
SIGNALS

Rockwell
Collins **Amateur Radio Club**

Monthly Newsletter of the

Volume 36 Issue 3

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

December 2014

RCARC Membership Meeting

Tuesday 27 January 2015
1700 Social 1730 Meeting
1800 Program

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

Subject:
To be announced in the January 2015 issue of SIGNALS

Understanding Antennas For The Non-Technical Ham - Part 4

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 4...

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

V. THE IONOSPHERE AND MODES OF HF PROPAGATION (continued)

Twenty-Meter (14.0-14.35 MHz) Propagation

The twenty-meter band is the best DX band because it is open for long-skip for more hours than any other band and it does not suffer from QRN as the lower bands. In years of high sunspot numbers, short-skip and long-distance DX can be worked at the same time during daylight hours. Although DX is there most of the time, most of the DX worked is at sunrise, sunset, and all night during peak sunspot years. During the years of low sunspots, it is common to work into Europe and Africa during the day and into Asia and the South Pacific during the evening hours and early at night. Low sunspot numbers cause 20 meters to go dead for east to west contacts at night an hour or so after sunset, but there is some TE propagation. During periods of moderate sunspot numbers, the propagation on this band is a blend of propagation of low and high sunspot years.

Seventeen-Meter (18.067-18.167 MHz) Propagation

The 17-meter band propagation acts much like 20 meters except it is affected more by low sunspot numbers than 20 meters. In periods of low sunspot numbers, this band does not stay open as late as 20 meters, fading out as the sun begins to set. Yet, the 17-meter band does stay open all night when the sunspot numbers are high. (Cont. on pg 3)

Local Club News

Meeting Notice

There was no regular meeting scheduled in December. As is traditional, members of the club met for food and fellowship at a local restaurant, this year at Dickey's Barbecue.

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 December 2014. The testing was completed with only minor problems with a few of the sirens. 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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VE SESSIONS

Dallas tests are held 4th Sat of each month at 1000 hrs. 13350 Floyd Rd. (Old Credit Union) Contact Bob West, WA8YCD 972.917.6362

Irving tests are held 3rd Sat 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 3rd Thursday, 1000 hrs at site TBA, contact N5KA, 903.364.5306. Sponsor is Sabine Valley ARA. Repeater 146.780(-) with 118.8 tone.

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

Secretary's Report

25 November 2014

The meeting was called to order by Vice President Mike Schmit WA9WCC at 1740.

The following members were present at the meeting:

- | | |
|---------------|--------|
| Jim Brown | AF5MA |
| Bob Kirby | K3NT |
| John McFadden | K5TIP |
| 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:

Plans for a Christmas dinner to replace the December meeting were discussed. Jim Skinner WB0UNI moved that we

meet at Dickey's on 14th Street in Plano on Tuesday, 16 December at 1730; John McFadden K5TIP seconded the motion. It was approved unanimously.

Joe Wolf N5UIC proposed that the position of "Database Manager" be re-titled as "Membership Vice President." No action was taken.

Jim Skinner WB0UNI requested inputs from members for the club newsletter, including articles and descriptions of club and member accomplishments.

Adjournment:

The meeting was adjourned at 1805, followed by a presentation on the Buddipole by Joe Wolf N5UIC.

The next meeting will be at 1730 on Tuesday, 16 December 2014 at Dickey's in Plano (see New Business above).

Understanding Antennas For The Non-Technical Ham - Part 4 *(Continued from page 1)*

The propagation on this band is like a blend of 20 meters and 15 meters, but it is closer to 20 meters. Most users of this band use dipoles and other simple antennas since triband beam antennas won't work here.

Fifteen-Meter (21.0-21.45 MHz) Propagation

Fifteen meters is a fantastic DX band during the high sunspot years. This band may be open for 24 hours, and it is common to work more than 100 countries during a contest weekend on this band. Many have worked more than 300 different countries on 15 meters. In years of low sunspot numbers, 15 meters may be completely dead for several days in a row. When it opens during those years, you may hear only the Caribbean, South America, and on rare occasions the extreme southern part of Africa via TE propagation.

Twelve-Meter (24.89-24.99 MHz) Propagation

The 12-meter band is much like 15 meters, but it is affected more by sunspot numbers. Because this band is little used, many hours can pass without hearing any amateur signals. Occasionally you will hear South American Citizen Band "pirates" on lower sideband. It is mostly a daytime band but openings to Asia and the South Pacific are common early at night during peak sunspot years. The reason this band is little used is that triband beam antennas don't cover this band.

Ten-Meter (28.0-29.7 MHz) Propagation

The band that is most affected by the sunspot numbers is 10 meters. You may have noticed in this discussion, the higher the frequency, the more it is affected by sunspots. During peak sunspot years, 10 meters can be open some days for 24 hours. Mostly it is a daytime band. When they are at the peak, the sunspots enable you to work worldwide with power as low as 5 Watts. A 10-meter confirmed country total of over 250 is common. In the low sunspot years, the band can be closed for days. Ten meters can open for very short skip by sporadic E propagation during the summer months. Very short skip means contacts as close as 200 miles out to 1000 miles. Sporadic E propagation can suddenly occur without regard to the sunspot numbers.

Upcoming Events

JANUARY

- 1** **Straight Key Night** Objective: This 24-hour event is not a contest; rather a day dedicated to celebrating our CW heritage. Participants are encouraged to get on the air and simply make enjoyable, conversational CW QSOs. The use of straight keys or bugs to send CW is preferred. There are no points scored and all who participate are winners. Event is held from 0000 UTC through 2359 UTC. Bands: All authorized Amateur frequencies, but activity has traditionally been centered on the HF bands. More info at <http://www.arrl.org/straight-key-night>.
 - 3-4** **RTTY Roundup** Objective: Amateurs worldwide contact and exchange QSO information with other amateurs using digital modes (Baudot RTTY, ASCII, AMTOR, PSK31, and Packet—attended operation only) on 80, 40, 20, 15, and 10 meter bands. Any station may work any other station. Stations may be worked once per band, regardless of mode. Begins 1800 UTC Saturday, ends 2400 UTC Sunday (January 3-4, 2015). Bands: 80, 40, 20, 15 and 10 Meters. More info at <http://www.arrl.org/rtty-roundup>.
 - 4** **Kid's Day** Objective: ARRL event designed to promote Amateur Radio to our youth. Share the excitement with your kids or grandkids, Scout troop, church or general public! Provides on-the-air experience to youngsters to foster interest in a license of their own. Also intended to give older hams a chance to share their station and Amateur Radio with their children. Runs from 1800 UTC through 2359 UTC. Operate as much or as little as you like. More info at <http://www.arrl.org/kids-day>.
 - 24-26** **January VHF** Objective: Amateurs in US and Canada (and possessions) work as many amateur stations in as many different 2 degrees x 1 degree Maidenhead grid squares as possible using authorized frequencies above 50 MHz. Stations outside US & Canada (and possessions) may only work stations in US (and possessions) and Canada. Begins 1900 UTC Saturday, ends 0359 UTC. More info at <http://www.arrl.org/january-vhf>.
- 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 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 830 pm—930pm

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 27 January 2015

1700 Social

1730 Meeting

Methodist Richardson Medical Ctr
At Bush/Renner/Shiloh Intersection

Second Floor Conference Room 200

NEXT SIGNALS INPUTS DEADLINE:

→→→ 16 January 2015 ←←←