



# W5PC

## THE AMATEUR RADIO CLUB OF PARKER COUNTY NEWSLETTER

ARCPC NEWSLETTER VOLUME 21 NO. 9

SEPTEMBER 2011 ISSUE

### ARCPC OFFICERS

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KF5ILA

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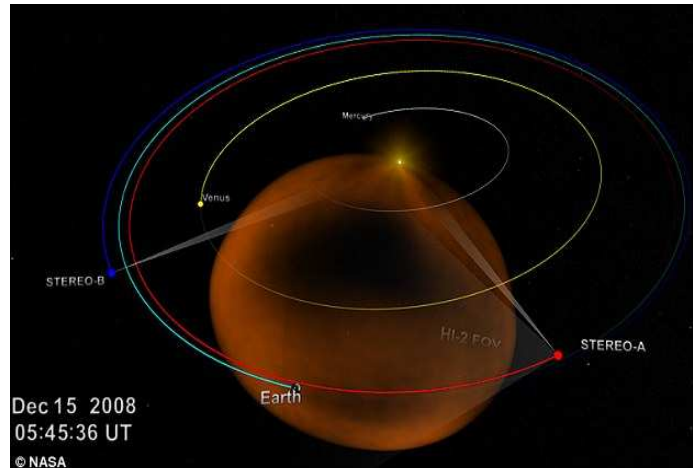
**FIELD DAY 2011**  
KEN STOUT K5KMS

**HAM FEST**  
RICHARD LUEDTKE  
KF5ILA

**WEBMASTER**  
AL WARREN WR5AW

**NEWSLETTER-  
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**Nasa craft tracks space storm from the sun until it engulfs Earth for the first time** A Nasa spacecraft far from Earth has watched a solar storm engulf our planet for the first time.

STEREO-A was more than 65million miles from our planet, giving it a 'big picture' view other spacecraft orbiting Earth lack.

Footage of the event has amazed scientists who say it

could lead to important advances in space weather forecasting.

Craig DeForest, of the Southwest Research Institute in Boulder, Colorado, said: 'The movie sent chills down my spine. It shows a coronal mass ejection (CME) swelling into an enormous wall of plasma and then washing over the tiny blue speck of Earth where we live. I felt very small.'

CMEs are billion-ton clouds of solar plasma launched by the same explosions that spark solar flares. When they sweep past our planet, they can cause auroras, radiation storms, and in extreme cases power outages. Tracking these clouds and predicting their arrival is an important part of space weather forecasting.

Lika Guhathakurta, program scientist for the STEREO mission, said: 'We have seen CMEs before, but never quite like this. STEREO-A has given us a new view of solar storms.'

The footage shows that when the CME first left the sun, it was cavernous, with walls of magnetism encircling a cloud of low-density gas. As it crossed the Sun-Earth divide, however, its shape changed. The CME 'snow-ploughed' through the solar wind, scooping up material to form a towering wall of plasma. By the time the CME reached Earth, its forward wall was sagging inward under the weight of accumulated gas.

STEREO-A is one of two spacecraft launched in 2006 to observe solar activity from widely-spaced locations.

When CMEs first leave the sun, they are bright and easy to see. Visibility is quickly reduced, however, as the clouds expand into the void. By the time a typical CME crosses the orbit of Venus, it is a billion times fainter than the surface of the full moon, and more than a thousand times fainter than the Milky Way. CMEs that reach Earth are almost as gossamer as vacuum itself and correspondingly transparent.

Mr DeForest said: 'Pulling these faint clouds out of the confusion of starlight and interplanetary dust has been an enormous challenge.' Indeed, it took almost three years for his team to learn how to do it. Footage of the storm recently released was recorded back in December 2008, and they have been working on it ever since.

## CLUB BUSINESS

### Minutes of the August 2011 Meeting

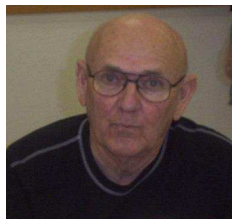


The Amateur Radio Club of Parker County met on Tuesday, September 13, 2011. President Tony Guess N5NRU called the meeting to order at 19:00 hours. The invocation was given by Doug May WB5VQQ.

There were twenty members and four guests present. We welcome Greg Brown KC5RXV, his spouse Glenda Brown and daughters Spring and Summer Simmons to the meeting.

