

THE FEEDBACK

Volume 03 Issue 04

July 2003

THE AMATEUR RADIO NEWSLETTER

Laurel Amateur Radio Club, Inc.

PO Box 146 Laurel, MD 20725-0146

<http://www.larcmd.org>

email: larc@larcmd.org

Meetings and Nets:

⇒ 1st, 3rd, 5th Wednesdays:

On-the-air Net at 8:30pm on 147.225+ PL156.7 (no tone required during nets)

⇒ 2nd Wednesday:

Informal/Social Gathering at 7:00pm – Sullivan's Restaurant; Rt. 198, at Rt 197

⇒ 4th Wednesday:

Monthly Meeting at 7:30pm - The Woman's Club of Laurel, 384 Main Street, Laurel

⇒ Nightly:

Informal Net/Rag-Chew from 9-11pm on 147.540

Repeater: 442.500+ PL 156.7 Hz

VHF Simplex 147.54; UHF Simplex: 445.975,

Laurel Amateur Radio Club, Inc.

c/o Pud Reaver, W3YD
6516 Brooklyn Bridge Rd
Laurel, Md, 20707



FIRST CLASS MAIL

Next Meeting:



July 23, 2003; 1930L

PRGM: MDC QSO Pty

THE LAUREL AMATEUR RADIO CLUB

Officers:

President:	Jim Cross	WI3N	301-725-6829	jcross3@juno.com
Vice-President:	HD (Frank Scott)	K3HDM	301-773-0155	hdm@prodigy.aol
Secretary:	Open			
Treasurer:	Jerry Siegel	N3WSG	301-937-1174	j_siegel@compuserve.com
Past President:	Pud Reaver	W3YD	301-498-6293	w3yd@arrl.net

Other LARC Positions and Contacts:

FAR Representatives:	Dan Blasberg	KA8YPY	301-345-7381	ka8ypy@arrl.net
Laurel VEC:	Diane Zimmerman	AA3OF	301-937-0394	aa3of@arrl.net
LARC VE Testing:	John Creel	WB3GXW	301-572-5124	wb3gxw@arrl.net
AutoCall Reporter:	Pud Reaver	W3YD	301-498-6293	w3yd@arrl.net
T-MARC/D-MARC Rep:	OPEN			
Public Information Officer:	Pud Reaver	W3YD	301-498-6293	w3yd@arrl.net
Youth Programs:	Mark Doore	K3RAM	301-572-2385	k3ram@arrl.net
Education and Training:	Pud Reaver	W3YD	301-498-6293	w3yd@arrl.net
Technical Specialist:	Kevin Arber	W3DAD	301-725-0038	w3dad@amsat.org
ARES/RACES Coordinators:	Jim Cross	WI3N	301-725-6829	jcross3@juno.com
Official Emergency Station:	Pat Gormley	KK3F	301-864-4694	
Official Bulletin Station:	John Creel	WB3GXW	301-572-5124	wb3gxw@arrl.net
Official Bulletin Station:	Pud Reaver	W3YD	301-498-6293	w3yd@arrl.net
Official Bulletin Station:	Al Brown	KZ3AB	301-490-3188	kz3ab@arrl.net
Official Relay Station:	Pat Gormley	KK3F	301-864-4694	
Official Relay Station:	Pud Reaver	W3YD	301-498-6293	w3yd@arrl.net

LARC Special Interest Groups and Mentors:

Antennas:	Kevin Arber	W3DAD	301-725-0038	w3dad@amsat.org
Packet Radio/APRS:	Mark Doore	K3RAM	301-572-2385	k3ram@arrl.net
Repeaters:	John Creel	WB3GXW	301-572-5124	wb3gxw@arrl.net
Satellite/EME:	OPEN			

ARRL Field Organization:

Atlantic Division Director:	Bernie Fuller	N3EFN	814-763-1529	n3efn@arrl.org
Atlantic Division Vice Director:	William C. Edgar	N3LLR	814-362-1250	n3llr@arrl.org
MD/DC Section Manager:	Tom Abernethy	W3TOM	301-292-6263	w3tom@arrl.org
MD/DC Asst Section Manager:	Brian R Davids	KA3WWI	(202)366-0507	
MD/DC Emergency Coord:	Mike Carr	WA1QAA	410-799-0403	bamcc@erols.com
Affiliated Club Coordinator:	Tony Young	WA3YLO	301-262-1917	tonyy@juno.com
MDC Section Bulletin Manager:	Al Brown	KZ3AB	301-490-3188	kz3ab@arrl.net

The Feedback is published monthly (except December) as the newsletter of the Laurel Amateur Radio Club, Inc.

Items to be published in *The Feedback* should be submitted by the third Wednesday of the month. Email submissions may be made to w3yd@arrl.net

Permission is granted to reprint from this publication provided credit is given.

