

MERRY CHRISTMAS



HAPPY NEW YEAR

5th club hamfest is history

1033 attendance breaks previous club record



This year's hamfest drew record numbers to the event at Chartiers-Houston High School. Initial tallies show that 1033 visitors passed through the high school doors. That's up from approximately 900 last year.

If you were there you might have wondered where were all the people. Because the club split the hamfest between two gyms at opposite ends of the school - it looked like a much smaller crowd. Looks can be deceiving.

Bet you can't wait till next year!

Christmas party after meeting

The annual WACOM Christmas party will be held at the conclusion of the general meeting on Thursday, December 3rd.

Those planning on attending should contact **Fay Frankenbery**, KA3VOM at 225-3885.

We need to have an accurate count so we have enough food.

The
W.A.COM
HAM

RACES Report

by **Bob Ketzell, KB3IN**
RACES Radio Officer



At this past months meeting I talked about an alerting system for ARES and RACES. The system is called "LiTZ" for 'Long Tone Zero'. This system will be used for alerting ARES/RACES members. This system has been adopted by the ARRL for national use. Repeaters that support the LiTZ system will be so indicated in the ARRL repeater directory.

The way the LiTZ system works is by a station sending a touch tone 'ZERO' for at least 3 seconds to activate a decoder. Part of the decoder then activates any other form of alerting devices. These can be the speaker of your radio, a

buzzer, a light, or what ever is needed to get your attention.

One reason for the use of LiTZ, is that the decoder can be simple and inexpensive. Another reason for using the LiTZ system is that if you are like me, you don't want to listen to ALL the chatter on the repeater(s). This way you can turn off your radio and have the silence that is wanted and still monitor the frequency in case someone needs HELP or and EMERGENCY arises. It would not be used for hams to initiate routine contacts for rag chewing or other nonessential communications.

I feel that this is one of the best system that has come

out in the past years that has potential. This system I feel will help us help others without having the big hassle of listening to the radio ALL the time. I hardly recommend the use of this system to ALL RACES/ARES and WACOM members. If you are interested in where one of these can be had, the ARRL has a template and parts list available free of charge. ALSO, I have names of suppliers for boards, parts, and/or wired kits. You can also look in the November issue of QST for this information.

So far in my articles I have talked about signing up with ARES/RACES and the LiTZ system. In the next few articles I will be discussing the role of RACES in emergencies, how to prepare for the emergency and training.

Until the next issue I hope you ALL have a VERY MERRY CHRISTMAS and A HAPPY NEW YEAR.

WACOM

Committee Phone Directory

A.R.E.S.	Walt Piroth, N3BKW	746-2327
RACES	Bob Ketzell, KB3IN	228-0425
EMA	Dave Smith, N3LIK	225-0346
MARS	Jack Kelvington, K3DMY	223-3219
President	Kevin Smith, N3HKQ	258-4153
Vice President	Bob McCloskey, KD3VX	695-8608
Secretary	Fay Frankenbery, KA3VOM	225-3885
Treasurer	Norm Torisky, N3KLR	745-6154
Education	Carmen Putorti, KA3PRO	746-3542
Special Events	Frank Holden, KA3UWW	228-0455
Hamfest	Bob McCloskey, KD3VX	695-8608
Hamfest	Bill Hill, W3IBT	746-1776
10mtr Net Mgr.	Joe Musante, WB3GTE	223-0897
Newsletter Editor	Jim McNutt, NW3X	941-5159
Packet/PBB	Joe Stout, KA3MZS	228-1090
Repeater	Sam Mayberry, W3CYO	222-0367
VE Testing	Regis Stinely, NZ3E	225-8263



Don't forget

VOTE

Upgrades

Russ Burhenn, N3NEL to General
Robert Mazza, KA3VYY to Advanced
Jack O'Korn, KA3YFZ to General

'93 Nominees for club officers

President



Frank Holden
KA3UWW



Dave DeMotte
N3IDH

Vice President



Ted Lockman
WB3BZK

Secretary



Steve Elliott
KA3UDR

Fay Frankenbery, KA3VOM
nominated but declined

Treasurer



Jack O'Korn
KA3YFZ

Norm Torisky, N3KLR
nominated but declined

**Additional nominations will be taken on
Thursday, December 3rd before elections.**

British to narrow channel width down to 5KHz

The British government is close to finalizing a mobile-radio specification that will call for voice and data channels of no more than 5KHz wide. Currently, professional mobile-radio (PMR) channels in the United Kingdom are set at 12.5KHz, generally recognized to be the minimum that will allow good quality speech. In other parts of the world, 25KHz channel spacing is the norm.

