

From The STAFF

W.T.F.D.A. Headquarters, P.O. Box 514, Buffalo, NY 14205

1983 ENDS WITH A BANG...We hope it wasn't the sound of your DX antennas coming down! Unfortunately, that's just the kind of disaster that has been happening during the past month or so. Much severe weather, mostly in the form of high winds and heavy icing, tormented TV and FM DXers across North America--where winter seems to have arrived early. We've already heard about one super TV DX system downed by the winds, that of Glenn Jacobs in northeastern Pennsylvania. Word has it that Glenn's not wasting much time in replacing it with an even more impressive system--it may even be going back up into the sky as you read this!

MIDWINTER SKIP HITS EARLY PEAK?...No doubt related to the unusually extreme December weather, skip activity was nothing short of spectacular in mid-month. So many openings have taken place that a few longtime DXers are convinced that an early peak took place. The week centering around New Year's Day usually sees peak midwinter Es occurrences, but this season may be an exception. It now remains to be seen what kind of midwinter tropo ducting shows up this month. We hope you'll be watching for it. When it happens, it usually is widespread enough to make a nice break from the usual winter VHF DX slump.

MEMBERSHIP LIST IN THIS ISSUE...Your comments to HO indicate that there was no need to list members' full addresses in the membership list that appears this month (see page 36), so to make the most efficient use of VUD space, members are listed by location. If you are someone who needs address info, such as an officer of a DX club conducting a membership drive, or a DXer hosting a regional gettogether, please feel free to contact us. We can provide you with any such data that we've been authorized to release.

CLUR REPRINT SERVICE...We are planning to resume the WTFDA article reprint service soon, allowing members to obtain copies of past VUD articles at a nominal price. Many members have been asking for this service, so watch for an announcement in the near future. When it resumes, WTFDA will offer a free catalog of articles available.

WTFDA MAILBOX: Listen to Glenn Hauser's "WORLD OF RADIO" on WRNO...3

TELEVISION NEWS: Retrospect: 1938 and before.....4

EASTERN TV-DX: New Mexico's newest station is seen via Es in GA...10

CCI(UNIDENTIFIED DX): Similar logos could make for more unIDs.....11

WESTERN TV-DX: Super tropo continues in areas of the West.....12

ANTENNA NEWS: Transmission line impedance, the whys & wherefores...16

FCC FM NEWS: KRXV and KXVR are both radio for the road.....19

NORTHERN FM-DX: Ernie's first DX report using his new Mac MR-78...25

QSL CORNER: Holbrook verifies 8 watt FM from Brooklyn, NY!!!!.....26

SOUTHERN FM-DX: Editor looks back on a decade of DXing.....27

FM STATISTICS: Computer now used to calculate mileage for records.29

VHF UTILITY DX: winter weather brings a flurry of radio activity..33

PHOTO NEWS: Some excellent Tr & MS from Ely, Gaines, and Pizzi....34

FEEDBACK: On station totals appearing with DX reports.....35

WTFDA MEMBERSHIP LIST: Who's where in 1984.....36

EXPERIMENTS WITH A HOMERREW FM YAGI: Part 3, at last.....39

Cover material courtesy of Doubleday Broadcasting.



MAILBOX

January 1984

The Mailbox column depends on one thing more so far, I'm sorry to say, I haven't received any general membership. Remember - this is your column to think might fit in to this column.

And now...the following will be a standard names listed below are the WTFDA's newest member: mer members who have rejoined the club. Welcome, case may be. Glad to have you aboard!

Paxton E. Pickrell	Mt. Airy
Chris W. Johnson	Memphis,
Mario Panzeca	Norridge,
Michael Cunningham	Harrisvil.
Robert B. Johnson	Big Rapid
John M. Adams	Seaside,
William Gilbert, WDX2RVW	Kings Par
Mel Murray	Alexandri.
Doug McAbee	Goodrich,
Mike Dorner	Metairie,
Jay M. Novello	Endwell, N
Jorge Burgos	San Juan,
Matti Niit	Vancouver,
Gene Cooper	Lompoc, CA
Dave Jones	Dayton, OH

And now for a fine example of what you should feel for This is from Robert Goodman, and in his own words!

"...a little known story from the 1982 Staten Island when I wheeled Mike Reid into the emergency room for injured foot, there was a box containing thirty diagram electrodes. The box said: "contents-30 offset

Also, thanks to Mr. Goodman for supplying me with the ent information. Many of you are probably familiar wi informative "World of Radio" program. This show cover the DX world, and should be of interest to everyone r show can be heard on WRNO, the shortwave station from low is the schedule of both time and frequency that t heard on.

All times C.S.T.

Fridays	11:30 PM	6.185 Mhz
Saturdays	8:30 PM	6.045 Mhz
Sundays	8:00 AM	9.715 Mhz

WRNO

worldwide

Till next month,

STATIONS
ANT
R. Powley
D. Nelson
Plains Commu-
pany
Wood Enterprises
town Television
ay of the Cross

Maceo K. Sloan &
ph Thompson
Jamestown TV Asso-

G. Mendez Educa-
dation
Family Media Inc.
k Communications
sociated Communi-
poration
igh Tech Industries
omen in Broadcasting
hn R. Powley
y of the Cross - Utah
e Amalie; Consumer
hal Research & Devel-
elevision Center (re-
d)
e; Ebony Telecasters
e; High Definition TV
e; KUSA Brewer's
sting TV
e; Powell Community
ion
ee; Wisconsin TV Own-
& Management
gan; Hometown Televis'n
ne; Dunhamel Broadcast-
terprises

prings; Christian Chan-
-Mar Communications
ated)

RANTED FOR NEW STATIONS
oosa; Ch. 17 of Tuscal'a
; North Star Communica-
(Review Board decision)
le; Golden Valley Com-
tions
ide; Sunland Communica-
Company (Initial dec'n)
St. Louis; Minority
asters of East St. Louis
port; Davenport Communi-
ns Limited Partnership
ruces; KASK Inc.
ao; Bocanerga/Girard Bcg
; Four Star Broadc'g Co.
rtes; Mount Baker Broad-
ng, Inc.

APPLICATIONS DISMISSED
AL Tuscaloosa; ch. 17; George E. Gunter; Local Majority Television.
CA Clovis; ch. 43; San Joaquin TV Improvement Corporation
CA Oroville; ch. 28; Gridley Community Television; Oroville Communications; Oroville TV; TV Tech Systems.
CA Riverside; ch. 62; Pan Pacific Broadcasting, Inc.; Bethel Broadcasting; Channel 62 Limited Partnership; Ettinger Broadcasting Corporation; KIST Corporation; Riverside Family Television, Inc.; United American Telecasters, Inc.
HI Kailua-Kona; ch. 6; Manulela Broadcasting.
IL East St. Louis; ch. 46; East St. Louis 46 Broadcasters, Inc.; Mahogany Entertainment Television, Inc.; Spectrum Telecommunications Corporation.
IA Davenport; ch. 18; Channel 18, Inc.; Eian, Inc.; H&S Ltd.; The Independence Broadcasting Corporation.
MS Vicksburg; ch. 35; Frank Holifield, Jr.
NM Las Cruces; ch. 48; Dona Ana County Television; Las Cruces Family Television, Ltd.
PR Carolina; ch. 52; Radio Vida, Inc.
TX Alvin; ch. 67; Community Television of Alvin; Patricia B. Steele; Texas Family Television, Ltd.
UT Salt Lake City; ch. 14; Salt Lake Broadcasters, Inc.
WA Anacortes; ch. 24; Roy M. Mayhugh; Sterling Associates, Ltd.; Vanwash Communications Group.

Note: In dealing with construction permit modification applications and grants, I have attempted to distinguish between stations already on the air and those still being constructed. I also give much more detailed information on changes to stations already on the air. As of this month, listings under "Applications to Modify Construction Permit" and "Construction Permit modifications granted" will be for new stations only. Changes in existing stations will be indicated as construction permit (CP), construction permit modification (CP MOD), or date effective (EFF mm/dd).

APPLICATIONS TO MODIFY CONSTRUCTION PERMIT
4 4 -147 AK Anchorage; KTBV
21 1054 2085 CO Colorado Springs; KXRM-TV
59 2350 992 IN Indianapolis; WPDS-TV
62 300 903 NC Fayetteville; WFCT (amending an earlier application)
17 103 538 OK Bartlesville; KDOR
30 3000 1415 TN Nashville; WCAY-TV

CONSTRUCTION PERMIT MODIFICATIONS GRANTED
4 4 -147 AK Anchorage; KTBV
46 2455 3044 CA Ontario; KBSA
26 2250 1500 TX El Paso; KINT-TV
49 2612 n.c. WA Vancouver-Portland(OR); KPDX

APPLICATIONS TO CHANGE EXISTING FACILITIES
2 100 930 FL Miami-Fort Lauderdale; WPBT (directional antenna) CP MOD (modifying an earlier CP to change city of identification)
39 4000 1421 TX Houston; KHTV; TL to 0.8 mi SE of Missouri City. CP MOD
26 2500 1179 WI Green Bay; WLRB; TL to Shirley Road at Ridgeview Rd. CP MOD

FACILITIES CHANGES GRANTED BY THE FCC
NC Charlotte; ch. 3; WBTB; ERP to 100 kw max/96.6 kw Hor, circular polarization (from 100 kw ERP horizontal); 1873, AAT/1993' AG/2733' ASL (shorter tower, but on higher site); 783 higher AAT; 855' higher ASL; Coordinates 35°21'51"/81°11'18"; TL to Route 3, Bob Friday Road (6.21 miles NW of present site). Should be improved reception due to increase in antenna height. CP
AZ Phoenix; ch. 8; KAET; ERP to 316 kw max/305 kw hor (from 316 kw ERP horizontal); 1756' AAT/346' AG/2989' ASL (159' higher); increase in antenna height should make an improvement. CP MOD
NY Binghamton; ch. 34; WMGC-TV; ERP to 679.83 kw max/470.34 kw hor (from 204 kw ERP horizontal). Signal should improve. CP

CALL LETTER APPLICATIONS: NEW STATIONS
CH C.L. STATE/CITY/APPLICANT
35 WQAC FL Fort Walton Beach; Beacon Bc'g
4 KLBV KS Colby; KBOM (change)
21 WBNA KY Louisville; Word Broadcasting
60 WGOT NH Merrimack; Golden Triangle TV
14 WXIV-TV NC Greenville; ACTS of Eastern N.C.
15 KSUZ-TV TX Abilene; Helen Oman
23 KIAB-TV TX Garland; International American
16 KUEW-TV WA Everett; Unity Broadcasting Co.

CALL LETTER APPLICATIONS: STATIONS ON THE AIR
13 WOME-TV ME Portland; WGAM-TV
33 KRLD-TV TX Dallas; KNBN-TV

CALL LETTER GRANTS: NEW STATIONS
18 KDTU-TV AZ Tucson; KDTU (change)
38 KMJD-TV AR Pine Bluff; Pine Bluff Broadc'g
40 WQQB KY Bowling Green; CMM, Inc.
26 KXBJ MN Bemidji; John W. Boler
27 KWNT WA Wenatchee; Fred Alan Ross

CALL LETTER CHANGES: STATIONS ON THE AIR
7 WDBJ VA Roanoke; WDBJ-TV

CHANGES IN CITY OF IDENTIFICATION APPLIED FOR
FL Ocala; ch. 51; WBSP-TV; applied to identify as Ocala-Gainesville.

STATIONS ON THE AIR
FL Ocala; ch. 51; WBSP; went on 11/1/83; 1500 kw max/1135 kw hor; 923' AAT/932' AG/1049' ASL; Coordinates 29°25'29"/82°13'28"; TL County Road 5W near Orange Lake, 1 mile north of State Road 318; address: Big Sun Television, Inc., Box 24; Ocala, FL, 32670 Independent station.
IL Moline; ch. 24; WQPT-TV; 147.6 kw ERP; 319' AAT/336' AG/996' ASL; Coordinates 41°28'30"/90°26'44"; TL 6600 34th Avenue, Moline; address: Black Hawk College, 6600 34th Avenue, Moline, IL, 61265. Educational station. (went on 11/2/83)

NV Reno; ch. 5; KNBP; went on 9/29/83; 877 kw ERP; 2930' AAT/93' AG/9787' ASL; Coordi-

nates 39°18'48"/119°53'00"; TL Peak of Slide Mountain, Reno; address: Office of Communications & Broadcasting, University of Nevada, Reno, NV, 89557. Educational station.

CONSOLIDATED HEARINGS
ID Caldwell; ch. 9; Cascade Broadcasting Group, Ltd.; Canyon Communications; Caldwell Television Associates, Ltd.
IA Burlington; ch. 26; Burlington Broadcasting Company, Ltd.; Metro Program Network, Inc.

IA Des Moines; ch. 69; Federal Television Company; Iowa Television Authority; Des Moines TV, Ltd.

LA Alexandria; ch. 41; Haynes Communications Company; Cenia Broadcasting Group.

MS Vicksburg; ch. 35; Vicksburg Broadcasting Group; Matthew D. Wiggins, Jr.; Action Communications (Vicksburg), Inc.

NY Amsterdam; ch. 41; Henry C. McCall (originally American Cellular Systems, Inc.); G and M Broadcasting, Inc.

SC Charleston; ch. 24; Charleston 24, Ltd.; South Jersey Radio, Inc.; Charleston Television Partners.

CHANGES IN THE TABLE OF CHANNEL ASSIGNMENTS
AR El Dorado; delete 18z; add 43- (to avoid short spacing to applicants for channel 33 in Bossier City, Louisiana)

CA San Luis Obispo; add 33z
FL Tampa; add 50z
KY Morehead; add 67z

LA New Orleans; add 49z
MN Minneapolis-St. Paul; add 45z
NC Bryson City; change offset from 67- to 67z (because of Morehead, KY addition)

NC Greenville; add 38z
OK Norman; add 46-
OK Oklahoma City; add 62z

CONSOLIDATED HEARING: CHARLOTTE, NORTH CAROLINA. Back in November, 1981, four television stations in Charlotte, North Carolina, applied to the FCC for a construction permit to relocate their transmitter towers, some of which also included changes in power. WSOC-TV channel 9 plans to move its tower site 25.7 miles northwest of its present site. WCCB-TV, ch. 18, plans to move 25 miles west of its present site. WCPO-TV, ch. 36 and WBTB, ch. 3 plan to share the same tower, which is 29 miles northwest of WCPO-TV but only 6 miles north of WBTB. The three proposed sites are within two miles of each other. Each of stations expects to gain between 700,000 and 900,000 new viewers, and, except for WBTB, to lose 30,000 to 90,000 present viewers. WBTB, because of its proposed power increase, will not lose any of its coverage area.

Oposing the proposed changes are WSPA-TV, ch. 7 in Spartanburg, South Carolina, WHNS, ch. 21 in Asheville, North Carolina, WKPT-TV, ch. 19 in Kingsport, Tennessee, and KCBA, channel 35 in Salinas, California. (KCBA has been carrying a grudge against Westinghouse, owner of WCPO-TV) Those opposed to the proposed changes contend that it would widen the Charlotte ADI (Area of Dominant Influence) into the Greenville-Asheville-Spartanburg ADI and thus cause lost revenues to the

stations in that area. But the FCC states that the economic well-being of a television station is not a matter of public interest unless the existence of a station is put in jeopardy. The opposing stations could not prove this to be the case, so the FCC has disregarded that issue. Another issue is the fact that a large number of people will lose service from three stations, two of which supply network programming (ABC and NBC). It is this issue that the FCC feels needs to be investigated, and has placed the applications of WPCC-TV, WSOC-TV, and WCCB-TV in a consolidated hearing. Because no loss of coverage area or population is affected by the WBTV change, the FCC has decided to grant that station a construction permit.

CLOVIS, CALIFORNIA: FCC REVIEW BOARD DECISION

This city's channel 43 assignment had been fought for by San Joaquin Television Investment Corporation and North Star Communications. San Joaquin had the advantage of having 18% minority ownership, whereas North Star had none. San Joaquin's minorities would also be involved in the station's operation, another factor favored by the FCC in deciding between competing applicants. North Star, in order to diminish the preference toward San Joaquin, proposed a greater integration of ownership into management and greater diversification in programming, as well as responsiveness to the Hispanic community and proposed use of a minority advisory committee. According to a Court of Appeals decision in 1973, nonminorities were not foreclosed from seeking similar or greater merit that a minority applicant for being responsive to the needs of minorities.

FCC RULING: ADDITIONAL CITY IDENTIFICATION

Under Section 73.1201(b)(2) of the FCC's rules a licensee must identify itself with its community of license. If it wishes to mention other communities in its official identification, it must request such authorization from the FCC, and must certify that those additional cities are within its city grade contour.

On July 1, 1982, the FCC adopted a Notice of Proposed Rule Making, in which two alternative changes were proposed. The first alternative was to retain the city grade coverage requirement, but licensees merely had to certify to that coverage without having to apply to the FCC for approval. The second option would be to eliminate both the application procedure and the coverage requirement, allowing stations to identify by their community of license first, followed by any other communities they select, irrespective of their signal coverage.

After listening to comments filed by several broadcasters the FCC decided to go with the second option. Several reasons were given for this decision. (1) There is no need for the existing restriction. It was intended to protect advertisers from being misled as to the station's coverage, but today advertisers depend on sophisticated market survey data to determine the extent as well as composition of a station's market area

instead of taking the station's word for its coverage area. (2) Elimination of this requirement will cause no harm to the public. Common sense will prevent stations from including communities which they do not serve or have any connection with in their identification. And those not served by the station would not be misled by such an identification. (3) The current rule unnecessarily interferes with market forces, possibly skewing competitive relationships to the detriment of the public. Many stations, for example, provide service to communities beyond their principal-city coverage contour and often generate significant advertising revenues in these areas. Yet under current restraints, these stations cannot reflect this marketplace relationship in their official station identification. WOAY(AM) in Oak Hill had requested the inclusion of Beckley, West Virginia in its identification, but was denied because its city grade contour, while covering the business area of Beckley, did not cover the entire city. Yet half its advertising revenues comes from Beckley. An appeals court affirmed the FCC's denial, but questioned the soundness of the FCC's reasoning. (4) The existing rule imposes burdens on the FCC and the licensees in the application process, especially when one application is contested by a station in the additional city to be identified.

The ruling in question was deleted, effective December 8, 1983. (Ref: Federal Register, November 8, 1983, pp. 51304-51308)

FORUM

You may notice that I don't have any background material on any new stations this month. That's because none of the stations listed in the previous three months, all of which I requested information, ever replied. Usually I get something from about half.

KTXH-TV, channel 20 in Houston, Texas, was in the news again. It seems that somebody was picking up Skip from the channel 20 tower. That's right! Skip! Channel 20! Who?? The Houston police department, that's who! It seems that Skip Stanley climbed up to the top of the 2,400 foot high tower and parachuted to the ground. The owners of the tower said that they will be filing charges against him.

George Mileon reports that WNDS, channel 50 in Derry is still weak, and still claiming to be operating at full power. He says that somebody in Danvers, MA, a few miles away from him, can't even get the station in. That might be because his antenna is pointed SW toward Boston while WNDS is to the NW. The same situation happened here, when WWAC-TV was on in Atlantic City. Everybody in Bridgeton had their antennas turned north, while WWAC-TV was to the east. Nobody else in Bridgeton could get it in. George also wanted me to print the address of the MES Data Book. I wish I could, but I don't have it. I'm still looking for it, as well as the price. If anybody comes across some information on it, please let me know.

Ronald Purdue says that the Leave It To Beaver Marathon on KXLI, ch. 41 in St. Cloud,

Minnesota, made the station lose money. It seems that not too many people are watching that station.

Mike Reid made a few suggestions for the upcoming Translator Guide: Listing the ERP for each translator, list the station relayed by the translator if not the primary station. (Translators can also pick up microwave relays, satellites, and other translators.) He also asked about Canadian translators. I will include what I can, but the Canadian will not be as accurate, complete, and detailed as the American stations in the list. I plan to list all translators in the 48 contiguous states, but I wonder if the hundreds of translators and low power stations in Alaska are worth the cost. I'm open for comments and suggestions on the list. Mike also raised a few questions about translators. While many of them can pick up a channel adjacent to their intended pickup channel and rebroadcast it on the channel adjacent to their licensed channel, has any translator ever rebroadcast a second adjacent station? I haven't seen any myself, and in the cases where the first adjacent channel is being rebroadcast, it isn't usually the entire channel. For example, W25AA in Cranbrook will rebroadcast channel 15 on 25, and sometimes will also rebroadcast the video of 16 (WBCC-TV) on 26. The audio is usually too far from the assigned frequency. W41AC will rebroadcast channel 10 on 41, and sometimes rebroadcasts the audio of channel 9, with some distorted video, on channel 40, while at the same time rebroadcast the video of channel 11 on 42. You can often see a translator rebroadcast anything up to 3 MHz away from its intended channel. Again another opportunity for comments here: has anybody seen a translator rebroadcast more than 6 MHz beyond its assigned channel? Mike says that CBFTT, ch. 54 in Windsor, rebroadcasts CBLFT-10, ch. 48 in Chatham, but sometimes can pick up a station on channel 49 (like WBAO in Akron) and rebroadcast it on channel 55. One more note from Mike: Channel 3 in Timmins, Ontario is CITO-TV, not CITO-TV-2 as was mistakenly recorded in a CRTC decision to renew its license.

Bill Draeb reports that the WLUC translator in Iron Mountain, Michigan, which moved from channel 8 to 55, seems to be back on channel 8, with no trace of it on channel 55. K47AF, the Iron Mountain translator which had been scrambling "The Movie Channel," is now rebroadcasting WAOW-TV, ch. 9 in Wausau, WI. WIRE, ch. 26 in Green Bay, is coming in stronger; Bill suspects they are now using their new tower, which is now completed, with their increased 2844.5 kw ERP.

An article in the 11/83 New Jersey Reporter mentioned the fact that NJPTV is carrying Uncle Floyd and old episodes of Dark Shadows. According to the article, NJPTV has had very little appeal among the young adults of New Jersey. It has plenty of programs for children, teens, and older people. By scheduling these two programs, they hope to attract this age group. Uncle

Floyd mentions at the end of the program that the manager of NJPTV will drop him if he doesn't bring in enough contributions. He is offering Uncle Floyd bumper stickers and records.

CANADIAN NOTES FROM WALTER PATTON NEW TRANSMITTER AUTHORIZED

Powell River/Comox, BC; ch. 22; 3.445 kw; to rebroadcast CBOUX, ch. 26 in Vancouver; SRC (CBC French).

OFF THE AIR

● CHLG-TV-5, ch. 5, Camp Duplantier, Quebec
● CFER-TV-1, ch. 11, Sept Iles, Quebec

POWER CHANGES GRANTED

● CIMT-TV-1, ch. 4, Edmundston, New Brunswick, increase from 1.22 kw to 1.28 kw.
● CBCQ-TV, ch. 5 in Hearst, Ontario, decrease from 8.371 kw to 5.319 kw with directional antenna.

CHANGE IN PRIMARY STATION

● CBGAT-12, ch. 7 in Baie Comeau, Quebec, now rebroadcasting CBST, ch. 13 in Sept Iles instead of CBGAT, ch. 6 in Matane, Quebec.

NEW CALL LETTERS

● CBKGT; ch. 45, Gravelbourg, Saskatchewan.
● CBKST-8; ch. 13; Southend, Saskatchewan.
● CIVG-TV; ch. 9; Sept Iles, Quebec.

CALL LETTER CHANGES

● CBNT-39; ch. 4; Trepassey, Nfld (CJTA-TV-2)
● CBHT-11; ch. 12; Mulgrave, N.S. (CBIT-1)
● CIVA-TV-1; ch. 8; Rouyn/Noranda, Quebec (CIVN-TV)

APPLICATIONS FOR NEW TRANSMITTERS

CH ERP LOCATION

34 4.379 Brantford, Ontario (CITY, ch. 57)
64 4.973 St. Thomas, Ontario (CITY, ch. 57)
44 4.832 Stratford, Ontario (CITY, ch. 57)
31 8.831 Woodstock, Ontario (CITY, ch. 57)

APPLICATIONS FOR POWER CHANGES

● CBNAT-8; ch. 13; Conche, Nfld; 0.144 kw to 0.296 kw; change from ch. 13 to ch. 12.
● CBMIT; ch. 28; Baie Comeau, Que; 3.5 kw to 4.2 kw.
● CBGAT; ch. 6; Matane, Que; 3.28 kw to 3.7 kw.
● CBGAT-10; ch. 19; Mone Louis En Haut, Que; 3.35 kw to 5.15 kw.
● CBGAT-2; ch. 10; Murdochville, Que; 1.6 kw to 1.53 kw.

One more note from Walter: "WBIV (4) Detroit NBC has been added to the satellite signals available from CANCOM. The Detroit and Seattle stations so available are rapidly becoming Canadian 'Super-Stations'."

MORE FORUM

Rich Turcsany's letter was put into another part of my files because of its listings of early UHF stations, and I almost forgot to include the current information also contained in the letter. The FCC approved the distress sale of WHCT, ch. 18 in Hartford, which will come under the control of Interstate Media, Inc. IM plans to note the transmitter site to Middletown and increase the ERP to 5000 kw. WLCT, ch. 26 in New London, CT, hopes to be on the air by early 1984. WSMW, ch. 27 in Worcester, MA, has been sold to a local group

and its PREVIEW STV service is going to shut down in Boston and will be sold to a Dallas STV firm. Wometco Enterprises may sell its television stations (WVHT, ch. 68 and WSML, ch. 67) because of management problems following the death of its founder, Mitchell Wolfson; this could mean the end of WHT and a greater diversity of programming in the New York area. WBCT, ch. 43 in Bridgeport, CT and WLIG, ch. 55 in Riverhead, NY, may go on the air in January. Still no sign of WTVU, ch. 59 in New Haven. WFIG, ch. 28 in New Bedford, MA, is also supposed to go on the air in January. WSTG, ch. 64 in Providence, RI, airs absolutely no commercials or Public Service announcements: only three hours during the day of Three Stooges cartoons and old movies. It is listed in the Providence Journal.