**Editor: Pud Reaver, W3YD 301-498-6293 w3yd@arrl.net
 Publisher: Mark Doore, K3RAM**

President's Ramblings

We had a real interesting meeting in June and thanks are in order to Bill Boston, N3DCI, and Curtis "Robbie" Robinson, WG3R for sharing their many years of experience with us about direction finding in preparation for our first hidden transmitter hunt. I'd like to thank Kevin, WV3D and son Brian for being the fox. The consensus was that everyone had a great time and another hunt should be set up sooner rather than later. There were four teams of two or more and two single person teams. For more on the hunt, see the article elsewhere in the Feedback. I have a feeling there may be some discussion about it at the meeting from the participants.

As of this writing, Ed Rummel, KB3DVC is still in very serious condition following the surgery after his heart attack. The doctors are performing a rather new and radical treatment, and have an expectation that Ed will recover. Our thoughts are certainly with him during this time of trial. At this time he is unable to receive calls or visitors.

Our Field Day was combined with the ARES/RACES effort at the Prince George's County Emergency Operations Center. We had a lot of fun, made a batch of contacts (any volunteers to enter them into a logging program?), and got some really good press coverage. Channel 9, Channel 5, and WTOP did interviews and ran them on Saturday and Sunday. The Newhouse News Service, and the Prince George's Gazette all did interviews that appeared both nationally and locally. This was the first year that the ARRL instituted a Class F operation for operating from an EOC.

Our next big contest is the Maryland-DC QSO party sponsored by the Antietam Radio Club. I hope that we will either win it or make a good showing this year. I'll get the dipole back up in time for key down. It will be a topic for discussion at the upcoming meeting.

The City of Laurel had the governor cut the ribbon for their new EOC located in the City Hall on Old Sandy Spring Road. In addition to the ribbon cutting they also demonstrated some new software that is free for municipalities, counties, states and federal agencies through the E-Gov program. This software allows them to display an aerial photo of the town, mark where an incident occurs, show road blocks, the press area, and label shelters, hospitals, and other places of interest. It can also be seen real time by other agencies with the software. The city will be installing a couple radios and antennas for us to use. It seems that we will be able to use packet with this system. Once the radios are in we'll schedule some training time.

Maybe by the meeting we'll know if the DC Roadrunners will be having their annual Labor Day run through the Beltsville Agricultural Center.

We need to put together our nominating committee to find some officers for next year. Look forward to seeing you at the meeting.

73, Jim, WI3N

SB QST ARL ARLB045

ARLB045 7 MHz realignment compromise makes radio history

In an 11th-hour compromise, delegates to World Radiocommunication Conference 2003 (WRC-03) agreed to move broadcasters out of 7100 to 7200 kHz in Regions 1 and 3 to make room for the Amateur Service. The expanded worldwide allocation at 40 meters goes into effect on March 29, 2009. Amateurs in the US and the rest of Region 2 will continue to enjoy the 7000 to 7300 kHz band they now have, but with greatly reduced broadcasting interference.

The compromise marked the first time in the history of internationally coordinated radio spectrum allocation that an HF broadcasting band was shifted to accommodate the needs of another service. The compromise cuts in half the incompatibility between amateur and broadcasting use of the 7 MHz band and doubles the 40-meter spectrum available to amateurs in Regions 1 and 3.

While the result falls short of the IARU's goal of a 300-kHz worldwide exclusive band for amateurs, the cooperation of broadcasters, opposing delegates and many others was required to make a positive step for ham radio. Spectrum between 4 and 10 MHz is on the agenda for WRC-07, but further changes to 7000-7200 kHz will not be considered.

The conference also dropped the international Morse code requirement, leaving individual countries to decide if they want to retain a code proficiency requirement, and adopted a number of improvements to the other international regulations for the amateur service. The delegates also agreed to allowed a secondary allocation for satellite borne synthetic aperture radars at 70 cm and made amateur call sign assignment more flexible.

The Fun Contest Maryland-DC QSO Party 2003

August 9 1600-0400 UTC August 10 and 1600-2359 UTC August 10

Certificates are awarded to all stations with 50 or more QSO POINTS in their entry!

Many certificates are awarded including: 10 Best MDC Single Ops, Best Score per State and DX Country, Best MD YL, Best Technician entry each state, Best QRP entry from any state, Top 3 MDC Clubs
PLAQUES: High Score from: 1. A Maryland Club or Multi-op 2. A station outside MDC 3. A MDC Mobile 4. MDC Single Operator (General or Higher) 5. MDC Technician (Includes Novice)

Non MDC must work MDC for score! MDC works the world (we hope!). No formal net or packet qsos. Club entries must be from a single QTH. Club entries outside MDC are included in the regular Non MDC category.

Phone and CW are one contest. CW in CW sub-bands only. Stations may be worked once per band using each mode. Stations that change MD counties or state lines may be worked again for qso points as different stations! Non MDC stations must be single operator even if from a club station.

Exchange: QTH and Major Category. QTH is county for MDC; State, Country, or Canadian Province for others. **Major Categories are: Club, Mobile, QRP, Technician, and STANDARD. Multi-op stations are considered CLUBS! (using one call-sign as entry)** Stations will send the category that reflects their Highest Point Value to the station worked.

