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>> GENERAL MEETING May 11, 2004 - 7:30 PM !! <<

including FREE Swapfest starting at 7:00 PM

Guest Speaker Topic: PA Turnpike Communications

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Philadelphia Area Repeater Association

Membership Information

PARA is an association of members that operate and support 19 Amateur Radio Repeaters and links in Southeastern Pennsylvania and Southern New Jersey. PARA was formed in 1970 and incorporated as an IRS 501c3 non-profit in 1973 through a merger of several repeater groups.

PARA repeaters serve the Amateur Radio community for normal everyday hobby communications as well as provide a system for emergency and disaster communications. PARA also promotes technical developments which ham radio has done so much of in the past.

PARA has four quadrant repeaters and one regional system on the 2-meter band as well as other repeaters on the 224 MHz and 440 MHz bands. PARA also has an Amateur TV System that relays television signals in the Philadelphia and Wilmington metropolitan areas.

Your membership dues support those repeaters listed below and help assure availability for emergency communications: 146.76 MHz, 146.82 MHz, 146.88 MHz, 146.94 MHz, 146.97 MHz, 443.90 MHz, 223.86 MHz, 224.94 MHz, 224.98 MHz, 52.41 MHz, 439.25 MHz (ATV), and all links between the remote receivers.

Joining PARA

NEW MEMBERSHIP FEES AND DUES \$ 25.00
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5 YEAR MEMBERSHIP \$ 85.00 (\$90.00 FOR NEW MEMBERS)
LIFE MEMBERSHIP \$400.00
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ASSOCIATE MEMBERSHIP \$ 20.00 (non-hams) no voting privileges

Associate memberships, when licensed, may upgrade to full membership with no additional initiation fee.

Members also gain one free month on their membership for each new member you sponsor.

Corporate annual sponsorship memberships are also available: \$100, \$500, \$1000, \$5000, etc.

Annual sponsorships of \$500 or more will receive free advertising in PARA's newsletter.

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Please detach & fill out (PRINT) the form below and mail with a check or money order to:

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Membership Type: New Renewal Full individual Ham 5 Year Life Sr Life
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I CAN HELP WITH THE FOLLOWING: TOWERS ANTENNAS BLDG MAINTENANCE
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From the President, by Gene, K3DSM

Are you caught up in surfing the Internet or Satellite or Cable or Digital Widescreen TV? You could still keep you ham receiver on and maybe join in to ARDN. Read on, because Paul will give you something new to surf.

Ricochet was a wireless Internet service, using 902 Mhz, right in our ham bands, and transmits and receives data at 128K. Although the service went “belly-up” several years ago, it has become operational in Denver and California again. Pole-top units were abandoned in many areas and many of these units, along with the compatible modems, now appear on the Internet for sale. Ricochet modems are capable of communicating peer to peer. I was using mine at a distance of about 2.5 miles from my home to the nearest pole top unit near my store. Since they are lower in frequency and do better in propagation than WIFI, and also have much more power, they offer interesting possibilities. Anybody want to attempt data with me over 900 Mhz? I still have my Ricochet modem. We might even want to combine these with the project in the next paragraph.

ICOM has new Voice/Data equipment about to be released. The ID-1 is the mobile-base unit and looks very interesting. It operates on 1200 mhz and can carry data at 128K at the same time as voice. There is also a repeater system for it that will carry higher speed data between repeaters, and a portable is expected within the year. N3UD, Paul, and several others, have evaluated the technical aspect of the equipment and have seen it in operation. Paul has even come up with a fairly decent plan as to how it can be used in ham service in this area, providing a totally independent data network, and it just might be able to provide a very valuable service in times of emergencies. This involves setting up a simple web and mail server on a computer, totally isolated from the Internet, carrying ham and related emergency information, maps, plans, pictures, etc. Maybe even a free web page for all users. There could be a gateway to send email to the regular Internet. Most of us realize that normal facilities such as cell phones, telephones, and even the Internet get jammed up and become almost useless during emergencies, even during bad weather. Why not a Radio Internet (Amateur Radio Data Network or ARDN)? ICOM provides technical details on their web site on how the system works. Paul claims he will probably be one of the first in this area with at least one ID-1. I might be right behind him.

On another digital note, we find Short Wave Broadcast stations either shutting down or going digital. I have interest in Short Wave because that’s what led me to ham radio. Digital gives clearer signals with a format called DRM. (www.drm.org) Even some US AM-FM Broadcast stations are going digital with a different format called IBOC (In Band On Channel). AKA called HD Radio.

