



DX NEWS

*the magazine of the
National Radio Club*

SINCE 1963

Volume 53 Issue 24 Tuesday, April 1, 1986

Hi, this is Sue. I'll be taking over business until Mike comes back. We threw him into Lake Michigan a few weeks ago with a new set of cement galoshes...and then the lake froze over....now onto business.

The following contracts were approved and signed for the upcoming year with the AFL-CIO Printers Local 1173, Drivers Local 133, and Motion Picture & Writers Guild Local 42. Wages were set at 4% this year with the usual 4 days paid personal days, 3 weeks vacation and 1st day paid sick, HMO & dental plans, all retroactive to March 1st. Average employee wage is \$13.42hr.

Management employees received a 3% increase in pay, along with an additional paid holiday day. Dividends paid this year totaled \$3.47, shares: low 28 1/8, high 34 3/8. Our Fortune 1000 rating is B+. So...things are looking okay for the company. By the way, the rumors about the merge with TRW are just that, rumor. Onto other things....

If anyone else calls here into our answering machine and just leaves their first name, and I find out who it is, I'll cut off your subscription and you'll join Mike.

Available soon as a new product will be the NRC "You design them yourself" dinner jackets. If any of you coming to this years convention and banquet don't order one, I won't let you in. I'm tired of seeing those crudy looking t-shirts. Jackets come in 5 colors: red, green, yellow, light blue, pink.

DX DATING SERVICE. As a public service of the NRC, we are starting a column for all you lonely DXers that are interested in getting mates or at least a date. Check out page 6.

FM DX DIGEST. Yep, another new column, about time huh. Okay, send your catches to E.C. Info should look like the column inside this issue. Nothing more than 6 months old will be accepted. Single space and one side of paper and all that other stuff that Davy says. Check it out on page 6.

DDXD Column change. We'll run this one more time, remember DDXD column will be split into several smaller columns to take more of the load off DS. Dave's only duty will be DDXD - Dave's Front Yard (commonly known to us as "The Twilight Zone"). The only way to contribute to that column is by camping out in his front yard. Other members have volunteered their time (a surprise if they don't know) to do the following other columns. DDXD-Northwest, DDXD-Southeast, DDXD-Northeast, DDXD-Southwest, DDXD-Southbynorthwest, DDXD-Eastof5thstreetSouthofmain, and DDXD-Northeastbysouthwest. Please send in your reports to the respective column editor.

IDXD Column change. Yes, even Chuck will be getting a break. Chuck will handle the following column "IDXD-NoReports" and the other editor will handle the column called "IDXD-Reports".

CPC Test - Times are listed in Aqueeduct Park Racing Forms

Apr 1 WORM-1010, Slippery Rock, PA 0000-2359 Test will consist of tones, tone and more tones, plus a couple bait and tackle tips. Reports to: Babe Winlemanski, 82 Hook Ave., Slippery Rock, PA 2X4 P1Q Arrange for the NRC by Mike "Craw" Leer.

Apr 1 WBBA-950, Rostermove, NY 0125-0333 Test leading off with the National Anthem, then foul language, cleaned up jingles, triple tones, and catchy music. Reports to: Chuck Tanner 2B, 25 Bleacher Road, Rostermove, NY 21-721, Arranged for the NRC by Jerzy "Bobby" Bondz.

LOOK INSIDE:

(Well, go ahead. It won't open by itself!!!)

AM SWITCH

Jared Akeem-Starzium, c/o Radio, 401 N. Blazingsaddles Ave., Hennyounman, OH 44444

CALL LETTER CHANGE

Old Call	New Call
630 WPRO RI Providence	WONT
850 WHDH MA Boston	CELF
1000 KKOS CA Visa	CHRG
1130 WGGY MN Minneapolis	WEGE
1210 New MS Stickball	WACK
1340 WBCS WI Milwaukee	WRIT

Note: We have had a few complaints about not being able to read this column...may we suggest schooling.

APPLICATIONS FOR NEW STATIONS

830 MN Fungus Falls	50000 U2
890 HI Hawaii	50000/50000 U1
1160 GA Sandy Hair	10000/40 U4 (re-re-application)
1180 CT Fitzville	50000 U1

GRANTS FOR NEW STATIONS

870 LA Kenner	10000 U1
1200 WI Cambridge	1000/1000 U1
1340 NV Northwest Las Vegas	10000 U1

APPLICATIONS FROM EXISTING FACILITIES

880 WRFD OH Notworthit	- relocate station to nearest waste container
890 KMRC HI Hawaii	- relocate station to western edge of island

GRANTS TO EXISTING FACILITIES

550 KUZZ CA Bakesbread	- make changes in recipes
760 WCHP NY Complaine	- increase power to 50000w so everyone can hear them
1090 KING WA Seattle	- increase efforts to look for Herb
1340 WI Milwaukee	- replace bearings on rotating call letter sign

OTHERNESS

890 KMRC HI Hawaii	- owner request additional cabinet space to store 2200 panties and 500 black bras, as well as an additional back door
1200 WJAY CT Providence	- requests additional WATS lines and install a drive up window facility.

LIST OF TERMS FREQUENTLY IN AM SWITCH

PSSA	- (cold) Pizza served, Sounds awful, usually happens when Domino's can't find my house
U1	- referring to my column, U know who's Number 1
XR	- Elixir, the type of drink found only at NRC conventions
Stem	- a form of carbon and water found normally associated with black holes in space
Changes in Antenna System	- when someone cuts all the guy wires
RETURNED	- When my letters are undeliverable
DISMISSED	- When I can't make any sense out of the FCC info
LICENSE	- see crackerjackbox, where most stations get their licenses from

That's it for this time.

JA-S

FUNKY WINKERBEAN



AMERICAN HISTORY

AMERICAN HISTORY TRACES THE LIFE OF ONE AMERICAN, GEORGE FOONEMAN, FROM HIS BIRTH TO HIS DEATH! IT COVERS THE MAJOR EVENTS OF HIS LIFE, OF WHICH, BEING BORN AND DYING WERE PRETTY MUCH IT!

IF YOU WISH TO KNOW WHAT EVERYONE ELSE WAS DOING, THEN YOU'LL WANT TO SIGN UP FOR AMERICANS HISTORY!

DOMESTIC DX DIGEST - EAST

Dave Schmedley, 4,2 Callabet Road, Casserole Hills, Badminton, DE 19172-42126

Once again, here's the best NRC column written, accept no substitutes. When sending your tip sheets in, please type very lightly, use only one side, keep to 4 inch wide paper and don't write on the perforated edges, UTC, skip breakfast, and nothing over a day old. Don't follow these rules, and your name will be changed to Chuck!

SPECIAL

710 WCR NY NEW YOIK	- 4/1 2222 simulcasting as repeater station w/ SS type programming (KG-PA)
890 WLS IL CHUCKITANDGO	- 4/1 1212 heard doing remote at Disney World. (LM-ME), 4/1 1332 heard doing remote at Marcosland. (JS-CT)
1520 WSKR PA WEST CHESTER	- 4/1 0630 notes w/ s/on, Metromusic format, IDs as "city SlicKeR", ex-WCHE. (DS-DE)

MIDDAY-MIDNITELY

550 WICE RI PALLBEARER	- 4/1 1850 noted in passing w/ old rock and ad for Kaz Kett Ice Cream Bars. (CBR-MS) You're type of ad! (DS)
570 WAAX AL YEGADS	- 4/1 1930 bloody strong w/ smashingly good discussions. (BC-NH) Good show! (DS)
650 WKQ MN NAUSEATE	- 4/1 1929 awful in WSM null with Talknest and advice on how to get ill during a blind date, I'm getting sick of hering this one. (EC-MS) Don't tell me your problems! (DS)

790 WRUM ME RUMCOKE - 4/1 1810 slurpy signal, slurred words and tapes were played backwards. (HC-PQ) Wonder why? (DS)

880 WKXK NY GOODENPLENTY - 4/1 1833 breaking in w/ fast mx, details about a local strike w/ workers shouting "we're out" and "Big K" ads. (ES-MA)

920 WGHQ NY KINGSTONTRIO - 4/1 1900 very mellow sounds, Music for Static Lovers, and 3 ann'rs apparently staying on past power cut. (LM-NE) They enjoy their work! (DS)

1360 CRBC NB BATHTUB - 4/1 1804 ringing in w/ Bubbly Music, then signal went down. (BC-NH)

1560 KQYX MO JALOPY - 4/1 1933 weak and struggling along through mess w/ID. (CBR-MS)

1590 WGGO NY SALAMANDER - 4/1 1828 slipping in w/ ad for Pond's Cold Cream then onto rock mx. (KG-PA)

MIDSUMMERNIGHTDREAM-MIDDLE

570 CBML PQ VALE D'ICTORIAN - 4/1 0801 in and out gradually fading w/ nx & political farewell speeches, held my attention! (HC-PQ)

920 WMMN WV FAIRWAY - 4/1 0600 driving in, wide open w/ s/on owned by Bogey Broadcasting, ads for Greenery Lanes. This stn is really teeing me off, just sent my 18th report and still no answer. (KG-PA) Tek, Tek, quit sputtering around, why not just visit them. (DS)

1290 WOOV WI SPARTACUS-MOOVILLE - 4/1 0730 skimming thru w/ the Guernsey Farm Report & "Cow Radio" IDs. I had to really milk this one to get an ID. (LM-NE) Cheez! (DS)

1300 WDCK GA WADDLEBURG - 4/1 0837 scratchy signal w/ Spud Webb Outdoor Show, IDs "24 hour programming exclusively for ducks". (BC-NH) Really quacks me up! (DS)

1470 WJDY MD SALISBURYSTEAK - 4/1 0643 chopping others w/ high school lunch menus and "Food for Thought" programs. (HC-PA)

DIAL DILLIES

KG-PA/ Kurt Guarantee	Walntcracker, PA/ R203, A202, P101
LM-NE/ Lorna McCornhusker	Lincoln, NE/ Souperadio
CBR-MS/ Cristo Baskin-Robbins	Happyesburg, MS/ DX 44, wedgescoop
BC-NH/ B. "Moose" Conartiste	New Ipswitch, NH/ HQ145-Swindleradio
ES-MA/ Ernestine Snooperinski	Boston, MA/ HQ130 & Q looped
HC-PQ/ Handy Carpett	None's Habitt, PQ/ Dealtco van radio
DS-DE/ Only the shadow knows!	

That's it. And remember, you can call me ray, a DJ, or jay...but don't call me Chuck!

DOMESTIC DX DIGEST - WEST

Nancy Hardeharhar, 1987 Pacific Ave., Seelanes, AK, 99845.2555

DXD-West (is the best). When reporting follow the same rules as laid down in the East. Be sure to use deodorant on the envelope, I don't want any grimy or smelly letters!

SPECIAL

1260 KAMT CA SANS FRANCIS - 4/1 2008 IDs as "We Can't Get it Right", and mx without instruments, lots of acid rock stuff, ex-KQLR-KOIT-KYA-KOIT-KEEP-KQLR-KUIT-KUTT-etc. (DC-CA)

MIDDLE-GOODNIGHT

600 KCLS AZ FLAGPOLE - 4/1 1932 rising up thru dim conditions w/ nationality day parade coverage. (NC-MB)

890 KDMU UT ST. GORGE - 4/1 2000 wide open swallowing WL:8 and WQIS completely w/ sort of a chicken-hearted craving format, IDs as "Good Food 89"

1380 KOTA SD RAPID TRANSIT - 4/1 1900 just changed dial to find this, IDs as "Buss Radio" w/ generic mx and traffic info for the public at crosswalks, signal seems to come and go. (NC-MB)

1560 KARP WA SUMMER-TACKLEBOX - 4/1 2004 finally reeled this one in w/ illegal ID and automated music for worms, what a catch! (NH-WA)

1600 KTNS TX PIANO - 4/1 2045 tuned in and found this w/ program mentioning keys to success in collecting bottlecaps. (DC-CA)

MIDNIGHTIE -GOODDAY

750 CKGE ON TIMID - 4/1 0401 fear u/WSB w/The pointers "He's so Shy", played 750 times, IDs "We're Scared 7-5-0" (NC-MB) I read the CE locked himself in the bathroom! (NH)

1340 KSFE CA NEEDLES/PINS - 4/1 0258 on the edge of my seat pulling this out w/viewpoint show. (DC-CA)

1400 KPIN UT PRADA - 4/1 0335 hammering thru unbearably strong w/ bolshoi cw ballet mx and program "Health w/ Constantine". (NH-WA)

1590 KJET WA TATTLETALES - 4/1 revealing thru mess w/ demented gossip talk show host, then mx from Survivor. (NC-MB) This is idle information! (NH)

1600 KNOW CA FOMMELHORSE - 4/1 0520 apparently them looping east conducting vigorous testing activity w/ swing-type mx and "Oh Wow" IDs, unusual reception. (DC-CA)

NEWSHOUNDS:

DC-CA/ Dom Casket, Sande Inyourface, CA/ HQ440, M&Ms
NC-MB/ Neal Crayfish, Loseipeg, ME/ Superod Longreel, no radio
NH-WA/ You know me/ FR47, R. Wesson Loop

Dead Chicken Patrol

Sussex County in Delaware is the chicken capital of America. Ergo, it also leads the country in number of dead chickens on the road. To keep track of the fowl fatalities, radio station WSEA in Georgetown has instituted the Dead Chicken Patrol. Every time motorists spot a flattened chicken, they call up the station. WSEA responds with the hourly Dead Chicken Updates: a screech of tires, the death cackle of a chicken, and a report on where the fresh corpse is located. The creed of the Dead Chicken Patrol is: "We really don't care who joins. We don't even care if your credit is good. The important thing is you're sick enough to look for dead chickens on the highway and call us. That way motorists will be able to avoid them or run them over, depending upon their disposition." (Delaware State News—submitted by John Weber, Dover, Del.)
Not many chickens cross the road safely in Delaware.—Editor



KORNY KANADIAN

AM Station News from Canada

KORNY KANADIANS! Knudes of de Knorth!

As promised, Johnny Canuck refused to do his column again, but I, Pierre La Puck, stole his latest information. He retired to his antenna farm in Sorry, BC where he raises little antennae. He tried raising baby chicks, but he either planted them too deep or too close together. So take dis, ya hockey losers.

- 550 BC CARI Metack(s Vancouver burb) ex KARI Blaine. Someone carried(ha, ha) the towers over the border to Kanada.
- 690 NS CMEN Sailor, Nova Scotia. S/on DJ says "Hello, Sailor".
- 730 UN COME Head, Ontario ex 740. Slogan: "The City That Gives..."
- 740 UN C-OHR Playone, Ontario now 730...ah! No more gambling music.
- 800 BC CSEA Senor, BC...now in Spanish & Swiss languages.
- 980 AB CUNE Eh(near Metro Brooks)...now on the air.
- 1040 SK COAT Hanger, Sask...a new twin! See 1080.
- 1080 SK COAL Dust, Sask. Music for the real black people. Coalminers!
- 1100 BC CEAR a pirate... "People's Republic of Upper Vancouver Island"
- 1130 BC CYOU Pyebie, BC. Ex CKWX & moved to nearby Byebye(the ferry terminal) "Sound of Waves"...Bye Bye! Get it, ya losers!
- 1230 NF VOTE Porme, Newfieland.
- 1260 PQ CHA Chacha, Keebeck
- 1320 UN COCA Cola, Ontario "New Taste Radio" heard with Pepsi ads.
- 1340 PQ CLAM Chowder, Keebeck
- 1340 NF VOLT Age, Newfieland(suburb of Goosed Bay) is OFF!
- 1340 NF VOM It, Newfieland ex VOLT...playing Barf The Magic Dragon.
- 1450 NB CMON CRAD--CGPOT. Oh look! Get down, spot. Are these twins?
- 1500 YT COKE Isit, Yukon. DJ talking about snow, powder. Ski ads?
- 1600 BC CON Job(near Langley). Is this a real one or a con job?

and thanks to the Canadian Broadcasting Casteration

EXPLOIT 86
WORLD'S FARE
VANCOUVER EH

73 Pierre La Puck



John R. Miller by Apr Pass 2/16/86

- 92.7 WJSM-FM MARTINSBURG, PA 4/1 1930 in with Rel. program then faded (HC-DE)
- 94.1 CBL-FM TORONTO, ON 4/1 2130 hd with nws reports. (CB-NY)
- 94.9 KJYK-FM TUBA CITY, AZ 4/1 1445 Beautiful Mx, ID, stereo. (TA-TX)
- 95.1 ???? IN, 4/1 1733 hd "Indiana" mentioned but not sure of city or calls, help? (CH-MO)
Could be either Ft. Wayne or Valparaiso. (BC)
- 95.5 WPLJ-FM NEW YORK, NY 4/1 1704 nws,wx, and into CHR format. (CB-NY)
- 99.5 KIIM-FM TUBA CITY, AZ 4/1 1245 heard faintly w/C&W then gone. (TA-TX)
- 102.5 KRNO-FM DES MOINES, IA 4/1 in w/ABC nx, then CHR. (CH-MO)
- 105.9 WELE-FM DE LAND, FL 4/1 1885 in w/C&W (BH-GA)

Not much of a column this time, but what do you expect for the first time, huh? Want more of the same, let HQ know.

Contributors:

I lost the list of names, oh well, next time.

DX DATING SERVICE

Nate King (401) 555-10VE
1620 Clarendon Road
Wadesboro, NC 27142-6093

Here's the column that's almost as exciting as the Youngstown Ohio white pages! To reply to an ad, write to the above address with a brief description of yourself along with your phone number and address, and don't forget the code number of the person you're interested in. To place an ad, it's the same as above, and I'll assign you a code number.

269 - Male, 27, hi-tech professional, like bingo, lawn carts, photographing science sites. Looking for YL who will twist dial on ICF's with me.

488 - Male, 94, semi-retired NYI DJ, looking for YL companion who would like to assist with study of effects of a full moon on medium wave signals.

495 - Male, 30, into Van Halen, Bruce Springsteen, and Perry Como. Prefer intelligent blonde, 5'5" to 5'7", with zip plus 4, hi!

6 - Male, 25, couch potato, favorite TV shows are A-Team, Dynasty, and WKRP reruns. Want to share couch with someone special.

302 - Male, 19, LW, MW, SW, ham, VHF, UHF, MDS enthusiast, looking for same. (Good luck! - ed.)

That's right, #6 is still waiting for a response! Maybe #6 should try a TV dating service! And how 'bout all you single ladies out there, send in an ad and get in on the fun! CUN14



WHOT RADIO
401, North Blaine Avenue
Youngstown, OH 44505

To the attention of Mr. Jerry Starre

Sir,

Our Engineering Head Office told me to give you an answer concerning the 24 hour operating system of a high power AM transmitter all night long with a 400HZ tone.

First, it is a less expensive operation and here are many explanations about that:

- 1- Hydro-Quebec overcharges us on everything else.
- 2- Also with this practice, we save on the overtime of our staff by dismissing all of them.
- 3- The stability of our equipment is better for other operations at the station, because as it's brand new, we never use it. Also, the all night transmitter never wears out.
- 4- The tone is necessary, why else would nerds like you write to us. Also, we cannot have the authorization to switch on another CBC Network because as such, there is no identification and it causes people like you who DX to become disgusted. This pleases us.

We hope these informations will give you heartburn.

Yours truly,

Pierre Larouche
Pierre Larouche
Societe Radio-Canada
1200 rue Warren, CF. 1986
CHICOUTIMI, Que.
97H 5G7

FL:vf
c.c.: Head Waiter - Montreal NRC



ZIGGY



If you're the owner of a longwire antenna, here is a brand new product that will greatly improve your reception WITHOUT adding an inch to its present length! This product was tried out in an experimental basis for over 10 years before it became known to anyone by the government of the South Pacific Island of Fibi-Fibi, well known for its vast quantities of ready to use Left Handed Bath Tub Wax!

What is the product boasted as the greatest DX'ers aid ever invented since the invention of static?

Why it's DOCTOR FOONMANS ANTENNA GREASE! That's right, DOCTOR FOONMANS ANTENNA GREASE!

How does this great product work, you ask? Simple! All you do is apply a thick coating of DOCTOR FOONMANS ANTENNA GREASE to ANY type of longwire antenna. It doesn't matter if the wire is 10 feet or 1000 feet long. Then sit back, turn on your radio and just listen to all the radio signals slide in! You've never seen anything like it.

This product is available for just a very limited time, the items used in this product can only be found at certain times of the year since it contains the prized OIL OF FOO, a tree that grows only in the hills of IOWA!

ORDER TODAY - DON'T DELAY! Send just \$4.65 in check to DOCTOR FOONMANS ANTENNA GREASE, P O BOX 24, CAMBRIDGE, NJ 00812. Tax extra - offer not valid in Alaska or New Zealand - local governments may ban its use due to high levels of noise - no stamps - don't call me Chuck - batteries not included. And if you write before 2/29, you'll receive the free booklet, '30 Things to Do with 3 in 1 Oil, 12 Illegal'!

This is an offer that only comes once every APRIL FOOLS DAY So Don't Miss Out!



DOCTOR FOONMANS ANTENNA GREASE works Great on Vertical Antennas as well! Here you see an actual photo showing an employee of the BBC Monitoring Service putting the GREASE on one of the many antennas used by the Service.



Berry's World

DX-PEDITION!

© 1974 Berry's World

by: Jaunti R. Thur
Technical Psychologist

'WJOT Radio 640 tested on December 23rd at 0100EST with 100 watts,' read the notice in De Eck Snooze. 'Despite a publicity barrage they received few reports, and those mostly complained of the weak signal.'

If you ask me, that's perfectly understandable. A station can only support a certain number of listeners at one time; it's just plain, old-fashioned Ohm's Law. Transmitters radiate signals by pushing electrons off antennas. Conversely, receivers pull electrons out of the ether to receive a signal, and that's where the Ohm's Law power formula ($P=I^2R$) comes into play.

Since the 'typical' antenna is 50-ohms nominal impedance let's look at two examples:

1. In an older tube set the B+ voltage on the plate of the RF tube is generally 250-300 volts. Punch a few buttons on your calculator, and you'll see that approximately 50 milliamps of RF current is sucked out of the ether by each tube receiver tuned to a given signal. Thus, a station transmitting 100 watts can support about 65 tube receivers with adequate signals.
2. Newer, solid-state, receivers are a whole different story, since they operate at lower voltages and Ohm's Law still applies. This time consider a typical 12 volt RF stage; work the formula and you'll see that each receiver draws nearly a quarter of an Ampere. Therefore, a 100 watt station can only support about 35 solid-state receivers with a good signal.

When you are DXing with the RF Gain cranked all the way up, this current drain causes a signal well to form around your antenna, and the 'right hand' rule applies. In addition, the sharper the 'Q' of your receiver's front end, the deeper the signal well and the stronger the absorption effect, causing even more signal to be grabbed by your antenna; something like magnetism. Naturally, horizontal antennas produce signal wells at the ends of the wire; vertical antennas form a signal well around the top of the pole (see illustrations in any antenna manual). These are not really so much 'wells' as 'whirlpools' and the suction effect can be devastating to a low powered station on a quiet winter night, when many DXers are tuning around.