Specification MPT-1386, when ratified, will effectively legitimize a new modulation technology developed and engineered for production by Securicor PMR Systems Ltd., Bath England. Known as linear modulation, the technique relies totally on the use of low power, digital signal processing chips in mobile and fixed transceivers for its realization.

Managing director Peter Hilton explains that using linear modulation technology will double frequency spectrum efficiently, improve the quality of voice transmission, and increase data transmission rates for two-way radio. "Using linear modulation, we can slot in two 5KHz channels into existing 12.5 KHz channels, or five 5KHz channels into two contiguous 12.5KHz channels or one 25 channel" he says. This is a process that Hilton dubs "frequency farming."

He notes that existing systems can be retrospectively upgraded to use the new technology, while at the same time continuing to support regular

transceivers using either amplitude modulation (AM) or frequency modulation (FM). "It also supports trunking as specified by the United Kingdom's MPT 1327 specification," he says.

Hilton maintains that the technique can be applied to radio systems operating at any frequency, but shows the greatest benefits in the low band at around 70 to 90 MHz. At those frequencies, he claims full 3.7KHz bandwidth voice and 9600 bits/date transmission is possible using minimal-error correction. "Data communication at a rate of 9600 bits can be achieved using conventional modems connected to the audio input of a mobile transceiver," he says.

The modulation system employs an in-band pilot tone that keeps constant surveillance of the radio's path quality. If this shows signs of deterioration, digital signal processors in the transceivers will make appropriate adjustments using a Cartesian feedback loop to correct audio or data signal distortion. This allows for feedforward signal regeneration (FFSR), which gives fast real-time corrections for Rayleigh fading and Doppler effects in the radio path, thus compensating for radio frequency phase or frequency shifts. The end result is a very sharp cutoff of the signal paths at a bandwidth of 5KHz.

Hilton says the Cartesian loop transmitter

senses its own output signal through active control circuits to reduce nonlinearity and keep intermodulation well within the stringent limits set in the new specification. Drift and spurious transmissions are eliminated by the automatic calibration of the loop each time the press-to-talk switch is operated. In the receive mode, the frequency setting is continuously aligned to the base frequency.

Another advantage claimed for linear-modulation radios is relatively low power consumption, which suits the technology for use in hand-portable units. Senior development engineer, Dr. Bill Whitemarsh says that each radio currently uses TM 320C25 DSP chips made by Texas Instruments Inc., Dallas. Whitemarsh adds that using DSP chips allows for full software control over the radios so they can be easily adapted for specific applications that need specialized or simplified control.

Securicor PMR Systems Ltd. is gearing up to produce the new radios at a rate of 1000 per month, in anticipation of the imminent publication of the new standard. Initially, Hilton expects to find customers among public utilities and civil security services in Europe and North America. He asserts that these organizations are under continuous pressure to increase utilization of their existing frequency allocations.

RP: Electronic Design/Nov.92

ARRL pushes club calls to FCC

The ARRL has proposed to the FCC Private Radio Bureau to provide assistance free of charge in the administration of call signs for club and military recreation amateur stations. This proposal was enabled by Public Law 102-538, enacted by Congress and signed by President Bush in October.

The League's proposal would provide for the resumption of call signs for clubs and military recreation stations, a cause which the League has supported since new club and

military recreation station call signs stopped being issued in the 1970s.

The proposal, made in a draft letter of intent to the Private Radio Bureau, would have the League handle applications up the point of actual FCC endorsement and mailing to the applicant, which would continue to be handled by the Commission's Gettysburg, Pennsylvania office. No monetary transactions would be involved.

The FCC has not yet responded to the proposal.

