

The HARC Spark

The Official Newsletter of the
Holmesburg Amateur Radio Club



April 2001

146.685 Mhz Repeater -Packet BBS KB3BTF 145.030 Mhz
Web Site <http://www.harcnet.org>

Editor: WA3PZO

PREZ SAYS.....

HARC is on the move!...

At the April 26th meeting we'll be taking a new look at the Digital Modes: PSK-31, MFSK and Beyond". Dennis Silage, K3DS, will bring a PSK-20, a 20 M single bander and a laptop with him. Dennis is always an interesting speaker and has something to share with us all. On May 31, we'll have a working demo of the Internet Radio Linking Project (IRLP) Network. Vic Tenaglia, N3IO (ex-KD3DE) will talk about this systems place in the evolution of "Enhancing the Communications Art" and "Promoting International Goodwill".

In operating events we will supply communications for the March of Dimes Walk-America on April 29th. We included about 700 brochures on HARC and ham radio. It will be interesting to see what response we get. Hope you are able to help out. The following weekend the Club will be staffing a table at the Warminster hamfest on May 6. We'll also be at the MARC hamfest on July 12.

Check out Riley Holinsworth's comments on page 3. This story hasn't made the national press. Also if you want to see if you can still take the Extra or General Exam, try our sample questions in each issue.

A big congratulations to N3DSS for winning the Icom HT. A big thanks to all who supported the raffle.

Don't forget our nets on Wednesday night and Sunday morning. There is always something to do. One World, One Language, Amateur Radio.

Until next month. 73s de WA3PZO

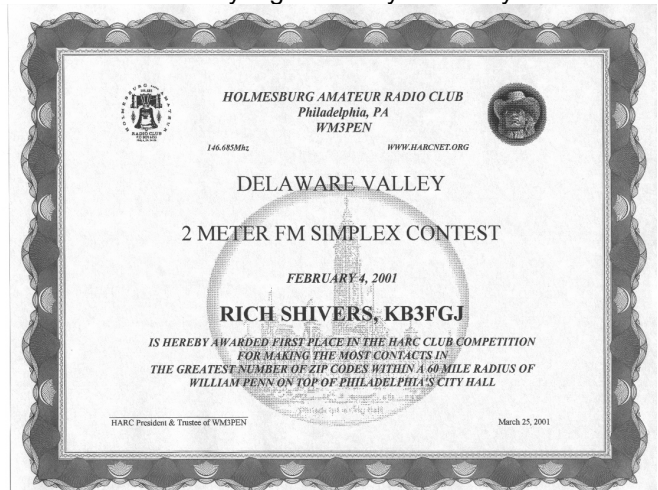
DELAWARE VALLEY 2 METER CONTEST RESULTS

CONTEST WON BY 1 CONTACT!

The first annual Delaware Valley 2 Meter Contest sponsored by the Holmesburg Amateur Radio Club has been won by Susan Persing, K3SUE, of Trooper, PA. Susan had a winning score of 28 contact points and 21 different zip codes. She nudged out Bob Lees, W3ZQN, of King of Prussia, by just one contact. Bob had 27 contact points and 21 zip codes.

In the low power category (10 watts or less) David Forlini, KB3BDT, of Willow Grove made 20 contacts in 14 different zip codes. No mobile logs were submitted, although several were worked.

Working the HARC Club call WM3PEN proved to popular with all stations submitting logs. They all got the extra bonus points. The Contest was held for 4 hours on a Saturday night in early February.



While the number of contacts do not compare to a major DX contest many took the opportunity to learn what their equipment would do without using a repeater. Rich Shivers, KB3FGJ, of Philadelphia, submitted an entry using one watt. "Being new to the hobby, this was my first contest, and I really enjoyed myself," said Rich. "I learned a lot about my equipment's capabilities and it has given me ideas for improving my station efficiency. I also learned more about operating practices."

