

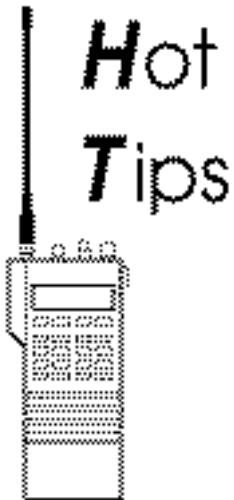
Columbia Amateur Radio Association

Newsletter



February, 2000

7:30 PM Tuesday, Feb. 22 - Rm. 301 Gateway Ctr.



Club Notes	PAGE 2
Scholarship	PAGE 2
Prez Sez...	PAGE 3
ARES/RACES	PAGE 3
Donation to CARA	PAGE 4
FCC Rules Change	PAGE 5
Wanted / For Sale	PAGE 6
Help Wanted	PAGE 7

Check out the CARA Web Site

www.qsl.net/CARA

Solar Effect

Space Weather and How It Affects the Power Grid

Presented By

Greg Durrschmidt

Program Director - Electricity/Electronics Technology
Community College of Baltimore

Greg will be sharing the information and some anecdotes from interviews, that he gathered while researching the topic of space weather for a magazine article. The article was titled "*Solar Effect*" and was the cover story of the Edison Electric Institute's *Electric Perspectives Magazine*, January/February 1999 issue. He will define space weather and offer a brief overview of the physics behind it, leading up to how it impacts systems here on the earth's surface; a little about what can and is being done about it, as we enter a peak solar activity season over the next couple of years.

Greg is an Assistant Professor at the Community College of Baltimore County and the Program Director of Electricity and Electronics Technology. A retired Army Communications Electronics Warrant Officer, he spent many years repairing avionics systems, air traffic control radar systems, tactical ground communications systems, as well as many special electronics systems. Greg has a Bachelor of Science degree in physics and engineering technology from the State University of New York, and a masters in science writing from Johns Hopkins.

This should be a highly educational program - one that the whole family will enjoy! Note that we will be in Room 301, not 401.

Club Notes

Beginning this month, we are mailing the newsletter only to those who have specifically requested a paper copy. The rest of you will receive only the electronic copy. The newsletter is also posted on the CARA web site, www.qsl.net/CARA.

While you're at the web site, check out the HF transceiver kit review article by John King, KB3WK, reprinted from *QRP ARCI Quarterly Journal*, January 2000.

Elsewhere on the site, you'll also find pictures from the pot luck dinner.

CARA Scholarship Report

W3KN is Working on his GPA and DX

1999 CARA FAR scholarship winner, Andy Roberts (W3KN), sent an e-mail updating his activities this year. He is taking a full and demanding course load at Embry-Riddle University and reports that he is keeping his shoulder to the grindstone. He writes:

"This semester I am again taking 14 credits and 4 classes, which include: Data structures and algorithm analysis (computer science 3), Digital Circuit design, Physics 3, and Technical report writing. Two of the classes (digital circuits and physics) have lab sessions as well. So far, I am doing very well in all my classes. They are requiring a lot of extra time out of class, but I am confident this will be

a much better semester than the last was.

I haven't been doing too as much with amateur radio as I should be. Our club here just installed some new antennas, which got our HF and satellite stations on the air. I've worked several stations in Europe and Africa. I'm also trying to help some of the club members learn the code, which is slowly working. Hopefully we will have more members on HF soon. The club is growing quickly. We are up to approximately 25 members, whereas the same time last year we had 10.

Hope all is well with the club there, and hope you're not too buried in snow! I would like to thank the club again for their support this year. It has been a large help with the expenses I have had.

Very 73, Andy W3KN"

I imagine many of us would find the subject matter challenging today. It might be tough to teach some of us old analog dogs some new digital tricks. Andy is one of the fine examples of the why CARA and FAR support the scholarship program every year.

de Tim Titus, W1TRT
CARA FAR Representative

{Every year FAR gives out many scholarships to deserving college students who are licensed amateur radio operators. CARA donates a \$1000 scholarship as part of this effort. If you would like to nominate a student, please contact Tim. -Ed.}

From The Prez...