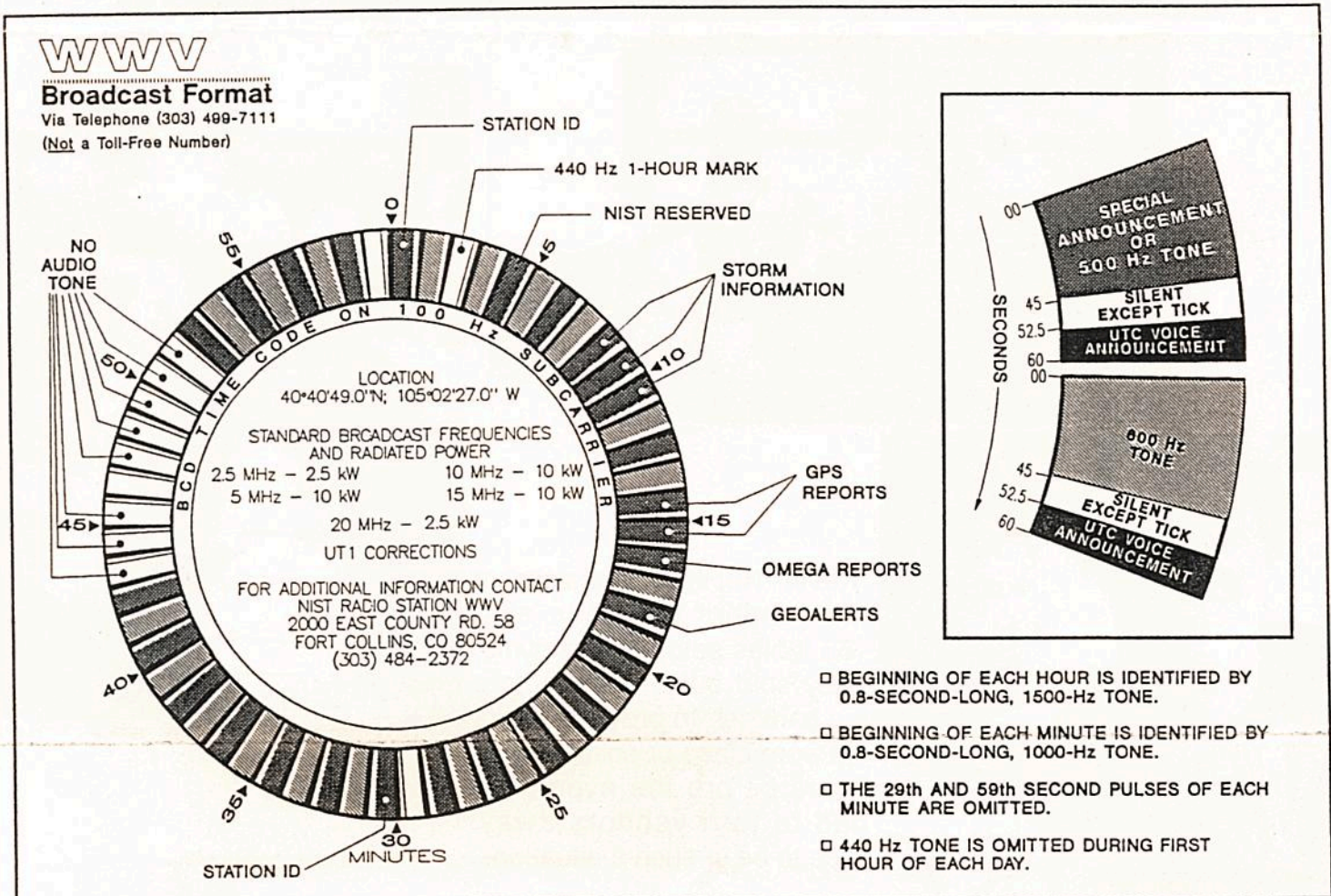
HAMFEST PRIZE WINNERS

1st Prize Bill Dawson,
Monroeville, PA
(FT-7477GX HF Transceiver)

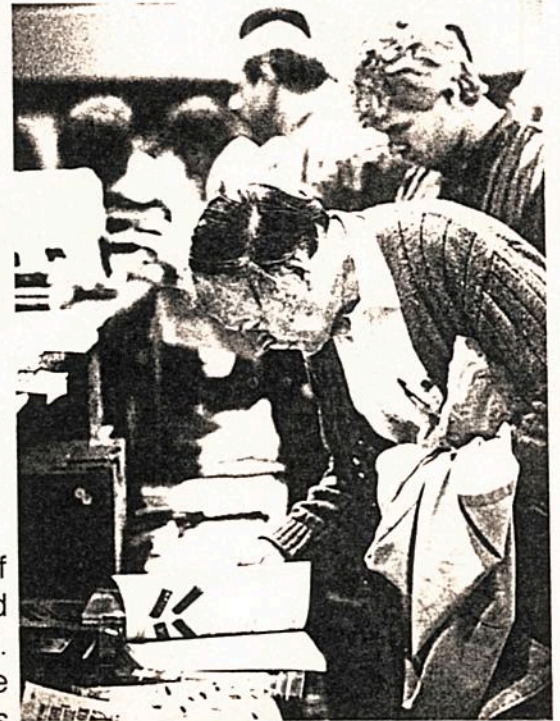
2nd Prize Vishnu Agrawala
Bridgeville, PA
(FT-5200 Dual Band Mobile)

3rd Prize Thomas Grogan
Washington, PA
(FT-411E 2M Handheld)

Paid Attendance: 1033



'92 Tri-state Hamfest & Computer Fair



Kevin, N3HKQ, in charge of the vendors this year, sold 156 tables setup in two gyms. They sold out a week before the hamfest. In previous years we were close or sold out only hours before the event. We had to turn vendors away. Nice to be in such a situation.

