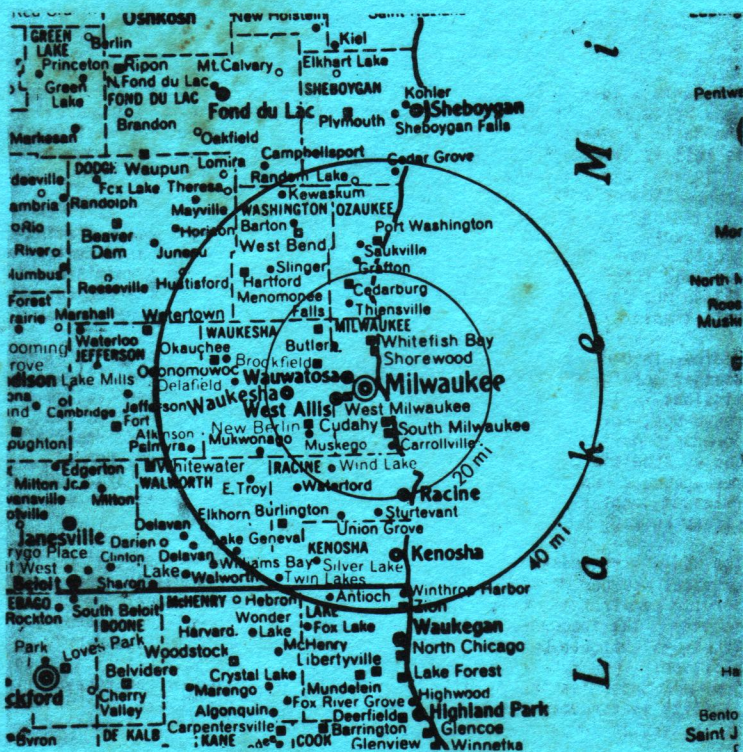


VHF-UHF DIGEST

1973
FEBRUARY



Station KEC-60, Freq. 162.40MHz

CONTINUOUS WEATHER INFORMATION

U.S. DEPARTMENT OF COMMERCE

NATIONAL WEATHER SERVICE

publishers' notes...

WTFDA HEADQUARTERS, P.O. BOX 163, DEERFIELD, IL 60015 USA

WTFDA 1973 CONVENTION DATE ANNOUNCED... The confirmed date for the 1973 WTFDA Convention is August 3-5. As announced in last month's VUD, it is to be hosted by Bob Seybold in Dunkirk, New York. With six months advance notice, everyone should have enough time to plan to attend! More information on the convention will be presented when available. Let's make this convention WTFDA's largest!

NEW FCC TV EDITOR APPOINTED... This month, WTFDA welcomes Don Ruland as the new FCC TV column editor. Don has a big column this month to break into his new position.

HELP RESPONSE... Three members have volunteered their services for typing duties. They are, Shelby Remington, Steve West and Paul Traska. Their help will most certainly be appreciated. Shelby has also volunteered to serve as chairman of the meteor scatter test committee. If you would like to take part in this fine effort, drop a note to Shelby (257 West Spring Street, West Haven, CT 06516). We are still looking for a member with a complete set of VUD's to prepare an index of past articles, and of course we still hope that you'll send a picture of you and your DXing equipment to Ken Simon (528 Pilgrim Road, West Palm Beach, FL 33405-- See the October VUD for further details).

NEW UHF TUNERS... About now, a number of TV-DXers are starting to note with interest the new 70 channel detent UHF tuners in some 1973 model TV sets. These tuners display the "exact" UHF channel to which the set is tuned. If accurate, they would be quite a boon to UHF DXing. But just how accurate are they? Both your publishers have observed the Magnavox 70 channel detent tuners in showrooms, and they did seem accurate. The January CONSUMER REPORTS featured an article on 19" color sets, and they made no mention of problems with the 70 channel tuners. However, we contacted an official of Standard-Kollsman (one of the largest tuner manufacturers) who reported that his company is not yet engaged in production of such a tuner. He said that the 70 channel tuners already in many sets, do not actually meet government accuracy standards. The standards, by the way, are quite liberal, allowing about a one channel error in either direction. I'm quite sure that our members would be quite interested in hearing reports from anyone using a set with a 70 channel detent tuner. If you have had experience with such a set, please send a report to HQ.

EUROPEAN SCENE TO RETURN... We hope the problems involved in the absence of this column are now over. It should be pointed out, that European Scene editor, Roger Bunney, was not at fault. The column should make its return in the very near future.

JANUARY Es... January turned out to be a rather unusual one DX wise. The first month of the year is usually lacking in sporadic E skip. But this year, the Es didn't vanish by the end of December. In fact, several strong openings were reported in the first weeks of January. There was also a return of duct openings to several areas.

OUT OF SYNC... Needless to say, FCC FM was mislabeled as TV last month.

73, Gary and Morrie

FCC TV NEWS

Deadline:
15th of mo.

Don Ruland, editor
4448 68th Place
Kenosha, Wis. 53140
FEBRUARY 1973

APPLICATIONS FOR NEW STATIONS

San Bernardino, CA--(ch 18) 2840-kw max. vis., 535-kw max. aur., 2397' AAT.
Miami, FL--(ch 10) 316-kw vis., 47.9-kw aur., 1003' AAT.
Miami, FL--(ch 33) 58.36-kw vis., 16.62-kw aur., 900' AAT. Note: Station will operate as satellite of WCIX-TV Miami.
Tallahassee, FL--(ch 27) 1380-kw max. & 552.1-kw hor. vis., 276-kw max. & 110.4-kw hor. aur., 967' AAT.
South Bend, IN--(ch 46) 1027-kw max. vis., 205.4-kw max. aur., 1000' AAT.
Detroit, MI--(ch 62) 723-kw max. & 548-kw hor. vis., 74.5-kw max. & 56.5-kw hor. aur., 820' AAT.
Corpus Christi, TX--(ch 28) 239-kw max. & 220-kw hor. vis., 51.2-kw max. & 44.8-kw hor. aur., 328' AAT.
Corpus Christi, TX--(ch 28) 318-kw max. & 283-kw hor. vis., 636-kw max. & 56.7-kw hor. aur., 326' AAT.
Waco, TX--(ch 25) 48-kw vis., 9.6-kw aur., 505' AAT.
Wichita Falls, TX--(ch 24 ETV) 2.85-kw vis., .285-kw aur., 526' AAT.
Colfax, WI--(ch 28 ETV) 1382-kw vis., 276.4-kw aur., 1143' AAT.
La Crosse, WI--(ch 31 ETV) Amended to 3800-kw hor. vis., 760-kw hor. aur., 834' AAT.

STATIONS ON THE AIR/GOING ON THE AIR

Huntington Beach, CA--(ch 50 ETV) KOCE-TV granted STA 11-7-72 for programming start 11-20-72.
Grand Rapids, MI--(ch 35 ETV) WGPC granted STA 12-14-72 for programming start 12-17-72.
Marquette, MI--(ch 13 ETV) WNPB granted STA 12-20-72 for unannounced programming start.
Austin, MN--(ch 15 ETV) KAVT-TV granted STA 10-3-72 for programming start 10-9-72.
Meridian, MS--(ch 24) WHTV left air 10-13-70; resumed operation 12-6-72. Satellite of WTUV-9 Tupelo, MS.
Camden, NJ--(ch 23 ETV) WNJS granted PTA 10-17-72 for programming start 10-23-72.
Farmington, NM--(ch 12) KIVA-TV granted PTA 10-4-72 for programming start 10-9-72.
Greenville, SC--(ch 16) WGGS-TV granted STA 10-27-72 for programming start 10-29-72.
Corpus Christi, TX--(ch 16 ETV) KEDT granted STA 10-13-72 for programming start 10-15-72.

STATIONS OFF THE AIR

Mayaguez, PR--(ch 16) WMGZ-TV left air 11-30-72.
Ponce, PR--(ch 14) WPSJ left air 11-30-72.
San Juan, PR--(ch 18) WTSJ left air 11-30-72.
Lubbock, TX--(ch 34) KMXN-TV left air 12-31-72.

CHANGES GRANTED IN STATIONS OPERATING

Fairbanks, AS--(ch 9 ETV) KUAC-TV granted PTA 11-10-72 for 56.2-kw vis., 10-kw aur., 500' AAT.
San Diego, CA--(ch 8) KFMB-TV granted PTA 10-3-72 for change to 316-kw vis., 63.1-kw aur., 740' AAT.
San Francisco, CA--(ch 4) KRON-TV granted mod. of CP 12-12-72 for change to 1680' AAT.
San Jose, CA--(ch 54 ETV) KTEH granted PTA 12-8-72 for 305.5-kw max. & 295-kw hor. vis., 61.1-kw max. & 58.9-kw hor. aur.
Washington, DC--(ch 7) WMAL-TV granted STA 12-8-72 for 302-kw vis., 45.7-kw aur., 770' AAT.
Washington, DC--(ch 9) WTOP-TV granted STA 12-8-72 for 770' AAT.
Tampa-St. Petersburg, FL--(ch 8) WFLA-TV granted PTA 11-29-72 for change to 302-kw vis., 60.5-kw aur.
Allen Park, MI--(ch 20) WXON granted STA 12-7-72 for switch from operation on ch 62 to ch 20.
Saginaw, MI--(ch 25) WEYI-TV granted STA 12-5-72 for 4040-kw max. & 1350-kw hor. vis., 404-kw max. & 135-kw hor. aur., 1320' AAT.

FEBRUARY 1973

CHANGES GRANTED IN STATIONS OPERATING (CONTINUED)

Kansas City, MO--(ch 19 ETV) KCPT granted STA 10-13-72 for 984-kw max. & 871-kw hor. vis., 190-kw max. & 170-kw hor. aur., 1170' AAT.
Springfield, MO--(ch 10) KOLR granted CP 12-22-72 for 300-kw max. & 282-kw hor. vis., 30-kw max. & 28.2-kw hor. aur., 2070' AAT.
Great Falls, MT--(ch 3) KRTV granted STA 10-13-72 for change to 87.1-kw vis., 17.4-kw aur., 590' AAT.
College Station, TX--(ch 15 ETV) KAMU-TV granted STA 12-29-72 for 23.3-kw max. & 22.9-kw hor. vis., 2.32-kw max. & 2.29-kw hor. aur., 390' AAT.
Springfield, IL--(ch 20) WICS granted PTA 11-30-72 for 1510-kw max. & 684-kw hor. vis., 151-kw max. & 68.4-kw hor. aur.

CHANGES REQUESTED IN STATIONS OPERATING

Lexington, KY--(ch 46 ETV) WKLE requests CP for 1250-kw hor. vis., 125-kw hor. aur.
Garden City, NY--(ch 21 ETV) WLIW requests CP for change to 3404-kw max. & 1220-kw hor. vis., 340-kw max. & 122-kw hor. aur., 490' AAT.
Schenectady, NY--(ch 17 ETV) WMHT requests mod. of CP for change to 2630-kw max. & 2618-kw hor. vis., 525-kw max. & 523.6-kw hor. aur., 983' AAT.
Anderson, SC--(ch 40) WAIM-TV requests CP for change to 157.6-kw max. & 109.62-kw hor. vis., 31.5-kw max. & 21.92-kw hor. aur., 383' AAT.
Spokane, WA--(ch 7 ETV) KSPS-TV requests CP for change to 316-kw vis., 63.2-kw aur.
Madison, WI--(ch 27) WKOW-TV requests CP for change to 1000-kw max. & 879-kw hor. vis., 200-kw max. & 175.8-kw hor. aur.

MODIFICATION OF CONSTRUCTION PERMITS GRANTED

Panama City, FL--(ch 13) Unassigned, granted mod. of CP 10-5-72 for change to 316-kw max. & 252-kw hor. vis., 62-kw max. & 50.4 hor. aur., 1429' AAT.
Greenville, SC--(ch 16) WGGG-TV granted mod. of CP 10-12-72 for change to 226-kw max. & 187-kw hor. vis., 45.2-kw max. & 37.4-kw hor. aur., 1147' AAT.

MODIFICATION OF CONSTRUCTION PERMITS REQUESTED

Los Angeles, CA--(ch 58 ETV) KLCS requests mod. of CP for 1906-kw max. & 550-kw hor. vis., 380-kw max. & 110-kw hor. aur., 2869' AAT.
Los Angeles, CA--(ch 68 ETV) KVST-TV requests mod. of CP for change to 2043-kw max. vis., 408-kw max. aur., 2879' AAT.
Portales, NM--(ch 3 ETV) KENW requests mod. of CP for change to 100-kw vis., 29.8-kw aur., 1147' AAT.

CONSTRUCTION PERMITS GRANTED

Oxnard, CA--(ch 63) New, granted CP 9-29-72, 23.4-kw max. & 20-kw hor. vis., 4.7-kw max. & 3.55-kw hor. aur., 170' AAT.

CONSTRUCTION PERMITS CANCELLED (DELETE CALL LETTERS)

Fayetteville, NC--(ch 40) WCCT.
Texarkana, TX--(ch 17) KTXK-TV.

NEW CALL LETTERS ASSIGNED

Los Angeles, CA--(ch 68 ETV) KVST-TV.
Oxnard, CA--(ch 63) KTIE.
Fort Collins, CO--(ch 22) KNCO.
Panama City, FL--(ch 13) WDTE.
Altoona, PA--(ch 38) WOPC.
Aguadilla, PR--(ch 44) WVEO.
Fredericksburg, VA--(ch 69) WHFV.

REQUESTS FOR CALL LETTERS

Boston, MA--(ch 25) New, requests WXNE-TV.
Allen Park, MI--(ch 20) WJMY, WXON-TV Inc. requests WXON.
State College, PA--(ch 29) New, requests WTIE-TV.
Austin, TX--(ch 42) KHFI-TV requests KTVV.

CHANGES IN CALL LETTERS

Indianapolis, IN--(ch 40) WHMB-TV (formerly WURD).
 Billings, MT--(ch 2) KTVQ (formerly KOOK-TV).
 Newark, NJ--(ch 68) WBTB-TV (formerly WWRO).
 Binghamton, NY--(ch 12) WBNG-TV (formerly WBNF-TV).
 Winston-Salem, NC--(ch 12) WXII (formerly WSJS-TV).
 Altoona, PA--(ch 10) WTAJ-TV (formerly WFBC-TV).
 Cheyenne, WY--(ch 5) KYCU-TV (formerly KPBC-TV).

LICENSES CANCELLED (DELETE CALL LETTERS)

Detroit, MI--(ch 62) WXON, WXON-TV.
 Fond du Lac, WI--(ch 34) KFIZ-TV.

