



Forsyth Amateur Radio Club, Inc.

Newsletter



OUR 83TH YEAR!

Founded December 30, 1930

A Home Brew HF Vertical

By Walt KK4FAL

This is a home brew vertical that I made from a new but inexpensive 11 meter vertical. I only paid \$35.00 for the antenna and it had all I needed except for an UNUN that is required to expand the coverage. Let me start by saying the work I did was based on information I found in an article written by Don N4UJW and additional information from Bob KF7DRC.

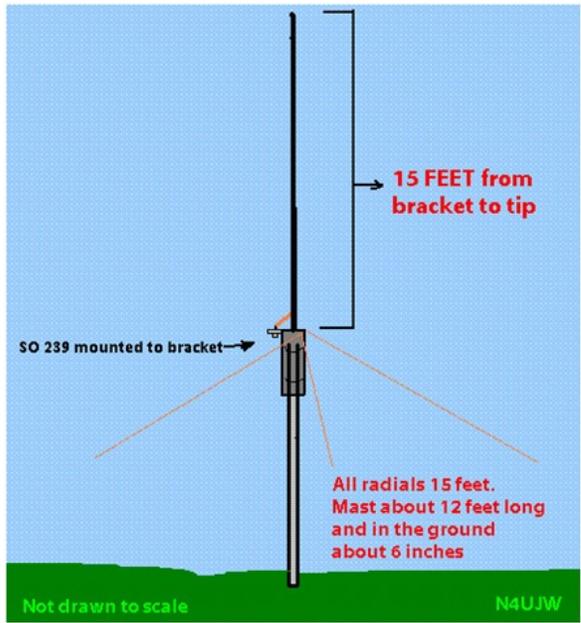
Using the original 5/8 wave, 11 meter vertical which was approximately 21 feet 6 inches, I added 6 feet to make the entire length 27 feet and 6 inches tall. The original information had various lengths and numbers of radials for the project. After a bit of research and trial and error I settled on using at least 36 ground mounted radials of about 32 feet in length due to the restrictions of the area where I mounted it.

This is where I varied a great deal from the instructions of how to modify the vertical. They only recommended two to four radials of different lengths for each band. I removed the gamma match/matching coil from the base of the vertical and attached a bracket and an SO-239 connector to the grounded portion of the original bracket.

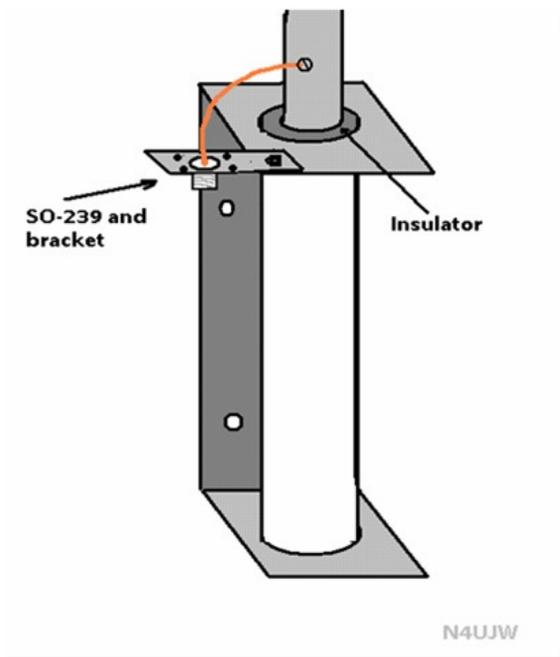
Included are illustrations to make these changes easier to see and understand. Originally the antenna was designed for a 10 through 40 meter configuration. By making it a ground mount antenna with the ground outlay of many radials it works very well on 6 through 40 meters, fair on 80 meters. I have been talking to a friend NOGMH Larry on 40 meters regularly now for some time with excellent results.

To my surprise it works well enough that I have been scolded more than once when trying to operate 3 KC's away from a net for interference from my loud signal in several states north of us here. I thought it was a joke as I was running my ICOM 746 PRO at about 75 watts and the vertical ground mount that I have yet to attach all the radials to. But I soon realized that it was not a joke. I will let it all be the fault of good propagation, but I think it illustrates what I mean when I say it works good.

While I was physically able to be out and do this work, it was a fun and inexpensive project. I recommend that anyone interested in a ground mounted vertical that is also inexpensive give it a try. This by no means the only way to home brew a vertical for Ham bands, but using this information and other items found on the internet I took these ideas and made my own version which works well for me. It is far from a professional assembly job. But it is useful to me, and that is what I wanted. Cheap but effective.