In an abbreviated and informal business session. The minutes for the July meeting were approved as published in the newsletter. A round of personal introductions followed and we learned a bit about each person present.

Will W5KD programmed a number of scanners for those who brought their personal units. He also discussed re-banding of the Fort Worth PD systems and the reason for 800 MHz re-banding.



The meeting quickly adjourned at 1920 hours. There followed some serious consumption of ice cream.

Judy Wolf KB5JEY and Tim Smith KF5HMH provided cookies, cakes and drinks to go with the ice cream.

Respectfully submitted

By Jerry Thompson W7JT, Secretary/Treasurer



ARCPC President Tony Guess N5NRU presents award to Ken Stout K5KMS. The award was for his service as President from 2010-2011. ARCPC would like to thank Ken for his service as president. Ken served as Field Day Chairperson for the past two years. During his term as President he was successful in arranging many very interesting and informative programs.

Photo by Will Teague W5KD

### ARCPC History

The Amateur Radio Club of Parker County was originally envisioned by Robert H. Michael, W5QGC and John L. Gray WB5QPC during the summer of 1983. W5QGC, at his own expense, drafted and printed the constitution and by-laws of the association. The constitution and by-laws were signed on North Main Street at the place of Business of Charlie Byars, WB5AQI.

The organizational meeting was held on June 28, 1983 in the Ham Shack of R. H. Michael. There were seventeen members present, of which thirteen were charter members, who after the charter and by-laws being read, unanimously voted to adopt the charter and by-laws as authored and ordered a copy distributed to each new member.

On July 11, 1989 the membership elected to incorporate under the Texas Non-Profit Corporation Act. The incorporation was finally completed on July 12, 1991 with the Secretary of State issuing Charter Number 0119940501. Bob Gill, Elizabeth Hunkele, Bob Park and Floyd May drafted the by-laws revision.

Since its inception, the "Club" has grown to its present membership. We participate in many civic activities and over the years Fort Worth has depended on us to give early warning of severe weather. It is a privilege to be an Amateur Radio Operator and we are proud to contribute what we can to its furtherance.

The Club currently meets on the second Tuesday night of each month at the Weatherford Community Center (Harberger Hill), 701 Narrow Street. Driving directions: Take North Main to Front Street (just North of the railroad tracks), turn right (East) on Front Street and go past the Greenwood Cemetery to Mill Street, turn left (North) on Mill Street and go to the intersection of Mill and Narrow Streets. The community center is located on the Northeast corner near the water tower. A social gathering begins at 6:30 P.M., with the official meeting beginning at 7:00 P.M.



## ANNOUNCEMENTS



### ARCPC HOSPITALITY

September, 2011 Meeting

#### Refreshments

*Judy Wolf*

**KB5JEY**



*Tim Smith*

**KF5MHM**



#### Jake Sez!

“Yesterday is experience, tomorrow is hope, to day is getting from one to the other.”

#### ARCPC VE TESTING

VE testing for all license classes and upgrades will be conducted on the third Thursday of each month, except November and December, at 7:00 pm at the Emmanuel Baptist Church, 1706 S. Main St. Weatherford. Enter side door of main building.

#### PARKER/PALO PINTO INFORMATION NET

Mondays at 7:00 pm on 147.040 (tone 110.9) Alt: 146.900 or 443.800

#### WC5C Net

147.16+ 110.9  
Thursdays at 8:00 pm - 8:45 pm  
on 147.16 110.9 Azle

Open directed net

All licensed amateurs TECH and above welcome  
Topics include ham-specific swap listings, social and technical talk, club activities and projects, bulletins and announcements.

#### Ham Swap Meet & Sidewalk Sale (In Ft. Worth)

Trail Lake Plaza I20 at Trail Lake Drive. In front of JWJ Computer Outlet 1st Saturday every month 6:30 AM.

### Upcoming Ham Fests

08/27/2011 | Gainesville Hamfest 2011

Location: Gainesville , TX

Type: ARRL Hamfest

Sponsor: Cooke County Amateur Radio Club

Website: <http://www.gainesvillehamfest.org>

10/01/2011 | HamEXPO 2011

Location: Belton, TX

Type: ARRL Hamfest

Sponsor: Temple Amateur Radio Club

Website: <http://www.beltonhamexpo.org>

10/21/2011 | West Gulf Division Convention (Texoma Hamarama)

Location: Ardmore, OK

Type: ARRL Convention

Sponsor: Texoma Hamarama Committee

Website: <http://www.texomahamarama.org>

#### Data Harvesters Bring QRZ.com to a Crawl

Users of the QRZ.com callsign database < <http://www>.

