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# SIGNALS

**Rockwell  
Collins**

Monthly Newsletter of the

**Amateur Radio Club**

**Volume 27 Issue 7**

Web Site <http://lonestar.rcclub.org/~rcarc/>

**April 2006**

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## RCARC Membership Meeting

**\*Tuesday\***

**\*25 April 2006\***

**17:30 in**

**Verizon Business (former-  
ly MCI Campbell Creek  
Building) Cafeteria**

*Subject:* Antenna Designing and Building by Paul Lynas WA5LFY

The net time is 8 PM on the Monday preceding either the Telecom Corridor or Richardson Facility club meeting. The turnout for the net has been somewhat sparse to date, so if you have the equipment, try to remember to join us.

K6JT is the net control station. The ARRL audio news for the past week will be available for transmission after net check-ins if desired. This is also an opportunity to pass along club activities information and a reminder of the meeting.

A reminder E-Mail will be sent the day of the net meeting (if we remember :-).

**Club Meeting Talk-In** In addition to the Repeater Net, we have a Talk-In before the membership meeting on the night of the meeting. The Talk-In is from 1700 to 1730 hours, just prior to the meeting.

**RCARC Web Page Info** Be sure to visit our website regularly and watch it improve and expand. We have recently updated it to provide links to the upcoming Ham-Com. Note that the hyperlink in the banner above has been updated and if you are receiving the newsletter by email, you can click on the hyperlink to go to the website. If you have any suggestions or recommendations, contact our website manager, Arnold Rico—see page 2 of the newsletter for contact information.

**W5ROK Operated in the 902 MHz and up Texas QSO Party** On Saturday April 8, 2006 W5ROK operated in the North Texas Microwave Society 902 Mhz and UP TEXAS QSO PARTY. W5ROK made 26 contacts on 1.2 Ghz with our relocated 1.2 Ghz antenna, now on a tower with a rotor. W5ROK's

grid is EM12qx. The following is a listing of the contacts made.

UTC	Station Worked	Grid	Miles
-----8 April-----			
1353	K5WO	EM12pq	20.7
1357	K5ZSJ	EM12mw	19.6
1404	K5USS	EM13oc	13.0
1405	NM5M	EM13oc	13.0
1422	W5LUA	EM13qc	8.6
1553	NM5M	EM13nc	16.9
1559	K5USS	EM13nc	16.9
1615	NM5M	EM13nb	16.9
1624	KA5BOU	EM13rc	9.9
1649	WB5ZDP	EM13sa	10.1
1655	NM5M	EM12lw	24.4
1656	K5USS	EM12lw	24.4
1725	NM5M	EM12mq	27.9
1933	K5USS	EM12ls	28.2
1935	NM5M	EM12ls	28.2
1954	K9MK	EM12hw	43.7
1955	WB5VYE	EM12hw	43.7
2138	K5ZSJ	EM13oa	10.1
-----9 April-----			
0026	NM5M	EM13je	36.8
0027	K5USS	EM13je	36.8
0050	NM5M	EM13ke	32.4
0051	K5USS	EM13ke	32.4
0118	K5USS	EM12mx	19.4
0118	NM5M	EM12mx	19.4
0124	NM5M	EM13na	14.8
0125	K5USS	EM13na	14.8

**Saturday with my Friends** *By Bob Kirby - K3NT* It had been sometime since I had received an e-mail notice for a workday at the Rockwell Collins Amateur Radio Club and knowing the club had to recently move the station, I was not surprised to receive this request. I had recently made the move back to the Dallas area and was myself in the process of rebuilding my home station. RCARC members Joe Wolf—N5UIC, (Cont on page 3)

## Local Club News

**Gene Overstreet, K5LQA, SK**  
Gene passed away on Sunday Apr.16. His funeral will be at 12:30 pm Thursday April 20 at Restland Funeral home, Wildwood Chapel. Gene retired from Rockwell Collins after 30 years of service.

## Meeting Notice

### Telecom Corridor Amateur Radio Clubs Combined Meeting

A combined meeting of Telecom Corridor Amateur Radio Clubs and any interested hams will be held at the Verizon Business building on Tuesday, 25 April 2006. The RCARC membership meeting will be at 1730 in the Verizon Business cafeteria, followed at 1800 by the program. [See page 7 of this newsletter for the details.](#)

**Rockwell Collins W5ROK Club Repeater Net.** In order to encourage activity on the club repeater, we continue to have a monthly net meeting there.