Suggested Frequencies: 1.895 3.643 3.920 7.035 7.230 14.035 14.270 21.035 21.370 28.035 28.370
 50.150 52.525 144.15 146.55 146.580 432.15 446.000 MHz.

Please note some of these suggested frequencies have changed this year based on your suggestions.

SCORING : use of our summary sheet (available at www.w3cwc.org) is highly recommended! Add up your qso points and multiply by the sum of the multipliers. Multipliers may be claimed once each and they do not repeat from band to band.

QSO POINTS: 10 points per club station 5 points per mobile station 4 points per QRP station
4 points per TECH station 3 points for each CW/digital qso 1 point all other qsos

Remember- Only the highest single point value may be applied per qso.

Multipliers: For stations outside MDC- 1 per MD county + DC + Baltimore City (25 possible)
For MDC Stations ONLY- the basic 25 + each of the other 49 states + each new DX country

Deadline- Send logs + scoring summary + SASE by September 15, 2003 to the primary contest sponsor- Antietam Radio Association P.O. Box 52 Hagerstown, MD 21741-0052 or logs may be emailed in plain text or Microsoft Word or Excel format to wa3eop@arrl.net (the contest chairman) A contest summary must be included.

Special AWARD- The Worked All Maryland Multipliers Award has yet to be claimed. Who will be the first to do this? The stipulations are 1) All contacts must be made from a single QTH and 2) All contacts must be made during a single year's qso party.

N3WD offers a Worked All MD Award to all who work the 23 counties + Baltimore City in our contest. Contacts for this do not have to be from a Single QTH. Contest Log must show needed data for this including Mode and Band.

Finally, the Antietam Radio Association, primary sponsor of the Modern Day MDC QSO PARTY wishes to thank those who financially support the contest with your donations. Donations toward the continued operation of this activity are always welcome and may be sent to the primary sponsor. 2002 Marks the 13th year of the modern day party. Please visit our website www.w3cwc.org and see you in the pileups.

Page WA3EOP
 2003 MDC Party Chairman

Logging Software available at www.qsl.net/w3km.gen_log.htm

ARRL Receiver Dynamic Testing (FM)

Kevin Arber, W3DAD

Product reviews are a common item in QST. Many of them involve a transceiver. In the June 2003 issue the Yaesu FT-2800M was reviewed and the transceiver's dynamic measurements reported. The ARRL has been doing this type of testing for a long time and the Product Review archive is valuable to the amateur community for comparison purposes and to determine trends in receiver design over time. This article attempts to define and explain some of the less well understood measurements to better allow the review reader understand the results. The results of the ARRL FT-2800M test are shown in brackets and are used as an example.

FM Sensitivity: [0.22 uV] This measurement uses the acronym SINAD and forms the basis for other measurements. The McGraw-Hill Dictionary of Electronics defines SINAD as: "The ratio in decibels of signal-plus-noise-plus distortion to noise-plus-distortion at the output of a mobile radio receiver for a modulated-signal input." A common SINAD specification is 12 db, 25 percent distortion. A measurement of 12 dB SINAD of 0.22 uV means that in order to obtain an output of 12 dB of signal-plus-distortion to noise-plus-distortion required the input modulated input signal to drop to 0.22uV. This test is accomplished by the ARRL using a signal generator and distortion meter. The measurement can also be made using a signal generator and audio and notch filters to power meters. Automated test equipment is also available for measuring SINAD. The more sensitive the receiver the smaller the input signal required.

FM Adjacent Channel Rejection: [70dB] This test is also sometimes referred to as FM adjacent channel sensitivity. A 20 kilohertz channel spacing is used and the SINAD test above must be completed first. Two generators are used set 20 KHz apart and fed into the receiver via a combiner; the receiver output is connected to a distortion meter. The first generator is adjusted to obtain the 12 dB SINAD (plus any losses in the test configuration) above. The second generator output is then increased until the distortion indicates 6 dB SINAD (50% distortion). The signal generator values in dBm of the 12 dB SINAD reading and the 6 dB reading are then subtracted to obtain the rejection. This measurement indicates how well the transceiver rejects unwanted adjacent signals; higher numbers are better

FM Two-Tone, Third-Order IMD Dynamic Range: [70 dB] The purpose of the FM Two-Tone, Third-Order Dynamic Range Test is to determine the range of signals that can be tolerated by the transceiver in the FM mode while producing no spurious responses greater than the SINAD level. This test is also done at 20 KHz spacing and uses two signal generators and the distortion meter. Both signal generators are input to the transceiver via a combiner and the output is tuned to the third order product ($2f_1 - f_2$ and $2f_2 - f_1$). Both signal generator outputs are increased simultaneously until the meter reads 25% distortion or 12 dB SINAD. The dynamic range is $DR = (IMD) - (12 \text{ dB SINAD})$. This test is also done at 10 MHz spacing. Larger numbers indicate a better receiver in terms of generating third order intermodulation products. This test is also performed for second order products ($f_1 - f_2$). **IMD = intermodulation distortion** (see previous article on **IMD** in Jun/2000 Feedback.)