Here the N4UJW, author of the page on this conversion shows the antenna mounted as much as 11 feet in length. I have mine around 8 inches above ground to the antenna.



Modified SO-239 location and bracket on base mount. Original SO-239 connector is not shown at bottom of mount. Attach radials to any suitable point just below feed point. Main vertical radiator is totally insulated from

mounting bracket at both the top side and the bottom although not shown in drawing. The original mast mounting bracket was used and not modified. The base coil assembly is used only for support but has been cut out of the circuit inside the coil housing.

I was more than a little proud to have managed to make the October meeting and take the General class test. This has been a long term goal and even though I am now 61 years old, I am thrilled to have made it. I cannot express how much I appreciate all the help I got in completing this preparation for the license. Special thanks to Mike Adkins for all the suggestions and help in preparing for the test.

I hope to catch a few of you around the bands now that I have my General ticket.

I love Ham radio and all that it encompasses. By early next year if able I hope to go for my Extra ticket. I am still green to a lot of what is available, but hope to learn.

73
 KK4FAL
 Walt Wilson
 Lexington, NC
 73's
 KK4FAL
 Walt Wilson

ARES Net Report for 31 Oct 2013

Net Control Station: WS4FC (op KG4ECI)
 Check-ins: WA4NOT, AF4XC, KK4PKO, KG4FGC, WB9SZL, WA4ZKI, WK4CW, KJ4ENM.
 Topics: WA4NOT brought more details for the upcoming S.E.T. and a breakdown of A.R.E.S. divisions in N.C.
 Training: None.
 Net times: 20:30 - 20:51.
 Dan O'Leary KG4ECI
 AEC/Net Manager
 Forsyth County ARES

ARRL Centennial QSO Party

From Ed Swiderski

<http://www.arrl.org/centennial-qso-party>

Public Service: MARS Operators Complete "Exemplary" Simulated Disaster Response Exercise (From the ARRL Newsletter)

Radio amateurs in the Military Auxiliary Radio System (MARS) concluded an unprecedented 48-hour marathon exercise November 5 that linked the continental US, Hawaii, Japan, Europe, and Canada during a simulated breakdown of normal communication systems, including the Internet. For the first time in a nationwide test, W1AW staffers activated the Maxim Memorial Station Army MARS station AAN1ARL at ARRL Headquarters to facilitate input from the Radio Amateur Civil Emergency Service (RACES) community.

"Well done by all," messaged Army MARS Chief Stephen Klinefelter, when the test was concluded. The exercise involved the transmission of hundreds of encrypted messages via HF radio. The traffic carried "situational awareness" information needed by a joint Department of Defense entity responsible for responding to a national crisis situation. Many operators, net control and relay station members in particular, put in long hours maintaining the seamless connection.

Joining Army MARS in providing backup communication for the US Department of Defense entity were members of the Navy-Marine Corps and Air Force MARS branches. Elements of the National Guard, FEMA, the Transportation Security Administration, and selected state authorities also participated.

During the final day of the exercise, MARS members also acted on a real-world request from DoD to be prepared to monitor International Amateur Radio Union (IARU) emergency frequencies as Typhoon Haiyan appeared poised to develop into a category 5 storm and strike the Philippines.

MARS members were given strict time limits for providing the requested information in order to receive credit for completing their message handling. These statistics will be used to evaluate how quickly and efficiently the multi-branched network might be able to handle information requests and responses under conditions mirroring an actual catastrophe. Poor propagation, particularly in the overnight hours, added a realistic touch.

A formal after-action report from Army MARS Program Officer Paul English, WD8DBY, and Operations Chief David McGinnis, K7UXO, is still in the works, but Klinefelter saluted the overall performance.

"You have just completed the most complex and longest MARS communications exercise in recent history," he said. "I want to thank each of you for participating and devoting long hours to make this exercise a success. The dedicated efforts to maintain effective nationwide contingency communications support demonstrated by all participants were exemplary."

Discussions between ARRL Headquarters staff, US Army MARS Region 1 leadership, and English preceded the exercise. Eastern Massachusetts was chosen for the first test of full-scale collaboration between ARES and MARS, and Tim Wortley, KQ1Y, the MARS state director for Southern New England, worked out the details with Eastern Massachusetts Section Emergency Coordinator Rob Macedo, KD1CY. Wortley said he received more than a half-dozen responses to inquiries he'd put into the system. Other tactical voice messages on amateur VHF repeaters were forwarded to MARS circuits. The ARES test was separate from the activation of the MARS station at W1AW.