WMBH
1450

WMBH • P. O. Box 1667 • JOPLIN, MO. 64802

FFC CHIEF SETS NEW A.M. ID STANDARDS

Washington D.C.
The Frequency Management Bureau, Station Log Requirement Division, Records Section Chief has stated, "That all regional and local A.M. stations will be required to identify on each quarter hour. We realize that this may create a hardship for some stations as this will cut into commercial advertisement time, however the level of co-channel interference has become extreme." The Chief, speaking at a luncheon for obese station owners. "We have monitored stations exceeding the maximum allowable interference level, which is set at 22.5% over maximum interference, and have discovered that such stations as WOKY-920 Milwaukee, was heard at our monitor station at Grand Island, Nebraska on 930KHz." The chief also stated that forthcoming will be agreements with both Canada, Mexico and Cuba.

Rx'd via Dan Bartek, Jr. Nebraska Farmers Journal 4/1 p17 section C

This explains both why major broadcasting stations run so much power and the phenomenon we know as fading. A major station has to provide a good signal to as many people as possible. A 50,000 watt station will support about 30,000 listeners; more than the largest quarter-hour share on record. Fading is caused by people tuning in and out; as someone tunes away the signal gets slightly stronger, and when more people tune in the signal gets weaker.

Let's go a step further; if you stay tuned to one station all the time the signal well will cause that station to gradually get weaker at your location and the tubes in your set will eventually overflow, creating what is known as grid leaks. This, it is a good idea to do frequent bandscanning to even out signal strengths.

But don't quit DXing; preliminary research indicates that there are a few ways to combat the absorption effect. Simplest solution is the use of a balanced antenna which, when properly constructed, can reduce the effect by up to 75%. Balanced antennas present higher impedance to signals, reducing electron consumption; they also give off electrons from one side as they absorb them on the other. This causes a ripple in the ether, but it does balance things. For those with more space and equipment available, the use of a buried antenna not only reduces the absorption effect by up to 99%, but also provides a lower noise level to the receiver, is a superb groundwave antenna, and has virtual immunity from lightning strikes.

Of course, nobody asked me...

1230 RADIO
4701 Caroline
P. O. Box 186
Houston, Texas 77001
Phone area code 713 523-258

STATION PROFILE

Tony Fizzlestick, 356 Jackrabbitstart St., Busfare, Ct 03560-0356

VIN - 630 Marvy's One and Only 100% Verification Station

Yes, I've finally found it! The station that will verify all reports! It was along trip, but I was finally able to see the station DXers around the world were talking about. VIN is located on the island nation, "Marvy", in the Caribbean. To get there, I took 5 metros, 4 trains, hitch-hiked, another train, 2 metros, a bus, a taxi, another bus, a ricksha, a subway, a jitney, stowed away on a cruise ship, and finally a camel (one humped was first class, two humped was coach).



It is owned by former hitman turned informant, Victor 'Igor' Nodice who was told, "no dice Igor", leave the U.S. or else in 1983. So, with the help of the natives or Marvelettes, he set up this station, named after his initials, the call sign of "VIN". In fact, all the natives who worked for him are nicknamed Vin. During my 8 hour ride by camel (two humped) of which I developed camel soreness, my guide pointed out the signs that showed the way to my destination. When I arrived at VIN, I identified myself as an NRC member and was showered by flowers, gifts, and bubblegum. These people just love visits by DXers, even unannounced.

After momentarily waiting, I was greeted by Vin, which is the only name Victor referred to himself. He was dressed in a long red velvet robe wearing a crown and a gold cane at his side. For over an hour, Vin never said anything. We just smiled and nodded at one another over a lavish lunch of exotic donuts, peanuts, potato chips, hot dogs, french fries, and other Marvy delicacies, plus beverages of beer and moonshine. I think he got drunk.

Later, Vin began to relate his tale starting as a young DXer to the present. His first radio was a speaker box from a drive-in, but Vin was frustrated because he could hear only one station. On his seventh birthday, Vin got a pocket radio, but that didn't last long when he sat on it at lunchtime in school. On his eighth birthday, Vin got a Hammerlund, but the grade school bullies broke that when he took it for show-and-tell. Some days later, he noticed an old man sitting with a large boom-box. Vin went over and kinda borrowed it. Vin was again hearing stations from all over the place. He wrote to every station he heard, but no one ever answered. Time after time he was turned down for a QSL. He even asked if they could just send an empty envelope, but the stations wouldn't even do that! As Vin grew older, he was disgusted with everything and began a life of crime.

One day, while waiting for his goons to get a client to talk, Vin was spinning the dial of his radio, hearing a new religious station, he decided to write for a QSL. A few weeks later came his first QSL! Suddenly he had found himself, a born again DXer! Soon Vin joined as many clubs he could find, went to all the conventions and meetings, contributed regularly to the publications, sent postage to all the stations, and double to the religious ones! He was reformed! He felt so good that he testified against crooks and the like and then was forced to leave the country.

Vin had to leave in such a hurry that he packed all his items on a raft and floated out into the sea. One night he was caught in a raging storm, lost all his gear and eventually washed ashore on this backward island nation of Marvy. The natives found him and nursed him back to health.

On this island is where Vin built his station. Equipment included two used Gates 50,000 watt transmitters for 24 hour operation. He set up his station on 630 KHz. The tower was built on top of the tallest coconut tree he could find. The building itself was constructed like a Taj Mahal with a jacuzzi on all 4 floors, tennis and raquetball courts were also included in the building.

For a format, Vin carefully chose programming so that everyone could enjoy the different styles of music making VIN easily recognizable on the dial. The format consisted of banjo-pickin' country, punk rock, elevator music, and for those late night listeners, march music. The station signed on the air on December 7th 1984, the day of his birthday.

After a week of paradise, or so it seemed, I had to leave on that long trip home. A native girl came up to me, put a wretch of sugarless gum around my neck and said, "You write again, we send verie, okay?". I couldn't respond, I was too emotional. This is the end, but I will never forget Vin, VIN, the other Vins, and all the Marvelettes!

Editors Note: Just this week, Vin was overthrown by the Marvelettes and escaped by surfboard (provided by the U.S. Government) to France...or was it Hawaii.

NRC 1986 GTG CONVENTION RESERVATION FORM

LABOR DAY WEEKEND - August 29, 30, 31 and Sept 1 in beautiful downtown New Castle

WELCOME to the state where hens are actually painted blue! In northern Delaware, there isn't too much to do, but here's some of the more interesting features: a visit to the spectacular New Castle Waste Treatment Plant, the giant auto junk yard outside Wilmington, paying the toll collectors on the Delaware Memorial Bridge, watch the smog come in from Philadelphia, and actually witnessing the local New Castle post office sort my club and DX mail! A great family vacation, too! The convention will be held at the Ramshackle Bar Grill & Casino in the old part of town.

Name _____ Phone _____ Address _____
 City/State _____ Zip _____ When arriving _____
 Roomates _____ No. in Room (no more than 10) _____
 Next of Kin _____

(We are not allowed to have beer inside the premises, only in the parking lot)

Choice of meal:

- 1) Cod liver oil soup, sale saltines, grits, okra, shoofly pie
- 2) Limburger cheese soup, "C" rations, hash, raisin cookies (previous used hockey pucks)
- 3) (vegetarian) Ground eye of gnat soup, Potato slop specially seasoned with epsom salts, chocolate covered ants
- 4) Chef's surprise

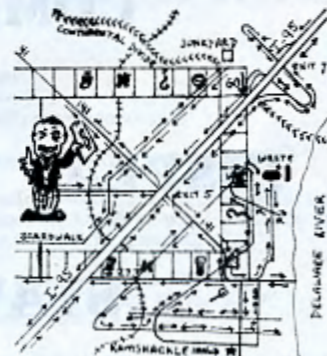
Registration fee: \$75.00 This includes a new pack of playing cards, \$5.00 worth of chips, banquet, market-style auction with a real hogcaller as our guest auctioneer, and some other kind of entertainment (a musical cake...if you know what I mean). If you prepay the fee, send check made out to me. Address will be given at the top of this form.

Reservations at the Ramshackle Inn are on a first come, first served basis. There are 30 rooms reserved in all: 3 with no mirrors or running water, 5 with cardboard box beds, and 5 with no windows but well padded. A can of D-con is provided with all advance reservations.

Guest speakers include, Minnesota Fats with tips on 8-ball pool and Amarillo Slim with tips on how to beat the pants (or skirts) off your opponent.

Excursions including the already mentioned but not limited to: a trip along route 273 to see at which points WRNK fades, a trip to WDEL to see if the fire extinguisher works, and DS will demonstrate sending the call letters of the station in morse code by using the transmitter on/off switch.

Directions (as prepared by Ron "Map Maker" Musco): coming in from I-95 north & south, take exit 7, coming from the east, take 41, then route 141, stop at Wendy's, Pizza Hut, and eat some food, get back on 141 and follow the WCHE bumper stickers that will be attached to any surface that will hold a sticker, turn at the fork in the road, take route 273, head straight to the Delaware River, we advise driving across bridge (your option if you want to take the water route), turn at dead end, if you have trouble and can't get there from here, stop at a phone booth and call a cab, I'm not picking you up!



Radio
GUATAPURI

APARTADO AEREO No. 51
 MARCONIS "GUATAPURI"
 VALLEDUPAR ICESARD

ONDA LARGA
 740 - Kilociclos
 Banda Preferencial
 30 - Kilowatts
 ONDA CORTA
 4815 - Kilociclos
 1.000 Watts
 Frecuencia Modulada
 92.5 - Megaciclos

la voz del cinaruco

AFRICA COLOMBIA SUR-AMERICA

1557 KCS

COMING SOON

THE GREAT



CAR STICKER SPOTTER
COMPETITION

DISPLAY THIS STICKER
AND
STAY TUNED



1171 KZS

RADIO "THE VOICE OF VIETNAM"

58 QUAN SU STREET, HANOI D.R.V.N

1470 KCS



ISSN 0737-1659 (13)
DX NEWS

the magazine of the
National Radio Club

— SINCE 1933 —

VOLUME 53 ISSUE 24 Monday, March 31, 1986

THIS IS THE REAL FRONT PAGE

Well, I hope you enjoyed the first 12 pages of this issue. I hope none of you believed the AM Switch section on page 2. We sure caught it last year when alot of you changed your logbooks. If you did it this time blame yourself, hi.

DDXD-East Two editions in one issue, Dave got more material over the past week so he decided that instead of waiting why not get it in, so here it is, page 17 has the 1st part and page 30 the 2nd. Same goes for the AM Switch, one follows the other in that section.

Log Updaters 1, 2, 3 and now 4 are available for US\$1.00 each. Get yours for your logbook from the NRC Publication Center.

Renewal notices posted on Mail Label Your mail label will be your source of notice that your DX NEWS is about to run out. The Top line (first line) of your address will contain one of the following (in this order): "First Notice", "Time to Renew", "Final Notice", and "Final Issue". As you can see you will receive 4 notices (winter renewals will receive 5, with an additional "Time to Renew" thrown in). This we figure should be more than enough notice, right? Yea, we thought so too. Anyway, Just start getting into the habit of looking at your label for info. It's the first line of the label. Canada & Foreign persons, we're still working out the bugs on your system, but it'll be something similar.

From the Miami Valley DX Club, comes word that it is putting on its 4th annual SWL-DX-Listener Forum at the Dayton Hamvention on April 25 - 27, 1986. This year the All Ohio Scanner Club (AOSC) is co-sponsoring the event. The Listener's Forum will begin Sunday Morning about 9:30 EDT and last about 2 hours. Any questions should be directed to Dave Hammer of the Miami Valley DX Club, 4666 Larkhall Lane, Columbus, OH 43229, Phone 614-471-9973 evenings.

CPC TESTS — Times listed are EASTERN Local Time

You'll get better returns if you include an SASE with your report.

And even if you don't hear it, at least send a postcard thanking the station.

Mar 31 KPCR-1530 Bowling Green, MO 0300 - ???, Voice, Code ID's, and music will be Monday used. Reports to: J. Paul Salois, President, KPCR Radio, Box 1, Bowling Green MO 63334 Arranged by Wayne Heinen and Dan Bartek for the NRC.

Mar 31 KURL-730 Billings, MT 0300 - 0400 This is a retest of the Feb test. Monday Reports to Mr. Clark D. Prim, CE, KURL Radio, Box 31038, Billings, MT 59107 Arranged by Wayne Heinen and Ken Chatterton for the NRC.

Apr 7 WGBQ-920, Kingston, NY 0100-0130 will be running an equipment test. Reports Monday to: Don Stewart, CE, 82 John St., Kingston, NY 12401. Test Info provided to the NRC by Laura M. McCusker, (employee at stn and NRC member!)

Other Magazines using CPC info **MUST** credit the NRC and the Arranger.

LOOK INSIDE:

14.....AM Switch	17.....DDXD-East	19.....DDXD-West
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30.....DDXD-East	31.....AM Antenna Design	33.....Synchronous AM Xstr
34.....Class III AMs	36.....Micro-MWDX-4 Unit	41.....Musings

Listen to HCJB "DX Partyline", 0230 UTC Saturday night, for the "AM Interlude" Program with Wayne Heinen. Other stations carrying NRC items, such as DX Audio Service material, include Radio Earth, Radio RSA, WBBI, and KCBI!

AM SWITCH

Jerry Starr, c/o WHOT Radio, 401 N. Blaine Ave., Youngstown, OH 44505

CALL LETTER CHANGES

Old call:	New call:	Old call:	New call:
580 *New AZ Tucson	KJMM 1460 WQLS OH Painesville	WBKC	
760 *New FL Brandon	WJCZ 1470 WVTY FL Dunedin	WLJU	
930 WJAX FL Jacksonville	WRXJ 1530 WCRJ FL Jacksonville	WJXW	
980 WKPJ KY London	WMAK 1560 WBKC OH Chardon	WCDN	
1030 *New KY Pleasure Ridge Park	WONS 1580 WJIK NC Camp Lejeune	WBQZ	
1050 WIGL GA Augusta	WFAM		

APPLICATIONS FOR NEW STATIONS

720 CA Atascadero: 1000/1000 U1 (competes with existing application)

GRANTS FOR NEW STATIONS

1150 MS Canton: 500 D1

APPLICATIONS FROM EXISTING FACILITIES

970 WJMX SC Florence: night power 3500 watts
 1140 WIXC AL Hazel Green: power to 20000 watts
 1180 WJF RI Hope Valley: power to 1800 (1000 CH)
 1190 WAYD AL Ozark: to 1200 kHz 10000 (2500 CH) D1

GRANTS TO EXISTING FACILITIES

840 KBLA LA Ball: relocate XR (new, not on yet)
 930 KAGI OR Grants Pass: night power to 1500 watts, antenna to U4
 1310 KIOT CA Barstow: reduce night power to 500 watts, changes in antenna system but will remain U4
 1350 WJAR SC Darlington: changes in antenna system
 1380 WOLA PR Barranquitas: changes in antenna system, mode to U1
 1480 WHBC OH Canton: relocate XR

OTHERNESS

650 KBKK NV North Las Vegas: CP no longer on FCC Database, see 840 below
 660 *App OR Portland: application for new station DISMISSED
 - KSKY TX Dallas: requests extension of CP for fulltime in Balch Springs
 770 KCHU AK Valdez: granted extension of CP for new station to 8/13 (I love this call letter... think about it)
 800 CKOK BC Penticton: move to 780 kHz stalled for the foreseeable future due to financial considerations
 820 WIQT NY Horseheads: here now ex-1000 kHz temporarily daytime only
 830 WADU LA Norco: granted extension of CP for new station to 8/1
 840 *CP* NV North Las Vegas: FCC Database shows a CP here for 50000/25000 U4. No call listed so evidently not a reassignment of KBKK CP which is now gone as noted above. Was granted 4-17-85 but it never appeared in any Public Notices. Not to be confused with 840 CP in Gardnerville, NV which is still current. Another of those left-field surprises from the FCC that keep it interesting
 Red Deer: move to 700 kHz scheduled for "June 1986"
 850 CKRD AB Rancho Mirage: both applications for new stations here DISMISSED
 1010 +App CA Milwaukie: application for power increase returned
 KRXK OR Florence: report that this station is on in error, bad info from another club's bulletin. KGUS is NOT on yet.
 1030 KGUS AZ North Palm Springs: application for new station DISMISSED
 +App CA Fort Deposit: expired CP reinstated and extended to 7/29
 1040 WLUL AL Hilo: transmitter under construction, on the air late spring
 1060 KAHU HI Hilton Head Island: fulltime CP is on the air, NSP
 1130 WHHQ SC Showhegan: requests extension of CP for move to 1160 kHz
 1150 WQMR ME Mechanicville: move to 1160 kHz expected by "mid-summer"
 1170 WMYI NY Static: granted extension of CP for new station to 7/29
 1213 WSBI TN Victoria: move to 1200 kHz anticipated by "this summer"
 1220 CKDA BC Bethel: this long-standing CP has been cancelled
 1230 WJUK AK Bisbee: this long-silent station was reported by several other DX bulletins as being back on the air with the call KESE. The truth is that they are still silent with no immediate plans to reactivate the facility. By the way, FCC Database still gives the calls as KBZB
 1240 KBZB AZ Lakeport: CP for move to 840 kHz cancelled
 1270 KWTR CA Kanab: requests extension of CP for new station
 1290 KKZN UT Deland: station is silent
 1310 WDLF FL Halley: move to 1330 kHz on back burner due to financial considerations, will remain on 1340 kHz indefinitely
 1340 KSKI ID

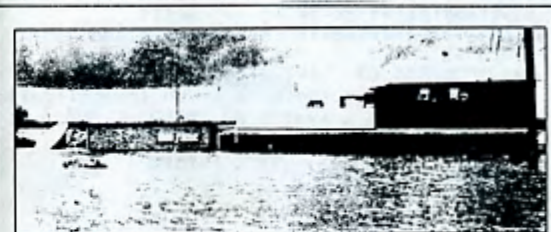
1390 KKDV CA Fields Landing: report that this station was on the air is evidently in error, there is no phone listing in the 707 AC for these calls as of 3-11 when we tried to call. Furthermore the FCC this week listed their application for extension of CP for new station as DISMISSED. We are looking into this further.
 1430 WPMK TN Knoxville: formerly silent, is back on with same Black format
 1450 KRZY NM Albuquerque: CP for 1090 kHz no longer in FCC Database, evidently officially CANCELLED
 1520 KJIA SD Sioux Falls: station is silent

All for this time, 73 and Good DX,

Jerry Starr

Jerry Starr & Buffalo K. Foonman

PS: Please excuse another missing AM Switch several issues ago. Despite being correctly addressed with full Zip-plus-four, the envelope with the AMS master was somehow sent to Birmingham, AL according to the postmark when it finally showed up at HQ. Thanks a lot, USPS! That's two lost in the last month! We have retyped several columns to consolidate information that was in the "missing" envelopes so you haven't missed any info, only experienced a delay on some of it.



Flooding fallout. Flooding due to heavy rains which hit the West Coast caused KIRO AM in Marysville, Calif., to go off the air on Wednesday, Feb. 19, and remain off until Tuesday, Feb. 25. The station's general manager, B. Paul Moore, said that although both the AM and FM transmitters escaped the waters, estimated damage to the studio was about \$250,000. KIRO first received reports that Marysville would be flooded on Monday, Feb. 17. "From that point," said Moore, "it was a battle to save the radio station as well as keep the public informed." Volunteers built a five-foot-high sand bag wall to no avail. Before abandoning the station, the staff transferred its EBS responsibilities to KUSA AM, KUSA City Call. With this flood, the third at its Marysville site, KIRO's management is now "definitely" thinking of relocating.

Ship has come in

The M.V. Communicator, the ship that served as the home of the former European pirate radio station, Laser 558, is now on the auction block in England. Overseesing the bids—the deadline is April 8—is London-based C.W. Kellok & Co. Laser 558, which had been anchored in international waters in the North Sea off Great Britain, left the air last fall and sailed to England. The station's failure was due, in part, to a lack of international advertiser commitments. Also, a British government ship was reportedly keeping close watch on traffic to and from Laser 558, tracking the origin of supplies for the pirate station. It is illegal in many European nations to offer supplies, such as food, water and technical parts, to offshore and unauthorized radio stations. Laser 558 made its debut in May 1984, beaming European contemporary hit music to most of Western Europe ("Riding Gains," June 4, 1984). The last known registered owner of Laser 558 was a Panamanian company, Eurad, S.A. *Bernard Shaw*

• **Statewide Broadcasting** has been found eligible for federal compensation for increasing nighttime power at **WVCGI-Coral Gables, FL** to 50 kw to offset Cuban interference. Approval was provisional, however, because the station hasn't fully carried out the power hike. *RA*

Engineering Tape

The FCC has produced a course on videotape that is designed to train nontechnical professionals in the basics of electronic communications systems. The "plain language" course includes basic electromagnetic principles and antenna theory. The tape, titled "Engineering For Non-Engineers," features FCC Policy and Rules Division Assistant Chief Ralph Haller, who has also worked as a consulting engineer.

The four-hour session consists of two VHS video cassettes and a study field guide. A copy of the course can be obtained from Prism Corporation, 4545 42nd St. NW, Suite 109, Washington DC 20016. *ELC*

Brazil Chooses C-QUAM

Brasilia, Brazil ... The Brazilian government has established the Motorola C-QUAM system as the official national AM stereo standard, Motorola officials announced on 6 February.

According to Motorola AM Stereo Manager Chris Payne, the Brazilian government passed legislation ratifying the standard on 29 January. At press time, officials from the Brazilian Embassy were not available for comment.

Brazil is the third country to formally establish C-QUAM as its national standard. Australia adopted the C-QUAM standard in October 1984, and South African radio stations broadcast AM stereo with C-QUAM as the standard.

"This announcement should provide a leadership example to other South American countries to choose C-QUAM," Payne said.

Payne said that Motorola and Brazilian officials have been negotiating since the middle of 1985 over the "transfer of technology," which grants Brazilian manufacturers the right to Motorola's patent, in return, Brazil would establish C-QUAM as the official standard.

As a result of the agreement, Payne said Motorola will turn over to the Brazilian government the technical "background and schematics" of the C-QUAM system.

In the meantime, US manufacturers (Motorola, Delta, Harris and Broadcast Electronics) will be allowed to sell their C-QUAM systems to Brazilian stations until Brazilian manufacturers possess C-QUAM production capabilities.