IF and Image Rejection: [99dB and 92 dB respectively] This test is similar to adjacent channel rejection but measured at the IF and Image frequencies. Signals at the IF or image frequency are spurious signals, therefore, the higher this number the better.

The standard procedure used by the ARRL for transceiver testing is available from the ARRL at www.arrl.org. Information is also available in recent editions of the ARRL Handbook in the Test Procedures and Projects chapter.

The new ARRL Amateur Radio Map of North America is available from the ARRL at <http://www.arrl.org/catalog/?item=8977>. It is a 27 x 39 inches laminated colorful wall map that features current geographic detail and labels, grid squares, call sign prefixes, boundaries and more. (Thanks, Dennis K7BV)

Speaking of maps, Tim Makins, EI8IC reports that a demo of his extensive collection of computer image maps - Global Mapper - is now available at <http://www.qsl.net/ei8ic>. There are continental and sub-continental maps, country outlines, zone maps, relief maps, grid and lat/lon meshes, plus hundred of city and region names, IOTA info and flags, too. The nice thing about Tim's maps is that you can turn the layers on and off to control the amount of detail

Feedback from N3XL/Bill ((ed note: tnx, Bill; keep 'em coming)

Although those CW pileups sounded impossible when I first listened to a CW contest, I found it quite easy to participate in CW contesting once I tried it. For my initiation into contesting, I participated in a couple SSB contests, one at the LARC Club shack for training (under Dennis, KT3D), and one or two at home. I got familiar with contest exchanges, pileups and the general rhythms of contesting.

Then with very limited CW skills, I listened a bit and practiced a bit and decided, oh well, with a secret weapon I was ready to get my feet wet in a CW contest. To back track a little, early in the process of getting started in CW I discovered CWGet decoding software, which does a nice job decoding at speeds well above my capability to copy. This software also gave me a good tool to practice my sending, as well. Since sending is much easier than decoding, the software was a very good fit for my skills. I started my on the air CW experience by answering CQs, a lot of QRS on the distant end, and slow rag chews. (I also practiced my copy skills using Koch method and attempting to dig out some slow weak signals, but this really didn't pertain much to successful contesting.) Well, with my decoding software and a little practice to get my sending speed of a simple contest exchange up to speed, I felt that was basically ready to give a contest QSO a shot. Just like I found when doing SSB, where my ears were doing the work, I had to tune in on a CQ station and let my computer listen for a while to get the call sign down and prepare my log entry (not enter it yet!). With my CW decoding software's O'scope display I could tune right in on sending frequency and, depending on signal strength and the sender's fist, the software would start copying the CQ station's exchanges. With great anxiety I finally sent my call sign and I was amazed how easy it was to bust a pile up and make the exchange. Before long my CW QSO rate was much, much better than my SSB! QSO rate had ever been.

A little technical note: For my everyday QSOs I zero beat the O'scope display and my send and the received signals are both copied. But I found that to get the best results when contesting, I tune on the sender's freq and use a slight offset in my sending freq. In this process (some folks call this a "trick" ..ed) I don't get to see what I'm sending. This is just another reason for some practice at contest speed (25 WPM) to develop confidence in what you're sending.

Ed note: CW is worth THREE points in MDC QSO party ... start practicing, and have some fun!)

IARU WRC-03 Final Report from Geneva

The 2003 World Radiocommunication Conference concluded its discussions of the issues on its agenda on Thursday afternoon, 3 July, after marathon Plenary sessions that tested the patience and stamina of the conferees. The previous day's deliberations did not end until 3:30 AM; Thursday's business began at 9:00 AM and finally concluded at 3:30 PM without a break, 3-1/2 hours behind the original conference schedule.

Now that the final reading of texts submitted to the Plenary is finished, the Final Acts are being duplicated in print and on CD-ROM for distribution on Friday, 4 July. Delegations that wish to do so will be submitting declarations and reservations. The signing ceremony will take place on Friday afternoon, 4 July. Thus the four-week conference draws to a close. Please refer to IARU releases dated 11, 26 and 23 June for reports on the previous weeks' activities related to Amateur Radio. They are available on the IARU Web site at <http://www.iaru.org/rel030611.html>, <http://www.iaru.org/rel030616.html>, and <http://www.iaru.org/rel030623.html> respectively.

The big news for radio amateurs is that there will be a **dramatic improvement in the 40-meter band!** After weeks of debate and efforts to resolve great differences between numerous proposals, including strong positions for no change, the conference agreed to shift broadcasting stations in Regions 1 and 3 out of the 7100-7200 kHz band and to reallocate the band to the amateur service in those two regions. The allocation in Region 2 of 7000-7300 kHz remains exclusively amateur. The broadcasting band in Regions 1 and 3 will become 7200-7450 kHz and in Region 2, 7300-7400 kHz. The change will take effect on 29 March 2009, less than six years from now – a relatively short time by ITU standards.