RETROSPECT: 1938 AND BEFORE

Several months ago I mentioned the DX night of June 5, 1938. While that date was significant to the discovery of Sporadic-E propagation and tropospheric bending in the 56-60 MHz band, it was definitely not the first time for DX in that band. In the January, 1952 issue of Radio Electronics the following quotation appears in an article written by Edward P. Tilton:

"One June day back in the early 1930's, hams working the 5-meter band in the cities of the Eastern Seaboard were amazed to hear interfering signals from midwestern stations breaking through. The frequency band used was 56 to 60 mc, now the upper two-thirds of TV channel 2. Amateurs had been developing interest in this band for several years. There had been scattered reports of 1,000-mile dx as far back as 1926, but few workers placed much faith in them. After all, didn't the best authorities in the propagation field state that there could be no ionospheric reflection on frequencies higher than about 30 mc or so?

"Many, including myself, felt that they were being tricked, and were a bit reticent about discussing their experiences, for fear of being laughed down if they showed any signs of 'falling for it.' But as they began to compare notes, principally through the reports published in the magazine QST, it became apparent that dx on '5' was an accomplished fact.

"What a tantalizing will-of-the-wisp it was! Appearing out of nowhere, the dx stations would boom in for a few minutes and then, with a precipitate fade quite unlike anything in previous dx experience, drop out again, perhaps to be replaced by signals from another section of the country in a matter of minutes. What manner of dx was this? After nearly 20 years of observation and study we still don't have all the answers, but we have learned quite a bit. Detailed observation by amateurs and TV dx enthusiasts has been very useful in formulating some rules and predictions.

"It is now generally accepted that this reflection back to earth of signals that otherwise would dissipate into space is the

result of patches of dense ionization in the E-layer region of the ionosphere, some 50 miles above the earth's surface. We know that there are two definite times when such dx is most likely to occur: one period from May through July, and the other period around the end of the year. We also know that despite this well-defined pattern, TV dx can take place at any season. We observe a general diurnal pattern, which peaks in the early morning and early evening hours, but it does not always work that way. The usual dx range is between 600 and 1,200 miles, but signals have been received as close as 300 miles—the maximum dx is largely a matter of conjecture. We have evidence that sporadic-E dx is associated with solar phenomena, but attempts at direct correlation with sunspot observations have been largely unsuccessful."

But let's go back to 1938 for a moment. A total of 692 DX contacts by amateur radio operators in the 5 meter band, covering distances of 200 miles or greater, were reported to the American Radio Relay League from the night of June 5, 1938. But unfortunately, the time of contact was not included in those reports. At the request of Harvard University, the ARRL supplied the list of contacts for further study.

J.A. Pierce and H.H. Mimmo of the Craft Laboratory at Harvard rounded the logging distances to the nearest 50-mile multiple and plotted a graph of distances related to number of contacts. The graph showed 13 contacts at 200 miles, and dipping down to only three contacts at 250 miles. But from that point the number of contacts per distance increased to 99 contacts at 650 miles. As distances grew farther the number of contacts decreased until there were only eleven contacts at 1,050 miles. But then there was a jump to 22 contacts at 1,100 miles, then a gradual decrease to four reports at 1,300 miles. The second peak was attributed to uneven population distribution. In the eastern states there are more stations at shorter distances, thus more shorter skip loggings. The more distant peak was the result of stations west of the Mississippi river, where there are fewer stations at shorter distances, and most loggings were to the eastern states, about a thousand miles or more distant.

It was on that date that abnormally strong E layer ionization was observed over Cambridge, Massachusetts, at about 75 miles above the surface. By noting that the greatest distance logged was 1,400 miles, the scientists were able to relate the reflections to the E layer. From the skip distances and the point of reflection and height of reflection, they were able to calculate ion densities at the midpoints of each DX contact, and plot them on a map. While the band was open for nearly the whole day, the map showed where ionization was at its strongest. There was an area of high intensity over Cleveland and over the southern half of Pennsylvania which was responsible for the east coast loggings which peaked

at 600 miles. Another intense area stretched over eastern Illinois down to the northwestern corner of Tennessee, with the greatest intensity over Peoria. This was responsible for the increase in the number of loggings over 1,000 miles.

Transmissions received over distances less than 300 miles didn't seem to fit the E layer reflection concept, so they were put together and studied separately. That's when they found that they all occurred in a small region around Pennsylvania and New York, and parts of adjoining states. These shorter DX loggings were attributed to atmospheric refraction.

Let's proceed to 1953 now, where a few more surprises were to pop up. Edward P. Tilton, who wrote the article mentioned earlier, "TV DX in 1951," in the 1/52 Radio-Electronics, also wrote "TV DX in 1953," which appeared in the 1/54 issue of Radio-Electronics. In that article we read, "Nearly all the dx reports, v.h.f. and u.h.f., can be classified according to well-established patterns. But every so often an observer comes up with a report that cannot be explained by any of the known theories. Such is the reception of KLAC-13, Los Angeles by Phil Rader, Indianapolis, July 2. This far exceeds the amateur 144-mc record of 1,400 miles, and its three times the best that has been done on 220 mc. Assuming that it's not a case of mistaken identification, how did it happen? Phil also reports reception of PRF-3, Sao Paulo, Brazil, July 8.

"(Robert B.) Cooper calls our attention to a report that appeared in Broadcasting regarding the reception of WKY-7, Oklahoma City, in England. The same publication also reported KINT-11, by a viewer in McAllen, Texas. No details—but what dx, if true!

"And here's the real killer. John Shipley, chief engineer of WKNB, New Britain, Conn, called the writer one afternoon last summer to pass along information on reported reception of their new channel-30 rig by a viewer in Ames, Iowa. The correspondent reproduced the WKNB test pattern accurately, and correctly identified the pitch of the tone that accompanied it. This neat 1,100-mile trick was turned shortly after noon on July 11. Can anyone explain it? We have a few things to learn, yet."

Thirty years later, we can look back at these reports and explain them: F2 skip to England, transequatorial ducting of the E layer to Brazil, and tropospheric ducting from Connecticut to Iowa. But we still don't have all the answers. Sporadic-E ionization has been known for 45½ years now, but we still aren't exactly sure what triggers it.

Thanks to John Ebeling for sending me the two articles referred to from the Radio-Electronics magazine.

David Moody had sent me a few articles a few months ago that appeared in Broadcast Engineering magazine, relating to television engineering.

One article mentions WNNM-TV, channel 16 in

South Bend, Indiana, owned by the University of Notre Dame. The station uses 6900 feet of fiber optics cable instead of conventional coaxial cable to link its new studio with the university's sports facilities and Center for Continuing Education. The fiber optic cable uses light pulses instead of electrical signals, and can relay high-quality pictures and audio. Another 5703 feet of cable connect the football stadium. The coaxial cable used with the old studio required equalizers and amplifiers, resulting in degradation of the signal. Fiber optics is also easier to install, has better video and audio quality, virtually no noise interference, has a high bandwidth, is smaller, stronger, more flexible, and has other advantages.

Another article deals with a tower under construction in Abuja, Nigeria. This tower will hold four VHF transmitters, eight UHF transmitters, four FM transmitters, and will have the capacity to hold four more FM transmitters. The tower will also have extensive microwave installations. There will also be a restaurant, observation gallery, and banquet area. This tower is intended to stand as a national monument, and will be the third highest structure in the world. The highest tower is the CN tower in Toronto.

A third article describes the construction of the Mount Sutro tower in San Francisco, which was constructed eleven years ago. This tower is 977 feet tall, only a few feet shorter than the Eiffel Tower in Paris. It was designed to withstand an earthquake of 8.3 on the Richter scale. It contains more than 25,000 feet of transmission line, all copper coaxial cable. Back in the early fifties there were several sites around the San Francisco area where stations were transmitting. Eventually they settled to two areas: Mount San Bruno, 3½ miles south of San Francisco, and Mount Sutro. KGO-TV, ch. 7, made plans to construct the huge tower on Mount Sutro, while KRON-TV, channel 4, made similar plans to build one on Mount San Bruno. The idea was to have all the transmitters in one area. Because Mount San Bruno was too close to the San Francisco International Airport it could not get FAA approval, and all the stations decided then to work together on one tower at Mount Sutro. Construction began in February, 1971, and was completed in July, 1973.

A fourth article makes mention of television in the People's Republic of China. "Every city of any size in China now has at least one transmitter carrying the national program, on channel 2 when possible. Also, there are many relay transmitters and translators, so that a TV signal of some kind is available to much of China.



EASTERN TV-DX

William J. Draeb
Ellis St. R.R.#2
Kewaunee, WI
54216

January 1984 Deadline: 1st
W.P. Townsend: 4500 Connecticut Ave. NW #901, Washington, DC 20008 EST
 August 1983 October 1983 November 1983
 31 Tr 0055 WTVZ-33 VA 3 Tr 2300 WJWS-23 NJ 22 Tr 0650 WBOC-16 MD
0725 WCPB-28 MD
0726 WAAE-40 NJ
0727 WMDT-47 MD

One of the best openings to the east this season, which is unusual for so late in the Fall. WBOC-16 is seen consistently. Maybe WBOC will be seen in DC most of the Winter. This is a bellweather station for TV-DX, just as WQHQ 104.7 is for FM.

Robert Goodman: 2030 Haring Ave., Bronx, NY 10461 EST-EDT?
 By Es I had WEDU-3 FL again on 8/15/83 from 1830 to 1935 (1050mi.). Fog associated trope on 11/10/83 brought the following: 0615 WDCA-20 DC 210 mi., 0650 WJZ-13 MD 180 mi. Some Es the night of 11/14/83 (muf to ch.2, no I.D.), that's all to report.

George Rogers: 320 Lafayette Rd., Chickamauga, GA 30707 EST
 October 1983 November 1983 November 1983
 25 Tr 1945 WKSO-29 KY 160 6 Tr 1043 WKZT-23 KY 275 17 Tr 0835 WHIQ-25 AL 105
1045 WKCF-22 OH 428 19 Tr 0838 WANX-46 GA 113
 28 Tr 0812 WEMA-40 AL 110 1048 WGRB-34 KY 215 0840 WETV-30 GA "
1850 WBR-10 TN 111 0842 WITO-21 AL 145
0820 WTVK-26 TN 111 9 Es 2230 KSNC-2 KS 800 0848 WEMG-42 AL "
12 Es 1645 WTVJ-4 FL 665 0852 WEMA-40 AL 105
1700 WPTT-2 FL " 20 Es 1310 KOB-4 NM 1140
1720 TR-4 Cuba 900 1340 KSAF-2 NM 1140
1730 TR-2 " 22 Tr 0805 WWSB-27 MS 270
1745 TR-5 " 0810 WITO-21 AL 145
1745 TR-5 " 0818 WVTM-13 AL "
1700 WPTT-2 FL " 0820 WOWL-15 AL 177
1730 TR-2 " 0822 WSLA-8 AL 225
1745 TR-5 " 0825 WKRC-5 AL 385
1700 WPTT-2 FL " 0830 WDIQ-2 AL 305
1720 TR-4 Cuba 900 0834 WLTZ-38 GA 224
1730 TR-2 " 0836 WCOV-20 AL 213
1745 TR-5 " 0847 WBBJ-7 TN 260
1700 WPTT-2 FL " 0915 WGRB-34 KY 215
1720 TR-4 Cuba 900 0950 WJSP-28 GA 208
1730 TR-2 " 0952 WZTV-17 TN 129
1745 TR-5 " 1015 WBIQ-10 AL 145
1700 WPTT-2 FL " 1027 WKMU-21 KY 250
1720 TR-4 Cuba 900 1032 WCFT-33 AL 203
1730 TR-2 " 1038 WIIQ-41 AL 240
1745 TR-5 " 1045 WEMG-42 AL 145
1700 WPTT-2 FL " 1105 WKAB-32 AL 213
1720 TR-4 Cuba 900 1105 WKAB-32 AL 213
1730 TR-2 " 1105 WKAB-32 AL 213
1745 TR-5 " 1105 WKAB-32 AL 213

November 1983
 4 Tr 1515 WZTV-17 TN 129
 1632 WMC-5 TN 322
 1635 WHDQ-13 TN "
 1705 WOWL-15 AL 177
 1745 KAIT-8 AR 335
 1748 WPTY-24 TN 322
 1830 WKNO-10 TN "
 1910 KATV-7 AR 459
 2032 WGXA-24 GA 198
 2035 WWSB-27 MS 270
 2036 WVEU-69 GA 113
 2037 WVTM-13 AL 145
 2040 WETV-30 GA 113
 2042 WEMG-42 AL 145
 2140 WJSP-28 GA 208
 2220 WLTZ-38 GA 224
 6 Tr 0905 WWSB-27 MS 270
 0910 WEMG-42 AL 145
 0920 WTVK-26 TN 111
 0940 WITO-21 AL 145

13 Es 2015 KGAN-2 IA 590
 2025 KTCA-2 MN 800
 2130 KSAF-2 NM 1140
 Santa Fe
 14 Es 1605 KSAF-2 NM 1140
 1650 KSNC-2 KS 800
 1700 KWGN-2 CO 1050
 1710 KNOP-2 NE 1000
 1715 KCNC-4 CO 1050
 (was KOA)
 1738 KENW-3 NM 950
 1740 KOB-4 NM 1150
 1742 KAMR-4 TX 940
 1745 KTXI-5 TX 980
 1750 KMID-2 TX 950
 1755 XEPM-2 CH 1100
 1805 KAVE-6 NM 1000
 15 Es 1000 KNDX-2 ND 1250
 1003 KXJB-4 ND 1005
 1019 KGFE-2 ND 1025
 17 Tr 0810 WJSP-28 GA 208
 0811 WATL-36 GA 113

Equipment: Zenith 12" portable Model No. BT 120Y.

TV-DX down here had been good. I had four days in a row with Es this month. I had just renewed to WIFDA for another year of DX fun. I wish every WIFDA member a very happy DX-ful New Year and be on the lookout for Es during the New Years' bowl games. Thank you.

During the past few months, Bill Fabber and I have been working on the new TV Station Guide. With a little luck, all the data should be updated and ready for printing some time next spring. If any of you out there have some info on the new stations that have been coming on lately (such as network affiliation, etc.) or something new about older stations that are already on, would you please let us know about it. We're going to try to make the new station guide as accurate as possible but we may need your help to do so. Thanks.-wd

C.C.I. [UNIDENTIFIED DX]

Robert Grant, KD8EN
5775 Bishop
Detroit, MI 48224.
January, 1984.

TV unIDs:
 Jim Pizzi, P.O. Box 1778, Lovington, NM 88260.
 1983: Fri 21 Oct Es ch 4 0910 MDT-- "Shell Game" (PTA: E) (This is one of the games of "The Price Is Right" on CBS at that time. -RG)
 Sat 22 Oct MS ch 2 0002 MDT-- Wrestling (Antenna NEast.)
 Sun 23 Oct Tr ch 20 0013 MDT-- xltr w/ KETA-13, OKC, then KUPK-13 Garden City, KS then at 0024 KLBK-13, Lubbock, TX. (PTA: TX Panhandle, OK.)
 " " " " ch 18 0103 MDT-- 3/4 CBP. (PTA: East TX, South OK. suspect KLSAL, Sulphur Springs, TX.)
 Thu 27 Oct MS ch 2 2353 MDT-- mention Highway 77 (PTA: NEast.)
 Sat 29 Oct MS ch 2 0116 MDT-- Paul Harvey (PTA: NEast.)
 Wed 2 Nov Es ch 2 1959 MST-- "Action nx Update" w/ Maggie Jensen, CBS net (PTA: NEast.)
 Thu 3 Nov Es ch 2 0036 MST-- movie: "List Of Adrian Messenger", Air Canada Cargo ad.
 Sat 12 Nov Tr ch 58 0128 MST-- xltr of KSWB-8, Roswell, NM. (PTA: E-Central NM.)
 " " " " ch 44 0129 MST-- xltr of KOKH-25, Oklahoma City, OK. (PTA: TX, OK.)
 " " " " ch 68 0137 MST-- xltr of KSWB-8, Roswell, NM. (PTA: E-Central NM.)
 Mon 14 Nov Es ch 4 1509 MST-- "Little House" (PTA: SC, TN, WV.)
 " " " " ch 6 1547 MST-- "M*A*S*H" (PTA: NC, TN, GA, WV.)
 Tue 15 Nov MS ch 2 2215 MST-- "Making Of A Continent" (PBS) a day late. (Ant: NEast.)
 " " " " ch 2 2228 MST-- "Entertainment Tonight"
 Sat 19 Nov MS ch 2 2319 MST-- movie promo for 22 Nov: "It's a Mad, Mad, Mad, Mad World."
 Sun 20 Nov Es ch 2 1102 MST-- "Firing Line" (PBS) (PTA: TN, NC.)
 Mon 21 Nov Tr ch 15 2220 MST-- "Thicke Of The Night" (PTA: E.)

FM unIDs:
 Jim Pizzi, P.O. Box 1778, Lovington, NM 88260.
 1983: Mon 14 Nov Es 92.5 1547 MST-- gospel. (PTA: KY, MS, NC.)
 " " " " 97.9 1600 MST-- "Carolina's Hottest FM".
 " " " " 99.7 1605 MST-- "Z-100", r.
 " " " " 106.7 1655 MST-- remote B'cast from Sears store. (PTA: SE'n US.)
 " " " " 96.5 1704 MST-- ad: "Jefferson Ward Store"
 Fri 18 Nov MS 92.3 2025 MST-- g (WYCA only g on 92.3 per FM ATLAS, any others?) (PTA: NEast.)

FM IDs:
 Saul Chernos:
 1983: Sat 23 Jul Es 90.7 1300 EDT-- d mx, "AM-1480" mentioned. (Dave Nieman IDed this as WKGC, Panama City, FL. (the AM 1480 is listed in 14th Vane Jones NARTVSG as WGNE. I Don't know whether WGNE-FM sold the AM to WKGC or simply donated it. -RG)
 1983: Sun 21 Aug Tr 100.9 1855 EDT-- SS (FM ATLAS lists WMEK in Clyde, OH as SS. If that is the case that is a definite catch but I would like to hear from other DXers because I find it hard to imagine this station, nowhere near a metro area, Broadcasting in Spanish. -RG)
 Steve West:
 1983: Sun 24 Jul Es 98.5 2115 EDT-- SS male anc. Followed by 3 SS vocal songs. (FM ATLAS lists KQXX, McAllen, TX as Spanish country, which would seem to fit the bill. -RG.)

Jim Pizzi sent me a NM TV Guide which includes the debut of KSAF-2, an Albuquerque VHF Independent with Santa Fe as it's city of license. Seeing their sked I expect them to crush the ratings of KQSW-14 & KNAT-23. Be careful when Esing to this part of the country. Their logo looks identical to that of KWGN-2, Denver, also independent. According to the table of assignments KSAF should be a plus offset station, as opposed to KWGN's zero offset. WJBK's 2 is like this too, but always surrounded by "Detrit" with the "2" used in place of the "o": Detrit. WJBK is plus and thus Ø beat to KSAF. 73 & gud DX in 1984.

**THIS WEEK DISCOVER
A WHOLE NEW NUMBER
ON YOUR TV DIAL.**



KSAF-TV

WESTERN TV-DX

Fred McCormack
Box 5221
State University Sta.
Fargo, ND 58105

Deadline: 2-9-84

January 1984

Super tropes in New Mexico, more loggings reported from the Texas - midwest tropo of October 23, 24 (this time in Macomb, Illinois), slow DX in Madison, double hop E skip in Okinawa, and nothing in North Dakota is the TVDX story this month. I hope 1984 is off to a good start for everyone.

New _____ New Mode _____ Tent. - t Unidentified - unid S/On - + S/Off - =
ID Color Bars - @ Unid Color Bars - % IHTP - φ Misc. Test Patterns - &

Jeff Kadet, Box 20, Macomb, IL 61455

CLT?

Equipment: Zenith N1310, Antennacraft 10 element hi-band yagi up 15', Channel Master Diamond Quantum up 30' with EU-4S preamplifier and RG-11 cable.

October 1983	24 Tr 2254	Other unids-ssw, chs 16,21,26,27.	5 Tr	freq by about 5 kHz.)
9 Tr 0050	WLKY 32 KY 300			
2100	KPOB 15 MO 265			
2300	=KTEJ 19 AR 325			
10 Tr 0714	WKPD 29 KY 260			
0810	WKMU 21 KY 300			
	WKGB 53 KY 325			
	KGCT 41 OK 415			
0845	WFYI 20 IN			
2210	(U/o WICS - east WHMB-40 strong)			
24 Tr 2145	KOKI 23 OK 415			
	(In color. Ch 41 also with STV.)			
2227	KXTX 39 TX 640			
	(CCI same heading. Houston?)			
2254	KNBN 33 TX 640			
		November 1983		
		1 Tr 1739	WSIU 8 IL 210	
		4 Tr	Good opening in the evening with most IA, Topeka, Omaha, and Mpls.	
		5 Tr 0529	WFFT 55 IN 280	
			(This was unid CCI on 9-30.	
			Either they or WRSP are off	
		6 Tr 0540	WDRB 41 KY 300	
		0555	WZTV 17 TN	
		0558	WAAY 31 AL 455	
		0628	WVFF 48 AL 455	
			Also strong OKHz CCI - WRAU. Prob. WHNT.	
		0655	WKPC 15 KY 300	
		0710	WBT 64 OH	

Was surprised to get Texas and Alabama because neither has been heard on FM tropes yet. The CE at KNBN, Gene Petersen, used to be a BCB DX'er. He says that KTYA-21 and KTWS-27 are independents with STV at night. KXTX-39 was in solidly with a WWII movie for about 40 minutes and KNBN, which is in a straight line with Macomb and KSPR, drifted over KSPR a few times.

Does anybody know the QTH of XETU-2 which was seen in July over/under XEPM? I have a clearly legible picture of it's ID slide, but I can't find it ever being reported in the VUD. 73.

(Very nice loggings. I am glad to see that you, too, caught that fine tropo opening of October 23, 24. fm)

Jim Pizzi, P.O. Box 1778, Lovington, NM 88260 (505)-396-3251

MST

Equipment: Panasonic 12" b&w, Sony 8" b&w, Panasonic 13" color, Motorola 19" color, Finco P-7 with EU-4S at 70', CM 6' with EU-4S at 35', Winegard 2073 (channels 7-13) with AC-9730 preamplifier at 75', Winegard 2026 (channels 2-6) with AC-9260 preamplifier at 30', plus other antennas.

* DX received on Motorola R-220 receiver (audio) # CBS Nightwatch

November 1983	2 Tr 1845	KPOMt 24 AR	2 Es 2210	KRON 4 CA 1116
2 Tr 0929	KSAF 2 NM 264	1847	KLRT 16 AR	2215
	(Heavy 0 kHz to KMID)	MS 1905	unid ch 23 ne	LS 2220
	1645 K19AA 19 OK 252		Micro burst - 10	Es 2222
	(Altus KWET-12)		kHz offset -KOKI	KVIE 6 CA 1071
	1814 Exc OKC 14,25,43	Es 1923	WBBMt 2 IL	KCRA 3 CA 1071
	1826 Exc Tulsa 23, 41		(Es gone by 2345	
	1837 KWET 12 OK 275	1934	unid channel 2	with KTVU the
		2207	KTVU 2 CA 1116	last to go.)

A strange day with four different modes of DX. Es in November?? Well, I'm not complaining - but with such a poor Es season up north this year, I'm beginning to feel guilty

Western TV DX

January 1984

Jim Pizzi (continued) with all this Es at this QTH. I saw my third UHF MS - very quick, but strong. KSAF went on at 1800 MST on October 30, 1983.

3 Es 0036	unid ch 2 Canada	3 MS 0121	@KJRH 2 OK 473	3 Es 0218	&unid ch 3 north
	(Es gone - 0047)		0210 @WAVE 3 KY 1049		(Es gone - 0228)
3 MS 0103	WTWO 2 IN 981			3 MS 0232	@WSIL 3 IL 887

I believe this early morning Es was MS induced as MS was hot and heavy with 15-20 bursts per minute on channels 2 and 3. A lot of bursts on channel 3 with CBS Nightwatch, but no ID or idea of it's location. WSIL-3 had "KPOB, Poplar Bluff" in a black box over color bars, but no WSIL-3 ID that I could see.

4 LS 1333	KNCT 46 TX 368	8 Tr 0105	K11PF 11 TX 201	8 Tr 0145	K44## 44
1802	KCIK 14 TX 201	0139	#KTBC 7 TX 377		(LPTV STV - SelectV)
1806	XHIJ 44 CH 205	0140	#K42AG 42 OK 300		0147 KSHBt 41 MO
1836	KCOS 13 TX 201		(Strong City KFPA-10)		0215 KHTV 39 TX 515
1840	KRWG 22 NM 199		0142 #K51## 51 ??		0234 #KWTW 9 OK 380
8 Tr 0100	Houston20,26 515		(Unknown KFPA-10)		0235 KOKH 25 OK 380

The early morning tropes of the 8th were a surprise with VHF translator K11PF (Ozona, normally translates WFAA-8, 10w). At times, the VAFI was 4054. The only audio heard was KLST-8, San Angelo, (2 on the scale). CCI was unusual with KSWs-8 and KLST-8; also, a little from KTVT-11 or KHOU-11. The LPTV with STV (SelectV) was on a direct line with Strong City, OK. I've received a translator on channel 44 with KWET-12 on it on a Lawton, OK heading (also unid), so I doubt if the same. Audio was allowed over the air (dirty words and all), but picture was scrambled. (SelectV determined with my satellite system located on Westar 5, transponder 5). I hope the new translator guide is out soon!