**R-CARC OFFICERS****PRESIDENT**

**Bill Swan** **K5MWC**  
**462-300** **X3441**  
 hwswan@rockwellcollins.com

**VICE PRESIDENT**

**Steve Phillips** **K6JT**  
**972.517.3332**  
 K6jt@arrl.net

**SECRETARY**

**Jim Skinner** **WB0UNI**  
**972.690.9612**  
 wb0uni@arrl.net

**TREASURER**

**Bill Fell** **KK5PB**  
**972.424.0496**  
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**ACTIVITIES CHAIRMAN**

**Dennis Cobb** **WA8ZBT**  
**462-240** **X1457**

**WEBSITE MANAGER**

**Arnold Rico**  
**461-250** **X3503**  
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**REPEATER TRUSTEE**

**Steve Phillips** **K6JT**  
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**CLUB STATION**

**972.705.1349** **W5ROK**  
**461-290**

**NEWSLETTER EDITOR**

**Jim Skinner** **WB0UNI**  
**972.690.9612**  
 wb0uni@arrl.net

**VE SESSIONS**

**Dallas** tests are held 4<sup>th</sup> Sat of each month at 10:00. 13350 Floyd Rd. (Old Credit Union) Contact Bob West, WA8YCD (972) 917-6362

**Irving** tests are held 3<sup>rd</sup> Sat. of each month at 09:00. 5<sup>th</sup> 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 14:30, ending no later than 16:45. *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 Bill Reynolds, K8DNE, 972-475-3854.

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

**Greenville** testing is on the Saturday after 3<sup>rd</sup> Thursday, 1000 hrs at site TBA, contact N5KA, 903.364.5306. Sponsor is Sabine Valley ARA. Repeater 146.780(-) with 118.8 tone.

**Wills Point** Call Don W5QXK at 972-932-3595

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**President's Message**

The summer is certainly shaping up to be a very hot one as we have experienced 100 degree plus temperatures already in April. Besides being uncomfortable it also means that ground heating effects begin to play a big part in severe weather formation. As the news has shown recently in Iowa, severe weather can spring up in a hurry and turn deadly in a moment. The RCARC as reported in this column is now an official member of the company's Emergency Response Team. Active employee members of the RCARC and those that are retired have a responsibility to help implement the MOU that we have in place. Especially during working hours, the need to call upon any of our members will be important to help the company deal with the potential impact of developing severe weather.

At the time of this writing, an April eBoard has not been held. I plan to have another eBoard meeting soon so hopefully I can update the membership on the actions and discussions from that meeting. One major topic will be the discussion related to the potential for providing remote control of the station from off site locations. Being able to do so would allow capabilities to be extended to those who are not able to erect a good antenna for instance.

ARRL membership up for renewal or new application? See information elsewhere in this edition to get more information on how your membership application can be made through the club. Your club receives a commission for all renewals or new memberships that we process.

Our immediate Past President, Dennis Cobb, WA8ZBT, has agreed to chair this year's Field Day activity. He will be assisted by Bob Kirby, K3NT. Look for more information on this year's Field Day soon.

At the last meeting, the membership requested that the meeting presentations be posted on the Web site. That would make the presentation available to those who were not able to attend the meeting. Also it would allow later review and study of the presentation by any member. The agreed to position was that with the speaker's permission, the presentation

would be posted to the web site and made available for a specific period of time. Look for more information on this from our Website Manager, Arnold Rico.

Well it is time to say 73s. I hope to see you at the May meeting. Remember that this month is the TC meeting month. The RCARC will be providing refreshments for the meeting.