MISCELLANEOUS ITEMS

Chicago, IL--(ch 38) KS2XBR, Zenith Radio Corp. experimental station was seen testing on 1-17-73 from approximately 1830-1900 CST by Gary Olson in Deerfield, Ill., for first time in about 2 years.
 Terre Haute, IN--(ch 66) WUIL-TV. Engineering data approved 11-29-72 showing operation on ch 38, 2213-kw max. & 1000-kw hor. vis., 423-kw max. & 191-kw hor. aur., 976' AAT.
 Charleston, SC--FCC Review Board 12-19-72 denied requests for changes in power & xmtr locations for WCBD-TV, WCIV, WCSC-TV & WITV.

TV STATE OF THE INDUSTRY (AS OF 1-8-73)

Stations operating: Grand total: 926 (603 VHF; 323 UHF).
 Commercial: 696 (510 VHF; 186 UHF). ETV: 230 (93 VHF; 137 UHF).
 Permittees not yet on the air: Grand total: 88 (14 VHF; 74 UHF).
 Commercial: 71 (13 VHF; 58 UHF). ETV: 17 (1 VHF; 16 UHF).
 Applications pending for new stations: Grand total: 67 (30 VHF; 37 UHF).
 Commercial: 44 (25 VHF; 19 UHF). ETV: 23 (5 VHF; 18 UHF).
 Translator stations: Licensed: 2754 (1892 VHF; 862 UHF). Permittees: 209 (121 VHF; 88 UHF). Applications: 87 (55 VHF; 32 UHF).

TV STATIONS THAT BEGAN OPERATION IN 1972

Bethel, AS--(ch 4 ETV) KYUK-TV, 8-14-72.
 Guasti, CA--(ch 46) KBSA-TV, 7-72.
 Huntington Beach, CA--(ch 50 ETV) KOCE-TV, 11-20-72.
 Santa Rosa, CA--(ch 50) KFTY, 8-19-72.
 Houma, LA--(ch 11) KHMA, 3-1-72.
 Boston, MA--(ch 5) WCVB-TV, 3-19-72.
 East Lansing, MI--(ch 23 ETV) WKAR-TV, 9-15-72.
 Grand Rapids, MI--(Ch 35 ETV) WGVG, 12-17-72.
 Marquette, MI--(ch 13 ETV) WNPB, 12-72.
 Austin, MN--(ch 15 ETV) KAVT-TV, 10-9-72.
 Biloxi, MS--(ch 19 ETV) WMAH, 1-14-72.
 Bude, MS--(ch 17 ETV) WMAU, 1-14-72.
 Greenwood, MS--(ch 23 ETV) WMAO, 9-15-72.
 Meridian, MS--(ch 14 ETV) WMAW, 1-14-72.
 Oxford, MS--(ch 18 ETV) WMAV, 5-19-72.
 Camden, NJ--(ch 23 ETV) WNJS, 10-23-72.
 Farmington, NM--(ch 12) KIVA-TV, 10-9-72.
 Greenville, NC--(ch 25 ETV) WUNK-TV, 5-7-72.
 Greenville, SC--(ch 16) WGGG-TV, 10-29-72.
 Aberdeen, SD--(ch 16 ETV) KDSD-TV, 1-72.
 Chattanooga, TN--(ch 61) WRIP-TV, 1-24-72.
 Corpus Christi, TX--(ch 16 ETV) KEDT, 10-15-72.
 Goldvein, VA--(ch 53 ETV) WNVTV, 3-1-72.
 Green Bay, WI--(ch 38 ETV) WPNE, 9-11-72.
 Charlotte Amalie, VI--(ch 12 ETV) WJIX-TV, 8-21-72.

ABBREVIATIONS USED IN THIS COLUMN:

CP=Construction Permit
 AAT=Above average terrain
 aur.=aural
 vis.=visual
 PTA=Program test authorization
 STA=Special temporary authorization
 ETV=Educational TV
 hor.=horizontal

TV STATIONS RETURNED TO AIR-1972

Hanford, CA--(ch 21) KFTV, off 5-13-66; returned 9-20-72.
 Ft. Lauderdale, FL--(ch 51) WKID off 8-10-70 as WSMS-TV; returned 2-14-72.
 Meridian, MS--(ch 24) WHTV, off 10-13-70; returned 12-6-72.
 Dallas, TX--(ch 33) KBFI-TV, off 10-25-68 as KMEC-TV; returned 2-21-72.

TV STATIONS THAT LEFT AIR-1972

San Francisco, CA--(ch 32 ETV) KQEC, 8-23-72.
 Washington, DC--(ch 14) WFAN-TV, 2-12-72.
 La Salle, IL--(ch 35) WEEQ-TV, 8-1-72
 Baltimore, MD--(ch 24) WMET-TV, off 1-21-72.
 Boston, MA--(ch 5) WHDH-TV, 3-19-72.
 Fond du Lac, WI--(ch 34), KFIZ-TV, 12-15-72.
 Mayaguez, PR--(ch 16) VMGZ-TV, 11-30-72.
 Ponce, PR--(ch 14) WPSJ, 11-30-72
 San Juan, PR--(ch 18) WTSJ, 11-30-72.

 Readers' comments, contributions are welcome and invited. 73's, Don

FCC FM NEWS

Bruce F. Elving, Ph.D., Editor
1646 North Prospect Avenue - Apt. 414
Milwaukee WI 53202

Thanks to a lot of welcome reader response, here's the latest FCC FM column to date:

New Construction Permits

Conway AR *89.1 10
Mammoth Lakes CA 106.3 3000 h,v; 155'
[Anybody know where Mammoth Lakes' is?
Mountain View CA *90.5 10
Santa Rosa CA *89.1 420 2770'
Walnut CA *90.1 10
Gunnison CO K244AB 96.7 10 [Translator of KREX-FM 92.3 Grand Junction CO. KREX-FM itself adds \$; therefore add to its other satellite--K261AA 100.1 Montrose CO.]
Live Oak FL 98.1 50000 176'
[Initial decision, subject to review]
Plano IL 107.1 3000 h,v; 300'
Fort Madison IA 101.7 3000 h,v; 245'
Georgetown KY 103.1 3000 h,v; 300'
Grayson KY *91.5 10
Worcester MA *91.3 80 -37'
Newbury MA *88.7 10
Kalamazoo MI *89.9 10
Westmore (Munising) MI 98.3 3000 h,v; 300'
St. Louis MO *89.9 10
Plymouth NH *90.3 10
New Brunswick NJ *89.1 1350 h,v; 125'
[Directionalized away from WFUD-WNYU?]
Rochester NY *91.5 9200 h,v; 255'
Wanchese NC 95.3 3000 h,v; 175'
Gambier OH *91.9 10 Kenyon College
Iranton OH 107.1 3000 h,v; 125'
Middleport OH 92.1 1900 h,v; 370'
Chemul and Crescent OR K265AA 100.9 \$
[Presumably using 2 lobes to serve the two cities with KMTT 93.7 Medford programming.] 10 watts.
Mobridge SD KOLY-FM 99.5 28000 h,v; 560'
Johnson City TN *89.5 70,000; 2200'
Beaver UT K285AA 104.9 \$ [KSL-FM] 10
Escalante UT K257AD 99.3 \$ [KALL-FM] 10
East Montpelier VT *88.3 10
Plainfield VT *91.1 10
Putney VT *88.9 10
Big Stone Gap VA WLSD-FM [I] 93.5 165 h,v; 1080'
Roanoke VA *90.1 10
Romey WV *91.5 10
LaBarge WY K292AC 106.3 \$ 10 [KCPX-FM 98.7 Salt Lake City UT translator]
Baker Lake, N. W. T. 99.3 60 [The CRTX notes this station to be operated by the Qamanitauq Naalutaaq Society, with much of the programs to be in the Eskimo language. This is the first FM station granted within a Canadian territory.]

On the Air and DX Ready!

Seaside CA KZEN 107.1 680 h,v; 570'
Durango CO KIUP-FM 100.5 100,000 h,v; 7'
Jacksonville FL WYFL *89.1 1900 90' [180]
Palatka FL WIYD 99.9 100,000 h, 25000 v;
Albany GA WNCW 101.7 3000 h,v; 300'
Lowell IN WLCL 107.1 \$ 3000 h,v; 300' k

Mount Pleasant MI WWHW *91.5 10 [Calls, too]
Aitkin MN KEZZ 94.3 \$ 3000 h,v; 190' MOR
Austin MN KEDQ *90.7 10
Great Falls MT KNUW 94.5 3600 h,v; 470'
Oneonta NY WONT 103.1 \$ 2000 h,v; 360' [Alan Rockford says WONT does not get into Syracuse, but WGNR 103.9 with 850 h,v; 590', also licensed to Oneonta, does.]
Rensselaer NY WQBK-FM 103.9 3000 h,v; 87'
Morehead City NC WMBL-FM 95.9 3000 h,v; 280' [New call letters, too.]
Roanoke Rapids NC WPGT *90.1 860 h,v; 84'
Cincinnati OH WNSD *90.1 10
Delphos OH WDOH 107.1 3000 h,v; 300'
Newark OH WNKO 101.7 3000 h,v; 300'
Corvallis OR KLOO-FM 106.1 27500 -87'
Erie PA WERG *89.1 10 [Adela Ossowski Erie, says this station runs 6 p.m. to midnight with rock, jazz and classical music; it is licensed to Gannon College.]
Erie PA WQLN-FM *91.3 \$ 35000; 500' & on the air 6 a.m. -Midnight, National Public Radio affiliated. Heard in Milwaukee.
Swarthmore PA WSRN *91.5 10 rock
Sturgis SD KBHF-FM 93.1 \$ 25000 h,v; 60' [Richard Wood says it has country music with transmitter on Veteran's Lookout, overlooking the city.]
Red Bank TN WWSM 94.3 3000 h,v 22'
Brigham City UT KBUH-FM 107.1 3000 h,v; -590'

Changes in Facilities

Troy AL WTUB 105.7 to 410' (100,000 h,v)
Fairbanks (College) AK KUAC *104.7 440' (10,500 h,v)
Washington DC WHUR 96.3 adds V. \$ yet?
Ft. Lauderdale FL WAXY 105.9 100,000 h,v; 1020'
Pt. Pierce FL WOVV 95.5 100,000 h,v; 135'
Hiawahle FL WQXX [Calls changed from WHMS] 92.1 280' (3000 h,v)
Miami Beach FL WBUS 93.9 38000 h,v; 175'
Orlando FL WHOO-FM 96.5 98,000 h,v; 460'
Tallahassee FL WBGW 98.9 100,000 h,v; 390'
Plainfield IN WJMK 98.3 3000 h, v; 300'
Des Moines IA KIOA-FM 93.3 35000 h,v; 420'
Baton Rouge LA WQXY-FM 100.7 97000 h, 91000 v 700'
Portland ME WPOR-FM 101.9 50,000 h,v; 500'
Montour Falls NY WXXY 104.9 adds V
Boston MA WBCN 104.1 13500 h,v; 740'
New Bedford MA WGCY 97.3 50,000 h,v; 295'
Northampton MA WHMP-FM 99.3 adds V
Raleigh NC WYVD 96.1 100,000 h,v; 930'
Tulsa OK KWGS *89.5 \$ 4000 365' [(630)']
Bethlehem PA WCPA-FM 95.1 26000 h, 18000 v/
Columbia TN WKOM 101.7 adds V
Fort Worth TX KWXI 97.1 98,000 h,v; 1460'
Livingston TX KETX-FM 92.1 1850 h,v; 370'

Dual-City Identifications Granted

Milford OH WLYK 107.1 to Milford-Mariemont/
Greencastle PA WKSL 94.3 to Greencastle-Waynesboro

Arlington VA WAVA-FM 105.1 to Arlington-Washington DC

Call Letter Changes and Assignments

Apache Junction AZ 107.1 KSTM
Sierra Vista AZ 100.9 KQVA [FM]
Santa Barbara CA 99.9 KTYD-FM (was KGUD/
Ventura CA 100.7 KHAY (was KVEN-FM)
Emmett ID 101.7 KMFE
Evansville IL 105.1 WOJO (WEAW-FM; still mono and mostly ethnic programming)
Peekin IL 104.9 WZRO
Kokuk IA 95.3 KIMI and changes to 3000 h,v; 235'
Sioux Center IA 94.3 KVDB-FM
Owensboro KY 92.5 WBKR (WOMI-FM; adds \$, thus apparently ending their silence)
New Orleans LA 93.3 WQUE (WDSU-FM; thanks to Mike Dorner, Jr., and Richard Wood)
Oak Grove LA 96.7 KWCL-FM
Shokwegan ME 105.1 WTOS*-FM (WGHM-FM)
Boston MA 94.5 WCOZ (WHDH-FM--a repeat in case anybody missed this item!)
Columbia MO *89.7 KPON
Columbia MO *91.3 KBIA (from KBIA--FM")
Lexington MO 106.3 KBKX (KLEX-FM)
Rolla MO *88.5 KUMR (KMSM)
Springfield MO *91.1 KSMU
Buffalo NY 96.9 WGRQ (was WGR-FM)
Raleigh NC 94.7 WDRR (" WPTF-FM)
Toledo OH 104.7 WHOT (" WCONA-FM)
Punxsutawney PA 105.5 WPME-FM
Manning SC 92.1 WTWE
Gallatin TN 104.5 WHIN-FM (WFMG)
Dallas TX 92.5 KAFM (KRLD-FM)
El Paso TX 102.1 KLOZ (KIZZ-FM)
Kerrville TX 94.3 KPFM
Oak Ridge TN 100.3 WOKI [K221AA]
Richfield UT 107.1 K296AC (from 92.1, / Salt Lake City UT 97.1 KLUOB-FM (KWIC)
Norfolk VA 104.5 WQRK (WTID-FM)

Deletion

Forest City IA KWHC 102.3
On the Air? [Off the air is WCRM-FM 95.3 [Claire MI.]

In the realm of mystery this month, the FCC proposed a channel shuffle that would leave KCRI 107.5 Helena AR on a different frequency. Does anybody know if KCRI is presently operating?

I recently went through several months' worth of Change Bulletins, put out by Standard Rate & Data Service, Skokie IL. Some tidbits therefrom: KOVA 105.5 Ojai CA is \$, as is KRPL-FM 103.9 Moscow ID, KMWT 95.9 Mineral Wells TX (V, too), WMRN-FM 106.9 Marion OH, WHHI-FM 103.9 Braddock Hts. MD, WEMM 107.9 Huntington WV, WYII 95.9 Williamsport MD & WRGT 106.5 Clarksburg WV. KXXX-FM 100.3 Colby KS is listed both \$ and vertical.

