The Illuminator

The monthly newsletter of the Carbon Amateur Radio Club

November 2002

November Meeting

The next regular meeting of the Carbon Amateur Radio Club will be held on Thursday, November 21, at 7:30 p.m. at the EOC in Nesquehoning. See you there!

Treasurer's Report

By John, W3MF

Previous Balance	998.80
Receipts (dues)	0.00
Subtotal	998.80
Disbursements (newsletter, P. O. Box)	26.03
Final Total	972.77

New CC&R Bill Cosponsors Continue to Step Forward

(From the ARRL Letter)

Despite the fact that action on the CC&R bill, HR 4720, is highly unlikely as the current session of Congress winds down, additional cosponsors continue to register their support for the measure. The latest — representatives Todd Platts (R-PA), Larry Combest (R-TX), Duke Cunningham (R-CA), and Mary Bono (R-CA) — raise the total cosponsor count to 34.

The recent spurt in cosponsors may have resulted from an eleventh-hour initiative in late September, when the bill's sponsor, Rep Steve Israel (D-NY), and the only two amateurs in the US House of Representatives — Mike Ross, WD5DVR (D-AR) and Greg Walden, WB7OCE (R-OR) —appealed by letter to their colleagues who had not already done so to agree to cosponsor the measure.

HR 4720 is aimed at providing relief to amateurs faced with private deed covenants, conditions and restrictions — CC&Rs — in erecting antennas. No more votes will occur until a post-election "lame duck" session that begins November 12 to complete several appropriations, homeland security and other high-profile bills. Another lame duck session in December also is possible.

With further progress on the bill unlikely this year, the effort to secure a congressional solution to the CC&R issue will start all over again after the new Congress convenes in January. The current list of HR 4720 cosponsors and more information are available on the HR 4720, The Amateur Radio Emergency Communications Consistency Act of 2002 page of the ARRL Web site <http://www.arrl.org/govrelations/hr4720>.

NTIA Study is Bad News for SAVI 425-435 MHz Proposals

(From the ARRL Letter)

A National Telecommunications and Information Administration (NTIA) study supports the ARRL's position that the FCC would be making a mistake to permit SAVI Technology to deploy RF identification (RFID) tag devices at 433 MHz at much greater duty cycles than current Part 15 rules permit for such devices. RFID tags are used for tracking shipments and packages, among other applications.

"NTIA has grave concerns about the Commission's proposal to amend its Part 15 rules to permit the operation of RFID tags in the band 425-435 MHz at increased power levels and increased duty factor (or activity factor) and data transmission by remote

control devices," wrote Fredrick R. Wentland, the NTIA's acting associate administrator in the Office of Spectrum Management. "Given the likelihood of interference to critical government radars, NTIA is unable to support the Commission's proposal."

The NTIA filed initial comments in the proceeding, ET Docket 01-278, last March but requested additional time to document an NTIA staff study with respect to field strength limits for RFID tags in the band.

ARRL Chief Executive Officer David Sumner, K1ZZ, said the NTIA staff study bears out what the League has been saying all along. "RFID tags represent a significant source of potential interference to sensitive receivers," Sumner said, adding that use of the 425-435 MHz band would be incompatible with ongoing requirements of incumbent services — military and amateur. "We trust that the FCC will now terminate this portion of the proceeding and that the RFID proponents will focus their attention on other, more appropriate parts of the radio spectrum."

That's exactly what the NTIA advised. It recommended that the FCC "explore other bands that might be able to accommodate the technology without causing unacceptable interference to critical incumbent users." Among the suggestions was 450 to 470 MHz, which provides nearly the same propagation characteristics as the band SAVI picked. The NTIA also noted that 902 to 928 MHz — an amateur allocation — or 2400 to 2483.5 MHz — which includes part of an amateur microwave allocation — might accommodate the proposed RFID tags as spread spectrum devices.

Accompanying Wentland's letter was a six-page NTIA technical analysis. The study asserts that the FCC's proposal to permit increased duty cycles and field strengths for the 425-435 MHz RFID emitters "would result in received power levels in excess of the required interference-to-noise ratio" that could adversely affect "critical government radar systems."