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Bill Swan,  
K5MWC, President

## Secretary's Report

**RCARC Meeting Minutes 23 March 2006.** President Bill Swan, K5MWC, opened the meeting at 1735 in the Rockwell Collins Cafeteria. Present at the meeting were:

Dennis Cobb	WA8ZBT
Bill Fell	KK5PB
Bob Kirby	K3NT
Eric Silverthorn	NM5M
Jim Skinner	WB0UNI
Jim Sturges	KC5Q GK
Bill Swan	K5MWC
Joe Wolf	N5UIC

The following business was conducted:

### 1. Officer Reports

- Club President Bill Swan, K5MWC, reported that the company Emergency Response Team (ERT) has welcomed the club's participation. He reported that the club has donated its scanner to the ERT and it is now located at the north guard shack. Bill also discussed the possibility of placing the program presentations on the clubs website and all agreed that it would be a good idea, but would always require the permission of the presenter.
- There was no Vice-President report, since Steve Phillips, K6JT, did not attend due to illness.
- Club Treasurer Bill Fell, KK5PB, presented the Treasurer's report. Bill stated that one new membership dues has been paid. The report was accepted.
- Club Secretary Jim Skinner, WB0UNI, presented the minutes

from the last meeting as it stands in the newsletter. The newsletter was accepted.

- Newsletter Editor Jim Skinner, WB0UNI, stated that the newsletter had been distributed by email, with the exception of two members who do not have email. It was agreed that this approach will now be the standard distribution approach.
- Activities Chairman Dennis Cobb, WA8ZBT, reminded everyone that the HamFeast would be at Dickeys Barbecue in east Plano this month.
- There was no Website Manager report, since Arnold Rico was unable to attend.
- There was no Repeater Trustee report, since Steve Phillips, K6JT, did not attend due to illness

### 2. Old Business

- Dennis, WA8ZBT, reported that the Kenwood TS-950 is continuing to exhibit the operational problems and that he and Bob Kirby, K3NT, will continue to troubleshoot using the service manual downloaded from the internet. It will not be sent out for repair until the problem can be characterized.

### 3. New Business

- Dennis, WA8ZBT, reported he had escorted a Swedish visitor (**visitors name goes here**), who was visiting Rockwell Collins for business, to the club radio room. The visitor looked in his call book and discovered that he had worked Dennis DX and they had exchanged QSL cards..
- On the subject of the scanner, Dennis added that it has already proved itself during the recent heavy rain and severe thunderstorms. Dennis also presented information on newer, more up-to-date scanners that can be purchased locally or online. Bob Kirby presented an idea of John McFadden's: power it from the emergency power grid.
- Bill Swan requested a volunteer to serve as Field Day Chairman. Dennis Cobb agreed to serve with Bob Kirby as assistant. I was determined, that since the club radio room is

now further from the east door, that a longer power cord is required. Joe Wolf, N5UIC agreed to make the purchase, NTE \$100.

- Bill Fell suggested that a clarification be made on the process for submitting membership checks to the ARRL. Bill agreed to review and verify the process that is in the newsletter.
- The business meeting was adjourned for the program presented Eric Silverthorn, NM5M. Eric presented a very informative program on how to design and install stealthy antennas with an emphasis on being compatible with neighborhood restrictions.

## Saturday with my Friends *(Cont*

*from page 1)* Dennis Cobb—WA8ZBT and John McFadden—K5TIP provided me with the encouragement, help and support to install my ground system, operating and homebrew tables and a bazooka dipole. Along with this help each had ideas or shortcuts for improvement. I also enjoyed their combined knowledge of amateur radio. The friendship and fellowship sure made the tasks much more enjoyable. With this in mind I decided to **move** a few commitments and attend the Saturday work-party.

Upon arrival, I was assigned to work with Jim Skinner—WB0UNI. Together we assembled the new 2 meter yagi and I quickly learned why Jim is such a good engineer. As each element was precisely measured and assembled to the boom, Jim would refine the operation. We shared our antenna assembly knowledge and soon the 2 meter yagi was ready for final assembly and test on the mast. Dennis Cobb—WA8ZBT completed work on the 432 yagi and the N type coax connectors, which turned out looking very professional.

John McFadden—K5TIP joined us to help inventory and assemble all the tools, coax, ropes and antennas for the tower crew. John's experience with years of logistics helped arrange for a smooth transition to the next team.

Below is the thank you e-mail received from Dennis. I would like to thank Dennis for a most enjoyable and learning experience on a Saturday morning at our club.

