
SIGNALS

Rockwell Collins Amateur Radio Club

Monthly Newsletter of the

Volume 36 Issue 9

Web Site <http://www.w5rok.us>

June 2015

RCARC Membership Meeting

Tuesday 23 June 2015
1700 Social 1730 Meeting
1800 Program

Methodist Richardson Medical Center
At Bush/Renner/Shiloh Intersection
Second Floor Conference Room 200

Subject:
Field Day Preparations

Radio Room WIFI Access

The 3 PC's in the radio room are set up for WiFi.

Rockwell Collins grants wireless access by person, not by machine.

Employees will use the "RC-Wireless" network.

Retirees and others will use the "RC-Guest" network.

To access the RC-Guest network:

1. Have a current employee submit a request for a guest account, with Name, Email, Company Name (e.g., Rockwell Collins Retired), and Phone.
2. On the PC, log in with your Windows username / password, or use the Windows Guest account.
3. On the PC desktop, select the TP-LINK icon.
4. Select the RC-Guest network.
5. Enter your security key.

An alternate method may be to use your cell phone as a "hot-spot." Cell phone coverage is pretty good in the building now, as the company installed cell phone repeaters a couple of years ago.

(Contributed by Chris Havenridge, KF5GUN)

Storm Spotter Training from the NWS

The following link contains some very instructive and interesting videos on storm spotting. (Repeated this month because of the storm season).

<https://www.youtube.com/watch?v=KzTBjS8uYB0&index=72&list=UU9hQvMjzSxurMirYDgOMezw>.

(Posted on rwk-ntx@yahoogroups.com by Samuel Barricklow K5KJ)

Membership Renewals

It is time for membership renewals for 2015. Please get your renewals in to Joe Wolf N5UIC. Joe's email address and telephone number are on page 2 of this newsletter.

Local Club News

Meeting Notice

At this month's meeting there will be a discussion about operating on Field Day for those who are interested in participating. This is an opportunity to get involved and have some fun, so be sure to be there on Tuesday, 23 June!

RCARC Community Service Activities

Siren Testing Dennis Cobb WA8ZBT, Chris Havenridge KF5GUN, John McFadden K5TIP and Jim Skinner WB0UNI participated in the Richardson emergency siren testing on 3 June 2015. All sirens tested operated normally, with one siren unreported due to lack of an observer. The siren testing is performed on the first Wednesday of each month. The sirens are monitored by amateur radio operators and reports made using the Richardson Wireless Klub (RWK) repeater at 147.120 MHz.

Crime Watch Patrol Jim Skinner WB0UNI participated in Richardson Duck Creek Crime Watch Patrol (CWP). CWP members, after successful completion of Richardson Police Department Training, patrol their neighborhoods and report all suspicious activities to the Police Department.

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W5ROK CLUB STATION

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461-290

Richardson The Richardson Wireless Klub (RWK) VE team hold license testing on the third Thursday of each month at St. Barnabas Presbyterian Church, 1220 West Beltline Rd. Testing begins at 1900 hrs in room 12. Enter through the Northern most door on the east side of the church building. For further information contact Dave Russell W2DMR, at 972.690.9894 or E-mail warhog4@tx,rr.com.

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President's Message

THIS SPACE RESERVED FOR PRESIDENT'S AND/OR VICE-PRESIDENT'S MESSAGE

VE SESSIONS

Dallas tests are held on the fourth Saturday of each month at 1000 hrs. 13350 Floyd Rd. (Old Credit Union) Contact Bob West, WA8YCD 972.917.6362

Irving tests are held on the third Saturday of each month at 0900. Fifth and Main St. Contact Bill Revis, KF5BL 252-8015

McKinney VE test sessions are held at the Heard Museum the first Sunday of the month. The address is 1 Nature Place, McKinney TX. The time of the testing is 1430, ending no later than 1645. **Note: no tests given on holiday weekends.**

Garland testing is held on the fourth Thursday of each month, excluding November, and begins at 1930 sharp. Location is Freeman Heights Baptist Church, 1120 N Garland Ave, Garland (between W Walnut and Buckingham Rd). Enter via the north driveway. A HUGE parking lot is located behind the church. Both the parking lot and the Fellowship Hall are located on the east side of the church building, with big signs by the entrance door. Contact Janet Crenshaw, WB9ZPH at 972.302.9992.

