

## Public Service Events

Public service events are an excellent way to hone your communicating skills so you can be a valuable resource in an emergency situation. If you are a first timer let the coordinator know and you will be assigned accordingly.

## Upcoming Events

### • Sunday, May 31 is the First Annual Frisco Youth Trithlon.

Radio operators are needed from about 6:00 a.m. until the finish which is expected to be about 10:00 a.m. They will know more as the event gets closer, but they need about 6 shadows, 6 on the course, and 1 or 2 for net control. Reserve the date.

They are also looking for a coordinator. If you have never coordinated an event before this is a good one to get started with as it does not cover a lot of territory. It is also a good event for practicing being Net Control. Staging will be at the Frisco Athletic Center. Contact Kipton Moravec - AE5IB at kip@kdream.com or 214-929-8121.

### • Saturday, June 6 is the Mesquite Rodeo Bike Ride.

No details are available at this time. You can contact the event coordinator via email andycarstarphen@yahoo.com.

### • Saturday, June 6 is also the EDS Race for the Cure.

The location will be at the EDS campus in north Plano. Operators will need to be on-site at about 7:00 am and it should be completed by about 11:00 am. This is also a good beginners event. Loaner equipment will be available. The event will need about 10 operators, most acting as course monitors. Net Control and shadow positions are also available. It is likely that 2 meter simplex will be used. If you are interested in supporting this event please contact Jimmy Dominguez, KE5PEQ at dzibilchaltun@gmail.com

### • Saturday, June 13 is the Collin Classic Bike Rally.

Yes, this is HamCom weekend. This is a rather large regional bike rally. The event takes place in the northeast quadrant of Collin County. This is a more involved event and assistance is needed at Break Points, lead, tail, net control, mobile rovers, APRS and SAG assistance. Most operators will be able to be released by 2 pm. There will be some loaner equipment available if you need it. It is likely that 2 meter repeaters will be used for this event. If you are interested in supporting this event please contact Tony Campbell at tony@w5adc.com.

ISSUE

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May  
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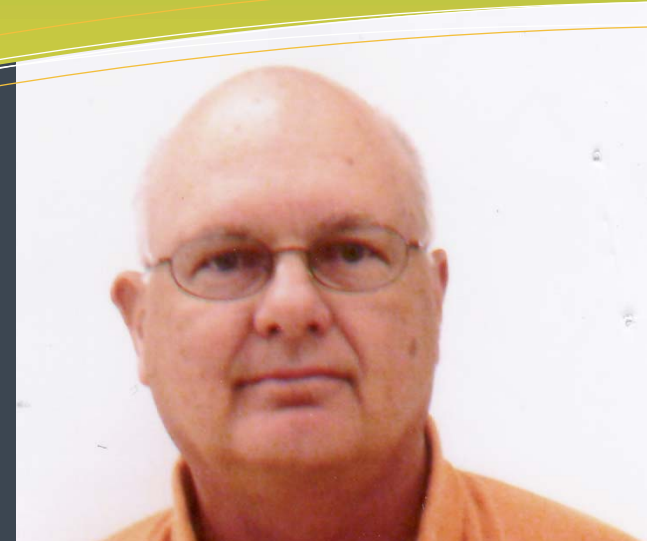
K5QHD  
Garland Amateur Radio Club  
Where Amateur Radio  
is fun again!!!

# The Arclite

## Repeater News

The club currently operates two open repeaters for use by any licensed amateur radio operator. One is on 146.660 MHz with a negative 600 KHz offset and the other is on 442.700 MHz with a positive 5 MHz offset. Both repeaters require a PL tone of 110.9 Hz. Additionally the 146.660 repeater transmits a tone of 110.9 Hz to enable use of tone squelch found on most receivers. The backup two meter repeater that is occasionally put into service does not have this feature.

If you are not familiar with the Club's guidelines for usage of our repeaters please take a few minutes to look them over. They are accessible on our web site under "Club Information" then "Repeater Use Guidelines."



