



# Atlanta Ham

Official Publication of the Atlanta Radio Club, W4DOC December, 2019

## Welcome to the New Atlanta Radio Club Newsletter

Bert Bruner - KE4FOV

ARC Club President

Throughout our history, The Atlanta Radio Club has had an email distribution group, but a regular newsletter seems to come and go. Before email, newsletters were a primary form of communication. Now announcements and basic communications are handled by email, but a newsletter offers readers an opportunity for more diverse discussions with more depth, on a more flexible schedule and more available to those not part of the email distribution group.

The goal of the Newsletter is to provide another channel of "communication" for Ham Radio in the Atlanta area. There are several other very good clubs around. This Newsletter is intended to help bring the clubs together by sharing news about events, activities, experience and sharing knowledge.



ARC 2019 Field Day

Topics will include, but certainly not limed to:

- ARC Club activities
- Other club activities
- General Ham Radio announcements
- Individual articles about ham radio experience
- Details about Ham Radio technology

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## THE ATLANTA HAM

The **Atlanta HAM** is the official bulletin of The Atlanta Radio Club serving its members and the Atlanta community. Original articles, art, and photos are welcome. Copyrighted material cannot be printed without permission from the appropriate legal authority. Please include such clearances in all materials submitted.

### Article Submission

#### By Mail:

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Attn: HAM EDITOR  
The Atlanta Radio Club  
227 Sandy Springs Place  
Suite D-306  
Atlanta, GA 30328

#### By Email:

[newsletter@atlantaradioclub.org](mailto:newsletter@atlantaradioclub.org)

Contact the editor for available formats to transfer material.

### DEADLINE FOR SUBMISSIONS IS THE 15TH OF EACH EVEN MONTH!

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## View from the Top of the Tower

Bert Bruner, President ARC

we're starting out with an experienced editor - Tom Crowley (KT4XN). Tom I and other club officers will be writing articles on a regular basis. We'd also love to have guest writers from the ARC and from other radio clubs.

We will be looking for plenty of feedback from readers about what you like and don't like

73 until next month!

Bert KE4FOV

## From the Editors Desk

In the immortal words of the Blues brothers, it's time to put the band back together! Well, at the Atlanta Radio Club we are putting the Atlanta Ham newsletter back together! Well at the Atlanta Radio Club we are putting the Atlanta Ham newsletter back in circulation. To that end we will need the help of the members to provide content for the newsletter. Hopefully the next newsletter will be filled with articles of interest for our club members.

We'll try to have six news letters a year, if there is enough content we will go to producing the Atlanta Ham monthly.

If you would like to have something published in the Atlanta Ham please send me a your paper in Word, Libra office. DO-NOT send in PDF, if you do, then I have to retype

The Atlanta Ham is published six times per year. Here is the planned schedule for publication:

Article Submission: 01/15 04/15 07/15 10/15  
Transmitter Mailing 01/30 04/30 07/30 10/30

73' Tom Crowley, KT4XN

*Continued on Page 3*

We are planning on this section having a report for the next Atlanta Ham



## The Atlanta Radio Club

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Suite D-306  
Atlanta, GA 30328  
[www.w4doc.org](http://www.w4doc.org)

### Officers / Directors

President Bert Bruner KE3FOV  
Vice Pres Ade Shamblin KJ4CUY  
Secretary Lane Watts KB4KHQ  
Treasurer Mike Lozano KF4UPO  
MAL Stephen Slider KG4PTO

### FM Repeaters

146.820 (-) (IRLP Node 4550)  
224.340 (-)  
444.825 (+)

All three repeaters require a CTCSS tone of 146.2 Hz.

### D-Star Repeaters

#### (Bank of America Tower)

145.350 (-0.6 MHz) W4DOC C  
440.600 (+5.0 MHz) W4DOC B  
1282.60 (-12 MHz) W4DOC A  
1297.625 (Data) W4DOC D

#### D-Star on Stone Mountain

#### (Joint ARC/GA ARES)

144.960 (+2.5 MHz) WX4GPB C  
440.700 (+5.0 MHz) WX4GPB B  
1282.700 (-12 MHz) WX4GPB A  
1297.125 (Data) WX4GPB D

### Repeater Managers

W4DOC Stephen Slider, KG4PTO  
WX4GPB Robin Cutshaw, AA4RC

## Beginner's Corner

### *A Comparison of Portable Vertical Antennas*

Many of us enjoy operating portable for any number of reasons. Some may not have space for an antenna, others have RVs and enjoy operating from them.

