Crosstalk

Issue #2 February, 2001

affiliated club

SPECIAL SERVICE CLUB

President's Message

The old century has passed into history along with the second millennium. There were no threats about computer failures and shortages at the supermarkets.

We are among the lucky few who have witnessed not only a new century but a new millennia. No one knows what this new year will bring but as a club we must strive to make GCARC a better stronger club. We must get new members and present new activities that will attract them. Radio clubs in general are having problems with diminishing memberships for many reasons so we must try to interest new people to join our ranks.

It is with great sadness I must report on the passing of a long time member Richard C. Munyan W2RCM became a silent key on January 5th. after a long fight with cancer. Rich was very active with the club and on CW until illness caused him to slow down. He was a member of QCWA, Fist and Handi hams. Rich also was a volunteer fireman and past commander of American Legion Post 89 of Westville,NJ.

In last month's message I may have confused some about a check from the insurance company. The check was the final payment on our claim arising from the repair of the electric service to the trailer.

At the January meeting it was suggested that we look for GOOD used equipment to replace the destroyed units from the lightning strike a while back. I have no objection to using less than brand new radios if care is exercised in purchasing it. I am sure we have the talent to evaluate and recommend purchase.

Hope to see you at the next meeting Feb.7th.

73,
Ray WB2NBJ

2001 DUES

GCARC dues for the year 2001 are now due. The annual dues are $15.00. Please send your checks directly to the treasurer, Bob Krchnavek (K2DAD) at 50 Eastwick Dr., Gibbsboro, NJ 08026.

DX Dope

By Doug Gehring WA2NPD

I have been asked, “Last month you listed Pin-Prick Island, PP0XYZ, would be up on 20 m, etc.; I listened every night and never once heard him at all!?” “What ever happened to him??”

Well, usually there is an easy answer, namely, I haven’t the faintest clue!
The various sources of DX information are very thorough and meticulous in digging up the details of virtually all upcoming operations, and promptly reporting same. However, when an operation doesn’t show, fails to appear, etc., unless it’s a very big DXpedition, the “what happened?” information seems to disappear down a deep dark abyss - never to be seen or heard from again! It’s like, move onward and upward to the next one, forget the past, there’s another one coming along, etc. I guess there are many reasons why this is so, or why the information is reported (or not reported) in this fashion. But this seems to be the way it is - and always has been.

Note that in the 12/23/2000 issue of the 425 DX News was listed none other than GCARC’s AA2WN. Harry operated during the holidays from Finns Point Lighthouse (near Pennsville). Good to see one of our own receive some well deserved recognition. Also if you look in the February issue of QST, pg. 107, there is a FB article on QRP operation along the Appalachian Trail featuring non other than that famous DXer, contester, now QRPer; Ken N2CQ. Ken, a long time club member, past president, contester roll model, A-1 operator, FD stalwart, and now an AT backpacker with RP rig and the N2CX “Gusher” antenna stowed aboard. Looks like a fun way to go camping, etc.

So what’s on the DX docket for February? Looks like a big DXpedition month coming up (see below). The D68C, 3D2, CE0, YK9A, and PY0S are ALL very major and large operations. It’s good to see Conway Reef being activated after so many years. Also Chuck, 3Y0C continues to tough it out from Bouvet, generator and antenna (gale winds) problems notwithstanding.

Station	Dates	Freq / Mode	Rarity	Country
D68C	2/8 - 2/28	All / All	4	Comoros Is
3D2?	2/19-2/27	All / All	5+	Conway Reef
CE0ZT	2/12 - 2/20	All / All	5	San Felix
AC4G/KH9	2/9 - 2/27	All / SSB, CW	4	Wake Island
YK9A	2/3 - 2/11	All / All	4	Syria
FO0/?	2/11 - 2/28	160-10 / All	3	Marquesas
PY0S	2/7 - 2/15	160-10 / All	4	Sts Peter & Paul
VP2MDY	2/22 - 3/1	160-10 / SSB, CW	2	Montserrat
V73ZZ	2/10 - 2/24	160-10 / SSB, CW	3	Kwajalein
T32RD	2/11 - 3/4	160-6 / SSB, CW	3	E. Kiribati
7Q7HB	Feb	80-10 / All	4	Malawi

* 5 is rarest

TNX to 59(9) report, 425 DX News, K2JF, AA2WN, and WA2LET

Propagation #5

by John Fisher, K2JF

PART 5

Regular Variation of Ionosphere

GENERAL--- Since the existence of the ionosphere is dependent on radiations from the sun, it is obvious that the movements of the earth about the sun, or changes in the sun's state of activity which might serve to cause an increase or decrease in the amount of its radiation, will result in variations in the conformation of the ionosphere. These variations include those which are more or less regular in their nature and, therefore, can be predicted in advance, and the irregular variations resulting from the abnormal behavior of the sun. For purposes of discussion, the regular variations may be divided into four classes: the DIURNAL or daily variation, the Seasonal , the 11-Year, and the 27-Day.