(Jim, I wonder if your LPTV is K44AK at Memphis, TX? I believe they are close to a Strong City heading from your QTH. fm)

9 Es 2234	unid ch 2 ne	12 Tr 0058	K42AG 42 OK 300	12 Tr 0123	K44## 44 ??
	(Gone by 2245)		K38AM 38 OK 300		(Unknown KOKH-25)
	(Lots of MS this evening. Es was probably MS induced.)		(Strong City KAMR- 4)		0127 K58## 58 ??
			0112 K40AG 40 OK 300		(Unknown KSWs- 8)
			(Strong City KVII- 7)		(No audio)
			0115 K59BD 59 NM 152		0133 K67BD 67 NM 135
			(Montoya KGGM-13)		(Cedar Canyon KOB- 4)
11 Tr 0101	K06GF 6 NM 91		0119 K57BR 57 NM 152		0137 K68## 68 ??
	(Clovis KVII- 7)		(Montoya KOAT- 7)		(Unknown KSWs- 8)
Es 1930	WTWot 2 IN				

Channel 44 seen (on the 12th) - may be the same LPTV/translator seen on the 8th. Just as strong a signal, only with KOKH-25. Then again, it may be different. Also, two new KSWs-8 translators are on. Must be in the Fort Sumner / Santa Rosa area?

14 Es 1500	WSJK 2 TN 1070	14 Es 1531	WYFF 4 NC 1206	14 Es 1623	unid ch 7, WITF?
1502	WRCBt 3 TN	1504	WCYB 5 TN 1224	1640	unid ch 7, WJHG?
1509	unid ch 4 east	1547	unid channel 6 e	1718	WESH 2 FL 1346
	unid ch 5 east	1558	WRAL 5 NC 1413		(Es gone - 1750)
1515	WFMY 2 NC 1350	1605	WSB 2 GA 1098	1808	unid ch 2 Mexico
1525	WBTV 3 NC 1206	1616	WWAY 3 NC 1463	1810	unid ch 3 Mexico
1530	WRCB 3 TN 1035	1622	WCTV 6 GA 1148		(Es gone - 1830)

A real surprise, this day - Es like in July. Three and one half hours and MUF to channel 7. Caught this one at the very beginning - about 1450, the first hint of Es on channel 2 - made it to FM around 1547. Opening was very intense with one new one logged. There were heavy thunderstorms over Mississippi and western Tennessee that afternoon - maybe had something to do with it?

15 Es 1022	CKCY 2 ON 1345	17 MS 0237	@WSIL 3 IL 887	21 Tr 2213	WMAH 19 MS 878
	(CKCY TV2, Cable 11. 2-11 logo.)		*1000 KGAN 2 IA		(W / WMAO-TV ID)
	(Gone by 1038)	20 Es 1102	WUNDT 2 NC	2214	WAPT 16 MS 772
	unid 2 east PBS		1126 WFMY 2 NC 1350		WUSFT 16 FL
	(Gone by 1115)		(Es gone - 1145)		(0 kHz to WAPT.)
1202	unid ch 2 east		1628 unid ch 2 XEW? s	2220	unid ch 15, WPMI
	(Gone by 1220)		(Es gone - 1645)		or KADN - Thicke
1417	unid ch 2 ne	21 Tr 2201	KLPA 25 LA 644	2223	WLPB 27 LA 743
	(Gone by 1428)		2202 WGNO 26 LA 819	2226	WPTSt 28 FL
			Houston 20,26,39		(10 kHz to KAMC)
17 MS 0131	@KJRH 2 OK 473		2204 KLAX 31 LA 644	2231	WRBT 33 LA 743

Western TV DX

Jim Pizzi (continued)

January 1984
The evening (of the 21st), tropo were weak and fading. Dallas - Fort Worth U's, Austin U's, and Houston U's were weak. KLPAs was the strongest of all. (Apparent fade out by 2245).

22 Tr 0000 KVEO 23 TX 576
=KAVU 25 TX 468
0001 X--- 34 CH 285
(Ciudad Acuna w / XEW)
0002 WKABt 32 AL
(0 kHz to KTAB.)
0015 KTBC 7 TX 377
(Not seen often)
0027 WCOV 20 AL 1004
(0 kHz to KTXH.)

22 Tr 0112 WLTZ 38 GA 1067
(In until 0118.)
0140 unid ch 14 east
(Blank cxr-0kHz)
0155 KHOU 11 TX 515
0230 #WAFB 9 LA 743
0307 #WHTV 24 MS 855
MS 0352 unid ch 7 ne
0420 WAVE 3 KY 1049

Well, I stuck with it after the apparent fade out of conditions, and waiting an hour and a half paid off. Signals were still very weak (I love my EU-4s - would have never seen them without it), but got enough info to phone for veries. First I called WLTZ and talked to Patricia Sebay of programming. They run "Kung Fu" from 0230 - 0330 EST. She was amazed at the reception and said she'd send me a written veri. Then called WHTV and talked to Dawn Walker of programming who got excited about the reception and made me talk to Ray Denton, operations manager, who was also amazed and thanked me for the call. He said he'd send me a written veri too. Finally called WCOV - talked to Jim Hall, programming, telling me of his "DX" once while in a boat in Pencil Bay (in Maryland, I think?) and watching Quebec on TV. He also said he'd send me a veri. WCOV had CBS Nightwatch at 0102.

Well, a very interesting and productive (sorry about the pun) report period. Lots of tropo, Es, MS, and LS for just twenty days (and November too!). Another month to go for this year - the best year ever for this DX observer. When this report is in the VUD, it'll be 1984. My very best to all members and their families for a happy, peaceful, and prosperous new year. 73's, Jim

(Congratulations on your latest super tropo loggings. fm)

James J. Stiles, CFAO/NAFK, Box SU/LR ADP, FPO Seattle, WA 98770 (Okinawa) JST

Equipment: Sharp 26" PAL/SECAM/NTSC color model C261-SPN, AOR Ltd. AR-2001 25-550 Mhz Scanner, Grove Power-Amp wide-band preamp, three element 50 Mhz yagi beam, Grove Scanner Beam.

October 23 Es

1130 R1 - Vladivostok, Russia
1145 C1 - Harbin, China
1500 C2 - Changchun, China
1515 C3 - Cangzhou, China
1530 R3 - Kharborovsk, China
1545 C4 - Fushun, China
C5 - Shenyang, China
A2 - Seoul, Korea
1730 A4 - Yeosu, Korea
1930 C1 - China unid
C2 - China unid
2100 E2 - Malaysia (2Es)
E3 - Malaysia (2Es)

October 24 Es

1200 R1 - Vladivostok, Russia
1800 A2 - DWWX, Quezon City, Philippines
2045 E2 - Malaysia (2Es)

October 25 Es

1745 R1 - Vladivostok, Russia
C2 - Changchun, China

October 26 Es

1815 C1 - Harbin, China
2100 E2 - Malaysia (2Es)
E3 - Malaysia (2Es)

October 27 Es

2100 E2 - Malaysia (2Es)

October 28 Es

1845 A2 - DWWX, Quezon City, Philippines
1900 C1 - China unid
October 30 Es
1500 C1 - China unid
1600 C2 - China unid
1945 C2 - China unid

November 1 Es

2030 E2 - Malaysia (2Es)
E3 - Malaysia (2Es)
E4 - Malaysia (2Es)

November 8 Es

1130 R1 - Vladivostok, Russia
C1 - Harbin, China
1740 A2 - DWWX, Quezon City, Philippines
2030 E2 - Malaysia (2Es)

November 9 Es

1815 A2 - DWWX, Quezon City, Philippines

November 11 Es

2200 E2 - Malaysia (2Es)
E3 - Malaysia (2Es)

November 26 Es

1330 A2 - Seoul, Korea
1600 A5 - Seoul, Korea
1700 C2 - China unid

All of the above E skip openings were monitored initially on the AR-2001 scanner. Signal strengths were usually low and video not usable. Opening of 23 October was best and of longest duration (9+ hours).

The scanner has been set to monitor, in wide-band FM mode, all TV audio frequencies below 100 MHz on a 24 hour basis. It has proven invaluable in detecting openings which otherwise would have gone unnoticed.

(Jim, you are selling me on the idea that I need one of those scanners! fm)

Western TV DX

Nathaniel Ely, 1237 East Johnson St., #2, Madison, WI 53703

January 1984

CDT/CST

Equipment: Quantum 1110 with 2950 preamp + various traps at 57', C.M. 7' dish with 4990 preamp at 61', 70'/30' runs of .412/RG-11 cable, CD rotor, 1980 System 3 with remote. Grove Scanner Filter III for UHF. Tower, QDMX MD-56 (free standing)

October 1983

1 Tr 0008 CBLFT8 61 ON 440
0120 WLIO 35 OH 310
10 Tr 0224 unid ch 10 e CBS
11 Tr 0230 WTOL 11 OH 310
21 Tr 0739 WDIO 10 MN 300
0800 WDSE 8 MN 300
0813 WWUP 10 MI 380
0816 WGTQ 8 MI 380
31 Tr 0056 K66BVT 66 MI
(CCI, Detroit U's in)
0114 CKCO3 42 ON 480

4 Tr 0732 XCLI 42 MN 300
WFBT 29 MN 235
(Above snow free)
0800 WUSI 16 IL 300
Springfield U's,
Chs 49 & 55 230
0817 KMEG 14 IA 360
5 Tr 0015 WHET 25 IN 375
0017 WFIE 14 IN 375
0120 W68AA 68 IL 220
(Danville WAND-17)
0130 WDDD 27 IL 370
0200 K32AF 32 MN 270
(St. James KSTP- 5)

5 Tr 0210 CBLFT16 16 ON410
0257 W76AI 76 MI 215
(Escanaba norm WLUC-6,
translating WITI- 6)
0345 KMTCT 27 MO
0420 WTVW 7 IN 375
0430 WKOI 43 IN 315
0530 WKEF 22 OH 350
6 Tr 1739 WCET 48 OH 360
7 Tr 1600 WQPT 24 IL 130
1530 KHNE 29 NE 480
1919 KHIN 36 IA 315

November 1983

4 Tr 0725 KDNL 30 MO 310

Not much to report these last two months. It's been difficult to break out of the 300's mileage wise. Did manage to log KHNE-29 from Nebraska straight through my locals (7 1/2 miles away). The Grove Scanner Filter made that one possible. I think I overstated the loss on the unit; it is probably more like 2-3 dB.

I tore up the gears in my AR-40 (fooling around in 45 mph winds) the 2nd week of November. I've got an Alliance HD-73 on order - hope it is in by next report.

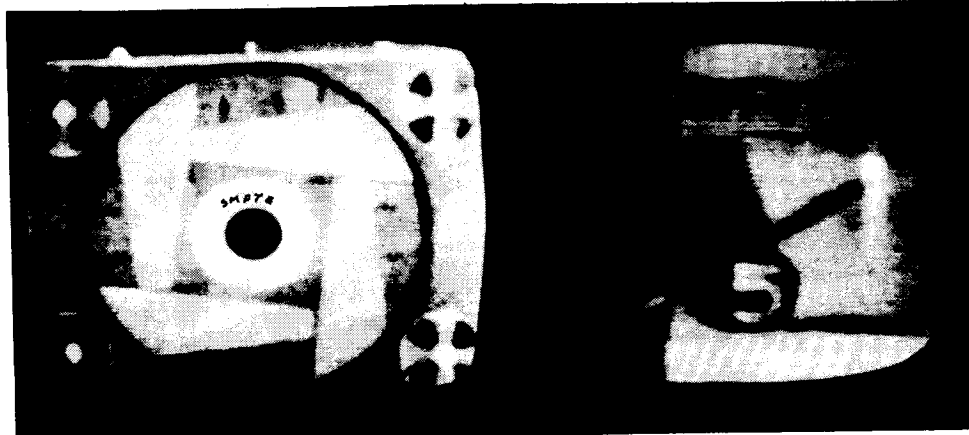
Thought I'd pass along the following info since Channel Master won't/didn't supply wind loading data when I wrote them last year. The Quantum 1110 with a 60 mph wind at maximum angle of attack exerts 53.5 pounds of side thrust. It has 5.94 square feet of wind loading area. The 7' parabolic exerts 62.5 pounds of side thrust and has a wind loading area of 6.9 square feet.

Received three veries this month: KNLC-24, KPVI-6 ("The Idaho Experience"), and my proudest, KXTX-39. Report sent to QSL corner. Log totals continue to rise even without DX!

That's all this month, hope there will be some wintertime Es to report next month. 73, Nate

(That wind loading data is very useful. I too, have had difficulty getting consumer antenna manufacturers to provide it. It really becomes important since DX'ers have a tendency to want to put too many antennas on a tower. But, I suppose even if we knew how much we often overload towers, we would still do it, in light of how expensive the proper towers might be. fm)

PHOTOS from the PAST



from 1961, a SMPTE test pattern.....

in 1962, KXON ch.5, Mitchell, SD was KORN.....

ANTENNA NEWS

Doug Dornbos
P.O. Box 1288
Traverse City, MI 49685

January 1984

Dear Fellow DX'ers,

Well here it is already, 1984! Big Brother is definitely overbearing at times but I'm sure we all can reflect on areas of our lives that we enjoy freedoms greater than any other generation. Maybe the freedom thing is one reason I like antennas so much. With so much information on the air-waves it sure is interesting some times to swing the yagi around and pick up a late night Larry King show or a newscast from another city with entirely different problems than that in which I live. Maybe too, the reason I like antennas is because in countries that are not free, there are countless people with hidden antennas intercepting signals from across the border. There is no such thing as censored information when somebody has a radio and a good antenna. Of course I don't think of these things very often but seeing as how this is 1984 I thought it might be good to just spend a moment thinking about the freedoms we do have and be thankful.

MEMBER'S INPUT

Thank-you Danny Buntin for mentioning the balloon article in your TV-DX report last month. I got so excited about it that I got a little carried away putting in articles this month. Anybody else out there got anything to report on the articles?

MAGAZINE ARTICLES * DURING THE REIGN OF LBJ

Indoor Horn for TV-FM Reception	Electronics World	Dec 63
Indoor FM Antenna	Consumers Bulltain	Feb 64
Uhf Converters-Circuits & Design	Electronics World	" "
Tower for TV: 30,000 Dead Birds	Audubon Magazine	Mar "
Indoor Powered Antennas	Popular Mechanics	Apr "
Trouble Shooting TV Ghosts	Popular Electronics	" "
Radio & TV Interference	Electronics World	Jun "
For the 2 TV Family, Two-set Couplers	Consumers Report	Jly "
Results of EW Tests on UHF Converters	Electronics World	" "
UHF Converters:Blonder Tongue ETC99s & BTU2t	Consumers Report	Aug "
Reducing UHF TV Interference	Electronics World	Sep "
Near Field Measurements of Aerial Patterns	R & E Engineering	Nov "
Inconspicuous New UHF Converter:B-T BTD-44	Consumers Report	Jan 65
Is Your TV Antenna Out of Date?	Popular Science	" "
Loss Figures For 300 ohm Twin-lead	Electronics World	" "
Some Corrections On TV Roof Antennas	Consumers Report	" "
FM Roof Antennas	"	Feb "
Multi-set Couplers: Operation & Problems	Electronics World	" "
2-Set Couplers for TV and FM	Consumers Bulltain	" "
Line-of-sight Monogram:Required Antenna Heights for Various Reception Ranges	Electronics World	Mar "
Antennas for Color TV	Radio-Electronics	Apr "
Antennas:Which,Why,When,& How Much?	American Home	" "
Some Observations With VHF Folded Dipoles	"	" "
Antenna Rotators Pinpoint Signals	Popular Electronics	May "
Are You Ready for UHF?	"	" "
Booster for FM Stereo	Electronics World	" "
Guide to Antenna Selection	Electronic Industries	" "
How To Improve Color TV Antenna Installations	Popular Electronics	" "
New Generation of Antennas	"	" "
Selecting A UHF Antenna	"	" "
UHF TV 1/2-Wave Shorting Stub Monogram	Electronics World	Jun "
Cylindrical Steel TV Mast	Engineer	Jun 11,
Antenna Rotator Remote Control	Radio-Electronics	Jly "
Improved All-Channel TV Antenna	Consumers Report	" "
Reinforced Plasic Radomes Minimize TV Ghosts	Plastics World	Aug "
Antenna Baluns	QST	Oct "

Antenna News

Page 2

January 1984

Magazine Articles 1963-1968 (cont)

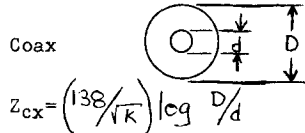
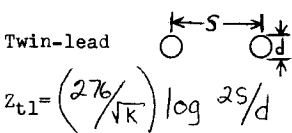
Indispensable Antenna:Outdoor Antenna A Must for FM High Fidelity	Electronics World	Oct 65
New Shielded Twin-lead for Color TV & Uhf	Popular Electronics	Nov "
How To Stack TV Antennas	Electronics World	Dec "
Color TV Ghosts	Opera News	Jan 66
Stereo FM Antennas	Electronics World	Feb "
Designing An All-channel TV Antenna	"	Mar "
New Uhf TV Antenna Design	"	Apr "
Put 'em Up & Keep 'em Up	Radio-Electronics	" "
Rotate To Better TV Viewing	Popular Mechanics	" "
Study of Guyed Towers/Proceedings-American Society-Civil Engineers	Popular Electronics	May "
Antenna Boom	Wireless World	" "
Communal Aerial Amplifiers	Electronics World	Jun "
Low Profile Uhf Antenna	Popular Electronics	Jly "
Riding the TV DX Trail	Consumers Report	Aug "
Antenna Rotators	Electronics World	" "
New Low-loss Coax for TV	QST	" "
Simple TV Filter for 50 Mhz	Radio & Electronic Engineering	Sep "
Uhf TV Reception	Wireless World	Oct "
Aerial Gain & How It Is Measured	Radio-Electronics	" "
Alliance Tenna Rotor	Audio	" "
FM Stereo Antenna Primer	Popular Electronics	Feb 67
NBFM Routs 6-Meter TVI	Radio-Electronics	Apr "
Mast Mounted Preamp	"	" "
Two Useful Pitched Roof Antenna Mounts	Proceedings-Institution-Electrical	" "
Unusual TV Antenna:Described in Soviet Electronics Hobbyist Journal	Wireless World	May "
Corona & Precipitation Interference in VHF TV Reception	QST	" "
Wire Mesh Aerial Reflectors	Popular Mechanics	Jun "
Antenna Rotators & Indicators	Electronics	" "
Hot Antenna For Cool Color Reception is Loud & Cool for Subminiture Antennas	Popular Electronics	" "
Selecting Antennas	"	" "
Selecting Transmission Lines	"	" "
TV Antenna Sampler	"	" "
Wiring Your Home For TV	"	" "
Improve Your FM Reception	High Fidelity	Jly "
Major Antenna Breakthrough?	Radio-Electronics	" "
Mini Antennas Now Have Great Big Ears	Product Engineering	" "
Electronic Antenna Rotation	Radio-Electronics	Aug "
In's & Out's of Lead In's	"	" "
Antenna Report	"	Sep "
Colour Receiver Techniques-Getting the Best Signal	Wireless World	" "
FM Antenna Problems	Audio	Oct "
TV Antenna:Skyprobe	Consumers Report	" "
Designs for Log-Periodic FM & TV Antennas	Electronics World	Dec "
Build A Mini-tenna:Sub-minitiature Integrated Antenna	Radio-Electr	Feb 68
Log-Periodic TV Aerial	Wireless World	" "
TV Roof Antennas	Consumers Report	" "
Updating on Downlead:Lead Ins for TV & FM	High Fidelity	" "
How To Deal With RF Interference	Radio-Electronics	Mar "
MATV Is Simple	"	" "
Tiny Antennas Push State of the Art	Electronics World	" "
TV Antennas To Handle Uhf	Electronics-Mar	4 "
Antenna Rotators	Radio-Electronics	Apr "
Build A High Gain 48 Element Uhf Antenna	"	" "
Home Antenna Systems	"	" "
How To Get The Most From TV Antennas	"	" "
TV & FM Antennas & Home Systems:Symposium	"	" "
TV & FM Antennas Are Getting Bigger	"	" "
FM Receiving Antennas	Audio	May "
TVI Traps Simplified	"	Jly "
I Can't Hear You When the Window's Closed	"	Aug "
Your TV Antenna May Be Out of Date	Popular Science	Sep "
How To Install A MATV System in Your Home	Mechanics Illustrated	Oct "
Saving On A Color TV Antenna	American Home	" "
Stamp Out That RFI	Motor Boating	" "

THEORY * TRANSMISSION LINE IMPEDANCE

If you have ever taken out your ohmmeter and measured across some twin-lead hoping to figure out why they call it 300 ohm cable, you probably ended up by scratching your head and vowing to tackle the problem again some other day. This month we will briefly discuss the whys and wherefors of line impedance.

Transmission line for TV comes 2 ways as you know: 300 ohm twin-lead and 75 ohm coax. These impedance values are the value of a resistor which, if connected across the end of the line would appear to the antenna as an infinitely long line. DON'T GET CONFUSED SO AS TO STOP READING HERE! Think about it this way: If a signal travels down an infinitely long length of coax, it just keeps going in the direction it started in and none of it ever goes back in the direction from which it came. Now, if we cut that coax to some finite length and placed a 75 ohm resistor across the end of it, when the signal got to the resistor, it would all be used up by the resistor, thus, just as in the infinitely long coax, no signal would return to its' source. As far as the antenna is concerned, this terminated coax appears no different than the infinitely long coax since it sends its' signal down it never to see it again. I don't mean to belabor the issue but I want it to be clear before we go on. Now, if instead of placing a 75 ohm resistor across our TV coax we place instead a resistor of another value, for example let's say 1000 ohms, that resistor will reflect a portion of the signal back up the line towards the antenna. Under these conditions the antenna no longer sees a line anything like the infinitely long line. No wonder I couldn't measure it with my ohmmeter you say! Don't feel bad. I believe I tried it at one time myself.

How then, without sophisticated test equipment can a person estimate the impedance of an unknown piece of coax, or how can a person make his own air insulated twin-lead? Well even though the impedance of a line can't be measured with an ohmmeter, it can be easily figured out with a ruler and a calculator with a log function. Before looking at the formulas though, take a look at the pictures so you can see how basic this is.



Where: Z_{t1} is the impedance of the twin-lead expressed in ohms.
 S is the space between the conductors.
 d is the diameter of the conductors.
 K is the dielectric constant of the insulation between the conductors.

Where: Z_{cx} is the impedance of the coax in ohms.
 D is the diameter of the shield.
 d is the diameter of the inner conductor.

Dielectric constants are a property of insulating materials and a table of the most common insulators and their constants is given below.

Air	1.0
Polyethylene	2.3
Cellular Polyethylene	1.7
TFE Teflon	2.1

It might be good here to point out that on coax we are not concerned with the insulation covering the shield, only that between the shield and center conductor. Also note that distance S on the twin-lead is from center to center.

Another parameter given in wire catalogs that may be confusing is the velocity of propagation which is the speed at which a signal travels through the line compared to how fast it travels through air. The reason I bring this up now is that it all depends on the dielectric constant of the insulator. The formula is $V_p = 1/\sqrt{K}$ and is expressed in percent.

Thanks for reading. Next month we'll show how to make a 35¢ trap for channel 15 (or any other channel for that matter).

FM NEWS

Bruce F. Elving, Ph.D., Editor
 4515 Avenue "E",
 Kearney NE 68847

Contributions invited!

Stereo Stations

- AL Arab WCRQ 92.7
- AL Gunterville WTVX 95.9
- AL Huntsville WOCG *90.1
- CA Willows KIQS-FM 105.5
- HI Hilo KKBG 97.7, rock, "K-Big"
- HI Kealahou KOAS 92.1
- IL La Grange WLTG *88.1
- IL Macomb WJEO 103.1, kr, no nonID
- IL Robinson WTAY-FM 101.7, mr
- IN Earl Park WIBM 98.3, k
- IN Franklin WGAQ 95.9, same format
- IN Martinsville WCBK 102.3
- IN Spencer WLSO 92.7, rm, "Star-93"
- IA Bloomfield KXOF 106.3, k, ABC-Direction
- IA Grundy Center KGC 97.7, rock
- LA Kaplan KMDL 97.7, k, "Acadiana's 24-hour Country Station."
- ME Calais WMEJ *89.7, ci, P
- ME Waterville WMEW *91.3, ci, P
- MI Detroit WDTW 90.9
- MI Monroe WTRW 98.3, "Tower 98"
- MO Canton KQCA 102.3, rock, "KQ-102"
- MO Kirksville KTUF 92.5, rock
- MO Memphis KMEM 96.7, k[country]
- NM Santa Fe KNMO 105.9, rock, Q-106
- NY Hornell WKPD 105.3
- NY Ticonderoga WXTY 103.9, while nearby
- WHRG 92.1 Port Henry NY is monophonic.
- VT Bellows Falls WBFL 107.1, k [rock]
- VT Vergennes-Burlington WIZN 106.3, progressive/
- WA Ellensburg KXLE-FM 95.3, rock
- WI Whitewater WSUW *91.7

Not in Stereo - Monophonic Stations

- IL Hirsdale WHSD *88.5, no network
- NY Hudson Falls WENU 101.7, now rock
- Slogans/NonIDs**
- GA Cornelia WCDN-FM 99.3 Superrock FM, rock
- HI Honolulu KQMQ 93.1 93 FM-Q (strict)
- KPOI-FM 97.5 98-Rock (strict), p, heavy metal.