As I grew in the hobby of ham radio part of that enjoyment was the sharing of knowledge and experience of other radio operators and club members. It was most reassuring to see that this is still alive and well at W5ROK, the RCARC.

“Would like to thank everyone for coming out on Saturday and helping around the shack. We built a 432 yagi, a 2 meter yagi, took the 6 meter antenna down, the 5 feet of mast, the rotor, put up a T2X rotor, a 10 ft mast with 1296 and 432 yagis. We started around 8:30 AM and finished around 4 PM. Also soldered some type N connectors to coax. Once again thanks for all the help. *Dennis Cobb*”

### ARRL Membership Benefits

There are “fringe” benefits for RCARC when our members join or renew through the following process.

**Renewing By Check**—After filling out the form, return it to RCARC with your check. Note the definition of New or Renewing Member at the top of the form. If you have previously been a member of ARRL but have let that membership lapse for 2 or more years then you are considered a new member and the club would get a \$15 commission. If you are renewing a current membership or one lapsed for less than 2 years, you are considered a renewing membership and the club would get a \$2 commission. Do not deduct the \$15 or \$2 commission. The check should be made out to ARRL for the full amount that you elect to renew for.

**Renewing By Credit Card**—If you wish to CHARGE the renewal to a credit card note the special instructions (Box on right side of form) which indicate that you would then pay the \$15 or \$2 directly to RCARC. Your credit card would be charged for the full amount minus the appropriate commission. In this instance the check should be made out to the RCARC for the appropriate commission amount.

In both cases, it is important that you return the application to the RCARC regardless of the method of payment in order for the RCARC to get credit. *The application is now available on the RCARC website!* Mail to the following address:

RC Amateur Radio Club  
Attn: Treasurer  
MS 461-290

PO Box 833807  
Richardson TX 75083-3807

## Upcoming Events and Public Service Ops

### 22 April 2006: Belton Ham Fest.

The Belton Ham Fest will be at the Bell County Expo Center in Belton on Saturday 22 April. The Talk-In frequency is 146.82 MHz (PL 123.0). More info can be found at <http://www.beltonhamfest.org/>.

### 9-10 June 2006: Ham-Com 2006.

Ham-Com is just around the corner! This year it will be at the Plano Center on Jupiter and Springcreek. That makes it really close and convenient for a change. Here are a few points on what the new location has to offer:

- A venue with a reasonable amount of space that includes classrooms.
- Lower price for rental of the entire facility. That allows us to lower costs for admission, commercial exhibitors and flea market vendors.
- A consistent date for the next five years. Ham-Com will be the second weekend of June through 2011. That eliminates conflicts for commercial exhibitors with the Dayton Hamvention and Sea-Pac in Seattle. Both events caused problems in the past and forced cancellations for commercial vendors who simply don't have the bandwidth to support two nearly simultaneous events.
- **FREE** parking. That is probably the most often heard complaint from attendees. In fact, there are only about 1,000 spaces at the Plano Centre so Ham-Com, Inc. will provide shuttle bus service to overflow parking at the PISD Clark Stadium.
- Lower costs for hotels--40-50% less than Arlington.
- Lower food costs

More details can be found at the Ham-Com website: <http://www.hamcom.org/>

### 10-12 June 2006: ARRL June VHF QSO Party.

The objective of this friendly event is to work as many amateur stations in as many different 2 de-

grees by 1 degree grid squares as possible using authorized frequencies above 50 MHz. Foreign stations work W/VE amateurs only. The event is on the second full weekend in June. It begins at 1800 UTC Saturday and ends at 0300 UTC Monday. More info at <http://www.arrl.org/contests/rules/2006/june-vhf.html>

**24-25 June 2006: ARRL Field Day.** Details to follow next month. Start planning on participating!

### Get ready for the next Solar Cycle

*By Bob Kirby – K3NT* I remember the fantastic propagation of the late 1950's and feel blessed to be able to experience it again. The next cycle is predicted to reach thresholds that would make it the most intense solar cycle since the late 1950s and the second worst since the early 1700's. Hope to have my HF, VHF/UHF station back in order and even a tower up for this next cycle which should be starting soon. RCARC will be in a good position to play as a super station as the members expand the HF, VHF and UHF antenna systems. Wonder just what we will be working on 1.2 GHz.