DIURNAL (variation with hour of day-K index): F layer- height and density decrease at night..E layer height approximate constant, density follows vertical angle of sun. Practically nonexistent at night...D layer- appears after dawn. Density follows vertical angle of sun, disappears at night.

SEASONAL: F2 layer- Virtual heights increase greatly in summer decrease in winter. Minimum predawn density reaches lower value in winter.

11-YEAR Sunspot Cycle: Layer density increases and decreases in accord with sunspot activity. Unsettled to active conditions will exist during rise.--(We are starting in the decrease- Cycle 23).

27-DAY (SUNSPOT)- Recurrence of SID's (Sudden Ionospheric Disturbances) and ionospheric storms at 27-day intervals. Disturbed conditions frequently may be identified with particularly active sunspots whose radiations are directed toward the earth every 27 days as the sun rotates.

DIURNAL-- For most part, the diurnal variations and their effects upon the ionosphere layers tell us that to compensate for the resulting variation in the skip distance, it is suggested that higher medium frequencies be used during the daytime, and lower medium frequencies at night. The reason for this appears in the fact that the ion density of the F2 layer is greater during the daytime, and will reflect radio waves of higher frequency than the F layer will reflect during the night. The higher frequency waves suffer less absorption in passing throughout the D region, whereas at night the disappearance of the D region permits the use of lower frequencies.

continued next page

Propagation #5 *continued*

SEASONAL-- As the apparent position of the sun moves from one

hemisphere to the other with corresponding changes in season, the maximum ion density in the D, E, and F1 layers shift accordingly, each being relatively greater during the summer. The F2 layer , however, does not follow the pattern in seasonal shift. In most localities, the F2 ion density is greatest in winter and least in summer, which is quite the reverse of what might be expected from simple theory. (I will not venture any further into this now).

ELEVEN-YEAR-- That sunspot activity varies according to an 11-year cycle has been known since 1851. Shortly after the discovery of this phenomenon, a method was devised for measuring the relative intensity of sunspot activity, and, by mean s of this method, the alternations have been followed closely.

Briefly, the method entails the use of the so-called WOLF sunspot number, a number obtained for each day by multiplying by 10 the number of distinct visible sunspot groups and adding thereto the number of individual spots observable in the groups. The increased activity at times of sunspot maxima is reflected in an increase in ion density of all the ionosphere layers, resulting in higher critical frequencies for the E, F1 and F2 layers, and higher absorption in the D region. This permits the use of higher frequencies for communication over long distances at times of sunspot maxima than would be usable at time of sunspot minima (watch 15, 12, 10, and 6 meters openings from 200 to 250).

TWENTY-SEVEN DAY-- Another cycle that is As the number of sunspots changes from day to day with solar rotation or the formation of new spots or the disappearance of old ones on the visible part of the sun, absorption of the D region also changes. Similar changes are observed in the E layer critical frequency. These variation exhibit wide geographic range; they are not effects that are observed at one station and not observed at other. Because of the variability of the F2 layer, precise predictions of is critical frequencies cannot be made, trends and geographic distribution may be outlined accurately in advance. It is necessary in selecting frequencies for long-distance communications (DX) to allow for these fluctuations.

Check the Indices Forecast that is given every 18 minutes after the hour on WWV at 10, 15, 20 MHz.

The next section will be on--Irregular Variations of Ionosphere

C U in the PILE-UPS K2JF

AMATEUR RADIO GIANT BILL ORR, W6SAI, SK

Another Amateur Radio legend is gone. William I. "Bill" Orr, W6SAI, of Menlo Park, California, died in his sleep January 24. He was 81.

An ARRL member, Orr was best known for his numerous amateur radio books and reference works, many aimed at beginners. His titles include The Radio Handbook, The Beam Antenna Handbook, The Quad Antenna Handbook, The VHF-UHF Manual and The W6SAI HF Antenna Handbook, some written in collaboration with Stu Cowan, W2LX. Ironically, friends say, the lack of an antenna in recent days had kept Orr off the air.

Licensed in 1934 at age 15 as W2HCE in New York, Orr graduated in electrical engineering from the University of California in the early 1940s.