Our new motor home doesn't have a ladder on the back, hence a need to have a portable antenna that can be set up quickly and provide reasonable gain. To that end the following antennas have been tested:

- Alpha-Delta Outreach/Outpost System
- MFJ-1979 17 foot telescopic whip
- MFJ-2982 33 foot vertical / Eagle One Antenna
- Comet CHA-250B
- Buddipole deluxe

This test was subjective at best, it would have been nice to set up an antenna test field to be able to perform a scientific evaluation of the different antennas. However, that was not to be. The method used was similar to how the ARRL does antenna reviews, that is, they install the antenna call CQ, and maybe compare it to another antenna they have. This test will be similar. The bands in the test were 40 – 10 meters. It was felt that 80 and 160 meters just require to large of an antenna to be viable as a portable.

A few of my favorite expressions about small portable and mobile antenna's are:

"I work everyone I hear" well, yea, how can you work folks you can't hear? You have to love this one, it's so commonly heard.

- The vertical radiates poorly in all directions. While true, it also has a low radiation angle which allows for great DX and is easy to set-up for 40 meters and above.

*CHIRP main screen with repeaters populated from RepeaterBook*

*Continued on Page 5*

## Beginner's Corner (continued)

- My antenna has low SWR, there for it must be good, Low SWR indicates a match between the radio and antenna, it is not an indicator of good signal output. Interesting that radials can be used to adjust SWR and increase signal gain. Longer radials are not necessarily better.
- My tuner tunes in a good SWR so I must have a great signal. Perhaps not, if all of your energy is heating the coax due to poor SWR from the tuner to antenna.

### ***General Comments on Portable Antennas***

It would be great if we could carry a 3 element or more beam raised to 60 foot or so. However in the portable world that's all but impossible. As I'm sure you are aware the antenna used by RVers and other portable stations is at best a poor compromise and it is difficult to work pile-ups and very distant stations. While verticals are used in many DXpeditions, especially if they are located by an ocean or body of water allowing for an excellent ground, which greatly improves the radiated signal. Most of us are operating in locations not near the oceans or large bodies of water.

Modeling the  $\frac{1}{4}$  wave vertical for 20 meters showed the small vertical can have a low SWR typically 1.5 or better with a few radials of the correct length. However, it also has very low gain. The modeling was done using a real Highly Accurate EZNEC ground. EZNEC showed a gain of -.26 dBi with a take-off angle of 27 degrees for a 20 meter vertical. EZNEC models were built for 20 meters thru 10 meters, all with very similar results. This was a very disappointing finding, in that the hope was to find a panacea for higher gain in a small antenna.

It would have been great to have added a screw driver antenna to the mix. The screw driver allows for a very high "Q" which may improve the performance over a  $\frac{1}{4}$  wave vertical.

### ***The Antennas***

#### **Alpha-Delta Outreach/Outpost System**

The Outreach antenna is twelve foot long and breaks down into three four foot sections. It covers 160 through 10 meters including WARC bands. The beauty of the system is that it can be set up anywhere and changing bands can be done by simply moving the "wander lead" to the well marked taps for the desired band. Performance at 15 meters and above is similar to a  $\frac{5}{8}$ th wave antenna. Use of radials improved the performance. Four radials 16 feet long were added to the Outpost tripod. An EZNEC model was not run for the system. It is expected that the gain would be - dBi for 80 thru 20 meters and perhaps 0 dBi for 15 and up.

With that said, while living in an apartment from 1998 to 2000 in a suburb of NYC, the antenna performed reasonably well with several DX contacts to Europe.

### **Outpost Tripod**

The tripod is made of heavy duty aluminum utilizing stainless steel hardware. The tripod is ungainly at best and takes a few tries to set up without the three leg extensions falling all over the place! The leg extensions serve as a capacitive coupling to ground. Additional radials may be added to the leg extensions as required. The tripod takes the standard 3/8th x 24 stud mount found on many mobile antennas allowing a wide range of small antennas to be attached.

### **MFJ-1979 17 foot Telescoping Antenna**

MFJ manufactures a 17 foot telescoping antenna that can be mounted on the Outpost tripod and tuned to any frequency above 20 meters by simply adjusting the length to a  $\frac{1}{4}$ ,  $\frac{1}{2}$  or  $\frac{5}{8}$  wave length, depending on frequency. A complete set of EZNEC  $\frac{1}{4}$  wave models was run for this antenna. Gains ranged from -.26 dBi for 20 meters to +.59 dBi for 10 meters. Take off angles ranged from 20 to 27 degrees. This antenna was mounted on the Outbacker Outpost mount with 4 16 foot radials attached.

### **Comet CHA-250B**

The Comet CHA-250B is an 80 – 6 meter antenna requiring no tuner. As such it has been much maligned for its mediocre performance. Performance from 15 to 10 meters appears adequate and performance drops off at the lower bands.

