The Illuminator

The monthly newsletter of the Carbon Amateur Radio Club

June 2006

June Meeting

The next regular meeting of the Carbon Amateur Radio Club will be on Thursday, June 15, at 7:30 p.m. at the Emergency Operations Center in Nesquehoning. We expect to finalize the club's Field Day plans, including coaching newcomers on the basics of working Field Day, using the equipment, using the logging software, etc. Field Day 101! You don't want to miss that!

And, don't forget to meet the gang for supper at 6:00 at Izio's, at the bottom of the hill in Nesquehoning!

See you there!

Carbon Amateur Radio Club Regular Meeting Minutes May 18, 2006

The meeting was called to order 19:51 local time by Rob, KB3BYT. In attendance were: Kent WA3IEM, Todd KB3IKX, Jim K3II,Bob K3GQ, John W3MF, Eric N3TVV, Rob KB3BYT, Bob WB3W, and Denny W3EFI. Regrets from Goody K3NG and Brian KB3KLJ.

The treasurer's report was read by John, W3MF as follows:

Treasurer's Report

Previous Balance	$1,254.74
Receipts (dues)	$0.00
Sub-total	$1,254.74
Disbursements (newsletter)	-$4.68
New Balance	**$1250.06**

Report was accepted.

Old Business

Kent, WA3IEM will be ordering the club's 6 meter beam on 5-19-06.

New Business

None.

The meeting adjourned at 19:53 local time. Following the regular meeting, specific planning and discussion about Field Day was handled and is summarized here (thanks to Rob, KB3BYT):

- Because we'll be limited for space, KB3BYT suggested condensing food and radios into the larger work room.
- WB3W suggested setting up tables outside (weather permitting).
- N3TVV had brought up ideas of using his father's motor home for a break room during the day and sleeping quarters during the night.
- Bob WB3W will post all of field day supplies on a private website which will be passed over to the club members. This will help keep track of what we have and what we still need.
- We will be doing a preliminary walk through at the Bott Building on June 9th, to discuss our plan of attack, since there were two trees taken down since last Field Day.

Minutes respectfully submitted by Eric, N3TVV (formatting by Brian, KB3KLJ).

WX4NHC Hurricane Season 2006 Station Test Set

(from the ARRL Letter)

The National Hurricane Center's WX4NHC http://www.wx4nhc.org will conduct its "Hurricane Season 2006 On-the-Air Station Test" Saturday, June 3, from 1300 until 2200 UTC.

The annual station test provides an opportunity for WX4NHC to check out all of its radio equipment, computers and antennas using as many modes and frequencies as possible. It's also a chance for RFI monitoring of NHC equipment and to conduct some operator training. It is not a contest or simulated hurricane exercise.

WX4NHC will operate on HF, VHF and UHF. Phone frequencies will be 7.268, 14.325, 21.325 and 28.525 MHz. CW frequencies will be 14.035, 21.035 and 28.035 MHz. PSK31 will be on 14.070 MHz. Look for WX4NHC on the DX spotting networks as well. WX4NHC also will be on the VoIP Hurricane Net http://www.voipwx.net (IRLP node 9219; EchoLink WX-TALK Conference) from 1700 until 1900UTC. WX4NHC also will operate on South Florida area VHF and UHF repeaters and on FM simplex.

When working WX4NHC, report your call sign, signal report, location, name and a brief description of current weather conditions (e.g., "sunny," "rainy," "windy"). Nonhams may participate by submitting their actual weather conditions using the On-Line Hurricane Report Form http://www.wx4nhc.org/WX-form1.html.

QSL cards are available for an SASE to WX4NHC Assistant Amateur Radio Volunteer Coordinator Julio Ripoll, WD4R, 14855 SW 67 Ln, Miami, FL 33193-2027. Do not QSL directly to the National Hurricane Center. Due to security measures, no visitors will be allowed at NHC during this test.