Amateur Radio will get a new look in the new millennium. The FCC issued its long-awaited Report and Order in the 1998 Biennial Regulatory Review of Part 97--more commonly known as "license restructuring." The bottom line is that starting April 15, 2000, there will be three license classes--Technician, General, and Amateur Extra--and a single Morse code requirement--5 WPM. Here is a good chance for upgrading your license. This is where the ULS (Universal Licensing System) comes into play. If you make any changes in your license, you must have a ULS number. This matter will be discussed in a future meeting.

de Bob Scarborough, KC3EV

ARES / RACES

The Y2K transition period is now concluded, and I am thankful to report, without major incident in Howard County, or the state of Maryland. Howard County RACES was on call to provide backup communications for Howard County Office of Emergency Management, if and as needed during the transition period.

ARO Ed, K3EF, and RO Mike, WA1QAA supported the Y2K transition period from the HOWA EOC, which was staffed from 2000 hours on 31 December until 0230 hours local time on 1 January. They served as NCS for the local ARES /RACES net sessions, and checked into the

Central Region Net (CRN), Section level NTS Nets, and the Salvation Army SATERN Net which held a special session on 3920 kHz throughout the evening and early morning hours of 31 December - 1 January. HOWA ARES / RACES members Tim, W1TRT, John, K3NNI, Jerry, K3UOD, Raphael, KB3EAF, Jon, KF3BO, Dave, WA3WZX, Ken, W3CCI, John, W3GJN, Roland, W4WOI, Dave, W8AJR, as well as Dave, W8AAS, and Jim, N3ZJB were on standby and checked in to the local net sessions held on the 147.135 repeater. Sincere thanks go to all who supported this operation. Our presence was noted, and our efforts during the evening were very much appreciated by Emergency Management. Upon closing we were thanked for our participation by Chief Frank, Howard EM.

In addition to maintaining contact with local amateurs on our RACES Net, Howard County RACES was able to establish and maintain contact throughout the period with many other jurisdiction's RACES organizations, various agencies, and services via CRN. Included among these were: Anne Arundel, Calvert, Caroline, Cecil, Charles, Kent, Montgomery, Prince Georges, and St. Mary's counties, District of Columbia, Maryland Emergency Management Agency, National Institutes of Health, and Army MARS.

Brief net sessions were conducted every half hour on 147.135 during the period the EOC was staffed. The purpose of these net sessions was to provide an organized on-the-air

presence for ARES and RACES during the Y2K rollover period. This activity provided a resource and contact point for RACES, ARES and other agencies which might have needed Amateur Radio communications support as a result of a Y2K-related incident, as well as to assist Amateurs who were out on the roads on New Year's Eve.

RACES participation in the January COMEX was cancelled by our EM Director, and Howard County RACES was afforded the evening of leisure in consideration of the services we provided during the Y2K transition.

The February COMEX will be held on the 8th from 1930 to 2030 hours local time. We anticipate that, during this exercise, RACES will continue the shelter assessment process begun last year. There are many schools throughout the county, which may be selected by county officials for use as shelters during an emergency. Our goal will be to assess our communications capability, using both repeaters and simplex frequencies, between these locations and the EOC, between the various shelter locations, and within the individual shelters.

All RACES/ARES members and other licensed amateurs interested in emergency or public service communications are invited to join our RACES/ARES net the first and third Tuesdays of the month at 1930 hours local time on the 147.135 repeater. RACES Communications Exercises (COMEXs) are held on the second Tuesday of the month from

1930 to 2030 hours local time. If you would like to participate with us in the COMEXs, please contact Mike, WA1QAA on the net, by email at bamcc@erols.com, or by landline at 410-799-0403. I look forward to the presence of your station in our nets, exercises, and activations.