FM RADIO STATIONS OF PANAMA

Radio Sonorama	101.1	1000	watts	On air	16	hours	Owner:	Leonidas Constantino, 9975-Panamá, 4 Panamá
Tropical de Radiodifusion	105.1	1000	"	"	"	"	"	Ricardo Lay, 3269-Panamá, 3 Panamá
Estereo Panama	106.7	250	"	"	"	"	"	Modesto Lombardo Vega, 1045-Panamá, 1 Panamá
Radio Melodia	107.9	2000	"	"	"	"	"	Carlos Isaac Taboada, 827-Panamá, 1 Panamá

The above information came from the "Asesor Técnico de Telecomunicaciones del Ministerio de Gobierno y Justicia," Republic of Panama. Instead of "owner," the titles above should more properly be "representative," and the address given is the post office box number ("apartado postal"). Translation assistance from Dr. Pierre Ullman, Prof. of Spanish and Portuguese, Milwaukee.

READERS COMMENTS Mike Dorner, Metairie LA, says the application for a 10-watter at Northeast Louisiana State University, Monroe, is running into trouble. Students are balking at taxing themselves for the station, and Mike ascribes this to the extreme conservatism of the people of Baptist northern Louisiana. KVRG *91.5 Thibodaux, in the more progressive South, plans \$ and eventual power increase and frequency change. KJKL 101.1 Shreveport is on 6 am-12 am 7 days a week in \$ with gospel programming, tests on Mondays. WWGL *91.1 Wesson MS is on Mon.-Thurs. 10 am to 1 am with limited weekend broadcasting and no holiday operation. The school's dean says, "Because of the very inadequate antenna system. . . I am relatively sure that you would have extreme difficulty in receiving our signal." Mike still has copies of his Fourth Progress Report on FM and I highly recommend it. Send just 24¢ in unused U. S. stamps for this very well-researched report to Mike at 1409 Hymelia Avenue, Metairie LA 70003.

Bill Grant, Worcester MA, says that WHVY 94.7 Springfield MA is now \$ with rock; WWEL 107.9 Medford [former WHIL-FM] and WGCY 97.3 [the Portuguese station] remain mono, while it is not known if WVRV 106.7 New York ever has \$. The new *91.3 station in Worcester (see previous page), owned by Clark University, is due on the air April 1 with 20 hours of daily programming of diverse fare—local, national public affairs, radio drama, poetry and prose; music from pre-baroque to jazz, with live concerts. No mention of \$.

FM in Oregon is the subject of a recent card from Mike Northam, Portland, who says none of these are \$: KLIQ-FM 92.3 Portland (mostly talk, some country music and local sports—the only Portland FM to do so), KPDQ-FM 93.7 is 100% religious, KQFM 100.3 is Muzak ("they advertise that they don't play vocals so as not to disturb their listeners! Wall to wall 1001 strings!"). Mike also was nice enough to send along a copy of the FCC rules governing FM translator stations, published in the Federal Register, and a very good piece of background documentation.

In the midwest, Andy Bolin, Charleston IL, says WERM, WHBM and WVTL are all on the air, answering my questions of last month. He says WVTS 100.7 casts a terrible image on 99.7 (right next to 99.9 where another Terre Haute station operates, WTHI-FM) which can be heard in a car 45 miles away; and this has gone on since last September. The soul station WKLR 99.9 Toledo has added \$, while WVUD 99.9 Dayton has gone 24 hours. WBKR 92.5 Owensboro KY is now country music as well as \$, WKYX-FM 93.3 now signs off at 2 a.m. and is rock (Paducah KY), while WFMS 95.5 Indianapolis is 24 hours. John Zondlo, Hammond, says WFLM 103.9 Crown Point puts in a good signal where he lives, while WLCL 107.1 Lowell IN, both new stations, has trouble making it there.

Farther east, Bruce Rummel, Fleetwood PA, has WBRE-FM 98.5 Wilkes-Barre PA as MOR \$; format almost identical to that of WASH 97.1 DC [a lot different from when I heard WBRE-FM in Duluth last summer, relaying AM programming and flood emergency news]. WSRN *91.5 Swarthmore PA operates 7 am to 2 am daily; silent Sundays (except midnight to 4 a. m.: the continuation of Sat. night operation). ZBM-FM, Prospect, Devonshire, Bermuda, answered a card Bruce sent in which they stated their power as 15000 h,v; 200' above the ground with plans to go to 25 kw, and they are interested in getting reports from distant listeners (signed Bryan Lodge, head of engineering). WSLT-FM 106.3\$ Ocean City NJ is on 6 am to 1 am, WEBO-FM 101.7 Owego NY from 6 am to midnight, and WVIA-FM *89.9 Scranton has not yet succeeded in displacing WUSV. And an old mono station, WRNJ 95.1 Atlantic City, has recently gone \$. Shelby Remington, New Haven CT, says WNBC-FM 97.1 New York is now 24 hours, duplicating its AM adjunct, while WAQY 102.1\$ Springfield MA is using the slogan "Wacky Radio" (rock format). Williamsport's Bill Dickerman says his local WILQ-FM is now 24 hours, while WKOK-FM Sunbury PA 94.1 should be 12500 h,v; 875' by the end of January, 1973, after a period of procrastination by the engineering staff in readying the new equipment.

Dennis Smith, Chico CA, reports that KVHS Concord is now \$ (listed *91.1, but he says *90.5), KEWT 105.1 Sacramento (former KHIQ) calls itself Radio "Cute," KSOL 107.7

San Mateo (ex-KVEZ) is indeed soul music now, while there's apparently a new clandestine station in southern California. It calls itself "KLUUV," "K-love," heard originally on *90.1 then switching to *89.5 during a KPBS San Diego hiatus. He wonders if this station may have been illegally using KPBS' transmitter or a crystal borrowed from them. Speaking of "extra-legal" stations, Morrie Goldman corrects me on terminology used in the January column: "The station in Syracuse would be a 'bootlegger' or a 'clandestine' station, but not a pirate. 'Pirate' implies that the station is outside territorial limits of the country." Could the Syracusans be receiving "pirate" broadcasts from the international sea that is Lake Ontario, perhaps?

New \$ stations include KEBC 94.7 Oklahoma City, KVRO 105.5 Stillwater, KLCO-FM 98.3 Poteau and KGOY 104.9 Bethany, all OK. WPXI 95.1 Charleston SC heard in beautiful \$ on meteor scatter in Duluth Jan. 3 with MOR (not rock) music, while WJCL-FM 96.5 Savannah GA has both \$ and V; WFAM *91.1 Jacksonville FL is \$ [heard in Duluth broadcasting an illegal commercial for Jones College Apartments], and WJAT-FM 98.3 Swainsboro GA is \$ (or seems to be).

Dr. Richard Wood, Baton Rouge LA, reports XETIA-FM 97.9 Guadalajara, Jal., XEBA-FM 97.1 Guadalajara and XEJT-FM 89.0 Altamira, Tamps. (serves Tampico) have all added \$. XEJT-FM has changed from the listed 89.2 and has increased power, calling itself "Stereo Jet." "Programming all in English, U. S. easy listening style, English news on the hour. A real surprise!" WQUE 93.3 New Orleans within the next six months will be moving to the top of another building and changing to dual polarization. WKVY 106.7 Vicksburg has now 24 hours of country music. WFAM (see above), "Fame Radio," is on 12 hours daily, noon to midnight with a mixed format. WAFB-FM 98.1 Baton Rouge has been low power for several days, perhaps icing on the antenna due to a rare snowstorm. WQXY-FM 100.7's power increase (flip back two pages) is supposed to increase the station's coverage 57%, according to the station. KAFG 102.7 Oklahoma City is "Solid Gold," KMYR-FM 93.7\$ Winner SD is country and MOR and even carries pow-wow music and news in Sioux. WMGL 98.3 Pulaski TN noted with live country music, and Richard wondered if this is a non-commercial station as indicated in Vane Jones (only public service announcements were heard). KSET-FM 94.7 El Paso transmits from the tower of KRLP-TV on Mt. Franklin and KESY ("K-easy") continues its automated MOR music. WRFK*106.5 Richmond alternates between \$ and mono, often relaying BBC news from a shortwave station on Ascension Is., which itself is a BBC relay. Richard sent a clipping about Shreveport FM. KROK 94.5\$ ("automated rock which fooled me into thinking it was live, a rare occurrence in my experience") operates 6 am to midnight, as do KJKL 101.1\$ and KBCL-FM 96.5\$. KTAL-FM 98.1 a mono station is on 24 hours with a country format. KESY (above) is in Galveston TX, 106.5.

An update to the Guatemala information published previously and received from Richard has 88.1 Radio Fabuestereo with 1 kw and \$, four bay antenna (ERP probably close to 4 kw), while Radio Fabulosa, Guatemala, 88.8 has 5 kw with an 8-bay circularly polarized antenna (ERP may be 40 kw), monaural. Richard says: "I count these as my best FM veries, and the professionalism of the response witnesses to the growth of FM in Latin America. In Central America and elsewhere, FM broadcasting to the public is an historical development of the studio-transmitter links, and some countries such as the Dominican Republic are only now emerging from that stage." In Mississippi, WMSU *91.1 Hattiesburg, a student station with 10 watts, is expected on the air in March, operating 6 p. m. to midnight Sunday through Friday.

In Minnesota, John Ebeling, Bloomington, says WAYL 93.7 Minneapolis has been on reduced power since Dec. 30 due to lightning damage, while WRAH 101.3 [former WPBC-FM] is still silent. Returning to the air is WBEZ *91.5 Chicago on a full schedule 8 am to 10 pm 7 days a week (even on school holidays). Their program guide mentions \$, but no \$ heard yet. WYMS *88.9 Milwaukee now on regular schedule. In Canada, the CRTC reports that 82% of the population is within reach of a private (Canadian) FM station; 53% lives within the 50 microvolt/meter contour of a CBC English FM station, and 26.5% in the area of a CBC French FM station. Population served percentages range from 96.5% in Ontario to 0% in Newfoundland, Yukon, and Northwest Territories.

In other news, the FCC approved the sale of WEFM 99.5 Chicago to General Cinema Corp., over citizen protests, which will transfer the "oldest FM station in the nation" from classical to chicken rock, and eliminate Zenith as an FM station owner. A U.S.-Mexican allocations plan has been approved, with details to be released later, and the National Association of Broadcasters has squawked to the FCC about FM translators invading other stations' markets. Specifically, Brainerd and Grand Rapids MN stations have objected to translator applications filed by third parties who would bring in the programs of KEZZ 94.3 Aitkin MN to those communities.

Es in Depth

by

Pat Dyer

In the first two installments of this series we have covered the radio and rocket observation techniques used on Es, with some of the more pertinent findings. The diurnal and seasonal variations etc. have not been treated since past articles in the VUD (particularly the Bob Cooper 'Propagation Wand' series in 1970 and later) did an excellent job of it. (See also March 1972 Radio Science, pp. 351-353 and CQ August 1972, p. 66, for 50-MHz Es studies by the author).

Before proceeding into some of the more controversial aspects of theory, it should be made clear that the type of Es this series is dealing with is the mid-latitude or temperate variety. The polar or auroral type is generally agreed on to be due to particle injection into the atmosphere from the sun. The equatorial species of Es (which Glenn Hauser became well acquainted with in Thailand) is due to the coming together of the sun-induced E-layer currents at the magnetic dip equator.

Until the 1960's just about any theory one could come up with would have been seriously entered on the then long roster of possible Es causes. Then came the wind-shear theory.

The reason for the theory was originally to explain the world-wide variations in the occurrence of Es (see NBS Circular 582), in particular why Japan had so much and South Africa so little. A strong geomagnetic influence was inferred there.

A wind shear is rather easy to visualize. It represents a wind which has its velocity (i.e., speed or direction) changing with height (in the case of Es). Technically said, a vertical gradient in the horizontal wind. The wind which affects the E-region is known as the west-neutral wind (it blows to the west and has an overall balance of positive ions and free electrons in it).

One of the big problems before the wind shear theory came along was how did so much ionization get into ~~so~~ small a region and stay there so long. There was the choice of (a) creation of new ionization or (b) redistribution of the already existing ions/electrons. As a lot of Es occurs at night 'a' seemed very unlikely so 'b' was decided on.

Now, when a charge moves across a magnetic field, depending upon the sign and direction, it will be curved in its path. This is known as the Lorentz Force, and, for those with vector knowledge, is given by:

$$\mathbf{F} = \frac{q}{c}(\mathbf{v} \times \mathbf{B})$$

where: q, charge; c, speed of light; v, velocity; B, magnetic field. This is a 3-dimensional equation, i.e., \mathbf{F} is F_x, F_y, F_z .

Putting this all together, collect some positive ions in a magnetic field with a wind shear and they will be driven into thin layers (mostly in regions where the wind passes thru a minima, not necessarily zero, or undergoes an abrupt change in direction). If the ions do not readily combine with the free electrons then high concentrations of the latter will be allowed to build up. The details of the theory get into Tensor mathematics. It relies on the magnitude of the horizontal component of the earth's magnetic field, which is at a high in the area of Japan and a low over South Africa.

Now the thorny problems. By rocket measurements (with released chemical vapor trails being photographed) it has been found that these neutral wind shears show little significant variation during the year. So, why the marked variations in Es with season and time of day? It thus appears that we need several things happening just right to get the formation of Es.

The supply of metallic ions is needed. That's easy enough, meteor debris. Except for the snowders, the flux is fairly constant for the whole earth -- i.e., again why seasonal and diurnal variations?

Dr. Layzer (Mar 1972 Rad. Sci., pp. 385-395) in 1970 came forth with some nice points on the seasonal variations. In brief, it relies on the electrical conductivity in the E-region at the magnetic conjugate point (i.e., where the magnetic force line leaving a point on earth returns in the opposite hemisphere). He expects that the formation of Es is inhibited when conductivity is high there (e.g., summer there, winter here; high solar activity; magnetic disturbances). The theory also goes a long way to explain the two-peak diurnal pattern in summer vs. the single-peak in winter evenings.

The really big contest on which to choose sides now presents itself. Are there really small blobs of intense ionization (plasma-dense, i.e., as given by the formula for Ne in Part II), or do the reflections on ionograms above f_oEs (or above the secant law using f_oEs on oblique paths instead of fEs) come from a form of scattering due to the steep ionization gradient found in Es by rockets.

There have been some 100 rockets penetrate Es patches since the late 1940's. Not one has found our elusive million electrons/cc density. But, if the blobs of very high ionization were very small - on the order of a hundred feet or so - it is not likely that such a small number of shots could have passed through any. This is one big reason we need a method for horizontal probing in Es regions vs. the tiny vertical area a rocket traverses. The background ionization (100,000/cc) might well be imbedded with raisin-like dense (million/cc) blobs.

At this point, some personal opinions will creep forth. From some 13 years of seeing 6-MHz wide TV signals being propagated with extremely good resolution (and with 'sharp' ghosting indicating discrete mutli-paths) it is hard to consider Es to be anything else but specular (mirror like) reflections from plasma-dense blobs of ionization. In less subjective measurements, it is somewhat difficult to explain a lot of field strength measurements of Es signals that are up to 20 db above a free space level (i.e., line of sight for the distance) if one thinks of a scattering mode as the main ingredient of propagation.