In Regions 1 and 3 the 7100-7200 kHz band will become exclusively amateur on that date. A footnote containing the names of countries that are mainly in Region 3 and the Arab States makes the band also available to the fixed and mobile services in those countries on a primary basis.

It was not easy to achieve such a positive outcome on this issue. As late as Thursday evening, 26 June, it had not been possible for the delegates to reach agreement on a broad outline for 7-MHz realignment. While those favoring change had been able to merge their differing proposals to some extent, there were still three schools of thought: 200 kHz for amateurs in Regions 1 and 3 (to align with the amateur allocation in Region 2), 100 kHz (partial alignment), and no change. In the meetings addressing the issue, those advocating 200 kHz were the most numerous and active. Still, it was apparent that the no-change advocates were also numerous. The no-change administrations and those that wanted to do something for the amateur service, but could not support the full 200 kHz we were seeking, tended to be inflexible. Some of the latter envisioned very long transition periods – in one case, 30 years!

The time-honored way in which decisions are made in the ITU is by reaching consensus in a way that makes everyone equally unhappy. Since the discussions in drafting groups, Sub-Working Group 4C1, and Working Group 4C had not made progress toward a consensus, and since the same was true of several other issues, on Thursday evening the conference chairman, Dr. Veena Rawat of Canada, brought together a number of delegates and regional coordinators to solve these problems. In the case of 7 MHz, the outcome was a proposed compromise that was brought to Committee 4 the following day, Friday, 27 June. The key elements of the compromise were described in last week's report. It provided 100 kHz for amateurs in one stage, with the possibility of trying for the additional 100 kHz at the next conference. Still, many differences remained as to the timetable, how to mitigate the impact on other services, how much (if any) broadcasting should be expanded in Region 2, and so on.

Unfortunately, the workload of Committee 4 was such that the proposed compromise could not be discussed in the committee. A last-ditch effort to bridge the differences was undertaken on Monday evening, 30 June, in an Ad Hoc Group of the Plenary chaired by Alan Ashman of Australia. The initial results were not very encouraging; there was some convergence, but a few administrations refused to go along. It was not until the following day that real progress was made toward a comprehensive agreement on a formula that all of the advocates of change, along with some of those favoring no change, could live with. This was accomplished by almost constant communication among the regional and national coordinators who were handling the issue, and as a result of their willingness to give ground in order to package an agreement.

The agreement was presented to the Plenary at 11:00 PM Tuesday. The discussion consumed an hour and ten minutes of precious meeting time and included expressions of great unhappiness from the Arab Group and Iran, who continued to advocate no change. Still, the conference chairman was able to guide the Plenary to a very tentative and fragile agreement, subject to the completion of a couple of details.

The coordinators worked hard on Wednesday morning to complete the details and a document was available to the delegates that evening. Finally, on Thursday morning it was presented to the Plenary and, with a few on-line edits and the addition of some country names to footnotes, it was approved. Even the Arab Group and Iran accepted the final package, which included footnotes giving them some flexibility with regard to their fixed services.

And so, at 10:27 AM Geneva time Thursday, 3 July, the compromise package was given final approval.

Perhaps the magnitude of what has been accomplished for radio amateurs can best be explained this way: Never before in the history of radiocommunication has an HF broadcasting band been shifted to

accommodate the needs of another service. Of course, this is not simply an accomplishment of the IARU. It would not have been possible without the cooperation of a number of broadcasters and many, many others. The people who worked with us who are not radio amateurs -- including some who were strongly opposed at the start but who acceded to the compromise --deserve much of the credit. For example, Australia came to the conference with a strong “no change” position and had to shift its position dramatically in order to embrace the compromise. The Russian Federation announced it was for no change at the beginning of the conference, but in the end fully accepted the formula for change. The Republic of Korea and Japan supported 100 kHz for amateurs in Regions 1 and 3, but on a shared basis with fixed and mobile and with an implementation date of 2015; accepting a much earlier date and with just a footnote for fixed and mobile represented major concessions for them.

Of course, it was our friends who had to compromise the most and it wasn't easy for them to do so, either. CITEL had opposed broadcasting expansion in Region 2 but in the end accepted 50 kHz more for broadcasting to reach agreement with CEPT. The proposal of the United States, which contained elements of the CEPT proposal, was a useful bridge that helped bring CITEL and CEPT together. One part of the U.S. proposal that the IARU did not particularly care for, sharing of 7200-7300 kHz between amateur, fixed, and mobile in Region 2, became moot when that band segment was not realigned.

Attached is what is believed to be an accurate, but unofficial, Table (with all footnotes that were changed or added) as adopted. The reason it is unofficial is because there were some edits of the footnotes made during the course of presentation of the document and are not yet reflected in the official conference documentation.

