The Illuminator

The monthly newsletter of the Carbon Amateur Radio Club

March 2006

March Meeting

The next regular meeting of the Carbon Amateur Radio Club will be on Thursday, March 16, at 7:30 p.m. at the Emergency Operations Center in Nesquehoning. We are scheduled to show a DVD of the FT5XO DXpedition from last year. This is another in the set of DVDs by James Brooks, 9V1YC, that we've enjoyed so much in the past. It promises to be a very interesting program!

See you there!

Dues Due!

Yes, it's that time again! Time to send in your membership dues for calendar year 2006!

If you haven't already done so, please take the time to fill out the form on the penultimate page of this newsletter and send it, with your dues, to the Carbon Amateur Radio Club, P. O. Box 622, Lehighton, PA 18235, or bring your completed membership form and dues to any CARC meeting. Alternatively, you can renew your membership by going to the club web site: http://carc.wb3w.net and clicking on the PayPal link on the right side of the screen.

Note that, if you don't send in your dues by April 1, you will be dropped from the newsletter mailing list. You don't want that to happen, do you?

Amateur Radio Newsline

Just a reminder that Bob, WB3W, transmits the latest Amateur Radio Newsline on Monday nights at 8 p.m. local time on the CARC repeater on 147.255 MHz. Check out this excellent service that Bob provides and hear the latest amateur radio news!

Carbon Amateur Radio Club
Regular Meeting Minutes
February 16, 2006

The meeting was called to order by Goody, K3NG, at 19:50 local time.

In attendance were: KB3LFD, N3TVV, N3AT, W3EFI, KB3KLJ, N2DIY, N3CR, N3HYB, KB3BYT, WA3IEM, KB3LYS, and WB3W (12 in all).

The treasurer's report was email, but not available at the meeting and therefore set aside.

A motion was made to accept the 11/17 meeting minutes as published in the last newsletter, was duly seconded and carried with 2 abstentions.

Old Business

What's Happening in Carbon County

Eric, N3TVV, made contact the publisher of *What's Happening in Carbon County*. The cutoff to get info in the publication each month is by the 10th of the month. Rob, KB3BYT will handle getting the info we would like into the next publication.

Echo Link

WB3W reminded the member of the availability of Echo Link on the repeater and they it hasn't been getting used. If there is no interest in maintaining this, Bob will redeploy the equipment for other uses. He has the codes and procedures needed to use Echo Link and anyone interested should email him or the info.

PEMA Weather Exercise

PEMA will be conducting their annual sever weather drill on March. Brian, KB3KLJ, is in the process of determining what the Carbon County EMA has planned for the exercise.

New Business

No new business was brought for the meeting.

Meeting Programs (from previous minutes)

The current programs waiting are:

- A 40 meter direct conversion receiver project (currently ~$7 a kit to do) – Rob, KB3BYT
- Test equipment and their use (e.g., oscilloscopes, spectrum analyzers, etc.) – George, N3SQD (this will probably be done closer to spring)
- Einstein's Theories and Radio by Chuck, WA3MGD (a former physics teacher :-))
- Chris Kelly (a friend of Lamar, N3AT, call unknown) to talk about emergency response experiences from his work in the aftermath of Hurricane Katrina
- Bob, K3PH, for a video program covering an interesting DXpedition.

The meeting adjourned at 19:57 local time and was followed by a presentation and working session for Anderson Powerpoles conducted by Bob, WB3W and assisted by Brian, KB3KLJ.

Minutes respectfully submitted by Brian, KB3KLJ.

Revised ITU Recommendation on Use of Amateur Radio in Disasters in Effect

(From the ARRL Letter)

A revised International Telecommunication Union (ITU) Telecommunication Development Sector (ITU-D) Recommendation is now in force to promote "effective utilization of the amateur services in disaster mitigation and relief operations." Initially developed in 2001, the document, known as Recommendation ITU-D 13, was brought up to date last year through the efforts of an ITU-D study group and circulated to administrations around the globe for adoption.