Growing up, a friend near South Park, PA had a Lafayette HA-410 10 meter transceiver and a small ground plane. He would work all over the world on the 5-10 watts. Sometimes, I would get to stay over at his place on Friday nights and we would stay awake most of the night listening to the activity as stations popped in and out on the band. Then just before daylight it would get really crazy and we would play radio until we were forced outside to play by his parents. We would design, build and try many antennas both in the yard and mobile as we came of age to drive. Because of the good propagation, even the short antennas worked well. Good Times. Here is a recent article from the San Francisco Chronicle on the next sunspot cycle. Hope you find it interesting and educational.

**Huge solar storms could zap Earth, scientists warn Next sunspot cycle may disrupt power, communications**

*By Keay Davidson, Chronicle Science Writer Tuesday, March 7, 2006*

An 11-year epoch of increasingly severe solar storms that could fry power grids, disrupt cell-phone calls, knock satellites

back to Earth, endanger astronauts in space, and force commercial airliners to change their routes to protect their radio communications and to avoid deadly solar radiation could begin as soon as this fall, scientists announced Monday.

When the solar cycle reaches its peak in 2012, it will hurl at Earth mammoth solar storms with intense radiation and clouds of high-speed subatomic particles millions of miles across, the scientists said.

A storm of that magnitude could short-circuit a world increasingly dependent on giant utilities and satellite communications networks. Such a storm in 1989 caused power grids to collapse, causing a five-hour blackout in Quebec.

Monday's forecast was announced by scientists from agencies including NASA and the National Science Foundation, based on research centered at the National Center for Atmospheric Research in Colorado.

There is disagreement on exactly when the new cycle will begin -- one key researcher predicted the cycle will start in late 2007 or early 2008, and another said it could begin either late this year or in early 2007. But they did agree that the most severe storms won't begin popping on the solar surface for several years, but when they do, they'll be huge.

The solar storms in the past have knocked out huge power grids and screwed up global electronics and data communications, but "the next sunspot cycle will be 30 to 50 percent stronger than the last one," the scientists said in Monday's statement.

Reaching that 50 percent threshold would make it the most intense solar cycle since the late 1950s and the second worst since the early 1700s, Peter Gilman, one of the researchers, said in a phone interview.

Astronomers will monitor the sun daily in the coming months to see how it's doing. Early warning signs will be the formation of large groups of sunspots, which are clusters of solar magnetic fields that are cooler than the rest of the sun.

"I look (at telescopic images of the sun) almost every day, thinking, 'It could be today,' " said David Hathaway, solar physics team leader at NASA's Marshall

Space Flight Center in Alabama. He compared it to "waiting for the first sparrow of spring."

Solar storms can happen at any time during an 11-year solar cycle. However, by far the worst storms are likeliest to occur during the period known as "solar maximum," or solar max for short. The last solar max was in 2001.

The scientists are confident of their forecast for 2012 because they've successfully used a new computer model to "forecast" the past. That is, they used records of old solar cycles to figure out how the sun should have behaved during eight past cycles, as far back as the early 20th century. They "forecast" the sun's past behavior -- "hindcasting," they call it -- "with more than 98 percent accuracy" the scientists said.

"I'm really excited about this (discovery)," said NASA's Hathaway. "It's based on sound physical principles, and it finally answers the 150-year-old question: What causes the sunspot cycle?"

The cycle's victims could include space satellites. The coming storms could heat the upper levels of Earth's atmosphere, causing it to expand and exert drag on low-flying satellites -- perhaps enough drag to tug some of them back to Earth. Solar storms have been blamed for the U.S. Skylab space station's premature fall back to Earth in 1979.

Air travelers could be affected, too. Since the end of the Cold War, to avoid headwinds, airlines have increasingly flown subpolar routes to get between the United States and other Northern Hemisphere continents quickly and cheaply. But during solar storms, they must avoid the poles and fly more southerly routes.