This result falls short of our goal of a 300-kHz worldwide, exclusive band for amateurs at 7 MHz. We knew that it would. ITU decisions are made by consensus. Building consensus requires give and take. The conference could easily have concluded that the cost to other services of even a partial realignment outweighed the benefits to amateurs. Yet when the dust settled, we had gained a significant improvement in the 7-MHz amateur allocation – and on a reasonable schedule. The incompatibility between amateur and broadcasting use of the 7-MHz band will be cut in half; the spectrum available to amateurs in Regions 1 and 3 will double; and the useful spectrum for Region 2 amateurs at night will double. Amateurs in the three regions will be able to harmonize their operating patterns to a greater extent than has been possible in the past, leading to greater efficiency in our use of the band.

Several members of the IARU team have been working on the 7-MHz issue since the 1970s. Twice, in 1979 and 1992, we were unable to get a Conference result that improved the lot of the radio amateur. Given how precious spectrum access has become, even a partial solution is a major achievement for Amateur Radio and the IARU.

While it would be impossible to name everyone who helped, we would be remiss if we did not credit the extraordinary efforts of the CEPT Coordinator for Agenda Item 1.23, Jan Verduijn of the Radiocommunications Agency, The Netherlands. Jan was totally committed to finding a solution, not only for radio amateurs but for broadcasters and the fixed and mobile services as well. The CITEL Coordinator for the agenda item, Barry Isherwood of Industry Canada, was equally dedicated and just as effective in protecting the interests of his “constituents.” Neither Jan nor Barry is a radio amateur, but they certainly deserve all the honorary status we can offer.

Agenda item 1.7.1 (Article 25): A package of revisions to the international Radio Regulations that are specific to the amateur and amateur-satellite services has been adopted. The revised Article 25 takes effect on Saturday, 5 July 2003. The complete Article 25 is attached, along with an explanation authored by Michael Owen, VK3KI, who has guided the work of the IARU on this issue since 1996.

Agenda item 1.7.2 (Article 19): The previously reported changes sailed through Plenary on second reading and are approved.

Agenda item 1.38 (70 cm SARs): The 432-438 MHz secondary allocation for satellite-borne synthetic aperture radars was approved in Plenary.

Agenda item 1.1 (footnotes): “Footnote fever” seized some administrations in the closing hours of the conference as they clamored to get their country names into footnotes that had previously cleared the committees in which the footnotes had been considered. This is a recurring problem at WRCs; not only do such footnotes dilute the consistency of the Table of Frequency Allocations, they also cause the conference to bog down in minutiae at precisely the point at which it should be completing its work. Fortunately, the amateur service escaped serious damage from “footnote fever” at this conference, although it may be a problem in the future if countries want to climb into the footnote for fixed and mobile at 7100-7200 kHz.

Future agenda items: There are two items of great significance to the amateur service on the WRC-07 agenda that is being recommended by the Conference to the ITU Council.

The first calls for a review of “the allocations to all services in the HF bands between 4 MHz and 10 MHz” with a number of exclusions, including the band 7000-7200 kHz that was just reviewed at WRC-03. The spectrum requirements for HF broadcasting are among the factors to be taken into account. This could present a threat to 7200-7300 kHz, or it could provide an opportunity for further realignment; for both reasons it merits our close attention. Unfortunately, the agenda item does not include a clear “pointer” toward the desirability of trying to complete the realignment.

The second is “to consider a secondary allocation to the amateur service in the frequency band 135.7-137.8 kHz.” Note that this is kHz, not MHz or GHz. Such a low-frequency allocation is in the common table of frequency allocations used by European administrations, and Canada has been pressing for such an allocation in the international Table.

It’s Over! Well, the work is over; the ceremonial closing of the Conference will occur on Friday afternoon, 4 July. Then we will all be heading home, except for those who are staying for a two-day meeting to plan the preparatory work for WRC-07. Yes, it’s all beginning again....

73,

David Sumner, K1ZZ
Secretary, IARU
For the IARU WRC-03 Team

3 July 2003

OUR FIRST FOXHUNT

Is this a great hobby or what? Contesting, done that. Satellites, done that. Ragchew on dx, done that. Emergency communications, done that. Find a hidden transmitter on a foxhunt, whoa, finally done that. It was different and it was fun and we probably couldn’t have picked a more perfect day weatherwise! The only loose end to tie up is to set a date for the next one.

Bill, N3DCI had spoken to the club about it a couple years ago and he invited Robbie, WG3R to come to our June meeting to expand on techniques used to find the elusive fox. Bill and Robbie were a team on this one.

We invited several of the clubs in the northern area to come out and participate in the adventure. Because of cross pollination of club membership, it's sometimes hard to distinguish who represented what group. We did have at least three teams who weren't LARC members and three teams of LARC members. HD, K3HDM and Pud, W3YD were at the shack on the beam and local repeater and played a part in the winner's strategy.

Unlike many foxhunts that have all the entrants start at the same place with the fox being able to be heard from that point, our start allowed people to begin anywhere within or without the boundaries, which were within the borders of Prince George's County and north of Rt 50. The hunt lasted from 1300 to 1600 with a wrap up party at the Italian Inn on Rt 450. Kevin, WV3D very graciously accepted the position of fox and he and Brian did a great job of fooling lots of us.