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- 5 HARC helps WalkAmerica
- 6 Amateur Radio Spectrum Protection

MARCH-APRIL ACTIVITIES

SUNDAY	MONDAY	TUESDAY	WEDNESDAY	THURSDAY	FRIDAY	SATURDAY
22 Michigan QSO Party 10 Meter Net 9a	23	24 Chaverim 9pm	25 CW Practice: 7:30 Members net: 8:00	26 HARC MEETING 8pm	27	28
29 WalkAmerica 10 Meter Net 9a	30	1 May Chaverim 9pm	2 CW Practice: 7:30 Members net: 8:00	3	4	5 Ten-Ten International Net Spring CW QSO Party
6 Warminster Hamfest - Club Table	7	8 Chaverim 9pm	9 CW Practice: 7:30 Members net: 8:00	10	11	12
13	14	15 Chaverim 9pm	16 CW Practice: 7:30 Members net: 8:00	17	18	19
20 10 Meter Net 9a	21	22 Chaverim 9pm	23 CW Practice: 7:30 Members net: 8:00	24	25	26 <u>CQ WW WPX Contest, CW.</u>
27 <u>CQ WW WPX Contest, CW.</u> 10 Meter Net 9a	28	29 Chaverim 9pm	30 CW Practice: 7:30 Members net: 8:00	31 HARC MEETING 8pm	1 June	2

*Dates to Note: April 26 HARC Meeting - PSK and other Digital Modes
May 31 HARC Meeting - Internet Radio*

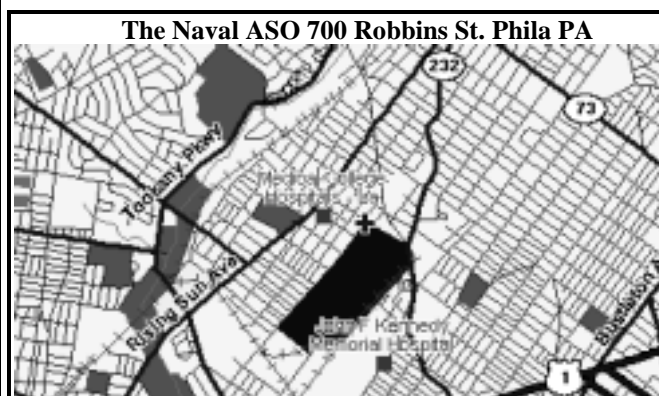
H.A.R.C. Board Of Directors 2001
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H.A.R.C. Maintains a Web Page @www.harcnet.org
 All members Online can be emailed via theircallsign @harcnet.org. Articles, pictures etc. submitted for the newsletter should be in standard ASCII or MS Word, .jpg or .gif formats and E-mailed to the Editor no later than the 2nd Saturday to be included in the next edition!
WA3PZO@Harcnet.org.

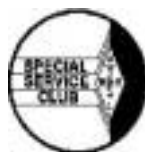
H.A.R.C. Nets meet on 146.685 weekly
 The Chaverim Net: Tuesday @ 9:00 PM
 CW Practice: Wednesday @ 7:30 PM
 Members net: Wednesday @ 8:00 PM you can listen to the Amateur Newsline & ARRL audio reports.
 SSB Net on 28.450 +- mhz Sundays @ 9:00 AM

H.A.R.C. Monthly Meetings - The board of directors meets on the 2nd Tues. @ 8:00 PM. General meetings are held the last Thurs. @ 8:00 PM.

+ Marks the boundary of the buildings, the actual entrance is located where Rt. 232 Intersects. Stop at the guardhouse and ask if you're not sure where to go...



H.A.R.C maintains the 146.685 repeater located @ Univ. of PA., Phila PA with inputs in Abington, N.E. Phila, and Cherry Hill, NJ; More Club Information & Member Applications can be had by contacting any of the Directors via E-mail. Info@harcnet.org, the web page <http://www.harcnet.org> or writing to HARC PO Box 6253, Philadelphia, PA 19136.

