent longer than the dipole, and a foot over the earth, and test that configuration. It may be possible to forgo coax stubs and feed such an antenna directly with coax.

Of course a half wave of any feeder could be used since much NVIS operation is on ARES nets and other close disaster frequencies in the phone band.

It will be interesting to see if the skip and NVIS modes can exist on the low 40m antenna as they did on the 80m antenna at Field Day.

Also the utility of tuning the 40m antenna to 75m will be explored. IF there is not enough range to do that, another approach would be to extend the ends of the 40m dipole with elements to resonate the whole on 75m. Or, a doublet could be calculated for the mean frequency between the ARES nets on 75m and 40m and that used with a good tuner for both bands.

It would be good to collect more than one station's experiences, thus I would hope to inspire others to experiment with NVIS for improved Texas and nearby state coverage.

**Newsletter Deadline for Articles and Submissions
is the 25th of the Month prior to the month of
publication**

ARES REPORT

..... by Tom Whiteside, N5TW

This report will be shorter than last month – hard to have more activity than last month!

We had a terrific Winlink user training last month led by Jim Russell (NQ5L). Hopefully folks that had not yet participated with the Packet Cavalry feel more comfortable about using this system. And I really appreciate the attendance – this was not an easy meeting to attend with a tractor trailer accident that closed down I-35 Southbound for hours – getting there was excellent training in itself!

Thanks to those that participated in the Woman's Adventure Race and for Jim Mischel (KB7UQD) for organizing it – these public service events are useful, provide great publicity for amateur radio and are just great training!

The other excitement for the month were brushes with Hurricanes – particularly Emily that fortunately did not hit Texas significantly – the season is still active and this is certainly a reminder of the need to be prepared. My folks in Corpus Christi reported that supplies of water and batteries were low 5 days before the storm was due to potentially hit – the time to be prepared with supplies, gasoline, etc is well before something bad happens. The terrorist attacks in London are a reminder that we are at war and the need to be ready without warning.

This year's Simulated Emergency Training (SET) will be October 8th. Now is the time to get that Packet Cavalry station going for that exercise – remember that we have a goal of 16 of these stations by year end – with 16 stations, we will be lucky to deploy 8 stations in a real emergency!

Part of what we would really like for this year's SET is to have more new folks involved in our ARES activities – an SET is the perfect way to get a jump start on participation. As part of this goal, next month's meeting will be an introduction to ARES for beginners – the old hands came learn from a review of things as well and can help teach! So a special invitation for all to attend the next meeting!

N5TW Winlink node:

There was not as much activity this month given the huge Field Day burst. In addition to local activity, there was HF activity as stations on the Texas coast prepared for Hurricane Emily. If Emily had really hit a Texas city, there would have been tons of activity. There were 30 unique calls signs that accessed the system this month including the four local nodes.

Statistics for March:
Telnet: 94 check-ins 92 messages passed
(mostly local node users)
VHF: 3159 check-ins 269 messages passed
HF: 10 check-ins 18 messages passed

Other Winlink news:

A reminder that we have instituted a weekly Winlink check-in. Total check-ins will be reported on the Sunday evening net. Winlink check-in is easy, just send a check-in note to nq5l@winlink.org and cc: n5tw@winlink.org and tell us which node you used. You can check-in at your convenience anytime during the week – Jim asks that notes be posted before noon Sunday. We are encouraging folks to vary the node they use weekly to help exercise all the gear and keep you in practice – multiple check-ins via the different nodes are welcome.

WILLIAMSON COUNTY AMATEUR RADIO CLUB OWNED EQUIPMENT

Reviewed at 5 August 2005 WCARC Meeting

Tower Work

- 1 Gin Pole - KE5RS, John Benedict - 30-Aug-03
- 1 Tower Step - N5NMW, Jeff Schmidt - 7-Aug-03

Antenna measurement

- 1 MFJ Antenna Analyzer - KI5YG, Steve Cowell - 3-Feb-05
- 1 MFJ Grid Dip Adapter - K5KVN, Stuart Rohre - 3-Feb-05

Antennas

- 1 Butternut HF Vertical 10M-80M - AF5Z, Bob Helms - 6-Feb-05
- 1 Cushcraft 6-ele 440MHz Beam - AF5Z, Bob Helms - 6-Feb-05
- 1 Cushcraft R7 HF Vertical - W5TA, Dick Foster - 3-Feb-05
- 1 Hygain triband antenna - W5TA, Dick Foster - 3-Feb-05
- 1 Mosley Triband Ant - K5AEM, Jon Boles - 3-Feb-05

Masts

- 2 Push Up Masts - AF5Z, Bob Helms - 6-Feb-05
- 1 Push Up Masts - KC5RPF, Ken Larsen - 3-Feb-05
- 2 Push Up Masts - KD5KQV, Virgil Buell - 4-Jul-03

Power Supplies

- 1 20 Amp Power Supply - N5TW, Tom Whiteside - 14-Jul-04

Miscellaneous

- 2 Heavy Duty Power Cords - K5HTK, Jim Hester - 3-Feb-05

Pending sale

- 1 DB Commercial Ant VHF 158MHz - AF5Z, Bob Helms - 6-Feb-05

WA7BNM April Contest Calendar

Please see: <http://www.hornucopia.com/contestcal/contestcal.html>

The current nodes are:

KI5DR-5 145.73 (via ausrly-1)
NA6M-10 144.91
N5TW-12 145.03
N5TW-10 145.61

Summerfest

A reminder that Summerfest is August 8th.

Jerry Reimer (KK5CA) the STX Section Emergency Coordinator (SEC) will be conducting the ARES session at 10AM. I've been asked to say a few words about Winlink. The Central Texas DX and Contesting Club has rearranged its program to put Charles Harpole (K4VUD) up at the 10AM slot so that folks interested in public service communications can attend his presentation and then go to the ARES forum. Charles was part of the Andaman Islands VU4 DXpedition that turned into a tsunami disaster relief effort. Please make plans to attend!

In conclusion

Remember that the ARES meeting is the second Thursday of the month at the Round Rock fire station now at 7PM.

And please participate in our Sunday evening nets at 8PM. These are still on 146.64 (PL 162.2) while the 145.13 repeater is under the weather.

Field Day 2005 Contest Results

QSO Summary

HF Contacts

Band	Phone	CW
80	58	134
40	38	199
20	505	438
15	48	56
10	0	4
Total	649	831

VHF / UHF contacts

Band	Phone	CW
6	35	0
2	4	0
0.7	9	0
Total	48	0

Grand Total 697 831

Points/QSO 1 2

QSO points 697 1662

Total points 2359

Power Mult [150 watts
2or less]

Claimed score 4718

Less bonus points.

Bonus Points

Bonus Requirement	Points
100% Emergency Power	200
Media Publicity	100
Set-up in Public Place	100
Information Booth	100
Message to SEC	100
W1AW Field Day Message	100
Messages handled	100
Satellite QSO completed	0
Natural Power QSO's	100
Elected official	100
ARES agency rep	0
GOTA station	0
Submission via applet	50
Youth participation	0
Non-Traditional modes demo	0
Total bonus points	1050

Winlink Telpac Server page:

http://www.wc-ares.org/telpac_pmbp_freqs.html



**Sometimes it's the little things that
stop the big things**

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