SAVI this week filed its own detailed study that rebuts the NTIA's position. SAVI suggested it would be willing to have the FCC limit the available band for "advanced RFID" products to 433 to 435 MHz, lower the peak-to-average ratio to 14 dB, strengthen the definition of RFID products to add language forbidding voice transmissions and limit use of RFIDs to "commercial or industrial locations."

More than 130 amateurs filed comments in opposition to SAVI Technology's RFID tags proposal, and most supported the ARRL's position that the proposed rules are flawed and should not be adopted. A copy of the NTIA letter and study and SAVI's rebuttal study in ET Docket 01-278 are available via the FCC Electronic Comment Filing System page <http://www.fcc.gov/e-file/ecfs.html>. Click on "Search for Filed Comments" and enter "01-278" in the "Proceeding" field.



FCC Rescinds 146.52 MHz Advisory Notices

(From the ARRL Letter)

FCC Special Counsel for Enforcement Riley Hollingsworth has told five amateurs in Ohio and Michigan to disregard his earlier admonitions to avoid lengthy QSOs on 146.52 MHz. That's the generally recognized national simplex calling frequency and is endorsed as such by the ARRL's 2-meterband plan. Acknowledging, however, that some confusion exists within the amateur community as to whether 146.52 is a national calling channel or just another simplex frequency, Hollingsworth decided to simply rescind the five advisory notices he'd sent October 15.

"We made an error in issuing that Advisory Notice, and you may disregard it," Hollingsworth wrote October 23 in letters to the affected amateurs. Commenting to ARRL, Hollingsworth was blunt yet good-natured. "I goofed," he said. "If I were worried about making a fool of myself from time to time, I never would have become a lawyer in the first place."

Amateurs commenting to the FCC and on various newsgroups reportedly were bewildered by the FCC advisory notices. An ARRL error apparently contributed to the confusion. Hollingsworth did not find 146.52 MHz singled out as the national simplex calling frequency in his edition of The ARRL's FCC Rule Book (12th edition, 1st printing). The designation does appear in subsequent printings of the Rule Book, however, as well as in recent editions of The ARRL Operating Manual and The ARRL Repeater Directory 2002/2003.

Hollingsworth says that operation that does not comply with a generally accepted band plan such as ARRL's is not illegal. He points out, however, that band plans — to the extent that they're followed — do help to keep down friction among various users and make his job a lot easier.

"I don't consider it a big deal. I was just trying to raise awareness," he said, adding that the FCC has no intention of making band plan compliance mandatory.

Hollingsworth told ARRL this week that he had initially written four amateurs in Ohio and one in Michigan on the basis of complaints about lengthy contacts on 146.52 MHz in late September and early October. Those QSOs, he said, averaged 45 minutes and in some cases lasted up to an hour. Two of the amateurs who had received the October 15 advisories already have contacted Hollingsworth and agreed to cooperate with the original requests, now rescinded.

"In an ideal world, stations making initial contact on 146.52 MHz probably should move off to another accepted simplex channel to continue their conversation," Hollingsworth said. "The main thing is, we're all in this together, and the goal is to make Amateur Radio last 1000 years."

All ARRL band plans are available on the ARRL Web site <http://www.arrl.org/FandES/field/regulations/bandplan.html>.



ARRL DX Bulletin

DX Bulletin 44 ARLD044
From ARRL Headquarters
Newington CT October 31, 2002
To all radio amateurs

This week's bulletin was made possible with information provided by 425DXnews, QRZ DX, DXNL, N1ND, The Daily DX and Contest Corral from QST. Thanks to all.

GUINEA, 3X. A group of German amateurs are QRV as 3XY7C until November 13. Activity is on 160 to 6 meters using CW, SSB, RTTY and PSK31. QSL via DL7DF.

NIGER, 5U. 5U7JK has been QRV on 20 meters around 0000z, 10 meters around 1200 and 1500z and 15 meters around 2000z.