73, Mike WA1QAA

EQUIPMENT DONATIONS TO CARA

CARA recently received donations of equipment from two of its members. Tim Hickman, N3JON, has made a gift of two VHF/UHF antennas, a KLM CX-40-18 satellite antenna with relays, a KLM CX-2-16 satellite antenna with relays, a small tripod base, a 6 meter J-pole antenna, five small masts, and a horizontal rotor. This equipment will be put to good use by the CARA Satellite group.

Kevin Portnoff, N3NXJ, has donated a Ten-Tec Argosy II 80-10m HF transceiver and power supply. This donation will enable the club to help new amateurs, particularly younger ones, to get on the air quickly and begin to enjoy our hobby.

I turned this radio on to check it out and made a contact with an HA9 station in Hungary on the first call on 40 meter CW. It is clearly well suited for a new amateur to use.

The club expresses its gratitude to Tim and Kevin for their generous donations.

de John Pinkston, W3GJN

FCC Restructures License Classes

Three license classes, one code speed

ARRL Bulletin 96 - The FCC has issued its long-awaited Report and Order on amateur licensing restructuring. The bottom line is that starting April 15, 2000, there will be three license classes—Technician, General, and Amateur Extra—and a single Morse code requirement—5 WPM.

“We believe that an individual's ability to demonstrate increased Morse code proficiency is not necessarily indicative of that individual's ability to contribute to the advancement of the radio art,” the FCC said.

Besides drastically streamlining the Amateur Radio licensing process, the FCC said its actions would “eliminate unnecessary requirements that may discourage or limit individuals from becoming trained operators, technicians, and electronic experts.”

Although no new Novice and Advanced licenses will be issued after the effective date of the Report and Order, the FCC does not plan to automatically upgrade any existing license privileges. The ARRL had proposed a one-time, across-the-board upgrading of current Novice and Tech Plus licensees to General class, but the FCC declined to adopt the idea. This means that current licensees will retain their current operating privileges, including

access to various modes and subbands, and will be able to renew their licenses indefinitely.

Starting April 15, 2000, individuals who qualified for the Technician class license prior to March 21, 1987, will be able to upgrade to General class by providing documentary proof to a Volunteer Examiner Coordinator, paying an application fee, and completing FCC Form 605.

The FCC's decision not to automatically upgrade Novice and Tech Plus licensees means the current Novice/Tech Plus HF subbands will remain and not be “refarmed” to higher class licensees as the ARRL had proposed. The FCC said it did not refarm these subbands because there was “no consensus” within the amateur community as to what to do with them.

The FCC decided to lump Technician and Tech Plus licensees into a single licensee database, all designated as “Technician” licensees. Those who can document having passed the 5 WPM Morse code examination will continue to have the current Tech Plus HF privileges. The FCC said it may request documentation from a licensee or VEC to verify whether a licensee has passed a telegraphy examination.

The FCC action also authorizes Advanced Class hams to prepare and administer General class examinations, and eliminates Radio Amateur Civil Emergency Service

(RACES) station licenses. RACES will remain, however.

Under the new licensing scheme, there will be four examination elements. Element 1 will be the 5 WPM Morse code exam. Element 2 will be a 35-question Technician exam; Element 3 will be a 35-question General exam; and Element 4 will be a 50-question Amateur Extra exam. The FCC has left it in the hands of the National Conference of VECs Question Pool Committee to determine the specific mix and makeup of written examination questions.

Elimination of the 13 and 20 WPM Morse requirements means an end to physician certification waivers for applicants claiming an inability to pass the Morse code examination due to physical handicap.

The FCC disagreed with the League's suggestion that it undertake a restructuring of operating privileges along with licensing restructuring. The Commission said it wanted to give the amateur community a chance to "reach a consensus" regarding new technologies before it tried to restructure amateur operating privileges and frequencies.

A copy of the entire Report and Order (FCC 99-412) is available at: <http://www.arrl.org/announce/regulatory/wt98-143ro.pdf> or at: http://www.fcc.gov/Daily_Releases/Daily_Business/1999/db991230/fcc99412.txt

{The above report was taken from ARRL Bulletin 96, dated 13/230/99 - Ed.}

CARA is planning to hold either upgrade testing or an upgrade study class at the March meeting. Stay tuned for details!