DXCC Desk Approves Operations for DXCC Credit

(From the ARRL Letter)

The ARRL DXCC Desk has approved these operations for DXCC credit: 4W6AAB – Timor-Leste, current operation effective May 22, 2006; ZV0F – Fernando de Noronha, operation March 30-April 4, 2006; 6O0M – Somalia, operation from April 7-24, 2006; S01R – Western Sahara, operation April 11-21, 2006; YI9NS – Iraq, operation January 5-March 28, 2006; YI9HU – Iraq, operation May 18-June 5, 2005; HN0Z – Iraq, operation March 27-28 and May 29-30, 2004; A6/OD5TX – United Arab Emirates, operation October 5-November 5, 2005; TT8WL – Chad, November 19, 1996-March 8, 1997; J5DOT Guinea-Bissau, operation April 25-May 5, 2006.

Additionally, the ARRL DXCC Desk has approved these operations for DXCC credit: YI9AQ (Iraq), current operation, effective September 21, 2004; YI9LZ (Iraq), current operation, effective May 8, 2005; D6/WB4MBU (Comoros), operation from May 24 to October 27, 2001; D68JC (Comoros), operation from October 23 to November 8, 2001, and 4W2AQ (Timor-Leste), operation from June 18 to December 17, 2003.

For more information, visit the DXCC Web page http://www.arrl.org/awards/dxcc/. "DXCC Frequently Asked Questions" can answer most questions about the DXCC program.

Public BPL Database Access Restrictions Removed

(From the ARRL Letter)

United Telecom Council (UTC) has removed all restrictions on access to the BPL Interference Resolution Web site. In cooperation with the United Power Line Council (UPLC), UTC administers the database, which FCC Part 15 rules mandate be "publicly available." Ever since the database debuted last October, the ARRL has taken strong exception to access constraints UTC had imposed. These included limiting searches solely on the basis of ZIP code and rationing the number of allowable searches. In February, the League filed a formal complaint with the FCC, demanding the Commission order UTC to "cease its arbitrary limits" on access to the database. ARRL Chief Executive Officer David Sumner, K1ZZ, said the League was happy to hear that UTC now has eliminated search limits and posted all BPL system information.

"We are pleased that UTC finally has seen the merit of our arguments in favor of making the database truly accessible," Sumner commented. "This can't possibly hurt, and can only help everyone focus on the real issue: the avoidance and prompt correction of harmful interference to radiocommunications from BPL."

The UTC BPL database still offers the ability to search by ZIP code. Somewhat less prominent is a link to the entire database in ZIP-code order.

The League also has complained to the FCC that the BPL Interference Resolution Web Site database contains inaccuracies and is incomplete, although UTC has made some improvements since the ARRL raised the issues. That complaint is still pending.

The UTC's decision to modify its BPL database came two days after its representatives and a representative from Duke Power met May 17 with FCC Office of Engineering and Technology (OET) staff to address "changes to the database concerning the search limits." ARRL representatives recently further discussed the League's perspective on the same subject with OET staff.

UTC Director of Regulatory Services/Associate Counsel Brett Kilbourne on May 19 informed Acting OET Chief Julius Knapp that it was revising the BPL database "in the interests of resolving the complaint without further dispute." UTC asked the FCC to dismiss the League's complaint "without further action."

Round and Round It Goes, When It'll Drop, Nobody Knows

(From the ARRL Letter)

The sky is falling! Well, not really, Chicken Little, but the now-silent SuitSat-1 — the Russian Orlan spacesuit cum Amateur Radio satellite — is likely to fall into Earth's atmosphere and burn up in a few weeks. Launched February 3 from the International Space Station, SuitSat-1 was a project of the Amateur Radio on the International Space Station (ARISS) program. Identifying as RS0RS and transmitting voice greetings and an SSTV picture, SuitSat-1 remained operational for more than two weeks, easily outlasting initial predictions that it would transmit for about one week. The only rub was that its signal was far less robust than its sponsors had expected.

"The orbit life is dependent on the atmospheric drag that the satellite experiences," ARISS International Chairman Frank Bauer, KA3HDO, explained when SuitSat-1 was launched. An analysis done prior to its deployment predicted a 70 to 120-day orbital life for SuitSat-1, meaning the end should come sometime in early June on the outside.