FCC gets tough on Amateurs

music on tact freq

A technician class amateur has been sentenced to three years supervised probation and 250 hours of Community service for transmitting on a tactical operations radio channel of the San Diego Police Department.

Twenty-two-year-old Roy L. Eyman, II, KC6TYR, also was ordered to deprogram his amateur radio equipment of all public safety frequencies, according to an FCC press release.

The FCC's San Diego office said that on September 16, 1991, Eyman was transmitting music on a San Diego Police Department tactical operations channel. At the time a police sergeant who also is an amateur radio operator heard the interference and used a handheld transmitter to direction-find the source of the interfering signal, the FCC said.

The officer heard the music over his amateur radio hand-held unit as well as hearing it actually originating from Mr. Eyman's vehicle, the FCC said. The sergeant then seized Eyman's amateur radio equipment.

The maximum penalty for unlicensed operation in a first conviction is a fine of up to \$100,000 or imprisonment of up to one year or both.

The sentence was handed down by a U.S. magistrate in an out-of-court settlement, the FCC said.

satellite interference - appeal denied

The FCC has suspended the Amateur and Commercial operator licenses of Thomas M. Haynie, WB4PVK, as well as revoked his amateur station license.

In September, 1990, Haynie of Virginia beach, Virginia, was convicted of deliberately causing interference to a communications satellite (a felony) as well as of a criminal violation for the unauthorized operation of a satellite transmitter. He received a suspended sentence, a \$1000 fine, and was ordered to perform 50 hours of public service work. The conviction was upheld by an Appeals Court in August 1991.

On July 31, 1992, the FCC ordered the license suspensions and revocation and notified Haynie of his right to a hearing on the suspension orders. Haynie responded with a letter to the FCC Private Radio Bureau, in which he did not ask for reconsideration of the suspension of his commer-

cial license but did argue for retaining his amateur advanced class operator and station licenses.

His request, saying that he is not a habitual offender and that his conviction was not amateur radio related. Haynie also said that he has properly operated his amateur station for more than 25 years and that he obtained his license at an early age, cherishes it dearly, and would do everything in his power to adhere to the rules in the future. He also argued that revocation of his station license would not be in the best interest of the public because of the role of amateur operators play during times of disaster.

The FCC found Haynie's arguments unpersuasive, calling his interfering with a communications satellite egregious conduct, and affirmed the operator license suspensions for their remaining terms, as well as revocation of his WB4PVK station license.



from the President

Kevin Smith, N3HKQ



I was recently organizing all the issues of the WACOM Ham I have received into a binder. I am a packrat by nature as I save all magazines and newsletters I receive (much to my wife's dismay). Naturally I started reading the back issues and one thing struck me about the club. One club activity which happily holds the general membership's interest is community service provided to Washington County's charities and EMA.

When we (the club) try new activities, interest and participation by the membership is high initially. As time goes on however, these activities become routine and interest falls off. That's alright though because it's a reflection of our member's priorities. We all lead busy lives and this is just a hobby we're organized around. But no matter what, the club always comes through for the important things.

Our participation in the Covered Bridge and Pumpkin

festivals has become less satisfying, particularly when we are not happy with our assigned locations and the club membership seems to have lost interest. Good suggestions about where the club's efforts should be redirected in the future were mentioned in recent issues of the WACOM Ham. These should be considered by the new club officers.

Finally, I want to encourage everyone to attend the December club meeting, not only because of the election of club officers, but also we are having the club's annual Christmas party immediately after in the meeting room. There will be food, soft drinks, and music for your enjoyment so please be there. Please let Fay Frankenberg, KA3VOM, know if you are coming so enough food can be ordered.

As for me, I have enjoyed being your club president this year and hope you can say the same of me.

letter thanks club members

Dear WACOM:

Early reports indicate that this year's Hamfest was successful. The biggest reason we enjoyed success is that a lot of Clubmembers agreed to help and fulfilled those pledges. This event is proof that if we work together a great deal can be accomplished.