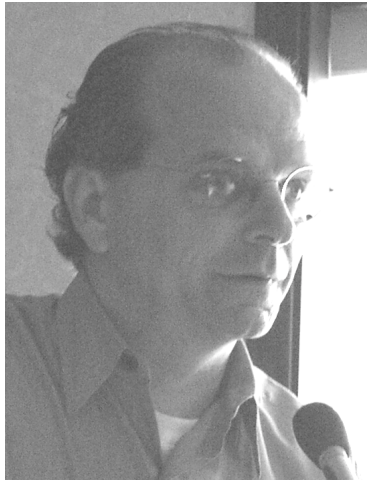


HARC is an
ARRL Special Service Club.

Hollingsworth Speaks in Western PA

(by Ron, WN3VAW) Pleasant Hills, PA, 14 April 2001 -- The FCC Enforcement Bureau's Special Counsel for Amateur Radio, Riley Hollingsworth K4ZDH, recently spoke to over 50 Amateur Radio operators in the Pittsburgh area. Hollingsworth covered a wide variety of topics involving the FCC and the Amateur Radio Service, covering enforcement issues, possible International regulatory changes, and some of his views for the future of the Amateur Service.

He emphasized several times the importance of "how we sound on the air" both domestically and internationally, and how critical that was at upcoming ITU conferences with other countries - conferences where the rule was, large or



"what a great gift (Amateur Radio) is," Hollingsworth .
photo by: Chuck Gessner
KC3ET

small, that "one country (has) one vote -- just like we do." He warned the crowd that there was a good chance that the 40 Meter Amateur band would be reduced by 1/3 (from 300 to 200 kHz wide) at the next World Administrative Radio Conference, and that it was very important that we conduct ourselves well on the air.

"Operate as if the whole world is listening!"

On cases of interference and other enforcement issues, Hollingsworth

emphasized the need for vigilance against the "proliferation of all that junk out there," citing some specific cases. He urged amateurs to "hear it, document it, and notify the FCC," and that while it may take 3 to 5 years to get back up to full enforcement levels of years past, enforcement IS back but we should not become complacent about it. He also reminded the audience that enforcement alone won't save Amateur Radio, as **"there is no rule against being stupid"** on the air.

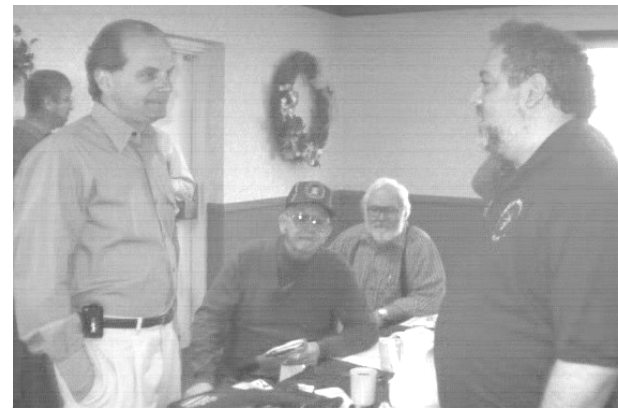
Hollingsworth compared the existing Amateur Radio spectrum to New York's Central Park, reminding the audience that it was "worth billions" and would become a target if the Amateur service did not manage itself properly. He pointed out that the new demands for spectrum today compared to as little as 15 years ago, and emphasized the need for the Amateur Radio community to have a strong National voice and presence - and that the American Radio Relay League is all we have.