## President's Pen

Ham-Com is just around the corner, June 12 and 13 at the Plano Centre, Spring Creek and Jupiter Rd. This is the largest hamfest in the country outside of Dayton, Ohio. This is a great opportunity to see the major ham equipment vendors show their wares and answer your questions about their gear. There are a number of presentations scheduled with some big names in ham radio speaking. There's also a Skywarn school and VE testing available. Check the Ham-Com web site [www.hamcom.org](http://www.hamcom.org) for all the details and for reduced price admission if purchased by May 30.

We will have a table at Ham-Com, shared this year with the Dallas ARC. I will have a sign-up sheet at the next club meeting for volunteers to work this event in two hour shifts.

The ninety degree weather is almost here which means Field Day can't

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The Arclite Issue 05 May 2009



Garland Amateur Radio Club  
Emergency Communications Center  
(ECC)  
1027 Austin Street Suite B.  
Garland, TX. 75040-5608  
Where Ham Radio is Fun Again!

K5QHD is the Bill Folsdtadt  
Memorial Station

**Donate your excess goods to the GARC.** Don't forget the club is a 501(C)(3) organization and that all your donations can be tax deductible.





## April Meeting Minutes

The April GARC Meeting was called to order by Bill Engel K5DHY on the 27th at 7:30 with the Pledge of Allegiance led by Garland Newman W5IDN. Introductions were made and we were pleased to have a number of guests. The minutes were approved as printed and the Board members made their reports, the most notable of which was that Swank and his assistant, George Norwood KE5KDO, need more students for the classes at the ECC on Sunday afternoons from 3 to 5 PM. Be sure and check out all of N5TIM John Galvin's public service requests available from the club website ([www.k5qhd.org](http://www.k5qhd.org)). For those of you who have been out of the loop for a while (or just blinked), Tom Blackwell N5GAR is no longer our ARRL North Texas section manager. The office and web page (<http://www.arrl.org/sections/?sect=NTX>) now belong to Jay Urish W5GM. Don't forget, it is also time to renew your membership in the club. Both votes for a tower agreement and purchasing a Digital Voice Recorder for the controller passed. Our guest speaker, Bud Walton K5HW, talked about DXing and shared many "tricks of the trade". Both Bud and Bill Engle had some of their QSL cards on the back table in an impressive display.

Respectfully Submitted,  
Lowell Allen, Jr. KD5RFD



## DISASTER ASSESSMENT DRILL.

Thursday, May 7, 2009

By: Desiree Jacobsen

A catastrophic tornado outbreak occurred across the Metroplex on Saturday, March 14, 2009. Hundreds of homes were destroyed and thousands of people were left in chaos. Thankfully, this tornado strike was just part of a large-scale training exercise conducted by the American Red Cross-Dallas Area Chapter. Approximately 160 volunteers honed their response skills across Collin, Dallas, Denton, Ellis, Hunt, Kaufman and Navarro counties. The Dallas Area Red Cross chapter created the drill to help volunteers determine the types of residential damage caused by storms, and how to relay this information back to the Red Cross Command Center. "The volunteers were tasked with gathering information about what they were seeing at the site of the disaster," said Neil McGurk, disaster

drill director. "When a real disaster strikes, they are the first Red Cross workers on the ground. They are the eyes and ears of our whole operation." The assessment information the volunteers provide is essential to the recovery process. "They assess damaged properties, power outages or road closures," said McGurk. "From this information we can gauge how many volunteers are needed, how many meals we need to prepare, and we get an idea of what supplies are needed." Before the drill, volunteers received two training sessions. The first was an online course created by the American National Red Cross in Washington, D.C. This training focused on the fundamentals of disaster assessment. The second was a course called, "Local

Basics," which is a simulated disaster assessment drill they must perform before they respond to an actual disaster. Volunteers that took part in the drill agreed that it was beneficial to their training. "When it comes time to do a real-life disaster assessment, it will be easier because I have lived it out," said John Sanderford, Red Cross volunteer. Maru Del Real, another volunteer, agrees that the drill was beneficial and adds how it will specifically benefit the Red Cross. "It allowed us to be more comfortable with the procedures involved. It can be overwhelming to remember all of the steps we need to complete, but this gives us the practice we need to be as efficient as possible." CONT. See Red Cross:

**Training prepares us to better deal with overwhelming circumstances.**

## President's Pen Continued

to our club. Dale is a Carrollton resident and volunteers in Denton County.