- IL Freeport WXXQ 98.5 Rock-89
- IL Mount Carmel WYER-FM 94.9 95-Rock
- IN Evansville WIKY 104.1 Wicky Radio, mr
- IN Terre Haute WZZQ 107.5 FM 107-ZZQ
- IA Clinton KNJY 97.7 Y-88 (strict), now rock
- IA Ottumwa KLEE-FM 97.7 K-98
- ME Auburn WKZS 99.9 Kiss-100, rock
- MI Detroit WHYT 96.3 Hit-FM (no more "Hot Hits," with format somewhat cooled down)
- MI East Lansing WVIC-FM 94.9 FM-95
- NE Hastings KCNT *88.1 K-88 (not strict)
- NM Clovis KCPC 107.5 K-108-FM, Stereo
- PA University Park WQWK 96.7 Quick-Rock
- SC Charleston WKTM 102.5 KTM-102FM
- TX Big Spring KWKI 95.3 K-95
- WI Milwaukee WLUM 102.1 Hot-FM

New FM Stations Granted

- AK Anchorage 107.5 100000h.v.; 180'
- AR Conway 92.7 3000 h.v.; 300'
- AR Jonesboro 100.1 3000 h.v.; 300', initial decision, subject to reversal
- CA Colusa 107.5 28000 h.v.; 630', country
- FL Okeechobee *91.9 3000 h.v.; 290', S, G, Family
- FL Plantation Key 103.1 3000 h.v.; 290'
- GA Columbus *90.5 8500 h.v.; 250', S, G, Family
- "Phenix City AL *91.7 50000 h.v.; 1000', Troy State University
- HI Kahului 98.9 10000 h.v.; minus 540 feet
- KS Belleville 92.1 3000 h.v.; 300'
- KY Frankfort *89.9 5000 h.v.; 890', Black American

- Communications. Fate of WRVG *89.9 George-town KY unknown--most likely WRVG will have to change frequencies.
- KY Whitesburg *88.7 1000 h.v.; 1425', Appalshop
- MA Falmouth 100.9 3000 h.v.; 290'
- MN Alexandria 99.3 3000 h.v.; 300'
- MN Walker 99.3 3000 h.v.; 160'
- MS Ackerman 107.9 100000 h.v.; 615'
- MO Centralia 92.1 1000 h.v.; 510'
- MO Ironton 92.7 850 h.v.; 670'
- NY Cobleskill 103.5 50000 h.v.; 500'
- NY Kingston WFGB *89.7 21000 h.v. 5000 v, directional, 700', Sound of Life
- NC Wilmington *91.3 1500 h.v.; 1270' Public R.
- ND Williston 98.5 100000 h.v.; 905' [g: PA Russell (north of Warren) 103.1 1700 h.v.; 380'
- SC St. Andrews (near Columbia) 102.3 3000 h.v.; 300'. TX Anson 103.1 3000 h.v.; 300'
- TX El Paso *88.5 130 h.v.; 1190', Etcom, Inc.
- TX Farwell 98.3 3000 215'
- TX Lorenzo 98.3 2650 h.v.; 170'
- WY Afton 98.3 3000 h.v.; 290' [CBC French
- BC Port Alberni (80 km W. Vancouver) 94.9 98 w/ 98.1 98 w., CBU A.M. "relayer"
- NF Gander CJOS 99.5, S, r, SCA, 4000 h.v.; 180', apparently did not delete, as the CBC gave this station a licence renewal, although no frequency was specified. It is assumed to have the same facilities as the former CJQJ 99.9.
- NF Sheshatshih (North West River, 30 km NE of Goose Bay) 94.1 1 watt
- NS Halifax-Dartmouth 104.3 100000, rock
- ON Cornwall 92.1 50 w, French, replacing CFIX (AM) Cornwall.
- ON Hawkesbury (65 km N. Cornwall) 102.1 50 w, relay of 92.1 in Cornwall.
- PQ Camp LA-1 (somewhere near James Bay) 95.1 43, CBF AM Montreal relay
- 97.1 43, CKAC Montreal relay, mr
- PQ L'Annonciation (150 km NW Montreal) 88.3
- PQ Rawdon (65 km N. Montreal) (103.5) 535 w, relay of St. Gabriel de Brandon. Must find a new frequency (Montreal).
- PQ St. Gabriel de Brandon 99.1 400 (95 km NNE/ PQ St. Jovite 95.5 835 w, CBF (AM) relay
- NW Akiavik (250 km E. Old Crow YT) 106.9 8 w
- NW Paulatuk 106.1 8 (420 km W. Coppermine)
- NW Rae Lakes (400 km NW Hay River) 106.1 8 w
- NW Whale Cove (150 km N. Eskimo Point) 106.1 8 w, all of above with local and CBC, some ethnic
- YT Dawson City 92.1 1 watt, Community Radio
- YT Folly Crossing 105.9 24 w, CFWH AM relay
- YT Ross River 88.9 1, native and English, 220 KHz west of Tungsten NW.

SCA (167 kHz) Activities

- CA Carmel Bay KHTX 103.7 tX (chirpings)
- FL Key West WFFY 92.5 music
- IL Carthage WCAZ-FM 92.1 tF (IL Farm Bureau with talking farm prices and low-modulation digital data all on 67 kHz; originates at WLL-FM *90.9 Urbana IL); WCAZ-FM still monophonic using nonID Z-92 (not strict)
- IL Macomb WIUM *91.3 talking book for blind
- IL Quincy WQOC *90.3 " " " "
- (relays the SCA of WIUM via cable)
- IN Indianapolis WFMS 95.5 tX, has AP Network news on main channel
- IN Marietta WJRI 106.9 tF (IL Farm Bureau)
- IN Richmond WRJA 101.3 music
- IA Cedar Falls KUNI *90.9 tX
- IA Des Moines KLYF 100.3 tF (IL Farm Bureau), main carrier on, nonID is "FM-100"

- MA Boston WHTT 103.3 no SCA
- MI Benton Harbor WHFB-FM 99.9 tMusic (identifies with St. Joseph MI on main carrier), 50000 horizontal and vertical, 500 feet above terrain.
- MI Dearborn WNIC-FM 100.3 no SCA, rm on main channel, FM-100 (no more "nicest rock")
- MI Detroit WCZY 95.5 no SCA
- MI Grand Rapids WGNR *88.9 adds talking book for blind SCA, now 3000 h.v. (170') WCSG *91.3 + music
- WLAV-FM 96.9 no SCA
- MI South Haven WCSY 98.3 tABC networks
- MO Bethany KAAM-FM 95.9 tX, main carrier is still monophonic. ABC-Information, not AP (S)
- MO Carrollton KMZU 101.1 tF (IL Farm Bureau)
- MO Kirksville KRXL 94.5 no SCA (open carrier)
- NV Reno KNEV 95.5 music
- KOZZ 105.7 no SCA
- OH Toledo WCLR 99.9 tX

Off the Air

- IA Des Moines K269AC *101.7
- MI Holland WJBL 94.5, has mystery SCA
- MT Hardin KHND-FM 95.3, has no local phone listing
- WA Ellensburg K257AL 99.3

Deletions

- CA Tahoe City K265AL 100.9 (served by KHTX's power increase on 103.7) (line NV translator now)
- NV Round Hill K265AC 100.9 (served by State/PQ Chibambard new 95.5, rebroadcaster for CJAB Chicoutimi, which is increasing power and will serve the area without the need for the 95.5 station.
- PQ Duplinter CKB-5 99.1 hydro site construction completed. Also CHLG-5 100.1

Formats/Networks

- AL Troy WIGC 105.7 S (AP Network News)
- CA Los Angeles KKHR 93.1 O (CBS Radio/ Radio)
- GA Macon WDEN 105.3 Mutual (from E)
- HI Honolulu KwaA, 93.9, rock
- KUMU 94.7 b, Bonneville, no satellite relay
- IL Champaign WEFT *90.1 pc, no stereo
- IL Glen Ellyn WGHs *88.5 rock
- IL Litchfield WSMI-FM 106.1 k[country]
- IL Morton WTAZ 102.3 Mutual (was NBC)
- IL Sterling WJVM 94.3 RKO
- IN Anderson WLHN 97.9 rock
- IN Brazil WBDJ 97.7 now rock
- IN Lafayette WAZY 96.5 rock
- IN Rockville WAXI 104.9 country
- LA Baton Rouge WBRH *90.1 jazz and rock
- LA Moreauville KLIL 92.1 k, "Cenla's Best Music"
- LA New Orleans WRBH *88.3 tj, very little jazz-- mostly as filler to justify "FM Atlas" stereo listing
- LA Opelousas KOGM 107.1 rock
- MD Annapolis WLOM 99.1 p, "Progressive 99"
- MA Boston WCOZ 94.5 rock
- MI Holland WYXX 96.1 Mutual
- MI Mount Pleasant WMMH *91.5 no network
- MN Minneapolis WAYL 93.7 bj, adds nighttime jazz
- KTCR-FM 97.1 no L. Mutual network
- MS Mc Comb WAKH 105.7 rock, K-106
- MS Jackson WYUN 96.3 rock
- MO Columbia KCOU *88.1 progressive and jazz
- NM Santa Fe KNYN 95.5 r, "The Canyon," but always used with calls, so not a nonDer.
- NY Attica WBTE 101.7 now rock
- NY Lake Placid WLPW 105.5 m, no stereo
- Happy New Year to readers of this column!
- PA Pittsburgh WYDD 104.7 CBS' RadioRadio

RI Westerly WERI-FM 103.7 rock, Stereo
SD Sioux Falls KIOV 104.7 Mutual (not NBC)
TX Beaumont KZ2B 95.1 Mutual (was ABC-FM)
TX Dallas KAFM 92.5 no network
TX Denton KIXC 106.1 CBS' Radio Rio
VT Colchester WWPV '88.7, p, no stereo
VA Arlington WAVA 105.1 rock
VA Norfolk WLTY 95.7 Mutual
VA Radford WRIO 101.7 rm
WA Seattle KEZ3 98.9 rock
WA Tacoma KUPS '90.1 progressive and jazz
WI Wausau WEZV 103.7 Mutual
ON Peterborough CKOM 105.1 country
Facilities' Changes Granted

AR Little Rock KSSN 95.7 1660' (92000 h,v)
CA Los Altos KPEN 97.7 3000 h,v; 300'
CA Santa Rosa KCLB '91.9 2500h,v; 1915'
FL Orlando WTKA 92.3 9800 h,v; 1340' [(955')]
GA Atlanta WABE '91.9 96000 h,v, directional /
GA Gainesville WFOG 97.1 1890' (97000 h,v)
ID Idaho Falls KQPI 98.1 10000 h,v, 1510'
ID Rexburg KRIC '100.5 (from 90.1) 75 h/v; 400',
reduce FM Atlas maps to small size prints, as 10-
watt transmitter believed used
IL Olney WSEI 500' (50000 h,v) - 92.9
KS Manhattan KSDB '88.1 125 h,v (-38')
LA Baton Rouge KLSU '91.1 5000 h,v; 1300'
LA Monroe KNAN 106.1 100000 h,v; 450'
LA Shreveport KRMD-FM 101.1 97500 h,v; 1120'
ME Ellsworth WKSD 94.5 (from 94.3) 50000 h,v;
Stereo, "Kiss-94" (440')

MT Shelby KZIN 96.3 550' (100000 h, 65000 v)
NJ Long Branch WMMJ 107.1 240' (3000 h,v)
NH Manchester WJZZ 100.1 1400 h,v; 450'
NM Albuquerque K285BD 104.9 changes primary
station to KEVR 102.3 Espanola NM monaural
Spanish, k (lectional antenna)
NC High Point WMAQ 99.5 100000 h,v; 1500' dir-
NC Raleigh WKNC '88.1 3000 h,v; 260'
OH Cleveland WDDK 102.1 8700 h,v; 1000'
OR Florence KDKU 104.7 100000 h,v; 1700' (990')
OR Gresham KMHM '89.1 (from 88.5) 7100 h,v; /
TX Sherman KIKM-FM 96.7 300' (3000 h,v)
VA Charlottesville WQMC 95.3 3000 h,v (145')
BC Campbell River CBYT 104.5 94 h,v (340')
BC Princeton CIGV-2 to be in 91.73 w, 285'
BC Vancouver CKFM-FM 96.1 44000 h,v
MB Selkirk CFOX 92.9 35000
NB Moncton CBA-FM 95.5 77000
CBA-FM 98.3 77000
NB Saint John-Fredericton CBD-FM 91.3 (from
Fredericton-Saint John)
ON Brampton CFNY 102.1 35000 h,v omni (1380')
ON Hearst CBC 91.9 10500
ON Peterborough CB8P 95.9 17300 directional
CIBC-5 106.3 10300 (380')
PE Charlottetown CBAF-29 88.1 33500 (700')
PQ Champlain 92.3 170 watts; 93.1 165 watts
PQ Chicoutimi CJAB 94.5 (from 96.7) 56000 xmt to
Mount Valin
PQ Harrington Harbour CBMU (5.5 (from 90.3)
PQ Montreal CITE 107.3 44000 to Mount Royal
PQ Quebec CITE 107.5 37000
PQ Rimouski CKLE 96.5 (from 104.5)
PQ Sherbrooke CFLX 95.5 (from 99.7) 1600, but
will operate with 250 w until May 1, '84; calls, too
NW Coppermine CBIO 105.1 adds local community
access

Call Letters Assigned or Changed
AL Montgomery '90.7 WVAS
AR Hot Springs '90.1 KSBC
CA Dinuba 98.9 KOJY (KLTA)
CA Lancaster 106.3 KKZZ (not KKZZ-FM; AM sta-
tion has former FM calls, KOTE) (nonID)
CA San Francisco 93.3 KYA-FM (KLHT), r, RKO, no
CA San Luis Obispo 98.1 KKUS

CA Tracy 100.9 KYBB (KWGF)
CO Grand Junction '89.5 KPRN
FL Madison 104.9 WIMV
FL Tallahassee '91.7 (91.57) WLPJ, g
FL Tallahassee 94.9 WTNT-FM (WCSN)
GA Cochran '89.7 WDCC-FM
GA Gordon 107.1 WQXM-FM (WIZY-FM)
GA Savannah 93.1 WEAS-FM (WEAS-FM)
ID Coeur d'Alene 103.1 KCDA (KIOB)
IL Aurora 95.9 WKKD-FM (WKKD)
KS Kansas City 94.1 KFKF-FM (KFKF)
LA Bayou Vista 95.3 KOKI (KOKI-FM)
LA New Orleans 93.3 WQUE-FM (WQUE)
ME Augusta 92.3 WRDD-FM (WSCL), rock (\$)
ME Ellsworth 95.7 WWMJ (WDEA-FM), rm
MD Cambridge 106.3 WCEM-FM (WESP, -FM) (\$)
MI North Muskegon 98.3 WFMN on air, Stereo
rock, "Magic-98" with transmitter just out
side 65 mile limit of WCSY 98.3 S. Haven MI.
MN Hibbing 106.3 WMFG (WMFG-FM)
MO Kansas City 94.9 KCMO-FM (KCEZ), KC-95
(stretch), k CBS
NH Berlin 107.3 WMOU (WXLQ), k, monaural
NJ Cape May 92.9 WSJL (WRIO), stereo?
NV Ely 92.7 KBXS
NM Grants 95.3 KLLT (KYKW)
NM Rio Rancho (apparently an Albuquerque
suburb but not on any of my maps-help!)
101.7 KZIA-FM
NY Carthage 103.1 WTOJ
NC Myrick 92.1 WOFM (WOZD), adds duo
of Chesapeake VA
ND Fargo 101.9 KRRZ, Mutual
ND Minot 105.3 KZPR
OK Atoka 103.1 KEOR-FM
OR Creswell 95.3 KZAM (KRNN)
OR Portland 100.3 KKRZ (KQFM)
PA Braddoth 96.5 WHYW-FM (WHYW-FM)
PA Pittsburgh '88.1 WFBP
PA Stroudsburg 93.5 WSBG (WVPO-FM), Stereo?
SD Reliance '91.1 KASD-FM
TX Mineral Wells 95.9 KYXS-FM (KYXS-FM)
TX San Antonio 96.1 KSLR-FM (KSLR)
TX Wichita Falls 92.9 KNIN-FM (KNIN-FM)
UT Ogden 95.5 KJQW-FM (KVFM)
WV Parkersburg '90.1 WVVP
WI Wausau 107.9 WXCO-FM
AT Athabasca '98.3 CKUAFM10
AT Banff 93.3 CHFM-1, r (format in Atlas should
match originating Calgary station)
AT Edson '103.7 CKUA-FM8
AT Fort Mc Murray '96.7 CKUAFM11
AT Hinton '105.5 CKUA-FM7
AT Medicine Hat 100.5 CHF8-A
AT Whitecourt '107.1 CKUA-FM9
BC Shalalth 95.1 CHBR
MB Brandon 99.5 calls probably still CKSB-8; the
report of CBTf believed to be in error
MB Brochet 105.1 CBDE
MB Gilling 97.1 CFIL
MB Hiford 94.7 CBWJ, not CB**S
MB Jenpeg 96.1 CJEN
MB Shamattawa 105.1 CBDG
NB Fredericton 93.1 CKHJ, "Country-KHJ," \$
NF St. John's 98.3 CKIX
PQ Chibougamau 90.3 CBVC, English
91.9 no calls assigned (listed as CBVC before)
PQ Chibougamau CFB (Canadian Forces Base)
103.1 CHIB
PQ Kuujjarrap 96.9 CKUJ
PQ Les Escoumins Reserve 95.1 CHME
PQ Ste. Therese 103.1 CFOU ("Fou" is French for
fool. If they pronounce the calls "C'Fou," it
would mean "It's a fool," or "It's foolish.")
NW Fort Liard 107.1 CHFL
FM mistakes (as one reader calls them):

FM Atlas Errors

AR Clinton KHPQ calls missing, p. 30, 92.1
CO Steamboat Springs K248AW 97.7, not 95.1, p.67
LA Jonesboro KJBO (not KTQC), p. 30, 104.9
hN Tower-Soudan K269AJ is on 101.7, not 98.9,
page 80.
MT Great Falls 92.9 KLFM (not KLEM), p. 105.
OH Dayton WHIO-FM 99.1, p. 85, no *
SD Pine Ridge KINI, p. 42, 105.5, not 101.5
TN Martin WUTH '90.3 should be in large type p.32
PQ Victoriaville CBF-12 92.7 not 96.5, p. 67

All data for this column obtained from reporters,
FCC sources, trade publications. I do not recopy
format or stereo data from the DXing columns in
the VUD, but do enter much of what appear to be
station changes in my database. You should also
check the VUD for your own records, but do not
send any information from the VUD or any other
published source without identifying the source.
Thus from Frank Merrill's DX report last month,
p. 14, you can read that WCVZ 92.7 Zanesville OH
has stereo, but we can all read that for ourselves,
can't we? It would help if all DXers noted which
stations they received, specifically, have or have not.
Thus from last month's VUD, I'd love to know
in Eric Fader's report, p. 8, if WGTF 96.3 Nantucket
MA had stereo, or if Frank Merrill (p. 13) might
have noted if KCRT-FM 92.7 Trinidad CO is Stereo.
Try to DX in stereo, if possible, or at least flip the
switch to the stereo position on each station you
hear for a while to check its stereo status. That way,
you won't get a postcard from me asking if a
certain DX catch was in stereo or not!

Contributors, Dec. VUD:

Lawrence R. Austin, Yakima WA; W. A. Beckett,
Fort Stockton TX; P. L. Boersma, Spring Lake MI;
Phil Bytheway, Seattle WA; Ferdinand S. Dombrowski,
Jr., Milwaukee WI (who is interested in the
philatelic specialty of telecommunications topicals);
John S. Dresser, address unavailable; John Ebeling,
Bloomington MN; Bill Faber, Bridgeton NJ; Ted
Fleischaker (who sent a card from his Myrtle Beach
SC vacation spot); Wendell Ford, Westville IN; Ger-
ald W. B. Gardner, Staten Island NY; Charles George,
Dallas TX (who sent news clippings about KNON
'90.9 returning to the air, amidst controversy; seems
the channel is sought after by KCBI '89.1 Dallas,
which can't find a different frequency); Al Germond,
KARO, Columbia MO; John M. Jefferson, Pleasanton
CA; Albert S. Lobel, San Diego CA; Rev. C. T. Man-
ning, Rochester NY; Fred McCormack, Fargo ND
(who has been trying to be more diligent in noting
stations he hears while DXing as having stereo or not);
George Mileon, Lynn MA; David Mitchell, Fairfield
CT; Jim Pizzi, Lovington NM; Leslie Price, Wilmington
NC (who sent a letter to the editor of the local paper
critical of channel 6 WECT for opposing Wilmington
Public Radio getting high power on the pretense of
interference); Keith Pugh, New Hope AL; John N.
Ramsay, West Hartford CT; Richard Rees, Jersey
Shore PA; Eddie Scott, Syracuse NY; Donald Sher-
man, Alpine CA; John M. Sulak, Altamonte Springs
FL; Douglas L. Vermier, Cedar Falls IA (who has an
FM channel search and consulting business at 1600
Picturesque Drive 50613); Peter Wells, Rindge NH;
Donald R. Wilkerson, North Highlands CA.

CBC Relays (all believed to be FM), mentioned at
sign off of CW 990 Winnipeg and CBQT 90.5
Fort Frances ON (English network)
Ontario: Atikokan, Ignace (?), Dryden, Sandy Lake,
Pikangikum, Ear Falls (?), Hudson (?), Pickle Lake,
Osnaburgh, Savant Lake, Sioux Narrows, Sioux
Lookout (?), Kenora, Vermillion Bay (?), Red Lake.
Manitoba: Pakitowogan (?), Lynn Lake (?),

Wobodon (?), Gillam (?), Churchill (?), Esterville, Grand Rapids, Ilford, Leaf
Rapids, Moose Lake, Nelson House, Snow Lake, The Pas, Dauphin (?), Bran-
don, Fairford, Fisher Branch, Berens River, Jackhead, Oxford House, South
Indian Lake and Winnipeg, closing with technical data about CBW Winnipeg
with 50000 watts on 990 and "Oh Canada," tones and carriers on all night.
I wrote CBW asking them to give more complete identifications of all their
relays, especially at sign-off. I wrote similarly to CBQ (AM) Thunder Bay
with (?) to do the same, but no response from either firm. Stations (or towns)
for them are not known to be FM and more information about any of them
would be appreciated. The town of the broadcaster over which I was hearing
the sign off information, Fort Frances ON, was not even mentioned—and it is
a 50,000 watt station on the U. S. border!

Readers Reports

Off-air nonbroadcaster WJBL 94.5 Holland MI is being taken over
by new owners, has applied for new call letters and is expected to be
on the air early in 1984. Look for a new format, and check to see
what, if anything, their SCA authorization is being used for. They
are building new studios, too. A Topeka friend of Phil Boersma sent
a copy of an article, "To Dedicate First FM Radio Station in Kansas
Today," about WIBW-FM 102.5, which will operate from 3 p. m. to
9 p. m. daily, "featuring the finest music and news." This Topeka
"Daily Capital" article was dated—y'you guessed it—Dec. 1, 1946. It
alluded to messages from the governor, the mayor, a senator and FCC
Commissioner E. K. Jett speaking from Washington. The irony is that
WIBW-FM was only 250 watts, lasted no more than two to four years and
its exciter was donated to Kansas State University, and used as
KSDB(FM) on '88.1 for many years. It later was resurrected on 97.3
as "97-FM," and, in my opinion, features anything but the "finest
music."

Among all the FM changes in the Washington DC area is WAVA
105.1 Arlington VA going to straight rock. "Slogan is 'Hit radio 105
WAVA,'" with calls given often in vice or jingles. Word 'Arlington' in
legal ID jingle is humorously buried. Very uptempo format. Stereo,"
writes Greg Monti.

In New York, W1ZR 104.9 Johnstown is back on the air in mono,
simulcasting WMYL (AM)'s nostalgia format.

Robert Grant has noticed a "trend of AM stations simulcasting FM
(rather than the other way around). That is, an AM simulcasting an FM
with little or no mention of the AM. The best example of this is
WRNN (990) Clare MI. They use 'Foxy-95 WCFX' on the air with no
mention of 990 or WRNN during most of the hour. At the hour, they
ID like this: 'Foxy-95 WCFX Clare! and WRNN Clare.' ... I think all
AM-FM simulcasting should be banned. Much like no company can
own a VHF and a UHF TV station in the same market and use them
both for simulcasting. But banning am-fm co-ownership would cause
mass deletion of AM stations and loss of alternative services (owned
by FMs) like WHND and WCCW. ... 'FM Atlas' future edition sug-
gestions: To increase the ease of looking up formats, I think formats
should be in all three listing sections. (Now, if I hear a particular
format on a frequency, I must look up the locations of all stations
on that frequency and then go through the geographic section.) List
directional coverage (d) where it is most evident, in the coverage
radius listings rather than in the antenna height. On the Fmaps, the
individual state maps should have the page numbers for the maps of
bordering states. FMusings: I agree with you that without a doubt FM
is superior to AM MW best, in engineering terms. I would be in favor of eliminating
the AM band if there were something to replace its service. There isn't. An
effort to sweep the AM band with amateurs for the 1% m band could not get the
international cooperation needed. And 100 khz FM spacing would result in
reduced coverage because of alternate-channel interference. One-hundred khz
FM spacing would not provide as much extra service as AM's 107 well-spaced
channels. For millions of dummies, big band, news and ethnic listeners every day,
AM is better than nothing at all. And I don't see why you would be rooting for
its destruction. I think you should put your mind to solving AM's shortcomings
with technology. I would note that the EFM 88-92 subband was intended as a
'semi-guard-band' to protect TV-6 from the commercial FMs on 92 and above. I
think KFSL ('88.5 Rochester MN) should consider Class 2-D AM service."