Kevin Smith
Vendor Chairman
Walt Piroth
Prize Chairman
Frank Holden
Communications Chairman
Dave DeMotte
Parking Chairman

Special thanks are extended to Ted Lockman who is always working behind the scenes for the Club whether it's picking up the mail, setting up tables or whatever is needed at the moment. Thanks Ted!

Naturally without the support of the Ham Community, our faithful vendors, Jack, W9UK and Chuck, KC3ET who ran our Forums and all the others who had a hand in this Event we would not be enjoying the glow of a successful effort.

Thanks again to all.

73's

Bob McCloskey, KD3VX

Bill Hill, W3IBT

VE test results at hamfest

28 candidates - 18 upgraded

51 elements given

36 elements passed - 15 elements failed

VE EXAM SCHEDULE 1992

FEB MAR APR MAY JUN JUL AUG SEP OCT NOV DEC

ATA			18			18			17		
TAARA		21			20			19			19
GPVHF	1		4						3		5
SCARC		18			17			16			16
TRARC		21			20			19			19
UARC	16			17				20			20
SKYVIEW			11			11			10		
BCARC	15			9			8			14	
NHARC	1			9			1			7	
WACOM		12			11		13			22	

Amateur Transmitters Association (ATA)

Test Site: Carnegie Library (North Side)
Ben Freiland W3QJW (795-2775)
127 Spring Grove Road, Pittsburgh, PA 15235
Walk-Ins: OK

Butler County ARA (BCARA) (147.36 +)

Test Site: Boy Scouts Center
Gerald Wetzell/W3DMB (282-6777)
830 Morton Avenue Ext., Butler PA 16001
Walk-ins: No

Greater Pgh.VHF Soc.(GPVHFS) (146.610)

Test Site: Duquesne University Campus
Mellon Hall of Science-Bluff Street
Jim Cottrill, K3LIE (563-2379)
3119 Pioneer Avenue, Pittsburgh PA 15226
Walk-Ins: OK

North Hills ARC (NHARC)

Test Site: Northland Public Library
John Rosenwald, NM3P (931-2651)
400 Stevens Drive, Pittsburgh, PA 15237
Walk-Ins: OK

Skyview (146.64- 224.64- 443.450+)

Test Site: Skyview Clubhouse
Don McDaniels, KJ3Q (339-3363)
239 Michigan Ave., Lower Burrell, PA 15068
Walk-Ins: OK

Steel City Amateur Radio Club (SCARC) (147.03)

Test Site: Chas. E. Kelly Support Facility
Mac McKee/KC3RJ (279-8756)
138 Noblestown Road
Carnegie PA 15106
Walk-Ins: No

Triple "A" ARA (TAARA) (146.85 -)

Test Site: Comm. College Beaver County, Airport
Thom Peluso, KF3V (843-6560)
501 10th Street, New Brighton, PA 15066
Walk-Ins: No

Two Rivers ARC (TRARC) (146.73-)

Test Site: Penn State University, McKeesport
Phil Slaugh, KQ3W (466-5204)
514 Grant Ave. Ext., West Mifflin, PA 15122
Walk Ins: No

Uniontown ARC (UARC)(147.045+ 147.255+)

Test Site: Uniontown ARC Clubhouse
John Cermac, WB3DOD (246-2870)
P. O. Box 433, Republic, PA 15475
Walk-Ins: Yes

Washington Amateur Comm (WACOM) (145.49)

Test Site: George Washington Hotel
Ted Lockman WB3BZK (222-6473)
WACOM VE Exams, Box 1386 Washington, PA 15301
Walk-ins: NO

OM Calendar of Events for December 1992

TUESDAY		THURSDAY	SATURDAY/SUNDAY
DATE	2 Mtr NCS	10 Mtr NCS	
1	KA3VOM	KD3VX	3 WACOM Meeting
8	KA3YTT	N3KLR	5/6
15	KA3RNM	N3HKQ	12/13
22	NW3X	KA3VOM	19/20
29	N3BKW	WB3GTE	26/27

Tuesday 8:30 PM - 2 Mtr Net 145.49/443.3/224.4
Tuesday 9:00 PM - 10 Mtr Net - 28.333MHz
Sunday 9:00 AM - RACES Western PA Net - 3990.5KHz
Skywarn Nets - K3PSP/R - 146.79MHz
Club PBB - N3HKQ - 145.03
Digipeaters (WASHPA - 145.01 and W3CYO - 145.03)

Dec 3rd - Christmas Party after Gen. Meeting

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Washington Amateur Communications
WACOM
P.O.Box 1386
Washington, PA. 15301



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