Hollingsworth also discussed briefly the growing problem of restrictive zoning, deeds and covenants, mentioning some of the "horror stories" that the FCC had heard about CC&R's only disclosed at the closing or settlement, when it was too

late for the home buyer to do anything about it. And he brought up some recent legislation in Texas that would have essentially prohibited all towers (including Amateur) over 25 feet high throughout the state, that the ARRL was able to resolve in our favor. He emphasized **that the FCC would only take action to strengthen PRB-1 over deed restrictions if the Amateur community continued to provide the FCC with factual information and insist that action be taken.**

Hollingsworth also had praise for the Amateur community in their efforts to innovate new communications techniques, specifically mentioning the new digital PSK-31 mode as something "amazing" and a "big draw for people." He urged the audience to "spark your own enthusiasm" on this and other new communication modes.

"Amateur Radio is at a crossroads right now," and Hollingsworth added that with the convergence of computer and radio technology, **we have "the greatest potential" to grow in the last 20 to 25 years.** He pointed out that while it was important to try and draw younger people into the Service, we should remember that **Amateur Radio appeals to all age groups.** He also urged the Amateur community to continue to train and educate incoming amateurs, stating that "we have a duty to teach new operators everything we know." But he also urged us to "stay away from the negative operators" and to not "give them a safe harbor" as the survival of Amateur Radio was at stake." Negative operators need to learn that Amateur Radio is not the training ground for "the next Jerry Springer," and that with the technology now available to the FCC monitoring stations



"we have "the greatest potential" to grow in the last 20 to 25 years.." says Hollingsworth. Here he speaks with WN3VAW. Photo by Jacque N3ZEL

(despite the closing of many local field offices) that they "can and will be caught, sooner or later."

He also urged Amateurs to get more publicity out about themselves and what they do, stating **that "we're not equipped to give ourselves credit."** He cited the publicity following recent pirate attacks on shipping in the Caribbean as an example of what we should be doing, and singling out ABC's "20/20" program for getting the story

right - "the best publicity we've had in 20 years." But the lack of publicity of the importance of Amateur Radio to the Hurricane Watch and other events of that scope is something we need to do more about.

On the matter of the Amateur Service restructuring, Hollingsworth emphasized that it was "done" and that we would look back on this at the end of the decade as a "stroke of brilliance." He also pointed out that a side effect has been an upswing in the use by Amateurs of Morse Code communication. More Amateurs are turning or returning to the mode since higher speeds are no longer mandated, citing the analogy "the best way to kill a good book is to put it on the required reading list." He felt that this showed that it wasn't the code speed that was important, but the code itself.

Hollingsworth also touched briefly on the positive relationship that the ARRL President is developing with the FCC commissioners, and that the ARRL and that the ARRL will be giving a presentation and demonstration to the FCC Commissioners once all of the new members have been seated. He brought up that FCC Chairman Powell is very enthusiastic and thinks very positively of the Amateur service. But he also brought up that without Senator Barry Goldwater or FCC Commissioner Lee in Washington any more, we have "no built in safety mechanism" or "insurance policy" and that it is up to us. He also discussed the ARRL's upcoming Big Project to try and put an Amateur station in every elementary school in the country, and the great potential that AMSAT-OSCAR 40 will present to us, even with all of it's problems.

He concluded by reminding everyone present that we need to realize **"what a great gift (Amateur Radio) is," but that like any great gifts, it comes with great responsibilities too.**

. New Members Chosen for CQ DX and Contest Halls of Fame Frankford Member Included.

(From CQ) Four new members are being added to the CQ Contest and DX Halls of Fame, according to selection committee Chairman Bob Cox, K3EST. Algis Kregzde, LY2NK, and Ron Sigismonti, N3RS, were named to the CQ Contest Hall of Fame, while Robert Allphin, K4UEE, and Robert Eshleman, W4DR, will be added to the roster of the CQ DX Hall of Fame.

Ron Sigismonti, N3RS, of Glenmoore, Pennsylvania, has been contesting for four decades, generally winning or placing in the top five of whatever category and contest he enters. "Sig" is a longtime member and past president of the Frankford Radio Club, which nominated him, and has traditionally opened his home station to new as well as experienced contesters, providing a start to many of today's prominent contesters. His station has also been a testbed for all sorts of new equipment and software.