Also, from physics there comes the phenomena of dispersion wherein waves of slightly different frequency are propagated at slightly different velocities. Results from rapid-pulse experiments with Es show little of this dispersion effect (as sharp TV video skip confirms when compared to F2 propagation), indicating a very thin region of ionization involved.

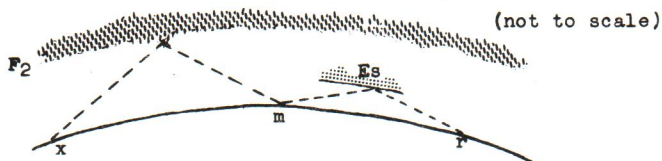
There are still a lot of unanswered details about Es, particularly the strong suggestion of tropospheric coupling found by several investigators (see Wilson, Dec 1970 and Mar 1971 QST). There appear to be a lot of refinements needed in the wind-shear theory to explain the more intense incidences of Es (i.e., in the WIF range).

Many involved in Es studies are not at it as an end in itself, but simply as a tool in detecting other parameters and behavior of the upper atmosphere. As will be seen in the following set of figures, Es effects when involved with 'normal' F2 paths can cause a lot of problems, in particular for h.f. users. (The most obvious problem for v.h.f. users is the co-channel interference aspect.)

In Figure 1 below is a propagation mode known as an N-type reflection, whereby the F2 MUF may be extended into regions unexpected for it at a time of day or season.

Figure 1

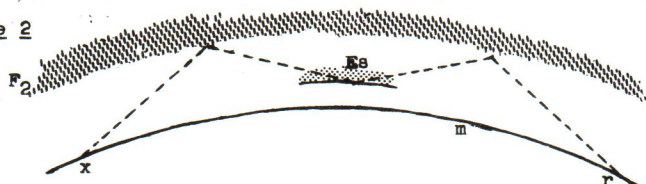
N-refl.



While being an advantage at 'r', a receiver at 'm' may suffer interference from signals from 'r' with the 'normal' ones from 'x'. Also, any receivers more distant than 'r' that relied on F2 from 'x' have the paths disrupted to one extent or another.

In Figure 2 is an M-reflection mode. The chief benefit for 'r' is that the signal from 'x' did not pass thru the absorbing D-region an additional two times and encounter a ground reflection loss as well. The big problem is for 'm' wondering whatever became of the signal from 'x', being a victim of 'Es shielding'. (topside reflections)

Figure 2



With a little imagination, one can conjure up an endless variety of these multiple-layer modes, some even involving a temporary trap for a signal between F2 and Es.

With this final installment on Es, it is hoped that many members might have a better understanding, if not just a different perspective, of what sporadic-E is and how it is scientifically studied. Since Es often affects services well above 100 MHz, its study is of value in VHF allocations when interference from normally independent systems is to be considered. Its effect on global F2 circuits (as in the above figures) cannot be ignored, as being below the F2 layer, Es can 'get' the signal first and last.

While mathematics was kept to a minimum, some could not be dispensed with. On the other hand, a few readers may have felt that too little was used. Like a picture, an equation is often worth a thousand words.

For those who may wonder why there wasn't more emphasis on DXing with TV, FM, etc...it is felt that articles in past (or future) VUD issues are better suited to aid the DXer with how to look for and use Es. As it now stands (without field strength measuring equipment) TV and FM DXers can best provide scientific tracking data on Es which when used with other data can often be extremely valuable. Remember there are more DXers active and a multitude of signals than there are regularly running Es experiments.

TECHNI- CORNER

Conducted by:

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SPLITTERS, COUPLERS, ETC.

SIGNAL SPLITTING WHY:

In today's affluent society, where two or more TV receivers (RXs) are common in one household, the signal splitter (sometimes called coupler) is indeed a handy tool. Browse through your favorite electronic supply house on any Saturday and you'll probably see someone inquiring as to how he can "power" his new and old TV RXs from his present antenna system.

That indeed is what a splitter is for: To take the signal from a single antenna and use it to feed as many RXs as necessary. Even if several RXs are on simultaneously, a correctly selected splitter and antenna should outperform rabbit ear reception in most areas, especially for color.

Splitters are used by some DXers who find the use of two or more RXs simultaneously from one antenna helpful to their DX totals. For example, Figure 1 shows a set up for a DXer "parking" on two different channels in anticipation of meteor scatter or E'skip from stations in the same general direction.

When sophisticated equipment such as single-channel or tunable amplifiers or traps are used, the setup of Figure 2 is helpful. Here, antenna signal is split, with one output feeding directly to a RX and the other output being signal conditioned before application to a second RX.

FM DXers may wish to run two RXs on separate FM channels during meteor showers, with appropriate audio mixing, etc., so that both FM channels can be monitored with earphones and both recorded on separate audio channels of a stereo tape recorder.

For E'skip, such set ups are especially nice if one channel must be heavily trapped, but other needn't be. For M's, of course, the signal loss may severely reduce the number of bursts.

TYPES OF SPLITTERS

Basically, splitters fall into three classes: Plain, amplified, and bandpass. They come in all combinations of impedance: all 300 ohm; all 75 ohm; 300 ohm in, 75 ohm out; 75 ohm in, 300 ohm out.

Plain Splitters - All signals within a specified frequency band that are received at the input are passed to the outputs with this type of splitter. These are usually the VHF only or VHF/UHF type. With so many all-channel antennas common today, virtually all splitters are the VHF/UHF type. They usually split the signal into two or four outputs, hence the common jargon 2-way and 4-way splitters. Note that no conditioning or frequency discrimination is done in this type. It simply passes to its outputs whatever frequencies it "sees" as long as these frequencies are within the spectrum that the splitter was designed for.

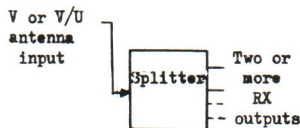


Figure 1. Typical "household" use of splitter to power several receivers

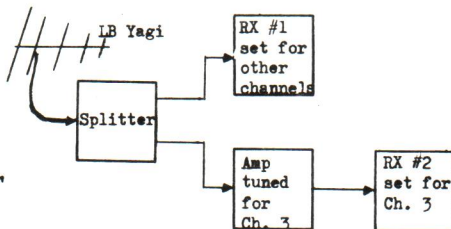


Figure 2. Typical use of splitter where single channel amp is used in one line.

Amplified Splitter - Since all splitters have loss (as described later), some manufacturers combine a splitter with a broadband amplifier. The result should be more signal at the outputs than would be present with a plain splitter. However, the use of broadband amplifiers may produce more harm than good, with possible overload, cross-mod, or general desensitization due to an amplifying device with a poor noise figure. If an amplified splitter does not produce these harmful qualities, it would work well in Figure 1 for M's DXing where adjacent channel interference is minimal.

Bandpass Device - A bandpass device and a splitter are not really the same. Bandpass implies that the output sees some part of the frequencies seen at the input. With plain or amplified splitters, all frequencies at the the input are available at the outputs, perhaps with various degrees of signal level.

However, salesmen and even printed literature often mix the two terms. Thus, a device connected at a RX that receives channels 2-83 and converts this to two separate outputs -- one VHF and one UHF for connection to separate antenna terminals -- is often erroneously called a "splitter". Bandpass device is correct, though. (I include the bandpass device here only since it is so often called a splitter.)

Good bandpass V/U devices will allow virtually all the received VHF signals to pass to the VHF output, but little UHF. Conversely, the UHF output should consist entirely of the UHF signals. Some handy devices today consist of a balun/bandpass filter for use with 75 ohm coax cable. The V/U 75 ohm input is converted to 300 V only and 300 ohm U only outputs for easy connection to 300 ohm antenna terminals on the RX.

CHARACTERISTICS

A splitter's performance is defined by three operating characteristics: impedance match, loss, and isolation.

Impedance Match - As said so often in these pages, only when impedances are matched (ie, 300 ohm to 300 ohm, 75 ohm to 75 ohm) at all frequencies can power be transferred efficiently from one device to another. Improperly matched devices produce signal loss, ghosts, etc. Splitters must match impedance evenly at all frequencies within the band they claim to cover. A VSWR (accepted measure of impedance match) of from 1.1:1 to 1.5:1 is good.

Power Loss - Here is perhaps where the most confusion exists. A plain splitter cannot create power. A "perfect" splitter is one that converts perfectly all received voltages so that the summed output voltages equal the input. In a "perfect" 2-output splitter, if 1000 microvolts exist at the input, 500 microvolts ($500 + 500 = 1000$) exists at each output. Since only one-half of output power remains with respect to the input, our perfect splitter has a 3 db loss. What's so bad about that? Nothing, since we'd still have all our power left, just "split" between two outputs. A perfect 4-output splitter has a 6 db loss, meaning that 25% of input power exists at each output.

Practically, though, all magnetic energy transfer devices such as baluns, splitters, bandpass filters, etc., have loss. And this loss increases with frequency. We must, therefore, expect more than a 3 db loss for a 2-output splitter. However, losses of 3.2 to 3.5 db for 2-output splitters and 6.2 to 6.5 db for 4-output splitters are excellent because only 0.2 to 0.5 db (less than 5%) loss exists within the splitter. With a 3.5 db loss splitter, therefore, about 45% of the power available at the splitter input is available at each output.

Isolation - The close proximity of splitter outputs prevents "perfect" isolation. This means that any stray interference generated by a RX connected to one output may be coupled into the adjacent outputs. With poor isolation a RX generating, for example, 41 mhz IF radiation might couple this radiation into the other RXs, creating interference in all RXs connected to the splitter. A splitter with 20 or more db of isolation should reduce possible coupling of interference. Where two or more RXs are quity likely to be on at once and signal level is high, a splitter with high isolation and moderate loss is preferred over a splitter with low loss and poor isolation. For DXing, obviously, lowest loss is the important characteristic.

73's

Dave



Editor:

Deadlines:

Glenn Hauser

13 February

Box 62

13 March

Von Ormy TX 78073

F M SCOREBOARD

Note the new categories and include them in your next report, due 13 April. Note the first four columns cover stations, and the next five political units. YB = year began.

DXer, Location	Stns	88-92	Es	MS	USA	Can	Mex	For	Sat	YB	As of!
*Bruce Elving, Duluth MN	1131	78	478		41+	3	1	0	46	48	2 Oct
Russ Brown, Saint Joseph MI	1110	165	310		40+	6	1			68	7 Jan
*Andy Bolin, Charleston IL	845	117	116		43+	3	1			70	2 Sep
John Ebeling, Bloomington MN	689	72	293		38+	4	0			48	7 Nov
*Robert Seybold, Dunkirk NY	651				39	4	1			60	10 Oct
Glenn Hauser, San Antonio area TX	579	125	354	37	30+	1	8	5	45	71	13 Jan
Richard Wood, Baton Rouge LA	533	56	96		32+	2	5	2	42	71	12 Dec
Glenn Hauser, Enid OK	519	29	275	41	39	4	5	1	49	65	1 Dec
Fred McGormack, Des Lacs ND	491	64	325		39+	4	0			65	7 Jan
*Al Kopac, Himrod NY	481	60	67		33+	3	0	1	38	57	25 Aug
Fred Nordquist, North Syracuse NY	468	60	106		37+	2	0	2	42	69	6 Nov
Joe Fela, Newark & S Plainfield NJ	429	81	96		34+	2				68	5 Dec
*Shelby Remington, New Haven CT	366	58	57		34+	2	0	1	38	70	3 Oct
Ron LeBlanc, Marrero LA	365	57	90		23	2	3			71	29 Oct
*Dennis Moe, Saint Ansgar IA	310	31	33		28	2	0	0	30	70	7 Oct
Pat Dyer, San Antonio TX	270	29	170		36	1	1			70	11 Dec
Richard T. Steinberger, Hudson MA	210	33	9	1	17	2	0	0	19	58	5 Jan
Peter Sawatzky, Waterloo Ont	197	20	27		19	1	0	0	20	71	21 Dec
*Dennis Smith, Wasco CA	183	21	36		7	0	0			52	6 Aug
*Tom Yingling, Dundalk MD	160		11		19	0	0	1	20	1	1 Oct
Wayne Ebeling, Bloomington MN	152	26	1		12	0	0	0	12	72	10 Nov
*Gil Morgan, Garden Grove & Sta Ana CA	127	28	10		9+	0	0			69	27 Aug
*Jim Hayes, Wilkes-Barre PA	125	4	36		18+	1				70	24 Aug
Adela Ossowski, Erie PA	103	28	2		10+	1	0	0	12	59	8 Jan
*Dennis Moe, Ames IA	88	8	0		9	0	0	0	9	72	8 Oct
*Paul Luchter, Oceanside NY	86	17	1		8+	0	0	0	9	68	10 Aug
Frank Wheeler, Erie PA	82	2	0		4	1	0	0	5	64	11 Nov
Richard Wood, Medicine Hat area Alta	76	5	75		8	1	1	0	10	72	3 Nov
*Dennis Smith, Santa Barbara CA	74	8	0		1	0	1	0	2	51	6 Aug
*John Zondlo, Hammond IN	47	2	0		6	0	0	0	6	71	12 Sep
*John Zondlo, Muncie IN	30	3	0		4	0	0	0	4	71	12 Sep

105 MHZ FMDX RECORDS

105.1	Es	KHIQ	Sacramento CA	1285	Glenn Hauser, Enid OK
	Tr	WEAW-	Evanston IL	820	Richard Wood, Baton Rouge LA
	MS	WYOR	Coral Gables FL	1050	Carlton Howington, Uniontown OH
	Au	WSOM-	Salem OH	680	John Ebeling, Bloomington MN
105.3	Es	KBRG	San Francisco CA	1340	Glenn Hauser, Enid OK
	Tr	WVSI-	Slidell LA	840	Russ Brown, Saint Joseph MI
	MS	KXXK	Dallas TX	1100	Fred McGormack, Des Lacs ND
	Au	WDAS	Philadelphia PA	605	Russ Brown, Saint Joseph MI
105.5	Es	WCFW	Chippewa Falls WI	1155	Glenn Hauser, Von Ormy TX
	Tr	KLOQ	Lyons KS	630	Glenn Hauser, Von Ormy TX
105.7	Es	"CBU-"	Vancouver BC	1285	Glenn Hauser, Albuquerque NM
	Tr	WOOD-	Grand Rapids MI	915	Richard Wood, Baton Rouge LA
	MS	WOOD-	Grand Rapids MI	790	Glenn Hauser, Enid OK
	Au	WTLC	Indianapolis IN	500	John Ebeling, Bloomington MN
105.9	Es	W000-	Deland FL	1360	Bruce Elving, Duluth MN
	Tr	WAXY	Fort Lauderdale FL	1155	Glenn Hauser, Von Ormy TX
	MS	WLAC-	Nashville TN	1120	Fred McGormack, Des Lacs ND
	Au	KBPI	Denver CO	685	John Ebeling, Bloomington MN

Contributors: Brown, Dornier, Dyer, Ebeling, Elving, Fela, Hauser, Hobday, Howington, McGormack, Markewicz, Merrill, Ossowski, Sawatzky, Smith, Vogt, Wood, Yingling.