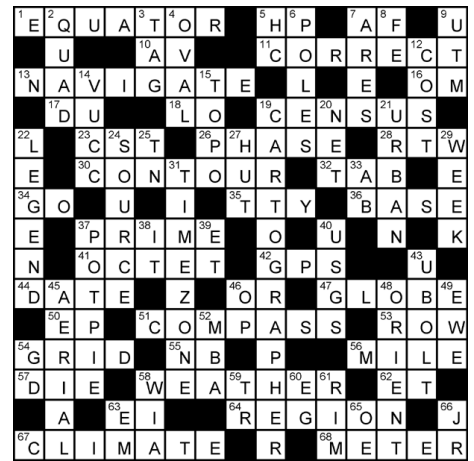
They do so partly in order to avoid having their radio communications disrupted over dangerous polar terrain and partly to avoid exposing passengers -- especially pregnant women -- to the increased radiation, said solar-storm expert Joseph Kunches, chief of the forecast and analysis branch of the U.S. National Oceanic and Atmospheric Administration's Space Environment Center in Boulder, Colo.

The northern and northeastern portions of North America are historically more vul-

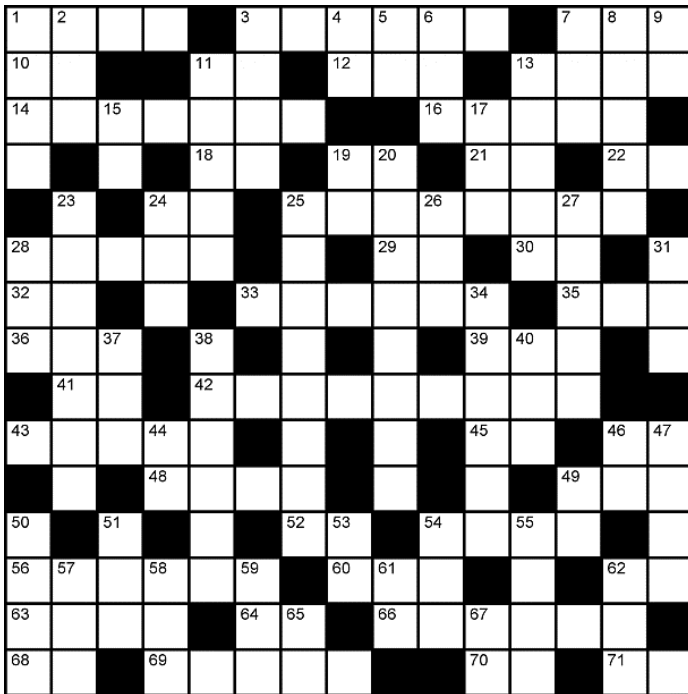
nerable to system outages caused by solar storms than California and most of the Western states, said Gregg Fishman, spokesman for the California Independent System Operator. That's possibly because among other things, he said, there's a higher iron and mineral content in the North and Northeast that conducts the ground current more easily and allows for more of an impact during solar storms.

E-mail Keay Davidson at [kdavidson@sfcchronicle.com](mailto:kdavidson@sfcchronicle.com).

**Answer to Last Months Amateur Radio Crossword Puzzler**



### The Amateur Radio Crossword Puzzler



#### Across

1. Holds equipment in a stack
3. Customers
7. Rejection of equal input signals (abbr.)
10. Voltage drop (abbr.)
11. Sixth district state (postal abbr.)
12. What visitors to KH6 get
13. Place your transmit signal directly on frequency
14. Cuts off audio for weak signals
16. Order of worst intermodulation
18. Second to last of the United States (postal code)
19. Stand by (CW prosign)
21. Emerald city
22. Two components of radio wave
24. Add S to get the space station
25. Remove a carrier or sideband
28. Units of power
29. And (CW abbreviation)
30. What the librarian says
32. Prefix of country that previously included S5, 9A, T9, & Z5
33. Spurious CW sidebands
35. Unwanted effects of signals mixing together (abbr.)
36. And so forth (common Latin abbr.)
39. Highest frequency that can be used (abbr.)
41. Chip (abbr.)
42. Point where spurious products become as strong as the desired signal
43. Type of supply needed to run a radio
45. Thermocouple or change with temperature (abbr.)
46. Where a receiver's gain is
48. Common format for interchanging data
49. Adjust to meet specifications (abbr.)