Hams are playing with digital audio too. At least one manufacturer has an add-on unit that works with SSB and FM. Another manufacturer has even built in the digital codec to a standard radio. I have the AOR unit and am playing around with it to see just what it will do.

One of the more interesting digital devices on the ham market is the SDR1000, a software defined radio that uses your computer and sound card. It’s a little black box that contains almost all the circuitry of a radio, except control and processing. K3JV, N3UD, and others have been doing all sorts of experimenting with these neat units. The price seems right too. I have one on my wish list.

Have you “ported” yet? I ported my home phone last fall and recently also ported the store number to Vonage. I have now cut the cord on all landline based phones. If I ever move, I simply take the Vonage Router with me and the number goes along. I could keep my existing, long held, number theoretically, even if I moved to Florida or California. You can also port your landline home phone to your cell phone.

Verizon’s EV-DO wireless Internet (300K) service is coming soon to the Philadelphia area market soon and it will replace “1X” service (70-144 K). This is the next step to another service called EV-DV, which is 2.4MB, which will allow video streaming by wireless. Japan and Europe have had some of these services for sometime now. For \$80 a month, you can be anywhere a Verizon cell phone works and surf at high speed.

Check out my personal web pages at www.k3dsm.net or <http://para.k3dsm.net>

Notice to PARA members in the Northwest Quadrant

No members from Northwest Quadrant attended the PARA November 2003 General Meeting where elections were held for the Northwest Director.

PARA should have two directors from this quadrant to represent its repeater and interests. If you are interested in serving, please e-mail me, Gene K3DSM, at genem@bee.net. If there are more than one interested, we will announce an election. This is your chance to be involved with PARA with a vote on the Board of Directors. There are now only four scheduled Board meetings a year - it is possible to have an unscheduled meeting should the occasion arise. Even if you are slightly interested, so indicate so we can discuss it.

Thank you, Gene K3DSM, President
E-mail: genem@bee.net

FREE MAGAZINES

Written by Dick K3ITH

FREE to good home: ... QST, 73, and CQ magazines all the way back to the 1930's and 1940's. Anyone know a personal or public library looking for ham radio magazines? Please contact Fred W3PHL at 610-933-6918 in the evenings. Must pickup.

ADVERTISING in *PARA-graphs*

At the November 1999 Board meeting approval was received to accept ads in *PARA-graphs* to help offset ever raising printing and postage costs. The following per issue ad schedule was approved: Full Page \$125. Half Page \$75. Quarter Page \$50. Business Card \$25. Non-Commercial Classified 3 lines \$10. Repeater ad in following issue(s) will receive a 10% discount. Contact Dick K3ITH to place an ad.

INTERESTED IN WRITING FOR *PARA-GRAPHS* ??

Several great articles were submitted in past issues by your fellow **PARA** members such as Joe K3JV, Larry W2CAM, Hank W3GSC with help from Vince N3AGD, Gene W3ZXV, and Gene K3DSM. Please feel free to submit anything Amateur Radio related. Articles may be mailed to our PO Box, or e-mailed to k3ith@arrl.net

Thank you. Dick K3ITH

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PARA Swapfest 2004

And Main Meeting

Tuesday May 11, 2004 7:30 PM

St. Gertrudes Church Hall, 209 Merion Ave, West Conshohocken, PA
Easy to find and plenty of free parking
Talk in 146.76 MHz

First of all, we want you to come out and join us at the meeting. We have a good program, you can have a great time talking “eyeball” with fellow hams and guests, and you might unload or find something neat. Second, we want you to invite non-members and others from surrounding clubs. Make a copy of this page and spread it around to surrounding clubs. As we have done in the last few years, we are going to have our indoor flea market as well as tailgating in the parking lot. (no admission and no fees). Bring your unused equipment to sell, swap, and trade. There are tables available on a first come basis. *(Please don't bring junk to leave behind and please use care when placing equipment on the tables)*. There will be refreshments available and a 50-50. There will also be some incentives to join or rejoin **PARA**. We only have 2 meetings a year and it's about time you came out for a change. Take a break from the Internet and TV. We have started the meeting earlier and we end between 9 and 9:30 PM, so now what's your excuse?

The technical committee has been busy upgrading sites and a detailed prepared report will be given. The 76 repeater should be in full operation and better than ever. A status report on the grant will be made.