Wanted & For Sale

Wanted:

Good used VHF/UHF transceiver for satellite communications.

Eliud Bonilla, N3QYJ
Senior Engineer
AeroAstro
520 Huntmar Park Drive
Herndon, VA 20170
Tel (703)709-2240 Ext 133
Fax (703)709-0790
email: eliud@aeroastro.com

For Sale:

**Kenwood TM-321 220 MHz Xcvr.
25 Watt / Manual & Antenna
\$250**

**Kenwood TH-315 220 MHz H/T
Manual
\$150**

**HX 1500 Regency Synthesized
Scanner
\$150**

**Bearcat 210 Scanner
\$20**

Toshiba Mini-Notebook Personal Computer - Fully operational

**120 MHz Pentium Processor
740Mbyte Hard Drive
16 Mbyte RAM
6" Active Matrix Color Display
Power Supply
Docking Port
Soft Case
Windows 95 Installed
Office 95 Installed
Games, Photo Software, Ham
Software Installed
\$600**

**Blackfoot Remote Control Car
w/ Radio
\$150**

**JRXT Remote Control Truck
Race Ready
w/Radio
\$400**

Randy Smith, N3OXA
410-799-5829

Antenna Supplies

We have antenna wire and feedline left over from our antenna building program and are making available to the members at cost. Contact Dave Prestel, (W8AJR) at (410) 203-9432 or dprestel@sprintmail.com.

450 Twinlead \$.19/foot
Stranded Cu Wire \$.15/foot
PL-259 w/adaptor \$1.50 each

If you want to build your own J-pole antenna, of the type that we built at the meeting, the directions, courtesy of Alan, N3AC, are available on request

Dave Prestel, W8AJR

Help Wanted

Want to contribute to CARA? We have a liberal appreciation policy - we will gratefully appreciate anything that you can do for us!

Here's what's open:

Social chairman - help plan food for Field Day and the Pot Luck dinner. Arrange snacks for the meetings.

Quartermaster - keep a database of CARA's equipment and where it is located. Keep the insurance listing up to date.

Publicity Chairman - see that CARA gets publicity for public service work. Plan the advertising for the hamfest.

Youth Chairman - help bring new young hams into CARA.

Hamfest Table Sales - Record table sales as they come in. Answer vendor questions. Show vendors to their tables as they arrive. Bonus: Dan, N3LDC, will teach you the ropes!

Hamfest Ticket Sales - Order tickets. Plan advanced sales. Organize ticket sellers for the day of the hamfest.

If one of these jobs grabs you, please call Bob, KC3EV, or Dave, W8AJR, to volunteer.

Please!

Club Information

Repeaters (K3CUJ)

147.135 / R+ Net repeater. CTCSS: 156.7 Hz
147.39 / R+ Open autopatch ("*" to activate, "#" to clear) and direct dial 911
448.275 / R- CTCSS: 156.7 Hz
449.475 / R- Autopatch and direct dial 911

Mailing Addresses

Club Business

CARA
P.O. Box 911
Columbia, MD 21044
CARA@OSL.net

Newsletter

c/o Dave Prestel W8AJR
10160 Tanfield Court
Ellicott City, MD 21042
dprestel@sprintmail.com

This newsletter is _ Copyright 2000, Columbia Amateur Radio Association, Inc. Items from this newsletter may be republished only for non-commercial Amateur Radio use; credit must be given to CARA. If you wish to republish material from this newsletter for other purposes, please contact the newsletter editor.

Activities

Club meeting: the fourth Tuesday of the month at 7:30 p.m. , Rm 401, Gateway Center, on Columbia Gateway Drive, off of Rt. 175, near I-95. Monitor net repeater for directions.

On-the-air net: Net repeater at 8:30 p.m. each Tuesday except for meeting night.

On-the-air RACES / ARES net: Net repeater at 7:30 p.m. on the 1st and 3rd Tuesdays each month.

On-the-air RACES exercise: Net repeater at 7:30 p.m. on the 2nd Tuesday each month.