MALAWI, 7Q. Joe, G3MRC is active as 7Q7BP until early next year. QSL to home call.

NAURU, C2. Rex, VK8RH will be QRV as C21RH from November 4 to 22. Activity will be mostly on 6 meters, but with some HF as well. QSL via VK4AAR, direct only.

CANARY ISLANDS, EA8. Ben, OZ5IPA is QRV as EA8/OZ5IPA from Tenerife, IOTA AF-004, until November 4. This includes an entry in the IPA Contest. QSL to home call.

AUSTRAL ISLANDS, FO. Tony, 3D2AG is QRV as FO5RK from Rapa Island, IOTA OC-051. Activity is on all bands, including 6 meters, using CW and SSB. He plans to use PSK31 and MFSK16 as well. QSL via operator's instructions.

REUNION ISLAND, FR. Fred, F5IRO is QRV as FR5KH for the next four months. He also plans to visit Juan de Nova, IOTA AF-012, several times and activate it as FR5KH/J. QSL via F6FNU.

PANAMA, HP. Members of the Panama Radio Club are QRV with the special event call HP100RCP until November 30 in commemoration of the Centenary of the Republic Of Panama. Activity is on all bands and modes. QSL via bureau.

JAPAN, JA. Taka, JR3TVH/6 is QRV from Miyako Island, IOTA AS-079, until November 4. Activity is on 40 to 6 meters, including 17 meters, using CW and SSB. QSL to home call.

JORDAN, JY. George, JY9QJ has been QRV on 160 meters around 0330z. QSL via DL5MBY.

ALASKA, KL7. John, WA2GO will be QRV as KL4A using QRP during the ARRL CW Sweepstakes from the new Frigid Contesters Club station in Wasilla.

ANTARCTICA. Jorge, LU1ZV is QRV at the Argentine Esperanza research station. He has

been active on 15 meters between 2240 and 2315z. QSL via LU4DXU.

CANADA, VE. Look for Jay, VY1JA to be QRV from Whitehorse, Yukon Territory during the ARRL CW Sweepstakes.

MONTSERRAT, VP2M. K5AND, W5OZI and W5LXG are QRV as VP2MJD until November 8. Activity is mainly on 6 meters. QSL via W5OZI.

SOUTH SHETLAND ISLANDS. Oleg, UA1PBA is QRV as HL8KSJ from the South Korea's King Sejong Station. QSL via RK1PWA.

BURKINA FASO, XT. Dani, EA4ATI is QRV as XT2ATI for the next six months. QSL via EA4YK.



Propagation Is Here

By Larry, N3CR

Greetings all! I said seasonal changes would be coming, and they are here. In the past month, we have seen sunspots range from 81 to 240 and back in just a few days. Very few days have seen the A Index (24 hr) below 10 or the K Index (hourly) below 3 where decent conditions would prevail. The A Index has been seeing several days in the 20s and is currently above 30. Minor geomagnetic storms have taken place and 10 meters has all but become a local band. Gone is the DX, but only temporarily. As we slide down the solar cycle once again, DX again finds its way back to 15 meters and 20 meters. 10 meter DXers will be relying on double hop Sporadic E layer skip and F2 Layer propagation as DX becomes more reliable on the other DX Bands. Don't forget the WARC bands! A lot of DX moves there to get away from the crowds and contest-like QSOs. For the most part, we still have enough solar cycle propagation to keep foreign stations on the bands a few hours after dark. A Solar Flare or Coronal Mass Ejection (solar wind carrying charged ions) can all but erase their presence for 48 to 72 hours.