"This is an updated version of a Recommendation that administrations include the amateur services in their national disaster plans, reduce barriers to effective use of the amateur services for disaster communications, and develop memoranda of understanding with amateur and disaster relief organizations," explained ARRL CEO David Sumner, K1ZZ. ITU-D 13 further advises cooperation among all parties in making available model agreements and "best practices" in disaster telecommunications.

The revised Recommendation takes into account changes adopted at World Radiocommunication Conference 2003 (WRC-03) to Article 25 of the international Radio Regulations. One change provides that Amateur Radio stations may be used to transmit international communications on behalf of third parties in case of emergencies or for disaster relief. Another encourages administrations "to take the neccessary steps to allow amateur stations to prepare for and meet communication needs in support of disaster relief." The FCC recently adopted changes to its Part 97 Amateur Service rules to reflect these and other WRC-03 actions.

The revised Recommendation ITU-D 13 recognizes that effective Amateur Radio disaster communication depends "largely on the availability of amateur operators located throughout a country," and that post-disaster international humanitarian assistance "often includes the provision of amateur operators and of equipment from an assisting country."

It further acknowledges that barriers in terms of gaining permission to operate and to move equipment and operators into a disaster zone "in many cases hindered the full use of telecommunications capabilities available from outside an affected country."

"The Tampere Convention on the Provision of Telecommunications Resources for Disaster Mitigation and Relief Operations," adopted in 1998 by the Intergovernmental Conference on Emergency Telecommunications in Tampere, Finland, established a framework for the reduction and/or removal of such barriers. Revised in 2003, ITU-Radiocommunication Sector Recommendation M.1042-2, "Disaster Communications in the Amateur and Amateur-Satellite

Services," encouraged "the development of such services and of making such networks robust, flexible and independent of other telecommunication services and capable of operating from emergency power."

The revised Recommendation ITU-D 13 is expected to be available soon — I several languages and in MS-Word and PDF formats — from the ITU Web site http://www.itu.int.

ARRL Propagation Forecast Bulletin

Propagation Forecast Bulletin 9 ARLP009
From Tad Cook, K7RA
Seattle, WA March 3, 2006
To all radio amateurs

Low activity continues with another string of zero-sunspot days. Average daily sunspot numbers for this week were down four points from the prior week to 3.1. Average solar flux declined one point to 76.4.

February ended, so a comparison of monthly averages of daily sunspot numbers and solar flux is called for. As you can see below, the average sunspot numbers plummeted in February, far below any other month in the second half of cycle 23.

The average daily sunspot numbers for the months January 2005 through February 2006 were 52, 45.4, 41, 41.5, 65.4, 59.8, 68.7, 65.6, 39.2, 13, 32.2, 62.6, 26.7 and 5.3. Average daily solar flux for the same months was 102.3, 97.2, 89.9, 85.9, 99.5, 93.7, 96.5, 92.4, 91.9, 76.6, 86.3, 90.8, 83.4 and 76.5.

This weekend is the ARRL International SSB DX Contest. Although solar activity is low, geomagnetic conditions should remain quiet, which is good. Sunday, March 5 could see some unsettled activity. The predicted planetary A index for March 3-7 is 8, 5, 12, 5 and 5. Sunspot and solar flux levels should stay about the same, which is very low.

Geophysical Institute Prague predicts quiet conditions on March 3, 4, 6, 7 and 8. Quiet to unsettled conditions are seen for March 5 and 9.

Jake Groenhof, N0LX of Golden, Colorado sent an interesting and amusing email titled "Solar Minimum Hoax." He mentioned all the fun he's been having as we slide toward the end of Cycle 23, working hams around the world from his backpack pedestrian mobile QRP rig.

Jake writes:

"This will be my first solar minimum as an active ham. To top it off, I've operated almost 100% QRP (sideband) for the past four years and I'm beginning to think this solar min stuff is all a hoax. How else could you explain this past weekend?"