CARA breakfast: 9:00 a.m. on the second Saturday of each month, at Jilly's Restaurant in the Enchanted Forest Shopping Center. If you wish to attend, contact Bob Scarborough (KC3EV).

Executive board meeting: Held monthly. Contact Bob Scarborough (KC3EV) for the time and place. All members are welcome.

CARA on the World Wide Web: Visit us at <http://www.qsl.net/cara/> for the latest "hot tips" and electronic edition of the newsletter.

Officers and Chairpersons

Officers:

President.....	Bob Scarborough.....	KC3EV.....	H: 410-465-2421	rscarburgh@aol.com
Vice-president	Dave Prestel	W8AJR	H: 410-203-9432	dprestel@sprintmail.com
Secretary.....	Dan Goulette.....	N3LDC.....	H: 410-796-2587	danjanis@connex.net
Treasurer.....	John Pinkston.....	W3GJN.....	H: 410-531-3450	jpinksto@erols.com
Member-at-large	Tim Titus	W1TRT	H: 410-730-8420	w1trt@aol.com
Past President.....	Larry Russo	K3TFU.....	H: 301-725-2840	lrusso@erols.com
Trustee	Alan Chedester.....	N3AC.....	H: 301-596-6543	alanc1@juno.com

Committee Chairpersons:

Elmers	John Pinkston.....	W3GJN.....	H: 410-531-3450	jpinksto@erols.com
Field Day.....	Alan Chedester.....	N3AC.....	H: 301-596-6543	alanc1@juno.com
	John Pinkston.....	W3GJN.....	H: 410-531-3450	jpinksto@erols.com
FAR Rep	Tim Titus	W1TRT	H: 410-730-8420	w1trt@aol.com
Hamfest	Dave Prestel	W8AJR	H: 410-203-9432	dprestel@sprintmail.com
Newsletter	Dave Prestel	W8AJR	H: 410-203-9432	dprestel@sprintmail.com
Publicity	Vacant			
Social	Vacant			
Quartermaster	Vacant			
Technical.....	Dave Prestel	W8AJR	H: 410-203-9432	dprestel@sprintmail.com
T-MARC Rep.....	Dave Prestel	W8AJR	H: 410-203-9432	dprestel@sprintmail.com
VE Testing.....	Bob Scarborough.....	KC3EV.....	H: 410-465-2421	rscarburgh@aol.com
Youth Education.....	Dave Anderson.....	WA3WZX.....	H: 410-465-8557	danderson@juno.com
Youth Group.....	Vacant			

ARES / RACES:

ARES	Ed Wallace	K3EF.....	H: 410-465-0042	k3ef@aol.com
RACES	Mike Carr.....	WA1QAA.....	H: 410-799-0403	bamcc@erols.com

February, 2000 Calendar of Events

Sun	Mon	Tues	Wed	Thurs	Fri	Sat
		1	2	3	4	5
6	7	8 ARES / RACES Net CARA net	9	10	11	12 Breakfast at Jilly's Restaura nt
13	14	15 RACES COMEX CARA net	16	17	18	19
20	21	22 CARA meeting	23	24	25	26
27	28	29				
Dates to Remember: Solar Effect – 2/22 – Room 301 Gateway Center <p style="text-align: center; color: red;">Renew Your Membership!</p>						

March, 2000 Calendar of Events

Sun	Mon	Tues	Wed	Thurs	Fri	Sat
			1	2	3	4
5	6	7 ARES / RACES Net CARA net	8	9	10	11 Breakfast at Jilly's Restaura nt
12	13	14 RACES COMEX CARA net	15	16	17	18
19	20	21 ARES / RACES Net CARA net	22	23	24	25
26	27	28 CARA meeting	29	30	31	
Dates to Remember: <p style="text-align: center;">FCC Rules Changes Takd Effect 4-15-000</p>						

“Solar Effect”

with

Gary Durrschmidt

Of

Community College of Baltimore

Tuesday, February 22, 2000

7:30 PM

Room 301

Columbia Gateway Center

Columbia Amateur Radio Association
P.O. Box 911
Columbia, MD 21044

First Class Mail