Now is the time for action!

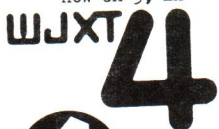
While DX relents in winter, update your log and REPORT to STATISTICS!

STATISTICS

CHANNEL 4 TV DX RECORDS -MS

FEBRUARY 1973

Call	Location	Miles	DXer	Location	Comments/Logos
WTVY	Dothan AL	830	Dave Janowiak,	Milwaukee WI	was ch 9
WRBL	Columbus GA(AL)	790	King Schafer,	Kenmore NY	now ch 3, in GA
			tie	Norm Erint,	
			tie	Richard Nieman,	
			(same 3-way tie as above!)		
KARK-	Little Rock AR	925	Gene Webb,	Seattle WA	now KNBC
KRCA	Los Angeles CA	955	Doris Johnson,	Longview WA	
KRON-	San Francisco CA	575	Richard Nieman,	Buffalo NY	
KOA-	Denver CO	1370	Glen Neal,	Sayre OK	
WRC-	Washington DC	1255	Bill Draeb,	Kewaunee WI	was WMBR
WJXT	Jacksonville FL	1030	Robert Cooper,	Oklahoma City OK	
WTVJ	Miami FL	1220	Don Ruland,	Holly Hill FL	
WHBF-	Rock Island IL	990	Pat Dyer,	Gunbarrel Hill CO	
WTTV	Bloomington IN	1000	Richard Nieman,	Buffalo NY	
KTIV	Sioux City IA	880	Dave Long,	Lockport NY	
WWL-	New Orleans LA	1105	Gary Olson,	Barrington IL	
WBZ-	Boston MA	865	Robert Cooper,	Oklahoma City OK	
WTOM-	Cheboygan MI	975	Robert Cooper,	Oklahoma City OK	
WWJ-	Detroit MI	895	Don Roller,	Fort Wayne IN	
WCBI-	Columbus MS	550	Norm Erint,	Kenmore NY	
WDAF-	Kansas City MO	850	Tom Yingling,	Dundalk MD	was KWK
KMOX-	Saint Louis MO	735	Pat Dyer,	Gunbarrel Hill CO	
KXLF-	Butte MT	550	Steve Weinstein,	Pittsburgh PA	
KDUH-	Hay Springs NE	1175	Charles Dobbins,	Detroit MI	
KHTL-	Superior NE	775	Charles Wood,	Ashland OR	
KOB-	Albuquerque NM	990	Glenn Hauser,	Enid OK	
WBEN-	Buffalo NY	1100	Barney Rauch,	Peoria IL	
WRCA-	New York NY	810	Bill Draeb,	Kewaunee WI	
WUNC-	Chapel Hill NC	745	Glen Neal,	Sayre OK	
KXJB-	Valley City ND	820	Morris Foote,	Middleton ID	
WKY-	Oklahoma City OK	1155	Robert Cooper,	Oklahoma City OK	was WCAE
WTAE-	Pittsburgh PA	1010	Dave Egan,	Valleyfield PQ	
WCIV	Charleston SC	920	Glenn Hauser,	Enid OK	
WFBC-	Greenville SC	850	(same 3-way tie as WRBL)		
WSM-	Nashville TN	625	Harold Cooper,	Westland MI	
KGNC-	Amarillo TX	1100	Robert Cooper,	Fresno CA	
KEDY-	Big Spring TX	1080	Rod Luoma,	Detroit MI	
KRLD-	Dallas TX	1010	Morris Foote,	Middleton ID	
KROD-	El Paso TX	980	Don Ruland,	Kenosha WI	
KGBT-	Harlingen TX	1265	Bill Draeb,	Kewaunee WI	was KPAC
KJAC-	Port Arthur TX	1040	Richard & Wm Nieman,	Buffalo NY	
WOAI-	San Antonio TX	1420	Larry Vehorn,	Speedway IN	now KCPX
KTVT	Salt Lake City UT	1345	Bill Draeb,	Kewaunee WI	
WCAY-	Oak Hill WV	555	Ed Sparks,	Odessa TX	was ch 3
WIMJ-	Milwaukee WI	1025	Bill Draeb,	Kewaunee WI	
GJCB-	Sydney NS	1330	Ron Hade,	Rockford IL	
"CBOT"	Ottawa Ont	695	Richard Lowry,	Temple TX	now off
CMUR-	Habana Cuba	1095			



WBZ-TV W



was WCAE

now KWAB
now KDFW



BE THE FIRST IN THE WORLD to claim an MS TV DX Record for any of these ch. 4 stations: KVOA, KAID, WCCO, KGRD, WJWC, KPIG, WAPA, KOMO, CHSJ, CFCM, CKRN, "CBKMT", XHTV, et al.

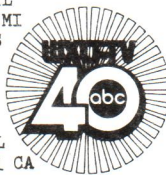
NEW TVDX RECORDS, CH. 2-70

Ch	Call	Location	Prop	Miles	DXer	Location	Old Record
2	KBOI-	Boise ID	MS	520	Paul Johnson,	Oakland CA	D. Johnson 370
	WMAB	State College MS	Tr	500	Robert Cooper,	Oklahoma City OK	Cox 60
	KTWO-	Casper WY	MS	900	Paul Johnson,	Oakland CA	D. Johnson 850
	CFAC-	Calgary Alta	MS	1000	Paul Johnson,	Oakland CA	Sinkin/D. Johnson 525
	TVN	Habana Cuba	Tr	255	Dick Clark,	Fort Lauderdale FL	none
	XEPF-	Nuevo Laredo Tams	Tr	295	Glenn Hauser,	Calvert TX	Dyer/Hauser 140
	YNTC	Managua Nicaragua	Es	1220	Ron LeBlanc,	Marrero LA	none
3	KOTA-	Rapid City SD	Es	1385	John Pinckney,	Alexandria VA (error)	DeLorenzo 1380
	XHBC-	Mexicali BGN	Tr	485	Randy Miltier,	Campbell CA	Muller 95
4	XHD-	Tampico Tams	Tr	660	Ron LeBlanc,	Marrero LA	Grace 625
	TICTAC	San Jose C R	Es	1140	Dick Clark,	Fort Lauderdale FL	none
5	WPTV	Palm Beach FL	Tr	1045	Glenn Hauser,	Bremond TX	Bourgeois 665
	CKSC-	Sudbury Ont	Tr	420	Dave Janowiak,	Greenfield WI	none

STATISTICS

FEBRUARY 1973

5	HRTG	Tegucigalpa Honduras	Es	1105	Ron LeBlanc, Marrero LA	none
6	KSBY-	San Luis Obispo CA	Tr	190	Paul Johnson, Oakland CA	Miltier 155
	TVN	Habana Cuba		255	Dick Clark, Fort Lauderdale FL	none
7	KABC-	Los Angeles CA	Es	1265	Robert Grace, Franklin TX	WKBW-TV Lowry 1220
	WKEX-	Buffalo NY	MS	460	Gary Olson, Deerfield IL	none
	WNNY-	Watertown NY	rest Tr	610	Dave Janowiak, Greenfield WI	Draeb 580
8	KPTS	Hutchinson KS		495	Glenn Hauser, Calvert TX	Neal 215
	KESD-	Brookings SD		455	Ferdinand Dombrowski, Milwaukee WI	Janowiak TIE
	CKNX-	Wingham Ont		340	Ferdinand Dombrowski, Milwaukee WI	Keene 680
	XHAH-	Las Lajas Ver		805	Ron LeBlanc, Marrero LA	Ruland TIE
9	WTWV	Tupelo MS		500	Robert Cooper, Oklahoma City OK	Jim Brown 440
	XHFN-	Saint Louis MO		605	Ron LeBlanc, Marrero LA	Hauser 495
	WFLG-	Tampico Tams		660	Ron LeBlanc, Marrero LA	Cox 685
10	WPLG-	Miami FL		1055	Glenn Hauser, Bremond TX	Heusmann TIE
	WHEG-	Rochester NY		525	Gary Olson, Deerfield IL	Rareshide/LeBlanc 550
11	WLNK-	Fort Myers FL		955	Glenn Hauser, Bremond TX	none
	KHMA-	Houma LA		560	Robert Cooper, Oklahoma City OK	Cooper 190
12	KGOY-	Santa Marfa CA		230	Paul Johnson, Oakland CA	Bourgeois 670
	WEAT-	West Palm Beach FL		1050	Glenn Hauser, Bremond TX	Cooper 725
	WLSN-	Milwaukee WI		920	Ron LeBlanc, Marrero LA	none
	TVN6	Pinar del Rfo Cuba		350	Dick Clark, Fort Lauderdale FL	Brown 600
14	KMEG	Sioux City IA		1280	Chris Hall, Salem MA	Hauser 600
	WMAW	Meridian MS		680	Morrie Goldman, Chicago IL	Clark 490
	WEBA-	Allendale SC		580	Steve West, Havertown PA	Clark 470
15	WDCO-	Cochran GA		830	Robert Cooper, Oklahoma City OK	Brown 440
	WLYH-	Lebanon PA		625	Bill Draeb, Kewaunee WI	Seybold 360
	WEBA-	Roanoke VA		445	Roger Brown, East Lansing MI	Clark/Frantz 190
16	WUSF-	Tampa FL		490	Ron LeBlanc, Marrero LA	Clark 740
	WAPT	Jackson MS		800	Roger Brown, East Lansing MI	Draeb 625
	KUHL-	Joplin MO		655	Roger Brown, East Lansing MI	Hauser 485
	KEDT	Corpus Christi TX		530	Robert Cooper, Oklahoma City OK	Neal 460
17	WMAU	Bude MS		860	Roger Brown, East Lansing MI	Vogt 315
	KCBJ-	Columbia MO		500	Roger Brown, East Lansing MI	none
	WUNE-	Linville NC		495	John Comstock, Crosswell MI	Draeb TIE
18	WMAV	Oxford MS		585	Don Ruland, Kenosha WI	Hauser 575
	WSYE-	Elmira NY		555	Gary Olson, Deerfield IL	Brown 260
				tie	Don Ruland, Kenosha WI	LeBlanc 570
19	WMAH	Biloxi MS		870	Roger Brown, East Lansing MI	Brown 425
	CIGA-	Toronto Ont		430	Ferdinand Dombrowski, Milwaukee WI	Cooper 655
				tie	Don Ruland, Kenosha WI	Rosenberg/Seybold 260
20	WEBH-	Fort Myers FL		960	Glenn Hauser, Bremond TX	none
21	WHP-	Harrisburg PA		610	Bill Draeb, Kewaunee WI	none
23	WKZT	Elizabethtown KY		760	Glenn Hauser, Franklin TX	Neal 315
	WKAR-	East Lansing MI		635	Dave Pomeroy, Topeka KS	Seybold 455
	WMAO	Greenwood MS		415	Robert Cooper, Oklahoma City OK	LeBlanc 495
	WNJS	Camden NJ		90	Tom Yingling, Dundalk MD	Heusmann 600
25	WNYE-	Brooklyn NY		15	Jerry Pulice, Staten Island NY (delete)	Smith 155
27	WRFT-	Roanoke VA		545	Don Ruland, Kenosha WI	Brown 440
29	WUTV	Buffalo NY		450	Morrie Goldman, Chicago IL	Draeb 440
				tie	Gary Olson, Deerfield IL	Cooper 510
33	WRBT	Baton Rouge LA		925	Roger Brown, E Lansing MI	none
34	K34AA	Salina KS		100	Dave Pomeroy, Topeka KS	Neal 315
36	KGTO-	Fayetteville AR		370	Hauser, Franklin TX	Seybold 455
38	WPNE	Green Bay WI		540	D. Pomeroy, Topeka KS	LeBlanc 495
40	WXLT-	Sarasota FL		1060	Cooper, Okla City OK	Heusmann 600
	WICZ-	Binghamton NY		605	Don Ruland, Kenosha WI	Smith 155
				tie	Gary Olson, Deerfield IL	Brown 440
43	KICU	Visalia CA		160	Randy Miltier, Campbell CA	LeBlanc 480
	WSBA-	York PA		630	Bill Draeb, Kewaunee WI	Draeb 595
44	WTOG	Tampa FL		1035	Cooper, Okla City OK	none
46	WSKG	Binghamton NY		600	Gary Olson, Deerfield IL	Frantz 10
48	KFTY	Santa Rosa CA		50	Paul Johnson, Oakland CA	Lewis/Rosenberg 455
51	WKLD	Fort Lauderdale FL		660	Ron LeBlanc, Marrero LA	Cooper 620
52	WKON	Owenton KY		835	Glenn Hauser, Franklin TX	none
53	WKGB	Bowling Green KY		700	Glenn Hauser, Franklin TX	Seybold 405
	WNVT	Goldvein VA		290	Robert Seybold, Dunkirk NY	Levstein/Dombrowski 260
57	WKYH	Radway KY		545	Bill Draeb, Kewaunee WI	Glenn
70	WBGU-	Bowling Green OH		290	Bill Draeb, Kewaunee WI	



Until the next, 73 de Glenn

EASTERN TVDX

Dave Pomeroy
KTWU-Channel 11
Signal Hill
Topeka, Kansas 66604

It's winter, but you wouldn't know it from the TV-DX reports sent by eastern DXer's this month. Skip has appeared all over the east from Quebec to southern Florida and Louisiana. December brought identifiable skip to eastern reporters on 11 days. (2,3,4,5,9,12,13,17, 18,19,20) As you can see, skip was bunched near the beginning and middle of December. Highlight day was the 17th when 5 reporters indicated ID's from skip stations. The 19th was also outstanding with 4 reporters reporting Es. Tropo, Aurora, and Meteor Scatter were also noted but results were not outstanding for the most part except for Ron Le Blanc's 700 mile catch of re-log XHX-10 on December 1.