QRZ.com > must now be registered and sign in before getting access to any name or address data.

Owner Fred Lloyd, AA7BQ, explained in a posting that routine access to the database was being slowed down by a growing number of automated systems trying to harvest massive amounts of data at one time.

Registration is free; ham users may access a maximum of

150 callsigns/day (not including their own); nonham users are limited to 25 lookups per day and QRZ subscribers will continue to have unlimited access. – CQ Newsroom

#### The September 2011 ARCPC Program

The September program will be a presentation by Jerry Buxton N0JY on Satellite Communications.

## Teaching Radio In The Digital Age

From The Denver Post



### Cherry Creek Schools program teaches youth about wireless technology

Some Cherry Creek High School students conversed with people around the globe recently — and learned to do it without a cell phone.

As part of the school district's Inside/Out program to offer additional learning to gifted and talented students, Bob Sterner, the district's senior telecom engineer, introduced them to amateur radio technology — ham radio.

Not just the on-air broadcast aspects, but the technical wizardry behind it. "We've tried to demystify some of the magic behind wireless technology," he said.

Sterner and volunteer Byron Paul Veal, who runs an established youth amateur radio program at Acres Green Ele-

mentary in Littleton, spent 15 hours each with 45 students in the program. "For me it was just a natural fit — I could go in and explore with these kids that are already easy learners, excited to get into new things and not afraid to tackle something they're not familiar with," Sterner said. He demonstrated some popular technology secrets, using a universal remote control, an oscilloscope and a small robot. "They love it — they get to class early, they don't want to leave for break, they don't want to go home ... " Sterner said.

Veal said out of four subject areas to choose from, surprisingly, a majority wanted to learn about Morse code. One student, using the code's dots and dashes, made a contact in Belgium last week from the radio in the classroom, Veal noted.

Students selected projects to complete as a presentation for their parents at week's end. Some students built a directional antenna built made from PVC pipe, metal measuring tape and hose clamps that was used on a "fox hunt" — locating a transmitter hidden in a nearby field with the directional antenna, in the same way biologists track collared wildlife.

"I feel obligated to pass this information on," Sterner said. "I want to see more kids get their license and more kids on the radio." He said most amateur radio operators are now 60 years old or older, but have had a hand in inventions used around the globe. He said he has a friend who actually bounces radio signals off the ion trails of meteors hurtling through the atmosphere to communicate with other operators hundreds of miles away.

He said rhetorically: "If we don't refresh that population, who's to say where we're going to go?"

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I would like to thank Dan Romanchik KB6NU for allowing me to publish this story in the ARCPC Newsletter. You will from time to time see more articles that he has either written or included on his blog. He has agreed to allow other newsletter editors to use his articles to help provide content for their club's newsletters. His blog contains great articles and I find them interesting and informative.

If any club members either have articles or know where articles can be found please don't hesitate to let the ARCPC Newsletter Editor know. If you have some ideas of subjects you would like to see in the newsletter please let me know and I will research and see if I can come up with information of interest on those subjects. Putting a newsletter together is not an easy task and all the help that the editor can get is much appreciated.

Thanks and send your articles, comments or other information to me at [w5kd@mesh.net](mailto:w5kd@mesh.net)

73, Will Teague W5KD ARCPC Newsletter Editor

## A Brief History of Amateur Radio Satellites

**In the beginning.** Following the Soviet Union's launch of the first-ever space satellite, Sputnik 1, on October 4, 1957, there was a great deal of interest in the United States in rushing an American satellite to orbit.

At the time, the Jet Propulsion Laboratory (JPL) of the California Institute of Technology, at Pasadena, was a research lab for the U.S. Army. A month after the Sputnik launch, the Army asked JPL to develop a satellite with a science package and communications system. The result was a tiny, 20-lb. spacecraft named Explorer 1.

JPL and the Army Ballistic Missile Agency, at Huntsville, Alabama, blasted the satellite to space on one of the Army's Redstone rockets from the missile test center at Cape Canaveral, Florida, on January 31, 1958. That historic flight of the first U.S. satellite to orbit the Earth launched the nation into the Cold War space race and led to the establishment of the civilian space agency NASA. Today, JPL is a space research center for NASA.