About the FM format listings by frequency, I am opposed to that because of
the time it takes. It is almost a fulltime job as it is just taking care of all the FM
data, with programming and networks especially, taking a disproportionate
amount of my time. In fact, I am thinking of eliminating network listings, or
combining them, such as grouping all six ABC networks simply under "A." If
you absolutely must have information by frequencies on programming, you can
subscribe to my computer listing, USDATA by frequency at \$10 for a printout,
while it is still available. A previous edition of the FM ATLAS (third?) did give
indications of exact pages where bordering states could be found, and this idea
could be realized in a future edition.

George Mileon mentions hearing about a process invented at CBS for an en-
hanced method of FM broadcasting, but I am not sure what he means, unless it's
a method of broadcasting stereo with less loss of coverage than the present system

allows. George believes that WFNX 101.7 Lynn might make use of 92 khz
for a paging service locally. On a recent business trip to Rockford, Chicago,
Milwaukee, Kalamazoo and across Iowa and northern Missouri, I did not
hear any 92 khz SCA activity, except for an open carrier on WNUJ '89.5
De Kalb IL, which has been experimenting with 92 khz. The only 92 khz
activity heard for real on the air distance is that of KROA '95.7 Grand
Island NE, with paging.

An editorial in the Wilmington [NC] Morning Star, Nov. 19,
'WECT stifles FM stations," says that "WECT-TV has squashed
its second FM radio station in a year. This one would have been
at UNCW, giving students a chance to listen to radio, the university
a chance to serve and improve its relations with the community,
and the area a new noncommercial source of information and
entertainment. But, at the request of WECT, the university has
halted development of the radio station because its signal might
interfere with the TV signal coming from channel 6. ... Under the circumstances, it would seem sensible for the university
to try to get a compromise, some kind of experiment, with WECT.
At this point, it does not seem inclined to do that. It knows what
kind of financial and political power it is up against. So do the
Friends of Public Radio [which had to compromise and agree to
reduce the power of their FM station application]."

Tom Cornell did some measurements for his employer on the new
92 khz SCA. Some of his findings are:
1) Adding the new 92 khz SCA and staying with the present 75 khz deviation
limit causes little change in adjacent or alternate channel interference
(but 92 khz, by its very definition, implies straying beyond 75 khz, doesn't
it?—B.E.). 2) Under some modulation conditions, interference can actually
be less with the new SCA if deviation is not increased. 3) Up to 115% system
deviation with the new SCA will cause little or no change in
interference on the adjacent channel. 4) Increased deviation along with the
new SCA will cause from 4 to 10 dB increase in alternate channel inter-
ference. I would judge such an increase in interference as far from negligi-
ble. Further, if wider deviation is allowed, it must be permitted only
where station-spacing is ample enough to provide a required
protection ratio. I will let you draw your own conclusions. Obviously, I
"wear two hats."

Tom notes no SCA on WZPL 99.5 Greenfield IN (was music) and
US Naval Observatory time on the SCA of WUOL '90.5 Louisville
KY, which is said to be not WVVV. I assume WUOL is picking up
the time off National Public Radio lines.

Tom sent a report of the Consumer Electronics Group of the
Electronic Industries Association to the FCC on 92 khz, with the
conclusion that the group "does not object to a 10% increase in
the maximum deviation when two SCAs are present. EIA/CEG
would remind the Commission that a series of 'inconsequential'
changes in the interference protection given FM broadcast stations
could result in a deterioration of FM as a quality broadcast service
over a period of time."

In CA, KCEQ '100.5 Walnut Creek confirmed on the air, with
transmitter at Acalanes High School in Lafayette. "That's in a
canyon which reduces their coverage to near-zero. Less than 1/2
mile west, was unable to pick them out of KEBR Sacramento
(which, please note, is NE of Lafayette). East wouldn't likely be
better, and to the north hills are guaranteed to get them in less
than a mile. That leaves south, and a mile down the freeway in
that direction KCEQ and KEBR were alternating. Quite a signal.
Probably will be a challenge to log them here [in Pleasanton] even
with KEBR off; otherwise, it's plainly hopeless," writes John M.
Jefferson. He says "still no sign of KOKQ 95.1 Oakdale, KRQB
102.3 Red Bluff or KNTQ 95.9 Livingston. Not even listed in the
phone book."

Dr. Richard Wood now has FM in Abha, Saudi Arabia, and there he gets
three local stations, 90.4, 94.9 and 95.9, all in Arabic with no sign of semi-
locals or DX. Walter Patton supplied much of this month's Canada news,
some two months' worth, with a previous shipment lost in the mail, appar-
ently. Cable FM DXers can note that CBC-FM and the French FM network
are now on the Anik D satellite and are available to cable companies. ...
CBC-FM begins 24-hour operation Feb. 1, 1984, and CBC (AM) plans 24-
hour operation a few months later if funds are available, and has no plans
to go stereo on its FM stations, because of cost. With regard to com-
mercials, the CBC English and French CBC networks have no commercials
except where unavoidable such as Texaco's New York Metropolitan Opera
broadcasts [I know many so-called "public" FM stations in the U. S. also
carry Texaco advertising—B. E.]. The CBC AM stations (with their FM
rebroadcasters) carry no advertising except in places where there is no com-
peting commercial station. Essentially, this would be limited to French sta-
tions which originate programming outside the province of Quebec and
who have rate cards for individual stations and the network as a whole, and
CBC-FM in Quebec City. Commercial stations which are affiliated with
the CBC have ads even within the body of CBC programming. Community
and university stations are restricted in their commercial time to four to

[Walter Patton's report on Canadian broadcasting, continued]

eight minutes per hour, depending on the particular station, and ads may not be comparative or be of a nature to persuade buyers to purchase something. Thus, a store would give its location, times of opening and merchandise available, but would not be able to quote prices. Despite these restrictions, many of the ads sound remarkably like regular commercials, so much so, that there have been complaints against some of these stations by the regular commercial outlets.

All Canadian FM stations contain "FM" as part of their calls. Many of the calls from which you have omitted this suffix in your Atlas are also used by TV transmitters, occasionally in towns quite distant from the FM transmitter. [Examples? Then, I have a rule that the suffix will not be used unless the TV station was established first; if the FM station was established first it would not have the suffix—the TV would, but if the TV were established first it would not have the suffix, but the FM would; this prevents two suffixed stations from developing. In the absence of other data, I assume the FM was the first established and would tend not to put a suffix on its call letters—B. E.]

The chairman of the CRTC has resigned before the completion of his seven-year term. The new head will be the president of CANCOM, the satellite distribution company. This might present a new direction in CRTC (Canadian Radio-Television and Telecommunications Commission) policy. CANCOM was authorized to add VOCC (AM) St. John's NF to the radio stations available for rebroadcast.

Peter Wells sent information on a "pocket receiver" for financial information from Wall Street, digital, advertised in Barron's. It is believed to pick up digital information on SCA from some stations—and is available only in New York, Washington DC, Chicago and has just come, or is just coming, to Boston, Dallas and Detroit, within a 50-mile radius. He said he's happy to see the revival of interest in the big bands. "The FM bands around here [Rindge NH] have been somewhat of a wasteland as far as I am concerned. The 'beautiful music' becomes a bore and is often poorly selected to boot. Classical is highly variable depending on one's tastes (I have a strong preference for the romantic piano and concertos). Most of the stations play rock variants. WPLM in Plymouth MA (99.1) is a little marginal on reception, plays lots of big band stuff—and has lots of advertising and 'special features'. AM in Rindge is essentially non-existent; we have a broadband noise interference throughout the area. Incidentally, in the Miami area which I have visited occasionally (my parents lived there) there was a marvellous AM station, WKAT, which played big band all the time."

Newly rejoined WTFDA member Mike Dorner spent two weeks going over the FM Atlas: "I wonder that one person can still put it out, given the great proliferation of FM stations that you point out in the foreword, but more particularly, the hundreds of changes of formats, ERP and whatnot. . . . The amount of station ownership transfers, accompanied by format and call changes, borders on the ridiculous. What it points out, I think, is the type of fast-buck owner that prevails in FM today. Most of the original FM owners, the pioneers, have long left the industry. Today one has wall-to-wall music in all formats. The playlists have shrunk to a dozen or twenty records, the beautiful music stations play the same tired tapes. The effect has been to move the old AM band monotony onto the FM band. I suppose the young club members would disagree with me, and certainly most Americans, who seem to dote on stations with small playlists, and I guess that this is typical of middle-aged people like me to complain, remembering what FM used to be like. . . . Here in New Orleans there is far more variety on the AM band than the FM: Christian contemporary, fundamentalist gospel, top 40, all news, black pop, black/white New Orleans r&b oldies, traditional country, black gospel, contemporary rock, talk, big bands, Spanish, modern country, Cajun and mor. On FM, on the other hand, there is reading for the blind, NPR classical/jazz, folk/cajun/salsa/jazz, and aor rock; mor, modern country, contemporary, ac, beautiful music, urban country and contemporary urban. Knock out the first five (noncommercial) and the rest of the stations play the same music, basically. The future of FM is dismal, unless AM stereo grows so rapidly as to attract the audiences back—which may be the case, given the difficulty of getting good stereo reception, particularly in cars. You probably won't agree with that last remark, but I don't think the typical WTFDA member is a typical listener, who goes for the loudest, clearest signal. Downtown reception is pathetic, with high-power transmitters (100 kw), tall skyscrapers and overload, multi-path and wash-out. I found the same thing to be true in Atlanta and St. Louis, where reception was so poor because of overload that I could not get any of the NPR stations clearly at all, and few of the commercial stations. I resorted to AM during my week stay in each city. [I wonder if Rich Eddie in St. Louis or Nick Lombardi in Atlanta could respond to that—is FM really that poor in those cities, or could it be that Mike is using an imported car radio that does not like to respond to the crowded FM band conditions in this country? Tom Cornell is quick to point out, and I tend to agree with him, that the best-performing car radios for U. S. driving conditions on FM are produced by U. S. manufacturers and included by the factory in U. S.-made cars—such as those made by Delco, Motorola and Ford. I've had very few problems with overload—even using my factory-installed radios with SCA added—in cities like that, even on SCA, such as in Chicago's Loop.] About specific stations in his area, Mike says there is no sign of KHAA 106.7 Port Sulphur (downriver from New Orleans). It is said to be requesting a power increase and transmitter move; should put a good signal over New Orleans. Local AM day-timer, only station in Plaquemines Parish, given by owners, prominent and powerful Perez family, to local Assembly of God Church. That's right, given. Free. May be a sign that KHAA's arrival is imminent. No testing yet. Last Class C in LA. WMAH-FM *90.3 Biloxi (transmitter Mc Henry) testing with a superb signal, even on bad days. Jackson flagship station (WMAA-FM) delayed because they are completing new studios. WMAA, WMAO Greenwood (TL Inverness) and WMAV Oxford grants are being protested by WABG-TV-6 Greenwood because of potential interference. Manager of system—a YL from the NPR station in Rolla MO—said she doubted that the protest would be entertained. All to be satellites, with eventually some local programming and NPR affiliates.

"WFFF-FM 96.7 Columbia MS still very weak and rare. Lower power came about several years ago when whole city was inundated by rampaging Pearl River. WTVL-FM 97.7 Tyler town MS in more frequently than WFFF, but still mono. WVTH *89.5 Goodman MS heard for the first time in several years. . . . Can't hear station by phone after jr. college switchboard closes. Most poorly programmed EFM I've ever heard after KHHS Hillsboro KS. Off by 10 p. m. WMPR *90.1 Jackson still not on. Local WWOZ *90.7 seems to be making it, after a very hard battle at first. . . . Plans call for stereo operation and studio location in the Louis Armstrong Jazz Heritage park, a local city-supported/operated prestige area near Congo Square, where blacks were once sold in an open slavery market. Those familiar with N. O. will recognize it as being next to the Municipal Auditorium and the Theater of the Performing Arts on North Rampart Street, just across from the French Quarter. Apparently noncommercial FM is doing very well in New Orleans."

Last winter WMEA *90.1 Portland ME, which shared a tower with WCSH, TV6, lost the whole thing when an ice storm brought down the tower. Both have been operating from a 300' temporary tower. By now a new 1500' tower will be erected and both stations should be on with the coverage they once enjoyed. Rod O'Connor, in Hawaii, says in Honolulu, the FM dial remains much the same, with overload and interference a problem on every stereo he's tried in the downtown-Waikiki area—car or home, ghetto-box, or cheapo receiver—even expensive sets in showrooms all have terrible overload problems within 5 miles of most transmitters. His Sony car FM is "just about useless. . . . but I've never heard such bad signal overload (including in New York City, near the transmitters of the Empire State Building and W. T. C.). . . . I visited Australia this past Aug. and Sept. and very much enjoyed it. I was even interviewed on a community FM station, 2VTR-FM 88.7, 20 watts, at Richmond NSW. The announcer saw me looking up at their antenna (top a water tower) and invited me in and asked me all sorts of questions about US radio. Australia FM quite similar to ours. 88-90 is for local, community or college use. Rest of dial is for commercial (or non-commercial) use, as here. Sydney has five FM stereo stations—all reportedly doing well and sound quite healthy. One classical, 1 top-40, 1 progressive, one easy-listening and one soft rock. . . . an awful lot of U. S. music and features."

Rumor has it that WMUC College Park MD wants to move to *87.9 and increase to 100 watts—that would be *87.9's first occupant. And WXLK 92.3 Roanoke VA is said to have a translator pending in Lynchburg VA, while WVTF *89.1 Roanoke is adding, supposedly, a transmitter or translator in Charlottesville VA.

... In Washington, KENE-FM 92.7 Topending is still monophonic, but the office secretary told reporter Lawrence Ausink that they have plans for stereo in the "near future."

New owners have taken over KSMX 92.1 Fort Dodge IA, with the slogan changed to "92-X," and music to contemporary country and wester. "Signal and programming seem all good in the first week," writes Bob Hempel.

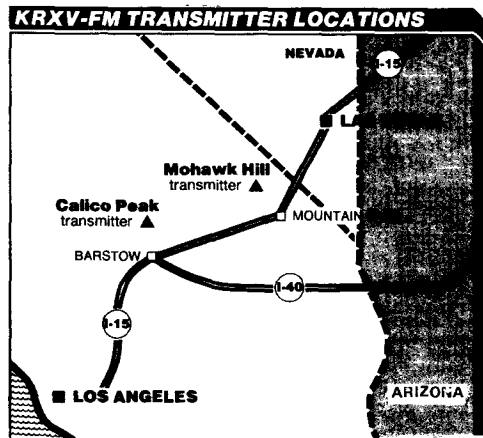
Little KMOJ *89.9 Minneapolis has been the scene of troubles lately, as an article in the "Minneapolis Star and Tribune," Nov. 10 attested: "Police called to settle radio station dispute," involved two top managers of the station in north Minneapolis who were fired but refused to leave. "The resulting confrontation with members of the station's board of directors led to the police being called twice—once by board members and once by the managers. But the threat of anyone being bodily removed from the station didn't materialize.

"While all that was going on, the volunteers who staff KMOJ continued to broadcast without interruption. There was only one brief mention of the difficulties over the air, officials said.

"The 10-watt station, at 89.9 on the FM band, is normally on 20 hours a day, seven days a week. It broadcasts from 810 5th Av. N. . . . Although much of its programming is directed toward a black audience, it features a variety of music, including jazz, reggae, rock, blues, soul and gospel. "We have a wide audience considering that our range is only four to eight miles," said Jeanette Cotton, who has been the station's director since it was organized. She and development director Brian Allen were fired. . . . Cotton said the station's perennial lack of funds is a key issue in the dispute.

"The latest financial difficulties have come at a particularly inopportune time. The station is scheduled to move into newly-renovated quarters next spring and increase its power to 1,000 watts. Allen said that a federal grant will cover part of the \$118,000 renovation, which includes some new equipment. But some of the cost will have to be covered by local funds and that adds to the financial crunch."

An article in "Electronic Media," Oct. 6, discussed the KRXX stations in CA's desert. These stations serve a community consisting mainly of commuters, and not residents in homes. Both stations are automated with simultaneous programming, including their identifications—KRXX Yermo, near Barstow, and KXVR Mountain Pass—98.1 and 99.5, respectively, or "Stereo 98" and "Stereo 99," according to their nonIDs. Mountain Pass is no city, but suffices as a licensed location that I, as editor of this column and FM Atlas, have no trouble with. It is a situation similar to Mount Washington NH (a mountain) being city of license to WHOM 94.9, and Mount Timothy (a mountain)-100 Mile House (161 km house?), a milepost, being legitimate places of license for stations. The latter, of course, is for CFFM 5.99.7 in BC.



The transmitter sites are in "hell—the only way to describe them," says Howard Anderson, stations' president and chief operating officer. Each transmitter is said to cover a diameter of about 200 miles, from Cajon Pass in southern California on I-15 into Las Vegas. Anderson decided to start the stations after discovering there was no

radio reception in the Mojave Desert between Los Angeles and Las Vegas. He was also concerned that nobody was programming to the highway traffic. He had to persuade the FCC that the 28 million people traveling Interstates 15 and 40 each year between Los Angeles and Las Vegas constituted a "community" for programming a radio station to.

His market is said to include a highly desirable segment with about one-third of the advertising being national, with most local business from Las Vegas. He cites clients like the Desert Inn, Frontier, Caesars Palace, Circus Circus, Sands, the Sahara and the Hilton.

To get drivers to tune in the stations go heavily for outdoor advertising. "You see," he says, "we have zero audience loyalty, except for people who have been driving for two or three years and know we're there." He says the stations have to build a new audience ever three hours. Outdoor ads suggest to travelers that they take the "drag out of the drive," and the billboards are placed where the local FM and AM radio signals fade and the signals of his stations are dominant. "We are a link to reality," is his way of explaining the success of his desert stations, which he said began showing a profit in 1983. "That's why we do two news broadcasts every hour—because drivers need the sound of that human voice saying, 'Yeah, the world is still functioning out here in the desert.'"

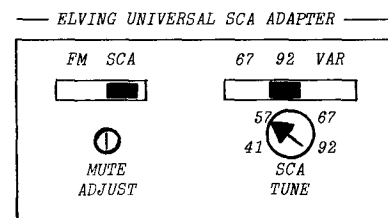
Frank Merrill writes to tell that his reception of KMUN *91.9 Astoria OR was mono. After some ownership changes and call letter shifts, WOW-AM-FM writes with an update:



59 Country • 94 FM Country

615 North 90th Street • Omaha, Nebraska 68114

Their chief engineer is Percy Ziegler, who was chief engineer of former KYNN-FM 94.1 and KYNN AM 1490. Nick Lombardi would like me to include fixed positions for the different SCA frequencies, so that you would know where the exact locations were. He offers the following drawing:



And he wants squelch in a low-voltage SCA circuit. Such will be available in Capri's soon-to-be-released 712 kit which John Ebeling and I tested. But it will only have hard-to-use pots and not neat switches like Nick suggested for changing SCA frequencies. He noted that I had some paper feed problems in the Nov. YUD, on my IBM Composer. Well, I adjusted the platen and think I have the problem largely solved. I sold the original IBM Composer I had, so have only the better-working of the two—no spare! "On page 124 of the Atlas, you indicate 105.5 is a class B/C frequency, but the powers listed would indicate otherwise" [it's an A]. And WSHV 105.5 South Hill VA is 3000 watts, not 30000 watts (p. 124).

And here is some last-minute information he passes along: AL Fayette WHKW 98.1 Y network; GA Canton WCHK FM 105.5 nonID FM-105 (from K-Country; still mono k); GA Metter WHCG 104.9 Jewel-105 (not Country-105); GA Milan WMCG 104.9 k, 1 network, "Country-105." [WMCG mono?]

(Nick Lombardi, continued)

Atlas error: on page 40 in the mileage scale you indicated that 40 (instead of 50) miles equals 80 kilometers. It would be nice if the relationship really were that simple. I wonder if you've ever given any thought to listing the Pacific Network. They produce a half-hour national news program which sounds remarkably similar to NPR's All Things Considered [the program airs 4:30-5:00 p. m. weekdays on WFRG *89.3].

Nick sent an article copied from the Radio-Electronics Annual (1984) on Blaupunkt's ARI system. "You will probably agree that the low frequency continuous 'Zone' tones are too low to be heard with most equipment, but the 125 Hz 'Message ID' tone should be clearly audible. So, even though the tones are on a 57 kHz SCA subcarrier, I think you should go ahead and list the stations (possibly as a +R). With your new tunable SCA adapters the 57 kHz should present no problem, especially if you follow my suggestions made about having commonly used SCA frequencies switch selectable. [I am not enthusiastic about listing a new service on a new frequency that nobody has even witnessed casually to find out how it sounds or how often it is activated, unless and until we have more experience with it. I am not even listing 92 kHz stations in any systematic way until I see how the medium develops, since only two stations in the entire country are known to have it. Several stations have told me they intend to start 92 kHz or to start paging, but until they actually do I will not mention them.]

Another article Nick sent is from the Nov., 1983, newsletter "New England Electronics Exchange," which nags broadcasters for even considering SCA. Seems the writers have outdated receiving equipment, because they allegedly hear birdies on WCRB 102.5 Waltham MA's main channel, supposedly caused by SCA. Still, the article should give pause to the moguls at National Public Radio who are pushing for all NPR stations to have a data SCA for profit at those outlets. I allege that data SCAs create more noise and potential for interference to the main channel than does talking or music SCAs. The article concludes: "Of course, NPR's recent excursion into bankruptcy may have slowed down this digital data venture, but in the long run it seems likely that many more FM listeners will have to learn to tolerate SCA interference in their stereo SCA sound."

From the Atlanta Journal-Constitution: "Add Gainesville to your radio dial," More music will be coming our way on the radio airwaves from Gainesville when WFOX's new transmitting tower on the Gwinnett County line becomes operational, probably in the spring. Shamrock Broadcasting's purchase of the top 40 station becomes official Dec. 9 and Shamrock recently won Federal Aviation Administration approval for a tower 2,649 feet above sea level (or 1890 feet above average terrain). This will give WFOX just as strong a signal in Atlanta as any of the local stations.

Shamrock hasn't said what the format will be, but speculation centers on either country or "hot hits" (teen rock). [I doubt that WFOX will come in as clearly as any other Atlanta station, but the signal over most of the city should be "primary," 60 dBu, but not an intensive city-grade, 70 dBu, that FCC rules require of stations licensed to the same city.] WWLT 106.7 Gainesville, "Lite-106," has filed for a similar antenna height increase, and expects to get the same tower height, if not the same tower structure.

WRAS *88.5 Atlanta apparently has a power increase approved by the Georgia authorities to go from 19500 to 100,000 watts, but apparently the FCC has not yet approved this. Seems the Commission often goes slow on educational power increase requests until they know that funding is sure to come. Construction is expected to be completed by this summer, with the total price some \$300,000.

Another person interested in ARI is club member Robert Goodman, who says his interest in it would "be mainly as a DXer who'd like to know whether ARI has a 'signature' which could help in identifying a station."

WZIR 98.5 Niagara Falls NY is being sold to Porter Broadcasting Co., with on-air spots announcing this ownership change. Rumors have surfaced about a possible format change, with Dave Nieman promising to let us know what it is. Dave has lowered his Stereo Probe 9 to make room at the top for a 7-ft. UHF dish, indicating that he's getting more involved in TV DX.

Don Voegel sent a Seattle area arts paper with radio programming information. Notably, it lists KMHD *89.1 Gresham OR as on the air (and not on 88.5, where I had it listed previously), and does not list KRAB *107.7 Seattle. KRAB may be off the air, since they are supposed to be sold and going commercial.

WOPR *90.3 Oak Park MI features music/variety, monaural presumed, according to Paul L. Gaines. He sent a rather cute article from The Detroit News: "Your radio station says a lot about your values," by Jim McFarlin. The research firm of Reymers & Gersin Associates Inc. did its report for the NAB, with some of the principal findings being:

•Adult contemporary stations may be throwing their money away in maintaining high-priced personalities, when the fans for those stations were not star oriented.

•"New Wave" rock music cannot become a popular part of an AOR station's musical menu unless the station "sells" its audience on the sound.

•An advertiser has a better chance of having his/her commercial heard and understood on a "beautiful music" station than adult/contemporary or black/urban.

•There is a market for full-service stations like WJR (AM), which stress personality.

•Music aside, the two radio formats whose audiences most closely parallel each other are, amazingly, album-rock and nostalgia. The study saw many long-standing listener stereotypes crumble. For example, the basic album-rock fan is far from free-thinking, anti-establishment or liberal. AOR fans are psychologically conformists. Big band/nostalgia listeners believe they're every bit as "with it," not thinking of themselves as backward-looking people kindling old memories. They see themselves as "hipsters, as music aficionados." The study was not designed to help anybody program a radio station, but to recognize audience realities as they are.