Speaking of the Red Cross, several of our club members participated in the Red Cross Disaster Assessment Drill back in March. Thanks to those who did and to the club for making our primary repeater available for communications with

the outlying cities.

See you Memorial Day at the club meeting.

73,  
Bill



## GARC OFFICERS

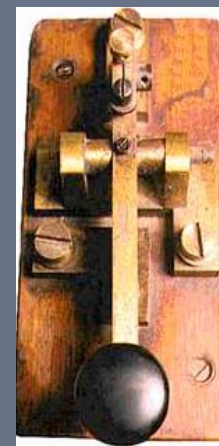
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### INTERNET:

See us at <http://www.k5qhd.org>

also on Yahoo groups

### Newsletter:

The Arclite is published monthly for the members of the Garland Amateur Radio Club. The contents of this newsletter are copyrighted the date of publication, but may be reprinted without permission in any Amateur Radio Publication provided proper credit is given and the motive is the advancement of amateur radio. The deadline for Arclite materials is the 3rd weekend of each month.

### MEMBERSHIP:

Membership forms are available at the GARC monthly meetings or the GARC website. Members can be voted in at each meeting. Club Rosters for non commercial uses can be obtained by club members by contacting a board member.





The May Board Meeting was held on Saturday the 9<sup>th</sup> at 9AM. Don Reznicek KE5FWK confirmed that our topic and guest speaker for the next meeting on Monday, May 25<sup>th</sup> will be "Understanding D-Star - Configuration and Operation Similarities to IRLP and Echolink" by Dale Finley, KB5NFT. Ralph Brown KA5KVF reported that he is ready to install our new repeater controller after installing the DR-1000B DVR that will allow a number of neat features to enhance operations. The hold up now has been the weather and not wanting to be in the middle of switching out equipment if a weather net is needed. The club will have a table at Ham-Com on June 12 and 13 (everyone's help would be appreciated so no one has to do it all day long). Field Day is coming soon – be sure to see the article elsewhere and to mark your calendar.

Respectfully Submitted,  
Lowell Allen, Jr. KD5RFD



In 1908, the Dallas community faced one of its greatest challenges when the Trinity River swelled, flooding the area. More than 4,000 people were made homeless. A small group of passionate and committed individuals, who later founded the Dallas Area Chapter of the American Red Cross, set to work. The group erected a tent city at Main and Stone streets and hauled hay in wagons to make beds.



Helping People  
Prevent, Prepare and Respond  
Across North Texas Since 1911



The drill also included other key persons who helped simulate a variety of situations volunteers would encounter in the field. Among them included one volunteer who posed as a police officer who had to evacuate an area because of a gas leak, a reporter seeking public information, and a mother with her child who desperately needed help.

In addition, Red Cross staff and volunteers worked the Disaster Command Center and practiced communicating community needs through HAM radio operators.

Volunteers credit everyone's hard work for the success of the event. "It was really great to see people step up and volunteer," said Sanderford. "Everyone who committed to participate in the drill came out and gave it all they were worth. That's what volunteering is all about, whether it's practice or the real thing."

### Volunteer Now

The Dallas Area Chapter of the American Red Cross recruits and trains volunteers to help deliver services throughout its 12-county jurisdiction. With the help of our dedicated volunteers, the Red Cross is the preeminent provider of the life saving services, including disaster preparedness, emergency social services, and health and safety training. Be a hero and get involved!