For more information, call Motorola at 202-862-1549. *ELC*

CLASSIFICATION CHANGES

1590	WARR	FL	Jacksonville	Class	Class
1590	WSPD	FL	Dishard	Class	Class
1170	WRIT	CT	Vernon	Class	Class
1340	WQGL	WV	Graptown	Class	Class
1400	WOTL	OH	Delto	Class	Class
1520	WRGO	MI	West Valley City	Class	Class
1560	WQKZ	TX	Sullivan	Class	Class

The application by Jacksonville, FL, for license very confusing, with all the station's old and new and WARR split and the call changing and changing that followed. As of 1-1-1986, here are the call letters at the stations in question:
691-WJAX, 930-WXJ, 1120-WATZ, 1280-WXOZ, 1520-WJAX

APPLICATIONS FOR NEW STATIONS

880 MS Wentzville: 1100/300 U1 (reapplication with revised powers)

GRANTS FOR NEW STATIONS

1010 CA Thousand Palms: 5000/5000 U4
1100 GA Woodbine: 10000 D1

APPLICATIONS FROM EXISTING STATIONS

770 WKZY FL North Fort Myers: night power to 2500
780 WJKB FL Siesta Key: day power to 2500
820 WOSU OH Columbus: night power of fulltime CP to 820 watts
1010 WKQT LA Garyville: change city of license to LaPlace, LA, add 350 watts nights, relocate XR
1150 KQQQ WA Pullman: to 650 kHz 1000/500 U2
1330 WELM OH Willoughby: add 500 watts nights, antenna to U4 (reapplication)
1340 WAGN MI Menominee: 1000/1000 U1
1410 WELM NY Elmira: day power to 5000
1520 WCSP MS Crystal Springs: to 590 kHz 500 D1 (reapplication)
1530 KSMM MN Shakopee: power to 8600

GRANTS TO EXISTING FACILITIES

1330 KLBS CA Los Banos: 410/500 U2, relocate XR
1430 WJNR NJ Newark: relocate XR
1480 WHBC OH Canton: antenna from U2 to U4, relocate daytime XR at site of nighttime XR
1510 WTRJ OH Troy: to 1030 kHz 2500 D1 (reversal of initial decision denying this change. WTRJ is still a CP, not on the air yet. See Union City, IN below.

OTHERNESS

890 WREE GA College Park: CP granted to replace expired permit
1030 *App IN Union City: FCC initial decision was to grant Union City and deny application of WTRJ-1510 CP to move to this frequency. The decision has been reversed in the courts and WTRJ gets a grant to move to 1030 kHz and Union City application is DENIED.
WBZB MD Indian Head: latest announced target date is 4/20, also see new address below
1100 *App GA Milan: application for new station DISMISSED, there is still a second Milan, GA application pending for 1100 kHz
1170 WCTF CT Vernon, silent as WRIT expected back on shortly with REL format

ADDRESS CHANGE

1030 WBZB MD Indian Head: Waldorf Commercial Center, Box 38 Waldorf, MD 20601

73 and Good DX,

Jerry & BKF

Jerry Starr & Buffalo K. Foonan

KCOB

P.O. BOX 1286 NEWTOWN IOWA 50208

AMs On Canadian, Bahamian Clears

The FCC has begun to clarify how it will carry out an earlier decision to begin licensing new AM stations, with maximum nighttime power of 500 watts, on the Canadian and Bahamian clear channels.

For the first two years of a five-year implementation period, applications will only be accepted for:

- new stations
- power hikes by daytimes already operating on the foreign clears.

After two years, any AM could apply to move to a foreign clear as long as it provided full protection to existing stations and abided by the nighttime power cap of 1/4 kw.

Stations on the new clear channels will receive no nighttime protection during the five-year period. Minimum power of 250 watts will be required at night, although rules on city grade signal coverage won't apply. R/R

DOMESTIC DX DIGEST - EAST

Dave Schmidt (302) 323-0338
42 Chelwynne Road, Castle Hills, New Castle, DE 19720

Here is the NRC column which is almost as exciting a find out where creamed corn comes from! When sending your items in, please type or neatly write, use one side of the paper, skip a line or two between each item and don't call me Chuck! Here we go:

SPECIAL

- 1110 WHIM RI E PROVIDENCE - Per call from Craig Healy, station is running 5000 watts directional days/250 watts NON DA nights. He is assistant CE at the station and still can't figure out how that one got thru!
1160 WCCS PA HOMER CITY - 3/1 Now 5000 watts, CP is on, in well at sunset here. Celebrating w/contest giving away 5000 prizes. (TF-CT) Even Spot Remover! (DS)
1520 WIDD TN ELIZABETHTON - Station has returned to the air as of 3/3 w/religious format, same power. (C W Williams, WFG via DS-DE)

MIDDAY - MIDNIGHT

- 540 CJSB ON OTTAWA - 3/3 1915 poor w/Music of Your Life, news, sports, weather. (NB-NY)
660 UNID 3/1 1940-2010 very weak w/WNRC/Cuban w/occasional snatches of English, KTNN is now on and likely, still on 50kw non DA at this time, long shot but worth watching at sunset. (JS-OH)
760 WCHP NY CHAMPLAIN - 3/2 1715-1730 religion, 'Great Worship Hour' program w/good signal. (TF-CT)
810 WJPW MI ROCKFORD - 2/27 1815 atop w/s/off, no SSB. (JS-OH)
990 WTIG OH MASSILLON - 3/1 2230 w/good signal topping freq. w/CH music, Canadian Clear nite power 112 watts. (JS)
1080 WMYR OH SIDNEY - 2/27 1803 o/everything w/news, ads for Piqua, jingle/ID into pop music. (JS-OH)
1110 WMBI IL CHICAGO - 2/27 1755 -1801 not unusual but never heard at armchair level before, scripture passage/ID. (JS)
1150 WMEX MA BOSTON - 3/1 1820 in very well w/oldies, contest. (TF)
1170 WVSG NY CORNWALL - 3/1 1755 in o/WBRW/WHVA w/oldies, not heard for a while. (TF-CT)
1220 WFAX VA FALLS CHURCH - 2/27 1733 w/REL, local ID 1745 into another preacher, good w/looped WGA. (JS-OH)
1310 WJLK NJ ASBURY PARK - 2/25 1935 fair/good w/rock music, ID. (RB)
1580 WKVO OH COLUMBUS - 3/2 1816 in very well w/B/Sol music, ID, after WPGC pulled the plug. (TF-CT)
WPUV VA PULASKI - 3/2 1803-1812 atop w/contemporary Christian music, weather w/female anc'r. (TF-CT)
1590 WQQW CT WATERBURY - 3/3 2000 poor/fading w/WYL, News, sports, weather. (RB-NY)

MIDNIGHT - MIDDAY

- 560 WIS SC COLUMBIA - 2/27 0100-0128 good atop jumble w/CBS news, Larry King, local news at :28, nite reg. on freq. in E NC, 'Radio 56'. (JH-NC) Ditto W NC. (DS)
930 WSOC NC CHARLOTTE - 2/28 0030-0100 fading atop most of time w/ID, usually atop freq. in E NC. (JH-NC)
980 WFHG VA BRISTOL - 3/10 0245-0300 fair w/alternating IT (all la WJSC/WETB DX's), o/WNC. (DS-DE)
1150 WDEL DE WILMINGTON - 2/28 0120-0200 local news w/female anc'r, call in show. Regular here. (JH-NC)

WTHM

1380 HN1D 3/10 0025-0040+ strong II in WAMS null, sounded like a Pop (varying II). (DS-DE)
 1580 WCCF FL PUNTA GORDA - 2/13 1930-2003 very good o/mess w/sports call in show, local news, AP news. Per call, sez 122 watts DA. (JH-NC) wrong section, I know, but with this weeks turn out, I could have made it one big section! (DS)

WHA HAPPENED??

This is EVERYTHING up til 3/12 PM, this just can't turn out to be like Chuck Huttons column and his lame-duck excuse. There is still alot to be heard out there, so make sure you jot it down and send it along.

APCLOGY TIME....somewhere I got the idea that Niel Wolfish of Mb was in Nancy's time zone but I find out it isn't, I was sending Niel's reports to Nancy for her column. Maybe we should include another time zone for guys like myself, the Twilight Zone! Sorry about that!

OUR GANG

CH-RI/Craig Healy, Providence, RI (via 'the machine!')
 IF-CT/Tony Fitzherbert, Fairfield, CT/ICFS5h
 JS-CH/Jerry Starr, Hubbard, OH/HQ180, Loop, Lk
 JH-NC/Jim Headlee, Robersonville, NC/NC125, Heath Qf1, Lk's
 RB-NY/Ray Bauernhuber, Rosedale, NY/RF2800, Shotgun Loop
 DS-DE/Me!/HQ180, Loop, Lk

Welcome to Ray & Jim to our column, Jim was the CE at WCCD a few years back, ran the special anniversary DX TEST. Nice to have you along!

That's it - don't quit - theres still some DX that'll give you a fit!



Joe

New York upgrade. The City of New York Municipal Broadcasting System's noncommercial WEDM has been granted permission to operate full time.
 For years, the daytime-only station had been bidding clear channel WCCM (AM) Minneapolis-St. Paul to extend its hours into nighttime on the 830 kHz frequency they share. But now that WEDM has been granted the right to move to 820 kHz, it can stop worrying about WCCM.
 "After 45 years, we're better off than if we'd won over WCCM," said WEDM Director Mary Perot Nicholas in a statement. "More power, more time on the air."
 WEDM won the right to the new frequency in a comparative contest that originally included eight applicants. Most of the competitors either dropped out or amended their applications to eliminate mutual exclusivities earlier in the going. The last two competitors reached settlements with WEDM during a hearing before FCC Administrative Law Judge Joseph Chackin, who, without fanfare, granted WEDM's application and approved the final settlement agreement paving the way for the grant on Jan. 3 (Broadcasting, Jan. 27).
 With the grant, which is now final, WEDM will be able to upgrade from 1 kw daytime-only to full-time operation with 10 kw day and 5 kw night. Under the settlement agreement, Mid Shore Broadcasting, one of the mutually exclusive applicants, agreed to drop its application for a new AM in Weymouth, Mass., for \$40,000. Marshfield Broadcasting Co., the other competing applicant, agreed to drop its application for a new AM in Whitman, Mass., for \$35,000.
 Both Marshfield and Mid Shore would have provided first radio services to their communities, and their applications on those grounds would receive a preference under criteria favoring applicants that would bring local service to unserved areas. (The criteria stem from Section 307(b) of the Communications Act, which directs the FCC to distribute facilities equitably among the states and communities.)
 In cases where competitors for a frequency who would have provided first radio service to a community settle, the FCC is supposed to furnish other parties with an opportunity to file fresh competing applications for the frequency. But the FCC case law, according to an FCC official, allows for an exception to that obligation when there are other channels available for application in the unserved communities. In the case at hand, WEDM, according to Chackin, demonstrated that there would still be "potential" for using 890 kHz full time at Weymouth or Whitman and 810 kHz daytime at Whitman. "The availability of these frequencies is sufficient to eliminate the need for repubication," Chackin said.

LA VOZ DE NICARAGUA
 VOZ OFICIAL DEL
 GOBIERNO DE RECONSTRUCCION NACIONAL



Y. V. M. D. 900 KHz.
 Y. V. M. C. 3275 KHz.
 87 mts. Orde Corte
 Y. V. M. Z. 9530 KHz
 31 mts. Banda Internacional

Nancy Hardy, 2301 Pacific Avenue, Aberdeen, WA 98520

DIXD-West is for members in the Pacific & Mountain time zones, or farther west. When reporting use the form that you see in the column, with Eastern time, and use one side of the sheet of paper. Be sure to put DIXD or NRC on the envelope or report. The next few deadlines are Fridays March 28, April 18, May 23, June 27, August 1 and September 5.

MIDNIGHT - MIDDAY

- 570 KLUB UT SALT LAKE CITY - 2/24 0045 w/NBC News. KLAC off air for about 30 minutes. (JD-CA)
- 610 KOJM MT HAVRE - 3/2 0700 s/on w/SSB, quick local weather forecast, ID, and ABC News; good. (WOLF-MB)
- 650 WSM TN NASHVILLE - 3/2 0321 C&W w/KPI-640 splatter. (JD-CA)
- 660 KTNN AZ WINDOW ROCK - 3/2 0720 loud w/country music in English and announcements in Navajo language, occasional English phrases such as "50,000 watts of power," "third day of broadcasting." CPR in null at times. Again 3/3 0700 full data sign-on, owned & operated by The Navajo Nation, NBC News, 0705 country/Navajo again, totally different from nighttime format. Schedule 0700-0200 Eastern time seven days a week. (BH-WA) 3/3 0109 a big surprise; in like gangbusters-- signal strength greater than KPI. ID'd as "The Great American Music Machine, 66 KTNN." Top 40 music. (RT-CA)
- 700 WLW OH CINCINNATI - 3/3 0115 in strongly, on top of KPAM w/talk show; this makes my day. "Clear" channels aren't dead yet, I guess. (RT-CA)
- 730 CJNR ON BLIND RIVER - 3/2 0204 w/pop music by various artists, including Canadian Gino Vanelli, ID'ing as "Mid-Canada Radio" and also mentions "serving Algoma & Manitoulin Island." Fair w/CKDM off. (WOLF-MB)
- UNID 3/2 0701 somebody w/CNN news, 0705 "Skoal Tobacco Fishing Report" which discussed upcoming competitions in the South Pacific. Fair until 0706 when XEX suddenly appeared, apparently signing on. (WOLF-MB)
- 740 KBRT CA AVALON - 3/2 0453 surfaced with a singing ID clearly audible o/KCBS. Moments later Dire Straits' "Walk of Life" began-- not sure if this was KBRT as I believe KERT is religious... at any rate, I assume this was an ET of some type. Poor briefly w/KCBS and the Cuban Radio Progreso. (WOLF-MB)
- KCBS CA SAN FRANCISCO - 3/2 0447 w/Jim Bohannon talk show, ID and CBS news at 0500, Bohannon resumed at 0506. Poor-fair w/KBRT and the Cuban while CEX & CBL both still off. (WOLF-MB)
- WRPX WI HUDSON - 3/2 0854 local sports, 0859 weather forecast, 0900 ID as "WRPX AM 7-4-Oh" into CNN news. Fair o/CEX. (WOLF-MB)
- 760 KMTL AR SHERWOOD - 3/2 0720 dominating SW antenna w/gospel music, ID's & local weather. Fair w/no sign of WJR. (WOLF-MB)
- KGU HI HONOLULU - 3/2 0759 surfaced w/male giving brief weather forecast, ended forecast by saying "K-G-U newstime is three o'clock...Talk Radio 76 KGU----" into CBS News. The second half of the ID appeared to be over a bit of piano music (light piano music). Very poor & soon gone, although it may have been heard earlier. Luckily, got ID on tape. (WOLF-MB)
- UNID 3/2 0718 first noted something u/KMTL on SW antenna w/a phone-in ahow discussing finances/earnings/investments. This may have been KGU which was later ID'd, but I wonder what KPMB-San Diego would have been doing at this hour? Doubt WJR because of the time of day. Incidentally, absolutely no trace of this or KMTL on other antenna pointing towards Ecuador and Brasil, only the Mexican, XEABC. (WOLF-MB)
- UNID 3/2 0746 a different mystery barely audible u/KMTL only on the SW antenna. Heard an American Airlines spot & a little later Earth, Wind and Fire's "September." Does anybody know what KSJL-San Antonio would have been playing at this time of day? (WOLF-MB)
- UNID 3/2 0825 one last 760 mystery, very poor at 0825 w/an OM giving road conditions for highways 2 & 4 (and maybe also US? 27), then Glen Campbell's "Galveston." Doesn't sound like this would be KMTL-AR. Everything else, including XEABC was gone by this point. (WOLF-MB)

- 800 CHAB SK MOOSE JAW - 3/2 0309 very strong w/ID and promo for the "Saskatoon Weekly Top 30 Countdown" Saturdays at noon, CHR/Top 40 music followed. Good w/slight CKJS-810 slop. (WOLF-MB)
- 840 WHAS KY LOUISVILLE - 3/1 0250 "Cruisin" segment re-broadcast--old tape of Boss Radio, KHJ c. 1965 till 0300. (JD-CA)
- RNPN NE WEST POINT - 3/2 0853 Olivia Newton-John music, 0855 ID and spot for a sausage maker in Howells, NE; fair & alone. (WOLF)
- KSWE OR SFASIDE - 2/22 0255 s/off 0300 o/u WHAS. (JD-CA)
- 860 KNUJ NK NEW ULM - 3/2 0842 w/local spots, YL w/ID and weather, into gospel music. Fair o/CBKP. (WOLF-MB)
- KUTR UT SALT LAKE CITY - 2/23 0446 talk about church, "2:46" TC, KUTR ID. No sign of KTRB. New. (RT-CA)
- 870 WHCU NY ITHACA - 3/2 0616 faded in above w/L w/local spots, talk about the Cornell U. "Big Red," ID & weather at 0617. Fair. (WOLF-MB)
- 890 KUKU UT/ ST. GEORGE-RENO - 3/1 0230, 15db over 9 w/weather for local NV areas in Los Angeles (given maybe they are serving LA market?) (JD-CA) (Cops, this should be Las Vegas, not Reno!--NH)
- 910 KPOF CO DENVER - 3/2 0903 w/news, 0905 ID "Christian Radio 9-10 is KPOF Denver," into religious program; good & alone. (WOLF)
- 920 CBO ON OTTAWA - 3/2 0620 through CTRY open carrier w/discussion about Canadian transit systems parallel to CBL-740. Fair over WOKY (CFRY on regular Sun. morning silent period). (WOLF-MB)
- 970 KBIT MT BILLINGS - 3/2 0624 w/C&W music and IDs by OM. Fair on southwest antenna and no sign of WDAY-Pargo. Exactly the reverse situation on the South-Southeast antenna. (WOLF-MB)
- 1120 KLIM CO LIMON - 3/2 0938 w/C&W music, 0939 ID by woman as "KLIM 11-20 on your AM dial," OM gave temperature as 34° & time as 7:40, and "Hymn Time" followed. Fair o/KMOX. (WOLF-MB)
- 1210 CKWA AB SLAVE LAKE - 3/2 0104 in three-way battle w/WCAU and an unID Latin, Broadcast News, local weather, spot for Westlock Farm Equipment, the C&W music relaying CPOK-1370. Fair to poor. (WOLF-MB)
- 1270 KIML WY GILLETTE - 3/2 0944 w/C&W mx, ID and promo for a song writing contest. Fair & alone. (WOLF-MB)
- 1280 KVOY MN MOORHEAD - 3/2 0949 w/Country Countdown program, 0951 ID and local Hardee's spot. Fair w/CPRW-1290 splatter. (WOLF-MB)
- 1450 KVEN CA VENTURA - 2/23 0506 AP News, local weather, KVEN ID, local ads. In tight KEST null. (RT-CA)
- 1480 KSDR SD WATERTOWN 3/2 1006 OM w/talk about high school wrestling, ID and pop oldie "Build Me Up Buttercup." Fair. (WOLF-MB)
- 1530 KFBK CA SACRAMENTO - 3/2 0438 noted off. Too much 1540 splash to hear anything. (RT-CA)
- 1540 UNID 3/2 0602 somebody u/KXEL w/Eagles "New Kid In Town" & then a country tune. Poor. Is this WPR? (WOLF-MB)
- 1560 WTOD OH TOLEDO - 3/2 0646 C&W mx, ID "Here at your country-gospel station WTOD," spot for Superior Kitchens, then more music. Fair w/WPAD before KKAJ signed on at 0700. (WOLF-MB)
- 1580 WLNZ MI ST. JOHNS - 3/2 0650 tuned in to hear music by Stevie Nicks, Rod Stewart & The Doobie Brothers, OM gave ID and said "good morning" at 0659 before "What A Fool Believes." Very good signal. (WOLF-MB)

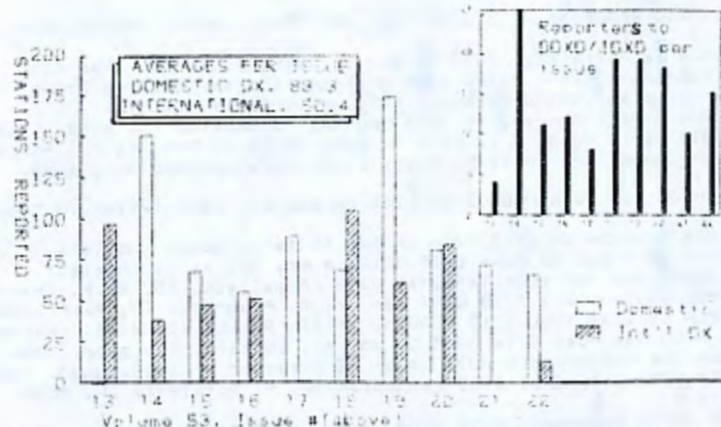
MIDDAY - MIDNIGHT

- 760 WJR MI DETROIT - 2/25 2245 weak under KFMB null. (JD-CA)
- 1070 KHNO MO HANNIBAL - 3/1 1811 with "Afternoon News Digest" program of local news. Fair w/WTSO. (WOLF-MB)
- 1140 CKXL AB CALGARY - 3/1 noted as early as 1809 with usual CHR/Top 40 music (including song by Canadian artist Body Electric) and OM host ID'ing as "XL Radio." Good with no sign of KSOO in Sioux Falls. (WOLF-MB)
- 1170 KPSC CO WINDSOR - 3/1 1853 ranchera music, 1858 several announcements and spots for places in Loveland, Denver and Greeley, 1902 gave slogan as "Radio Paco," then more ranchera. Poor to fair with KVOO. (WOLF-MB)
- 1330 KOVE WY LANDER - 3/2 1953 w/ID by woman, mention of upcoming basketball game broadcast, local spots. Fair & alone. (WOLF-MB)
- 1560 KARP WA SUMNER - 3/7 2056 in good w/Christian music. 2101 s/off with mention of 500 watts of power (NRC Log lists 250). They are in 2115 sunset zone, so I was surprised to hear their s/off at 2101. (NH-WA)
- 1580 KTGR MO COLUMBIA - 3/2 1953 ID heard before an Elvis Presley record was played. Poor, fighting KDOM-window who was playing Beatles oldie at this time. (KDOM seems to stay on until

1580 KTGR midnight local/0100 ELT now). (NJW-MB) cont'd

REPORTERS:

JD-CA/Jim Denyer, Sylmar, CA/Kenwood R-2000, home built loop (no fet)
 BH-WA/Bill Hardy, Aberdeen, WA/FRG-7, Radio West loop
 NH-WA/Nancy Hardy, Aberdeen, WA/FRG-7, Radio West loop
 RT-CA/Rich Toebe, Pleasanton, CA/Grundig 3400, Radio West loop
 WOLF-MB/Niel J. Wolfish, Univ. Manitoba IX Club DX'pedition to Lewis, MB/
 Three R-70s, ICP-2010, 3 Beverages, licorice allsorts, Smarties
 NJW-MB/Niel J. Wolfish, winnipeg, MB/Superadio, Lw



L.M.'s Fiber
 (0122) Home
 -MB

NWGHQ **wbpm** 104.3
 92AM HISTORIC HUDSON VALLEY RADIO 94.3FM

LOCAL REPORT 3-2-86 WILLoughBY NY102-HERALD

Radio station changes call letters

By David S. Glasier
 News-Herald Staff Writer

An old radio friend to many Lake and Geauga County listeners has adopted a new name and format. Painesville-based WQLS (1460 AM), which was purchased by Dale Broadcasting in November 1985, has received permission from the Federal Communications Commission to change its call letters to WBKC.