Contributors this month: Lawrence Ausink, Yakima WA; Janet Bernhard, San Antonio TX; P. L. Boersma, Spring Lake MI; John Clark, Casco ME; Thomas V. Cornell, Greentown IN; David Cowan, Fairfax VA; F. S. Dombrowski, Jr., Milwaukee WI (who sat a long letter detailing his life, and the possibility of an eviction from his apartment). Also: Mike Dornier, Metairie LA; John Ebling, Bloomington MN; Donald E. Erickson, Riverside CA (who reports an unfortunate flood this summer which caused some loss of inventory); Wendell Ford, Westville IN; Paul L. Gaines, Detroit MI; Robert Goodman, Bronx NY; Robert Grant, Detroit MI; Bob Hempel, Manson IA; John M. Jefferson, Pleasanton CA; Jeff Kadet, Macomb IL (who is into TV Guide collecting); Cindy Kudes, Pittsburgh PA (a visually handicapped person who enjoys the GE Superadio, saying it is a good, all-purpose unit for her patients); Nick Lombardi, Atlanta GA; Frank Merrill, Toledo OH; George Mileon, Lynn MA; Roy and Donna Moe, Grand Rapids MI; Greg Monti, Arlington VA; David J. Nieman, Akron NY; R. J. O'Connor, FPD San Francisco CA; Walter Patton, Willowdale ON; Richard L. Perrin, Wells ME; Jim Pizzi, Lovington NM; Leslie Price, Wilmington NC; Keith Pugh, New Hope AL; Richard Reese, Jersey Shore PA; Don Voegel, Seattle WA; Peter F. Wells, Rindge NH; Dr. Richard E. Wood, Abha, Saudi Arabia.

NORTHERN FM-DX

Saul Chernos
79 Ridge Drive
Toronto Ontario
CANADA M4T 1B6 (613)737-0585

JANUARY 1984

Report to NORTHERN FM DX if your FM DX is from: AK CT ID HA ME MD MA MT NE NH NJ NY ND OR PA RI SD VT WA WY CANADA and other countries. No deadline - send when you want to.

1984. Too bad George Orwell didn't live to see it. Will it mean a year of interesting DX or will our TVs start to watch us while we DX them? Happy New Year, folks!!!!

Ernest Cooper - 5 Anthony Street - Provincetown MA 02657

Rx: McIntosh MR-78 into an STA 52 Realistic, w/ double dipole antenna, soon to be replaced by a Finco directional w/ rotor motor.

I enjoyed both the WTPDA convention and the NRC one, and I look forward to next years!!! I'm happy w/ my new McIntosh tuner & I'm anxious to get the Finco antenna erected so I can really see what it will do. I've had some success with the non-directional dipole, details below. First though, I was hospitalized from Sept 18-27 after a strong angina attack, & now must undergo a cardio-catheterization at MA General Hospital on Nov 3, to determine what must be further done to alleviate it. I'm on 'light duty' but I can DX, & I can do my radio shows on WOMR 91.9, happily. (ED: I certainly hope things are going better; take care there, Ernie!) Now to DX:

SEPTEMBER:

28 Tr

WCOM 94.9 NH Mt. Washington w/out co-channel from lcl WSOX S.Yarmouth MA. I'd guess one or the other to be off frequency.

30 Tr

WEBI 92.1 ME Right at s-off at 0100 w/ WOMR lcl on and about 1/2 mile away w/ no slopover.

WPIG 95.9 ME Saco k on AN sked 0120 - weakish.

WRGN 103.9 NY Riverhead r 0150 tried six times for QSL & got one finally.

WFAS 103.9 NY White Plains replaced WRCN at 0228 for few minutes.

WKXX 93.9 NY Norwich in like lcl 1032-1120 mr "Kicks-94" slogan.

WQVR 100.1 MA Southbridge k strong & steady 1130-1225.

WEZO 101.3 NY Rochester m broke thru WKCI for about 3 mins at 1230.

WKGQ 101.3 ME Augusta k thru WKCI 1304 and a bit till 1400. - - - - -

OCTOBER

2 Tr

CBH 102.7 NS Halifax CBC \$ at s-off 0005, said return 0445.

CIOO 100.1 NS Halifax r "C-100" great signal 0017-0057.

unID 92.1 CBC likely new Yarmouth NS at 0043 w/ s-off & call-freq. list of NS CBCs on AM & FM. Report sent to Halifax. (ED: Far as I can tell, yer right. Ernie, you've supplied a lot of QSL info here. How are your returns? One other DXer said 60%. Then again, postage is more reasonable in US. 32 & 35(toUS) cent postage killed part of the DX hobby for me, heh! I hope you'll support QSL corner. I've deleted mentions of reports sent, as I'm trying to keep to actual DX. If you send CJSB 540 rpt, I'll bug em..heard they ignored you)

3 Tr

WLWH 93.7 CT Hartford all SS & runs AN. ID: "la grande".

4 Tr

WCTO 94.3 NY Smithtown m 0216-42 very weak.

WWOC 94.3 NJ Avalon m fine signal 1115-35.

WAYV 95.1 NJ Atlantic City in&out r 1231-1357.

Locally, WKZE 104.7 sold & now WKPE "Cape-104". WHUE 100.7 now WKQV & still mb. WKPE still r. It seems the Tr season was short & is over for another year, giving me a chance to get my lcls QSLed. In closing, I want to say that Saul is doing a great job on this column, & I thank him & hope he will continue to serve WTPDA for years to come. It was great meeting you at Dunkirk, Saul. Now for some AM DX, I hope! Forward - March! Ernest. (likewise, it was a pleasure meeting you and all the folks at Dunkirk; thank for the kind words, Ernie.)

Bill Gilbert - 26 Terrill Lane - Kings Park NY 11754 new reporter; welcome, Bill!!!!

This is my first report of FM DX: 88.1 WXBA NY Brentwood 1030, Sept 4, 1983, using a Realistic DX-55. - - - - -

Will close now as Xmas mail tends to be slow. Still on hand: 2 rpts by Dan Oetting I left in Toronto; here I got Arnold Lazarus' after a long delay at airport until I got there. Thank for the tape of the pirate & your DX -- neat! A couple of others. Sorry so slow typing. seven trees, saul.

QSL CORNER

Thomas J. Yingling, jr.
221 Pinewood Road
Baltimore, MD 21222
1-301-282-5649

FM OSL

- ON CKSB-9 ? Fort Frances, WCRB French Network, P. O. Box 160, Winnipeg, R3C 2H4, signed by O. E. Drouin. Flving (note: Bruce to forget the freq.)
- DC WKYS 93.9 Washington, 4001 Nebraska Ave. N.W., 20016. OSL card signed by W. J. Standiford in 6 days. Purdue
- LA KTLZ 96.9 Alexandria, Box 7236, 71306. Memo in 10 days from Bill Lynch, GM, also send stickers & coverage-map. George
- NJ WLOE '99:3 Atlantic City, 1825 Murray Ave, 08401. Letter from N.H. Rosental, CE in 1k months. Holbrook
- NY WXBA 88.1 Brentwood, 1st & 5th Aves, 11717. Letter from Bob Ottone, Station manager, verified, 190 watts erp. Holbrook
- WKRR 90.9 Brooklyn, 2001 Oriental Blvd. 11235. Letter from Christopher Toblin, General Manager. erp of 8.6watts! Holbrook
- NE KEXL 106.7 Norfolk, Box 789, 68701. Typed letter from A. G. Wortmann, Tech. dir. enclosed bumper-stickers, coverage-map & 3-page history of WJAG-KEXL & profile. Jefferson
- NC WCPE 89.7 Raleigh, 4044 Old Wakeforest Road, 27609. Letter from Jim Sempson, in 12 days, who says they got a report from Kearney, NE too! George
- ON WDMT 107.9 Newbury, Box 298, 44065. Card from Sam Garfield, CF, confirmed my report on back of my ham card! as it was send as souvenir, qsl in 2 months, with out sending return postage. Poss
- TX KPLX 99.5 Arlington, 411 Ryan Plaza Dr., 76011. (Not Ft. Worth address note) got typed letter on my report, & business card from David Briggs, Eng mgr. Jefferson
- KMFA 88.5 Austin, 3001 N. Lamar, suite 100, 78705. Letter in 13 days from John M. Eddins, jr., station manager George
- KIXV 95.3 Brady, 117 South Blackburn, 70825. Memo from Ed Keeler, in 4 days! George

SOUTHERN FM DX

Danny Buntin
1312 N. Skyline
Stillwater, OK 74075

JANUARY 1984 **Happy New DX Year!**

DEADLINE: 10th

1000+ MI. TR, GOOD ES HIGHLIGHTS NEW MEXICO'S NOV., DEC. DX

- Jim Pizzi, P. O. Box 1778, Lovington, NM 88260 (505) 396-3251 MST - 11/2 to 12/2
- | | |
|--|---|
| 11/2 tr | 11/22 tr |
| 1816 KKNG 92.5 OK OKC | 0217 KSBJ 88.1 TX Humble, g 515 |
| 1818 KZBS 98.9 OK OKC, calls + "99-FM" | 0225 KTSU 90.9 TX Houston, tent |
| 1820 KCFO 98.5 OK Tulsa, ads, g, "Love 98" | 0228 KVIC 95.1 TX Victoria, ID 468 |
| 11/9 MS | 0237 WKMX 106.7 AL Enterprise, r, AP nx 1040 |
| 1040 KXTR 96.5 MO Kansas City, c, tent. | at 0246, "KMX--Maximum Music Radio" in til 0300 |
| 11/10 tr | 0248 KJQJ 106.9 TX Conroe 490 |
| 1057 KNMQ 105.9 NM Santa Fe, r, \$, "Q-106" calls @1100 | 0253 WIGC 105.7 AL Troy, tent, k |
| 1105 KNYN 95.5 NM Santa Fe, "The Canyon" calls, r | 0259 KNOE 101.9 LA Monroe, ID 645 |
| 11/14 Es | 0301 KYKX 105.7 TX Longview, ID 502 |
| 1500 just starting on ch 2 | 11/26 tr |
| 1548 WNKX 95.3 TN Clinton, k, \$, "Kicks-95-FM" @1550 1107 | 0015 KNOE 101.9 LA Monroe 645 |
| 1549 WKRX 96.7 NC Roxboro, \$, nx, wx, ads | 0028 KHCB 105.7 TX Houston, g 515 |
| 1600 WCOS? 97.9 SC? WPEG? "Carolina's Hottest FM" | 0031 KIOC 106.1 TX Orange 595 |
| 1601 WQSM 98.1 NC Fayetteville, "Q-98" promo | 0034 KSBJ 88.1 TX Humble, g 515 |
| 1603 WYEE 98.3 NC Thomasville, ad 1337 | 0035 WMAU 88.9 MS Bude, tent, c, no ID @0200 |
| 1604 WRXK 98.7 NC Greensboro, nx 1350 | 0037 KZZB 95.1 TX Beaumont 574 |
| 1604 WSPA 98.9 SC Spartanburg, b, ads 1233 | 0046 KHOO 99.9 TX Waco, calls 368 |
| 1605 WJZR 99.7 NC Kannapolis, tent. "Z-100" r | 0100 KTON 106.3 TX Belton, ID 368 |
| 1607 WUSY 100.7 TN Cleveland, WDSI-61 promo | 0131 KMIO 102.3 TX Merkel, ID @0237, promo 195 |
| 1609 WAHR 99.1 AL Huntsville, ID, r 968 | 0148 KAJN 102.9 LA Crowley 679 |
| 1612 WEZC 104.7 NC Charlotte, ment. 1206 | 0152 KJQJ 106.9 TX Conroe 490 |
| Belmont, "EZ-104" | 0218 KORA 98.3 TX Bryan, k, ID 441 |
| 1613 WELP 103.9 SC Easley, tent, k | 11/29 MS |
| 1618 WANS 107.3 SC Anderson, calls 1197 | 1138 WQHL 98.1 FL Live Oak, tent. ment. "N. west FL blood bank" |
| 1619 WLET 106.1 GA Toccoa, tent, r | 1630 WRAY 98.1 IN Princeton, "Your in 950 tune with WRAY Princeton, IN, your 24 hour.." |
| 1621 WSSL 100.5 SC Laurens, "Whistle FM" 1229 | 11/30 Es |
| 1628 WLWI 92.3 AL Montgomery, calls 990 | 1946 KXLU 88.9 CA L. A., tent, c |
| 1630 WCLA 107.1 GA Claxton, ID 1256 | KCSB 91.9 CA Santa Barbara, tent |
| 1631 WPAP 92.5 FL Panama City, calls 1071 | KCRW 89.9 CA Santa Monica, tent. |
| 1631 WSB 98.5 GA Atlanta, 99-FM Atlanta 1098 | 1952 KFPK 90.7 CA L. A. |
| 1633 WONE 98.5 FL Panama City, wx, ads | 1953 KCPB 91.1 CA Thousand Oaks, tent. c |
| 1634 unID 99.7 east? ment. Oakland? | 1954 KPCC 89.3 CA Pasadena, tent. j |
| 1635 WSCA 100.9 AL Union Springs 1035 | 12/1 Es |
| 1637 WGPC 104.5 GA Albany, b, ads 1130 | 1830 unID 88.9 YUC, MX? XHY-3 in, not XHM 88.9 |
| 1639 WPFM 107.9 FL Panama City, ad, calls 1071 | 12/2 MS |
| 1643 WVTY 106.3 FL Holiday, ads ment. 1289 | 1050 WHKW 98.1 AL Fayette, "...Downtown 900 Fayette has something special.." |
| Hernando, Pinellas and Pasco countys | 1054 WKQQ 98.1 KY Lexington, "...on 98 1103 double Q..." |
| 1647 WPUZ 93.7 FL Ceala, calls 1292 | Es |
| 1652 WNFT 99.9 FL Palatka, "I-100" 1292 | 1424 RBFM 88.9 Radio Belize, in til 1528 |
| 1655 unID 106.7 east remote at Sears store | 1428 XFMF? 101.3 "MFM Stereo", r |
| 1659 WUSF 89.7 FL Tampa, ID 1305 | 1443 XHMT 98.5 YUC Merida, SS, ads and Merida tel. # |
| 1704 unID 96.5 east, store ad "Jefferson Ward" | 1448 XHGL 97.7 YUC Merida, SS |
| 1711 WQJC 93.3 FL Tampa, WTVT-13 promo, 1305 calls | 1451 RBFM 101.1 tent. |
| 1717 WCIE 91.1 FL Lakeland, ment. Lake-land 1337 | 1554 unID 88.3 east, talk on being depressed |
| FM Es gone by 1735 | 1600 WKGC 90.7 FL Panama City, tent., NPR |
| 11/17 MS. | 1600 WHIL 91.3 AL Mobile, ID @1601 936 |
| 1101 KRG1 96.5 NE Grand Island, 594 | 1601 WFSU 91.5 FL Tallahassee, tent., NPR |
| "Country 96, Neb. news | 1602 WFAP 92.5 FL Panama City, nx 1071 |
| 11/18 MS | 1603 WGEA 93.5 AL Geneva, tent. k |
| 2025 WYCA 92.3 IN Hammond, tent. g, only g one 92.3 per FM Atlas--will try for positive ID | 1605 unID 94.5 east, "T-104, "Electric FM", r |
| 11/22 tr! | 1607 WLPR 96.1 AL Mobile, tent., b |
| 0205 KLLS 100.3 TX San Antonio, ID 380 | 1608 WJAD 97.3 GA Bainbridge, ads 1116 |
| 0216 KTCU 88.7 TX Ft. Worth, tent. | 1609 WTEB 97.7 FL Bonifay, tent. r, "The Music Place FM97-7" |
| | 1610 WYKK 98.3 MS Quitman, tent., MS net. cont..... |

WRAF - 1191

THE BIG COFFEE POT
Toccoa Falls, Georgia, NC
Erected with the aid of a grant from the Winston-Salem, NC Chamber of Commerce.

Dear Mr. Hanley,
This is to confirm your reception of WRAF-FM, Toccoa Falls, Georgia. We have found your reception report to be accurate, and hope you have the opportunity to tune us in again soon. Cordally,

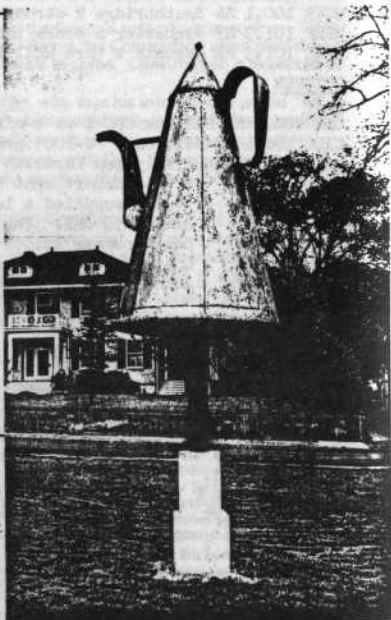
James E. Rich
Manager



POST CARD

FROM: WRAF Toccoa Falls, GA 3c598

TO: CHRISTOPHER HANLEY
P.O. Box 15349
WINSTON-SALEM, N.C. 27113



The Big Coffee Pot

Tom

Reporters this time are: Bruce Elving of Kearney, NE; Ronald Purdie, of Bryon, MN; Charles George of Dallas, TX; Hank Holbrook of Chevy Chevy, MD; John M. Jefferson, Pleaston, CA; Robert S. Ross of London, Ont. The above qsl-card is from Christopher Hanley of Winston-Salem, NC. He got WRAF-FM of Toccoa Falls, GA on 90.9mhz. qsl'd in 9 days with sasp. Well, thats it for now. Keep your reports coming in. (as you can tell, my typewriter is still messing up, so back in the shop it goes) Remember when reporting, please give all, thats ALL information you can. Give the call-sign, freq. or channel, city & state address the report was send to or that came back from, & zip code. Give name of verie-signer, and title. If you also like to say something about the qsl, the time in reply, and what was reply. Either a letter, card, etc. By now you should get the picture that I'm painting; give everything. 73's and thanks a whole lot.

12/2 Es	1067	12/2 Es	
1612 WCOF 99.7 AL Dothan, ads		1727 unID 89.3 east, g	
1619 WEIZ 100.1 AL Phenix City, tent., r,		1728 unID 90.5 e.n.e., j	
\$, "EZ-100"		1728 WVVV 90.7 GA McDonough, tent. g	
1620 WHHY 101.9 AL Montgomery, ads, Y-102	990	1737 WQIC 91.5 IL Pekin, tent. g	
1626 WMSI 102.9 MS Jackson, k, Miss-103	772	1743 unID 90.9 E.n.e., talk/phone in	
1628 WBAM 98.9 AL Montgomery, ads, 99-FM	990	1744 unID 91.1 e.n.e., j	
1636 WSB 98.5 GA Atlanta, ads	1098	1757 WJFM 93.7 MI Grand Rapids, ID	1170
1652 KEM? 99.9 ant. e., calls very faint		1758 WJLP 93.5 IL Joliet, wx, ID	1013
1654 RBFM 88.9 Belize, again til 1707		1800 WMBI 90.1 IL Chicago, wx	1040
1711 unID 88.7 east, r, EST time, "EZ-FM"??		1801 WQNC 89.1 IL Naperville, ID	1035
1725 WIBI 91.1 IL Carlinville, g. tent.		1804 WYCA 92.3 IN Hammond, promo, calls	1040
1725 unID 89.7 e.n.e., c		1808 WBGL 91.7 IL Champaign, tent. g	
1726 unID 89.3 ?? antenna east, \$, L, SS		1809 unID 90.3 n. east, g	

Well, November DX turned out well. I am surprised at the activity this late in the year. I've been concentrating on MS DX, but not much this month. Es on the 14th was summer-like with the MUF past 107.9. Signals were very strong and steady, too. 11-22 trop was good. A lot of time spent on UHF but managed my first 1000+ mi. FM via tr. WKMX was very strong, female live DJ. KNCE was stronger into stereo. 105.7 with KYKX struggle with tent. WIGC, Oct. VUD article about capture ratio by Bruce Elving was thought of at this time. Probably would have IDed WIGC under KYKX, but I'll just have to wait for another duct.

On 12/2 missed the beginning of a real good Es opening, was at UPS sending off my JVC VT-900 for repairs again! (When will you wear it out? DB) Tuned into TV at 1418 and FM at 1424 on 88.9 to hear a female announcer named Jackie Woods and "Radio Belize, FM-89". I'm confused; I don't know the city of license--help! Belize is on CST by the way. RBFM was heard for over an hour and reappeared for 13 mins. later on. Es then moved up north. November turned into a good DX month--lots of everything and December is starting with a bang. I hope it keeps up. (I hope it starts up here. DB) I also hope my VT-900 comes back soon then I have to send in Akai AT-V04 to have station pre-sets(?) fixed. That section of tuner hasn't worked in a long while. VT-700 is now hooked to FM vert. while VT-900 digital is gone. That's it for now. Happy new year to all and the best of DX.

Danny Buntin, 1312 N. Skyline, Stillwater, OK 74075 CST

For a week in Nov. semi-local KCFO, Tulsa operated at reduced power to 5 kw from 100 kw due to a vandal shooting the transmission line. The resulting signal was sure weaker, and so I hung around on the frequency and managed to uncover a couple of items:

11-19 MS
0830 KIDX 98.5 MT Billings, calls 900 1012 KHVS 98.5 TX Port Arthur, ad, weak 480

It's been a DECADE already. This month marks 10 years of FM DXing for me. Reflecting back on how this strange obsession of mine originated lies with the purchase of my first stereo receiver, a rather indistinguishable Concord MK-12 in late 1973. I wasn't satisfied with the FM reception from the T-wire antenna (residing in one of the lowest lying parts of town didn't help) and switched to the household TV antenna recently abandoned to CATV. The results were good and for some unknown reason soon found myself fascinated with the behavior of the various, weak fringe signals. I observed with interest in the mid-afternoon how such signals were like underdogs, hardly listenable in mono, but often times come sundown and after they would fade less rapidly and increased in strength enough to be listenable in stereo for certain periods of time--an amazing phenomenon I thought. Before too long it was my good fortune to come across a copy of Communications World to discover this new found interest of mine could be turned into a hobby. The publication also told about WTFDA, and I anxiously joined, desiring to learn how others commonly practiced the hobby and conform to it. On March 3, 1974 I experienced my first big trop opening, finding several Iowa stations. APMW of Waterloo was most impressive with its strong and stereo signal from 515 miles away. On June 15, 1974 was my first encounter with Es, and thought it was much fun hearing from strange sounding, far away towns such as Horseheads, NY. And it was mighty impressive to me how the band was jammed up to 107.9, considering the band was much less crowded back in those days than now. Later on that summer, disenchantment with the Concord rx with its poor selectivity and vague tuning scale led me to spend many hours in the library studying the stereo magazines in search of better. I settled on the Pioneer TX-9100 tuner and will never forget how awed I was by its fine performance over the Concord as I became acquainted with it. So 1974 was quite a year for getting initiated into FM DXing. In the next 10 years I look forward to keeping a healthy interest in the hobby as much as ever. I can still get quite a kick from hearing DX from someplace never heard of before such as last summer when Radio Belize came in clear. Mystified, I had to look up the whereabouts of that little country--now that's my favorite kind of DX after 10 years.