**Hams get involved.** Amateur radio operators around the world – excited by the beep-beep-beep radio signal they overheard coming down from Sputnik – willingly accepted an invitation to tune in Explorer's radio signals. One of the thousands of ham stations searching for signals from space was operated by JPL ham radio operators at the nearby Los Angeles County Sheriff's substation in Temple City, California.

Some radio amateurs had a bright idea. Hams know all about radio communication. If the government can build a communications satellite, why can't we?

**The first amateur radio satellite.** A California group of Amateur Radio operators, calling itself Project OSCAR, built the first Amateur Radio satellite in 1961. Since then, the majority of hamsats have been called OSCAR.

Project OSCAR built the first four hamsats. Then AMSAT was founded in 1969. AMSAT's first flight was OSCAR-5 built by Australian students.

All of the high-tech OSCARs have been financed through donations of time, hardware and cash from hams in the United States, Germany, Canada, Great Britain, Australia, Russia, France, Italy, Japan, Brazil, Argentina, Belgium, South Korea, Finland, Israel, Mexico, South Africa, Saudi Arabia, and other nations.

**OSCAR.** AMSAT satellites are called OSCAR, for Orbital Satellite Carrying Amateur Radio. The number of OSCARs reached a total of 50 satellites in 2002.

Numbers in the OSCAR series are assigned by AMSAT after a satellite has been launched successfully and operated on Amateur Radio frequencies.

For example, two OSCARs launched to space in December 2002 were a German hamsat designated AATiS OSCAR-49 (AO-49) — AATiS is a German group promoting Amateur Radio in schools — and a Saudi Arabian hamsat labeled Saudi OSCAR-50 (SO-50).

**Radiosputnik.** In addition to the OSCARs, over the years USSR and Russian hams have built and operated 20 separately numbered amateur satellites called Radiosputnik, or RS for short. Three USSR hamsats were called Iskra, which is Russian for "spark."

British Amateur Radio satellites, built at the University of Surrey, have been known as UoSAT. Japanese hamsats have been called Fuji, which is Japanese for "wisteria."

Flourishing. The number of Amateur Radio satellites has been mushrooming:

Only four were orbited in all of the 1960s.

Six went to space in the 1970s.

Seventeen amateur radio and amateur-related satellites were launched in the 1980s.

Two dozen amateur radio and amateur-related satellites were launched in the 1990s.

More than a dozen have been launched since the turn of the century.

**= NOTICE =**

**The next club meeting will be held at 7:00 pm, Tuesday September 13, 2011  
at the Weatherford Community Center, 701 Narrow Street Weatherford, TX  
Talk-in 147.04 and Tone 110.9**

**AMATEUR RADIO CLUB OF PARKER COUNTY MEMBERSHIP APPLICATION**

NAME: \_\_\_\_\_ CALL SIGN: \_\_\_\_\_  
LICENSE CLASS: (E)(A)(G)(T)(N) ARRL MEMBER: (YES) (NO) STATUS: (NEW) (RENEWAL)  
(CIRCLE APPLICABLE ANSWERS ON ABOVE LINE)  
ADDRESS: \_\_\_\_\_ EMAIL ADDRESS \_\_\_\_\_  
CITY: \_\_\_\_\_ STATE: \_\_\_\_\_ ZIP (plus 4): \_\_\_\_\_  
PHONE: HOME: \_\_\_\_\_ WORK: \_\_\_\_\_

INITIATION FEE: One time initiation fee per family - \$5.00

ANNUAL DUES: \$10.00. HAM FAMILY MEMBERSHIP: \$15.00 (+ 1 same household or full time college student) (Add an additional \$5.00 if you wish to receive a hard copy of the newsletter).

HAM FAMILY MEMBER NAME: \_\_\_\_\_ CALL SIGN: \_\_\_\_\_

Cut out and mail this application to the ARCPC Secretary/Treasurer along with you check or money order for the amount due. Or, bring it to the next regular club meeting.

**ANNUAL MEMBERSHIP RENEWALS ARE DUE IN JUNE**

**W5PC**

**FIRST CLASS  
MAIL**

**AMATEUR RADIO CLUB OF PARKER COUNTY, INC.  
P.O. BOX 1795  
WEATHERFORD, TX 76086**



**[www.w5pc.org](http://www.w5pc.org)**