2 Meter Contest (continued from pg. 1)

John Dyckman, WA3KFT, of Aston, PA put the Mobile Sixers Club call, W3AWA, on the air. John enjoyed the contest and is looking forward to doing it again.

HARC President Bob Josuweit, WA3PZO, of Philadelphia, called the event a success for the first time. "We generated more interest than previous nationally sponsored 2 meter FM contests and we got people on the air for a short period of time without interfering with other family activities." Operators participated from New Jersey and Pennsylvania. A big thanks goes out to all who helped publicize the event.

Next year we hope to hear more club and home stations on the air. Watch for details for next year's event. If you have any suggestions, contact Bob (WA3PZO@HARCNET.ORG).

Late word from the Pittsburgh area is that Boulder, Colorado is talking about a similar contest.

What was the first electricity-generating station?

The world's first central electric generating station was Thomas Edison's coal-powered Pearl Street station, which opened in Manhattan in 1882. It supplied direct current (DC) to 59 customers, starting a revolution that would change the world.

One of the biggest problems with early electricity was that it was difficult to transmit the power farther than a few city blocks because of losses in the lines. Even so, by the end of the 1880s there were electric plants in many cities.

With the invention of alternating current (AC) by George Westinghouse, the transmission problem was solved. Because AC can easily be "stepped up" to much higher voltages, it could be sent across long distances. In 1896, the first long-distance AC lines were established between Niagara Falls and Buffalo, New York, marking the beginning of today's continent-wide electric grid.

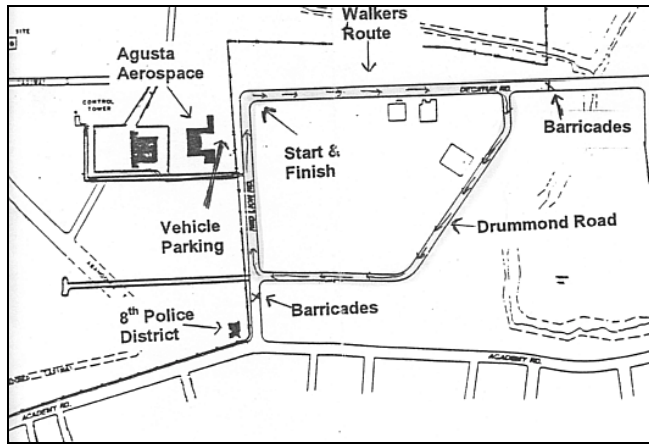


June 23-24, 2001

Always The Fourth

Full Weekend In June

NEW FIELD DAY RULES FOR 2001 DESIGNED TO ENHANCE THE FUN



March of Dimes WalkAmerica HARC Needs Your Help! Sunday, April 29

The annual WalkAmerica will take place on Sunday, April 29 across the Philadelphia area. HARC will be supplying communications for the Northeast Philadelphia walk. This year the walk will be held near Red Lion and Academy Roads. We have been asked to be on site at 7:00 AM. The walk starts at 9:00 AM. The early start has been requested because of the new location. Walkers should be done the 1.5 mile route by 12:30 PM.

In previous years the event was held at Lincoln High School and went through Pennypack Park. Concerns about walkers spilling out into traffic prompted the change in location.

We'll need about 8 operators for the event. Early locations include Start/Finish, 2 checkpoints, ambulance, pick-up golfcart, and a walker with the pack. If you are interested in helping out contact WA3PZO.

The northeast walk raised \$56,000 last year to further the work of the March of Dimes which is saving babies. This year the goal is \$61,000. There were about 500 walkers in last year's event and they are expecting another 200-300 walkers this year. The event will take place rain or shine.