Richard Peary 216 Acadia Circle Fairfield, Alabama 35064 (EST)

12-17 Es 1700 WBZ-4 Boston, MA	12-19 Es 1906 KTVS-3 Sterling, CO
12-19 1900 KCKT-2 Great Bend, KS	1930 KOA-4 Denver, CO
1901 KWGN-2 Denver, CO	12-20 1900 UNID-2 North Dakota

(Your channel 2 report for 12-20 from North Dakota is a mystery. KTOP call letters are used by an AM station here in Topeka. Channel 2 in North Dakota is KDIX in Dickenson. Could the station have been KNOP-2 from North Platte, Nebraska? dp)

David J. Egan 12a Andrew Valleyfield, Quebec (EST)

11-18 Tr 0140 CBLT-5 Toronto (285)	12-19 Es 1740 WUNC-4 Chapel Hill, NC(700)
0225 CJOH-6 Desoronto,Ont(165)	1746 WCCO-4 Minneapolis, MN(920)
12-10 Ms 0739 UNID-6 WITI Milwaukee?	1859 WJXT-4 Jacksonville,FL
12-11 0630 WLWD-2 Dayton, OH (650)	1911 WDAF-4 Kansas City, MO
0650 WTWO-2 Terre Haute,IN	1929 KMOX-4 St.Louis, MO (945)
12-17 Es 1202 UNID-4 religious programming	1724 KCMO-5 Kansas City, MO
12-18 1100 WJXT-4 Jacksonville, FL	1729 WCSC-5 Charleston, SC (910)
12-19 "best skip day since early August"	1930 UNID-5 KSD? St. Louis
Au 1700 CBHT-3 Halifax, NS"antenna north"	"KMOX-4 was in"
Es 1815 KTVO-3 Ottumwa, IA (965)	12-20 1702 WEAR-3 Pensacola, FL (1250)
1815 KGLO-3 Mason City,IA(970)	12-25 Au 2135-2200 UNID-3 PBS or CBC program
1919 KYTV-3 Springfield, MO (1135)	"Could be anything from WEDU to CBHT or anything. I had antenna in north pos."
Au 1707 UNID-4 Newfoundland?	

Thomas J. Yingling 221 Pinewood Road Baltimore, Maryland 21222 (EST) (WDX30MY)

"The Ms in December was dead here. I lost plenty of sleep for a week. But my staying up late did pay off at least on January 4. On the skip of December 17 was first noticed in morning when I checked barometer and noticed it rose 6-points over night. Semi-local WRC-4 operating at low power on 17th. This may explain why I did so well on channel 4. Also, I was shocked to see WTAE-4 on skip at 300 miles. (It must have been tropo. dp)

12-13 Es 1730 WKY-4 Oklahoma City, OK	12-17 Es 1730 WOI-5 Ames, IA 3333N1100
1745 KATC-3 Lafayette,LA 3333R1150	to KPLO-6 RelianceSD3333R1100
12-17 1125 KARK-4 Little Rock 3333N0975	1900 KHTL-4 SuperiorNE3333N1200
to WDAF-4 Kansas City 3333R1025	2030 WAVE-3 Louisville3333N0550
1500 KHPL-4 Hayes Center,NE3333R1275	KGLO-3 Mason City3333R0950
KHAS-5 Hastings, NE 3333N1250	12-19 1930 WCCO-4 Minneapolis,MN 1000
WOW-6 Omaha, NE 4444R1100	WAT1-6 Milwaukeee 3223R0700
1730 KTVG-6 Ensign, KS 4444N	12-24 Tr 2100 WWBT-12 RichmondVA4444R0190
to WATE-6 Knoxville, TN 4444N0520	to WTVR-6 RichmondVA4444R0190
1900 WPSD-6 Paducah, KY 4444N0725	2300 WCAU-10 Phila,PA 4444R0090
WTVN-6 Columbus, OH 4444N0390	KYW-3 Phila,PA 3333R0090
WTMJ-4 Milwaukee, WI 4444R0700	WCBS-2 New York 2222R0200
WTAE-4 Pittsburgh,PA 3333N0210	WNEW-5 New York 3333R0200
KSTP-5 St.Paul, MN 4444R1000	WNBC-4 New York 4444R0200

Gregg A. Calkin P.O. Box 1345 Station B Ottawa, Ontario K1P5R4

12-17 Tr 0445 WNPE-16 Watertown, NY	12-30 Tr 0632 CHOV-5 Pembroke, Ontario
0450 WNPI-18 Norwood, NY	0650 CJS5-8 Lancaster, Ontario

"This is my my first report and contains very little as I am just resuming TV-DX after many years absence and following several visits to the shack of Glenn Hauser whose expertise impressed me no end. Presently suffering from heavy cable interference within my building and lack of an outside antenna, but hope to solve the latter soon with the erection of a UHF aerial at the very least. So far, only semi-locals...Incidentally, WNPI is listed in TV GUIDE as being in Norwich, NY which is not correct."

Ronald J. LeBlanc 2524 Arizona Drive Marrero, Louisiana 70072

"Things were pretty dull here until December 5 when we had a good skip opening. It went all the way up into the FM band. Nothing new logged on TV, but two new on FM. Skip noted here December 2-5. Tropo-wise it has been the usual stuff from Texas and Florida."

11-12 Tr 0703 WYEA-38 Columbus, GA 3325R0337	12-1	2131 KVUE-24 Austin, TX	3435R0460
0720 WSFA-12 Montgomery 3333R0289		0005 KSAT-12 San Antonio, TX	3332R0510
0810 WJCL-22 Savannah, GA 3225R0564		0006 KPRC-2 Houston, TX	3445R0321
0950 WBMG-42 Birmingham 3225R0320		0008 KTRK-13 Houston, TX	3334R0321
11-20 2230 WXL-40 Sarasota, FL 3345R0503		0012 KHOU-11 Houston, TX	3345R0321
2231 WTOG-44 St. Pete, FL 3345R0488		0049 KTBC-7 Austin, TX	3334R0460
2235 WBBH-20 Ft. Myers, FL 3325R0564		0125 KFDM-6 Beaumont, TX	3344R0244
2240 WTVT-13 Tampa, FL 3353R0488		0150 KLRN-9 San Antonio, TX	3345R0510
2300 WKID-51 Ft. Lauderdale R0676		0151 WFAA-8 Dallas, TX	4455R0456
2345 WINK-11 Ft. Myers, FL 3335R0564		0156 KENS-5 San Antonio, TX	2335R0510
2400 WEAT-12 W. Palm beach 3325R0666		0200 KTBS-3 Shreveport, LA	3345R0289
12-1 1800 WYEA-38 Columbus, GA 3355R0337	12-2	Es UNID-2 Spanish--no ID's	
2050 KHFI-42 Austin, TX 3354R0460		2000 WJBK-2 Detroit, MI	4342R0945
2100 XHX-10 Monterrey, NL 4453R0700	12-4	1825 UNID-2 Denver? Flagstaff?	
2130 KHTV-39 Houston, TX 3335R0321	12-5	Tr WBAP-5 Dallas, TX	2235R0456
"Tropo so low for this time that I expect a super opening at any time. Total now 275."		0100 KTVT-11 Ft. Worth, TX	2225R0485
		Es 1704 WJBK-2 Detroit, MI	4332R0945

Jim Hayes 9 Henry Street Wilkes-Barre, Pennsylvania 18702 (EST)

"A really great winter season so far as Es goes. Anyone who says 1972 was a bad Es year ought to have their sets examined. I hope these Es mean something about a summer '73."

12-17 opening got up to about 96MHz a couple of times here. Total now 126. 73's in '73."			
11-10 Tr 0830 WTRF-7 Wheeling, WV 3552R	12-13	Es 1830 KTRS-3 Shreveport, LA	4533R
0900 WSTV-9 Stubenville, OH 4425R		2000 WBRZ-2 Baton Rouge, LA	4533R
11-12 1120 WNY5-9 Syracuse, NY 0555R	12-17	1100 WCBI-4 Columbus, MS	3322R
1135 WKTV-2 Utica, NY 1443R		1130 WBRZ-2 Baton Rouge	5333R
12-2 Es 1704 KTEW-2 Tulsa, OK 4222R		1200 KCMO-5 Kansas City, MO	5542R
2000 KETS-2 Little Rock, AK 3025R		1229 KTEW-2 Tulsa, OK	4433R
12-9 1300-1337 UNID-2		1300 KOCO-5 Oklahoma City, OK	4023R
12-10 Ms 0930 "some dandy bursts on 2 & 3"	12-18	1900 WDIQ-2 Dozier, AL	4222R
12-13 0915 "excellent bursts on 2"		1900 WSB-2 Atlanta, GA	3011R
Es 1800 KPRC-2 Houston, TX 4422R		1900 WRBC-3 Chattanooga, TN	3013N
1800 KETS-2 Little Rock 4432R		2030 WMAB-2 State College, MS	3522R
1830 WDIQ-2 Dozier, AL 4022R			

Ken Simon 528 Pilgrim Road West Palm Beach, Florida 33405 (EST)

12-1 Tr 1930 WESH-2 WDBO-6 WFTV-9 FL	1-1	Tr 2000 WESH-2 WDBO-6 Orlando, FL
12-5 Es 1826 KTVI-2 St. Louis, MO (1020)	1-2	2100 WESH-2 WDBO-6 Orlando, FL
1834 KTV0-3 Ottumwa, IA (1180)	1-3	0740 WESH-2 Daytona Beach, FL
1928 KQTV-2 St. Joseph, MO (1220)	1-4	0715 WESH-2 WDBO-6
12-17 Tr 1225 UNID-2 "canal 6"		Es 2000 KBTX-3 Bryan, TX
12-24 0930 WESH-2 WDBO-6 WFLA-8 WFTV-9		2025 XHY-3 Merida, Yucatan
WTVT-13 WBBH-20 WTOG-44	1-5	Tr 2100 WESH-2 WDBO-6
12-25 0825 WBBH-20 Ft. Myers, FL	1-6	0500 WESH-2 WDBO-6
12-28 0600 WDBO-6 WFLA-8 WTVT-13	1-7	Es 1310 WBSB-2 New York City, NY
		1315 WGR-2 Buffalo, NY

"It's a shame my antennas are so BAD. 24th tropo opening might have really been good. Oh well, I'm saving my pennies for a good yagi, rotor, and dish. Dishes are big here since Miami Dolphins games on WKCT-7 and WPTV-5 are blacked out, but WBBH-20 at about 100 miles carries the games. WPBT-2 blocks out games from WESH-2. What about club using GMT instead of local times? (No, no kinfolk that I know of in Florida. dp)

Robert B. Frantz 4380 N.W. 42nd Street Ft. Lauderdale, Florida 33313 (EST)

11-5 Tr 1000 WJCL-22 Savannah, GA (532)	12-26 Tr 0900 WXL-40 Sarasota, FL (160)
(from Key West, Florida)	0905 WTOG-44 Tampa, FL (180)

"I DX from a number of locations and picked up a nice one from Key West. I picked up at least 15 UHF stations on that morning and didn't have time to log ID's. I DX UHF only."

Paul D. Traska 64 Weaver Street Buffalo, New York 14206 (EST)

11-11 Tr 0214 WRFT-27 Roanoke, VA "Reception very good--program was '700 Club' "
 "The weather here in Buffalo is NO GOOD for DX'ing. One day it rains, freezing rain, then snow--just messy-messy. There were very many relogs on that date. Good DX and Happy New Year."

CENTRAL TV DX

Roger H. Brown
1617 Linden St.
E. Lansing, MI 48823
(517) 351-6126

February 1973

Next Deadline: 15 February '73

For TV-DX reports from Wi, Il, In, Mi and Oh.

Support your club and column!!!

DX is quite abundant, considering the season. You part timers who have returned to BCB are missing some action! Winter Es have been quite evident. Skip reported on 11-26, 12-2, 5, 13, 14, 17, 19, 20, 24, 1-2, 8 and 14. That's from only a couple of reporters! Hope more people support the column before summer...might be interesting.

Tropo has made an occasional appearance also. I suppose we see more tropo because of better gear but I also think conditions have been up quite a bit too. Ducting was noted by several people at various times...particularly on 12-23...and as I write the column on 1-17.

There have been several station changes in the Great Lakes area. KFIZ-34 is off..looks like permanently. WSWO-26 is also dark (again). WGVC-35 Grand Rapids, MI is on. WXON-20 replacing WXON-62 is on with a daily sked of about 1500'til 0000. WGVC-35 is PBS...WXON-20 is syndicated reruns plus religious. Also...WNPB-13, Marquette, MI is on with low power. They're PBS too.

To the reports:

Gary Olson, 1203 Kenton Rd., Deerfield, IL 60015 CST

12-17 Es 1000	WFBC-4 Greenville, SC (575)	12-23 Tr 1830	WMAA-29 Jackson, MS (690)
1030	WWAY-3 Wilmington, NC (765)	1915	tent WUTV-29 Buffalo
tent	WEAR-3 Pensacola, FL (940)	1930	WMAW-14 Meridian, MS (680)
1830	KTWO-2 Casper, WY (950)	2000	WDXR-29 Paducah, KY (345)
12-21 GW 1900	WGVC-35 Grand Rapids, MI (140)	2030	WXON-20 Allen Park, MI (260)

December 23 tropo opening was a pleasant surprise here. I only regret the ducts petered out so early in the evening...there were many other possibilities for Midwesterners. Local talk is of an unusual winter Es peak with a quantity of openings. Happy '73!

Bill Draeb, Ellis St. RR #2, Kewaunee, WI 54216 CST

11-15 Tr 1640	KDNL-30 St. Louis, MO	11-27 Tr 1935	WKEF-22; WOSU-34 Columbus
	WAND-17 Decatur, IL		1940 WOET-16 Dayton, OH
1825	WDXR-29 Paducah, KY	11-29 Tr 1520	WOET-16, 1607 KDNL-30
	WICS-20 Springfield, IL		1615 WLKY-32 Louisville, KY
1848	WKEF-22 Dayton, OH	11-30 Tr 1709	WOET-16, WKEF-22, WUAB-43
1940	WFYI-20 Indianapolis, IN		WKBF-61
11-16 Tr 1710	WUTV-29 Buffalo, NY	12-2 Es 1835	tent 2,4 and 5 Salt Lake City
	WBRE-28 Scranton, PA (650)		plus possible Denver, plus Ø
2210	WDAU-22 Scranton, PA (650)		offset 4, teng KAID-4
11-17 Tr 1645	WUTV-29; 2050 KDNL-30	1848	WJXT-4 Jacksonville, plus unids
11-20 Tr 1645	WOET-16, WKEF-22 Dayton	12-13 Tr 1615	WOET-16, WKEF-22, WKYT-27,
	WSWO-26 Springfield, OH		WLKY-32, WFYI-20
11-22 Tr 1720	KDNL-30; WLKY-32 Louisville		1638 KDNL-30; 2235 WDRB-41
	WURD-40 Indianapolis	12-14 Es 1625	KATC-3 Lafayette, LA
	WFYI-20, WOET-16, WKEF-22		1630 KJAC-4 Port Arthur, TX plus
2043	WKYT-27 Lexington, KY		tent WBRZ-2, KPRC-2, KBTX_3,
11-23 Tr 1825	KHNE-29 Hastings, NE		KTBS-3, WWL-4, KFDM-6
11-24 Tr 0842	WKYT-27, WLKY-32, WDRB-41	Tr 2020	WOET-16, WKEF-22, WFYI-20,
	WUAB-43 Cleveland		WURD-40, KDNL-30,
1612	WURD-40, WFYI-20, WIPB-49	12-17 Tr 1053	WKEF-22; 1930 WOET-16
1620	WKEF-22 Dayton; 1630 WKBF-61	Es 1130	WJXT-4 Jacksonville, FL
2003	MS-like burst, 10KC off		WESH-2 Daytona Beach, FL
	WKOW-27, SW. (Lightning		WDBO-6 Orlando, FL
	scatter Bill, I'd guess.RB)		WRBL-3 Columbus, GA
11-26 Es 2015	Unid-2+, NBC to South,	1138	WTVY-4 Dothan, AL
tent.	KMID-2 Midland	1155	WKRK-5 Mobile, AL

Draeb, cont.

