



# The Repeater Fall

September 2011

Sponsored by AA5RO

Alamo Area Radio Organization, Inc.

Benny Martinez, NU5P, Trustee

P.O. Box 380032, San Antonio, TX 78268



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## Andrew's Code \_\_. \_\_. \_\_. \_\_ (Andrew Watson, President)

A long time ago, a group of San Antonio hams used to get in cars (and boats) and conduct "transmitter hunts". Back then (almost before color television sets), these "hunts" were called "fox hunts".

Since it has been awhile since a hunt has been held (except for jammers), the AARO membership has decided to brave the heat and go on a n "expedition" (another word for "hunt").

This RF extravaganza will be held October 8th. You will want to come to our September 14th meeting to get advanced details. They'll be in the newsletter next month.

Meanwhile, your leader has put together some hints and tips for a successful hunt.

### Directional Antenna

The directional antenna is the most useful peace of equipment.

It can be any type of beam antenna. To use it, just point. A three or four element beam would be the best for direction finding. Anything bigger gets to hard to carry around.

You connect it to your HT (hand held transceiver) and use the "S" meter to work out the direction of the incoming signal. By pointing in one direction then slowly turning the beam around, your "S" meter will move up and down. At the "S" meters highest reading, the antenna will be pointing in the direction of the incoming signal.

The biggest drawback you'll have when using a beam is that the closer you

get to the transmitter the stronger the signal gets. At some point your "S" meter will max out. This is where you will have to use some kind of attenuation to reduce the signal strength so you can see it on you meter. I'll get into attenuators later.

The beam antenna is a long to medium range peace of equipment. The closer you get to the transmitter, the harder it is to get a bearing.



### **Handy Finder**

The Handy Finder is a good medium to close piece of equipment. It

will work at a long range as long as the transmitter is sending a strong signal. It uses two antennas to receive the signal and adds a tone to the incoming signal.

By rotating the antennas the tone comes and goes. The idea is to rotate the antennas until the tone is gone. At this point both antennas are at the same distance from the transmitter. You get your heading by looking perpendicular to a line from one antenna to the other.

The biggest problem with this is that the transmitter can be in front or in back of you.

You'll have to take readings from at least two places some

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### Andrew's Code Cont'd

distance apart. A good feature is that it gives off a tone. You don't have to have an "S" meter on your radio.

#### Tin foil Tube

The tinfoil tube is a short range-tracking device. By lowering your HT (with a rubber duck antenna) into it you block the signal. This is a form of attenuation. By moving the HT up and down inside of the tube, you can weaken the signal.

Then you turn around in a circle. When the signal goes away, the transmitter is behind you. What you are doing is weakening the signal enough so that when you turn around, your body blocks the rest of the signal.

This is a short to mid range tracking device and takes a lot of practice to make it work.

#### Paper Clip

You may wonder how a paper clip can be

used to find a transmitter.

Well, it's an antenna and attenuator at the same time. It works best a short range. By taking off your HT antenna and sticking a straightened out paper clip in its place you have an antenna that has no gain at all.

Then you turn around in a circle. When the signal goes away, the transmitter is behind you. By bending the paper clip in odd ways, you can get a little directional antenna. Add this and body blocking and you'll get in closer than you may want to.

As I mentioned above, attenuation is most important thing in tracking the transmitter. If you are using a beam antenna, you may want to invest in a line attenuator. This is a box that goes into the line from your antenna to your HT. It has several switches on it. As you flip the switches you are shorting some of signal to ground.

We always have interesting presentations and a lot of good fellowship. Come join us AND

***Get on the Air...***

73's

***Andrew***

K5NNN



### New Members Welcome

AARO welcomes new members **William Reich** (AE5YR) and his daughter **Hannah** (KF5HXZ).

Also, former member **George Carrasco** (W5GAC) has re-joined our group.

Remember, new members can sign up now through December 31 for half price.

If you want to pay your dues now, your treasurer (Stanley Waghalter) will gladly accept them along with money for the upcoming Christmas/Holiday Party to be held December 14th. See page 3 for information on that event.

You can submit articles of ham community interest to: [KD5ZSY@satx.rr.com](mailto:KD5ZSY@satx.rr.com). Articles need to be delivered by the 15th of each month.

Election of board members will be coming soon. This is your opportunity to give back to the group by serving on the board. Tell Andrew you want to run for office.

The AARO Membership Roster is updated every month on the website. Please check your information and let Stan know of any changes.