Those new call letters are the same ones used by Dale Broadcasting when the company owned and operated Chardon-based WBKC (now WCDN-AM 1560), which was sold to Kende Broadcasting to facilitate the purchase of then-WQLS.

The switch to a country format at WQLS, which had been programming adult contemporary music, was hardly a surprise. Dale Broadcasting had done quite well with the format in Chardon, and audience studies told Dale management fully half of their

listening audience was located in the Painesville area.

"It was our intention to make the format switch all along," WBKC vice president and general manager Clarence Bucaro told The News-Herald yesterday. "We'll go full-time with the country format on Monday (tomorrow)."

Dale Broadcasting has been operating the station since FCC final approval on the sale was granted on Feb. 1. Bucaro said audience response has been favorable, and anticipates that technical adjustments on broadcast equipment should help WBKC franchise an even larger audience in the near future.

The new weekly line-up (Monday through Friday) on WBKC is 5:30 to 11 a.m., Ken Krause; 11 a.m. to 3 p.m., Jim Cullen; 3 to 8 p.m., Barbara Lincoln; 8 to 10 p.m., Bill Starkey, sports call-in show; 10 p.m. to 2 a.m., Country Music Satellite Network.

INTERNATIONAL DX DIGEST

Chuck Hutton, 437 Hardendorf Ave., Atlanta, GA 30307

404-378-8215 Before 2300 ELT

Times are GMT

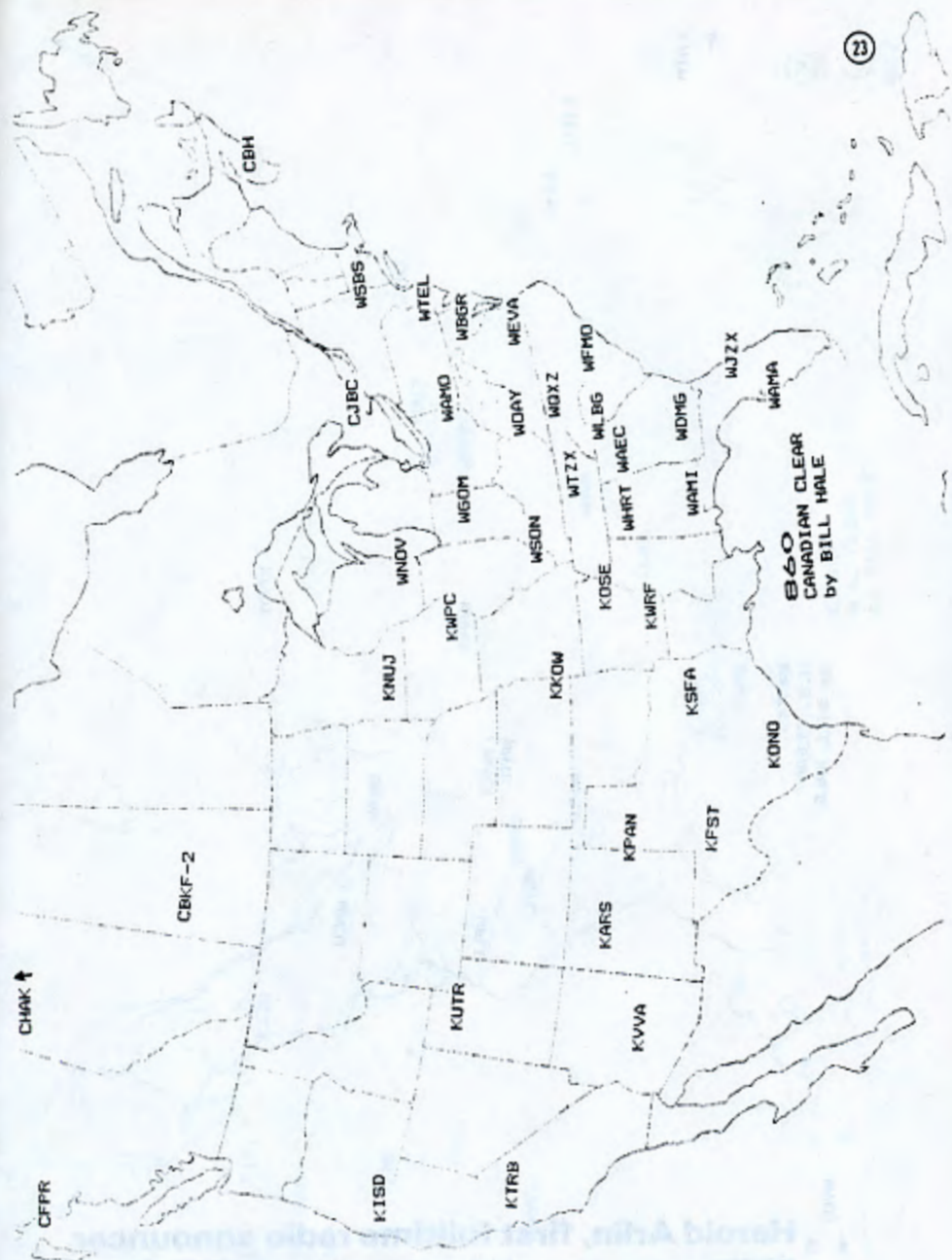
For ELT subtract 5 hours.

Deadline: Monday

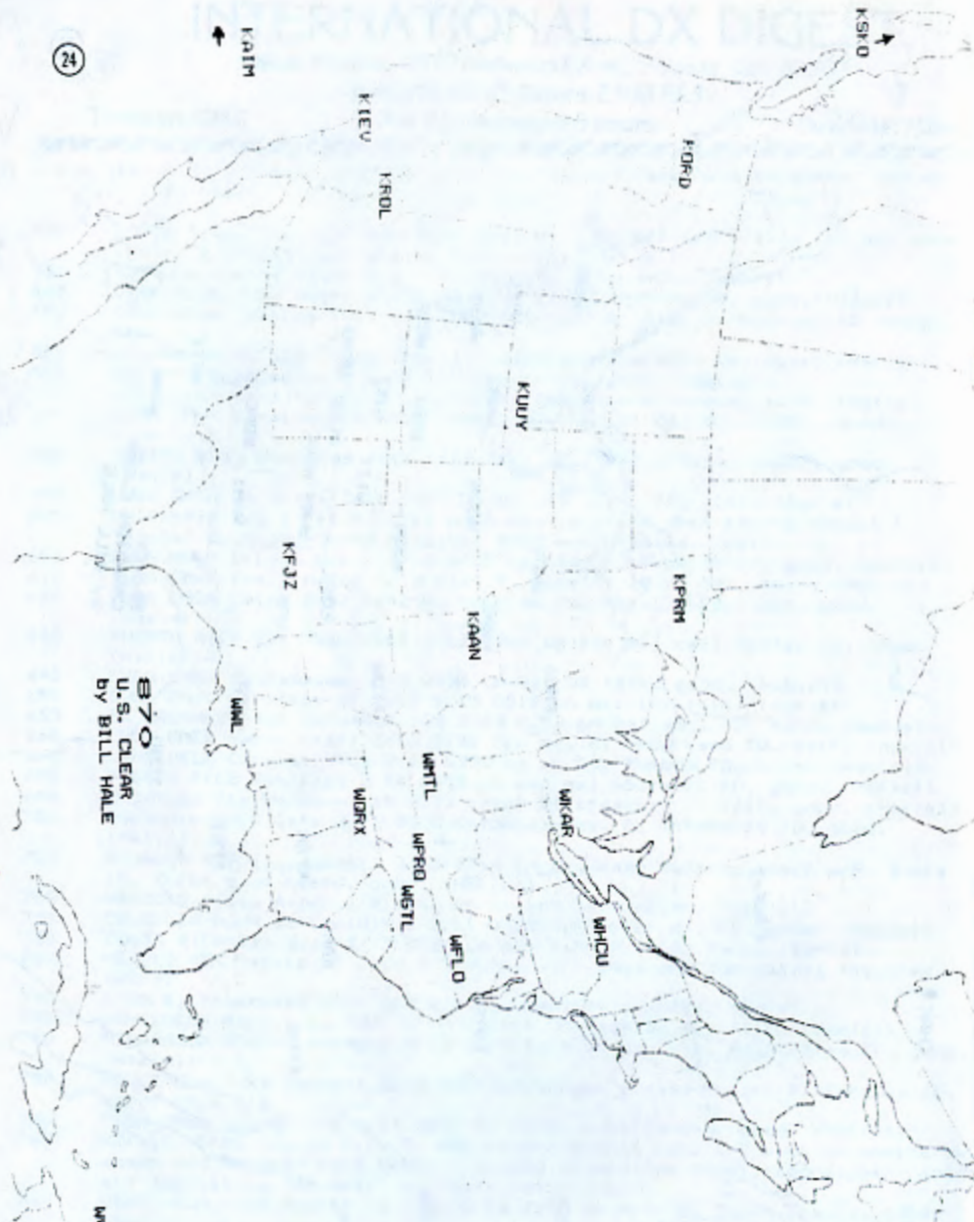
A big thanks to whomever sent me "1001 Polish and Dave Schmidt Jokes" for my birthday last week.

- 530 COSTA RICA TICAL Cartago 0504 3/12 w/ID by man and a slow ballad; poor. (Wolf) 2/24 0353 LA vocals, Rumbos ID. (Hakiel)
- 535 GRENADA Moune Rouge 2/9 2322 ballads, ID, xint. (Hakiel)
- 540 VENEZUELA YUDV Rosario 2/9 2342 LA mx, R. Perija ID, good. (Hakiel)
- 550 VENEZUELA Caracas YVKE 2/9 2356 lots of SS talk, R. Mundial ID, good. (Hakiel)
- 555 NICARAGUA HCT555 Chinandega 2/9 0600 s/off w/full ID, fair. (Hakiel)
- 555 ST. KITTS Basseterre 2/15 2315 mx in EE, poor. (Hakiel)
- 570 CUBA CMED Santa Clara 2/10 0015 R. Reloj news format, fair. (Hakiel)
- 580 CUBA CMHF Baracoa 2/12 0131 man and woman in SS, ID // 590, good. (Hakiel)
- 580 PUERTO RICO WKAQ San Juan 2/10 0021 SID "Radio Reloj WKAQ", good. (Hakiel)
- 590 CUBA CMCA La Julia 2/11 0013 LA mx, SS talk, ID, xint. (Hakiel)
- 590 UNID 0432 3/2 a latin noted w/SS dialogue and then played recent hit "Conga" by Miami Sound Machine; fair w/WOW-Cmaha. (Wolf)
- 600 CUBA CMKA Urbano Noris 2/10 0035 sports, R. Rebelde ID, good. (Hakiel)
- 610 CUBA CMAF Bahia Honda 2/12 0124 R. Rebelde ID // 590, fair. (Hakiel)
- 620 CUBA CMHA Colon 2/12 0142 R. Rebelde ID, local phased out, good. (Hakiel)
- 630 PUERTO RICO San Juan W0BS 2/12 0203 LA pop mx, call letter ID, good. (Hakiel)
- 640 CUBA CMBB Guanabacoa 2/12 0206 LA mx, SS talk, good. (Hakiel)
- 650 CUBA CMJC Santiago de Cuba 2/15 0013 LA mx, ID, fair. (Hakiel)
- 655 EL SALVADOR San Salvador YSS 2/13 0253 LA ballads, ID, fair. (Hakiel)
- 660 CUBA CMEB Santa Clara 2/13 0232 r&r mx, R. Progreso ID, fair. (Hakiel)
- 670 VENEZUELA Caracas YVLL 2/12 0330 mx in SS, Rumbos ID, xint. (Hakiel)
- 680 PUERTO RICO San Juan 2/14 0055 LA pop mx, SS talk, ID, good. (Hakiel)
- 690 ANGUILLA The Valley 2/10 0333 usual EE preacher // 1610, good. (Hakiel)
- 700 COLOMBIA HJCX Cali 2/11 0422 Colombian mx, R. Sutatenza ID, good. (Hakiel)
- 700 ECUADOR HCR52 Guayaquil 2/10 0714 LA mx, fast talking anncr w/R. Sucre ID, first time heard, good. (Hakiel)
- 702 MOROCCO Sebba Aloun 2/9 2241 AA mx and talk, poor. (Hakiel)
- 720 COLOMBIA HJAN Barranquilla 2/11 0425 Colombian mx, ID, good. (Hakiel)
- 730 COSTA RICA San Juan 2/10 0326 LA mx, R. Reloj ID, fair. (Hakiel)
- 730 MEXICO XEX Mexico DF 1206 3/2 s/ont; very good and dominating the freq. (Wolf)
- 740 CUBA R. Progreso 0700 3/2 w/ID by man; fair w/CBX. (Wolf)
- 740 VENEZUELA Maracaibo YUNC 2/13 0227 R. Maracaibo ID, fair. (Hakiel)
- 750 NICARAGUA HTA750 Managua 2/12 0315 lots of SS talk, R. Sandino ID, good. (Hakiel)
- 750 VENEZUELA YVKS Caracas 2/12 0319 Nicaragua phased to get R. Caracas ID, good. (Hakiel)
- 760 CUBA CMED Guanabacoa 2/11 2257 R. Reloj w/mx format, good. (Hakiel)
- 760 MEXICO XEABC Mexico City R. ABC International 1210 3/2 with SS anncs by woman and man-may have been preceded by old Tom Jones record; very good and dominating 760 until at least 1305. (Wolf)
- 760 VENEZUELA YV00 Puerto la Cruz 2/12 0250 LA mx, ID, Cuban phased, good. (Hakiel)
- 765 SENEGAL Dakar 2/4 2315 usual weird string mx, vernacular talk, good. (Hakiel)
- 770 COLOMBIA Bogota HJKH 2/10 0915 accordion mx, RCN ID, WABC off, xint. (Hakiel)
- 774 FIJI Suva R. Fiji 3/2 carrier first noted 0828, audio began to surface 0839 with Hindustani mx sung by woman (sounded like east Indian mx), talk by man in between musical selections which I presume was in Hindustani, best signal noted at 0922 but this was unfortunately during a piece of music, 0930 probable ID by man in that unid lang followed by dialogue from woman (news?) and the lady was joined by the man at 0935, more music again at 0937, signal started to rapidly deteriorate in favor of KOB/WABC, still barely audible at 1004 with instrumental music on a harp-like stringed instrument, last noted at 1031 with more of the East Indian sounding music with female singer. My first TP..hets also noted on 756, 1006, 1017 and 1026, but alas, no audio. The 1017 (Tonga?) was especially strong. (Wolf)

To Page 27



Mil



B70
U.S. CLEAR
by BILL HALE

Harold Arlin, first fulltime radio announcer

Associated Press

NORWALK, Ohio—The world's first fulltime radio announcer, Harold W. Arlin, who became known as "the voice of America," has died at age 90 at his winter home in Bakersfield, Calif.

Mr. Arlin died Friday morning, two days after his release from a hospital following a heart attack March 2, said his daughter Dorothy Hershey.

In 1921, he became the first fulltime voice at KDKA, a Pittsburgh station that was America's first commercial radio station.

He was the first to announce a major league baseball game and a college football game, the Pittsburgh Pirates vs. the

Philadelphia Phillies on Aug. 21, 1921, and the University of Pittsburgh vs. the University of West Virginia on Oct. 8, 1921.

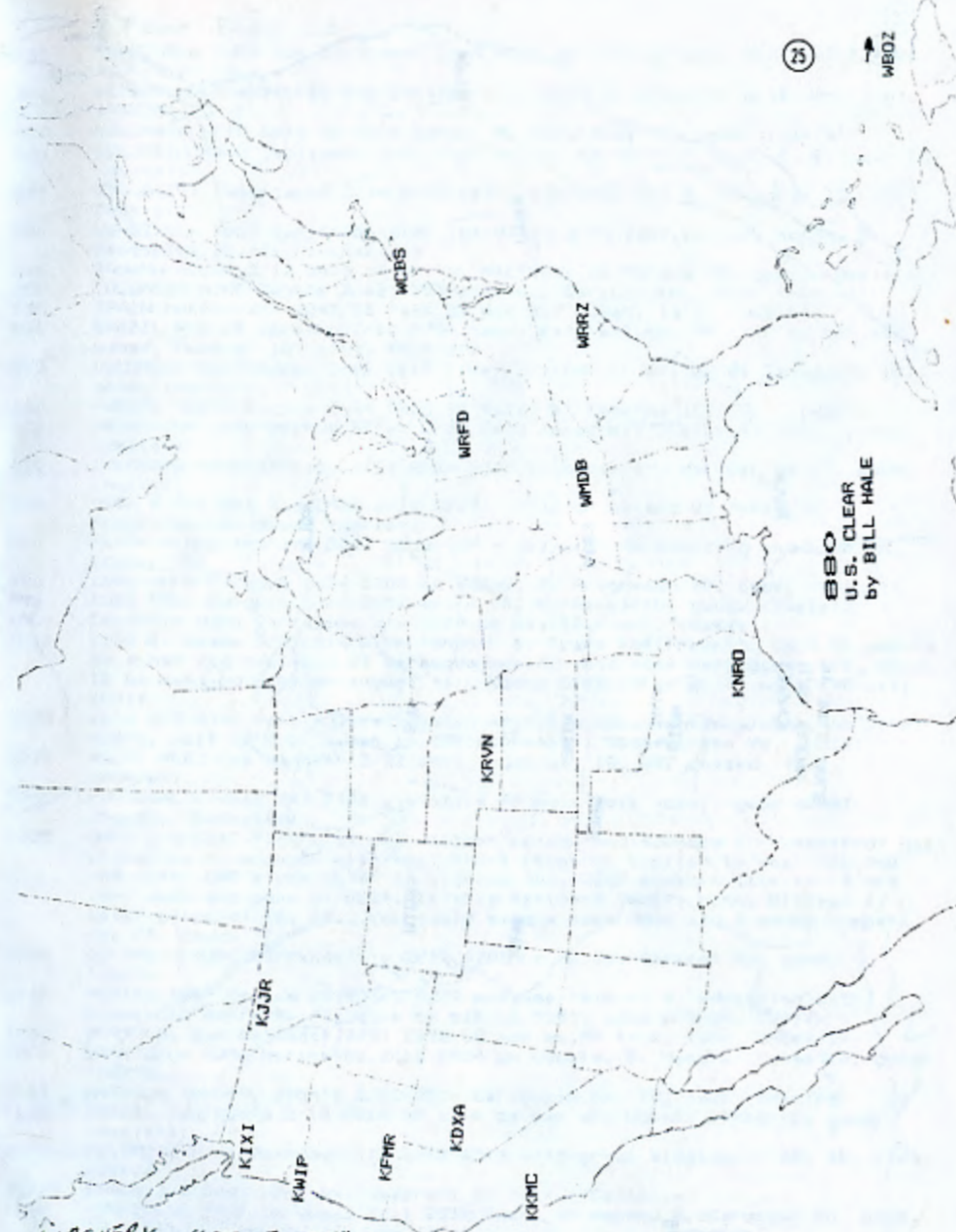
He interviewed Babe Ruth, Will Rogers, Lillian Gish, William Jennings Bryan and other celebrities.

Listeners on several continents could hear KDKA, and the *London Times* called him "the best known American voice in Europe."

In addition to his daughter, Mr. Arlin is survived by his wife Ida Lee Dean Arlin; two sons, Ralph Arlin of Lima and Edward Arlin of Norwalk; 11 grandchildren, and 14 great-grandchildren. A funeral is scheduled for Wednesday in Mansfield.



HAROLD ARLIN
... in 1952 photo.



BBO
U.S. CLEAR
by BILL HALE

WAGNER'S "TIME OFF"

Buzz Off

A Canadian radio station has launched a new campaign against four dozen varieties of mosquito that plague the country. CIME-FM in Ste. Therèse, Québec, has been broadcasting "antimosquito" frequencies at the same time as its regular music programming. The high-pitched buzzing, which was developed with the help of a forestry specialist, simulates the sounds made when male mosquitoes flap their wings.



Since female mosquitoes are the only ones that bite, and then only after they have mated, the station maintains that hungry but sexually satisfied females are likely to be repelled by the sound of males. The station's callers are split between those proclaiming winged victory and those objecting to the background noise. But station manager Gaetan Charbot is planning to add another sound repellent—in time for blackfly season.

Via Tom Swaine Sr. P. 12 Times 28

AR MO

Illustration by Kristine Mard



890
U.S. CLEAR
BY BILL HALE

RADIO OCEANIA

MUSICAL NOTICIOSA-DEPORTIVA CULTURAL

YVOP. 1.100 KHz. ONDA LARGA

YVIC. 3.225 KHz. 90 mts.

YVOS. 9.750 KHz. 31 mts.



R.N.A.
RADIO NACIONAL
REPUBLICA ARGENTINA

R.A.E.