Plano testing is on the third Saturday of each month, 1300 hrs at Williams High School, 1717 17th St. East Plano. Check Repeater 147.180+ for announcements.

Greenville testing is on the Saturday after the third Thursday, 1000 hrs at site TBA, contact N5KA, 903.364.5306. Sponsor is Sabine Valley ARA. Repeater 146.780(-) with 118.8 tone.

Secretary's Report

26 May 2015

The meeting was called to order by President Mike Schmit WA9WCC at 1738.

The following members were present at the meeting:

Jim Brown	AF5MA
Dennis Cobb	WA8ZBT
Chris Havenridge	KF5GUN
Daneal Havenridge	TBD
Matteo Havenridge	TBD
John McFadden	K5TIP
Steve Phillips	K6JT
Mike Schmit	WA9WCC
Jim Skinner	WB0UNI
Joe Wolf	N5UIC

Officers and Committee Reports:

President's Report: There was no formal President's Report.

Vice-President's Report: There was no formal Vice President's Report.

Secretary's Report: The Secretary's Report is in this newsletter.

Treasurer's Report: There was no formal Treasurer's Report.

Website Manager's Report: There was no Website Manager's Report.

Station Trustee's Report: There was no Station Trustee's Report.

Database Manager's Report: There was no Database Manager's Report.

Old Business:

There was no old business.

New Business:

Mike Schmit WA9WCC proposed to buy an antenna line launcher for about \$95. Membership approval was not required for this small purchase; the membership in attendance offered no objections.

Dennis Cobb WA8ZBT described actions taken by Chris Havenridge KF5GUN to upgrade club hamshack capabilities:

Arranged with RC IT for availability of an analog phone line for control of the repeater using DTMF signals

Provided dongle for one computer to allow Internet access; two more will be obtained to support the remaining two computers

Dennis explained that non-RC employees (including retirees) will be required to apply for guest accounts with RC IT to allow Internet access; employees can access the Internet using their assigned RC wireless access accounts. Chris suggested that instructions for guest account application be included in the RCARC newsletter.

Adjournment:

The meeting was adjourned at 1811.

Analog Landline restored to W5ROK Repeater

After a long hiatus, the analog phone line has been restored to the W5ROK repeater.

This will allow the repeater manager to maintain the repeater controller from the convenience of any land-line or cell phone, as well as via RF. Additionally, the DTMF phone patch capability has been restored.

Of course, everyone has a cell phone, and many homes no longer have a traditional telephone installed. However, did you know that in times of trouble, cell phones don't work very well? For example,

Long Beach NY: no cell phone coverage during Hurricane Sandy. (1)

Boston: (Marathon bombing) "[Carriers] were all overwhelmed by the surge in traffic, leaving many at the scene of the explosions unable to contact family or friends, and blocked other callers in the area or outside Boston from checking on those attending Marathon." (2)

Virginia: "East Coast quake causes major cell service disruptions ... There were no reports of downed cell towers or wires, but mobile providers said that millions of people tried to make cell phone calls at the same time, resulting in overwhelmed cellular relay stations." (3)

USA: Government agencies can shut down cell service ("war on terrorism") (4)

Club officers will have instructions to refresh your memory on the lost art of using your mobile or handheld to make a quick phone call to a land line. Give it a try before you need it!

