Parkersburg Amateur Radio Klub

Di-Dah-Dit

Official Newsletter of the Parkersburg Radio Klub
1722 20th. St. Parkersburg, WV 26101

W8CDX Takes Field Day Back to its Roots

Some younger radio amateurs may not realize that ARRL Field Day has been a staple operating event for more than 80 years. Former ARRL Communications Manager F. E. Handy, W1BDI, is credited with conceiving "International Field Day" in 1933, although it wasn't until the following year that he described it as the "test of the emergency availability of portable stations and equipment" we know today. For Field Day 2017, the crew at the Karns City Amateur Radio Club, W8CDX, once again took Field Day equipment back to the 1930s -- a time when the notion of "portable" applied only loosely to equipment of the era. Last year, W8CDX used a National HRO-5 receiver and a style of transmitter similar to something that could have been used at that first Field Day. This time, everything was home built.

Eric Tichansky, NO3M, sets up his vintage replica Field Day station for W8CDX.

"We had a lot of fun putting up another 1930s-style station for Field Day 2017," said Eric Tichansky, NO3M, the trustee of the W8CDX station. The transmitter was based on an August 1934 QST article, "A Medium-Powered Phone-C.W. Transmitter with Pentode Power Tubes," the receiver on a May 1934 QST article, "A De Luxe Crystal Type S.S. Receiver." Tichansky has documented the receiver project from start to finish.

"This would have been a possible setup used in the third Field Day in 1935," Tichansky told ARRL. "The entire station was 100% homebrew, including the power supplies, T/R switching, and link-coupled antenna tuner -- inspired by a 1935 ARRL Handbook project." Power supplies were based on standard designs from that era, using 866s in the amplifier supply and 83s in the buffer and oscillator supplies. The bias supply used an 80 rectifier and an 874 regulator of late 1920s vintage to supply the needed -90 V bias.

Tichansky said the T/R switch, which could be operated by foot switch, not only switched the antenna between receiver and transmitter, but opened the keying line in receive, grounded the receiver input on transmit, lifted the grounded end of the receiver's RF/IF gain pot, and put a 15 kW potentiometer in line to adjust the side tone level. The antenna was an 80-meter doublet fed with homebrew open-wire feed line.

The W8CDX Field Day 2017 operating position. The receiver (right) was constructed from a 1934 QST article.

Using the replicated vintage gear, W8CDX logged 305 contacts, about evenly split between 40 and 80 meters -- up from 153 on 40 meters alone in 2016. The biggest issue on the air was chirp, "depending on how the stages in the rig were tuned." Sometimes the receiver would decide on its own to change frequency. Tichansky gave the gear a trial run during the Breezeshooters Hamfest at the Butler Fairgrounds in Prospect, Pennsylvania, on June 4, making several contacts.

"We plan to keep this going as an annual event," Tichansky told ARRL. "It's really a lot of fun putting this antique-style gear on the air."

Federal Register Publishes New MF/LF Rules, But Operation is Not Yet Legal

The FCC Report and Order (R&O) spelling out operational rules to allow secondary Amateur Radio access to 630 meters and 2,200 meters now has appeared in the Federal Register, but radio amateurs still may not access the new bands. That's because specific procedures specific procedures, now under development, to detail how radio amateurs will notify the Utilities Technology Council (UTC) of their proposed station location prior to commencing operation, still must undergo approval. The FCC said the notification requirement is necessary to confirm that a station is not located within 1 kilometer of an active power line communication (PLC) system.

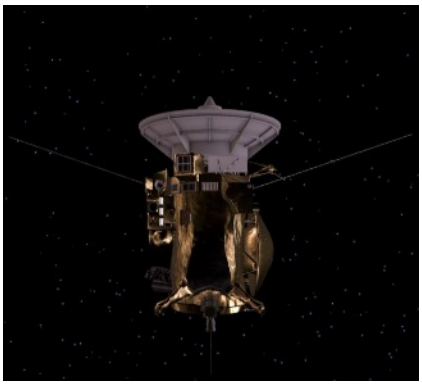
"While the R&O has been published in the Federal Register, amateurs may not begin using the new bands until after the FCC's Wireless Telecommunications Bureau issues a Public Notice outlining necessary procedures to notify UTC of pending operation, as the new rules require," ARRL Regulatory Information Manager Dan Henderson, N1ND, said. "There is no timetable for that Public Notice to be released. Amateurs need to practice patience."