Tom Crowley KT4XN

**We would love to hear about the portable antennas you have used and the results you have had.**

## Weekly Nets

### Sunday

#### Atlanta ARES Net - 7:30 PM

FM: W4DOC 146.820- PL 146.2

1<sup>st</sup> Alternate: W4PME 145.410- PL 100.0

2<sup>nd</sup> Alternate: W4AQL 145.150- PL 167.9

#### Atlanta ARES D-STAR Net - 7:45 PM

D-STAR: W4DOC C 145.350 (-0.6 MHz)

D-STAR: WX4GPB C 144.960 (+2.5 MHz)

D-STAR: Reflector REF030B

#### ARC Sunday Night Net - 8:00 PM

FM: W4DOC 146.820-, 220.340-, 444.825+, PL 146.2

1<sup>st</sup> Alternate: W4PME 145.410- PL 100.0

2<sup>nd</sup> Alternate: W4AQL 145.150- PL 167.9

#### Southeast D-STAR Weather Net - 9:00 PM

D-STAR: W4DOC C 145.350 (-0.6 MHz)

D-STAR: WX4GPB C 144.960 (+2.5 MHz)

D-STAR: Reflector REF002A

### Wednesday

#### Southeastern Linked Repeater Net - 9:00 PM

FM: W4DOC 146.820- PL 146.2

### Friday

#### Friday Night 440 Net - 7:30 PM

This net is currently on a hiatus. If you have any interest in this net please contact [ryan@petris.net](mailto:ryan@petris.net).

*\*\* All times listed are Eastern time. Please visit [www.w4doc.org](http://www.w4doc.org) for additional information.*

## Testing Sessions

#### Atlanta VE Team - Laurel VEC Session

August 13th at 12:00 PM

The Atlanta VE Team is providing FREE amateur radio license testing through the Laurel VEC. Our exam sessions are normally held on the second Sunday of each month at 12:00 noon, at Dekalb Peachtree Airport. For more information visit [www.atlantave.net](http://www.atlantave.net)

## Upcoming Events

### Monthly Pre-Member-Meeting Dinner

Date time

There is no pre-meeting currently scheduled. This is a great time to socialize with other members, ask for help from elmers, etc.

For more information visit [atlantaradioclub.org](http://atlantaradioclub.org).

### Monthly Member Meeting

January 2, 2020 at 7:30 PM

Getting Started in Satellites

Presented by John Kludt

For more information visit [atlantaradioclub.org](http://atlantaradioclub.org).

### Second Sunday

Currently there is no 2nd sunday event scheduled. IFor more info visit [atlantaradioclub.org](http://atlantaradioclub.org).

# Atlanta Radio Club VEC Monthly

The Atlanta Radio Club and the Atlanta VE Team provide FREE Amateur Radio license testing in the Atlanta area.

Our exam sessions are normally held on the second Sunday of each month at 12:00 noon, at Dekalb Peachtree Airport. Please check our Schedule page for our next exam date/time/location.

Normally, pre-registration is not required, but if you require accommodations for any special needs, pre-registration is required at least two weeks in advance.

Please make sure you read our Rules page which includes our examination rules as well as information on what you need to bring with you.

The Atlanta VE Team is accredited by and affiliated with The Laurel VEC. Their website contains information on all aspects of amateur radio license exams, including links to several free license exam practice sites.

An FCC Registration Number (FRN) is REQUIRED and FRN registration must be completed prior to coming to the testing location. If you are upgrading your existing license, your FRN is listed on your license. Our Rules page provides more information on FRN registration.

If you require special accommodations and/or would like to pre-register for an exam please email [info@atlantave.team](mailto:info@atlantave.team).

Please see our website for more information:

<https://www.atlantave.team/>

<https://www.atlantave.team/rules.html>

<https://www.atlantave.team/schedule.html>

Laurel VEC:

<https://www.laurelvec.com/>

For FRN registration:

<https://apps.fcc.gov/coresWeb/publicHome.do>

# Atlanta Radio Club Apparel



**STOCK: M265**



**STOCK: BX001**

The Atlanta Radio Club now has official apparel available at the Atlanta Radio Club Store ([shop.atlantaradioclub.org](http://shop.atlantaradioclub.org)). Items ordered will be available at the next member meeting if they are ordered at least one week prior to the meeting (i.e., by the end of the day Wednesday the week before the meeting).

Name badges are still available directly through The Sign Man of Baton Rouge via the following URL:

<http://thesignman.com/clubs/atlanta.html>



**STOCK: 88183**



**STOCK: 88189**



Mark Holmes KJ4VO - Manager

Josh W4JDH • David AI4XL • James KK4WNL • Denise

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10 AM - 5:30 PM Monday - Saturday

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