52. Powered up
54. Refers to current consumption
56. Shift between transmit and receive
60. Method of measuring voltage
62. Big Sky country (postal code)
63. Agency of the sea and air
64. Traditional short wave bands (abbr.)
66. What gets processed in the transmitter
68. Leader of local ARES team
69. Measure of filter selectivity
70. Distant stations (abbr.)
71. The prefix of Kiwis

#### Down

1. Companion time to fall
2. Protocol that requests retransmissions
3. The panel where the connectors are
4. Female operator (abbr.)
5. Radio designer (abbr.)
6. Adjusts only receive frequency
7. Resuscitation technique (abbr.)
8. Different modulation types
9. Opposite of left (abbr.)
11. A, AB, B, and C describe amplifier operation
13. Radios come in many different .....
15. Solar radiation or signal voltage (abbr.)
17. My favorite *QST* column (abbr.)
19. Most conductive metal (chemical symbol)
20. A range of frequencies
23. Warning
24. Agency that administers telecommunication treaties
25. The frequency control that determines an independent transmit frequency (two words)
26. Add 31 to get a popular mode
27. Change frequency slightly
28. Opposite of delta winding
31. Weakest audible signal (abbr.)
34. Displays incoming signal strength
37. Loosens nuts (abbr.)
38. Internally generated spurious receiver signal
40. Pattern and number for inventory tracking
44. Iberian country (prefix)
46. Between MO and MN (postal code)
47. Even response over range of frequencies
49. It's a mode AND a direction!
50. Two make a nice transmitter test
51. Controversial small antenna design
53. Number (abbr.)
54. Processes a signal as data (abbr.)
55. At the peak
57. CW operators club (abbr.)
58. Type of filter technology (abbr.)
59. Measure of audio amplifier linearity (abbr.)
61. 1 Down is measured in these units (abbr.)
62. Unit of frequency (abbr.)
65.  $468 / f$  gives you these (abbr.)
67. In charge of reviewing articles and text (abbr.)

# Meeting Notice

## Telecom Corridor Amateur Radio Clubs

### A combined meeting of Telecom Corridor Amateur Radio Clubs and any interested hams

**When:** 6:00 pm Tuesday April 25, 2006

**What:** This month's talk is presented by Paul Lynas WA5LFY. Antenna designing and building can be a fascinating part of our ham radio hobby. In the past this involved digging through the old handbooks for that one formula or chart, but the end result was not always what we expected, and because of the difficulty of measurements, we might never know. With recent improvements in modeling software, and many available models, we now can easily design, simulate, and optimize our antennas - and the software is free! Paul will whet your appetite to begin designing the simple antennas we know, and expand to see how we can create something new from our imagination. The programs, beginning hints, models, and links to further exploration will be presented. The presentation will show how to:

- Creating a simple model or two (from scratch).
- Run our first simulations.
- Discuss what we can learn from the simulations.
- Examine some "what if's".
- Provide links to the software, models, and links.

**Who:** Paul Lynas WA5LFY was first licensed in 1963 and currently holds an Extra Class license and is a member of the Rockwall Amateur Radio Club (RARC). Paul has degrees in Physics 1968 and Electrical Engineering 1974 from Lamar University. He has been a RF and analog design engineer from 1972 to the present, designing radio transmitters and antenna systems. Paul is currently a Principal Engineer at Continental Electronics Corp. here in Dallas, and his primary design work involves medium wave and short wave transmitters and antenna systems from 100,000 to 500,000 watts and above.

**Where:** Verizon Business (formerly MCI Campbell Creek Building), 2400 North Glenville Drive, Richardson. Directions: Take US75 to Campbell Road EAST to Greenville Avenue (2<sup>nd</sup> traffic light). Turn left (north) on Greenville Avenue and proceed to the next traffic light at Glenville Drive. Turn left on Glenville Drive and then right into the main entrance of MCI. Enter the building lobby by the flagpoles, and take the elevator (or stairs) down to the meeting/conference rooms. No visitor badges are required.

# Rockwell-Collins

Amateur Radio Club

Mail Station 461-290

P.O. Box 833807

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

145.01 MHz

### MEETING

Tuesday 25 April 2006

**17:30**

Verizon Business (formerly MCI  
Campbell Creek Building) Cafeteria

**NEXT SIGNALS DEADLINE:**

**15 May 2006**