Solar Flares can also set off a series of events leading to auroras taking place well into the Mid-Atlantic States. The signature warbly voices on sideband on the 75-meter band are an easy indication. The echo sounds on 40 meters and 20 meters are also a good indicator that aurora could produce some interesting propagation. This results from signals being received from more that one direction, bouncing off the northern aurora. On VHF, sideband signals take on the sound of broadcast quality FM - but you will need to have your antenna pointed north. As time moves on, you may have to turn your antenna slightly west of north for best signals. If you have a vertical antenna you will notice the signals increase in strength and then fade as the position of the aurora curtain changes. A radio aurora does not necessarily mean you will have a visible aurora and in most cases you will not. When you do see a visible aurora, you are almost guaranteed to fill a logbook on 6m and 2m. But don't forget 10 meters! Especially if you have a beam, propagation will work in your favor and stations all over the country will appear with amazing signal strength. Again, in a few minutes, the signals will appear to be moving around the country - usually the northern states where the aurora is visible will be heard the longest and all with signals sounding like kilowatts. At least for a moment.

With Fall, the summer noise slowly disappears and signals take on a strong, clear sound. QSOs become enjoyable and stations plentiful. 20 meters again becomes crowded and stations more frequently complain of QRM. The low bands 80 meters and 160 meters come to life with more stations as the noise disappears and weaker stations can be heard. A lot of DX shows up on CW, as that mode holds up longer into the evenings. More DX begins showing on 40 meters as signals appear stronger and the broadcast stations are easier to work around without having to deal with high noise levels. Put your ear to the radio and change the bands once in a while. You will be amazed at what you will hear. Keep in mind, on 40 meters DX stations transmit on 7.050 to 7.065 MHz and listen for US stations above 7.200 MHz. The DX clusters always update the stations being worked on these bands. Everyone is a treat and another card in the mailbox. Will be listening to hear you on the bands! There will be lots of CQs to answer! See you then. 73s de Larry N3CR. Good DX.



You Are Invited

By Larry, N3CR

Fall has arrived. The time of year I enjoy, mild temperatures and a light jacket. Sure beats the heat and humidity of summer! Now that we are spending more time indoors it would be a good time to warm up those radios. The Carbon ARC runs a net every Wednesday evening at 9 PM and what better time to make sure those backup power supplies are working. We have been fortunate with the weather and the rain we did receive sure revived the grass to a green state once again. Our region is prone to small stream flooding and don't forget those big tree limbs still falling down. It seems the long dry spells have their ups and downs.

We are also fortunate to have an Eastern Pennsylvania RACES Net active in our area run by Ray, W3VBY, in Pottstown. It is run every Sunday morning at 9 AM on 75 meters - 3987.5 KHz. Sam WB3JYY, Denny W3EFI, and Walt WB3FHJ are local operators who regularly check into the net. What a better time to check out your radio and propagation around Eastern Pennsylvania. The net has an early check-in at 9 AM for those who may be on their way to church or visiting family. The net then continues with a call up by the counties east of Harrisburg by alphabetical order. You check in by giving YOUR CALL, LOCATION, and ANY TRAFFIC (messages) you may have. They also announce the current weather for the day and any emergency drills scheduled in the eastern counties. The recent Berwick reactor drill is a yearly event that brings a lot of RACES stations on the air. I am not sure if the October Simulated Emergency Test (SET) is still run but that involved RACES stations on HF as well as VHF repeaters. A statewide Weather Test is also a possibility. These have been run in March and/or October. Our EMA Director usually has this information available.

I have used the summer to trim and check my antennas although I will be looking for a new and smaller 2m beam. Five to ten elements would be nice. A new tri-band beam at 40 ft should help my DX numbers. My first contact with it was with Palmer Station in Antarctica! It was also useful for the Hurricane Nets on 14.325 MHz, listening to all the weather info on Hurricane Lili as it moved over Cuban and thru the Gulf of Mexico. We still could have a couple hurricanes develop so keep that frequency in mind - 14.325 MHz. In a time of emergency, the FCC could designate any repeater or frequency for emergency use. We have been lucky but we must also be ready. Let's start by having a good showing of Carbon ARC hams on these state and local nets. You will feel good by checking in. Try it soon! 73s de Larry N3CR.