**BELTON  
HAMFEST  
October 1, 2011.**  
[http://  
www.beltonhamexpo  
.org/](http://www.beltonhamexpo.org/)  
**for information.**

# The Repeater

## Bike MS Valero 2011

Date: October 15 & 16, 2011  
Route: San Antonio - New Braunfels - San Antonio  
Maps are available!  
Route Map  
Turn by Turn Map  
Distance: Day 1 - 47.6-, 70-, 100-miles; Day 2 - 57.7-miles  
Registration Fee  
Schedule:  
\$50 Sept. 1 - Oct. 14  
Fundraising Minimum: \$300  
Ride Begins: Day 1 - 8:00 A.M., Day 2 - 7:30 A.M.  
Expo: Friday, October 14, 2011  
Event Director: Cindy Rodriguez  
Contact Info:  
sa-bike@nmsslonestar.org.  
Information for ham volunteers will be available at the September 14th meeting.

**bike  
MS**



**2011 Alamo  
Ride to the River**

## 2 Meter Antenna for Bicycle Mobile Operation

Perhaps the biggest problem with taking your HT bicycling is coming up with a decent antenna on your bicycle. This is because the bike doesn't provide much of a ground plane.

Here's an article in the ARRL's Hints and Kinks written by **Charlie Lofgren**, W6JJZ, titled "The Bike 'n Hike Special".

Below are the plans for the antenna he described in the article.

This antenna is a 1/2 wave vertical dipole made out of RG-58/U coax. The beauty of this design is that it is cheap, simple, and easy to make with readily available materials.

The radiator should be 39 inches long for 2 meter operation. In the diagram below you see the basic design. What I use for the radiator, is the center conductor of the RG-58/U coax.

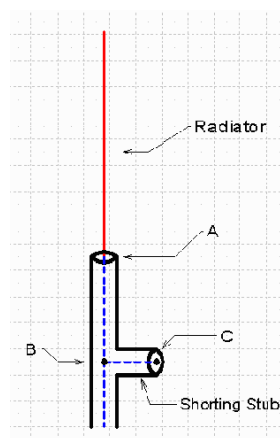
I start out with a 12 foot piece of coax. Then there is enough left so it can be run up to the radio. I keep my radio in my handlebar bag.

First measure how long the radiator is to be, then trim off the outer

sheath, and shield. Next, on the other end of the coax, I cut off a piece of coax that is going to be the shorting stub.

Its proper length is dependent on the velocity factor of the coax used (see table below). In all cases, I always make the lengths to the long side. This way the antenna can be trimmed in to the desired frequency with a SWR bridge.

The full article is available at:  
<http://www.dxzone.com/cgi-bin/dir/jump2.cgi?ID=13513>.



## Around the Band

The AARO Annual Holiday Christmas Party will be held Wednesday, December 14th at Grady's Barbeque on Bandera Road.

Advance tickets are \$12 each. They will be \$14 at the door. (We would like to know how many are coming before the night of the event).

One free raffle ticket will be given with each paid meal. Additional tickets will be on sale during the party.

The event will start around 6:00PM.

The ARRL Newline program can be heard on the AARO repeater every Tuesday night starting at 8:30.



One of the items at the September 14th meeting will be to vote on a contribution by our group to the Newline programming.

**Talk Net  
146.420 Simplex  
Tuesday nights  
7:00 o'clock**

**Check out the "Rainfall Net" every night at  
8 o'clock on 146.940. Tone 179.9**

## Calendar of Events

- September 14th- AARO Meeting at Mamacita's Restaurant. 8030 I-10 West near Callaghan. Dinner at 6:30PM, Meeting starts at 7PM.
- AARO Transmitter Hunt..Saturday, October 8th.

 <b>September Birthdays</b> 		
KD5TRU	Watson	John
KF5KQB	Bryson	Cheryl Ann
KF5GNJ	Swope, Jr	Rich
K5PBR	Goff, Jr.	John S.
KE5ZUP	Saucedo, Jr.	J.A. "Tony"
N5VLV	Lechner	Curtis
K5JDF	Farrell, Sr	John D.
KT4KL	Feeney	Alton J. "Jack"
WB5C	Martyn	Wade
K5ADF	Platt	Terry

**Join Us** on 147.380+ and 443.875+ (both PL tone 162.2) for *Newsline* and the *InfoNet* - Monday Evenings at 8:30 p.m., followed by a *SLOW "Learn CW" Net* ***Saturday Night Code & NightOwl Net*** - starting at 10:00 p.m.  
 Also check out the club's web site - <http://aa5ro.org>

*AARO*  
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*Atlamo Area Radio Organization, Inc.*