Ham Radio in Space: Two Hams, One Olympic Torch Return Home from ISS (From the ARRL Newsletter)

Two astronauts and a cosmonaut returned safely to Earth from International Space Station November 11. The Expedition 37 crew of European Space Agency Astronaut Luca Parmitano, KF5KDP; Russian ISS Crew Commander Fyodor Yurchikhin, RN3FI, and NASA astronaut Karen Nyberg landed in a Soyuz spacecraft in the Kazakhstan steppe, returning in the same spacecraft that took them to the ISS last May.

The Expedition 37 crew (L-R) of NASA astronaut Karen Nyberg, Russian ISS Crew Commander Fyodor Yurchikhin, RN3FI, and European Space Agency Astronaut Luca Parmitano, KF5KDP [NASA photo]

They carried with them the Olympic torch that went into space recently with the Expedition 38 crew. Richard

Mastracchio, KC5ZTE, Russia's Mikhail Tyurin, RZ3FT, and Japan's Koichi Wakata, KC5ZTA, arrived at the International Space Station November 7, carrying the torch, which will be used to light the Olympic flame in Sochi, Russia, for the 2014 Winter Games.

Parmitano spent five months on the ISS for his "Volare" ("I will fly") mission, under a bilateral agreement with Italy's space agency and NASA. While in space, he proved to be an enthusiastic and passionate radio amateur and handled several Amateur Radio on the International Space Station (ARISS) school contacts.

"When all questions prepared by the students could not be answered during the scheduled pass, Luca used to come back whenever possible to continue the space talk on the following orbit," reported ARISS-Europe Chairman Gaston Bertels, ON4WF. Parmitano ranks fourth in terms of the number of ARISS school contacts performed during a single expedition. As IRØISS, Parmitano also made more than 230 random contacts with hams on Earth. -- Thanks to Gaston Bertels, ON4W

Blast from the Past From AG4RZ

Here is a video that Tim A. King wanted to share regarding the WLW 500,000 watt station and a little of it's history.

<http://tinyurl.com/wlwradiostation>

FALL SIMULATED EMERGENCY TESTS (SET) EXERCISES (From ARRL NC Section News)

These will be held in two sessions over the next month. The first SET happened Saturday, November 30th, and will continue on Saturday, December 14th. In addition to phone on 3923 KHz, the North Carolina ARES frequency, digital modes will be used extensively. Winlink will remain the primary mode for store-and-forward traffic as it has in the past, but peer-to-peer modes will be introduced using Olivia and MT63, digital modes which many other ARES and AUXCOMM units are using.

For those who want to try these two modes, download FLDIGI software available free at <http://www.w1hkj.com/download.html> and learn how to operate it at <http://>

www.w1hkj.com/beginners.html Further updates on the SETs are available on the Tar Heel Emergency Net (THEN) nightly at 7:30 PM local on 3923 KHz, and especially on Monday evenings which is ARES night on THEN. The section website at www.ncarrl.org will also have frequent SET updates.

2013 Field Day Results from ARRL

Congratulations to the 57 individual and club stations around the Tar Heel state which participated. Top NC stations in each category were: 1A – KG4CDI, Asheboro; 2A – Smith Chart K4OO, New Hill; 3A – Carolina Contest Consortium K4FQU, Raleigh; 5A – Wayne Co ARA W4HS, Goldsboro; 6A – RARS W4DW, Apex; 9A – OCRA/Durham FM W4EZ, Hillsborough; 2A COMMERCIAL – Foothills ARC W4FAR, Wilkesboro; 2F – Charlotte ARC W4CQ, Charlotte; **3F Forsyth ARC W4NC**, Winston-Salem; 6F – NC Four County ARES NC4CA, Oxford.

Complete results can be seen at:

<http://www.arrl.org/news/2013-arrl-field-day-results-posted>

Congratulations to everyone who participated and helped us achieve this standing!

Confessions of a New Ham By Bob Gusek NC4RG

Becoming the new editor of the newsletter prompted me to think about something I could contribute to it that would also be useful. I've decided to write an article each month about my experiences of becoming a new ham, with all the trials, tribulations and victories that come with it.