HARC Prez meets with top ARRL Atlantic Division Officials

In upcoming weeks HARC Prez WA3PZO will be meeting with ARRL Atlantic Division Director Bernie Fuller, N3EFN, and all of the ARRL Section Managers in the Atlantic Division. The purpose of the meeting will be to get updates on ARRL Activities, discuss the progress of the ARRL "Big Project", trends in QRP, future technologies, and interfacing with the Boy and Girl Scouts. We'll give you an update next month.

Field Day 2001 will run from 1800 UTC June 23 to 2100 UTC June 24--as always, the fourth full weekend in June. Typically a club or group event, Field Day is the most popular operating activity of the year--and one of the most enjoyable for hams of all skill levels. A few rules changes this year affect bonus points for Field Day scores.

- * The non-traditional mode bonus has been expanded from 100 to 300 points for doing three separate demonstration modes.
- * Packet is back and will be counted as one of the three demonstration modes, but to claim packet credit, you must set up a portable digipeater system. Existing, permanent packet networks do not qualify for this bonus.

- * You may earn a 100-point bonus if an invited local government official or representative of one of the agencies that ARES serves in an emergency visits your Field Day site. To earn this bonus, the invited official must actually visit the site, not just be invited.

- * The message-handling bonus has been changed. You may now earn 10 points per message, up to 100 points total, for origination, relay, and delivery of formal NTS messages. In the past, only messages received and relayed were counted. The Field Day participation message to the Section Manager or Section Emergency Coordinator under rule 7.3.5 does not also qualify for bonus points under these rules. This marks the last year that the extra Novice/Tech station will exist in its current form. The Novice/Tech station is a non-counting transmitter, and its QSOs count for QSO point credit. The ARRL Membership Services Committee is considering several options to encourage participation by newly licensed hams.

The ARRL Contest Branch has a Field Day 2001 info packet, (<http://www.arrl.org/contests/forms/01fdpack.pdf>). This document is available in hard-copy format by sending an SASE with four units of postage to Field Day Package, ARRL, 225 Main St, Newington, CT 06111.

YHOTY Nominations Are Open

Nominations are for the Amateur Radio Newsline Young Ham of the Year Award for 2001. The award recognizes one young amateur under the age of 18 in the continental United States for his or her contributions to society through Amateur Radio. Nominating forms and information are available at the Amateur Radio Newsline Web site, www.arnewline.org. All nominations and materials required by the official rules must be received by Amateur Radio Newsline before May 30, 2001. Complete details and application forms also are available by sending a self-addressed stamped envelope to The Amateur Radio Newsline Young Ham of the Year Award, 28197 Robin Ave, Santa Clarita CA 91350.

**AMATEUR RADIO SPECTRUM PROTECTION S
ACT OF 2001 INTRODUCED- NOW IT'S OUR TURN.**

As was mentioned last month "The Amateur Radio Spectrum Protection Act of 2001" is now officially HR 817. Rep Michael Bilirakis of Florida introduced the bill on March 1 in the US House of Representatives. The measure has been referred to the House Committee on Energy and Commerce. The bill seeks to amend the Communications Act of 1934 by requiring the FCC to make no reallocation of primary Amateur and Amateur-Satellite allocations, diminish any secondary Amateur and Amateur-Satellite allocations, or make additional allocations within amateur allocations that would substantially reduce their utility without also providing equivalent replacement spectrum.

Want To "Make A Statement On The Hill?" Write Your Senators and Congressman

Many members of Congress will not consider co-sponsorship of comparatively small, technical bills like HR 817/ S 549 without concrete evidence of support from their own constituents. So if you'd like to help Amateur Radio make a statement on The Hill, consider sending him or her a letter. **Too busy to send a letter? Send a QSL card that simply says "Support Amateur Radio. Cosponsor HR 817/ S 549."** Don't wait for someone else to do it, because they may not, and then your state and district will not be represented. When you write, you can use the following sample as a starting point. Then insert your own, localized information about emergency activities or other benefits to the state and congressional district.