The mission continues to capture imaginations around the world as well as attention in the popular press. To keep the momentum going a bit longer ARISS and AMSAT are sponsoring a "Chicken Little Contest," http://www.amsat.org/amsat-new/ariss/suitsatContest.php in which participants pick the date on which they believe SuitSat-1 will drop out of orbit.

The winner will be the individual who picks the date closest to SuitSat-1's actual re-entry. Enter by filling out the online entry form on the AMSAT Web site http://www.amsat.org/amsat-new/ariss/contestEntry.php.

The SuitSat-1 "Chicken Little Contest" has three entry categories: Kindergarten through grade 8; high school (grades 9-12), and adult. Contest rules permit one entry per person. Certificates will go to winners of each group.

THIS SPACE RESERVED FOR YOUR ARTICLE.

ARRL Propagation Forecast Bulletin

Propagation Forecast Bulletin 22 ARLP022
From Tad Cook, K7RA
Seattle, WA June 2, 2006
To all radio amateurs

Thanks to Carl Luetzelschwab, K9LA for writing an excellent propagation bulletin last week while your regular reporter was traveling.

Solar activity continues to be low as we head toward the bottom of the sunspot cycle. Still, we haven't seen weeks on end with no sunspots, so I suspect the minimum is not quite here.

Let's take a look at the monthly averages of sunspot numbers and solar flux for May, compared with the past year.

The average daily sunspot numbers for the months May 2005 through May 2006 were 65.4, 59.8, 68.7, 65.6, 39.2, 13, 32.2, 62.6, 26.7, 5.3, 21.3, 55.2 and 39.6. Average daily solar flux for the same months was 99.5, 93.7, 96.5, 92.4, 91.9, 76.6, 86.3, 90.8, 83.4, 76.5, 75.5, 88.9 and 80.9.

With fewer sunspots, the higher frequencies aren't as useful. There is a direct correlation between MUF (Maximum Usable Frequency) and the number of sunspots. That's why at the peak of a solar cycle 10 meters is much more usable than at the bottom of the cycle.

We received several emails this week about sporadic-E propagation. This is when unpredictable ionized clouds form in the lower E-layer of the ionosphere and provide interesting and exciting long-range propagation. June is a very good month for this in the Northern Hemisphere. Broadcast television DXers such as Mike Shaffer, KA3JAW in Tampa report regularly receiving TV broadcasts from stations in Mexico and Central America. Paul Gray, N0JAA in east-central Florida reports working 12 meter sporadic-E from time to time into Virginia and New York

6 meters also can be exciting. Bill Van Alstyne, W5WVO of Rio Rancho, New Mexico writes, "Sporadic-E season is upon us, and yesterday (Sunday, May 28) saw one of the best 6-meter North American sporadic-E openings of the past few years. At one point late Sunday morning, 6 meters was open coast-to-coast, with QSOs between CA and the east coast via long double-hop propagation (or maybe triple-hop in some cases) taking place frequently. Here in New Mexico, I was hearing and working both coasts and pretty much everything in between with S9+ signals."

Bill continues, "Many stations in the eastern part of the country, and even out west here, worked a lot of DX in the Caribbean and Central America, but my path in that direction is poor, and I didn't hear any of it."

He goes on to say, "I did pick up a number of new grid squares, though, including EL94 (Florida Keys) on a double-hop path and a cool backscatter contact with DM34 in central Arizona. Backscatter is unusual on 6 meter sporadic-E (in my experience). My theory is that a typical sporadic-E cloud is much more planar a refractive medium than the F2 layer, and doesn't scatter energy as much in off-beam directions. Thanks to W7MHW for hearing my weak signal through the pile-up of S9+20 signals from the southeast states."

Bill continues with, "Heard several guys talking about sporadic-E on 2 meters, but I think it was pretty limited. I didn't hear any really super-short skip on 6 meters; my guess, from the minimum skip distances I was hearing, is that the Es MUF was somewhere around 100-120 MHz — at least in these parts."

For the next few days, it looks like solar wind from coronal holes could be mildly disruptive. The planetary A index forecast for June 2-3 is 20, then settling down to quiet conditions a couple of days later. Average daily sunspot numbers were up this week over last, and are expected to rise slightly over the next few days. Higher sunspot numbers mean higher MUFs, but 20 meters should still be your best band for reliable worldwide propagation.