###



Fred Nordquist
7945 Boxford Road
Clay, NY 13041

January 1984

ALL TIME FM DISTANCE RECORDS							
FREQ.	PROP	CALL LOCATION	MILES DXER LOC	FREQ.	PROP	CALL LOCATION	MILES DXER LOC
88.1	Es	WCRP PR Guayama	2280 D.Bu OK	90.9	Es	KCMW MO Warrensburg	1574 J.Je CA
	Tr	WVPE IN Elkhart	512 F.No NY		Tr	KUNI IA Cedar Falls	828 F.No NY
	MS	KTXT TX Lubbock	1146 F.Me OH		MS	CBX AT Edmonton	1170 J.Je CA
	Au	WUTC TN Chattanooga	661 D.Ni NY		Au	KUNI IA Cedar Falls	599 F.Me ND
88.3	Es	KSUC TX Keene	1436 J.Je CA	91.1	Es	JBC-2 Jam.Cooper's	1950 J.Pi MN
	Tr	WHMC WI Colfax	512 F.Me ND		Tr	WFAK FL Jacksonville	1020 G.Ha TX
	MS	WRBH LA New Orleans	1109 D.Ni NY		MS	KSJN MN St. Paul	1114 G.Ha TX
	Au	WAER NY Syracuse	670 A.Bo IL		Au	WVUP IN Vincennes	735 F.Me ND
88.4	Es	TGRT Guatemala, Guat	1150 G.Ha TX	91.3	Es	WIPR PR San Juan	1806 C.Ho OH
88.5	Es	KPLU WA Tacoma	1519 D.Bu OK		Tr	WTHS FL Miami	1199 G.Ha TX
	Tr	WRAS GA Atlanta	891 G.Ha TX		MS	CKUA AT Drugsheller	1055 J.Je CA
	MS	WFDD NC Winston-Sal	1164 G.Ha TX		Au	WCNY NY Syracuse	530 R.Br MI
	Au	WAMU DC Washington	932 J.Eb MN	91.5	Es	KHJC BCN Mexicali	1462 J.Eb MN
	Tr	WERN WI Madison	1752 J.Je CA		Tr	WFSU FL Tallahassee	735 R.Sa TX
	Tr	WSIE IL Edwardsville	561 B.El MN		MS	WHMD WI Suring	1213 G.Ha TX
	MS	WHA WI Madison	1074 G.Ha TX	91.7	Es	KRSW MN Worthington	1457 J.Pi CA
	Au	WHA WI Madison	684 F.Me ND		Tr	KOSU OK Stillwater	781 B.El MN
88.8	Es	TGRT Guatemala, Guat	1150 G.Ha TX		MS	KOSU OK Stillwater	870 F.Me ND
	Tr	WHEW TN Chattanooga	846 B.El NE		Au	KRSW MN Worthington	861 D.Ni NY
	MS	WKES TN Chattanooga	870 G.Ha TX	91.9	Es	WSIU IL Carbondale	1748 J.Pi CA
	Au	WMW TN Chattanooga	745 F.No NY		Tr	WSIU IL Carbondale	789 G.Ha TX
89.0	Es	YSRI ES San Salvador	1243 P.Dy TX		MS	WHRM WI Wausau	1012 R.Wo LA
89.1	Es	CKRL PQ Quebec	1453 B.El NE		Au	WSIU IL Carbondale	741 F.Me ND
	Tr	KMUW KS Wichita	683 B.El MN	92.0	Es	XEBJ Cd Victoria, Tam	873 G.Ha OK
	MS	KFAE WA Richland	610 J.Je CA	92.1	Es	CJAY AT Calgary	1765 D.Ni NY
	Au	KMUW KS Wichita	651 R.Br MI		Tr	CKY MB Winnipeg	842 F.Me MI
	Es	KEJT Tampico, Tams	974 G.Ha OK		MS	WJGA GA Jackson	929 S.Gr IA
89.2	Es	WDLN IL E. Moline	1696 J.Je CA		Au	WYXE WI Sun Prairie	260 A.Bo IL
89.3	Tr	WPCS FL Pensacola	808 R.Br MI	92.15	Es	CMEC Habana, Cuba	1299 G.Ha OK
	MS	WHKW WI Chilton	1162 G.Ha TX	92.3	Es	WDBO FL Orlando	1743 F.Me ND
	Au	WCAL MN Northfield	712 S.Ch ON		Tr	WDBO FL Orlando	1046 G.Ha TX
89.4	Es	TGD Guat. Quetzalt	1183 G.Ha TX		MS	WKLH AL Montgomery	1064 J.Eb MN
89.5	Es	KENW NM Portales	1473 D.Ni NY		Au	KLIQ OR Portland	1017 F.Me ND
	Tr	KENW NM Portales	966 J.Ay TN	92.5	Es	WPAP FL Panama City	1509 F.Me ND
	MS	WNIU IL DeKalb	1025 G.Ha TX		Tr	KYND TX Pasadena	986 R.Br MI
	Au	WPKN CT Bridgeport	798 A.Bo IL		MS	KAFM TX Dallas	1466 J.Je CA
	Es	TGDX Guatemala, Guat	1150 G.Ha TX		Au	WHHE OH Toledo	749 F.Me ND
89.6	Es	KHRA Jal. Guadalajara	1586 A.Bo IL		Es	WVCF FL Stuart	1503 B.El MN
89.7	Tr	WMCU FL Miami	1159 G.Ha TX		Tr	KJEF LA Jennings	657 J.Pi MN
	MS	KGCC TX Denison	1131 L.Vo VA		MS	WDXI WI Waupaca	431 P.Sa ON
	Au	WGBH MA Boston	914 A.Bo IL		Au	KERY NE O'Neill	425 F.Me ND
	Es	WJCT FL Jacksonville	1629 F.Me ND	92.9	Es	WSCD MN Duluth	1644 J.Je CA
	Tr	WJCT FL Jacksonville	1020 G.Ha TX		Tr	WZGC GA Atlanta	891 G.Ha TX
	MS	WWSA WI Brule	905 L.Vo VA		MS	KITY TX San Antonio	1251 C.Ho OH
	Au	WWSA WI Brule	496 F.Me MI		Au	WVNY VT Burlington	841 A.Bo IL
90.0	Es	YSU ES San Salvador	1248 G.Ha TX	93.1	Es	KAMA TX El Paso	1804 N.Di MD
90.1	Es	KSJR MN Collegeville	1519 J.Je CA		Tr	WDDS NY Syracuse	822 B.El MN
	Tr	KPFT TX Houston	848 J.Co FL		MS	KBHB SD Sturgis	1183 R.Wo LA
	MS	WMBI IL Chicago	1058 G.Ha TX		Au	WDRQ MI Detroit	541 J.Eb MN
	Au	KSJR MN Collegeville	766 S.Ch ON	93.2	Es	XHQQ NL Monterrey	1385 R.Br MI
	Es	KKED TX Corpus Chris	1598 F.No NY		Tr	XHQQ NL Monterrey	281 G.Ha TX
90.3	Tr	WHLA WI Holmen	812 L.Vo VA		Es	KTEN OK Ada	1494 R.St MA
	MS	WHLA WI Holmen	1083 G.Ha TX		Tr	WFLA FL Tampa	988 G.Ha TX
	Au	WBCL IN Ft. Wayne	704 F.Me ND		MS	KYKR TX Port Arthur	1195 P.Sa ON
90.5	Es	R.Jamaica-Spur Tree	1950 J.Pi MN		Au	WBJW OH Youngstown	689 J.Eb MN
	Tr	WKAR MI E. Lansing	931 R.Wo LA	93.5	Es	KLKC KS Parsons	1499 J.Je CA
	MS	KXCV MO Maryville	985 F.No NY		Tr	KRFG MO Greenfield	623 F.Me OH
	Au	CBHA NS Halifax	1026 F.Me OH		MS	WHJT MS Clinton	937 P.Sa ON
	Es	KOBE MO Joplin	1509 J.Je CA		Au	WLTH WI New London	379 A.Bo IL
90.7	Tr	KVNO NE Omaha	902 D.Ni NY	93.7	Es	WJIT PR San Juan	2263 R.Co OK
	MS	WHEAD WI Delafield	903 W.Bi FL		Tr	KBNO TX Houston	1104 C.Ho OH
	Au	KGMU MO St. Louis	890 J.Fe NJ		MS	WCCM MA Lawrence	1501 R.Co OK
					Au	KWYR SD Winner	642 A.Bo IL

FM STATISTICS

ALLTIME FM DISTANCE RECORDS

January 1984

FREQ	PROP	CALL	LOCATION	MILES	DYER	LOC	FREQ	PROP	CALL	LOCATION	MILES	DYER	LOC
93.9	Es	KRNA	IA Iowa City	1637	J.Je	CA<	97.1	Es	KDWZ	MN Crookston	1451	J.Je	CA<
	Tr	WBUS	FL Miami Beach	1163	G.Ha	TX		Tr	WEZB	LA New Orleans	863	R.Br	MI
	MS	WNWL	FL Miami Beach	1306	S.Ch	ON		MS	KWEH	AR Camden	1076	S.Ch	ON
	Au	KKLS	SD Rapid City	838	A.Bo	IL		Au	WCOG	WI Sparta	591	F.Mc	ND
94.0	Es	XET	NL Monterrey	1382	J.Eb	MN	97.3	Es	WIOD	FL Miami	1596	B.El	MN<
94.1	Es	KCLK	WA Clarkston	1695	T.Fl	KY		Tr	KEEZ	TX San Antonio	1103	R.Br	MI
	Tr	KEZQ	AR Little Rock	1043	F.No	NY		MS	KBUF	KS Garden City	1240	S.Ch	ON
	MS	KEPO	TX Beaumont	1192	P.Sa	ON		Au	KDMI	IA Des Moines	782	S.Ch	ON
	Au	KCKN	KS Kansas City	881	D.Ni	NY	97.5	Es	KPNT	TX El Paso	1670	R.Se	NY
94.3	Es	KVPM	CA San Fernando	1510	D.No	IA		Tr	KVCF	FL Winter Haven	1022	P.Dy	TX
	Tr	WQW	FL Riviera Beach	1148	G.Ha	TX		MS	KINT	TX El Paso	1160	A.Bo	IL
	MS	WUUU	TX Oak Ridge	1221	F.Mc	ND		Au	WNCQ	NY Watertown	703	A.Bo	IL
	Au	CFRW	MB Winnipeg	743	R.Br	MI	97.7	Es	CBUF	BC Vancouver	1526	J.Pi	NM
94.5	Es	WCVU	FL Naples	1657	F.Mc	ND<		Tr	XHGL	Merida, Yucatan	733	W.Bi	FL
	Tr	KSMB	LA Lafayette	876	R.Br	MI		MS	WVOP	GA Vidalia	829	F.No	NY
	MS	KROK	LA Shreveport	1046	P.Sa	ON		Au	CHOM	PQ Montreal	686	R.Br	MI
	Au	WRVQ	VA Richmond	575	R.Br	MI	97.9	Es	XETIA	Guadalajara, Jal	2066	R.Se	NY
94.7	Es	KTTS	MO Springfield	1959	J.Je	CA<		Tr	WJNO	FL Palm Beach	1152	G.Ha	TX
	Tr	KTTS	MO Springfield	663	B.El	MN<		MS	WNCI	OH Columbus	1080	F.Mc	ND
	MS	WKXI	MS Jackson	1078	F.No	NY<		Au	WSIX	TN Nashville	726	S.Ch	ON
	Au	WPF	NC Raleigh	512	F.Mc	TX	98.1	Es	WTOF	OH Canton	2050	F.Ad	OR
94.8	Es	TDGX	Guatemala, Guat.	1150	G.Ha	MI		Tr	KSLQ	MO St. Louis	873	F.Mc	ND
94.9	Es	WINZ	FL Miami Beach	1948	F.Mc	ND		MS	WLEX	KY Lexington	1108	F.Mc	ND
	Tr	WOCN	FL Miami Beach	1163	G.Ha	TX		Au	KUDL	MO Kansas City	549	F.Pi	NM<
	MS	WPCF	GA Decatur	1342	F.Mc	ND	98.3	Es	CFLY	ON Kingston	1646	J.Pi	NM
	Au	KFMG	IA Des Moines	600	F.Mc	ND		Tr	CEW	MB Winnipeg	842	A.Bo	IL
95.0	Es	ZPF	Hamilton, Bermuda	1374	R.Br	MI		MS	KARB	UT Price	613	J.Je	CA<
95.1	Es	KRDO	CO Colorado Spgs	1486	L.Vo	VA		Au	KCLC	ON Kingston	684	A.Bo	IL
	Tr	WJAX	FL Jacksonville	1020	G.Ha	TX	98.5	Es	KPAC	TX Port Arthur	1650	R.Wo	AT
	MS	WLST	WI Marinette	1146	R.Sa	TX		Tr	KLAZ	AR Little Rock	1176	M.Bu	CT
	Au	KICT	KS Wichita	651	R.Br	MI		MS	WUOZ	WI Green Bay	1148	J.Pi	NM
95.3	Es	NPVA	VA Petersburg	1439	F.Mc	ND		Au	WSB	GA Atlanta	588	R.Br	MI
	Tr	WTLN	FL Apopka	1038	G.Ha	TX	98.6	Es	TGHR	Guatemala, Guat.	1218	R.Sa	TX
	MS	None					98.7	Es	KTYM	TX Victoria	1530	F.No	NY
	Au	CKDS	ON Hamilton	378	S.Re	CT		Tr	WHOP	KY Hopkinsville	725	B.El	MN<
95.4	Tr	XHOX	Tampico, Tams	503	G.Ha	TX		MS	WDEE	NC Greensboro	1005	G.Ha	OK
95.5	Es	WQVV	FL Ft. Pierce	1619	F.Mc	ND<		Au	WBFG	MI Detroit	536	M.Bu	CT
	Tr	KOKE	TX Austin	804	W.Bi	FL	98.9	Es	WPMI	AL Montgomery	1357	F.Mc	ND
	MS	KDCK	KS Dodge City	1195	J.Je	CA<		Tr	WBCM	FL Tallahassee	856	P.Dy	TX
	Au	WHPB	NC High Point	604	S.Ch	ON		MS	KRAY	CO Pueblo	1038	R.St	IN
95.7	Es	KEZJ	ID Twin Falls	1824	D.Ni	NY		Au	WSPA	SC Spartanburg	552	R.Br	MI
	Tr	KKCA	AR Little Rock	1043	F.No	NY	99.1	Es	KEEZ	MN Mankate	1523	J.Je	CA<
	MS	KKAJ	OK Ardmore	1177	D.Ni	NY		Tr	KODA	TX Houston	1104	C.Ho	OH
	Au	WPTW	OH Picqua	467	F.No	NY		MS	WQBR	FL Jacksonville	1187	J.Eb	MN
95.9	Es	KDHL	MN Faribault	1361	J.Je	CA<		Au	KQVM	ID Idaho Falls	608	F.Mc	ND
	Tr	KRSL	KS Russell	652	G.Ha	TX	99.3	Es	CFOX	BC Vancouver	1526	J.Pi	NM
	MS	CJFM	PQ Montreal	852	A.Bo	IL		Tr	WEZY	FL Cocoa	1087	G.Ha	TX
	Au	KDHL	MN Faribault	477	F.Mc	ND	99.5	Es	WMFC	AL Monroeville	975	J.Eb	MN
96.1	Es	CKO-PM4	BC Vancouver	1526	J.Pi	NM		Au	WAEW	TN Crossville	298	A.Bo	IL
	Tr	WKTY	FL Jacksonville	1020	G.Ha	TX		MS	WDWG	GA Douglas	2260	J.Je	CA<
	MS	KFMC	UT Provo	1047	G.Ha	TX		Tr	WQAY	FL St. Petersburg	982	G.Ha	TX
	Au	WKLS	GA Atlanta	588	R.Br	MI		MS	WGAY	DC Washington	1382	F.Mc	ND
96.3	Es	WBEM	IL Chicago	1842	J.Je	CA<		Au	WKDQ	KY Henderson	567	J.Eb	MN
	Tr	WBUD	OH Columbus	659	B.El	MN<	99.7	Es	WUOF	Dothan	1454	F.Mc	ND
	MS	WMYQ	FL Miami	1056	A.Bo	IL		Tr	WMC	TN Memphis	928	F.No	NY
	Au	WJR	MI Detroit	541	J.Eb	MN		MS	WMNI	OH Columbus	1080	F.Mc	ND
96.5	Es	WKDD	PR Fajardo	1998	A.Bo	IL		Au	WMC	TH Memphis	991	F.Me	MI
	Tr	KIOU	TX Corpus Christi	967	A.Bo	IL	99.9	Es	KTSM	TX El Paso	1670	R.Se	NY
	MS	KIOU	TX Corpus Christi	1166	R.Br	MI		Tr	KROB	TX Robstown	1175	R.Br	MI
	Au	WTIC	CT Hartford	565	F.Me	MI		MS	KTQM	NM Clovis	1069	J.Je	CA<
96.7	Es	CKGL	ON Kitchener	1438	J.Pi	NM		Au	KFAB	NE Omaha	554	F.Mc	ND
	Tr	WFOB	OH Fostoria	581	B.El	MN<	100.1	Es	WIVE	VA Ashland	1412	F.Mc	ND
	MS	None						Tr	WFME	GA Forsyth	596	F.Me	OH
	Au	WJCL	IL Joliet	347	J.Eb	MN	99.7	MS	CBRX	AT Lethbridge	990	J.Je	CA
96.9	Es	KVMV	TX McAllen	1463	B.El	MN<		Au	WIVE	VA Ashland	564	R.Br	MI
	Tr	WINK	FL Fort Myers	1041	G.Ha	TX	100.3	Es	WUCP	GA Tifton	1501	F.No	ND
	MS	WLAJ	MI Grand Rapids	792	G.Ha	OK		Tr	WQW	PA Meadville	691	B.El	MN<
	Au	WFPJ	NJ Atlantic City	705	S.To	IN		MS	KBOX	TX Dallas	1098	F.Mc	ND
								Au	WZEN	IL Alton	718	S.Ch	ON

FM STATISTICS

ALLTIME FM DISTANCE RECORDS

January 1984

FREQ	PROP	CALL	LOCATION	MILES	DYER	LOC	FREQ	PROP	CALL	LOCATION	MILES	DYER	LOC
100.5	Es	WCMS	VA Norfolk	1513	F.Mc	ND	103.9	MS	None				
	Tr	WEAI	IL Jacksonvill	811	F.Mc	ND		Au	None				
	MS	WKEE	WV Huntington	856	G.Ha	OK	104.1	Es	KRBE	TX Houston	1506	J.Pi	CA<
	Au	WKKI	IN Kokomo	692	F.Mc	ND<		Tr	KRBE	TX Houston	986	R.Br	MI
100.7	Es	WDAE	FL Tampa	1743	F.Mc	ND		MS	WLAG	GA La Grange	1021	B.El	MN<
	Tr	KORQ	TX Abilene	799	J.Ay	TN		Au	WIKY	IN Evansville	559	J.Eb	MN
	MS	WMJR	FL Ft. Lauderdale	1260	G.Ha	OK	104.3	Es	WKTC	NC Tarboro	1485	J.Pi	CA<
	Au	KGBI	NE Omaha	554	F.Mc	ND		Tr	WZPT	AL Athens	711	R.Sa	TX
100.9	Es	KSRT	CA Tracy	1428	G.Ha	TX		MS	WQMC	MI Detroit	983	F.Me	ND
	Tr	WQSI	AL Union Springs	724	N.Di	MD		Au	WQMC	MI Detroit	745	F.Mc	ND<
	MS	None					104.5	Es	WEAT	FL W. Palm Beach	1895	F.Mc	ND
	Au	KQAD	MN Luverne	406	F.Mc	ND		Tr	WSTO	OH Wooster	654	B.El	MN
101.1	Es	CFMI	BC New Westminster	1827	R.Br	MI		MS	KEKL	TX San Antonio	1103	R.Br	MI
	Tr	KLOL	TX Houston	986	R.Br	MI		Au	WSTO	OH Wooster	639	J.Eb	MN
	MS	WNOE	LA New Orleans	1193	S.Ch	ON	104.7	Es	WRBQ	FL Tampa	2290	J.Pi	CA<
	Au	WMZU	MO Carrollton	843	S.Ch	ON		Tr	WRBQ	FL Tampa	979	P.Dy	TX
101.3	Es	WVHR	VA Hampton	1492	F.Mc	ND		MS	KIOV	SD Sioux Falls	898	S.Ch	ON
	Tr	KPDI	KS Wichita	683	B.El	MN<		Au	KIOV	SD Sioux Falls	524	A.Bo	IL
	MS	KDWB	MN Richfield	716	S.Ch	ON	104.9	Es	KSMI	LA Donaldsville	1375	F.Mc	ND
	Au	WEZO	NY Rochester	1202	F.Mc	ND		Tr	WRRE	OH Circleville	677	B.El	MN<
101.5	Es	WKES	FL St.Petersburg	1533	F.Mc	ND<		MS	None				
	Tr	WLFP	FL Miami	1159	G.Ha	TX		Au	None				
	MS	WIBA	WI Madison	758	S.We	PA	105.1	Es	KNPT	MO St. Joseph	1465	J.Je	CA <
	Au	WBIE	GA Marietta	573	R.Br	MI		Tr	WVQS	FL Orlando	1046	G.Ha	TX
101.7	Es	KTLQ	OK Tahlequah	1435	J.Pi	CA<		MS	WYOR	FL Coral Gables	1147	R.Sa	TX
	Tr	WTGR	SC Myrtle Beh	618	S.Re	CT		Au	WYOM	OH Salem	685	J.Eb	MN
	MS	None					105.3	Es	WDSN	GA Macon	1418	F.Mc	ND
	Au	WILS	MI Lansing	291	A.Bo	IL		Tr	WVSL	LA Slidell	837	R.Br	MI
101.9	Es	WCIB	MA Falmouth	1576	F.Mc	ND		MS	KXKX	TX Dallas	1098	F.Mc	ND
	Tr	WFL	LA New Orleans	905	C.Ho	OH		Au	WDAS	PA Philadelphia	611	R.Br	MI
	MS	KFMQ	NE Lincoln	849	P.Sa	OH	105.5	Es	WRAR	VA Tappahannock	1430	F.Mc	ND
	Au	WRIG	WI Wausau	603	F.Mc	ND		Tr	WGUL	FL New Port Rich	969	G.Ha	TX
102.1	Es	KLYX	TX Houston	1506	J.Pi	CA<		MS	WSMT	TN Sparta	739	J.Eb	MN
	Tr	KLYX	TX Houston										

FM STATISTICS

ALLTIME FM DISTANCE RECORDS

January 1984

FREQ	PROP	CALL	LOCATION	MILES	DXER, LOC	FREQ	PROP	CALL	LOCATION	MILES	DXER, LOC
107.5	Es	WBYO	PA Boyertown	1506	G.Ha TX	107.7	MS	KWIC	TX Beaumont	1192	P.Sa ON
	Tr	WVWQ	SC St. George	999	D.Bu OK		Au	KKSS	MO St. Louis	661	F.Me ND<
	MS	KNOK	TX Ft. Worth	1298	S.Ch ON	107.9	Es	WVEL	MA Medford	1455	D.Bu OK
	Au	KPPL	CO Lakewood	699	J.Eb MN		Tr	WIRK	FL W. Palm Beach	1150	G.Ha TX
107.7	Es	WQNA	NY Albany	1636	P.Dy TX		MS	WBT	NC Charlotte	954	G.Ha OK
	Tr	WNCT	NC Greenville	899	R.Le LA		Au	WAUR	IL Aurora	804	M.Bu CT

VHF UTILITY DX

Donald L. Blevins
1657 Essextowne Circle
Baltimore, MD 21221
phone: 301-391-3408

VHF UTILITY DX This month's feature is designed to co-inside with the onset of winter weather and the increasing demands cooler temperatures makes upon your public utilities. With high winds and freezing temperature the most modern public utility is subject to breakdowns, and as such, a flurry of radio activity can be noted.

CANADA STATS			MEXICO STATS			OTHER FOREIGN STATS		
Prov.	#-DXer	#-DXer	State	#-DXer	#-DXer	State	#-DXer	#-DXer
AT	18-jj	15-jp*	AGU	1-jp*		HL	4-je	
BC	17-jj	5-fm	BCN	10-fm	9-jp	FOE	4-tm	4-jp*
MB	15-fm	9-fm*	CHI	6-jp*	6-fm	SIN	2-jj	
NB	3-fm	1-fm*	COA	6-jp	2-je	SLP	2-tm	
NF	9-fm	6-dn	DF	21-tm	21-jp*	SON	1-fm	1-db/jj
NS	8-sc	3-jf	GTO	7-jp*	2-tm	TAB	2-tm	
ON	73-da	68-sc	JAL	12-tm	9-ve	TAM	2-je	1-jp/fm
PEI	2-jf	1-do	MIC	1-jp*		VER	5-tm	4-jp*
PQ	19-fm	18-wh*	MOR	3-jp*	1-ve	YUC	1-je	
SA	8-fm	5-sc						

STATES STATS											
State	#-DXer	#-DXer	State	#-DXer	#-DXer	State	#-DXer	#-DXer	State	#-DXer	#-DXer
AL	65-dod	54-tm	IN	145-rs	112-dob	NE	40-jj	23-fm	SC	38-db	32-je
AK	11-jj*		IA	90-je	69-be	NV	15-fm	14-db	SD	26-fm	24-fm*
AZ	29-fm	26-db	KS	66-db	44-fn	NH	20-rjs	6-mb	TN	93-ja	82-tm
AR	61-ve	45-tm	KY	67-rs	33-dob	NJ	57-jf	55-res	TX	211-rls	143-fm
CA	245-jj	102-fm	LA	53-rls	45-be	NM	32-jj	31-fm	UT	19-db	17-rls
CO	53-jj	44-tm	ME	29-rjs	9-je	NY	155-fm	132-js	VT	11-rjs	11-mb
CT	43-mb	34-jf	MD	38-do	37-jf	NC	66-be	63-db	VA	45-db	41-je
DE	11-sw	10-do	MA	84-rjs	67-mb	ND	22-fm	18-fm*	WA	26-jj	24-fm*
FL	122-db	84-fn	MI	139-fm	114-rs	OH	180-rs	177-fm	WV	33-fm	27-rs
GA	52-db	52-be	MN	116-je	103-be	OK	82-db	40-fn	WI	123-be	114-je
HI	None		MS	64-tm	36-fn	OR	23-jp*	18-fm	WY	13-jj	13-tm
ID	22-db	13-rls	MO	73-db	44-fn	PA	121-dn	94-js			
IL	148-rs	115-be	MT	19-jp*	15-jj	RI	11-rjs	8-mb+	DC	13-sw/dn/js/do	

KEY TO STATS/ALLTIME FM DISTANCE RECORD HOLDERS' INITIALS

STATS	DIST	DXer	DXer Location	STATS	DIST	DXer	DXer Location
ja	F.Ad	Frank Aden	OR Bend	tm	Tim McVey		TN Bolivar
	J.Ay	Jim Ayers	TN Murfreesboro	fm	F.Me Fred McCormack		ND Des Lacs
	W.Bi	Waldo Bishop	FL Tallahassee	fm*	F.Me Fred McCormack		ND< Fargo
	A.Bo	Andy Bolin	IL Charleston	fm	F.Me Frank Merrill		OH Toledo
	R.Br	Russ Brown	MI St. Joseph	fm	F.Me Frank Merrill		MI Milan
deb		Dave Brumfield	IN Muncie	am	Alan Michalek		MA Springfield
mb	M.Bu	Mike Bugaj	CT Enfield		D.Me Dennis Moe		IA Ansgar
db	D.Bu	Danny Buntin	OK Stillwater	dn	D.Wi David Nieman		NY Akron
so	S.Ch	Saul Chernos	OH Burnt River	fn	F.No Fred Nordquist		NY Clay
	J.Co	John Combs	FL Orlando		F.No Fred Nordquist		NY<N. Syracuse
	R.Co	Robert Cooper	OK Oklahoma City	dod	David O'Dell		AR Little Rock
	N.Di	Neil Dickerson	MD Sharptown	do	Daniel Otting		PA Broomall
	P.Dy	Pat Dyer	TX San Antonio	jp	J.Pi Jim Pissi		CA< Oroult
ve		Vernon Eaton	AR Benton		J.Pi Jim Pissi		CA Santa Maria
je	J.Eb	John Ebeling	MN Bloomington	jp*	J.Pi Jim Pissi		NM Lovington
	J.Eb	John Ebeling	NH<Prosit		S.Re Shelby Remington		CT New Haven
	B.El	Bruce Elving	MW Adolf	rls	R.Sa Rick L. Sanford		TX Burnet
be	B.El	Bruce Elving	MW<Duluth		P.Sa Peter Sawatsky		OH Waterloo
fj	J.Fe	Joseph Fala	NJ S. Plainfield	res	R.E. Schweitzer		NJ E. Brunswick
	T.Fl	Ted Fleisacker	KY Louisville		R.Se Robert Seybold		NY Dunkirk
	S.Gr	Stu Grade	IA Sioux City	ks	Ken Simon		FL Lake Worth
	G.Ha	Glenn Hauser	OK Enid	js	Joseph Smith		NY Johnson City
	G.Ha	Glenn Hauser	TX Von Ormy	rs	R.St Ralph Strobal		IN Muncie
wh*		Wa Hepburn	OH Cornwall	rjs	R.St R. Steinberger		MA Hudson
	C.No	Carlton Howington	OH Uniontown		S.To Steve Toaffe		IN Vincennes
jj*		John Jefferson	AK Anchorage		L.Vo Larry Vogt		VA Springford
	J.Je	John Jefferson	CA Concord	sw	S.We Steve West		PA Havertown
jj	J.Je	John Jefferson	CA<Pleasanton		R.We Richard Wood		AT Medicine Hat
	R.Le	Ron LeBlanc	LA Marrero		R.We Richard Wood		LA Baton Rouge

Many commercial endeavors require a diverse radio network, and in keeping with the specialized interests of these services and the interest of public in general, the Federal Communications Commission has allocated blocks of frequencies for these specific services. The topic of this month's feature is the Public Utility Spectrum.