To E-Mail Your Member of Congress, see:
<http://www.house.gov/writerep/> Representatives.
<http://www.senate.gov/contacting/index.cfm> Senators.

Via The US Postal Service:

Office of (Name)
United States House of Representatives
Washington, DC 20515
Office of (Name)
United States Senate
Washington, DC 20510

In last month's newsletter we presented one sample letter that was written to members of Congress. Here's a sample letter suggested by ARRL. **(You may customize this letter)**

Senator or Representative's Address
RE: H.R. 817/ S. 549

Dear Senator/ Representative (name):

Writing as one of the nation's more than 650,000 licensed radio amateurs, I urge you to co-sponsor HR 817/S. 549, the Amateur Radio Spectrum Protection Act of 2001.

This bill is a nonpartisan, non-controversial measure designed to help protect the radio frequencies used by Amateur Radio volunteers in our state and elsewhere to provide emergency communication, technical experimentation and recreation.

Your co-sponsorship of HR 817/S. 549 will help ensure Amateur Radio's public service role for the people of our state.

I look forward to hearing from you.

Sincerely,

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HAMFEST CALENDAR

- May 6 Warminster ARC, Wrightstown, PA
- Jun 1 - 3 Rochester Hamfest/Atlantic Division Convention, RARA, Rochester, NY
- Jun 9 Columbia-Montour ARC, Bloomsburg, PA (EPA Section Convention)
- July 15 - Mid-Atlantic ARC, Kimberton, PA

HARC GOES TO THE HAMFEST

HARC will have a table at the Warminster ARC and the Mid-Atlantic ARC hamfests this year. We'll be promoting the Club as well as having some space for Club members goodies. Interested in helping out contact N3LXN or WA3PZO. The more people helping out, the less time anyone will have to spend at the table.

FCC EXAM QUESTIONS OF THE MONTH

(from the General and Extra exams)

What are the frequency limits for general class operators in the 20-meter band?

- A. 14025 - 14100-kHz&14175 - 14350-kHz
- B. 14025 - 14150-kHz&14225 - 14350-kHz
- C. 14025 - 14125-kHz&14200 - 14350-kHz
- D. 14025 - 14175-kHz&14250 - 14350-kHz

What exclusive frequency privileges in the 15-meter band are authorized to Extra class control operators?

- A. 21.000-21.200 MHz&21.250-21.270 MHz
- B. 21.050-21.100 MHz&21.150-21.175 MHz
- C. 21.000-21.025 MHz&21.200-21.225 MHz
- D. 21.000-21.025 MHz&21.250-21.275 MHz

Check answer on page 7.

Below Billy Penn?

Morning commutes into center city are not the fastest. Over the past few weeks I've had a chance to look at City Hall and try to figure out what is under the monumental statue of William Penn. Facing northeast and northwest are two Native Americans. On the southwest corner is a figure usually referred to as a "Pilgrim" and could represent either early Dutch or English settlers. On the southeast corner is a statue of a 24 foot, bronze, 25,000 pound statue of a Swedish colonial woman. She is carrying a child and a basket. She is facing the first Swedish precinct of Wicaco which includes several modern day landmarks including the U.S. Coast Guard Base, Pier 34, and Gloria Dei (Old Swedes) Church in the Delaware and Christian Street area.

Battleship New Jersey Amateur Radio Station

The late news from the "Big J" is things are progressing well. The Weekly Saturday group between 10 and 20 Amateurs report for duty on board the ship. The group splits up in to various work groups. Over 800 cables have been entered into a database, and are in the transmitter room, Facon #1 & Facon #2, Radio central and antenna locations. This computer database has located many cables that will enable us to connect the ship's antennas to the amateur radio station. (You would not believe the size of hard line cable) This will work out great for the ham station, as we are not allowed to change any of the historic appearance of the ship. The amateur station has a back room off of radio central- a good location to explain the radio room and be able to operate our amateur equipment.