For instance, California stations can work Japan on 20 meters currently around 0600-1600z, while the best 20 meter opening to Australia should be 0630-1300z. If you are in Georgia, the best 20 meter opening to Europe should be around 2230-0200z and 0430-0830z.

But you can work out your own paths to any location. Just use the suggestions in an earlier Propagation Forecast Bulletin, ARLP014, seen on the web at, http://www.arrl.org/w1aw/prop/2006-arlp014.html.

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, see the ARRL Technical Information Service at, http://www.arrl.org/tis/info/propagation.html. For a detailed explanation of the numbers used in this bulletin, see, http://www.arrl.org/tis/info/k9la-prop.html. An archive of past propagation bulletins is at, http://www.arrl.org/w1aw/prop/.

Sunspot numbers for May 25 through 31 were 33, 51, 69, 78, 54, 51 and 44 with a mean of 54.3. 10.7 cm flux was 83.7, 81.6, 83, 84.7, 81.1, 80, and 78.4, with a mean of 81.8. Estimated planetary A indices were 5, 5, 3, 7, 3, 9 and 6 with a mean of 5.4. Estimated mid-latitude A indices were 4, 1, 1, 5, 1, 7 and 4, with a mean of 3.3.

ARRL DX Bulletin

DX Bulletin 22 ARLD022
From ARRL Headquarters
Newington CT June 1, 2006
To all radio amateurs

This week's bulletin was made possible with information provided by JI6KVR, N4LS, SV1HER, QRZ DX, the OPDX Bulletin, DXNL, 425 DX News, The Daily DX, Contest Corral from QST and the ARRL Contest Calendar and WA7BNM web sites. Thanks to all.

TUNISIA, 3V. Hrane is QRV as 3V7A and has been active on 20 meters around 1600z and then on 17 meters around 1700z. QSL via YT1AD.

SENEGAL, 6W. Jan-Francois is QRV as 6W7RV and has been active on 20 meters using PSK around 1900z. QSL via F8CMT.

QATAR, A7. A71EM, A71BX and others are QRV as A72OO6 until July 31 for the 15th Asian Games to be held in Doha. Activity is on all bands and modes. QSL via EA7FTR.

TAIWAN, BV. In celebration of the 50th anniversary of the CRA, look for special event stations BV2B and BV50CRA to be active on June 3 and 4. QSL via BV2KI.

SOUTH COOK ISLANDS, E5. Victor expects to be QRV with his new call E51CG on 20 meters around 1400z.

FRANCE, F. Members of the SFDXAG group are QRV using special event call F/ON6JUN/p from Ranville to mark the 62nd anniversary of D-Day. Activity is on all bands using CW, SSB and RTTY. QSL via ON5SD. Meanwhile, special event station TM6SME will be QRV on June 3 to 13 from Emondeville to also mark the occasion. QSL via F6IPS.

SCOTLAND, GW. As part of the filming of a television documentary on Guillermo Marconi, Glyn, GW0ANA will be QRV as GW4BRS/p from Flatholm Island, IOTA EU-124, on June 3 and 4. QSL to home call.

HAITI, HH. Ned, N4LS is QRV as HH4/N4LS until June 8. Activity is on 80 to 10 meters using CW and SSB. QSL direct to home call.

SOUTH KOREA, HL. Members of the Gwangju DX Club will be QRV as 6L0NJ/4 from Ch'uja Island, IOTA AS-084, from June 4 to 6. Activity will be on 160 to 6 meters using CW, SSB and RTTY. QSL via HL4XM.

ITALY, I. Members of ARI Perugia will be QRV as IQ0PG in the IARU Region 1 CW Field Day.

SARDINIA, IS0. Gaetano, IZ8GCB will be QRV as IS0/IZ8GCB from June 3 to 21. Activity will be on 80 to 10 meters using CW and SSB. QSL to home call.

JAPAN, JA. JM1VQJ/1, JO1IRO/1 and JF1IZM/1 are QRV from To Island, IOTA AS-008, until June 5. QSL to home calls.