He continues, "I was up on a hilltop near the home QTH in Colorado running five watts from a backpack-mounted radio on 17 meters. My second contact was Hawaii. Then, a few QSOs later I was talking to Yuu, JH1OCC, in Japan. A half-hour later I received a 57 signal report from Hiro, JE7JIS."

He goes on to say, "The East Coast was well represented from New York to Florida, and a MD station recorded one of my transmissions and sent it to me in an e-mail. Here is a link to the recording from my website: http://hometown.aol.com/N0LX/N3HQB-N0LX."

He continues, "The weird thing was the complete lack of W6 calls. Not a single California station to be heard in four hours. Maybe it's not a hoax. It's a conspiracy!"

Jake uses some impressive antennas for his backpack rig, and I'll bet he is careful about walking near power lines. In fact, all of his photos show him standing out in the wide open spaces of Colorado.

Check out photos of the setup he used last weekend at, http://hometown.aol.com/n0lx/tallpack.html. At the http://hometown.aol.com/n0lx/hamradio.html page you'll see many links to photos of his mobile and pedestrian endeavors.

Not to be missed is Jake standing in a snowstorm using an antenna suspended from a balloon! See it at, http://hometown.aol.com/n0lx/snowday.html. Very impressive.

Thanks, Jake, for sharing the audio recording and these extraordinary photos with us!

If you would like to make a comment or have a tip for our readers, email the author at, k7ra@arrl.net.

For more information concerning radio propagation and an explanation of the numbers used in this bulletin see the ARRL Technical Information Service propagation page at, http://www.arrl.org/tis/info/propagation.html. An archive of past propagation bulletins is found at, http://www.arrl.org/w1aw/prop/.

Sunspot numbers for February 23 through March 1 were 0, 0, 0, 0, 11, 11 and 0 with a mean of 3.1. 10.7 cm flux was 75.1, 76, 76, 76.5, 77, 77.1, and 77, with a mean of 76.4. Estimated planetary A indices were 3, 6, 1, 5, 3, 5 and 7 with a mean of 4.3. Estimated mid-latitude A indices were 4, 4, 1, 3, 2, 2 and 5, with a mean of 3.

ARRL DX Bulletin

DX Bulletin 9 ARLD009
From ARRL Headquarters
Newington CT March 2, 2006
To all radio amateurs

This week's bulletin was made possible with information provided by NC1L, the OPDX Bulletin, 425 DX News, The Daily DX, Contest Corral from QST and the ARRL Contest Calendar and WA7BNM web sites. Thanks to all.

VIET NAM, 3W. Torsten, SM3NFB is QRV as XV9TH from Hanoi and is active on 40 to 6 meters, including 17 and 12 meters. QSL via SK7AX.

MALDIVES, 8Q. Herbert, DJ2BC is QRV as 8Q7SH from Kuredu Island, IOTA AS-013, until March 6. Activity is on all bands. QSL to home call.

UNITED ARAB EMIRATES, A6. A61AX has been active on 20 meters around 0400z and from 0800 to 0900z. QSL via SP9MRO.

CANARY ISLANDS, EA8. Mari, EA8GL and Dunia, EA8BHD will be QRV as ED8IWD from Isla de Gran Canaria, IOTA AF-004, from March 5 to 8 to commemorate International Women's Day. QSL via EA8BHD.

FRENCH GUIANA, FY. Marc, F1HAR, Olivier, F5MZN, Laurent, F6FVY and Herve, F5HRY will be QRV as FY5KE in the ARRL SSB DX Contest. QSL via bureau.

GUINEA-BISSAU, J5. Peter, HA3AUI is QRV as J5UAP and is here for a few weeks. Lately he has been active on 17 and 15 meters using SSB. QSL to home call.

U.S. VIRGIN ISLANDS, KP2. K9VV, NP2B, W4OV, and WD4R will be QRV as NP2B in the ARRL SSB DX contest. QSL via NP2B.

LITHUANIA, LY. Special event station LY15A is QRV until March 31 on all bands to celebrate the 15th anniversary of independence. QSL via LY2ZZ.

ARUBA, P4. John, KK9A will be QRV as P40A in the ARRL SSB DX contest. QSL via WD9DZV.