We are looking forward to a special event station on Saturday May 26th; this will be to commemorate the commissioning of the New Jersey and Memorial Day. We will be operating on general HF bands and will also be on 2 meters surfing repeaters. I know that there was some confusion about the date of the special event. It is now correct on the ARRL Web page. We will be looking for a good time and hope to work all of you readers.

There is still much work to be done before the ship will be ready for it's public opening. The Home Port Alliance needs help to catalog the many artifacts that they have and are still receiving. They would like the BNJARS group to power up some control lights in the gun mounts to give the appearance as being ready to operate. Another big item is the telephone system. A new phone control center has been supplied and telephone volunteers will be installing and repairing phones. If you are familiar with telephone equipment please volunteer. To volunteer go to our web page www.qsl.net/bb62 and down load the amateur radio station application and send it in using the address at the bottom of the application. Come and have a great time working on the ship and meeting many new hams.

Till next month Joe Cramer, N2XYZ

QSLs STILL POPULAR

ARRL Outgoing QSL Service reports high card volume: The volume of QSL cards coming in from members for processing via the ARRL Outgoing QSL Service has been very high. Currently there is a processing delay of approximately 10 days. As of March 23, the Service had handled 415,000 cards this year. This includes cards going to US Incoming QSL Bureaus and cards sorted and mailed by contractor. Nearly 37,000 QSL cards were shipped this week. (ARRL Letter)

The following info is from ARRL DX Bulletin #15.

WESTERN MALAYSIA, 9M2. Bruce, KD6WW, will be active from April 20 to May 2. QSL via home call.

MALDIVES, 8Q. Peter, HA2SX, will be active as 8Q7KK from April 14 through May 4 on 160 through 10 meters. His main operating modes will be CW, RTTY, PSK31, and SSTV skeds by special request. QSL to the following address only: Peter Kalocsa, MARKO, Bakonyi ut 20, H-8441, HUNGARY.

TRINIDAD AND TOBAGO, 9Y. Charlie, N2IM, will be operating from Trinidad, as 9Y4/N2IM, April 26 through May 4. He is expected to be on 20, 15, 10 and 6 meters, and possibly other bands. QSL direct to N2IM.

How much do you spend on ham radio?

An interesting story is on the CNN financial network Web page about expensive hobbies. Ham radio is included in the list. It can be found at: http://cnnfn.com/2001/04/10/home_auto/q_cost_hobby/index.htm.

Here are two questions from ARRL's most recent membership survey, illustrating that the figures quoted in the article are certainly in the ballpark for averages.

In total, about how much do you have invested in your Amateur Radio station(s) (including home, mobile and portable equipment)? Mean - \$4470 Median - \$3610

In the last 12 months, roughly how much have you spent on Amateur Radio station equipment and supplies? Mean - \$861 Median - \$320

HARC Repeater Update:

HARC Technical Chairman Ron, WB3BDC, has been busy working on the Abington input. Ron's latest report says: "Well; after operating on the Maxar to remove some unneeded circuitry in the audio preamp section, I am pleased to say that the unit is working great."

The transmitted audio is real clear. I just need to make up some connectors to plug things together and make a power cable and fuse, set the audio levels and we are finished. It is putting out 12 watts. I had it working with the link as one unit. Should be completely done early next week. Thanks Ron and also to Frank, N3ZZN, for helping out.

EXAM ANSWERS:

1. (B) [97.301d]
2. (C) [97.301b]



HOLMESBURG AMATEUR RADIO CLUB

P.O. Box 6253 Philadelphia, PA 19136

"Serving the Community Through Ham Radio"

SEE YOU AT THE APRIL 26th MEETING!

NEXT MEETING:

DATE: April 26, 2001

TIME: 8:00 PM

LOCATION: NAVAL ASO (OXFORD AND MARTIN MILLS ROAD)

TOPIC: The New Digital Modes with K3DS