LUXEMBOURG, LX. Look for special event station LX7HAM to be QRV from June 3 to 17 to mark the HamEuro meeting begin held in Longlaville, France on June 11. QSL via F6KWP.

FAROE ISLANDS, OY. Operators PA0VHA, PA2VMA, PA2A and PA2AM are QRV as OY/homecalls from Eysturoy Island, IOTA EU-018, until June 8. Activity is on 160 to 10 meters using CW, SSB, RTTY and PSK31. QSL via PA0VHA.

GREECE, SV. Operators SV1HER, SV1GRM and SW1GZL are QRV as SY8V from Antikythira Island, IOTA EU-113, from the Apolytares Lighthouse, ARLHS GRE-040, until June 3. QSL via SV1HER.

DODECANESE, SV5. Ermanno, IK2WZD is QRV as SV0XAN/5 until July 31. Activity is on all bands and modes. QSL to home call.

TURKEY, TA. Bekir, TA2RX is QRV with special callsign TC150HP until June 30 to celebrate the 150th anniversary of Turkish railways and the 100th anniversary of the Haydar Pasha train station. Activity is mainly on 40 and 20 meters after 1400z, but he will try other bands as well.

BRUNEI, V8. Ambram, V85SS is usually QRV on 80 through 15 meters using CW from around 1100 to 1700z daily.

NORFOLK ISLAND, VK9N. A group of operators are QRV as VI9NI until June 21 to celebrate of the 150th anniversary of the HMS Bounty Mutineers. Activity is on 160 to 6 meters using CW, SSB and RTTY. QSL direct to VK4FW. Meanwhile, VI9NS is also QRV for the whole month of June for the celebration.

CAMBODIA, XU. Vincent is QRV as XU7BKV and has been active on 20 meters using SSB between 1230 and 1400z. QSL via F4BKV.

THIS WEEKEND ON THE RADIO. The Thursday NCCC CW Sprint Ladder, Look Around in the Field CW Contest, SEANET Contest, RSGB National CW Field Day, IARU Region 1 CW Field Day and the QRP TAC CW Sprint are all scheduled for this weekend. The ARS Spartan CW Sprint is scheduled for June 6. Please see June QST, page 98 and the ARRL and WA7BNM contest websites for details.

Cognitive DXing!

By Paul Dunphy, VE1DX

A couple of the Local QRPers were by the other day, and it was obvious there was a dispute of some sort. We heard the raised voices and saw the finger pointing from the moment they rounded the corner and began beating their way up the hill. We'd read somewhere about the "fight or flight" theory and this kicked in. Our first response was to slip out the back door and avoid the aggravation, but our conscience kept nagging us. W9EEA may have had good intentions in 1928, but the Amateur's Code didn't seem to take into account the Local QRPers! We gave it a bit of thought and decided to do the honorable thing and see what the problem was. After all, if one QRPer is a good thing, two must be better!

"It was too late in the day!" the first QRPer shouted, as they got within earshot, "way too late. It was well after sunrise and there was no way you could hear them on 80 at that time of day. And don't try to tell me otherwise, because I've been there before. The band is closed." The second QRPer was just as adamant: "He was 559 with a bit of QSB, but completely readable. There's a secondary peak on 80 after sunrise! Everyone knows that. And he was there, Buster, whether you could hear him or not!" By this time we wished we had taken the "flight" option, because the two QRPers were already on the front porch. By this time, it had degraded to a "Was not! Was too!" screaming match. What could we do? This was getting out of hand so we issued a 20 dB "Be quiet or go away!" bulletin!

"What's the problem?" we asked, motioning for the first QRPer to tell us his story. "It's that Asian DXpedition", he said, calming down a bit now that he had the floor. "They were on a few mornings ago and I was copying them on my vertical, S4 to S5! I didn't bother calling because the west coast Big Guns had the upper hand. But I heard them . . . listened to them for at least 15 minutes before they faded away." "OK," we said carefully, "that sounds reasonable." Then we turned our attention to the second QRPer who was pacing back and forth and shaking his head. "I saw that spot on the packet cluster at the same time, and I listened too. There was no one there! My delta loop has been working great for the last three years and if I can't hear the DX, it means we've lost propagation. Simple as that! They might have been on, but there was no signal here on the East Coast."