Notes:

(1) http://www.huffingtonpost.com/2013/10/21/cell-phones-hurricane-sandy_n_4118262.html

(2) <https://www.bostonglobe.com/business/2013/04/16/cellphone-networks-overwhelmed-blast-aftermath/wq7AX6AvnEemM35XTH152K/story.html>

(3) http://money.cnn.com/2011/08/23/technology/earthquake_phone_service_outages/

(4) <http://www.motherjones.com/politics/2013/04/boston-maraton-cell-phone-standard-operating-procedure-303>

Understanding Antennas For The Non-Technical Ham - Part 10

Each month for the next year or so, we are including in **SIGNALS** excerpts of a book by Jim Abercrombie – N4JA (SK) on antenna design. This book is available online for free and can be located at [http:// www.hamuniverse.com/basicantennas.pdf](http://www.hamuniverse.com/basicantennas.pdf). Now, part 10...

Understanding Antennas for the Non-Technical Ham

A Book By Jim Abercrombie, N4JA (SK)

Illustrations by Frank Wamsley, K4EFW

Edited by Judy Haynes, KC4NOR

Copyright July 2005. Second Edition

Edited for the web , N4UJW

XI. END-FED ANTENNAS

1. End-Fed Zepp

A half-wave resonant antenna can be fed from its end. When fed this way, it is also known as an end-fed zepp. An end-fed zepp will work on its fundamental frequency and on odd and even harmonic frequencies. The name "Zepp" goes back to the days of dirigibles or Zeppelins, which used trailing wire antennas that had to be fed at one end. The end of a half-wave antenna has very high impedance, and an antenna fed this way is said to be voltage fed. Feeding a half-wave resonant dipole in the center means it is current fed. The normal way of feeding the end-fed antenna is with ladder-line. One side of the ladder-line is connected to one end of the antenna and the other side of the ladder-line is connected to nothing. To secure the unconnected side of the ladder-line, it is connected to a short wire running between two insulators. Since the antenna is connected at its high impedance point, no current flows into an antenna, but there will be a large current in the center of this antenna. No current flows from the open side of the feed-line because it is at a zero current point.

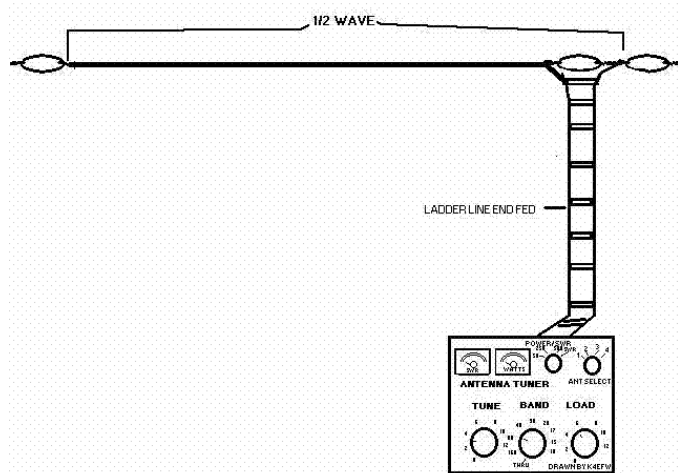


Figure 23. End-Fed Zepp

The end-fed zepp can be matched by cutting the ladder-line to a quarter wavelength with the bottom end of the ladder-line shorted. A certain distance above the short is a 50-ohm feed-point and it can be fed directly with coax. MFJ is marketing antennas of this type made for single bands, and they are selling the parts separately so you can build your own. You will have to find the 50-ohm point by trial and error. This method of feed makes it a single band antenna.