The 94 repeater is more alive than ever with EchoLink and our alliance with Chester County ARES RACES is better than ever.

PARA's "ROLL"

PARA membership is holding. There is better activity on 82, 94, and 76 both during the day and evening. Meetings have been better attended. The Board is working hard for its members with fewer meetings and better contact by email.

Look to <http://para.buxcom.net> and <http://para.k3dsm.net>

Worcester Site on Emergency Power

PARA has obtained, with the help of Vince, N3ATD, an Uninterruptible Power Supply worth about \$6000 (for a lot less) that will keep the 76 Worcester site on the air for extended periods of time. The supply is heavy duty and designed for cell sites. Previously, Mark, KA3VTM obtained some heavy duty batteries, and now the package is in service, all working together.

PARA BOARD OF DIRECTORS MEMBERS AND ASSIGNMENTS

<u>TERM</u>	<u>POSITION</u>	<u>NAME</u>	<u>CALL</u>
2004/2005	PRESIDENT:	Gene Mitchell	K3DSM
2003/2004	VICE PRESIDENT:	Pete Butler	WB2B
2003/2004	TREASURER:	Paul Tabatschkow	N3UD
2003/2004	CORRESPONDING SECRETARY:	Mark Sardaro	KA3VTM
2004/2005	RECORDING SECRETARY:	Larry Gasperone	W2CAM

DIRECTORS:

2004/2005	NORTHEAST	Bud Batyi	N3JQB
2003/2004	NORTHEAST	John Brochon	K3ZFD
2004/2005	NORTHWEST	(vacant)	
2003/2004	NORTHWEST	Stan Bentley	KB3EXB
2004/2005	SOUTHEAST	Joe Ruder	N2SXH
2003/2004	SOUTHEAST	John Goheen	KB2ADL
2004/2005	SOUTHWEST	Al Rabenau	W3AHR
2003/2004	SOUTHWEST	Joe Vilardo	K3JV

PARA-graphs Editor & Publisher

Dick Stewart

K3ITH

E-mail: para76@juno.com

Web Site: <http://para.buxcom.net>

PARA MEMBERSHIP EXPIRED??

Do you know when your PARA membership dues are due? It's real easy to check. Just look at the mailing label on this issue of *PARA-graphs*. The first line contains your call letters and membership expiration date; the format is a 4-digit year followed by a 2-digit month. If your membership expiration date is circled in **red** then your **PARA dues are now due**. Please send a \$20.00 check payable to **PARA** to:

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Thank you for renewing promptly!! **If you viewing this issue in softcopy** you may also send e-mail requesting your membership expiration date. Please send your request to: para76@juno.com

MOVING ???

If moving, please notify **PARA** of your new address as soon as possible. The Post Office will **NOT** forward your mail after 30-days. With each issue of *PARA-graphs* several copies are returned by the Post Office marked "**RETURN TO SENDER, NO FORWARD ORDER ON FILE**". Please forward your new address so we may keep our database up-to-date and, of course, *PARA-graphs* in your hands.

WELCOME OUR NEWEST MEMBERS

Please welcome the following new PARA members:

Greg N2NHL

The following thanks to the ARRL and THE ARRL LETTER dated April 16, 2004:

==>FCC PROPOSES WIDE-RANGING CHANGES TO AMATEUR SERVICE RULES

The FCC has released an "omnibus" Notice of Proposed Rule Making (NPRM) that seeks comments on a wide range of proposed Amateur Service (Part 97) rule changes. The FCC also denied several petitions for rule making aimed at altering portions of the Amateur Radio regulatory landscape and ordered minor changes in Part 97. The NPRM is a result of a dozen petitions for rule making, some filed more than a year ago and a few dating back as far as 2001. Comments on the proposals put forth in WT Docket 04-140 are due by Tuesday, June 15, with reply comments by Wednesday, June 30. Among other changes, the FCC has recommended adopting the ARRL's "Novice refarming" plan <<http://www.arrl.org/announce/regulatory/refarm/>>.

"Because the ARRL petition addresses the operating privileges of all classes of licensees on these Amateur Service bands, we believe that the ARRL petition provides a basis for a comprehensive restructuring of operating privileges," the FCC said in its NPRM. "We note that, as proposed, no licensees would lose any spectrum privileges and that General, Advanced, and Amateur Extra Class licensees would gain spectrum for phone emissions, one of the most popular operating modes on the HF bands."