Public utilities, because of the sensitive nature of maintaining these vital services for the support of life as we know it, need a diverse, flexible radio network in order to dispatch, in an untimely manner, service vehicles to the scene of any number of different emergencies that may occur in the distribution of water, gas, and electric.

Baltimore Gas & Electric (BG&E), for example, provides a 24 hour service for the repair of the appliances they sell, and a 24 hour emergency service to stop gas leaks. In addition, BG&E sells service contracts for maintenance of gas appliances, such as water heaters and gas furnaces.

BG&E also maintains street lighting, and provides 24 hour a day emergency service to correct power outages. Considering the diverse services this large utility provides over a large geographic area, it's not hard to imagine why such a large number of frequencies are used.

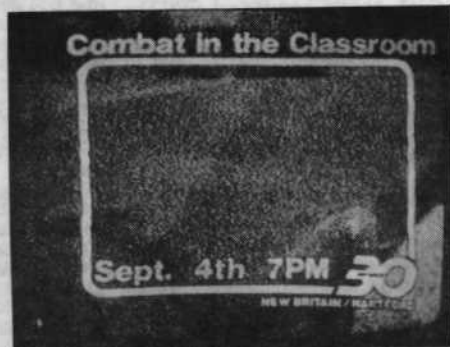
BALTIMORE GAS & ELECTRIC COMPANY

Electric Trouble	153.605			
Gas Trouble	153.44	North & East		
Gas Trouble	153.575	West & South		
Commercial Service	451.10			
Overhead	48.22			
Gas Construction	37.70	Meter Test		
Atlantic Electric	47.98	48.38	48.12	
Potomac Edison	158.25	(Fredrick & Hagerstown)		
Washington Suburban Sanitary Commission	48.38	(Water for DC Metro Area)		
Conowingo Electric	37.64	37.78	(Northeastern Harford County)	
Potomac Electric Light	451.125	451.15	451.025	451.05 451.075
Delmarva Power & Light	37.62	37.76	48.30	48.24
Piedmont Natural Gas	47.88	48.52		
Ohio Valley Electric Corp	37.70			
Florida Power & Light	37.70	37.74	37.82	37.86
Central Maine Power Company	47.72	47.86	48.10	
West Penn Power Company	47.90	48.02	48.04	48.06
	48.08	48.10	48.20	
South Carolina Electric & Gas	37.58	37.86		
East Kentucky Power Co-op	37.64	37.80		
Wisconsin Electric Power	37.54			
Metro Edison	37.50	37.52	37.54	37.56
Long Island Lighting	158.16	158.175	158.22	158.235

All FM distance records were recalibrated using the great circle distance formula that I programmed on my new \$57 TI-99/4A computer. No more map errors! 73---Fred

Mike Reid
109 Arjay Cres.
North York, Ont. M2L 1C6
CANADA

This month, four of the photos below are ones that the sender requested appear because they consider them special. They are the ones from Paul Gaines and Nate Ely. Also, a translator pic from Jim Pizzi for this, my last column. Send your photos in future to Dave Nieman at the address on the back cover. Correction- KAMU-15 was seen by Jim Pizzi, not Paul Gaines as indicated in Dec.



WVIT-30 W.Hartford, CT
Aug. 27/80 at 1100 530 mi. Tr
(CP)



WDLI-17 Canton, OH (NE)
0200 Aug. 24/83 420 mi.Tr



WPTT-22 Pittsburgh, PA (NE)
0029 Aug. 21/83 505 mi Tr



KTEW-2 Tulsa, OK
0617 Jan. 12/80 795 mi. MS (CP)
He says local WJBK-2 came on at
0618.



K30AB-30 Alva, OK (KETA-13)
370 mi. Tr June 20/83 (JP)

JP-Jim Pizzi, NN

NE-Nate Ely, WI

CP-Paul Gaines, MI

73's Mike

FEEDBACK

LOG TOTALS AND
DX REPORTS---
THE MEMBERSHIP DECIDES

About two years ago, when I was the VUD Editor-in-Chief, I started to receive correspondence from WTFDAers who seemed a bit preoccupied with the subject of DXers' station counts (or log totals as they are more commonly called) appearing along with their DX reports. Most of those letters seemed to be making a common point: "...putting one's log totals in a DX report serves to confuse and maybe even intimidate the new members and the novice TV/FM DXers," in the words of one VUD reader who says he likes to DX many different bands. Eventually, I was receiving letters from what amounts to a small "lobby" in favor of instituting a definite club policy on the matter.

Their arguments may be summed up rather well by this comment made recently to club H.Q. by one of our most proficient FM DXers: "As a DXer for over 30 years, I have noticed that some individuals seem to place too much emphasis on totals. Totals only serve to feed one's ego when listed in the monthly reports. The Statistics column(s) should be the only place for members totals." Additionally, one relative newcomer to WTFDA felt that "TV and FM STATISTICS would have better support if you stopped running the members' log totals with their DX reports. These are just trivial to me, and tell me nothing about current DX conditions or station news."

After I gave up editing the VUD and took over as club publisher, I started to again receive quite a bit of "flak" for "not doing anything to end the station totals confusion in the VUD," in the words of an ex-WTFDA member. Again hearing from some members about the matter at last year's WTFDA convention, I started to believe we had a genuine consensus of opinion. It now appears that I was very much mistaken.

Here's what happened in the meantime. After discussing the matter with Dave Nieman, he put the policy into effect--after all, it looked as if all the DX report column editors agreed with it. But almost immediately, a couple of DX column editors apparently changed their minds, and started to include the totals in their columns. When Dave saw that totals were still being run in DX reports, he decided to implement the new policy and remove them from the reports. Almost immediately, problems arose, and we managed to offend one or two of our more avid members, quite unintentionally.

We apologize to Jeff Kadet for the "white spaces" on page 39 of the September VUD. We were not trying to "censor" his report, or anything like that--we just wanted to keep the reports in line with the new policy. In the process, we managed to create a minor misunderstanding and made ourselves look awkward. Here's what a veteran DXer said about it, when shown the report: "I appreciate that you are only trying to follow a new policy for reporting procedures, but this looks like you are censoring a DXer's comments. Life is too complicated already--do we really need such a restriction? Feel free to cut out any vulgarities or insults from DX report columns, but don't restrict free speech..."

We asked for WTFDA member comments on this a few months ago. Many responded, and just about everyone had something interesting to say about it. Altogether, the mail ran roughly 3 to 1 against the new policy. One of the best arguments was made by a member who has been with WTFDA almost from the beginning: "...another thing that infuriates me so VERY much about the totals question is that the policy is so very trivial and NIT-PICKING, because putting totals in people's reports has probably never hurt any one person in any one DX club, anywhere, since DX was invented."

We would like to thank all of you who took time to respond to our request for comments on this matter. We now have hard evidence, in the form of your letters, that the deletion of totals from DX reports was a bad idea. Many interesting suggestions were made on just how club H.Q. should decide on such policy in the future.

--Bill Thompson

WORLDWIDE TV-FM DX ASSOCIATION

MEMBERSHIP LIST JANUARY 1984

ALABAMA

MICHAEL HOLLIS, ENTERPRISE

ALASKA

ROBERT F FISCHER, FAIRBANKS

ARKANSASDAVID O'DELL, LITTLE ROCK
VERNON EATON, BENTONCALIFORNIAJOHN M JEFFERSON, PLEASANTON
CHESTER JAFFEE, BERKELEY
W R MCINTOSH, GRANADA HILLS
WILLIAM HIGGS, PEBBLE BEACH
PETER TAYLOR, SAN FRANCISCO
DON ERICKSON, RIVERSIDE
RANDY MILTIER, SANTA CLARA
SHELDON REMINGTON NIGB, FAIRFAX
LAWRENCE GLASS, MAD RIVER
ALPHONSE TOBIA, NEWARK
PAUL SWEARINGEN, SUN VALLEY
ERIC SUNDIUS, SANTA BARRABA
ALBERT S LOBEL, SAN DIEGO
GENE COOPER, LOMPOC
JIM KORN, SAN FRANCISCO
HOWARD BARTLETT, LONG BEACH
RANDY MILTIER, SANTA CLARA
WILLIAM BEAMER, CANOGA PARKCOLORADOFRANK LUMAN, LITTLETON
RICHARD ECKMAN, BOULDERCONNECTICUTJOHN RAMSEY, WEST HARTFORD
DAVID WILSON, BRIDGEPORT
RICH TURCSANY, FAIRFIELD
MIKE BUGAJ, ENFIELDFLORIDAKEN SIMON, LAKE WORTH
JOHN SULAK, ALTAMONTE SPRINGS
JIM GILL, BRADENTON
CLIFFORD RAMES, HOLLYWOODGEORGIAROOSEVELT CRAWFORD, HEPHZIBAH
NICK LOMBARDO, ATLANTA
DR JAMES SNOW, DARFIN
DAVID SHAPIRO, GRIFFIN
GEORGE ROGERS, CHICKAMAUGAHAWAII

ROD O'CONNOR, HONOLULU

IDAHO

ROBERT J WILLIAMS, TWIN FALLS

ILLINOISALAN MILLMAKER, CENTRALIA
MARVIN SHULTS, TOULON
ROGER SABELLA, CHICAGO
ANDREW JACKSON, CHICAGO
GARY OLSON, LAKE FOREST
MORRIE GOLDMAN, CHICAGO
MIKE HOGAN, BURNHAM
WILLIAM JOHNSON, CLARENDON HILLS
JIM JENNINGS, CHICAGO
TIM CRONIN, WORTH

WILLIAM ECKBERG, DIXON

SAM MCKEE, DECATUR
MARIO PANZUCA, NORRIDGE
EDWARD SIROVY, WESTMOUNT
JOHN CLEMMER, E MOLINE
JEFF KADET, MACOMB
LEF BROOKS, CHAMPAIGNINDIANAPETER OPRISKO, WHITING
MICHAEL MCNEELY, EVANSVILLE
THOMAS CORNELL, GREENTOWN
DR FLOYD B WALKER, FT WAYNE
ROBERT ZENT, HUNTINGTON
RALPH STROBEL, MUNCIE
JOHN W COMSTOCK KOKFL, WESTVILLE
DAVID BRUMFIELD, RICHMOND
JIM GOULD, KOKOMO
JIM WIXON, LAKE STATIONIOWAROBERT BAKER, HUMBOLDT
BOB HEMPEL, MANSON
LEE VULGAMOTT, WILLIAMS
MICHAEL SMITH, DES MOINES
ROBERT LANGRIDGE, DAVENPORTKANSASDAVE POMEROY KTWU, TOPEKA
PAUL MITSCHLER, TOPEKA
ROGER BORTREE, WICHITA
RONALD GINARDI, FRONTENAC
STEVEN TAAFFE, TOPEKA
MIKE DEERO, ROELAND PARK
RON WING, WICHITAKENTUCKYEARL ALBIN, VALLEY STATION
LOWELL MCCOWN, AUXIERLOUISIANAMIKE DORNER, METAIRIE
RON LERLANC, MARRERO
MARK WILSON, WEST MONROEMARYLANDTHOMAS YINGLING, BALTIMORE
DONALD RLEVINS, BALTIMORE
WILLIAM FEIDT, COLUMBIA
HENRY S HOLBROOK, CHEVY CHASE
JEFF WOLF, SILVER SPRING
GEORGE JENSEN, BALTIMORE
PAXTON E PICKRELL, MT AIRYMASSACHUSETTSHARRY FLOCKHART, RANDOLPH
HAROLD LANE, CARLISLE
RICHARD STEINBERGER, HUDSON
PHIL SULLIVAN, ACTON
ERNEST R COOPER, PROVINCETOWN
BILL GRANT, WORCESTER
GEORGE MILEON, LYNN
WILLIAM R SMITH, UXBRIDGE
ALAN MICHALEK, SPRINGFIELD
LARRY WEIL, ACTONMICHIGANROBERT GRANT KOEN, DETROIT
RODERICK LUOMA, LIVONIA
JOHN ROBERTSON, CROSWELL
DENNIS P DAKIN, MT CLEMENS
THOMAS MISHLER, FLINTLEONARD JOZWIAK, DETROIT
PHILIP ROERSMA, SPRING LAKE
DAVID RILEY, REDFORD
PAUL GAINES, DETROIT
ROBERT B JOHNSON, BIG RAPIDS
DOUG DORNBOB, TRAVERSE CITY
DOUG MCABEE, GOODRICHMINNESOTADAVID LEGLER, ROCHESTER
JOHN EBELING, BLOOMINGTON
RONALD PURDIE, BYRON
PATRICK DURKIN, WEST ST PAULMISSISSIPPI

PETER BASKIND, GAUTIER

MISSOURIRONALD GREFN, JOPLIN
RICHARD EDDIE, ST LOUIS
LONNIE NINE, MONETT
TOM COPFLAND, GREENFIELDMONTANA

DONALD MARSHALL, GREAT FALLS

NEBRASKADR BRUCE ELVING, KEARNEY
DANIEL BARTEK, WAHOO
NEIL ZANK, LINCOLNNEW JERSEYBILL FAHBER, BRIDGETON
HARRY L HELMS, GUTTENBERG
ROBERT SCHWITZER, E BRUNSWICK
ROBERT STONIER, HAWTHORNE
ALBERT PANTAZES, ABSECON
GERALD BARKOW, MORRIS PLAINS
PAUL R MOUNT, TEANECK
JOE FELA, SOUTH PLAINFIELD
JOHN WALTERS, VINCENTOWNNEW MEXICO

JIM PIZZI, LOVINGTON

NEW YORKNEIL GRANDJEAN, CROPSYVILLE
JOHN STOFFEL, SAG HARBOR
JEFF MCIVER, BROOKLYN
PAUL TRASKA, BUFFALO
MIKE EHRHARDT, ALDEN
HAROLD HAWKINS, PORT CHESTER
GERARD HART, NIAGARA FALLS
JOSEPH SMITH, JOHNSON CITY
BILL THOMPSON, BUFFALO
BOB SEYBOLD, DUNKIRK
DAVE NIEMAN, AKRON
ERIC FADER, BAYSIDE
JAMES HERKIMER, CALEDONIA
DEAN BIANCO, EASTCHESTER
ROBERT GOODMAN, BRONX
FRED NORDQUIST, CLAY
MICHAEL LAPINSKI, JAMESTOWN
STEVEN SPRACHMAN, SUNNYSIDE
ALAN HYAMS, BRONX
JAY M NOVELLO, ENDWELL
DAVID WALCUTT, NEW YORK CITY
WILLIAM GILBERT WDX2RVW, KINGS PARK
ARNOLD M LAZARUS, SAYVILLE
GERALD PULICE WB2CPA, STATEN ISLANDNORTH CAROLINALES PRICE, WILMINGTON
BILL COLEMAN, ROCKY MOUNT
THOMAS HOLMES, CHARLOTTE
CHRISTOPHER HANLEY, WINSTON-SALEMNORTH DAKOTA

FRED MCCORMACK, FARGO

OHIOBILL MIGLEY, LANCASTER
RICHARD HAWKINS, CINCINNATI
MIKE BREWER, FRAZEYSBURG
WILLIAM C PALMER, WADSWORTH
CARLON HOWINGTON, AKRON
JOHN BUEHLER, TOLEDO
JAMES J WALLACE, RELLAIRE
FRANK MERRILL, TOLEDO
PAUL W BUEHLER, OREGON
PATRICK RUDOLPH, WADSWORTH
TOM LITTLE, TOLEDO
GARY SIEGEL, TOLEDO
K NOFFSINGER, TIPP CITY
DAVID MOODY, WEST PORTSMOUTH
JOHN PARILLO, GIRARD
DAVE JONES, DAYTON
ROBERT EDDY, NEWPORT
WILLIAM SCULLY, HUDSONOKLAHOMADAVID ROGERS, FT SUPPLY
DANNY BUNTIN, STILLWATER
RICHARD N ALLEN, BILLINGS
JOHN ZONDLO, OKLAHOMA CITYOREGONTRACY WOOD, HILLSBORO
PAUL WARDELL, PORTLAND
JOHN M ADAMS, SEASIDEPENNSYLVANIASTEVE WEST, HAVERTOWN
STEVE CHIDOFF, PHILADELPHIA
ARMAND DIFILIPPO, PHILADELPHIA
JOHN ZEIS, FXTON
LOUIS CAMPAGNA, PHILADELPHIA
GLENN JACORS, MOSCOW
DANIEL OETTING, BROOMALL
HARRY HAYES, GOULDSBORO
ED KOWALSKI, PHILADELPHIA
DAVID RAUDENBUSH, PINE GROVE
JIM HOPKINS, HATFIELD
JOHN BASEHORE, MECHANICSBURG
JON W ERDNER, PITTSBURGH
STEVEN PARADIES, SELINGSGROVE
FRANK WHEELER, FRIF
STEVE GRIMM, FAIRVIEW
KURT NELSON, PHILADELPHIA
RICHARD REESE, JERSEY SHORESOUTH CAROLINAMORGAN L WILLIAMS, WEST COLUMBIA
ERIK NAGEL, TAYLORSSOUTH DAKOTA

ROBERT HECKENLIVELY, YANKTON

TENNESSEETIM MCVEY, ROLIVAR
JIM AYERS, MURFREESBORO
GLENN HAUSER, KNOXVILLE
CHRIS W JOHNSON, MEMPHIS

TEXAS
VERRELL TALLET, PLAINVIEW
RICK SAMFORD, BURNET
PAT DYER, SAN ANTONIO
DAVID CURVIN, SAN ANTONIO
JOE GRAGG, PALESTINE
DAN SAMER, BAY CITY
ARTIE RIGLEY, SAN ANTONIO
CHARLES GEORGE, DALLAS

VIRGINIA
JAMES BROWN, ARLINGTON
LARRY VOGT NAVA, SPRINGFIELD
F R COTTON, CHESAPEAKE
GREGORY MONTI, ARLINGTON
MEL MURRAY, ALEXANDRIA

WASHINGTON
CLINT MCAULIFFE, BELLEVUE
PHIL RYTHEWAY, SEATTLE

WEST VIRGINIA
JAMES KINGSBURY, SPANTSVILLE
WILLIAM D SWIGER, BRIDGEPORT
MICHAEL CUNNINGHAM, HARRISVILLE

WISCONSIN
DAVE JANOWIAK, GREENFIELD
JOHN BAUMGARTEN, TOMAH
DAVID M WURL, MARSHFIELD
NATHANIEL ELY, MADISON
BILL DRAEB, KEWAUNEE
DANIEL SAMPSON, BLACK RIVER FALLS
EDWARD RITCHIE, GREENFIELD
JIM ALBRICHT, MILWAUKEE
ARTHUR SCHAEFER, SHEROYGAN
JOHN LENTZ, HALES CORNERS
DON RULAND, KENOSHA
JOHN RIEGER, WEST ALLIS

DISTRICT OF COLUMBIA
WILLIAM TOWNSHEND, WASHINGTON

ALBERTA
DEANE D MCINTYRE, EDMONTON

BRITISH COLUMBIA
GORD LANSDFELL, N VANCOUVER
MATTI NIIT, VANCOUVER

NORTHWEST TERRITORIES
WILLIAM R HEBBURN, EURKA

ONTARIO
PETER SAWATZKY, KITCHENER
TIM BROWN, DON MILLS
ALEXANDER DUTKEWYCH, TORONTO
JOHN GRIFFITHS, ANCASTER
MIKE REID, NORTH YORK
ROGER GRAVELLE, ST THOMAS
WALTER PATTON, WILLOWDALE
SAUL CHERNOS, TORONTO
ROBERT S ROSS, VERJFC, LONDON
DR JOEL ROSENBERG, THORNHILL

DOMINICAN REPUBLIC
RICHARD K CLARK, LA VEGA

THE NETHERLANDS
RENE LUX DX-CLUB, SINT MICHIELSGESTEL

OKINAWA
JAMES STILES

PUERTO RICO
JORGE BURGOS, SAN JUAN

PERU
MARIO ALIAGA, HUANCAYO

SAUDI ARABIA
DR RICHARD E WOOD, ABHA

TOTAL MEMBERS: 265
LIST COMPLETED: 12/20/83

STATION BREAK

WTFDA H.Q.
P.O. Box 514
Buffalo, NY 14205

WTFDA member ads only. 3 line or 30 word limit.

WANTED - To trade TV GUIDE editions from your area. Have NYC Metro, and many others to trade. Robert E. Schweitzer, 7 Madeline Ave., E. Brunswick NJ 08816

WANTED - Old and more recent radio club bulletins--any club--American or Foreign. Bill Smith, Brown Terrace, Uxbridge, MA 01569.

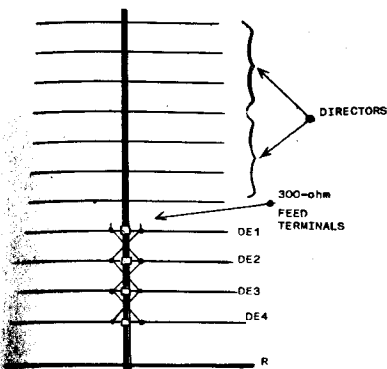
WANTED - Back issues of VUD. Will pay 50¢ each plus postage. Please send list of what issues you have. Michael Cunningham, Box 615, Cooper St., Harrisville WV 26362.

WANTED - These VUDs to complete my collection: Apr. 1977, Apr. 1978, May 1978, Nov. 1981 to Sept. 1982, Jan. 1983, Apr. 1983. Will pay \$\$\$ or I have almost all 1972 to 1974 for trade. Jeff Kadet, Box 20, Macomb, IL 61455

EXPERIMENTS WITH A

HOMEBREW FM YAGI PART THREE

BILL
by THOMPSON



Part One of this series appeared in the March 1983 VUD. Part Two was in the April issue, and Part Three is what you're reading right now. Because of some interesting input from VUD readers, there'll be a fourth part. In the meantime, I seem to have been rudely interrupted by the DX season!

To get back to the subject, you may recall that I started out to see if it was possible for an enthusiast to outdo the performance of a commercially available FM antenna.

At this point, we need to go into a bit of antenna theory, but let me tell you something I learned from this project first. Thinking about building a 12 element FM yagi as at left and making it work as well as it looks like it should are two completely different things. It's a classic case of Theory versus Practice. Anyone with an interest in this area of electronics knows what I mean by this; Practice seems to win out over Theory very often!

The gain of any antenna is really a result of its pattern in the horizontal and vertical planes. High gain in all the variations on the yagi design, as discussed previously in this series, are achieved by the use of multiple directors. More directors imply increasing directivity. The higher the directivity gets, the narrower the beamwidth becomes. The narrower the beamwidth, the higher the gain. Add as many directors as you wish to a yagi, but there will quickly be diminishing returns. In fact, they won't prove to be as useful in increasing gain in practice as they are in theory.

I estimate that my 12 element design, after much planning and work, produced not much more than 7 to 8 dB gain, compared to a dipole, on the best frequency, and the difference between this antenna and a Channel Master Stereo Probe which was later mounted at the same height seems to bear this out. This 7 to 8 dB of forward gain was about one could expect from a smaller commercial model with a log periodic design, which would have been less trouble to mount and much less of a wind load--not to mention the smoother frequency response such a log would feature.

Remember, Channel Master's Probe 9 features forward gain that peaks at well over 12 dB at its best frequency, and on a smaller boom with fewer elements. Why doesn't the homebrew antenna with all the "extra" directors feature such high gain, or at least something closer to say, 10 dB? It's simple. Unless you start out with a well-designed feed section, you won't end up with much of an antenna.

Still, you can gain very valuable experience by tinkering with your own antenna designs, and of course, you can learn much from your own mistakes. So even though I now feel that commercial FM antennas are much better than practically anything the experimenter can build, it is still very much worth the effort and time involved.

Part Four of this series will list the physical specifications you can use for building your own FM antenna designs, and we'll try to show what works best for those who wish to homebrew.