BONAIRE AND CURACAO, PJ2. Look for KB0VVT, KG0UT, KG0US, PJ2DX/W0CG, WE9V, W9JUV, WB9Z and NW0L to be QRV as PJ2T in the ARRL SSB DX contest as a Multi Op entry.

SAO TOME AND PRINCIPE, S9. Charles, S9SS has been QRV on 160 meters around 2200z and 0130z. QSL via N4JR.

PALAU, T8. Dick is QRV as T80X and has been active on 17 meters between 2100 and 2300z. QSL via DJ2EH.

GUATEMALA, TG. TG9ANF and TG8AOV will be QRV as TG9ANF in the ARRL SSB DX contest. QSL via TG9ANF.

COSTA RICA, TI. K4UN, W4KTR, W4XO, W4BW and TI2KAC will be QRV as TI8M in the ARRL SSB DX contest as a Multi-2/High Power entry.

ANTARCTICA. Dmitry, UR8UC is QRV as EM1UC until February 2007 from the Ak Vernadsky station. He is using CW, SSB and some digital modes.

BELIZE, V3. Martti, OH2BH and Pertti, OH2PM will be QRV as V31BH and V31PP, respectively,

during the ARRL SSB DX contest. QSL to home calls.

MEXICO, XE. The Hermosillo Contest Group will be QRV as XE7T in the ARRL SSB DX contest as a Multi/Single entry. They will pay special attention to 160 meters. QSL via N7BXX.

INDONESIA, YB. Toba DX Group members YC6LAY, YB6LYS, YC6JKV, YB6PLG and YB1BOD will be QRV as homecalls/p from Simeulue Island, a new IOTA, from March 8 to 15. Activity will be on 80 to 10 meters, and possibly 6 meters. QSL via YB1BOD/6.

SOUTH COOK ISLANDS, ZK1. Jim, W1EMT will be QRV as ZK1EMT along with Victor, ZK1CG from Rarotonga, IOTA OC-013, from March 4 to 20. They will be active with QRP on 40, 20, 17, 15 and 10 meters. QSL direct to home calls.

OPERATIONS APPROVED FOR DXCC. The following operations are approved for DXCC credit: Angola, D2DX, current operation effective December 15, 2004; Afghanistan, T6X, current operation effective March 8, 2005; Tunisia, TS3A, from March 24, 2005 through March 28, 2005; Chad, TT8PK, from December 27, 2005 through February 11, 2006; and Laos, XW1A/XW1LLR5/XW1X/XW1M, current operation effective October 29, 2005.

THIS WEEKEND ON THE RADIO. The ARRL International SSB DX Contest, Wake-Up! CW QRP Sprint, Open Ukraine RTTY Championship, DARC 10-Meter Digital Contest, ARS Spartan CW Sprint and the AGCW YL-CW Party will certainly keep contesters busy this weekend. Please see March QST, page 98 and the ARRL and WA7BNM contest websites for details.

Plate Voltage

By Paul Dunphy, VE1DX

One often has to consider that things may not always be as they seem, particularly when Local QRPers are asking questions. Absolutely. We had been to an annual get together a few weeks back and it was a mixture of traffic types, those who like to tinker and build homebrew gear, and of course, DXers! DXers are drawn to other DXers and no gathering of the amateur fraternity has ever proven this otherwise . . . it is one of the Inevitable Truths of DXing. Believe that, for it always has been.

We were sitting at a table with a few of the true blue DX types, talking about the Great Days of DXing and the imminent arrival of the next sunspot cycle when one of the Local QRPers came along with his tray. He spied the one empty seat, and being a Seeker of Knowledge, this QRPer sat down and began right off with a question, "If you guys were going to build a linear, what kind of tube would you use?" he asked, looking quickly from one to the other. No one answered for a moment, then one of the big guns shrugged and replied, "Well, I guess I'd probably go with a pair of 3-500Zs . . . they're pretty rugged and not that expensive." The QRPer nodded and waited. "8877s are good tubes, too," another of the true-blue types offered. The QRPer had pulled out his notebook and was writing all this down. QRPers keep methodical notes, especially when they are driven by a single purpose. Remember that. A QRPer on a mission is dangerous. Never let your guard down.