We thought this over for a few minutes, then decided that we'd try a compromise. We didn't like compromises, because as Margaret has so well put it, "A compromise is an agreement that pleases no one." Nonetheless, we decided to give it a shot. "Well, we were also listening on 80 that morning,"

we began, "and to be quite honest, we did hear the DX. They were 339 at best and all we could hear was the 5NN fading in and out for a few minutes. We wouldn't have known who it was if it wasn't for the cluster spot. One of you is using a vertical and the other a delta loop. We have a dipole for 80 meters so it probably was performing in-between on that morning. With the low bands, there are vertical days and there are horizontal days. No doubt the signal was arriving at an angle that favored the vertical, not the loop. The next morning conditions might well have been reversed. Understand? So, you are both right." We kept a straight face, but we were quite pleased with ourselves!

The QRPers looked at each other for a moment. Then the QRPer with the loop said slowly, "Maybe he's right. I did hear the pileup, but not the DX, so maybe my delta loop was catching the horizontal stuff, or maybe the radiation angle wasn't right for me that morning. Who knows?" With that he shrugged and made his way down the hill, confident that he'd been vindicated. We thought about it for a few minutes. Maybe Margaret was wrong . . . here we had a compromise that seemed to have worked.

The vertical QRPer waited until the QRPer with the loop was out of sight, then his face broke into a broad grin. The cat-that-ate-the-canary grin. We were not so sure of our success, and even less so when he began to speak: "Smooth move," he said, "that settled that without giving away my secret. Polarization and radiation angle! Good idea. That'll keep him happy for years. Sometimes I wonder about those guys. It's a good thing us true blue DXers stick together, isn't it." The shields went up! Being lumped in with this particular QRPer wasn't our first choice. We had to know more. "What secret?" we asked innocently. "You know," the QRPer replied in a sly voice, his beady little eyes glistening with the look of one-upmanship, "the analog headphone filter only a few of us know about. That's why I could hear the Asian DXpedition and he couldn't."

We took a deep breath, thought again about running for the nearest door, and asked the inevitable question. "Yes, the analog headphone filter," we replied, "we heard about that. You've got one working?" At this point we had no idea what the QRPer was talking about, but if he was really hearing long-haul DX on 80 meters two hours after sunrise, we had to know more.

"Sure have." the QRPer replied, "it's simple to build. You see, as most anyone knows, one half of the human brain is oriented to the logical, mathematical aspects of cognitive recognition, while the other half is better at the creative, artistic functions. The trick is to use the half that corresponds to the CW signal of the DX. For weak signals, the creative, artistic half is much better. The trick is to feed the signal to the correct half of the brain . . . and I'm convinced that this is not always the same half! I'm sure it changes from time to time, maybe even daily." What could we say? This was making no sense at all, so we just nodded in agreement and the QRPer pressed on.

"What I did," he said, "was to run the cord of my headphones through a patch box. I have a bank of switches and I can add a quarter wavelength of wire to either the left or right earphone. I've got coils inside that load it up for all the bands, so I can feed any band from 160 to 10 meters to either the right or left side of my brain, introducing a phase lag that gives the appropriate side 4-5 dB gain. Thus, with a simple flick of a switch, I can increase the signal on any band from white noise to a perfectly readable signal! What do you think of that? And don't tell the guy with the delta loop or he'll build one!"

Son of a Gun! We had a fleeting thought of running this by the Old Timer, but common sense prevailed. Why propagate this up the line? So, we did what had to be done. "Good for you," we said, giving the QRPer a knowing look, "you've figured out one of the Eternal Enigmas of DXing. Keep this knowledge to yourself, share it with no one, and use it to work the DX. Tell no one else what you've discovered!" The QRPer leaped to his feet, and headed off down the hill, confident that he was just that much closer to understanding the Mysteries of the Ages and the true meaning of DX IS! As for us, we shook our head slowly back and forth, got up and shrugged our shoulders. What more could we say when everything had been said? Nothing!

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