Our team used an ARROW dual band beam for our direction finding antenna. We had only the driven elements attached to its boom. The first thing we did just before the start was to figure out where the null was. We did this by removing the antenna from my Kenwood TH-F6 HT, putting it on 50 mw, and transmitting from about ten feet so the signal was reduced enough that Toby, KB3BWR could find a null. It turned out that the null was about 45 degrees between the driven element and boom.

Bill and Robbie set up their 14 element beam in the parking lot behind the Woman's Club and our team joined them there for the beginning. We were on our HT's and couldn't hear the fox. However, I was monitoring the club repeater and heard HD tell Pud that the beam was serendipitously pointed right at the fox. That beam has about a 4 degree beamwidth. So our team hustled over to the shack, took a reading on the beam's direction and hit the road. It turns out that Al, KZ3AB has done this before and our team rode in his Tahoe. Besides Al and Toby, the rest of our team consisted of Jeff, KB3EQH, Joe, N3TZA, and Jim, WI3N. After three readings of the compass we pulled into Greenbelt Park. Dan, KA8YPY was already there looking for the fox. Kevin was booming in and it was difficult to attenuate him to try to find the null for a direction. After walking around, trying to get a fix on a very strong signal, Al asked if anyone had looked in any of the vehicles in the parking lot. Duh!!! We had found the fox 55 minutes into the hunt. Then Dan came back from exploring around the tree line and we managed to string him along for a while.

Next, Andy, KB3HNS and Pete, KB3GTN drove into the parking lot in their mobile porcupine (they can work dc to light). They were on to the fox and we strung them along too. Eventually, after trying many different tricks and a few hints, they found the fox too. They were from GMRA. Also from GMRA was Jerry, KA3TOJ who woke up from his nap at 1500 and was in the parking lot by 1530.

Dennis, KT3D and XYL Nancy got a chance to spend some quality time with each other as he used the tape measure beam he made to take bearings. His assumption was the theoretical null off the back of the beam, which had worked before, would work on this one. However, it didn't perform as expected and they finally came by the park on directions from us.

We all retired to the Italian Inn for a recap of the afternoon and some great pizza and tasty lemonade. Now, next time.....

Jim, WI3N

READ ON ... THE "FOX" REPORTS:

A View From The Fox Hole

I had a great time being the fox. My son, Brian, likes to play hide and seek, so the idea of using radios to do it really appealed to him. He had a great deal of fun being my lookout.

Looking at a map of Prince George's County I saw that there were several parks located near the middle of the search area. Greenbelt National Park seemed a great place to hide. It is a public place where I wouldn't need permission to be and there would be plenty of room for people to park. So, I pulled into the Greenbelt National Park and decided to check out the first parking lot I came to. With only 10 to 15 minutes to setup before the start of the Fox Hunt, I found in nice shady spot in the parking lot that would stay shady through the whole afternoon. With playgrounds and restrooms nearby, and a nice breeze, this seemed a comfortable place to spend the next three hours. I hoped that all the industrial and shopping areas nearby might provide some confusion to the people searching for me (it didn't).

So at 1:00 pm I started. I found it kind of hard to talk to nobody in particular for any length of time. I found my transmissions were not as long as they probably should have been, because, when you're talking to yourself, 20 or 30 seconds seemed like a long time. I used the truck's clock to time my transmissions to at least one minute of conversation every five minutes. As I was getting the hang of talking to myself, the park started to get busy. The Prince George's County Fire department paid a visit with one of its Rescue trucks for a show and tell. Thanks to the shade several more SUV size vehicles parked next to me. I was now hidden quite nicely and had plenty of distractions for would be hunters!

About 1:30 pm, Brian had just returned from a visit to a fire department rescue vehicle, when I saw Dan KA8YPY driving by. I thought for sure he had found me. I could not believe he had found me so quickly! I was amazed and relieved as he drove right on by. It was then I realized that he lived in College Park and was only

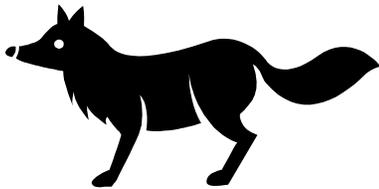
about two miles away at start of the hunt. I watched him drive around parking lot and back out. Dan returned shortly and parked behind me and began to check all the picnic tables around. He then stopped two cars over from me to talk to a man loading his dogs into his truck. The man looked slowly around at me, and I motioned to him not to tell and he didn't! Dan then turned and ventured into the large field behind me. About 1:45 pm Brian noticed another group pulling into the parking lot. Brian flattened himself out in the back of the truck, and I tried to fit underneath dashboard. I watched as the group (Al, KZ3AB; Joe, N3TZA *my father*; Toby, KB3BWR; Jeff, KB3EQH; and Jim, WI3N) walked by. They noticed my truck and I thought for sure I was found, but they kept right on walking. They seemed convinced that I had left the truck and gone somewhere in the woods. As they searched the field behind us, Brian watched them and told me when they were pointing their beams at me so I could stop transmitting. It wasn't long before Al, KZ3BA asked if anyone had looked in the truck. Realizing that no one had, he came over and found me trying to fit further under the dashboard. Well, I lasted an hour! A short while later Dan came by again and spotted my trunk and found me also.