RADIOFUSION ARGENTINA AL EXTERIOR

FROM PAGE 22

- 780 VENEZUELA YVOD San Cristobal 2/14 0022 SS talk by man, Ecos del Torped ID, fair. (Hakiel)
- 800 NETHERLANDS ANTILLES PJB Bonaire 2/10 0415 EE preacher w/sermon, xint. (Hakiel)
- 810 COLOMBIA 2/10 0413 SS love songs, R. Sutatenza ID, good. (Hakiel)
- 820 COLOMBIA HJAO Cartagena 2/17 0137 extracted from LA mess, R. Bolivar ID. (Hakiel)
- 825 ST. KITTS Basseterre 2/14 0103 religious program, R. Paradise ID, xint. (Hakiel)
- 830 VENEZUELA YULT San Antonio de los Altos 2/13 2350 LA love songs, R. Sensacion ID, fair. (Hakiel)
- 840 PANAMA HOLSO 2/12 0415 LA mx, R. Nacional de Panama ID, good. (Hakiel)
- 850 COLOMBIA HJKC Bogota 2/12 0323 soft mx, Caracol ID, good. (Hakiel)
- 855 SPAIN Murcia 2/4 2245 SS talk by man and woman, fair. (Hakiel)
- 860 BRAZIL Rio de Janeiro 2/10 0750 happy carnival mx, PP talk by man and woman, Mundial ID, xint. (Hakiel)
- 860 COLOMBIA Valledupar 2/10 0617 lively Colombian mx, LV de Canaguete ID, good. (Hakiel)
- 860 PANAMA HOLSS Chitre 2/24 0300 SS talk, R. Reforma ID, fair. (Hakiel)
- 870 ARGENTINA LRAI Buenos Aires 2/10 0633 tango mx, 3 pipes at 0630, good. (Hakiel)
- 870 COLOMBIA HJSB Barranquilla 2/24 0209 Colombian mx, Mar Caribe ID, good. (Hakiel)
- 880 CUBA Financ del Rio CHAB 2/24 0329 mix of LA mx and US tunes, R. Progreso ID, good. (Hakiel)
- 891 ALGERIA Algiers 3/2 0249 good (39 + 30) with AA chanting and violins. (Connelly)
- 900 CUBA CMKB Cacocum 2/24 0200 LA songs, R. Progreso ID, good. (Hakiel)
- 940 CUBA CMKD Holguin 2/16 0052 mx in SS, R. Reloj ID, good. (Hakiel)
- 1000 COLOMBIA HJAO Cartagena 2/6 0104 LA mx, ID, fair. (Hakiel)
- 1010 CUBA R. Guama 3/2 0814 with "Shout by Tears for Fears", 0819 SS anncs by a man and mentions of merengue music, into some merengue music, 0823 ID by man and more merengue; fair above CFRB for a while with CBR off. (Wolf)
- 1020 UNID 3/2 0347 fairly lively Latin American music noted w/KDKA; no ID's heard, just talk by a man in SS; poor-fair. Suspect the YV. (Wolf)
- 1030 HAITI 4VEC Cap Haitien 2/22 2310 organ mx, ID, WBZ phased, fair. (Hakiel)
- 1035 PORTUGAL Lisboa 3/2 0430 plaintive PP male folk vocal; good w/WBZ phased. (Connelly)
- 1035 UNID 3/2 0217 fairly strong carrier noted, and sounded like somebody was preparing to sign on with test tones (tune up similar to what CBL-740 and other CBC's use prior to signing on), 0227 sounded like an IS but very weak and gone by 0229. Is this Tallinn? (Wolf) Dunno without a description of the IS...You could send a tape down and I could compare the IS..Chuck
- 1040 COLOMBIA HJAI Barranquilla 2/17 0203 nx in SS, Caracol ID, good. (Hakiel)
- 1060 MEXICO XEEP Mexico City 3/2 0239 presume this is R. Educacion with classical concert, dialogue by man at 0252; good o/CFCN. (Wolf)
- 1062 PORTUGAL San Salvador 2/21 2328 US pop mx, PP talk, fair. (Hakiel)
- 1070 VENEZUELA YUMA Maracaibo 2/10 0524 LA vocals, R. Mundial Zulia ID, good. (Hakiel)
- 1100 ANTIGUA ZDK St. John's 2/22 2314 Caribbean nx, ID, fair. (Hakiel)
- 1100 BRAZIL Sao Paulo 2/10 0818 PP talk by man and woman, Globo ID, good. (Hakiel)
- 1100 COLOMBIA HJAT Barranquilla 2/10 0518 wild group singing in SS, ID, xint. (Hakiel)
- 1107t SPAIN 3/2 0441 rock mx, aparent SS talk. (Connelly)
- 1110 VENEZUELA YVOT Carupano 2/11 2352 vocal by woman, R. Carupano ID, good. (Hakiel)
- 1150 CUBA CMNG Buecito 2/12 2342 SS talk by man and woman, ID, fair. (Hakiel)
- 1150 VENEZUELA YUMM Punto Fijo 2/10 0500 SS talk, R. Mundial Caribe ID, good. (Hakiel)
- 1165 ANTIGUA St. John's 2/8 0157 EE preacher, Caribbean Radio Lighthouse ID, xint. (Hakiel)
- 1170 HAITI 4VRS Port-au-Prince 2/8 0155 jaunty folk songs, R. Soleil ID, xint. (Hakiel)
- 1175 PANAMA HOUB4 Los Remedios de Veraguas 2/18 0303 sports talk, R. Belem ID, fair. (Hakiel)
- 1200 VENEZUELA YV02 Caracas 2/10 0052 lively LA mx, R. Tiempo ID, good. (Hakiel)
- 1205 CAYMAN ISLANDS Georgetown 2/12 0421 soft mx, EE talk, ID, fair. (Hakiel)

- 1220 BRAZIL Rio de Janeiro 2/10 0812 wild carnival mx, PP talk, Globo ID, huge signal, xint. (Hakiel)
- 1270 CUBA Camaguey CMHD 2/10 0544 nx format, R. Relej, fair. (Hakiel)
- 1287 CZECHOSLOVAKIA Litomyšl 2/9 0538 Slavic talk, poor. (Hakiel)
- 1314 UNID 3/2 0146 barely audible woman singing, no other audio heard. Hats and carriers also noted on 1035, 1413, 1422 and 1575. (Wolf)
- 1320 VENEZUELA YVWP Turmero 2/10 0540 LA mx, R. Apolo ID, fair. (Hakiel)
- 1360 VENEZUELA YVTI Maracaibo 2/10 0537 Cat. Internacional ID, fair. (Hakiel)
- 1377 FRANCE Lille 3/2 0210 strong w/male AA vocal; hatted by weaker St. Pierre et Miquelon 1375. (Connelly)
- 1467 MONACO Monte Carlo 3/1 2237 talk with SAH present (who could the second stn be?) and 3/2 at 0450 GG talk then hymns. (Connelly)
- 1494 USSR Leningrad R. Moscow World Service 0116 carrier noted on 3/2, fade up of audio at 0123 with end of EE program hosted by Peter -----, at 0125 he said goodbye until next week and gave all the times the show would be aired in the next week in UTC. (Saturday 1510, 2210; Sunday 0110, 0510, 1310 and Thursday 0430, 0930, 1530 and 2230) a brief musical interlude followed, signal weakened but an ID as Radio Moscow World Service was heard at 0130, faded out soon after this. Hread on antenna that was actually erected for the purposes of getting Norway on 1314. Aimed at Norway. (Wolf)
- 1512 SAUDI ARABIA Jeddah 2/22 2252 AA talk by man, poor. (Hakiel)
- 1521 CZECHOSLOVAKIA Cizartice 0522 2/9 GG band oompah mx, 6 pips at 0530, good. (Hakiel)
- 1521 SAUDI ARABIA Duba 3/1 2230 AA talk by man. (Connelly) 0315 AA mx w/wailing vocals, xint. (Hakiel)
- 1548 ENGLAND London 0651 2/18 r&r mx, EE woman anncr, fair. (Hakiel) So how do you know this was London?? Chuck
- 1548 USSR Ukraine or Moldavia 2253 2/20 World Service in EE // 7:15, poor-fair. (Hakiel)
- 1557 FRANCE Nice 0607 2/18 woman singing blues, FF talk, good. (Hakiel)
- 1566 SWITZERLAND Sarnen 0612 2/9 Swiss Alpine mx, GG talk, good. (Hakiel)
- 1566 TUNISIA Sfax 2212 2/7 AA violins and talk, good. (Hakiel) 3/1 2233 female AA vocal, good. Traces of other signals present in background. (Connelly)
- 1580 COLOMBIA Barrabquilla HJ02 0902 2/10 LA ballads, LV de las Estrellas ID, good. (Hakiel)
- 1584 SPAIN graveyarders 0605 12/13 nx in SS, good. (Hakiel) 3/1 2234 strong fluttery jumble of carriers, little useable audio extracted. (Connelly)
- 1593 WEST GERMANY Langenberg 0603 2/18 nx in GG by deep voiced man, xint. (Hakiel) 3/2 0200 hard rock mx followed by several time pips (last the longest), then news in GG by man. (Connelly)
- 1602 SPAIN many 0557 2/18 SS talk, pips on the hour then SS talk by woman, fair. (Hakiel)
- 1610 ANGUILLA The Valley 0335 2/10 EE preacher // 690, xint. (Hakiel)

Mark Connelly-W. Yarmouth, MA
George Hakiel-W. Islip, NY
Niel Wolfish-Lewis MB

R600, 2 phased 37 m. wires
R71A, LW's, loop, phasing unit
3 R70's, ICF2010, several Beverages

WTOB Gets FCC Permit for Towers

By Dan Froomkin
JOURNAL REPORTER

The Federal Communications Commission issued a permit yesterday for WTOB to build its radio broadcast towers in the Town and County Estates subdivision.

The six 300-foot towers were built last spring, about 100 yards west of Mill Creek Road. But they were built almost 800 feet from a site that the FCC had approved.

Yesterday the FCC granted WTOB a permit to build the towers where they actually are. And as a result of yesterday's FCC ruling, the station will begin using the towers "very soon," said David Plyler, WTOB's general manager.

But the lawyer for the Town and County civic group that has opposed the towers said yesterday that his "fight is not over yet."

David C. Pishko said that he is appealing a Superior Court judge's decision affirming that radio towers are allowed in residential neighborhoods, just as utility towers are.

Larry D. Eads, the chief of the audio services division at the FCC, said WTOB's application complies with FCC rules.

He said yesterday that WTOB submitted to the FCC a copy of the court ruling affirming its zoning permit, a report from the N.C. Department of Natural Resources saying that the towers would not damage the environment, and technical information that suggests the towers should present no serious interference problems.

Plyler said the towers will be operating within "30 to 90 days or sooner."

That will allow the station to broadcast at 5,000 watts during the day and at 2,500 watts during the night, Plyler said. The station now only broadcasts with 61 watts at night, from its Trade Street transmitter, and can't be heard outside the Winston-Salem city limits, he said.

"I am delighted," Plyler said. "We waited almost two years for this action."

Pishko said he might appeal the FCC decision as well as the local court decision.

Residents have argued in the past that the towers would cause interference and would harm the environment. He said that there are several grounds on which he could appeal the FCC decision.

He said the sole issue in the appeal of the local court decision is whether the towers are properly classified as public utilities.

The neighborhood in which the towers are located is zoned for residential use only. Pishko said that a commercial structure such as a radio tower should not be allowed in a residential area.

But a city inspector ruled last year that radio towers are like utility towers and are exceptions. A Forsyth Superior Court judge upheld that decision in December.

Pishko said that he expects a hearing of the appeal by the N.C. Court of Appeals by late summer.

Plyler, however, said that he is optimistic. "I am confident that everything will be found in our favor, as has been the case in every instance thus far."

VIA EMMIX GOAD

Winston-Salem Journal, Winston-Salem, N.C., Wednesday, March 12, 1986

SPORTS NETWORKS

Barry S. Finkel, 10314 S. Oakley Ave., Chicago, IL 60643

Here is information about Major League Baseball networks. Most of the information comes from Broadcasting Magazine March 3, 1986. Again, as last year, CBS radio will be broadcasting two games each Saturday -- one daytime and one evening. Broadcasts begin May 24 and run for 20 weeks. The announcers will be (rotating) Brent Musberger, Dick Stockton, Lindsey Nelson, Johnny Bench, John Rooney, Curt Gowdy, Jerry Coleman, Bill White, Robert Murphy, Howard David, and Ted Robinson. Here are flagship stations, network sizes, and announcers.

Atlanta Braves	750 WSB -GA	?	Skip Caray, Pete Van Weiren, John Sterling, Ernie Johnson
Baltimore Orioles	1300 WFBR-MD	60+	
Boston Red Sox	1390 WPLM-MA	65	
California Angels	710 KHPC-CA	28	
	1090 XEPRS-BC	?	(Spanish)
Chicago Cubs	720 WGN -IL	?	Harry Caray, Lou Boudreau, Dewayne Stats, Vince Lloyd
Chicago White Sox	670 WMAQ-IL	15	Lorne Broen, Del Crandall
Cincinnati Redlegs	700 WLW -OH	81	Marty Brennaman, Joe Nuxhall
Cleveland Indians	1100 WWWE-OH	28	Herb Score, Steve LaMar
Detroit Tigers	760 WJR -MI	37	
Houston Astros	740 KTRH-TX	?	
			(Spanish TBA)
Kansas City Royals	580 WIBW-KS	117	
Los Angeles Dodgers	790 KABC-CA	?	
	1020 KTNQ-CA	5+	(Spanish)
Milwaukee Brewers	620 WTMJ-WI	64	
Minnesota Twins	830 WCCO-MN	60	
Montreal Expos	600 CFCE-PQ	20	(English)
	730 CKAC-PQ	?	(French)
New York Mets	1050 WHN -NY	22	
New York Yankees	770 WABC-NY	60	
Oakland Athletics	560 KSFO-CA	14	
	KBRG-CA		(Spanish)
Philadelphia Phillies	1210 WCAU-PA	25	
Pittsburgh Pirates	1020 KDKA-PA	?	
Saint Louis Cardinals	1120 KMOX-MO	115	
San Diego Padres	760 KFMB-CA	6	
	1420 XEXX-BC	?	(Spanish)
San Francisco Giants	680 KNBR-CA	?	
	1050 KOFY-CA	?	(Spanish)
Seattle Mariners	710 KIRO-WA	20	
Texas Rangers	820 WBAP-TX	?	
Toronto Blue Jays	1430 CJCL-ON	52	

The Dodgers' Spanish network consists of 960 KNEZ-CA, 970 KVIM-CA, 1020 KTNQ-CA, 2 unknown Mexican stations carrying the entire schedule, and other Mexican stations carrying part of the schedule.

I got a very poor response from you with respect to NBA and NHL network lists. I would like a better response this time, so send me any network lists that you have.

Fantasy Fielder

Armchair athletes are becoming local heroes—thanks to a former play-by-play man for the Brooklyn Dodgers radio network. For \$50 per cassette, Nat Allbright will customize a 30-minute radio sportscast in which you make all the right moves. A background crowd cheers as the announcer describes how you robbed Dave Winfield of a home run, out-rebounded Larry Bird, caught a touchdown pass from Joe Montana, or rode John Henry across the finish line by a neck. He'll mention your age, weight, height, "off-season" job, even the family members present at the big event. Contact Nat Allbright at 2124 North Military Rd., Arlington, VA 22207 (703-524-1341).



KSUUM - KELE Broadcasting Corporation

P.O. Box 410

Bevere, MO 65605

DOMESTIC DX DIGEST - EAST

Dave Schmidt (302) 323-0338
42 Chelwynne Road, Castle Hills, New Castle, DE 19720

Here is the NRC column which is almost as exciting as watching the laundry dryer drum go round & round! When sending your items in, please type or neatly write, one side of the paper, EST (changes to EDT soon!), skip a line or two between items. And here we go:

SPECIAL

- 1120 WMKS CA GARDON - 3/7 1845 s/off w/mention of 10000 watts, CP now on. (SF-TN)
1430 WLVS TN GERMANTOWN - Now AN w/Transtar Oldies format, legal ID as Germantown, so CP is now on. (SF-TN)

DX TESTS

- 1050 KSPO WA DISHMAN - 3/10 0300-0330 nary a trace, just CHUM/ XEG. (SF-TN)...3/10 not a chance! (JM-PA)

MIDDAY - MIDNIGHT

- 540 CJSB ON OTTAWA - 3/5 2040 fair/good w/MYL, sports, news. (KB-NY)
680 WCAW WV CHARLESTON - 3/8 1828 atop freq. tonite w/ID. (HJH-PA)
690 WZAP VA BRISTOL - 3/8 1824 weak/alone w/record giveaway contest. (HJH-PA)
730 WMTG KY VANCELEVE - 3/8 1844 fair/good, ending religious program into s/off w/mention of 1 kw. (HJH-PA)
WFMH KY MADISONVILLE - 3/8 1900 fading up from nothing, Ch music, s/off w/mention of 500 watts. (HJH-PA)
KWRE MO WARRENTON - 3/9 1856-1905 thought was WFMH again, had Ch music, fading up to very good level, sports, temp. check, ID, 'Clear Channel Voice of E Central MO' (HJH-PA)
920 WKRT NY COBURN - 3/4 1803 fair w/local news, MYL. (LM-NY)
WHJJ RI PROVIDENCE - 3/6 1930 w/ID, sports talk show. (KB-NY)
950 WPEN PA PHILADELPHIA - 3/6 1940 MYL, ID, some fading/noise. (KB-NY)
970 WFUN OH ASHTABULA - 3/5 1740 fair w/noise/w/WDJ w/rock music, ads, DJ chatter, 'all request show'. (LM-NY)
1000 CFLP PQ RIMOUSKI - 2/26 1850 atop w/French talk show. (LM-NY)
1130 WCXI MI DETROIT - 3/5 1815 very good o/u WNEW w/Ch music, Motor City Country music contest. (LM-NY)
1140 WCJW NY WARSAW - 3/4 1745 fair thru noise w/MoK music, weather. (LM)
1150 WHUN PA HUNTINGTON - 3/9 1815 strong ending EZL music, s/off w/mention of 1200 watts. (HJH-PA)
1170 WSRW NJ SOMERVILLE - 3/4 1749 fair w/WVA w/ads, contemp. music, ID's as Radio 1170. (LM-NY)
1180 UNID 3/4 1755 Ch music up in WHAM null then gone, who it be? (LM-NY) Hope Valley, RI maybe? (DS)
1200 WAGE VA LEESBURG - 3/6 2220 Ch music, financial news. (KB-NY)
1280 WXPY NY ROCHESTER - 3/4 1800 very good w/rock music, dual ID For AM & FM. (LM-NY)
1320 WARA MA ATTLEBORO - 2/26 1810 poor u/CFGM w/weather, PDA. (LM-NY)
1390 WRSC PA STATE COLLEGE - 3/7 1803-1822 good o/u WFBL w/call in sports trivia show. (LM-NY)
1400 WILI CT WILLIMANTIC - 2/26 1740 poor, up briefly w/accu weather 'The sounds you want to hear in stereo' slogan. (LM-NY)
WCND NJ PLEASANTVILLE - 3/7 1755 poor thru mess/w/ABY w/temp. for 'Atlantic City & the Mainland' (?), 'Solid Gold Radio' ID. (LM-NY) If you look at the map, there is a bay between Pleasantville & Atlantic City, thus the 'Mainland' temp. checks/mentions. Common practice w/all the stations in that area. (DS)

CONTINUED PAGE 47

AM Antenna Design: The New Wave?

31

Relaxed regulations and improved technologies are beginning to make AM's future sound better.

By Hugh Aldersey-Williams

The AM industry has been thrown into turmoil by recent moves both in technology and in regulatory areas.

For its part, the FCC has outlined regulatory changes it would like to see in AM broadcasting. The changes would improve AM's competitive position with regard to FM transmission, which has been received rather more favorably in recent years.

Night and day

While the FCC has been relaxing its regulations, the NAB has been seeking to improve AM antenna technology. The principal problem that hampers the success of AM transmissions is signal interference arising from the antenna signal strength profile (Figure 1a). Existing antenna designs generate signals having two components.

The groundwave is directed from the antenna to the horizon. The stronger it is, the wider the coverage of that broadcasting station. The skywave, on the other hand, is directed more vertically, and would not matter but for the fact that its signal is reflected by the earth's ionosphere back towards the surface. This can cause "selective fading"—severe amplitude and phase distortion or even disappearance into noise—of one broadcast signal, as well as interference between stations with signals that are close in frequencies even though they may be hundreds of miles apart. At night, the ionosphere reflects radio waves even more strongly than it does during the day, making many AM services unusable after dark. Efforts to increase the groundwave signal strength produce a concomitant increase in the skywave, merely exacerbating the problem of interference. In a typical AM broadcast antenna system, perhaps only 10 percent of the radiated energy goes into the groundwave.

Previous attempts to devise an antenna design with a stronger groundwave but a weaker skywave have not been very successful. Larger radiating structures have been able to generate stronger groundwaves while suppressing the skywave component, but this has not been possible with short radiators (shorter than half a wavelength). Successes have been limited by the comparative expense of the antenna designs

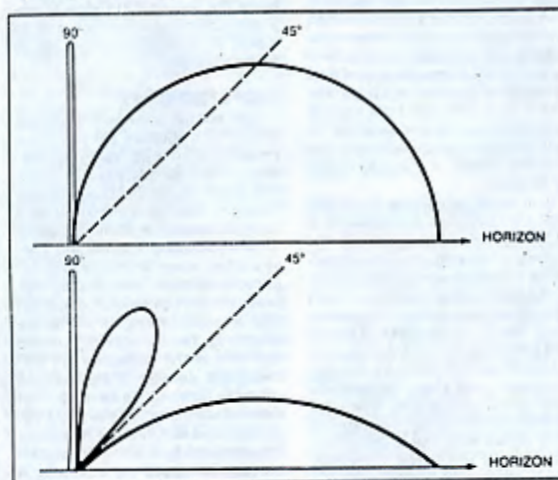


Figure 1. Signal strength versus departure angle for (a) typical AM antenna, (b) new design antenna. Note the relative increase in signal strength at the horizon (groundwave) and the decrease at 45 degrees (skywave).

and the fact that they did not suppress the skywave signal over the full range of vertical angles necessary to cut interference to an acceptable level.

Now, the NAB has authorized the construction and testing of two new antenna designs, which represent the most promising move in the technology of the field for years. "This is a major undertaking for the association," says NAB president Eddie Fritts, "one which we expect to have a significant impact on AM radio. The result should be a clearer, louder, better quality sound for AM."

In a field 40 miles west of Washington, DC, next month, ground will be broken for the prototypes, developed independently by two engineering consultancies. Construction of the antennas is expected to take one year, and field testing and proof of performance will take another year. Tests will be conducted on the unused 100 kHz available on AM.

The engineers responsible for the projects stress that both designs currently only exist on paper and have not yet been proven in any way. Nonetheless, theoretical predictions have been sufficiently optimistic for the NAB to give its backing. "A significant increase in AM service would result if these antennas are successful and implemented by AM broadcasters," says the NAB.

The new designs work essentially by combining a number of antennas at one location. The overall signal obtained by adding the individual signals from each antenna in the array is expected to provide more independent control over the skywave and groundwave component signals. Suitable adjustment of the component antennas could then minimize the skywave signal and simultaneously increase the horizon signal strength of the groundwave (Figure 1b).

Antenna segments

The first public announcement of a design, one of those now being investigated by the NAB, was announced at the September 1985 IEEE Annual Broadcast Symposium by Ogden Prestholdt, a retired partner of A.D. Ring and Associates. It comprises vertical, horizontal, and diagonal antenna segments. These segments are designed to be excited with carefully chosen current amplitudes and phases to obtain an overall radiation distribution with a suppressed skywave. Using separately driven diagonal as well as vertical and horizontal segments provides a selection of amplitudes and phases than has been possible with the "T" and "L" antennas tried in the past, says Prestholdt.

MORE →

Synchronous AM Xmtr Test Approved by FCC

Raymond J. J.

by David Hughes

32 The design was conceived when it was realized that "vertical polarization isn't necessarily generated only by a vertical wire," says Prestholdt. A possible configuration of Prestholdt's design is shown in Figure 2. It comprises a typical 190 degree base-fed vertical tower with a base insulator and guy cables. At the 145 degree height, there is a center-fed horizontal antenna oriented parallel to the y-axis and supported at its ends by insulators and an auxiliary set of transparent guy cables at a 45 degree angle. Thus, each half of the antenna is 45 degrees in length. The horizontal element would be fed from a balanced feed network supported in the tower which is in turn fed by a coaxial transmission line supported inside the tower and insulated, for isolation, from it for the lower 90 degrees.

Prestholdt calculates the radiation distribution—described in a series of conic sections—from the prototype antenna by first developing a mathematical description of the total radiation from a short current element using a computer. Then, the far-field—both skywave and groundwave—is calculated by integrating the antenna current elements and their images for each antenna segment. The component due to the vertical antenna only varies with the angle of elevation and is in that direction, while the horizontal signal is a function of both elevation and bearing from the antenna and has components in both of these directions. The elevation components are found to be in time quadrature—i.e., these signals from the horizontal and vertical antennas are 90 degrees out of phase when the antenna currents are in phase. By selecting appropriate signal amplitudes the skywave component can then be minimized.