The ARRL referenced its Novice refarming proposal in its recent Petition for Rule Making, RM-10867 <http://gullfoss2.fcc.gov/prod/ecfs/retrieve.cgi?native_or_pdf=pdf&id_document=6516083735>, which, along with three other petitions (see "FCC Invites Comments on Amateur Radio Restructuring Plans," <<http://www.arrl.org/news/stories/2004/03/24/2/>>) remains open for comment until April 23.

The FCC also has proposed essentially eliminating its rules prohibiting manufacture or marketing of Amateur Radio Service power amplifiers capable of operating between 24 and 35 MHz. Originally put on the books in 1978 to keep high-powered amateur amplifiers out of the hands of CBers, the rules now "impose unnecessary restrictions on manufacturers of Amateur Radio equipment and are inconsistent with the experimental nature of the Amateur Service," the FCC said.

The FCC additionally proposed a rule change that would make Kenwood's Sky Command system legal for operation within the US. The proposed amendment to §97.201(b) of the rules would permit auxiliary operation on 2 meters above 144.5 MHz--with the exception of the satellite subband 145.8 to 146.0 MHz--in addition to frequency segments already authorized. The Sky Command system permits the user to operate certain Kenwood equipment remotely via a VHF/UHF handheld transceiver.

In response to an ARRL petition, the FCC proposed extending the bands available for spread spectrum experimentation and use to include 222-225 MHz. On its own initiative, it also recommended including 6 and 2 meters as well. Current rules limit SS emissions to frequencies above 420 MHz.

Among other changes, the FCC also proposed to prohibit acceptance of more than one application per applicant per vanity call sign; permit retransmission of communications between a manned spacecraft and its associated Earth stations, including the International Space Station; allow current amateurs to designate a specific Amateur Radio club to acquire their call sign in memoriam; eliminate §97.509(a) of the rules, which requires a public announcement of volunteer examiner test locations and times; and add to §97.505(a) to provide Element 1 (5 WPM Morse) credit to any applicant holding a Technician license granted after February 14, 1991, and who can document having passed a telegraphy examination element.

The Commission ordered some changes in Part 97 without requesting comment. It ordered, among others, the revision of the definition of an "amateur operator" in §97.3(a)(1) to reflect that entry in the FCC Universal Licensing System (ULS), not a license document, determines whether a person is an Amateur Radio operator.

The FCC also adopted a technical change--in line with a recent amendment to the international Radio Regulations--to specify that the mean power of any spurious emission from a new amateur station transmitter or amplifier operating below 30 MHz be at least 43 dB below the mean power of the fundamental emission, 3 dB greater than the current requirement.

The FCC turned down a petition would have established distinct CW and phone segments in the 160-meter band. Although a majority of commenters supported the proposal, the Commission said the current voluntary band plan "adequately accommodates the operating interests of all licensees who use the 160-meter band because it was based on input from those who use this spectrum."

Among several others, the FCC turned down petitions that would have imposed restrictions on the time, length or transmission frequencies of bulletins or informational transmissions directed at the amateur community. Also denied was an ARRL request to add to the special event call sign system certain call sign blocks that designate territories and possessions that have no specified mailing addresses. The FCC suggested using self-assigned indicators instead.

The FCC Notice of Proposed Rule Making

<http://hraunfoss.fcc.gov/edocs_public/attachmatch/FCC-04-79A1.doc> in WT Docket 04-140 is available on the FCC Web site.

As soon as the document has been posted, comments on the NPRM may be filed via the FCC Electronic Comment Filing System (ECFS) <<http://www.fcc.gov/cgb/ecfs/>>. Click on "Submit a filing." To view filed comments, click on "Search for filed comments." In either case enter the NPRM number in the "Proceeding" field as "04-140" (without the quotation marks).

==>ARRL REQUESTS FILING DEADLINE EXTENSION IN BPL PROCEEDING

The ARRL has asked the FCC to extend the deadline for comments and reply comments by 45 days in the Broadband over Power Line (BPL) Notice of Proposed Rule Making (NPRM) in ET Docket 04-37. Comments now are due by May 3 and reply comments by June 1. Although the FCC does not routinely grant such time extensions, the League said it wants to allow time for the National Telecommunications and Information Administration (NTIA) <<http://www.ntia.doc.gov/>> to conclude its study at BPL field trial locations. The ARRL said it anticipates the NTIA study to go public very soon, allowing only a couple of weeks at best to evaluate its conclusions and incorporate them into comments in the proceeding.