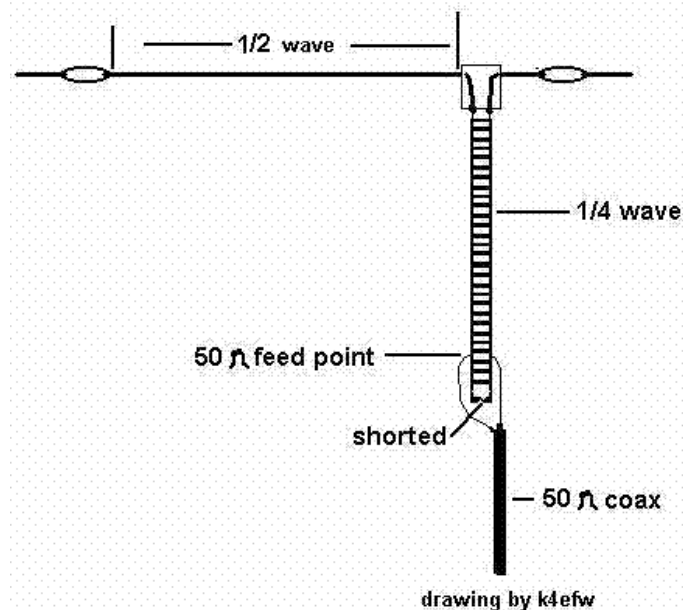


Figure 24. Alternate Method of Feeding an End-Fed Zepp

2. End-Fed Random Length Antenna

Below is another end-fed antenna made from a random length of wire connected to the back of the tuner. The wire then exits the shack and goes to a high support where it then runs horizontally to another high support. The tuner groundside must be connected to a good RF ground, since a poor ground causes high losses. This antenna is commonly called a "long wire." Since the end of the antenna comes in the shack, you will be exposed to high levels of RF. In addition, this type of installation may cause RF to be picked up in the microphone, noted by distortion. The feed-point of the long wire being connected directly at the output of the tuner can have an impedance of a few ohms to a thousand ohms depending on the antennas length. If the wire is cut to a multiple of a half wave at the lowest frequency, the system will be efficient since it is fed at a voltage point and very little current flows into the ground. This antenna is really a variation of an inverted-L fed directly without a feed-line from the tuner.

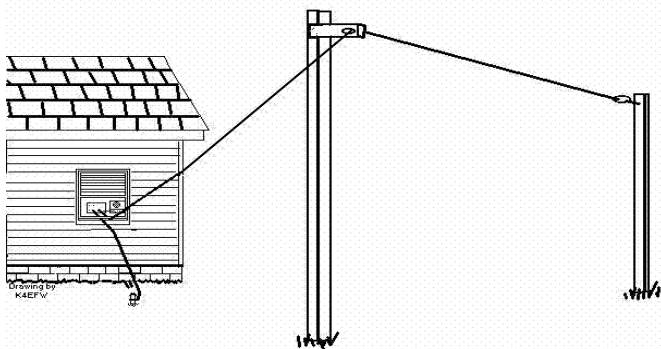


Figure 25. End-Fed Random length or Long Wire Antenna

XII THE HALF SLOPER

1. The Half-Sloper

The half sloper is an antenna that is hard to categorize, since it is not a sloping dipole and it is not a vertical. The half sloper is half of a sloping dipole. To make one of these antennas, cut a quarter-wave radiator by dividing 234 by the frequency in MHz and tie an insulator to both ends. One insulator is tied near the top of a tower and the radiator wire is run down toward the ground. Coax is split into its center conductor and shield, and it connects across the insulator at the tower. The center conductor of the coax is tied to the quarter wave radiator and the shield is grounded to the tower. This means the tower is acting as the missing half of the dipole. It is a difficult antenna to get a good match because the height above ground of the feed-point and the angle of the slope affect the impedance. Some users of this antenna say to mount the feed-point at 45 feet up on the tower and have a beam antenna on the tower above the feed-point to use as a counterpoise. Other users say you must find the 50-ohm point on the tower, which is a tedious task. It has also been said, "Some installations work super, while others do not work well at all." The half-sloper is used almost exclusively on 80 and 160 meters. The Alpha-Delta half sloper was tried here and its performance was disappointing. The signal from it was down a least 10 dB below a dipole and the SWR wasnt low enough. The half sloper is mostly vertically polarized and it is directional toward the slope.