TARA PSK31 Contest

By Larry, N3CR

Just recently I operated in the TARA RUMBLE. What a blast! It was great operating a contest where all you have to do is move the mouse on your computer. Without changing frequency, I was able to work more than 15 stations in a short period of time. PSK being a low power mode that it is makes the operating all that much more fun. It was great on 15 meters working stations that I worked during the summer on 10 meters. Also, each band had new stations along with ones I had already worked on 15 meters. In no time I had two log pages filled with a lot of DX stations and some new calls. Mexico is using the 6J1 calls instead of the usual XE1s. Heard more Cuban stations than normal and that is nice. Russian stations were around but they are quick on the CQ button. I worked a couple zones I haven't worked in a long time. I surely increase my PSK 31 totals in a hurry. Throw in a couple maritime mobiles and a lighthouse, the log sure filled up in a short period of time. I also worked a fare share of W5 and W7 stations on all the bands. With all the exchanges in the can (in memory), a QSO was more than a few keystrokes. And a ragchew or two for good measure.

I use Digipan version 1.6d that is widely available on the web. Just search PSK31 and you will get a number of different programs, some available for free or as trial versions. Digipan is available free. I like free. PSK31 is much like teletype of days gone by. You tune to 14.070 MHz, 21.070 MHz, and 28.120 MHz and pick out a station on the "waterfall". You can adjust the signal strength of the station shown by assigning a color to it. I use golden yellow for strong stations and shades of orange/red for the weaker stations. It is not hard to get hooked on listening to PSK31. Digipan 1.6d also has a scan mode where it will sample each

signal for a time you set. When you wish to work a station just scanned, hit the space bar, a function key (with memory message) and you are on your way.

Free Programs

A generous Japanese ham has donated a couple programs to amateurs for getting onto the digital modes. These are offshoots of programs he is working on at his day job. These include MMRTTY and MMSSTV as FREE Windows offerings. MMRTTY is an old type teletype program, much like Hamcomm of days past. In both programs you can put items in memory assigned to function keys. You can also manually type messages but the other station will soon see how good (or turtle slow) you are as a typist. MMSSTV allows you to save up to 10 of your pictures into memory. It also has auto save so you can let the program run and save each picture (or partial) to memory. Both of these programs use your sound card and need minor adjustments to the sound controls. I highly recommend a simple interface between the computer and radio. You can hook them up to your speaker to listen. But I would isolate the signals if I were serious about transmitting. RigBlaster is a do it all interface that is out there commercially. You can build your own using a couple radio shack transformers and FREE interface diagrams that are out there on the net for your radio. Many of the older radios you can use the phone patch inputs / outputs for really decent results. Actually, for SSTV I prefer the DOS MODE programs where I have an interface that works well with the older DOS RTTY and SSTV programs including Hamcomm, Easy SSTV, Pakoson and JVFax 7.1. I have yet to build my own Windows sound card interface that I am happy with but until then I will enjoy using all the programs that are out there. FREE IS GOOD. EASY is nice. SAFE is better. I don't need to burn out another serial card or sound card! Scan the WWW. If you have a question you can email me at http://n3cr@yahoo.com. 73s and have a fun day! de Larry N3CR

For Sale

166 MHz PC, complete with 15-inch monitor, Windows 95, CD/R-W, 64 Meg RAM, and Office 97. Contact Ed at k3va@enter.net.

Alinco DR-150 2-meter mobile transceiver. Also, Heath HW-2 2-meter HT (sorry, but it doesn't have PL). Lastly, I have two spare 19-volt 3-amp laptop power supplies. Contact Bob at k3ph@ptd.net.

Helpful Hints

Lose weight quickly by eating raw pork or rancid tuna. I found that the subsequent food poisoning and diarrhea enabled me to lose 12 pounds in only 2 days!

Shallow Thoughts

How do you know when it's time to tune your bagpipes?



Check out http://incolor.inetnebr.com/n0ujr for other cartoons and to purchase N0UJR's book, "N0UJR and His Friends."

Carbon Amateur Radio Club – 2001-2002 Officers

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Services

W3HA Repeater: 147.255 MHz + PL 131.8

CARC Website: http:/www.learnmorsecode.com/carc/
Webmaster: Rob, KB3BYT roomberg@ptd.net

CARC Email Reflector: see www.qth.net CarbonARC list for details

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.

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