"This proceeding stands to have a profound effect on the Amateur Radio Service, and a full and complete opportunity to evaluate the results of the NTIA study is critical to the ability of ARRL to respond in a meaningful manner to the proposals in the instant Notice," ARRL said in filing its request April 9. "At the same time, there is no need for any rush to judgment in this proceeding, since BPL trial sites are only now commencing operation."

If the FCC okays the request, the comment date would move to June 14, and the reply comment deadline would become July 16. Granting the request, the ARRL contended, "will have no adverse effect on any interested party to this proceeding."

The League said the new deadlines would provide everyone with approximately 60 days to review and evaluate the NTIA's study before having to file comments. "Should the NTIA report be substantially delayed in its public release, ARRL reserves the right to request additional time as necessary," the League said.

Earlier this year, FCC Chairman Michael Powell turned down a request by US Rep Greg Walden, W7EQI (ex-WB7OCE), who--as a member of the House Subcommittee on Telecommunications and the Internet--had asked the chairman to delay further action on the BPL proceeding until the NTIA study had been completed and

stakeholders had had a chance to evaluate it before commenting. Powell assured Walden February 3 that the FCC would give "thorough consideration" to all BPL studies before it takes any final action in the proceeding.

For more information on BPL, visit the "Broadband Over Power Line (BPL) and Amateur Radio" <<http://www.arrl.org/bpl/>> page on the ARRL Web site.

==>UTILITY ENCOUNTERS MIXED SUCCESS IN AVOIDING AMATEUR SPECTRUM WITH BPL

Amateurs in the Raleigh, North Carolina, area say electric utility Progress Energy and Broadband over Power Line (BPL) equipment provider Amperion have had "some success" in their efforts to avoid using Amateur Radio spectrum on overhead lines in their BPL field trial areas. But problems persist, and the process is far from quick and simple, says ARRL North Carolina PIO Gary Pearce, KN4AQ, who has been among local amateurs closely monitoring the Progress Energy/Amperion BPL trial. Their experiences could indicate what amateurs may face in areas where BPL is widely deployed.

"The mitigation process at this iteration of Amperion's hardware is neither simple nor precise," Pearce said earlier this month. Progress Energy/Amperion essentially are attempting to "notch out" or completely avoid ham radio frequencies, since hams have been the only HF users so far to file interference complaints. Complicating the effort, he says, is that the process is largely hit or miss, requiring field monitoring and feedback and sometimes another attempt to nail the target.

Pearce says he and Wake County ARES Emergency Coordinator Tom Brown, N4TAB--an engineer with extensive RF experience--met the week of April 5 with Progress Energy network engineer Bill Godwin at the so-called Phase II BPL trial areas to review the BPL spectrum in use. Amateurs also monitored the system using an Amateur Radio mobile station some 75 feet from the line.

"Bill Godwin had a chart showing where BPL could operate and avoid ham bands, and Amperion had adjusted its system to comply with that chart," Pearce said. Among other issues, Amperion missed the mark on 20 meters--starting a BPL signal block on 14.300 MHz instead of 14.350 MHz, he pointed out.

Pearce attributed the problem to a likely error in calculating the spectrum needed. BPL spectrum block edges "are not brick walls," he said, but taper off, with progressively weaker carriers remaining audible up to 100 kHz away, depending on the noise floor. "The remaining signals are very weak but would bother a home station within a city block or two of the power line." The goal is to be able to place BPL on a line in the immediate vicinity of a ham.