"And what about you?" the QRPer said, looking straight at us, "What would you use?" We thought for a moment, then replied, "Either of the two mentioned are good choices" we said carefully, "and we are hearing good reports about the 4CX1600B, too . . . 50 watts from the exciter will get you 1500 out. But none of us are really considering building an amp right now." We got nods of agreement from around the table and we decided to pursue this a bit further. This QRPer had an agenda and we had to know more.

"Why are you so interested in tubes?" we asked. The QRPer took a bite of his lunch and looked at us carefully, then did the double take and answered our question with a question. "Let's say someone wanted to double up a pair of those 4CX1600Bs. How much power would you expect from 100 watts drive? Am I correct in assuming that if 50 watts will generate 1500 watts, then a pair of them will put out 3 kW?" We weren't sure where this was leading and we were getting a bit out of our league. "We've never built an amp," we replied, "and a lot of this depends on the design and efficiency of the components involved. In theory, you're probably right. But what's the point? You can't run 3 kW anyhow. You'd be cited for excessive power and if you kept it up, you'd be off

the air." The QRPer glared at us with his beady little eyes and ploughed right on. "Yeah, yeah, I know all that," he said, wiping a bit of sweat from his upper lip, "but let's say you could do it, what would be the best way? Get three, maybe four of those killer 1500-watt tubes and try to drive them with the exciter, or build an intermediate with a single 3-500Z and use that to drive the final? And if someone was to do that, use an intermediate amp, would 5 kW output be possible?"

Son of a Gun! How does one answer a question like that? It was obvious we had a QRPer who had done a lot of thinking before asking. So we did the obvious. We excused ourselves, and hauled this Seeker of QRO Knowledge over to the table in the corner where the Old Timer was sitting with Red-Eyed Louie. The Old Timer had built his share of amplifiers and the QRPer repeated his question, referring to his notebook and getting ready to write. The Old Timer leaned back in his chair, looked up at the ceiling for a moment and then looked back at the QRPer. "What we have to answer here," he said, "is not how, but why." The QRPer looked puzzled as the Old Timer continued. "Now, you were by the other day and you were complaining that you had missed Peter One Island. Remember how you said you called and called for hours and they never came back to you? And I told you that the reason they didn't come back to you was because they didn't hear you? Do you remember that?"

"Exactly!" the QRPer replied in an excited tone, "and I listened to your advice, too. You guys are always telling me to remember what Albert said, That all things are relative, some more so. So I did my homework, and I researched as much of Albert's work as I could find. And I believe I have found the answer. Everyone knows of the famous equation, E=MC squared, right?" The Old Timer simply looked at the QRPer without saying a word. "Well," the QRPer continued, "I found the pages of complicated equations that Albert used to derive that formula . . . and in there, buried among the integrals and complex formulas is the answer! I now know the reason I missed Peter One and how I can prevent it in the future! It has been there all along and no one noticed it:"

E (squared) = DX

"It's obvious that E is the plate voltage! And if you square the plate voltage, you will certainly increase your output power. Albert was telling us that the more power you run, the more DX you will work. Why didn't anyone notice this before?"

The Old Timer looked at the QRPer, then at us, and then turned back to his meal and his conversation about DX spots with Red-Eyed Louie. It was clear he wasn't going to comment. The QRPer looked at us for a moment, then asked, "What's wrong with him? Is he jealous because I've discovered one of the Mysteries of the Ages? I bet that's it! Maybe even with that cloud of aluminum he has over his shack, he missed Peter One, too!" We walked over to the door with the QRPer and patted him on the shoulder as he was walking out: "You're probably right," we said quietly, "and when you get that amplifier built, let us know how it all works out." The QRPer nodded in agreement and trotted off down the street, determined to get his order in for as many tubes as he could sneak by the XYL's budget.