### Why Volunteer?

- Help your community
- Feel pride in knowing that you can help people in need
- Meet other people who share your interests
- Learn new skills
- Use your personal talents
- Resume building
- Continuing education



Field Day 2009

### Look ... Up in the air ... Oops, it is NOT Superman !

It is the Garland Amateur Radio Club putting up lots of Amateur (Ham) Radio antennas across Cecil B. Winters Park (Mapsco 19B) near Hawaiian Falls off of North Garland Ave., Arapaho Rd. & Spring Creek Dr. in Garland, TX.

"Field Day" is a 24 hour national emergency communications preparedness exercise when thousands of Ham Radio operators across the USA will be showing off their communications capabilities to the general public on the weekend of June 27-28.

Over the past years, the news has been full of reports of Ham Radio Operators providing critical communications in emergencies world-wide. Remember Hurricane Katrina ? What a mess ! During Hurricane Katrina, **Amateur Radio was often the ONLY way people could communicate !**

"When all else fails..." is more than just words to the hams as they prove they can send messages in many forms without the use of phone systems, internet, or any other infrastructure that can be compromised in a crisis.

On that weekend of June 27-28, the public will have a chance to meet and talk with these ham radio operators and see for themselves what Amateur Radio is all about. The Garland Amateur Radio Club will be showing some of the newest digital and satellite capabilities, voice communications and even historical Morse code, The GARC has ongoing Technician/General license classes plus FREE assistance to help Scouts get their Radio Merit Badge. For more info : Go to [www.k5qhd.org](http://www.k5qhd.org) or call 972-272-4499.

The Garland Amateur Radio Club Field Day operation is open to the general public (especially Scouting age youth). In addition there will be a FREE hamburger/hotdog cookout for everyone Saturday evening around 6PM.



WWW.ARRL.ORG

ARRL FIELD DAY 2009  
June 27-29





The W5GI Multi-band Mystery Antenna looks like a plain dipole (see [figure 1](#) and [photo A](#) below) and is very simple to build.

Builders of the Mystery antenna will need the following materials:

- 3 wish bone insulators
- About 70 feet of wire (14 gauge household electrical wire works well,)
- Sufficient twin lead or open wire to make a half wave section on 20 meters. Window-type 18 gauge 300 ohm ribbon works best. The [Wireman](#) is an excellent source for antenna wire and 300 ohm line.
- 34 feet of RG8X mini-coax
- An electrical connector, available from most electrical parts stores, to connect the twin lead and coax
- Shrink tubing to cover the exposed coax joints



**Photo A** - Full view of the W5GI multi-band Mystery Antenna with all sections shortened considerably for illustration purposes.

Article reprinted with premission from W5GI

### A multi-band wire antenna that performs exceptionally well even though it confounds antenna modeling software

See <http://www.w5gi.com> for the complete unabridged article

[Click FAQ the W5GI Mystery Antenna.](#)

The design of the Mystery antenna was inspired by an article written by James E. Taylor, W2OZH, in which he described a low profile collinear coaxial array. This antenna covers 80 to 6 meters with low feed point impedance and will work with most radios, with or without an antenna tuner. It is approximately 100 feet long, can handle the legal limit, and is easy and inexpensive to build. It's similar to a G5RV but a much better performer especially on 20 meters.

The W5GI Mystery antenna, erected at various heights and configurations, is currently being used by thousands of amateurs throughout the world. Feedback from users indicates that the antenna has met or exceeded all performance criteria. The "mystery" part of the antenna comes from the fact that it is difficult, if not impossible, to model and explain why the antenna works as well as it does. The antenna is especially well suited to hams who are unable to erect towers and rotating arrays. All that's needed is two vertical supports (trees work well) about 130 feet apart to permit installation of wire antennas at about 25 feet above ground.