A typical configuration of two

distant antennas of the new design might reduce the RMS of the groundwave significantly from its value for conventional vertical antennas. But, Prestholdt reports, the AM transmission service radius can be approximately doubled because of the reduced level of interference between the two antennas. "It is not yet known how versatile the system will eventually be," says Prestholdt, "but it is anticipated that it will permit new stations to be added to the spectrum, for existing stations to improve their local service and to result in reduced interference to many stations."

Short radiators

The second proposed antenna comes from Richard Biby of Communications Engineering Services. It will be described in detail in a paper at the NAB conference in April. The design centers on a base-fed monopole of about a quarter of a wavelength in height. This operates over a conventional ground system comprising approximately 120 buried copper radial ground wires of the same length as the monopole. Around the base of the monopole are distributed a number of shorter ($1/10$ wavelength) base-fed radiating elements. These short radiators and the central monopole are enclosed by a circular electric screen also about $1/10$ wavelength high and roughly a quarter of a wavelength from the monopole (Figure 3). Biby says that "this is not a super-gain scheme—the performance of the antenna is critically dependent on the imperfect conducting characteristic of the earth."

The screen in the layout serves to cancel the creation of a strong groundwave by the short radiators, but does not prevent them from radiating a strong skywave at angles above the horizon. Judi-

icious positioning of the screen and the short radiators allows the skywaves from the central monopole and from the short radiators to be closely matched in phase and amplitude. Then, adjustment of the short radiator currents can cancel the two skywaves over a range of vertical angles. The circular electric screen only has a small effect on the groundwave component from the monopole.

"This antenna design," says Biby, "should result in greatly increased groundwave signal strengths per unit of input power as compared with that obtained with conventional antenna systems." Biby's computer model of the new antenna concept allows for variation of a number of details that affect the radiation strength at vertical and horizontal angles from the antenna. These variables on the computer model include frequency, the number and dimensions of radiating elements, conductivity, and dielectric constant of the screen and the earth. Biby is able to compare results for well-established designs for verification of the model before using it to predict an optimum new antenna configuration.

For the future

Both Biby and Prestholdt are confident that their computer modeling of their antennas' performance will be verified when the antennas are up and running in early 1987. For the moment, however, they emphasize that they have only these theoretical predictions.

Nonetheless, their experiments are being followed with interest by the parties that stand to benefit. Biby and Prestholdt have been

Washington DC ... The FCC has authorized a test of a synchronous AM transmitter in connection with its report on AM improvement, now expected to be released in mid-March.

On 17 January, the Commission granted an "experimental authorization" for a synchronous transmitter test in East Las Vegas, Nevada.

AM synchronous transmission involves using additional, strategically located, carefully synchronized transmitters that broadcast the same programming on a frequency identical to that of the primary transmitter.

Synchronous transmitters are widely used in Europe, where the problem of AM band congestion is far more severe than in the US. In England, for example, the BBC operates four transmitters operating between 50 and 150 kW, all on 1089 kHz, for its "Radio 1" domestic pop music service.

US stations, the FCC said, could utilize synchronous transmitters to fill gaps in coverage within an authorized service area, or to extend the station's actual service area.

However, the Commission maintained that synchronous operations must comply with the allocation procedures contained in the FCC rules for standalone stations.

Nevada test

Laughlin Roughrider Broadcasting, which has been awarded a construction permit to build a new AM station in Laughlin, Nevada, will conduct the experiment, according to Gary Thayer of the FCC's AM Branch.

Laughlin Roughrider said it wanted to construct "a second facility to provide uniform coverage in the primary service

area" of the authorized Laughlin facility without requiring the use of a second radio frequency.

The proposed slave station would be located in East Las Vegas, about 60 miles away from the primary station in Laughlin.

Operating on 870 kHz, the slave station will have a power of 300 W omnidirectional daytime and 500 W directional nighttime. The main station, on the same frequency, is authorized to operate with 10 kW directional daytime and 1 kW directional nighttime.

The FCC asked Laughlin Roughrider to file regular reports on the operation.

Thayer said the Commission has not received any additional requests from stations wishing to perform tests with synchronous transmitters.

Technology advances

Because of technological advances, particularly in the areas of sophisticated new control circuits and highly stable frequency elements, two or more AM transmitters can be precisely locked on the same frequency and can "compensate for the program propagation delay between the primary and synchronous slave transmitters," the FCC said.

The experimental authorization will provide data "concerning the potential benefits and practicality" of allowing synchronous AM transmitters, the Commission added.

However, FCC Mass Media Bureau Engineer Bill Hassinger said that the FCC is taking "more of a slow-go attitude" with the synchronous transmitter rule proposal, due to be released during the first half of 1986.

Though the issue was originally included as part of another docket last

year, the FCC, in response to comments from broadcasters, particularly the NAB, decided that the issue should be removed from Docket 84-752 and examined separately and in greater detail in 1986.

Synchronous transmitters do cause an "area of interference," Hassinger said, and their use may have to be confined to areas with less population and less AM band congestion, as in the West.

Hassinger added that the practicality of allowing synchronous transmitters in the crowded AM band in the east was "doubtful."

"We may find out that synchronous transmitters work only in some special cases," he said.

AM improvement report

The synchronous transmitter issue is part of a much larger FCC examination to improve the overall technical quality and options for AM radio.

FCC Mass Media Bureau Chief James McKinney said the Commission will soon issue a report on a wide range of methods to improve the fate of AM radio.

The report will examine the nation's clear channel service, bandwidth reductions to reduce interference, AM translators and AM dupoly rules. McKinney said that one of the first rulemaking proposals to be spawned from the report will examine the use of AM synchronous transmitters.

Hassinger said the report is now due to be released in mid-March. It had earlier been scheduled to be released in December, and then in January.

Hassinger said many of the FCC personnel working on the report are also busy preparing for the Regional Advisory Radio Conference (RARC), scheduled for April in Switzerland, which has caused a delay in the AM improvement report. The RARC will study expanding the AM band to 1705 kHz.

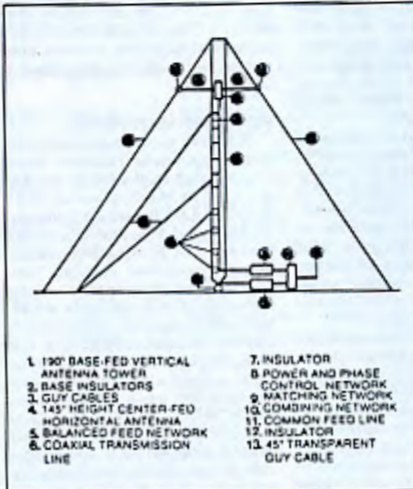


Figure 2. Design of Prestholdt's AM antenna comprising horizontal, vertical, and diagonal antenna elements

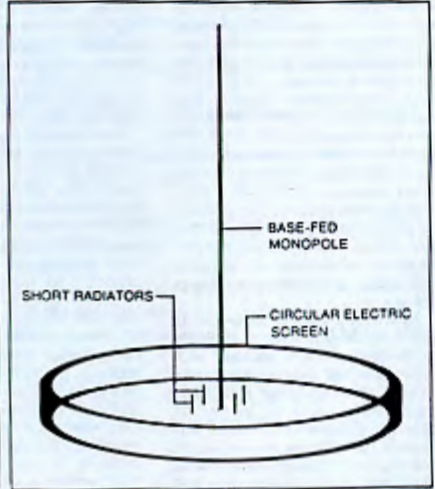


Figure 3. Design of Biby's AM antenna showing the central monopole, four short radiators, and the circular electric screen

Storm drill too real for radio, experts fear

By Ralph Haurwitz
The Pittsburgh Press

The Pennsylvania Emergency Management Agency and some broadcasters are sounding an early warning of their own on the National Weather Service's plan to use a simulated tornado warning in a statewide broadcast next week.

"Somebody pattering around their kitchen may hear the word tornado and miss the bit about a test and panic," said Jack Layton, engineering manager for KDKA-Radio. "We don't want to have a 'War of the Worlds' thing where (people think) the Martians are coming."

Layton was referring to the 1938 radio drama based on H.G. Wells's "War of the Worlds," in which a simulated newscast of an invasion of New Jersey by creatures from Mars panicked thousands of listeners.

The National Weather Service plans to activate the Emergency

Broadcast System during the tornado drill March 14 to test the communications readiness of the weather service, broadcasters and state emergency officials.

The current script repeatedly mentions that it is a test tornado warning, said Charles Heckler, meteorologist-in-charge at the National Weather Service office in Pittsburgh. "I think it's worded such that it's not too likely" the public will misunderstand, he said.

The drill is a response to a series of tornadoes in last May that killed 65 people in Pennsylvania, 12 in Ohio and 12 in Ontario. Statewide tornado drills have been held in many other states, but never before in Pennsylvania.

The weather service plans to issue messages concerning the make-believe tornadoes over its NOAA Weather Radio channel and through the Emergency Broadcast System, a voluntary network of radio and TV

stations. The 179-word script prepared by the weather service, part of the National Oceanic and Atmospheric Administration, begins:

"This is a test. It is part of a statewide tornado drill which the National Weather Service is conducting in cooperation with the Pennsylvania Emergency Management Agency. The National Weather Service in Pittsburgh has issued a test tornado warning until 9:15 a.m. for these counties in Western Pennsylvania—Mercer, Lawrence, Beaver, Washington, Greene, Butler, Allegheny, Clarion, Armstrong, Westmoreland, Fayette, Indiana,

John R. Haurwitz
Pittsburgh Press

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FCC Plan Redefines Class III AMs

by David Hughes

Washington DC... The FCC has approved a plan that calls for a single Class III AM radio category by eliminating the Class III-A and III-B distinctions.

As part of the same docket, the Commission said it will upgrade Class IV AM operations in Puerto Rico, the US Virgin Islands, Alaska and Hawaii to Class III

“ The rule change would give the stations “greater flexibility” in the application of directional antennas.

status, thereby allowing them to better combat interference from foreign broadcasters.

As part of 16 January action, the FCC said it has made a modification in skywave field strength measurements and then cross-referenced domestic and international station classifications.

Class III changes

Elimination of the distinctions between Class III-A and Class III-B stations will give Class III-Bs similar maximum power limits and protection against interference that apply to Class III-As.

“At this stage of the AM service's development, we believe that no useful pur-

pose would be served by maintaining the distinctions between Class III-A and Class III-B stations,” the FCC remarked when it proposed the rule change in July 1985.

Class III rules require that a station operate between 500 W and 5 kW. Class III-Bs had a power ceiling of 1 kW.

The FCC said that Class IIIs operating on regional channels would be protected to their 0.5 mV/m contour daytime and to their 2.5 mV/m contour at night, or to their interference contour limit, whichever is greater.

The FCC also said that the former Class III-Bs would continue to be protected to their current nighttime limits, even if less than 4 mV/m.

Class IV upgrades

The FCC, in the same docket, has reclassified six local AM channels in Alaska, Hawaii, Puerto Rico and the US Virgin Islands as “regional channels.” It also reclassified Class IV stations in those areas as Class IIIs, thereby allowing them to apply to increase their power to 50 kW.

AM stations in Puerto Rico and the Virgin Islands have complained that interference from neighboring Caribbean countries is severe due to the high conductivity of sea water.

The FCC added that Alaska and Hawaii, two other areas where stations are affected by the propagation characteristics of bodies of water, could also benefit from higher power levels.

The Commission's action reallocates the “local” channels in Puerto Rico, the US Virgin Islands, Alaska and Hawaii as “regional” channels. Affected frequencies

include 1230, 1240, 1340, 1400, 1450 and 1490 kHz.

The rule change would give the stations “greater flexibility” in the application of directional antennas during both daytime and nighttime operations, the FCC said in its Notice of Proposed Rulemaking (NPRM), released in July 1985.

The FCC, however, stated that reclassified Class IIIs would be required to protect Class IV stations on the US mainland. “No loss of service would result from the use of increased power by such reclassified stations,” the FCC said.

Other changes

The rule changes in the docket also prescribe the values of skywave field strength at distances of 100 km for distances less than 100 km from the transmitter.

Figure “1a” of FCC rules section 73.190 does not extend to distances less than 100 km, according to the Commission.

In the relatively few cases that may be expected to arise where there would be any occasion to calculate skywave field strengths at distances less than 100 km from the transmitter, it is anticipated that the pertinent locations would seldom be substantially less than 100 km,” the FCC said in its July rulemaking proposal.

Originally the docket examined the use of AM synchronous transmitters, which would allow an AM station to extend or reinforce its coverage area by using a second transmitter on the same frequency. However, the FCC decided to examine that issue separately (see article in this issue).

FCC docket number is MM 84-752.

Funds OK'd for Two Florida AMs

by David Hughes

Washington DC... The FCC has approved that funds be released to two Florida stations as monetary compensation in the battle to override Cuban AM band interference.

On 16 January the Commission approved funds totalling \$113,271.44 to be given to Sudbrink Broadcasting, the former owner of Miami AM station WNW5 “for expenses incurred in modifying its transmitting facilities to offset the effects of Cuban interference to its service area.”

On 5 February, the FCC approved \$84,026.79 in funds to compensate WIOD/WAIA Inc., owner of Miami AM station WIOD.

The two funding recommendations bring the number of stations that have had their requests for compensation approved to three. In 1985, the Commission approved \$12,265 in compensation for another Florida AM station, WSUN in St. Petersburg.

Six other Florida AM stations that have also filed for compensation await FCC rulings on their claims.

The compensation program, which is administered by the FCC, was adopted by Congress in October 1983 after Florida broadcasters complained that increasing Cuban interference forced them to make expensive improvements to their transmission systems.

The Radio Broadcasting to Cuba Act authorized compensatory payments to broadcasters, with the applications to be reviewed by the FCC. Rules regarding the compensation procedures were adopted in March 1984.

Even though the FCC has approved the compensation claims for WNW5, WIOD and WSUN, none has received any funds.

According to FCC Audio Services Division Asst. Chief Dennis Williams, the Commission's compensation recommendations are sent to the US Information Agency (USIA), which is then supposed to distribute the money.

“The FCC makes the findings,” but does not award money, Williams said. He added that no funds have been appropriated by Congress to the USIA for the compensation program.

A USIA spokesman said that while Congress has “authorized” the agency to spend \$5 million for Cuban interference compensation, no funds have actually been “appropriated” or “earmarked.”

He said that USIA would wait until most of the Cuban interference claims are handled by the FCC before it asks Congress for the money. “We can't go to Congress every time we get a claim. We'll probably wait and ask for one lump sum,” he added.

WNWS case

The Commission said that WNWS, which operates an English language news/talk format on 790 kHz with 25 kW, was given Special Temporary Authority in 1981 to increase power from 5 kW to counteract Cuban interference.

At the time the improvements were made, the station was owned by Sudbrink Broadcasting, which filed its application for compensation on 31 October 1984. However, Sudbrink has since sold WNW5 to Jefferson-Pilot Broadcasting.

Williams said the compensation, when awarded, would go to Sudbrink, unless the transfer of ownership documents between Sudbrink and Jefferson-Pilot specified otherwise.

“The increased power and modified radiation patterns utilized by WNWS in its day and night STA facilities fall far short of recovering all the previously served areas lost to Cuban interference,” the FCC said in the WNWS ruling.

“It is quite obvious, given the engineering constraints involved, that the modifications to both the daytime and nighttime transmitting facilities of WNWS were made for the sole purpose of mitigating the effects of severe interference from Cuba and not for the purpose of rendering service to previously unserved areas,” the Commission added.

WIOD case

WIOD, 610 kHz, operates according to a STA issued in 1981 with 10 kW day and night using a directional antenna system, up from its previous 5 kW.

The Commission said it conducted an interference study and found that WIOD “receives widespread Cuban interference throughout the northwestern, western and southwestern regions of its licensed daytime service area.” The station suffers “severe interference” at night, the FCC added.

Williams said FCC compensation recommendations for the additional six AM stations could be announced by spring, but added that some of the remaining cases are “extremely complicated.”

Incidentally, the new owners of WNW5, Jefferson-Pilot, recently sold another Miami station, WGBS, a 50 kW operation on 710 kHz that became WAQI and assumed a Spanish-language format. In October 1985, Cuba began broadcasting its Radio Rebelde program underneath WAQI, interfering not only with WAQI, but also with WOR in New York. That interference continues.

TO THE LONG ISLAND EDITOR

BY TINEA

Long Island Radio: The Other Market

Your Feb. 16 article, “L.I. Radio Beats City Stations for Listeners' Hearts and Ears,” was interesting reading but unfortunately only told half the story.

In fact, Long Island is two markets, the one upon which you focused, Nassau and western Suffolk County, and the one which you overlooked, eastern Suffolk County, which encompasses half of Brookhaven Town and the five East End towns of Riverhead, Southold, East Hampton, Southampton and Shelter Island.

Although less populous, this area is as long geographically as Nassau and western Suffolk, and is the fastest growth area on Long Island. It is served by eight excellent radio stations: WBAZ-FM, Southold; WRIV-AM, WRHD-AM and WRGN-FM, Riverhead; WWHB-FM, Hampton Bays; WSBH-FM, Southampton, and WLNG-AM and FM, Sag Harbor.

Seldom do any of these radio stations appear in the Nassau-Suffolk rating books because Arbitron places so few dials on the East End. However, on the East End these eight stations demolish the competition from New York City.

Fact No. 1: Of the 13 “most listened to” stations from New York City, eight are FM stations whose signals cannot be received on the East End.

Fact No. 2: Of the remaining five AM stations, four are news or news-talk stations with minimal or no coverage of local issues, events, weather and public affairs on the East End. And even they do not cover the entire East End all of the time with clear sig-



The New York Times/Ransohoff/Dun

1090.am  Gospel
DRAWER D
EXCELSIOR SPRINGS, MISSOURI 64024

receiving attention from a number of companies, which do not wish to be named. Michael Rau, the NAB's engineer coordinating the field study, also says a lot of interest is being shown by the broadcast community—engineers, consultants, and managers. Such interest, while encouraging, is a little premature with first tests not due to start for at least a year. The NAB is, however, maintaining a mailing list for those who wish to be updated on progress and for volunteer AM engineers interested in performing the necessary skywave field measurements over the period of the test. BME

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Jefferson, Clearfield, Cambria, Somerset, Blair, Bedford. If this had been a real tornado warning, it would mean that a tornado was imminent or in progress.”

The message goes on to say where the simulated tornado touched down and lists safety precautions that should be taken during a tornado, such as staying away from windows, doors and outside walls. It asks listeners to send a card to the weather service to let officials know that they heard the message.

“We greatly and strongly disagree with any attempt” to broadcast details about the tornado drill, said John Comey, the spokesman for the Pennsylvania Emergency Management Agency.

“We are urging the National Weather Service, if they are going to activate the Emergency Broadcast System as part of the exercise, to make the message very general, with no mention whatsoever of tornadoes.”

KDKA-Radio is planning to write its own script, omitting detailed references to tornadoes, said Layton. As the primary Emergency Broadcast Station in Southwestern Pennsylvania, KDKA-Radio would trans-

mit its script — not the weather service's — to other radio and TV stations in the region.

Layton, who said the station's decision on the matter was not final, said there was too great a risk that a casual listener would mistake the test tornado warning for the real thing.

Heckler said he doubted whether listeners would misunderstand the drill message. He said an earlier draft of the message “did, I think, raise that concern because it was worded like a real warning with the beginning saying it was a test.”

Donald Witten, a spokesman for the headquarters office of the National Weather Service, said: “It sounds to me like a perfectly clear statement.”

In northwestern Pennsylvania, where much of the death and destruction occurred during last year's tornadoes, some broadcasters have refused to carry any message during the drill, said Comey of the state emergency agency.

However, at least one station said it would carry a detailed message discussing the make-believe tornadoes.

Introduction

Since the '70s, many phasing unit designs have appeared in the DX press. Over two dozen medium-wave DXers have successfully implemented phasing systems of various types: they enjoy the ability to null out many unwanted stations & noises and, as a result, hear desired co-channel or adjacent-channel DX stations. Phasing (along with looping, audio filtering, active preselection, and IF-circuit enhancements) has become a useful weapon in the DXer's arsenal, a valuable tool in the "bag of tricks" necessary to log new stations in this age of broken-down "clear channels", extended hours for "daytime" stations, and new RF noise-pollution sources (light dimmers, digital appliances).

A frequent complaint heard about phasing systems is that they are too complicated for some DXers to operate. It is generally true that establishing a null with a phasing unit takes more control manipulations than establishing a null with a loop antenna. The main reason that phasing is used by serious international MW DXers is that it sometimes offers nulls not obtainable with looping. (In some cases - e.g. inside metal buildings - looping isn't viable at all.)

The Micro-MWDX-4 is an L-C type phaser that has simplified control operation as its major design goal. Other concepts embodied in the Micro-MWDX-4 are:

- (1) passive design: no battery or mains power is required
- (2) small size: practical for DXpedition purposes, especially when airplane travel is involved
- (3) low cost: estimated parts cost \$ 60 or less (the tuning capacitor is about 25 % of the entire cost)

The relationship between the fancier MWDX-4A and the Mini-MWDX-4 is somewhat akin to the relationship between a luxury car and a subcompact model. The MWDX-4A (with its more efficient coupling, more precise null-tuning, and amplification capability) certainly outclasses the Micro-MWDX-4, but the increased cost, size, and complexity of operation may not suit every DXer's tastes. For many DXers, more than 75% of the medium-wave stations that can be nulled with the MWDX-4A can also be nulled with Micro-MWDX-4.

In discussions to follow, please refer to the Micro-MWDX-4 schematic (Figure 1). Construction documentation is restricted to a chassis-hole list only. Other aspects of construction may be derived from information in my other recent phaser and active-tuner articles.

Single-Line Tuning: the Key to Micro-MWDX-4's Simplicity

Of the two antenna inputs required for phasing, only one of these (Line 1) has an L-C tuner associated with it. DX Lab. testing has determined that if a receiver can operate spur-free with the antennae-to-be-used connected directly to its input, it will work well with the Micro-MWDX-4. The spur-free stipulation must be met because there is no tuning on the Line 2 aerial. Those who experience overload when connecting their favourite longwires to their receivers are advised to pump the output of Micro-MWDX-4 through a tuner. Any member of the MWT and Mini-MWT families of tuners is ideally suited to be placed between the output of Micro-MWDX-4 and the input of the receiver. The normal way to set up a follow-up tuner is to set S2 of Micro-MWDX-4 to Line 2 (the untuned line) and peak the tuner (adjusting the tuner's attenuation pot if necessary) before proceeding to actual nulling procedures.