When we returned to our table, we were deep in thought. While we were convinced most true-blue DXers ran maximum power, and some maybe even a bit more, we couldn't shake this picture of blasted coax, fused elements and TVI complaints! Somehow, we didn't think that Albert was referring to plate voltage. And while an extra kW will get you an S-unit or two, we had the feeling that knowing the DXpedition was working split might help, too.

Carbon Amateur Radio Club
2006 Membership Application Form

Please complete this form and send to the Carbon Amateur Radio Club, P. O. Box 622, Lehighton, PA 18235, or drop it off at the monthly CARC Meeting, at the Carbon County EMA Center, Route 93. The meeting is on the third Thursday of each month at 7:30 PM.

Callsign _____ Name _____

Address _____

City _____ State ____ Zip Code _____

Phone Number _____ Check if unlisted __

Email address _____ URL _____

Check if ARRL Member___

Membership (check one): Full ($15.00)____ Associate ($10.00)____
Additional family member ($5.00, up to a maximum of $25.00 per family)____

I would like to receive the Newsletter via (check one): Postal Mail ____ Web ___

Check here if you would like to be subscribed to the CARC Email Reflector _____
(Requires email address above. Do not check if you are currently subscribed to the reflector)

What are your interests in ham radio? _____

_____

What activities would you like to see at CARC this year? _____

_____

I'm interested in (check all that apply): Newsletter Writing ___ Tee Shirts ___ Coats ____

Foxhunting ___ Special Events Station ___ RACES ___ QRP ___ DX ___ Contests ___

Carbon Amateur Radio Club – 2004-2005 Officers

President: Anthony "Goody" Good, K3NG, goody@qrpis.org
Vice President: Rob Roomberg, KB3BYT, roomberg@ptd.net
Secretary: Brian Eckert, KB3KLJ, kb3klj@ptd.net
Treasurer: John Schreibmaier, W3MF, w3mf@ptd.net
W3HA Callsign Trustee: Lamar Derk, N3AT, n3at8z30@netscape.com
W3HA Repeater Trustee: Bob Wiseman, WB3W, rwiseman@ptd.net
Associate Repeater Trustee: Anthony "Goody" Good, K3NG, goody@qrpis.org
Public Information Officer: Lisa Kelley, ldkelley@voicenet.com
Emcomm Coordinator: Brian Eckert, KB3KLJ, kb3klj@ptd.net

Directors

Eric Bott, N3TVV, etb75@hotmail.com, Bill Kelley, KA3UKL, ldkelley@voicenet.com, Bob Wiseman, WB3W, rwiseman@ptd.net

ARES/RACES Committee

Bruce Fritz, KB3DZN (DC), bruce56@ptd.net, Darryl Gibson, N2DIY, n2diy@losch.net, Todd Deem, KB3IKX, kb3ikx@localnet.com

Services

W3HA Repeater: 147.255 MHz + PL 131.8
CARC Website: http:/carc.wb3w.net, Webmaster: Bob Wiseman, WB3W, rwiseman@ptd.net

CARC Email Reflector: http://mailman.qth.net/mailman/listinfo/carbonarc

Education Services: http://www.learnmorsecode.com/cgi-bin/carcnitesurvey.pl
Contact: Rob Roomberg, KB3BYT, roomberg@ptd.net

Emergency Power Equipment Trustees: Lisa and Bill Kelley, KA3UKL, ldkelley@voicenet.com

CARC Membership Information

Regular Membership is $15.00, which includes autopatch privileges.

All amateur radio operators are invited to join the CARC ARES / RACES net held 21:00 local time every Wednesday on the W3HA repeater at 147.255 MHz + offset, PL 131.8. Any amateur radio operator or anyone with an interest in ham radio is welcome to attend our monthly meetings which occur the third Thursday of each month at 7:30 PM at the Carbon County EMA Center on Route 93 in Nesquehoning.

Carbon Amateur Radio Club
c/o Bob Schreibmaier K3PH
P. O. Box 166
Kresgeville, PA 18333-0166