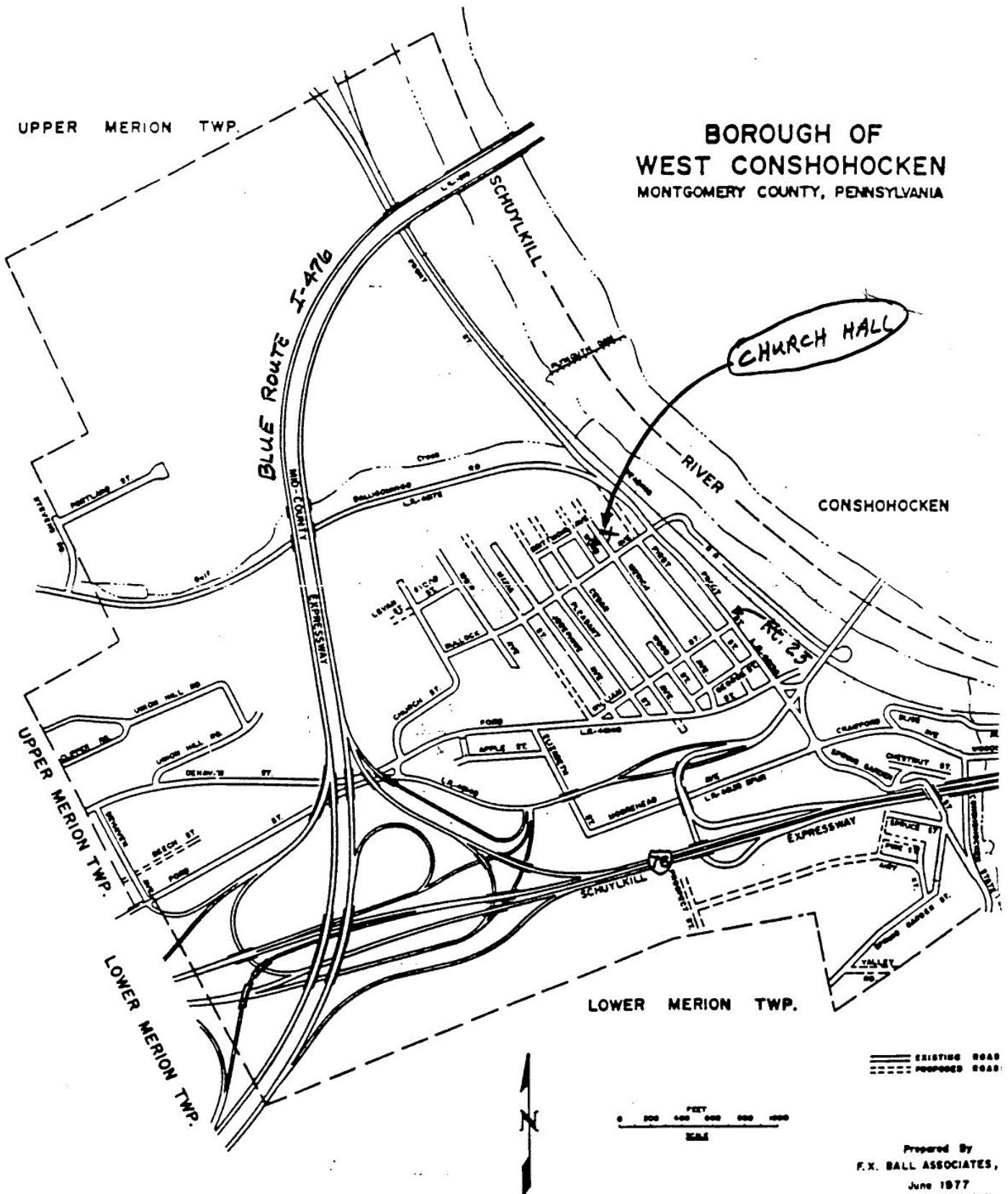
Unclear at this stage is whether the "notching" scheme will work in a more-dense BPL environment. "More spectrum can be used below 7 and above 30 MHz, but Amperion prefers to remain between 7 and 30 MHz," Pearce said. "If this spectrum can be rotated between line segments, and the notches can be deepened some, they may satisfy the concerns of hams for the Amateur Radio spectrum." But, he adds, no efforts are under way to avoid other shortwave frequencies.

"We appreciate this proactive attempt," Pearce said. "We will point out again that there are other public uses and users of the spectrum in between the ham bands." Amateur Radio operators "cannot sit back and say, 'Well, our problem's solved. Good luck with yours!'" Pearce says.

He says that for this reason alone, the North Carolina amateurs still consider BPL a flawed concept. And, while he credits Progress Energy and Amperion with cooperating to resolve amateur interference issues piecemeal, "we just want to make sure that everyone understands where the goal line stands."

UPPER MERION TWP.

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Take the Conshohocken Exit and follow the sign to Rt. 23 West into West Conshohocken. Bullock Avenue will be the fourth street on your left, turn left onto Bullock Avenue and go one block to Merion Avenue, use parking lot on your right. The church hall door entrance is on Merion Avenue itself closest to Bullock Avenue. Talk-in will be provided on the Valley Forge 146.76 MHz Repeater.

Prepared By
F.X. BALL ASSOCIATES,
June 1977
REVISED 4/4/89