The FCC said the notification requirements it adopted "seek to strike a balance between amateur operations used for experimental purposes and PLC operation used by electric utilities for the reliability and security of electric service to the public." Once notification procedures are in place, radio amateurs intending to operate on either band will notify UTC of their geographical location. If UTC does not object within 30 days, amateur operation may commence. The FCC turned away an ARRL request for direct access to the PLC database that UTC maintains.

Once UTC has developed the new information collection procedures, the FCC must submit them for review to the Office of Management and Budget (OMB). "The Commission will publish a separate notice in the Federal Register, inviting comment on the new information collection requirements adopted herein," the FCC said in the R&O. "The requirements will not go into effect until OMB has approved [the notification procedures] and the Commission has published a notice announcing the effective date of the information collection requirements."

In an unrelated action, the FCC allocated 1,900-2,000 kHz to the maritime mobile service (MMS) on a primary basis for non-Federal use in ITU Regions 2 and 3, and limited the use of this allocation to radio buoys on the open sea and the Great Lakes. Amateur Radio was upgraded from secondary to primary in the 1900-2000 kHz segment in 2015.

Radio Amateur Hears Cassini Spacecraft:



Paul Marsh, M0EYT, has confirmed reception of the Cassini spacecraft, now in orbit around Saturn. "I copied Cassini on 8,429.247035 MHz during its last radio occultation experiment, where the TX is carrier-only mode on S, X, and Ka bands," Marsh told ARRL. "I was using my 2.4-meter antenna at the time." Marsh said his homebrew downconverter is locked to a 10-MHz station reference, and SDR processing is done with the RF Space kit. Launched in 1997, Cassini will crash into Saturn in early September. The research spacecraft, which carried the European Space Agency's Huygens probe now on the surface of Saturn's moon Titan, currently is executing about 2 dozen dives through Saturn's rings. The Huygens probe separated from the orbiter in 2004 and transmitted data to Earth using the orbiter as a relay. This was the first successful landing in the outer solar system. Marsh is heavily involved with satellite tracking and monitoring activities and is a contributor to the Amateur Deep Space Network (Amateur-DSN) Yahoo! Group.

FCC and OSHA Release Communications Tower Best Practices Guide

The FCC and OSHA have announced the release of a free publication, Communications Tower Best Practices Guide. While aimed more at those who tend commercial communication towers, the guide offers information applicable to the Amateur Radio community and contractors working on Amateur Radio antenna support structures. The FCC said the guide was a result of two tower safety workshops.

"Recognizing the risks that tower employees face, OSHA and the FCC held a workshop on communication tower employee safety on October 14, 2014," the new guide explains. "During this workshop, industry stakeholders, along with employee safety advocates and the families of communication tower employees who had been killed on the job, gathered to discuss issues affecting the safety of communication tower employees."

A second workshop followed in February 2016, during which a panel of industry stakeholders and advocates discussed best practices that could reduce injuries and fatalities among tower workers. "This document is a collection of the best practices gathered from those workshops and from the discussions that continued beyond those events," the guide says.

Among other points, the guide emphasizes that all tower workers need "to have and use proper safety equipment at all times," and that, "no work should be done if proper safety equipment is unavailable or if the safety equipment available is not functioning properly."

The guide also notes an increasing use of drones for tower inspection. "This technology has the potential to reduce unnecessary climbing and can avoid putting [tower workers] at risk," the guide points out.

"Every tower climber death is preventable," stressed FCC Chairman Ajit Pai.

****

Bear is Unwanted Volunteer, as ARES Team Supports Colorado Road Race

Lots of things can go awry when Amateur Radio volunteers are supporting public service events, from technical and weather problems to lost or injured participants. The 2017 Garden of the Gods 10-mile and 10-kilometer races in Colorado was no exception. On Sunday, June 11, the Pikes Peak Amateur Radio Emergency Service (PPARES) deployed a dozen operators to support more than 1,400 runners in scenic Garden of the Gods Park just west of Colorado Springs. John Bloodgood, KD0SFY, Region 2, District 2 Emergency Coordinator and Public Information Officer said all was going well, with cooperative weather and only a slight delay due to traffic — nothing out of the ordinary.

“The real excitement came when a couple of the reporting positions called in to report that a bear was on the course,” Bloodgood said. “Bears are not uncommon in this area, and most of the locals aren’t too fazed by them; we know they will be out foraging this time of year.” But for runners unfamiliar with the lay of the land there, the sudden appearance of a bear can be alarming, he added.