In his younger years, Orr was a well-known DXer and DXCC Honor Roll member. He also was involved in DXpeditions to various exotic locations, including St Pierre and Miquelon and Monaco, among other locales.

From the 1940s through the 1980s, Orr was a frequent contributor to QST, writing about tube-type amplifiers, Project OSCAR, and other topics. Orr constructed some of the amplifiers once used at ARRL Maxim Memorial Station W1AW.

For many years Orr worked with tube manufacturer EIMAC. Orr's application notes for EIMAC products were favorite reading within the amateur community. In later years, Orr penned columns for Ham Radio magazine and, more recently, for CQ, where he edited "Radio Fundamentals."

In 1996, Orr was named the Dayton Hamvention Technical Excellence award winner.

Chip Margelli, K7JA, of Yaesu, called Orr "one of the technical giants in Amateur Radio." Margelli said a hallmark of Orr's talent was that he always published information for designs that had actually been proven in the field. "He also was a true gentleman, and I shall miss him greatly," Margelli said.

Long-time friend Willard "Tiff" Tiffany, W6GNX, said Orr had a knack for making technical topics easy to follow and understand. He remembered Orr as "a friendly, helpful guy who wrote from the heart because he enjoyed doing it."

Another friend, Marv Gonsior, W6FR, says Orr "had a great sense of humor, a lot of wit about him."

Orr owned a condominium in Maui, Hawaii, and operated from there two or three times a year as KH6ADR.

Orr's wife, Sunny, died about five years ago, and he lived alone. He is survived by four daughters and a son. Arrangements are incomplete at this time.

- TNX ARRL Letter

Richard C. Munyan W2RCM, SK

It is with much sadness that we report the passing of Rich, W2RCM, who has joined that great radio club in the sky.

Rich, formerly WA2SIT, had been a club member for about 20 years, and rarely missed a meeting, hamfest, field day, etc., until his health began to deteriorate some 4 - 5 years ago.

A retired DuPont Metalworker, Rich enjoyed contesting, was an A-1 CW operator, and, although not a die-hard DXer, always seemed to be there to work the rarest DX.

He was a member of FISTS and the QCWA. A former military radio operator, Rich was a veteran of the Korean War.

Rich will be sorely missed by not only the GCARC, but also by his many friends and neighbors in Oak Valley. The club extends it''s deepest sympathies to his XYL, children, and relatives. He will long be remembered.

- TNX to Doug Gehring WA2NPD

Happy Birthday

Congratulations to the following club members:

Chuck Colabrese	WA2TML	2/27
Herb Schuler	K2HPV	2/10
Jack Stauffer	K7LIF	2/18
Chris West	WA2MVU	2/19

Crosstalk Submissions

All submissions, queries, comments, editorials,or requests for interviews may be directed to:

John Zaruba AA2BN
491 Pennsylvania Ave
Franklinville, NJ 08322

jzaruba@snip.net
aa2bn@amsat.org

Submission deadline: 2/23/2001

Committees

Advertising - Open

ARES/RACES -Chick WA2USI

Awards - Jack K2ZA

Banquet - Bob KR2U

Budget - Bob K2DAD

Clubhouse Site - Al KB2AYU

Constitution - Open

Crosstalk - John AA2BN

Database - John AA2BN

DX - Doug WA2NPD

Field Day - Tony KG2MY

Hamfest - Bob KB2EAH

Hospitality - Open

Membership - John AA2BN

Nominations - Bob KR2U

Publicity - John N2AWD

Repeaters - Chuck WA2TML

Scholarships - Greg WN2T

Special Services - Open

Sunshine - Open

Technical - Open

TVI - John AA2BN

VEC Testing - Chick WA2USI

4-H Parking - Bob KR2U

The W2MMD Repeaters

147.78/18 Mhz - Pitman

223.06/224.66 Mhz - Sewell

447.1/442.1 Mhz - Pitman (CTCSS 131.8 Hz)

GCARC Meetings

General Membership

8p.m. 1st Wednesday every month, Pfeiffer Community Center, Williamstown, NJ

Board of Directors

8 p.m. 3rd Wednesday every month, GCARC Club site,Harrison Twp. 4-H Grounds
~1 mile south of Mullica Hill on RT77

Nets

ARES/RACES - Sundays 20:00 Hrs (147.78/18 and 223.06/224.66 repeaters)

10 Meter - Sundays following the ARES/Races Net (28.350 Mhz)

February Meeting Program

Socializing

stamp

P.O. Box 370
Pitman, NJ 08071

Mailing Label