12-17 Es 1715 KDUH-4 Hay Springs, NE	12-26 Tr 1839 KDNL-30; 1849 KCBJ-17
1800 KWGN-2, KOA-4 Denver	2022 WKBF-61, WKEF-22; 2025 WOET-16
12-18 Tr 1648 WKYT-27 Lexington, KY	2118 WUAB-43 Cleveland
WLKY-32, WDRB-41 Louisville	12-27 Tr 1030 KDNL-30 St. Louis, MO
1903 WXON-20 Allen Park, MI	1714 WOET-16, WKEF-22 Dayton
2055 WVC-35 Grand Rapids, MI	1-1 Tr 1939 KDNL-30 St. Louis
12-19 Es 1600 CBHT-3 Halifax, NS	1943 WKEF-22 Dayton, OH
CKCW-2 Moncton, NB	1-2 Es 1655 Unids on 2 and 3
1710 WGBH-2 WBZ-4 Boston, MA	Tr 1830 WVIZ-25, WUAB-43, WKRF-61
WTIC-3 Hartford, CN	1-3 Tr 0705 WKEF-22; WKMR-38 Morehead
1830 WTAR-3 Norfolk, Va plus	0718 WOET-16 Dayton, OH
several tent. Canadians, NE	1115 WJET-24, WSEE-35, WQLN-54 Erie
12-20 Es 1825-WOAI-4 San Antonio, TX	all snowfree plus WUAB-43, WKBF-61
plus Unids on 2-4	1144 WUTV-29 Buffalo, NY
12-22 Tr 1810 WICS-20, KDNL-30, WURD-40	1-5 Tr 1145 WVIZ-25, WUAB-43, WKBF-61
KMTC-27 Springfield, MO	1149 WKEF-22 Dayton
1841 KCBJ-17 Columbia, MO	1700 WOET-16 Dayton
1920 WAND-17; WUSI-16 Olney, IL	1-6 Tr 1124 WOET-16, WKEF-22
2209 WDXR-29 Paducah, KY	1-7 Tr 1840 WOET-16, WKEF-22, WVIZ-25, WUAB-43
12-23 Tr 1030 KDNL-30 St. Louis (CB TP)	WKYT-27 Lexington
WAND-17 Decatur, IL	1-8 Es 1610 Unids, SE on 2 and 4
1455 KCBJ-17 Columbia, MO	Tr 2010 WOET-16, WKEF-22, WVIZ-25, WUAB-43
1505 WKYT-27, WKEF-22	1-10 Tr 1721 KDNL-30 St. Louis
1517 WLKY-32; 1713 WSVN-47 Norton	
WCET-48 Cincinnati, WIPP-49	Got a verie from 9-20 reception of WRFT-27
1720 WKPT-19 Kingsport, TN	No word yet on tent. KDSD-16 Aberdeen.
1752 WKLE-46, WBLG-62 Lexington	KFIZ-34 Fond du Lac off since 11-30 due to
12-24 MS 0637 WCBD-2 Charleston, SC	financial difficulties. One less U to worry
Es 1100 Unid-2	about, hi. (...one less place for people
	fo find work.RB) Log now at 494

Don Ruland, 4448 68th Place, Kenosha, WI 53140

12-11 MS 0459 WSYR-3 Syracuse, NY (590) TP	12-23 Tr 1700 WKPT-19 Kingsport, TN (510)
12-13 MS 0448 WSYR-3 Syracuse. Monitored ch 7	WXIX-19 Cincinnati (300)
0500-0520..10 to 12 bursts noted with	1900 WDXR-29 Paducah, KY (380)
3, 1 to 2 seconds long. All	WHTV-24 Meridian, MS (720)
programming.	2030 WMAW-14 Meridian, MS (720)
0656 KATC-3 Lafayette, LA TP	1-3 Tr 0545 WLFX-18 Lexington, KY (360)
12-14 Es 1830 tent CKCK-2 Regina, Sask	WLKY-32 Louisville, KY (330)
2000 KRTV-3 Great Falls, MT (1180)	0659 WKMR-38 Morehead, KY (380)
12-15 Tr 0535 WTVN-6 Columbus, OH (320)	1-14 Es Unid ch 2 and 3 from East, 1530-
MS 0531 WCIV-4 Charleston, SC (810)	1645
12-17 Es 1100 WWAY-3 Wilmington, NC (790)	
12-19 Es 1715 WLBZ-2 Bangor, ME (950)	The 12-23 tropo was really a pleasant
1800 KIII-3 Corpus Christi, TX (1160)	surprise...the Mississippi stations were
12-20 GW 1930 WVC-35 Grand Rapids, MI (120)	quite weak in signal strength...certainly
12-22 Tr 2000 KDNL-30 (300), KCBJ-17 (340)	would have missed them without the CMA-U.
12-23 Tr 0548 KFVS-12 Cape Girardeau (370)	Noticeably more Es noted in December than
0556 KTHV-11 Little Rock (600)	last year but the December MS showers were
0608 KPLR-11 St. Louis (300)	less productive. Es on 1-14 came during the
0730 WLKY-32 Louisville (330)	super bowl...making IDs a bit difficult..hi!
0755 WVIZ-25 Cleveland (310)	(Don..good going on WHTV-24 Meridian..they
0930 WUAB-43 (310), WKBF-61 (310)	returned to the air on 12-7! Late word
WAKR-23 (340)	via phone from Don indicates 1-15 thru 17
1000 KDNL-30 St. Louis (300)	period good in Chicago area..he had several
1100 WHIZ-18 Zanesville (360)	new on morning of 1-17 plus UHF to 450 mi.
1200 WOSU-34 Columbus (320)	When Don says he got it..you KNOW he got it..
	that's nice! RB) LOG: 286

Roger H. Brown, 1617 Linden St., E. Lansing, MI 48823 EST

- 12-5 Es 1900 KATC-3 Lafayette, LA (900)
- 1910 WBRZ-2 Baton Rouge, LA (930)
- 12-7 Tr 1915 WICS-20 Springfield, IL (340)
- 12-9 GW 1900 WXON-20 Allen Park, MI (60)
- w/ studios in Walled Lake and TX in Southfield, serving Detroit!
- Seen years ago as WJMY-20
- 12-13 Es 1900 Weak, Unid on **2-3**
- 12-14 Es 1730 WOAI-4 San Antonio, TX (1200)
- 1830 KJAC-4 Port Arthur (1000)
- Tr 2200 WAND-17 Decatur, IL (300)
- 12-17 Es 1255 to channel 4, Unid but strong
- In again unid at 1900.
- 12-18 2000 WGVC-35 Grand Rapids, MI (70)
- 12-19 Es 1740 CBHT-3 Halifax, NS (1100)
- CJBR-3 Rimouski, Que (1000)
- 1800 CJCB-4 Sydney, NS (1200)
- WLBZ-2 Bangor, ME (900) all in and out 'til 1945
- 12-22 MS 0215-0330 Unids 2-6 during Ursids shower. Also several CCI bursts on 8-9
- 1-17 Tr 0825 KVFD-21 Fort Dodge, IA (450)
- 0826 KMEG-16 Sioux City, IA (590)
- 0835 KXNE-19 Norfolk, NE (650)

Unusual amount of Es, I think. A good sign? Pat? Bob C? What think? Was on way to Chicago on 12-23 missed tropo.

Since Don Ruland is our new FCC-TV editor...and since I have more contact with him than I did with Chuck Dobbins, I'll send notes on new stations to him. Chuck did a darn good job. It's hard to keep up with station activities without certain sources...and Don will (I think) be in closer touch with those sources.

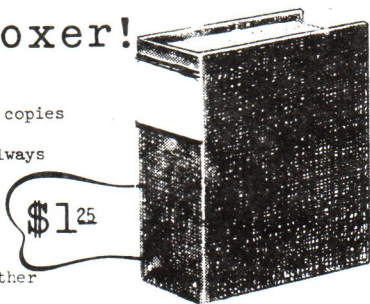
I noted that Don's loggings are very sure things. That's not to say that most of the loggings carried in this column are not. Don doesn't report a station unless he sees an ID or an impeccable bit of local info. Many of the reports carried in these pages are of stations seen...but just BARELY seen. But...they're seen so often that the experienced reporter KNOWS what he's watching. I don't like CCI sightings reported as stations seen...but I suppose it happens...and I can't do anything about that. This is just to let welcome newer readers now that some of the things reported here are not at all watchable. (some folks wonder if ANYTHING on TV is watchable but..)

Finally...a late report from our January thaw, still in progress as this is being completed on 1-18. At this location...VHF was better than UHF late on 1-17 with stations to 250 miles very good...near snow free. However, no ducting was noted after early morning on 1-17. Perhaps the high pressure center was too far SE, and not enough cold, dry air is behind an approaching cold front. The more I understand and observe tropo... the less I seem to know! Peace. 73 Rog.

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WESTERN TV DX

Dennis Park Smith
 1200 W. Sacramento Ave., #15
 Chico, California 95922
 Telephone 916 343-3863
 Deadlines: 12th of each month

February 1973

There was very little tropo seen in December, aside from that early in the month reported last time. The only other was around dates 21-22-23 when DXers in Kansas, Oklahoma and Texas saw UHF up to 500 miles eastward. Cold weather this winter including ice storms down into the South has kept tropo from developing much. Bob Cooper observed some interesting meteor-scatter 19-20-22 in Oklahoma. There were a number of good sporadic-E openings above 54 MHz, quite intense at times, though more so in the South than in northern areas (for example, MUF on 14th was ch.3 in Kansas and Oklahoma and ch. 5 in south Texas; on 17th, ch.5 in North Dakota and into FM in Oklahoma).

This winter, much of the Es has been from easterly directions rather than the usual southern and Latin-American predominance. (*5 Dec MUF at least 88.5, maybe even 94.5)
Es dates: December 2 3 4 5 9 10 13 14 16 17 19 20 21 23 25 Jan 1 3 5 6 8
Number of reporters: 3 1 1 2 2 1 2 4 1 2 3 3 1 1 1 3 1 1 1
MUF at least (ch/freq): 5 3 2 6# 3 2 105.9 5 2 FM 107.1 95.1 2 2 4 3 2 6 3 90.5

Joseph A. Markewicz, 1394 Elgin Avenue West, Winnipeg, Manitoba R3E 1B6 (Oct-Dec) (CST)

The first new TV station this fall came in the form of CJAY-TV-2 ch. 4 Brandon, Man (120mi). This new station has been heard on and off since beginning of Nov. with CCI from semi-local CBWT-2 4 and KXJB-TV 4. Since I have to get up for work at 0545 I've noticed CJAY2 comes on the air at 0600 // to CJAY-TV ch.7 Winnipeg with University of the Air, Romper Room 0630 and Canada A.M. 0700. So CJAY2 is all alone until KXJB comes on at 0630 and CBWT2 at 0800, and should be one to watch for MS and it should skip out pretty well this summer. I don't know how well CJAY2 would be heard at Camp Morton as I haven't been there this fall but it'll be a good catch for me up there because of my local CBWT2 4 which blocks ch.4 for me. Some of my other locals in Camp Morton include CBWFT 3 & CBWT 6 Winnipeg and CBWGT 10 Fisher Branch, Man and all are CBC so some people here wonder why they should have 4 CBC locals while places like God's Narrows have none. My semi-locals there include CKX-TV 5 Brandon, CJAY-TV 7 Winnipeg, WDAZ-TV 8 Devils Lake, ND, KTHI 11, KCND-TV 12 Pembina, ND; all are heard daily with rock-steady signals and average pictures. The only chs. clear of stations are 2 & 9. The only time CJAY mentions their new station is at beginning and ending of day when they might say, "This is C-JAY-TV Winnipeg and C-JAY-TV-2 Brandon." 73.

Fred McCormack, Des Lacs, North Dakota 58733 (September-December) (CST)

Very little DX has been noted since my last report in October. In fact, none until December. Two new stations were added. CJAY-TV-2 ch.4 Brandon was first seen on in December. They are transmitting from a joint tower with CKX-TV 5 Brandon. It is a welcome station here as it provides the most reliable CTV program source with reception being viewable about 50% of the time. It is generally stronger than CKX. 73.
 D9 Es 1058 WTAR- 3 Norfolk VA 3335N1500 (17XEs) 1200 WPMY- 2 Greensboro NC 4444R1390
 1100 WPMY- 2 Greensboro NC 3335R1390 1201 WRAL- 5 Raleigh NC 3335R1400
 17 Es 1127 WFBC- 4 Greenville SC 3335R1345 1210 WSAZ- 3 Huntington WV 3334R1175
 1130 WBTV 3 Charlotte NC 3234R1385 23 tr 0840 CJAY2-4 Brandon Man 3445N 130

Dave Pomeroy, KTWU Channel 11, Washburn University, Signal Hill, Topeka, Kansas 66604 (Home address: 5231 W. 31st Street, Topeka, Kansas 66606) (December) (CST)

Not much going on DX-wise. Did take advantage of an "off-season" skip opening on 12/14. Veries in from WPNE-38 WI, WUHQ 41 MI, WKAR-23 MI. Best Wishes for New Year!
 2 tr 0800 KCBJ 17 Columbia MO (14XEs) 1705 WSAV- 3 Savannah GA
 14 Es 1655 WCEB 2 Charleston SC 21 tr 2230 KVPD-21 Fort Dodge IA

Bob Cooper, Jr., 4670 Willard Drive, Oklahoma City, Oklahoma 73105 (9 Dec-2Jan) (CST)

The only activity of note here this period has been some Es. Tropo has been very poor, at least when I have been in OKC to observe. There have been a few minor breaks during the period, I am told (by local spies) but they occurred when I was elsewhere.
Dec 9 Es 1000 tune-in, ch 2 ESE, no Id; 1200 t/in, ch 2 NE, no Id.
Dec 10 Es 1840 tune-in, ch 2, apparently SE, no Id.
Dec 14 Es 1615 t/in, ch 2: 1630 WMAR-2 Baltimore MD and WSAZ-3 Huntington WV; 1700 WUND-2 Columbia NC; 1710 WCEB 2 Charleston SC.
Dec 16 Es 1100 t/in to 1130, weak ch 2, apparently NE, no Id.
Dec 17 Es 0950 t/in, ch 2,3; 1000 WSYR-3 Syracuse NY and CBFT 2 Montreal Que.
 By this time, Es to ch.6 and into FM, continued heavy for several hours with tentative WKTU 2 Utica NY and many others.