Pete KB3GTN and Andy KB3HNS arrived not long after and parked on the other side of a red Cherokee next to me. Thank goodness for its tinted windows! Their equipment seemed to be showing me in the woods away from me so off they went! With an hour left in the hunt, I got a call from Jerry, KA3TOJ. It seems he had just woken up from a nap and wanted to join in! I invited him to join the hunt and gave him the boundaries etc. Pete and Andy returned to the parking lot and asked if I could lower my power. I used my little 300 mW HT and was still too strong! Of course they were getting a lot of "help" from the teams that had found me! Never trust another hunter! They found me! And so did Jerry shortly there after. Not too bad for a guy that just woke up!

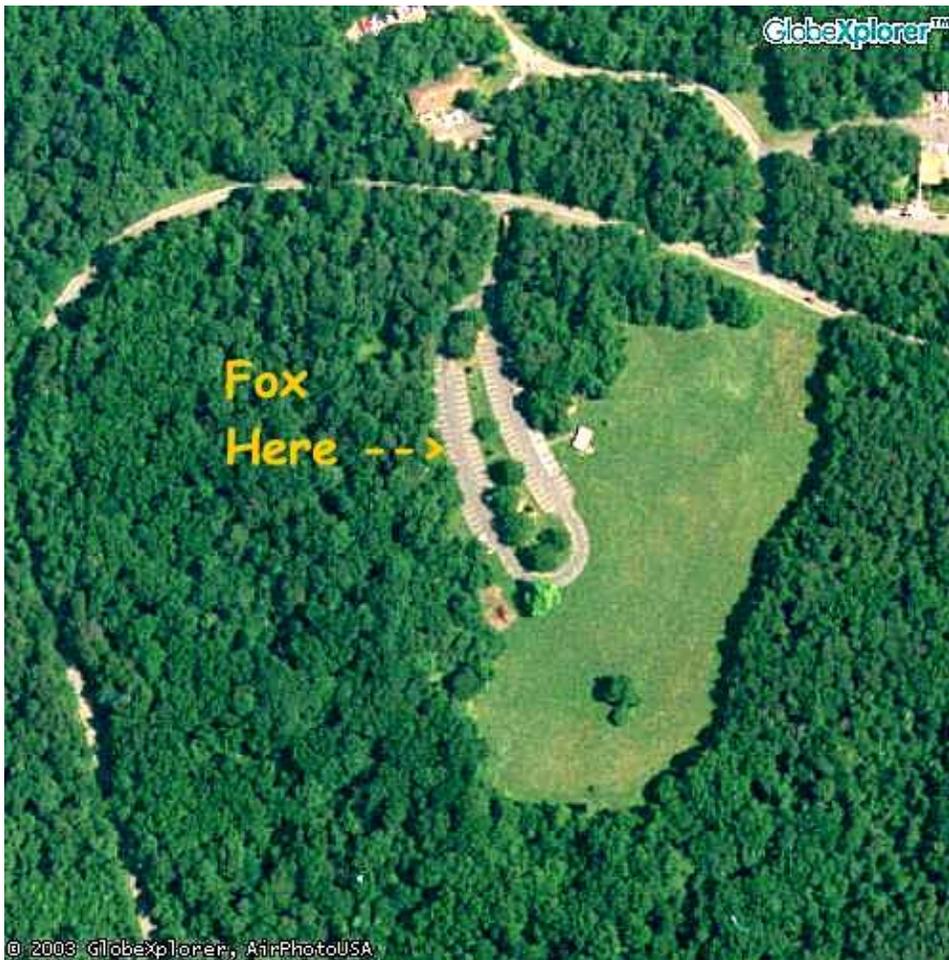
I wasn't sure how many teams were left so I kept on going. Dennis, KT3D and his XYL Nancy pulled in and Bill, N3DCI and Robbie, WG3R asked me for a transmission. It sounded like they were right at the end of the parking lot. The next time I heard them they were real scratchy. It wasn't until after the contest that I found out they were near Laurel using an eleven-element beam! At 4:00pm we officially closed down the hunt and retired to the Italian Inn to swap stories and relive a fantastic afternoon!

This is an activity that the whole club can participate in at one time. It is great training and great fun! I am looking forward to being a hunter next time. But, I have some ideas for better hiding places. I don't think staying in the truck will work for me again!

Kevin
WV3D



July 18, 2003



Keep pagin' down

The winning team: Al/KZ3AB, Jeff/KB3EQH, Joe/N3TZA, Jim/WI3N and Toby/KB3BWR.
Fuzzy picture credit ... Dan/KA8YPY (in his defense using Al's camera with thumb over shutter.)



And the foxes see below:

The foxes: Kevin WV3D, and son Brian: Picture credit to KZ3AB