The W5GI Multi-band Mystery Antenna is a fundamentally a collinear antenna comprising three half waves *in-phase* on 20 meters with a half-wave 20 meter line transformer. It may sound and look like a G5RV but it is a substantially different antenna on 20 meters. Louis Varney's antenna, although three half waves long, was an out-of-phase aerial. Mr. Varney had two specific reasons for selecting a 3 half waves on 20... he wanted a four-lobe radiation pattern, at least

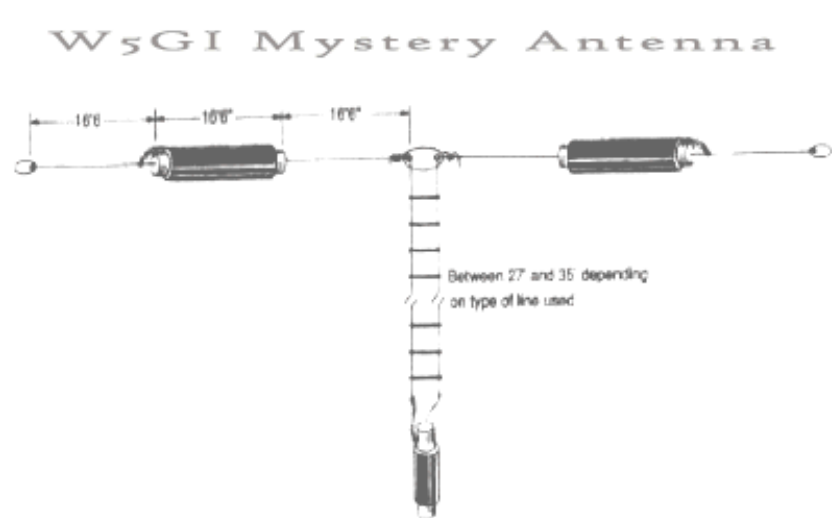
unity gain and a low feed point impedance. The Mystery antenna, on the other hand, presents a six-lobe pattern on 20 meters, gain broadside to the antenna, and also low feed point impedance to simplify matching the antenna to the rig. Additionally, the Mystery antenna is designed to work at least as well, on the other HF bands as a G5RV. In short, the Mystery antenna is a sky wire that incorporates the advantages of a 3 element collinear and the G5RV antenna.

In its standard configuration, a collinear antenna uses phase reversing stubs added at the ends of a center fed dipole. These stubs put the instantaneous RF current in the end elements in phase with that in the center element. You can make these phase reversing stubs from open wire line or coaxial cable. Normally, a shorted quarter-wave stub is used, but an open-ended half wave stub would also work. The problem is that the dangling stubs are unwieldy and or unsightly.

An article written by James E. Taylor, "COCOA-A Collinear Coaxial Array," published in 73 Amateur Radio, August 1989, describes a low profile collinear coaxial array. According to Taylor, when you apply a RF voltage to the center conductor at the open end, the stub causes a voltage phase lag of 180 degrees at the adjacent coax shield. This happens because the RF is delayed by one quarter-cycle as it passes from left to right, inside the coax to the shorted (opposite) end. There's another quarter-cycle delay as the wave passes back from right to left inside the coax and emerges on the shield at the open end. Add up the delays and you get a total time delay of one-half cycle, or 180 degrees. In essence, the coax section serves two purposes: it provides the necessary delay and provides part of the radiating element in a collinear array.

The first prototypes of the Mystery antenna used the Taylor formulas, which which called for cutting the wires to a quarter wave length using the formula  $234/f(\text{Mhz})$  and the coax, using the same formula, but applying an appropriate velocity factor. The first version of my antenna worked well on 20 meters but failed as a multi-band antenna.

The second antenna was built with constructed with the coax cut to the same length as the wire. This was done with the belief that perhaps the coax didn't behave like coax and therefore the velocity factor wasn't applicable. Surprisingly, the new antenna performed exceptionally well on 20 meters, had low SWR and performed just as well on the other HF bands and 6 meters as my G5RV reference antenna.



**Figure 1** - Schematic drawing of the W5GI Multi-band Mystery Antenna.

The antenna can be built in less than an hour. When you're ready to proceed, visit John's website at

<http://w5gi.com> for complete assembly instructions.

**Ham-Com**  
 June 12-13, 2009  
 Plano Centre  
[www.hamcom.org](http://www.hamcom.org)  
**The BIGGEST Hamfest in Texas!**