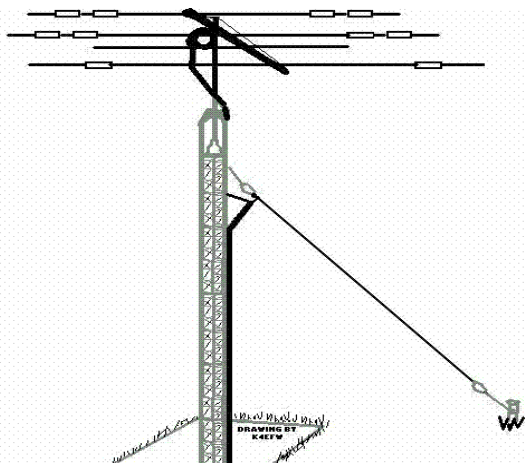


Figure 26. Half-Sloper

Upcoming Events

JUNE

- 27-28 Field Day** The objective is to work as many stations as possible on any/all amateur bands (excluding 60, 30, 17, and 12-meter bands) and to learn to operate in abnormal situations in less than optimal conditions. Field Day is open to all amateurs in the ARRL/RAC Field Organizations area and countries within IARU Region 2. DX stations contacted residing in other regions may be for credit. More info at <http://www.arrl.org/field-day>.

JULY

- 11-12 IARU HF World Championship** The objective is to contact as many other amateurs, especially IARU member society HQ stations, around the world as possible using the 160, 80, 40, 20, 15 and 10 meter bands. Date: The second full week-end of July, beginning 1200 UTC Saturday and ending 1200 UTC Sunday. Both Single and Multi operator stations may operate the entire 24-hour period. More info at <http://www.arrl.org/iaru-hf-championship>.

AUGUST

- 1-2 AUGUST UHF** The objective is to work as many amateur stations in as many 2 degrees by 1 degrees grid squares as possible using authorized amateur frequencies above 222 MHz and all authorized modes of emission. Date: First full week-end of August. Begins 1800 UTC Saturday, ends 1800 UTC Sunday (August 1-2, 2015). Entrants may use as much of this time as they wish. More info at <http://www.arrl.org/august-uhf>.
- 15-16 10 GHz & Up – Round 1** The objective is for North American amateurs to work as many amateur stations in as many different locations as possible in North America on bands from 10-GHz through Light. Amateurs are encouraged to operate from more than one location during this event. See detailed rules for restrictions. Date: Third full weekend of August. May operate for 24 hours total. The weekend begins at 6:00 AM local Saturday though 12:00 midnight local Sunday. More info at <http://www.arrl.org/10-ghz-up>.

REGULAR ACTIVITIES

- Daily** DFW Early Traffic Net (NTS) at 6:30pm 146.88 – PL 110.9Hz
- Daily** DFW Late Traffic Net (NTS) at 10:30pm 146.72 – PL 110.9Hz
- Daily** Texas CW Traffic Net (NTS) at 7:00pm on 7053 KHz and at 10pm on 3541 KHz www.k6jt.com
- 1st Wednesday** Richardson Emergency Siren Test. At noon using the Richardson Wireless Klub (RWK) repeater at 147.120 MHz.
- 2nd Wednesday** ARES North Texas HF Net Every month—3860 KHz at 8:30 pm—9:30pm

Rockwell-Collins

Amateur Radio Club

Mail Station 461-290

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Richardson, TX 75083-3807

TO:



CLUB STATIONS

(972) 705-1349

W5ROK REPEATER

441.875 MHz +5 MHz Input
131.8 Hz PL - RX and TX

W5ROK-1 PACKET BBS ROK Node

145.05 MHz

W5ROK-N1, W5ROK-N2 & W5ROK-N3 HSMM-
MESHNET Nodes 2.4 GHz

Tuesday 23 June 2015

1700 Social 1730 Meeting

Methodist Richardson Medical Ctr
At Bush/Renner/Shiloh Intersection
Second Floor Conference Room 200

NEXT SIGNALS INPUTS DEADLINE:

→→→ 17 July 2015 ←←←