I want to start with discussing the whole process of becoming a Ham, how I prepared for my tests, and things I've realized along the way. First things first, I've come to realize that the tests are just to confirm that you have a basic (in my case a VERY basic) knowledge of Ham Radio with a smattering of understanding what you need to be careful of when first devling into the airwaves. At first I was concerned that even though I could pass the tests, I was not really fully knowledgable about what was being tested. Now I understand that the tests are basically your baby steps in the Ham World, a way to get

your feet wet and help you speak the language (or at least understand it a little better). The actual knowledge will come with the experiences of being a Ham and learning what interests you and what you want to do.

With that aside from what I've seen there's basically two good ways to prepare for your tests. The first is to simply take the practice test over and over and learn what the right answers are by basically memorization. I pretty much did this for my Technician exam, but I knew a lot of the material already from my experiences over the years with electronics and computers. The site I used to practice is <http://aa9pw.com/> which is a great FREE site. They have all the exams there, and I found it easy to use and I also bought another exam program for my iPad that let me track my progress.

For my next two exams I chose to use the web site my brother NC4AG recommended, it's called Ham Test Online - <http://www.hamradiolicenseexam.com/index.html>. This is not a free site and at first glance appears to be on the expensive side. But I went ahead and signed up for my General exam tests, and soon learned how useful this resource is. You pay for each level of exam (Technician, General, Extra) for two years of access. It allows you to study the material involved and gives you a good overview of each topic that's on the test. It also tracks how well it feels you know the material by topic, and allows you to skip topics that you've mastered. Their estimate is it takes approximately 20 hours of studying to get to the point where you'll pass the exam. One of the things I really like is that even though I've passed my exams, it's still an excellent resource to look things up with. The other thing I really like about their site is that if you take the test when they recommend, they give you a money back guarantee that you'll pass. They were spot on with the recommendation on when to schedule the test too, on my General I waited a bit before I took the test, but when I was studying for my extra as soon as it told me to schedule the exam I went ahead and did it. I'm happy to say that I did pass both the General and the Extra on the first attempts :) I highly recommend the site for someone who is looking for a good way to study for the tests, and as a decent resource for a new Ham to use.

Forsyth Amateur Radio Club, Inc is a non-profit (IRS 501(c)3) North Carolina corporation for the promotion of Amateur Radio, and for the education and training of hams and the general public primarily in Forsyth County, North Carolina.

FARC was originally incorporated as the Winston-Salem Radio Club on December 31, 1930 and has been in operation ever since. We currently maintain a state-of-the-art ham station in the basement of the Red Cross, 690 Coliseum Dr., Winston-Salem, NC and also maintain two 2-meter repeaters, 146.64 (100 Hz tone) and 145.47 (100 Hz tone) & 444.275 (100 Hz tone).

FARC has a general membership meeting with a program on the 2nd Monday of every month at the Red Cross building, 690 Coliseum Drive in Winston-Salem. The club conducts its main business meeting (sometimes called the Board Meeting) on the 3rd Monday generally at the same location. This is where most of the club's business is conducted and all attending members have a vote. All club members are strongly encouraged to attend the business meeting. For more information about FARC mail us at FARC, Inc., PO Box 11361, Winston-Salem, NC, 27116; call 336-245-5740; or visit our web site at www.w4nc.com. Club email is to info@w4nc.com.

Officers for 2013 are: President: Tim King AG4RZ

Vice-President: Jerry Minor K4GW

Secretary: Don Edwards WS4NC

Treasurer: Henry Heidtmann W2DZO

Newsletter Editor: Bob Gusek, NC4RG

To join our list server send a blank email to w4nc-subscribe@egroups.com

All content is Copyright 2013 by Forsyth Amateur Radio Club, Inc, unless otherwise noted. Permission is given to reproduce for non-commercial purposes provided proper credit is given. If you would like to help support the newsletter with an ad, please contact Bob Gusek (email: ncbobusa@gmail.com). Ad deadlines are 7 days before the end of the month. Rates are \$50 for 12 months. *Cheap!*

We trade newsletters with other clubs, and many local clubs are on our mailing list. If your club has a newsletter and would like to trade please send us a copy.

**Announcing the
WB4ZWS Cedric S. Rodney Memorial Upgrade Scholarship 2013**

Purpose: To encourage young hams in and near Forsyth County NC to upgrade to General Class or higher. FARC has been donated these radios and we and the Rodney Family feel that the best use is to encourage young hams to enter the hobby. We especially want to encourage younger members of the ham radio community to be involved in exploring the world through HF radio. We also have some donated 2 meter radios and we will be making awards of these to those who qualify at the Technician level. Please note that all of these prizes are awarded on a random drawing basis.