“This bear was apparently trying to get across the road and wasn’t quite sure why all these people were running through its home so early on a Sunday morning,” Bloodgood said. “It finally saw a gap between groups of runners and dashed across the road, but not before local runner Donald Sanborn managed to get a few pictures of it. In the end the problem resolved itself before any intervention was necessary.”

Bloodgood said Dan Huber, KN0MAP, actually saw the bear and was the first operator to call it in. Matthew Bowker, KD0THF, reported it based on reports from runners.

Bloodgood said the ARES volunteers tracked the first three male and female runners from both the 10-mile and the 10-kilometer races, reported on any medical issues, supported aid station logistics, helped to ensure the course was clear, tracked the last runners, and provided an operator on a bicycle for the sweep function.

Bears notwithstanding, Bloodgood said the event has been a fairly easy one to support and offers a good training ground for lessexperienced operators. “Our most intense and demanding events, the Pikes Peak International Hill Climb (vehicle race) and Pikes Peak Ascent and Marathon (half and full marathons) are coming up,” he added.

After the race, three PPARES members also supported the Colorado Springs Community Emergency Preparedness Day that afternoon at a local minor league baseball game. “This was a display event where we talked to people about making communications plans for disasters, about Amateur Radio, and what ARES does. “There was also a scavenger hunt for the kids where they had to do tasks at multiple stations to get their card signed off and receive a prize,” he recounted. “For our station we had the kids either talk on the radio or — for the shy ones — we had an anemometer they could blow into and get a wind speed measurement.”

****

Our Sun's 11-Year Magnetic Cycle Destined to Disappear

The Sun's 11-year magnetic cycle appears to be ending, but that won't happen anytime soon. In a paper submitted on May 26 to the journal Solar Physics, two solar scientists are reinterpreting earlier evidence to hypothesize that the Sun's rotation rate and magnetic field are in a transitional phase that could lead to lengthening solar cycles, with the cycle ultimately disappearing altogether between 800 million and 2.4 billion years from now. Travis S. Metcalfe and Jennifer van Saders propose the scenario in their paper "Magnetic Evolution and the Disappearance of Sun-like Activity Cycles."

"After decades of effort, the solar activity cycle is exceptionally well characterized, but it remains poorly understood," the authors say in the paper's abstract. "Pioneering work at the Mount Wilson Observatory demonstrated that other Sun-like stars also show regular activity cycles and suggested two possible relationships between the rotation rate and the length of the cycle. Neither of these relationships correctly describe the properties of the Sun, a peculiarity that demands explanation."

The authors cite stellar evidence for the shutdown of "magnetic braking" in stars similar to our Sun. "The new picture of rotational and magnetic evolution provides a framework for understanding some observational features of stellar activity cycles that have until now been mysterious," they said.

Metcalfe explained their observations through a recent Forbes magazine article. "Our previous discoveries identified an unexpected transition in the rotation and magnetism of middle-aged stars," Metcalfe is quoted in the article, "The Sun's Magnetic Dynamo Is Weakening" by Bruce Dorminey. "We now have direct evidence that the stellar dynamo -- the mechanism inside stars that sustains their magnetic fields -- actually shuts down during this transition."

In their paper, the authors said that future observations with the Las Cumbres Observatory global telescope network "promise to probe the onset and duration of the magnetic transition that drives the evolution and eventual disappearance of Sun-like activity cycles."

Jennifer van Saders at a Carnegie Observatories seminar earlier this year.

A 2016 paper Travis co-authored -- "Stellar Evidence that the Solar Dynamo May Be in Transition," published in The Astrophysical Journal Letters, concluded, "The Sun still exhibits a dipole component to its global field, particularly near magnetic minimum, but the solar analogs also suggest a gradual concentration of the field into smaller spatial scales, leading to weakened magnetic braking,"

Metcalfe is listed on the paper as being associated with the Space Science Institute and the White Dwarf Research Corp, both in Boulder, Colorado. Van Saders is listed as being associated with the Observatories of the Carnegie Institution for Science in Pasadena, California, and the Department of Astrophysical Sciences at Princeton University in New Jersey.

Klub Minutes

April 10, 2017

The Parkersburg Amateur Radio Klub met at the Western Sizzlin Restaurant for the April meeting.

The meeting was called to order at 6:58 p.m. by President Jerry Wharton KA8NJW.

Introductions were made by 23 members and guests.