Figure 1: Micro-MWDX-4 Schematic

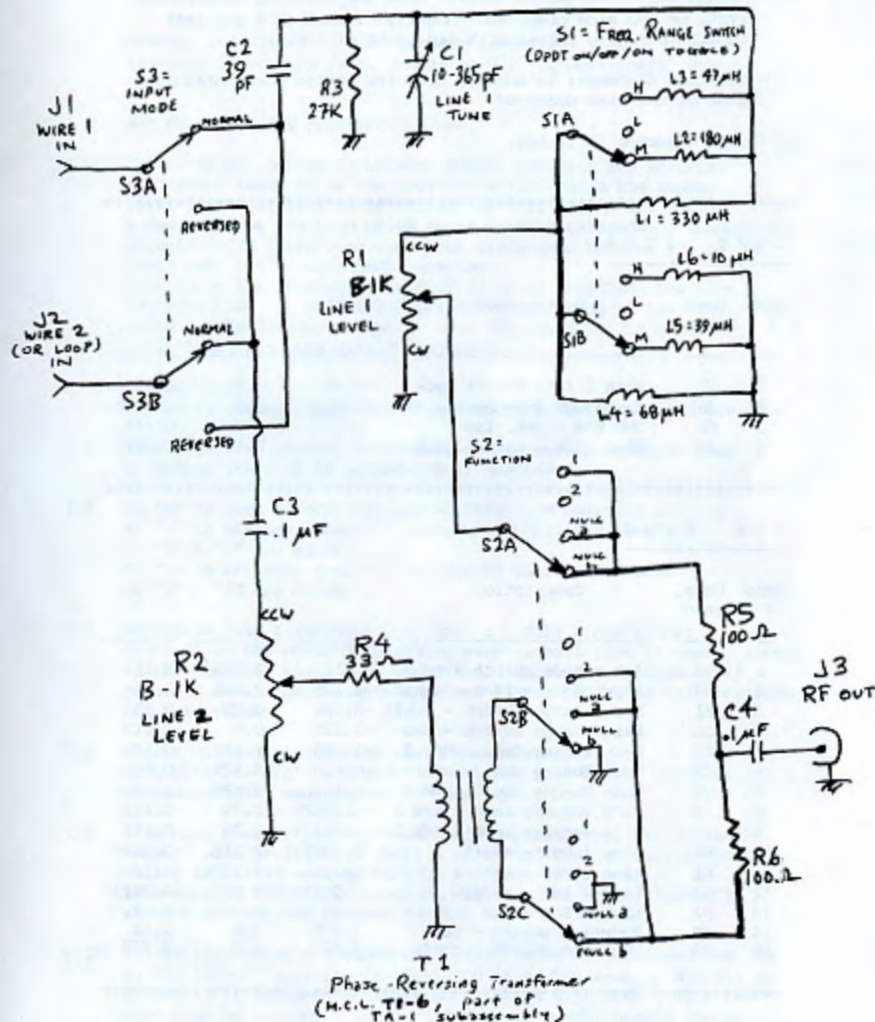


Table 1: S1 Frequency Range Switch Settings Guide

Freq. Range, kHz	S1 position	S1 orientation	Equiv. L, uH	
			S1A	S1B
500 - 750	lowband (L)	middle	330	68
750 - 1250	midband (M)	down	116.5	24.8
1250 - 1800	highband (H)	up	41.1	8.7

Ranges may vary slightly from those above.

Table 2: Hole List for Micro-MWDX-4

BOX USED = Radio Shack 270-238 (5.2" x 2.92" x 2.125")

X = horizontal distance, in inches, from the vertical centreline (VCL) on the side observed. Negative values of X are left of VCL; positive values of X are right of VCL.

Y = vertical distance, in inches, from the bottom horizontal edge of the side observed.

D = hole diameter in inches.

LEFT SIDE

Hole #	Comp. Desig.	Description	X	Y	D
1	J1	Wire 1 In - banana jack	-0.75	0.5	0.3125
2	J3	Earth GND In - banana jack	0.0	0.5	0.3125
3	G1	GND H/W - int. lug	0.0	1.125	0.113
4	J2	Wire 2 In - banana jack	0.75	0.5	0.3125

TOP SIDE

Hole #	Comp. Desig.	Description	X	Y	D
1	S3	Input Mode switch - tab	-2.125	2.375	0.113
2	S3	Input Mode switch - shaft	-2.125	2.125	0.25
3	S1	Freq. Range switch - shaft	-2.125	0.75	0.25
4	S1	Freq. Range switch - tab	-2.125	0.5	0.113
5	C1	Main Tuning Cap. - H/W 1	-1.088	1.625	0.14
6	C1	Main Tuning Cap. - shaft	-0.625	1.375	0.5
7	C1	Main Tuning Cap. - H/W 2	-0.162	1.625	0.14
8	-	C1's vernier knob - H/W 1	-1.28125	0.75	0.113
9	-	C1's vernier knob - H/W 2	0.03125	0.75	0.113
10	R1	Line 1 Pot - shaft	0.9375	2.125	0.3125
11	R1	Line 1 Pot - tab	1.25	2.125	0.14
12	R2	Line 2 Pot - shaft	0.9375	0.625	0.3125
13	R2	Line 2 Pot - tab	1.25	0.625	0.14
14	S2	Function switch - tab	1.875	2.0	0.14
15	S2	Function switch - shaft	1.875	1.5	0.375

RIGHT SIDE

Hole #	Comp. Desig.	Description	X	Y	D
1	TAL	Phase Rev. card - H/W 1	-0.875	1.25	0.113
2	TAL	Phase Rev. card - H/W 2	-0.875	0.45	0.113
3	J4	RF out - BNC jack	0.0	0.5	0.375

Micro-MWDX-4 Phasing Unit Procedure

Refer to schematic & to labels on unit.

1.0 2-wire phasing

- 1.1 Connect longwire 1 to J1. Connect longwire 2 to J2. Connect receiver input (via coax. cable) to J4. Connect earth ground to J3.
- 1.2 Set R1 & R2 fully counterclockwise.
- 1.3 Set S2 to 2. Switch S3 between NORMAL position and REVERSED position. Leave S3 on the position which yields the weaker level of the station to be nulled, or - if levels are within a few dB - the position which shows greater evidence of subdominant signals. (If there's no clear-cut difference between the two positions, set S3 to NORMAL position.) Note (from the schematic) that if S3 is on REVERSED, the Line 1 controls (C1, S1, R1) will actually be operating on the wire connected to J2 rather than on that connected to J1; similarly, R2 will act upon the wire connected to J1.
- 1.4 Set S2 to 1.
Set S1 to correct range for frequency of operation (per Table 1).
- 1.5 Tune Line 1 by peaking desired-frequency signal strength with C1 (then, leave C1 at peaked-signal position).
- 1.6 Switch S2 back & forth between position 1 & position 2: If "1" is stronger than "2", adjust R1 until the levels of "1" & "2" are equal. If "2" is stronger than "1", adjust R2 until the levels of "1" & "2" are equal.
- 1.7 Switch S2 back & forth between Null a & Null b positions: leave S2 on the position yielding more cancellation (= weaker level) of the dominant station to be nulled. Subdominant signals, if present, should become more apparent if the proper S2 null position has been chosen.
- 1.8 Adjust C1 to get a null of the dominant station. If a null or "dip" at a given C1 setting does occur, leave C1 at that setting and proceed to step 1.11.
- 1.9 If a null doesn't occur [an unlikely possibility], set S2 to the 'other' null position (to Null b if it had been on Null a, to Null a if it had been on Null b) & adjust C1 for null. If a null or "dip" at a given C1 setting does occur, leave C1 at that setting and proceed to step 1.11.
- 1.10 If, at this point a decided null still can't be discerned, set S3 to its 'other' position (to REVERSED if it had been on NORMAL; to NORMAL if it had been on REVERSED). Steps 1.5, 1.6, 1.7, & 1.8 must then be re-done. In all likelihood, a null should now be established (thereby obviating the need to re-do step 1.9).
- 1.11 Try to enhance the null by adjusting R1. If best null is with R1 fully CCW, leave R1 there. Try to enhance the null by adjusting R2. If best null is with R2 fully CCW, leave R2 there.
- 1.12 Make successive adjustments of C1 and whichever pot (R1 or R2) was found to have the greatest effect on null enhancement in step 1.11. After several of these successive adjustments, a very good null should be obtained. Occasional re-adjustment may be necessary when the station to be nulled is arriving via skywave and is closer than 500 mi./800 km. The need for re-adjustment is more common on the high end of the band (above 1100 kHz).

Micro-MDX-4 Phasing Unit Procedure (continued)

2.0 loop vs. wire phasing

Loop must have fixed 15K (Q-spoiling) resistor across LC tank.

The fixed 15K resistor should be switchable in (= low Q) or out (= high Q): the switch used will be referred to as the Q switch.

Loop's tuning capacitor will be referred to as the Loop cap.

- 2.1 Connect longwire to J1. Connect loop output cable inner conductor to J2. Connect loop cable shield and earth ground to J3. Connect receiver input (via coax. cable) to J4.
- 2.2 Set R1 & R2 fully counterclockwise. Set S3 to NORMAL position.
- 2.3 Set S2 to 1.
Set S1 to correct range for frequency of operation (per Table 1).
- 2.4 Tune Line 1 by peaking desired-frequency signal strength with C1 (then, leave C1 at peaked-signal position).
- 2.5 Set loop's Q switch to High Q. Turn loop power on. Set S2 to 2 & peak the desired-frequency signal with the Loop cap. Then, set the loop's Q switch to Low Q.
- 2.6 Switch S2 back & forth between position 1 & position 2:
If "1" is stronger than "2", adjust R1 until the levels of "1" & "2" are equal.
If "2" is stronger than "1", adjust R2 until the levels of "1" & "2" are equal.
- 2.7 Switch S2 back & forth between Null a & Null b positions:
leave S2 on the position yielding more cancellation (= weaker level) of the dominant station to be nulled. Subdominant signals, if present, should become more apparent if the proper S2 null position has been chosen.
- 2.8 Adjust C1 to get a null of the dominant station.
- 2.9 Try to enhance the null by adjusting R1. If best null is with R1 fully CCW, leave R1 there.
Try to enhance the null by adjusting R2. If best null is with R2 fully CCW, leave R2 there.
- 2.10 Make successive adjustments of C1 and whichever pot (R1 or R2) was found to have the greatest effect on null enhancement in step 2.9. After several of these successive adjustments, a very good null should be obtained. Occasional re-adjustment may be necessary, especially on high-angle skip. If you've reached a deep & steady null and the C1 / pot adjustments to get additional nulling become too touchy, try slight physical re-positioning of the loop to help in establishing the maximum null.

Please write to me if you have any questions about Micro-MDX-4 use, construction, availability, etc.

(address = 30 William Road - Billerica, MA 01866 USA)

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The opinions expressed in this column are those of the individual writer and do not necessarily reflect those of the Editors, Publishers, or the National Radio Club, Inc., or its subsidiaries.
Times are local per Muse.

we're into the season of spring showers and t-storms, but the DX keeps rolling in. Don't forget that we start skipping weeks with the next issue, #25, which will be in your hands on or about April 14. #26's deadline will be April 18, and for this one, let's hear recommendations from those of you who continue DX'ing year-round ... suggestions for target areas and stations, DX techniques, best times, etc., for during the (RN) of the summer months. In #27 (May 23), we'd especially like to hear from NRC'ers living outside of North America. And we'll accept Keith Ferguson's suggested Musings theme for #28 (June 27), "Computers in DX'ing". I'm holding #29 (August 1) open for now, but #30 (Sept. 5) will be the annual "Memories" issue, and #1 some time in September will be the annual re-intro issue. So now that you can mark your calendar to plan ahead through the spring and summer for these topics, let's get on with it!

We received a goodly number of Musings concerned with this issue's topic, favorite sign-on and sign-off announcements, but unfortunately Jerry Starr's cassette tape of one is somewhere between L. A. and Youngstown ... looks as if it slipped out the side of the envelope, Jerry. Sorry! And speaking of envelopes, those of you who recycle used and business reply envelopes to send Musings may be costing the recipient a healthy amount of postage due. Business reply envelopes, if the bar graph on the right side of the envelope is showing, will cost the recipient as much as 45 cents ... and the next postage due letter in such an envelope addressed to this address will be refused! 'Nuff said!

John R. Malicky - 995 Shadycrest Rd. - Pittsburgh, PA 15216-3023

Hello, all! I'm back into Musings after an absence since the December 2 issue. First off, just received a call tonight from (and I hope I have your name correct) new member Loyal Richmond of Louisville, CO (suburb of Denver) who asked about Eric Bueman's DX-400 (in handscan) which he thought I used, a simple mistake, but thanks for calling, Loyal, and welcome to the club! Speaking of phone calls, way back on January 25, Laurie (pronounced "Larry") Boyer of Invercargill, New Zealand, wanted to know the dates for this year's convention, so we'll be looking for you, Laurie! ... As for the theme of this issue, my favorite sign-off announcement has to be from WFIV-1080 Kissimmee, FL. Although they were at the time I heard them in January, '83 a country station, their sign-off begins with the beautiful "Ebbtide" by the Frank Chacksfield Orchestra. Some MYL'ers and BBD stations play this tune and you might recognize it. "Ebbtide" (and the sign-off) starts with waves lapping at the shore with the sound of seagulls, then soft string music and the message overtop, "At this time, radio station ...", then the music slowly fades into "An Evening Prayer" by Marty Robbins, which actually sounds like a Gospel tune. When I was DX'ing at sunset during that month, WFIV would almost boom in nightly with that sign-off which signified to me that the day was coming to a close, evening and night coming in. Even though I didn't know those two selections, I was very moved by them and taped it for my files. However, verifying WFIV didn't come until July, '84, but the signer wrote a nice letter and mentioned those selections. Now I'll always associate "Ebbtide" with Florida. Offhand, some other favorites include a slow Dixie tune and the sign-off of WCLB-1570 Oneonta, AL, in January, '81 (verified and taped); Black-sould music extolling the virtues of "Number 1 (ratings) for the past 5 years ..." WNNM-1070 Tallahassee, FL (verified and taped) in December, '84; ending the sign-off of WFLV-Hendersonville, NC with "...that's all, folks!" and those mentioning "leaving the air" ... because the FCC says we have to ... (a really pesty non-verifier and taped); and a corny, but funny one from WPAK-1000 Huntsville, AL of last year mentioning phrases like "... we now must yield to our neighbors in the north (and the background real briefly, 'Remember the Alamo!') ... and to our neighbors to the south (mentioning 'be very careful, gringos!')." Of sign-ons, a few come to mind, in December '79, WNNM-1550 Newton, MA after the N. A. played bold, brisk music while a bold-sounding announcer spoke: last year in January fairly new station WAIS-770 Buchtel, OH began with a cuckoo clock; and WYIS-690 Phoenixville, PA began with large bells. All 3 verified and taped. A pre WPLW-1590 in Carnegie, PA (local), WZUM, a favorite hard rocker, in June, '74, signed off for a month with electronic music from Tomita ... Finally, thanks to those who tried and enjoyed receiving the WIFX-1000 tests given 3 times. The CE, Don Mussell, said he wanted to do 3-4, so that's why there were so many! An avid SWL'er, Don said it's possible he might join our ranks after looking over the sample DX News! (Sign 'im up! -pls) He's contracted for 4 stations in his area. I hope everyone got their verie. 73's. (John's getting the most mileage out of his 22-cent stamp ... he's achieved the record of FOUR Musings in one envelope, all participating in the Musings themes. Thanks for your contributions, John -pls)

Bob Harrison - 166 Renner Ave. - Union, NJ 07083-8839

A few years ago there was a record on the country charts by Hank Williams Jr. called "Dixie On My Mind". It was about some fellow from down South who found himself stuck in New York City, and the opening lyrics of the song were, "The stations up here, they don't sign off with 'Dixie'." Well, in the four years I've been DX'ing, I've heard a lot of stations from down South signing off, but believe it or not, I still haven't heard a single

one sign off with "Dixie". There are a lot of clever sign-ons and sign-offs kicking around, however, and here are a few of the ones I remember best. Let's start with WCH-740 PA. They announce the number of days they've been broadcasting every evening: "We now conclude our 16,287th day of broadcasting," for example. Another memorable sign-off was that of WSAY-1480 VA. The one time I heard them, they mistakenly signed off with their "good morning" announcement. I hate to accuse anyone of incompetence, but they verified my reception report with a letter with said a bumper sticker was enclosed, but, you guessed it, no bumper sticker! Well, I guess they don't exactly run a tight ship at WSAY. The award for the longest sign-off has to go to WCPK-1600 VA. They spend a good ten minutes with "good bye" and "good night" songs, and then end with the announcement, "When WCPK leaves the air, even the sun goes down." Another award should go to the man who sells airtime at WDCS-730 NY. He found an FM car radio installer to sponsor their sign-off announcement. And more recently, he took the idea one step further and found a real estate agency to sponsor "The Star-Spangled Banner"! I suppose if we ever got him to run a DX test, he'd run commercials during that, too. (Or promos during the day, hi -pls) When it comes to sign-ons, I guess one of the most dramatic belongs to WKCM-1420 VA. They hit the air with a rousing "big country" jingle, and an announcer who speaks of "5000 wild, woolly watts"; it's enough to wake anyone up, even with the radio off! My favorite sign-on, though, belongs to WBEQ-1360 Va; they have a hauntingly beautiful rendition of "Shenandoah". This city-slicker almost expects to look out the window and see beautiful trees and mountains whenever that one skips in here. Well, here's hoping you get to hear your biggest local pest sign off soon!

Ed Mitkus - Rt. 2, Box A-108 - Zionville, NC 28698-9621

Best to all. Been awhile since I've Mused. I've been fortunate to be a regular in DDWD-East. Conditions haven't been too good here. Last 3 weeks of Feb. have seen auroras very often. No New York or Chicago, but Minneapolis did make it in. Noticed this helps the sunset skip, keeping some northern pests out, while the west or south still rolls in. Good conditions once to AR and MO. Really enjoyed Issue 21 Musings from Steve Kennedy and Paul. (Thanks, Ed -pls) Random thoughts - even though my wife doesn't keep her own log of stations, she does DX with me, and enjoys it! I'm lucky to have a wife that not only tolerates this but enjoys! Looks like we might make Delaware Labor Day, the time off is taken care of; just need a few \$\$ to go. We're working on it! For my favorite sign-off announcement, WBY-1580 AL used to sign off with the phrase, "When WBY leaves the air, even the sun goes down!" WOP-560 used to have a dog barking on its sign-off; of course we have the usual "That's all folks" phrase; someone on 1600 around here uses that. Not to forget WFSO-570 Pinellas Park would have a big yawn after its sign-off announcement, then pull the plug! Well, gotta go. 73's to all.

Thomas Connatser - Route 9, Box 78 - Sevierville, TN 37862

Hello, all! Despite rumors to the contrary, I'm still alive and DX'ing. Guess it has been a while since I've appeared in these pages. This week's topic, favorite sign-on/off announcements was interesting, so I thought it was about time I made a return to Musings. In my 16 years of DX'ing I've heard more than a few of these announcements. Indeed, almost all of my verie tapes are of sign-on/off announcements. I guess my favorites would have to be the sign-offs of a number of daytimers who complain about "antiquated FCC rules" that force them off the air at sunset. Probably the best of the bunch is WTAK-1000 Huntsville, AL. In their sign-off, they equate daytime-only licenses in the same category as Susan B. Anthony dollar coins and the MX missile as government failures. Then, to answer the question as to why they are a daytimer, they say that many years ago 1000 kHz was set aside so "powerful Northern stations can beam information and entertainment for our well-being; frankly, 'Big Brother', we'd rather do it ourself!" The tape is beautifully produced, and I wish I had a copy of it. I'm not too sure I'd want to play it if the FCC was inspecting the station, though! I know we are guaranteed freedom of speech in the U.S., but this one lays it on pretty heavy. Another interesting sign-off was that of WBY-1580 Talladega AL which ended, "...and remember, WBY is so great that when we sign off even the sun goes down." Two semi-locals WTVK-850 Knoxville and WJLH-730 Lenoir City TN used to have an interesting plug for their FM stations. They would end their sign-offs by saying "...for those of you with just half a radio, we must say good night until 6 am tomorrow. If you have a whole radio we invite you to switch to our FM affiliate for continued programming." Finally I'd like to mention what I consider the area's worst signoff - that of WQNF-94.3 Oak Ridge TN. They don't have one! At midnight they just shut down the transmitter (probably with a timer - sometimes they ID, sometimes not, sometimes they leave the air in the middle of a song!!). One more announcement, while it is not a sign-on or sign-off announcement, is, I think, rather unique and deserving of mention. Every day at noon, WQWV-900 Knoxville, a religious station, runs the following "[Sound of a bell ringing] As the WQWV Liberty Bell rings out freedom for everyone, let us pause for the playing of Our National Anthem." The "Star Spangled Banner" is then played followed by an ID. Interesting. WQWV also signs on with "Reveille" so there's another unusual sign-on. (Bet the soldiers love that one!) Well, that pretty much takes care of my thoughts on this subject. Now, if you're lucky, I'll be back before another year passes. Until next time,

Paul Swearingen - Canoga Park, CA

When I started in radio, at then KJAN-1370 in Iola, KS, their s/off announcement was read live, as it was easier to do that than to cue up a three-inch tape (they didn't install tape cartridge machines until about 1967). If I remember correctly, the last song would be a nice, soft religious song over which the announcement was read. Later, when the FCC relaxed its rules concerning having a first-phone on the premises of directional stations all the time, we'd still play an instrumental, read over it, and announce at the end, "...When the music stops, it's exactly 6 pm." Then we third-phone types would amble next room to the transmitter and flip the switch at the appointed time. Some stations also make mention of power changes ... perhaps true is the story of the western Kansas announcer who would announce in the evening, "Goodby, western Kansas!" and then change power and pattern. The end of that story is that he was supposedly asked to find other employment. But my unfavorite s/off announcement was that of KQYX-1560 Joplin, MO, which would include "Dixie" and immediately afterwards the SSB in their announcement. I always felt that the juxtaposition was rather tacky; and my friends and enemies who live south of the Mason-Dixon line and who are still fighting the War Between the States may send me personal notes, not Musings, on this topic. /// KJNN-660 Window Rock, AZ has been on the past few days, but not mused on 11:00 pm 3-7. Format is ROK to AdCon, with ads and promos emphasizing the Navajo Nation. 73.

Jerry Starr - c/o WHOT Radio - 401 N. Blaine - Youngstown, OH 44505

Just a short Muse to make a few comments on recent issues. Tony's profile of WEXL in the 2-24 issue mentioned that they were one of only three directional stations on 1340 kHz. Actually there are four as WOYL-1340 in Oil City, PA has a two-tower DA to protect WRSN Jamestown, NY with their day power. This station also has to sign off during the few hours that WSAJ-1340 Grove City operates; this makes them the only SH-5 station in the country, a true oddity. I know all this because I used to work there back when the call was WKRZ in the late 1950's. They have a huge self-supporting main antenna and a tiny unpainted tower down over the hill for the second antenna element. Also noted that Dave Schmidt made mention of a "CP" for 830 kHz at WFRF-1520. As of today this is only an application, not a CP. No DX to report, no time to listen. V/I from WIFX-CX, WWVY.