Instructions: Fill out page 3 (continued on page 4 if necessary) and mail pages 3 & 4 only to:

WB4ZWS Memorial Youth Scholarship Forsyth Amateur Radio Club, Inc.
PO Box 11361
Winston-Salem, NC 27116-1361

Proposed Rules:

1. Applicants must be under 18 years of age by December 9, 2013.
2. Winners of HF prizes must be General Class or Higher (exceptions see Paragraph 9 Technicians). HF radios will only be awarded to General Class or higher FCC amateur radio licensees. Winners of two meter radios as provided in paragraph 9 must be holders of a Technician Class FCC amateur radio license
3. Applicants must have taken an FCC exam at an FARC FCC Examination during the year 2013 (before December 31, 2013) – or be holders of an FCC Extra Class amateur radio license. **Technician class applicants must at least attempt the General or Higher Class Exam in order to qualify for Technician level awards.**
4. Applicants must be a member of FARC (any FCC exam taken at an FARC examination session qualifies for free current year FARC membership when the examinees fill out an FARC application at that test session) and be a resident of Forsyth or immediately adjacent counties and have attended at least one FARC meeting or event during 2013.
5. Applicants must submit a properly-filled application for the award by US Mail to FARC, PO Box 11361, Winston-Salem, NC 27116-1361 and applications must be postmarked 11/30/2013 or before. **Parental approval is required on the application. ALL APPLICATIONS MUST BE MAILED – NONE WILL BE ACCEPTED THROUGH ANY OTHER MEANS.**
6. Applications will be selected by random drawing at the Annual December Dinner

WB4ZWS 2013 Memorial Scholarship Page 1

meeting, December 9, 2013, or on such date as the December meeting is scheduled if the December meeting date is changed. Applicants do NOT have to be present to win.

7. Applicants must fill out a fifty or fewer words answer to the question “Why I would like to win one of these prizes.”

WB4ZWS 2013 Memorial Scholarship Page 1

8. Prizes: At the moment the exact prizes are yet to be determined. There will be an award of at least one HF transceiver for the General (or Higher) class award and at least one 2-Meter transceiver for the Technician-Class award. There may be others.

9. Technician level: For applicants that have passed only Technician class there will be awards of two [OR MORE?] 2m Radios. These will only be awarded to Technician class amateurs that meet all of the other requirements above except requirement 2. General Class and above do NOT qualify for Technician awards. Envelopes for the Technician Class Awards must be marked "Technician" on the exterior of the envelope. **Technician class applicants must at least attempt the General or Higher Class Exam in order to qualify for Technician level awards.**

10. Decisions by the officers of FARC are final. FARC may, or may not, sponsor awards in future years pending upon availability of donated radios. No cash value. Applications become the property of Forsyth Amateur Radio Club, Inc. Application includes permission to publish photos of winners and details of any and all awards.

11. Prize substitutions may be made at the discretion of FARC officials. Prizes are donated older radios that have been checked and working at the time of award, no guarantee implied and no cash substitutions. Applicants must have parental approval.

12. Each application received, after being checked for completeness, will be sealed in an opaque envelope with no distinguishing marks before being placed in a box for random selection. Technician entries will be kept separate from General or higher class entries.

13. Applicant agrees to abide by rules. Any disagreement will be settled by arbitration.

APPLICATION FOR WB4ZWS CEDRIC RODNEY MEMORIAL
YOUTH HAM RADIO SCHOLARSHIP

1. Name: _____
2. Callsign: _____
3. Class of License: _____
4. Address: _____
5. City, State Zip: _____
6. Phone number: _____
7. Date of last FCC exam taken at an FARC sponsored exam: _____
8. What FARC programs or activities would you like to see? _____

We (Applicant and Parent/Guardian) agree to abide by the rules established for the Cedric Rodney WB4ZWS Youth Scholarship as published on the Forsyth Amateur Radio Club, Inc website and have read the attached rules and agree to abide by them. Parental signature acknowledges permission to publish photos and details of awards.

9. Parental or Guardian Signature: _____
10. Applicant's Signature: _____
11. Date of birth: _____
12. In fifty words or fewer and in your own handwriting describe why winning one of these prizes is important to you in the space below (use the back of this application if necessary).

Forsyth Amateur Radio Club, Inc.
PO Box 11361
Winston-Salem, NC 27106-1361
336-245-5740