Mary Wharton won the 50/50 drawing of $13.50.
The minutes of the last meeting were read and approved with corrections. The treasurer's report of $6,665.69 was given by Jane N8MOW.

UNFINISHED BUSINESS

Field Day will be June 24-25, 2017, at Ft. Boreman.

Blaine WA8IOE, Mike WD8BTI, and Jerry KA8NJW fielded discussion on a Special Event Station for 2017. They will meet later in the week and will give their report at the next meeting.

NEW BUSINESS

Ray Johnson KC8RUJ is Net Operator for Tuesday.

CLUB CONCERNS

Get well cards were signed for Darlene W8PAN who had surgery and for Alma who is in the hospital.

Jepp K8BOT is not doing well. Eli Clark Benefit is April 14. (Brain Cancer)

Tom Malson N6RLN shared his experience and showed a plank of mahogany from the Queen Mary.

Bob KB8EFB moved and Blaine WA8IOE seconded to adjourn at 7:30 p.m.

Minutes recorded by Libby KA8FUA, secretary

****

May 8, 2017

The Parkersburg Amateur Radio Klub met at the Western Sizzlin Restaurant for the May meeting.

The meeting was called to order at 7 p.m. by President Jerry Wharton KA8NJW.

Introductions were made by 26 members and guests.
Dan Betts WV8X won the 50/50 drawing of $17.
The minutes of the last meeting were read and approved.

The treasurer's report of $6,733.69 was given by Jane N8MOW.

UNFINISHED BUSINESS

Mike WD8BTI moved and Bob KB8EFB seconded that the PARK operate a special event station October 23, 2017, during Volcano Days. Motion passed. Mike WD8BTI will contact QST.

Jerry KA8NJW will look into getting the club website updated. The website could have general information, club newsletters, club history, repeaters, etc.

Filed Day will be June 24-25, 2017, at Ft. Boreman. Earl KB8HRG and Jerry KA8NJW will operate on the hill.

Charlie Dunkin's widow wants to conbert his equipment into money. Jerry KA8NJW will get an inventory of Charlie's equipment.

NEW BUSINESS

Curt K8UC observed that the curtain in our meeting room needs fixed.

Bob KB8EFB moved and Mike WD8BTI seconded to adjourn at 7:38 p.m.

Minutes recorded by Libby KA8FUA, secretary

****

June 12, 2017

The Parkersburg Amateur Radio Klub met at the Western Sizzlin Restaurant for the June meeting.

The meeting was called to order at 7 p.m. by President Jerry Wharton KA8NJW.

Introductions were made by 27 members and guests. Darlene W8PAN won the 50/50 drawing of $14 and donated it back to the club.
The minutes of the last meeting were read and approved. An editorial correction to the last minutes: The special event station will be Sept. 23 not October 23. The treasurer's report of $6,794.69 was given by Jane N8MOW.

UNFINISHED BUSINESS

Jerry KA8NJW still needs to evaluate Charlie Dunkin's radio equipment.

The Special Event Station will be published in QSL.

Earl KB8HRG moved and Bob KB8EFB seconded that Blaine WA8IOE purchase a new generator for the club. Motion passed after much discussion.

There will be a Field Day meeting on Monday, June 19 at 6 p.m. at Ft. Boreman.

The Field Day picnic will be at 6 p.m. Bring a vegetable, salad or dessert.

NEW BUSINESS

Earl KB8HRG reported on the 3 9 repeater that was hit by lightning.

CLUB CONCERNS

Darlene W8PAN reported on Connie Hamilton who had fallen and was in Marietta Memorial Hospital.

Earl KB8HRG showed a memorial to Jim Palmer K8BOT silent key. Bob KB8EFB moved and Mike WD8BTI seconded to adjourn at 7:38 p.m.

Minutes recorded by Libby KA8FUA, secretary

****

Special Event Station notice in QST

09/23/2017 | Volcano Days - Oil & Gas History

Sep 23, 1400Z-2200Z, W8PAR, Parkersburg, WV. Parkersburg Amateur Radio Klub. 14.250 7.200. Certificate & QSL. PARK, 1722 20th St., Parkersburg, WV 26101. • The first oil field in the United States to employ the "endless cable pumping system," • The first regular gauge railroad built with the State of WV. • The first pipeline to be built within West Virginia.
Ka8njw2@gmail.com

****

More FieldDay photos will be sent out in a separate email or shown at next meeting.