Eric Buenaman - 836 Lamplight Lane - Hazelwood, MO 63042-3407 (314) 895-1436 ppd

How's your DX season, folks? DX'ing has been minimal due to college work and duties at KCFV-FM in Ferguson. I have a big responsibility at the station now, with the Tuesday afternoon traffic report between 1640 and 1650 CST. (No doubt from the college's Traffic Copter, hi -pls) Not much heard since my Radio West loop died in January, but it went out in grand style with logs of WSUI-910 IA at 1715 CST on 1-13 and KOLM-1520 MN (simulcasting KWK-FM) ten minutes later. Veries have trickled in from CHEC-1090 AB, WBCA-1110 AL, WAGS-1140 AL, WBY-840 AL, KGGF-690 KS, KDKA-1020 PA, and WGEZ-1360 WI (All signers sent to Wayne Heinen, right? -pls). Reports are still out to WWSB-1050 FL, WLWI-740 AL, KUYX-870 WY, KDJC-1500 AR, KJWO-1030 WY (4th report), KOLM-1520 MN, KSLQ-1350 MO, KFJB-1230 IA, and WVVV-1570 W (tentative reception). KSLQ Washington, MO, hit the airwaves in late January, after testing for three months with an OC. Format is Top 40, and already, KLPW-1220 is paying the price, losing its morning DJ. KCFV-FM lost Buzz Carlson (known as Buzz Bennett as KSLQ) as a result. KSLQ's owners are looking for an FM channel; maybe KLPW would give up its 101.7 slot and go c/w on 1220. WVVV-770 was off for one day as fire destroyed its Souldar, St. Louis studios; they are now back on from a West St. Louis County site. One more Canadian province to go before I get my first Provinces Verified award and three more states before another States Verified award (I earned my thirty-state award in February 1984 and verified two more and haven't verified another one since WBY-1110 in August 1984). Malcolm Maxwell, get ready! Have a nice rest of the season. Rock on!

Steve Francis - 1620 Lodge St. - Alcoa TN 37701

I'm long overdue for a Musing. WAGE-1200 VA was heard 5 pm 10-27 with Broadway show tunes and ID. MM 10-28 brought WARB-730 IA on AN for hurricane warning with MYLish fare, in the clear after XEX's 3:00 s/off. Long-sought WDCS-800 SC in fair 11-13 with 6:00 s/off, giving frequency as "800 megacycles". This and WHEE-W were 6 pm regulars this winter on PSSA operation. MM 11-25: A surprise in C/JAD-800 Montreal, fair in CKJW null 1:30-1:45 am with English teletalk and local spots. No sign of XEROK/PJ; I think the latter is either off or beamed away from N. A. at that hour. 11-28 brought a quick no-data s/on at 7 am from the new WCN-1170 NC. Log shows this as fulltime, but they're only on from LSR-ISS. The new Cuban behemoth on 710 was first heard 11-30 with Radio Rebelde network stuff. Two nice birthday presents on 12-2, thanks to NRC reporters. KFGQ-1260 IA booming in on first Monday r/c from 2:00-2:02 with long, full-date ID (even included format), then about 45 seconds of TT with no ID at end. I think he said 5,000 w. in the ID (and their signal sure sounded it), but I neglected to tape it and haven't been able to get to the Knoxville library to check BYB, thanks to these seven-day work weeks at WGM. Log sez 1,000 w. Neil Zank's Musing tipped me off to this one. After reading the reports from

Chris Baskind, Dr. Wood, and Chuck Hutton of TICAL-530 in IDXD that evening, I tried for them and there they were, fair at peaks with romantic vocals and "Rumbo" ID's up to their midnight EST s/off. 12-22: WSOY-1340 IL readable with end of news and ID at 11:00 pm, in "battery null" of local WGN. 12-23: The new WJCR-1040 TN about even with WHO at 5:46 pm with full-data s/off, power given as 2500 w, not the listed 250. I'll pick this up in 14. Nancy Hardy, your first DDXD column looks great! (Ditto comment from -pls)

Andy Rugg - 669 de Gaspé, #218 - Nuns Island, QUE H3E 1J1

My DX'ing activity nosedived in February because of lack of time and poor ex. There were no new catches. Around February 8, there was a major solar disruption which befuddled propagation for many days. The test from WDCR-1310 did not make it to Montreal on 2-11. Just after 1:00 am, my ears perked up when I heard some UNID symphony music upsurge under CIW's newscast. At 1:04, it got obliterated by their music. That was the only signal I could discern under CIW at that time. That AM, the only other notable signal was WDCR-1340. I have heard them occasionally since my initial logging in 1961. It was slightly surprising to hear them way on top of the 1340 channel, with by far the strongest signal between 1280 and 1410. By 2-12, the full skywave had not yet returned, but there were good ex to the Maritimes. At 11:00 pm, CKBC-1360 was giving gears to WDRG. There was an unusual juxtaposition between the CBC's on 1070/1110. The usually-strong CBA-1070 was having a terrible time with CHOK. Conversely, CBD had an awesome signal on 1110, clobbering the usually-strong WBT. I taped CBD's s/off, and WBT can't be heard on the replay, most unusual. The only trace of a TA was a het from Langenberg-1593 at 1 am on 2-23. Veries were very strong, with Kvitsoy-1314 and WCVI-1340 both replying promptly. Late in January, I sent out 7 follow-ups, and the response was amazing! They all replied, specifically WTPP-1060, WSCP-1070, WSG-1170, WURS-1220, WBSG-1260, WADR-1480, and WLM-1580 (we demand a copy of your f/up letter, hi! -pls). Totals now are 1642 logged and 1562 verified. 73.

Tony Fitzherbert - 356 Jackman Ave. - Fairfield, CT 06432

Hello to all!! First, while settling into my new job, I had to attend a week-long seminar on engineering railroad tracks in Wilmington, DE. The highlight of the trip was a very delightful visit with Dave and Donna Schmidt. Dave is planning a most interesting convention. Veries - have done very little DX'ing, have been too busy, and when I did sit down, conditions were awful. Veries this year - almost 100% return - latest are a nice v/l from WESO-970, after the fifth try - a v/l and v/g from CBO-920, a v/g and B/S from CKSO-790, a v/l from WARC-980, for a 9-85 report, and a nice v/l from WDWI-900. Hope you all enjoyed the WDXI-1340 profile (You bet! -pls) - that's it for the 1985 rail trip. However, there are, thanks to Fred Vobbe and Wally Wawro, two mega-profiles enroute about two world-famous rockers, one of which changed the whole industry!! Many other people contributed to these profiles - lots of writing, but they will be very interesting! Now, the 1986 rail trip via Amtrak will allow tours of four new commuter rail/rapid transit systems. Two are in Miami and Atlanta. Also want to visit some radio stations - can any DX'ers in Miami and Atlanta take a map of the area and designate radio station locations? I would really appreciate that. Thanks! 73's.

Jim Fedor - Box 2034 - La Mesa, CA 92041 (619) 443-4592

It has been a long time since I last Mused, so I decided to drop you a few lines, Paul. First, since I haven't talked to you since ANARC '85, it was a pleasure rooming with you. (Igual, Jim, y gracias -pls) I had a good time and met some old but not forgotten friends. Even got a little DX'ing in (Did you ever hear KPYR? -pls). It has been awhile since I have heard the band full of W's (hi). What we need now is an NRC convention on the west coast, maybe at Laguna Beach or someplace like that. I have been extremely busy here with the spring semester in full swing and business at Radio West increasing. We are working on some new ideas for catalog #8 so it should be the best yet. I have recently acquired a Ford F-250 4x4, camper shell, and approximately 4,000 feet of wire. With spring break coming up around the end of March it looks like beverage time in the high desert. I have a spot picked out near the Tecate Divide which is about 5,000 feet about sea level, approximately 65 miles east of San Diego. There is a primitive (running water and picnic tables only) campground there, and it is plenty quiet. I am planning on running 2,000-foot long antennas in two directions. Anyway, if any serious MW DX'ers in the San Diego area are interested in getting together and going, please contact me at the above telephone #. Lastly, just purchased another R-390A with loads of spare parts for an extremely fair price - Happiness is ... 73's.

Radio Roundup

Pete Kemp, K218 - P. O. Box 73 - Bethel, CT 06801

Greetings all ... WNN in New York has been sold, but no changes to their country format are expected. Also in the Big Apple, the FCC has granted WNYC's request for a move from the 830 to the 820 spot on the dial. An increase in power and 24-hour programming is planned, but not for at least a year ... Joey Reynolds is rumored to be coming to WNBC in New York City to fill the spot vacated by Howard Stern a while back.

Reynolds had most recently been heard on WFIL ... WGY and WPTZ are going to have to take notice when tiny WMI, in Mechanicville, NY (20 miles south of Albany) increases its power from 250 watts to 50,000 watts and moves from 1170 to 1160 on the dial ... KDKA is bringing back talker Mike Levine. He is currently finishing up his contract in Tampa on WFAL. Upon his return the on-air staff will be reshuffled and Cris Cross will exit his mike duties and remain with the station in an administrative capacity ... Bruce Bradley is leaving New York radio to move on to KMOX in St. Louis for an open line program nights and weekends. I still remember him as Jucie Brucie on WEE, Boston's answer to Cousin Brucie of WABC fame ... In Milwaukee WMPG is now WKLH and has changed its format from soft rock to classic hits ... KCMO in Kansas City, acquired about a year ago, is on the selling block ... WBS, in Kansas City, will be moving into larger studios in Merriam, KS ... the Australian government is looking into the future of their country's commercial broadcasting. Of special interest is the status of AM's. While the FM band has only been in existence for six years, in Australia it has grown rapidly, and under their current rules, AM's are not allowed to own FM outlets. Many AM station owners want to have sister FM stations to bring in the revenue for the future ... Bob Costas (NBC) has been named SportsCaster of the Year by the National SportsCaster and Sportswriters Association ... Augusta LaPaix is the new host of CBC's Cross Canada Checkup, a call-in show ... Joe O'Brien, one of the original WACA Good Guys, and the morning man at WNBC, prior to Imus's first arrival, has announced his retirement from radio after a 50-year run. He was most recently heard in the mornings on Peekskill's WHUD-FM. He will remain on the station, doing voice-overs. His replacement is Eddie Baer, another old WACA Good Guy ... The Maryland SportsCaster of the Year is WBAL's Tom Davis ... WWSB, in Buffalo, has taken the rights to Yankee baseball from WLVL ... WLVL, not to be left out in the cold, has acquired the rights to the Toronto Blue Jays ... So much for now.

Jim Wallace - 63280 Sand Hill Road - Bellaire, OH 43906

I have been meaning to send in a Musing for about six months now but have continually put it off. I have not had a lot of time this season for DX'ing, but I have managed to get some good catches. The auroral weekend of 2-8/10 was a good one. WBS-980, Pompano Beach, FL, was one of my better domestic catches. But the morning of 2-10, I was picking up mostly Latin Americans. I finally decided to throw a tape on a couple of them and send out my first Spanish language reception reports. I used an old Gilfer form that translates reception reports into French and Spanish as my guide and used a couple of Spanish books to adapt it to my use. It must have worked. I just received a v/g from THB-730, Radio Reloj de Costa Rica. I am also hoping to hear from HJZG-780, Radio Sonorama, in Cali, Colombia. I expect to send more Spanish-language reports in the future, because I have signed up for an evening course of introductory Spanish. The article recently in DX News about reception of North American stations in Finland was interesting. I have written to a couple of Finnish DX'ers who have reported reception of WWA to ask them what North American stations they have received. Speaking of WWA, I was able to log at least one new station on 1170 this season. I woke up shortly before 7 am on 11-7 to discover WWA was off the air. I quickly put on a tape. I heard a couple of stations coming in, but they were immediately covered by WQAX, Lexington, SC, with its sign-on. A couple of minutes later, the engineers at WWA were able to get the station back on the air, so I was unable to log anything else. I did get enough for a report to WQAX, and it verified. If I had been up earlier, I might have been able to DX for more than an hour on 1170 and adjacent frequencies. I've told the morning team at the station to give me a call if that happens again. Lately, WWA has been having some strange transmitter problems, so it could happen again. I wouldn't be surprised to have it go off some afternoon and wipe out my afternoon newscasts. By the way, I'm now working on a special series of reports about the Ohio River flood of 1936. WWA played a big role in covering that flood, so the reports will include some station history. That's given me a chance to interview some oldtimers associated with the station and did through the station's archives. If you want to tune in, the special reports will air at 7:30 am and 5:30 pm 3-17 through 3-21. If you tune in, send me a reception report.

Keith Ferguson - 3133-273rd Ave. SE - Issaquah, WA 98027-9120

Greetings to one and all. I've been saving up Muses for awhile, so I'll cover some of the themes I may have missed. My most notable DX achievements in the last 6 years seem to be cauliflower ears (from tight headphones) and a large collection of taped static. One of my specialties is classical music (all too rare on AM!), and long before I did any organized DX'ing, I used to listen to KCRJ-780 Reno. I have since logged KKH-1550 and KIBE-1220 (now KDFC) San Francisco, and KBPS-1450 and KRSN-910 in Portland, OR. (KBPS is a rarity, one of my favorite catches. I logged the s/off in 1982.) I also collect CBC outlets. So far this season, I have added KHYV-970 Modesto, CA (near sunset, my favorite time to DX) and CTRB-1280, AB (ID'ed after 3 days of fading just at the announcement - don't they all?). I miss hearing the clear channels as they were before the "hopeless jumble" took over. But, a good one can still slip through. So far, I've netted W2-1030 (last heard in 1980) and WABC-770 as rarities, and WNAS-840 (an enjoyable regular here -pls), WIS-890 (on MW's only, thank to KDXU) as semi-regulars past midnight and/or MW's. In response to a question, 880 is a mess up here. I'm just 10 miles due east of KIXI, but

they're little problem at night. Evenings, I hear KMR, KWIP, and KJJR, but after midnight, KRWN can still be heard. Once, CKLQ made it through the muck. It wasn't too long ago (1980) that KRWN and WCBS were the only things I could find on 880. On the plus side, I've added several new loggings this way. There are similar tales to be told on the other clears. But the one I regret the most is KQIN-820. Ever since they went NSP on 12-11-85, 830 has been difficult at best. Luckily, I got KUYO and KNCO (also CHAM-820) before it was too late! Also, KGO-810 is free of splash out here, but most Seattle listeners have lost the chance to enjoy KGO's excellent talk format. Oh, sure, there's Larry King on KING-1090 and Talknet on KIRO-710, but locally produced talk has all but vanished here. Locally, there have been a few station changes. Aside from KARR-1460, KITZ-1400, and KARP-1560 (already reported in DKN), I note that KKZU-1510 is still silent after 2 years. This brings me to the matter of counting stations. First, I only count loggings that I've taped, so I try not to miss too many! My "official" count is smaller than my informal count, as it only includes freq changes and city changes, for the most part. Informally, I like to collect all the different antenna patterns, etc., so I see any major technical change as separate. E. G., KQIN, for their new 50 kW xmtr, had to find a new site. KITZ returned to the same xmtr site in Tacoma, so it's the same (but when they move to Silverdale, 30 miles away, that'll be different!) And KARP, as mentioned in "AM Switch," is completely new. Some history: KXA-770, from 1942 to 9-84, used a T-line antenna atop a bldg. in downtown Seattle. The towers are still there, for all to see. A little hard to photograph from street level, though (I've tried!). News flash: KXA has Dick Cavett's Comedy, Sunday mornings from 8 to 10. I am very interested in seeing Station Profiles of Seattle-area stns, so much so that I'd even try my hand at writing some. So, if anyone has info, contacts, hints, or can assist me, please contact me at the above address, and we'll get this project started. Some suggested Muse topics (for April 17): "The Worst Station Slogans", and "Favorite DX Jokes". A more serious topic: "Computers in DX'ing." I, too, hear the "annoying tone" on 1210 nightly under KASY, KREW, and CRWA (Me, too -pls). As it appears just after sunset, and never goes away, my suspicion is that KASY is responsible, but I've been known to be in error! I have yet to catch any other stations on 1210. 73's and static-free DX to all!

FAMILY RADIO NETWORK



Family Radio owns and operates:

• KEAR 106.9 FM, San Francisco, California
 • KEAR 100.5 FM, Sacramento, California
 • KFCR 83.5 FM, El Cajon, California
 • KFRN 1280 AM, Long Beach, California

• WFME 94.7 FM, Newark, New Jersey
 • WKDN 106.9 FM, Camden, New Jersey
 • WFSJ 107.5 FM, Annapolis, Maryland
 • KFR 820 AM, Shenandoah, Iowa
 • WYFR, Oketochobe, Florida, the International Voice of Family Radio

FAMILY STATIONS INC., 290 Hegenberger Road, Oakland, California 94621 (415) 568-6200

Dear Mr. Durocher,

We here at Family Radio are indeed rejoicing on our 27th anniversary (February 4th), especially because of a marvelous open door that has been presented to the ministry.

Recently a friend of family Radio approached us with an opportunity to purchase his licensed AM station which is located near Hartford, Connecticut.

He felt that his commercial AM facility could be better utilized by family Radio. So, he sold it to us at what we felt was truly a God-directed bargain -- far below what it would cost to build a new radio station. Ordinarily, building a new facility is the most economical way to start a station -- but WRTT is truly a delightful exception.

So, Lord willing, within the next 60 days radio station WRTT (1170 AM) near Hartford could be on the air.

But before WRTT can go on the air, funds are needed now in order to refurbish and upgrade some of its existing equipment. For example, a satellite down link and receiver has to be installed in order to enable it to receive our present signal, as well as to ensure good reception within the city of Hartford.

Also this month, our new station in Joliet, Illinois (WJCH) near Chicago is very close to completion. However, a few unexpected delays have caused some temporary hold-ups on our first broadcasts.

Gratefully Yours in Christ,

Harold Camping
 Harold Camping
 President

ABBREVIATED LTR (DONE HERE AT HQ)
 (WE TOOK OUR SEND MONEY & JUNE LTR 734C)
 JUST LEFT THE GOOD PARTS OF THE LTR.

- 1430 WENE NY ENDICOTT - 3/1 1813 up briefly w/pop music, ID as 'Southern Tiers only AM Stereo Station.' (JM-PA)
 WTTT MA AMHERST - 3/7 1800 fair u/WENE w/s/off, no SOB. (LM-NY)
 1450 WKRI RI W WARWICK - 2/24 1917 weather, ID into rock music. (HJH)
 WNSO VT BARRE - 2/24 1950 fading up by itself w/ads mentioning Barre. (HJH-PA) You expected someone to help it? (DS)
 1460 WVCX NY NEW ROCHELLE - 2/26 1743 mixing w/WCMB w/rock music. (HJH)
 1540 WPGR PA PHILADELPHIA - 3/7 1742 good in WPTK null w/oldies. (LM-NY)

MIDNITE - MIDDAY

- 570 WUNC NC ASHEVILLE - 3/11 0705-0710 very good in WKBK null w/ads, time checks, Ch music, jingle/ID then gone. (JM-PA)
 710 WFNR VA BLACKSBURG - 3/11 0730-0741 very good at times w/CNN sports, ads, Ch music, financial news, promo for 'Solid Gold Country Lunchbox' on All Hit Country Super 710. (JM)
 790 WAKY KY LOUISVILLE - 3/11 0700 strong w/local AM news, ads, road reports. (JM-PA)
 WSIG VA MT JACKSON - 3/11 0653 good w/Ch music, ID, school lunches.
 WLSV NY WELLSVILLE - 3/11 0633-0640 good w/WPIC, local news, ads, sports, road info, weather from Buffalo, Ch music, IDs. (JM)
 810 WEXG KY JACKSON - 3/11 0715-0744 xint at times in null of late local WEDO s/on, ads, sports report, Thundering KY program, Ch music, weather, ID's w/97 WJSN. (JM-PA)
 900 WCPA PA CLEARFIELD - 3/4 0647 popped up w/ID then faded. (JM-PA)
 940 WNRG VA GRUNDY - 3/12 0615 good w/full data s/on into taped weather from Nat'l weather Service. (JM-PA)
 WCIT OH LIMA - 3/8 0600-0615 very good w/full data s/on w/studio location, po./oldies, news, lost to WKGW/WESA s/on. (JM)
 WVLV PA LEBANON - 3/11 0643 very good in WESA null w/promo. (JM)
 950 WCTN MD POTOMAC - 3/4 0621 good o/WHJ w/break in religious music, ID. (JM-PA)
 WNCB PA BARNESBORO - 3/4 0610-0612 just in w/end of religious program, promo for Bingo Game broadcast, ID then faded to WHJ. (JM-PA)
 WPEN PA PHILADELPHIA - 3/11 0630 very good o/WHJ w/local news, ads, PSA, ID, Big Band music. (JM-PA)
 960 WNYL PA CARLISLE - 3/11 0650 xint w/time check, Ch music, FM 102 ID's, farm report, slight WTKN-970 splash. (JM-PA)
 1050 WLYC PA WILLIAMSPORT - 3/12 0614 poked thru mess w/ID then gone, a real teaser! (JM-PA) A teaser? Is that someone who drinks a lot of TEA? (DS)
 1150 WDEL DE WILMINGTON - 2/24 0105 fair thru noise w/news, weather, female anc'r. (LM-NY) Musta been Mary Lou. (DS)
 1270 WCBC MD CUMBERLAND - 3/8 0640-0710 very good at times w/ads, pop music, CBS news, local news, weather, ID 'The music you like, the info you can use, Cumberlands 1270 AM'. (JM-PA)
 WLBK PA LEBANON - 3/11 0652 xint w/hospital anc't, news, ID. (JM)
 1430 WDIC VA CLINCHCO - 3/11 0805-0826 very good w/WMNC w/ads, weather, Ch music, Skool Motor Sports report on 'Dixie Radio', w/ID 'A good country morning!' (JM-PA)
 1470 WMBD IL PEORIA - 2/16 0131 fair out of mess w/ID 'News & Info. Authority for Central IL'. (HJH-PA)
 1550 WSER MD ELKTON - 3/5 0621-0627 good w/WARD w/pop music, local sports scores, ad, 15-5 forecast, promo. (JM-PA)
 WARD PA PITTSTON - 3/5 0615-0630 strong at times w/WSEN/CBE w/ads, PSA, weather, Talkradio ID, gone at WJLY s/on. (JM)
 1570 UNID 3/3 0505-0507 super weak u/CHLC w/Ch, ad for Jerry Lee Lewis concert, mentioned tickets available in Riverside, Westminister & Ontario, KMAY on ET w/FM audio? (SF-TN)

MADE POSSIBLE BY

HJH-PA/Harry Hayes, Wilkes Barre, PA/HQ180, SH2
 JM-PA/John Malicky, Pittsburgh, PA/Superadio II
 SF-TN/Steve Francis, Alcoa, TN/TRF
 RE-NY/Ray Bauernhuber, Riverside, NY/RF2800, Shotgun Loop
 LM-NY/Laura McCusker, Kingston, NY/Superadio Trio