- (Dec 17 Es) 1159 WTIC-3 Hartford CT (1401 mi) for state number 41 and ch-3 # 56;
 1226 KYW-3 Philadelphia; 1315 Es out; 1610 Es back w/FM activity also;
 1705 approximately, Es faded with no new Ids.
 This session seemed to be very stationary into eastern NY & PA region.
- Dec 19 MS 1914-1915 heavy MS burst with apparently some Es around.
 MS produced GCI up to ch 12, burst apparently from east, with NBC on ch 7,
 plus-offset on ch 12, plus-offset on ch 7. No Ids.
- Es 2145-2205, in & out to NNE and north; suspect Es cloud was just north of
 me and too close for anything but skip in 400-500-mile class.
- Dec 20 MS 0509 WSB-2 Atlanta GA. Dec 22 MS 0544 WSM-4 Nashville
 Es 1917 t/in, apparently east, ch 2, no Id. | TN (s/on sequence); 0546
- Dec 21 Es 1913 t/in until 1921, ch 2 WNW, no Id. | WTAE-4 Pittsburgh PA (call).
Dec 22 tr 0621 KHTV 39 Houston TX (420 mi), K70EK Manhattan KS (125 mi).
Jan 1 Es 1545-1548 WCBS-2 New York NY; 1805-1930 WESH-2 Daytona Beach FL. 73.

Pat Dyer, 5315 Silvertip Drive, San Antonio, Texas 78228 (10 Dec - 10 Jan) (CST)

- Receiver: 1971 model Penncrest 9-inch black-and-white
 Antennas: 6-element hi-low VHF Yagi and 8-bay UHF bow-tie at 12 feet
 It seems the sure way to get some DX is to mail a report off--and then it comes.
- | | | |
|---|--|------|
| <u>13 Es</u> 1440 unId 2 (Spanish) | <u>20 Es</u> 1810 <u>WBEM- 2</u> Chicago IL | 1050 |
| 1540 unids 2,3 (Spanish) | 1815 <u>WBAY- 2</u> Green Bay WI | 1190 |
| 1559 <u>WDIQ</u> 2 Andalusia AL | 1845 <u>WISC- 3</u> Madison WI | 1075 |
| 1725 <u>WJBK- 2</u> Detroit MI | 1900 <u>WKZO- 3</u> Kalamazoo MI | 1145 |
| <u>WBAY- 2</u> Green Bay WI | 1930 unids 2-6 (MUF to 95.1) | |
| 1759 <u>WBEM- 2</u> Chicago IL | 2000 <u>WMT - 2</u> Cedar Rapids IA | 950 |
| unids 2-6 (MUF to 94.5 MHz) | <u>23 Es?</u> 1145 unId 2 | |
| <u>14 Es</u> 1726 <u>WJBK- 2</u> Detroit MI | <u>25 Es</u> 1610 unids 2,4 | |
| <u>CKCO1-2</u> Wiarnton Ont | 1430 <u>J1 Es?</u> 2000 unId 3 | |
| 1759 <u>WKZO- 3</u> Kalamazoo MI | <u>3 Es</u> 1945 <u>KNXT</u> 2 Los Angeles CA | |
| <u>KTVI</u> 2 St. Louis MO | <u>6 Es</u> 1115-45 unids 2,3 (likely mid-western) | |
| 1810 <u>WBEM- 2</u> Chicago IL | 1850 unId 2 | |
| unids 2-5 | <u>8 Es</u> 1100-50 unids 2-4 (likely west) | |
| <u>19 Es</u> 1722 <u>WLW-D</u> 2 Dayton OH | 1325 <u>YSR - 2</u> SanSalvador, ElSal. 1200 | |
| unids 2-6 (MUF to 106.1) | (7yrs to the day since 1st logged) | |
| 1759 <u>WMT - 2</u> Cedar Rapids IA | 1520 unId 2 | |
| 1805 <u>KGLO- 3</u> Mason City IA | 1830 <u>WESH- 2</u> Daytona Beach FL | 1055 |
| 1808 <u>WBAY- 2</u> Green Bay WI | unids 2-4 | |
| 2029 <u>WJBK- 2</u> Detroit MI | 2100-2330 unids 2-6 Mexico etc. (MUF 90.5) | |

One of the better showings of winter Es around here in some years. The number of FM openings indeed high. Also peculiar was the predominance of eastern openings, with very few out west until into January.

Weather condx this winter have been on the mostly cold side for this area...thus little chances for much good trop since early December's. With some of the ice storms of late, I'm almost thankful I don't have a dish to worry about in it. 73, WA5IYX.

Glenn Hauser, Box 62, Von Ormy, Texas 78073 (4 Dec - 7 Jan) (CST)

As of 8 January, still waiting for some more of that Gulf tropo that petered out in mid-November. Certainly unlike last winter! Have had to make do with some rather ordinary winter Es openings, which brought no new stations. But this leaves me plenty of time for shortwave and mediumwave DX, which I also enjoy a great deal. KHFI-42 still exists as of this date, but a metamorphosis into KTVV 36, Austin, is expected quite soon.

- | | | | |
|--|--------------|--|------|
| <u>13 Es</u> 1550 <u>WEDU</u> 3 Tampa FL (1659 Id) | 985 (13)(Es) | 1644 <u>WRAL- 5</u> Raleigh NC ? | T |
| 1551 <u>TVN</u> 2 Cuba | | 1703 <u>WTVJ</u> 4 Miami FL ? | T |
| (coverage of Allende visit) | | (MUF to 105.9 at 1608) | |
| 1555 <u>WTHS- 2</u> Miami FL | 1155 | 1758 <u>TVN</u> 3 Isle of Pines Cuba ? | |
| (digital clock w/calls: 1744) | | (FBIS72 has stn here w/no ch. given) | |
| 1600 <u>TVN</u> 6 Habana Cuba | 1125 | 1842 <u>KDKA- 2</u> Pittsburgh PA | 1295 |
| 1621 <u>WDBO- 6</u> Orlando FL | 1065 | (1843 west Penn AAA) | |
| 1634 <u>WCIX- 6</u> Miami FL | 1155 | 1859 <u>WJBK- 2</u> Detroit MI | 1240 |
| | | 1929 <u>KUSD- 2</u> Vermillion SD | 965 |
| | | 14 Es 1645 <u>WBEM- 2</u> Chicago IL | 1050 |
| | | (1715 local nx) | |
| | | 1720 <u>WJMN</u> 3 Escanaba MI | 1325 |
| | | (Green Bay-Menasha ad) | |



(14)(Es) 1740	WKZO- 3 Kalamazoo MI (1759 Id)	1165 (19)(Es) 1936	KTCA- 2 Saint Paul MN (1959 MET logo, Id)	1130
1759	KTVI 2 Saint Louis MO (1829 Id)	790 20 Es 1929	WLW-D 2 Dayton OH	1080
1845	WTWO 2 Terre Haute IN (Tv2 Id)	930	1945 WISC- 3 Madison WI ? (MUF to 91.9 WSBS)	T
19 Es 1558	WMT - 2 Cedar Rapids IA (1659 Id, T or C)	965	22 tr 0928 K72BN 72 Knippa & Uvalde TX	65
1715	WLW-D 2 Dayton OH (script "TV2 Nightly News" in NBC style)	1080	0950 WAPT 16 Jackson MS	530
1720	WWE- 3 Cleveland OH ("TV3 Newsday" insamsNBCscript)	1260 23 tr	0951 KNOE- 8 Monroe LA	435
1722	WAVE- 3 Louisville KY(IN) ("Wave Editorial" audio)	955	0955 WRBT 33 Baton Rouge LA (Concentration (NBC!); 0959 Id)	455
1747	KDKA- 2 Pittsburgh PA (1800 visual Id)	1295	1003 WMAA 29 JksnMS	530
1800	WBAY- 2 Green Bay WI (circled tv2 logo)	1195	0815 WRBT 33 B.R.LA TELEVISION	455
1808	KGLO- 3 Mason City IA 5543 (Iowa nx, sports; large desk mike in shot) (MUF reached 107.1 at 1820)	1010	0800 WMAU 17 BudeMS	485
1822	WFRV- 5 Green Bay WI ?	T	0800 WMAH 19 BlxIMS (Ø CCI to KXIX)	575
1822	WTMJ- 4 Milwaukee WI ?	T	0800 WMAA 29 JksnMS	BATON ROUGE, LA 530
1833	WTTI- 6 Milwaukee WI (1841 tv6 nx interview; good)	1125	1828 WBAY- 2 Green Bay WI	1195
1859	WJBK- 2 Detroit MI (WJBK type TV2 block italic Id)	1240	1847 WPMY- 2 Greensboro NC (Id in C&W pgm)	1180
			1929 KOAI 2 Flagstaff AZ ?	T
			2055 KORK- 3 Las Vegas NV	1060
			2059 KTVU 2 Oakland CA ? (MUF reached 92.3, 2151)	T
		5 Es 1858	YSR - 2 San Salvador, ElSal.	1205
			(local mx var pgm "Ensalada Musical," out by 1915)	
			1901 YSU - 4 San Salvador ?	T
			1903 unId- 6 (CCI to KRIS, SE) Until the next, 73 de Glenn.	

Richard E. Wood, 820 Arlington Avenue, Baton Rouge, Louisiana 70806 (10 Jan) (CST)

As I enter my 16th year of DX-ing I have broken down and bought my first TV set. So, I intend to get active in TV DX, though doubt if it will overtake FM as my main interest. Rx is a Zenith 14Z26 from apx. 1968, recommended and put into good shape by WFFDA'er Ron LeBlanc. But no TV antenna yet, and I find the big FM quad and FM Winegard do not perform on TV. Will have to buy separate TV antennas, and perhaps even build a second tower, as the huge quad occupies the whole of the present one. Set installed only 1/9, the day after a fine Es opening to Mexico, so nothing to report yet. Locals here are WBRZ 2, WAPB-TV 9 and WRBT 33; freest from semi-locals is 7. Will be glad to hear from experienced TV DX-ers (letters only, no tapes, please) as I need advice as I enter this new band. Ron LeBlanc has taught me some of the techniques, e.g. offset recognition, though I still cannot tell plus from minus offset. I hope to have some loggings next time. 73.

Dennis Smith, 450 Poplar Avenue, Wasco, California 93280 (26-30 Dec) (PST)

During part of holidays, I was in Wasco where I tried to add to my TV and FM DX logs. Between winter storms, high pressure developed in late December, trapping stagnant air which resulted in fog building up from Christmas Day until evening of 27th. The inversion layer condition was best on 27th afternoon, about 1600-1630, with improved reception from Sacramento and San Francisco areas (NW), over 200 mi.

27 tr 1600	KCRA- 3 Sacramento CA	3452 215 (27)(tr)	KTXL 40 Sacramento	4555 215
apx. KRCR-	7 Redding	2343 390	KAIL 53 Fresno	3-4,555 95
KSTV 10	Sacramento	4555 215		(s/on 1600)
KOVR 13	Stockton	4555 215	1658 KFTY 50	Santa Rosa 1-2,325N 270
KLOC-19	Modesto	3435 170		(color bars; audio local-ad test)

After 1630, condx started deteriorating; high pressure broke down and another rain storm came down from NW, destroying the inversion duct with things down to normal by about 1800 or so. Hardly expected to get KFTY 50; no San Jose-San Francisco UHF's (220 mi) were seen. KFTY was in only until apx 1705. It is my most distant UHF; former farthest UHF was old KCRC-TV 40 Sacramento (240 mi), on the air in my early DXing days in the middle 1950's. No Es was noted in these few days. Total 148.

My Wasco equipment (rather old and tired by this time) includes a 1954 Zenith 21" B&W console (Chassis 19L28), 1962 Blonder-Tongue BTU-2S UHF Converter, and 1954 Wasco VHF-UHF 2-bay Stacked-V's at 46' above ground. Ground elevation is 325' ASL.

WESTERN FM DX

Editor:
Mike Dörner, Jr.
1409 Hymelia Avenue
Metairie, La. 70003

DX FROM THE LAND OF BEGINNING AGAIN

Glenn Hauser, Box 62, Von Ormy, Texas 78073

(4 Dec 72 - 7 Jan 73) (CST)

Last Christmas' fantastic multi-day blanket tropo did not recur this time; I had to be content with a couple of winter Es openings and a scatter of MS. Note KTXN's off-frequency operation, rather uncommon in the USA! This and KTON brought my Texas total to 118, the largest of any single state, of course. Florida is next with 50 stations, and Wisconsin with 35. By Es the top three states are now: Florida - 44, Wisconsin - 35, Ohio - 24; by tropo, after Texas - 118, Louisiana - 28, Florida - 22. The five 94 mhz channels (plus a split) far outstrip other Mhz totals, with 76 stations logged here. Quite by accident I have found that I can "phase out" a local station -- KSYM 90.3 --, which hinders reception of KPFT 90.1, Houston. The two stations are about 45° apart. By positioning my FM antenna toward Houston, and also in a slight null toward KSYM, and then rotating my TV antenna to a direction between the two stations, KSYM's signal drops out a great deal. The TV antenna (also for the FM band) is about 15 feet higher than the FM antenna and about the same distance closer to KSYM (on separate masts!). There is NO electrical connection between the antennas. I'm sure there is a much better way to accomplish this, but perhaps those DXers with similar antenna arrangements can apply this technique.

12/11 1900	88.7 Gw	KUHF	Houston TX	200	continuous real-time coverage of Apollo 17 voice circuit; returned to air 6 Dec after more than 6-month hiatus, per visit; power slightly increased; TRW Corp grant.
12/13 1557	89.3 Es	WPCS	Pensacola FL ?		EL piano, slight class
1558	91.5	WPRK	Winter Park FL ?		jazz; 1618 classical
1558	92.3	WDBO	Orlando FL	1075	ID
1558	90.5		Habana, Cuba	1125	brief but recognizable against KSYM 90.3; folkish C&W; nothing known in SE
1559	90.9	?			
1603	95.3	WTLN	<u>Apopka, FL</u>	1035	new by Es; previously by tropo; rock; 1604 OCI; Roma's Italian Restaurant, ID, Jingle Bell Rock; 1622 Central FL wx, ID
1604	95.1	WJAX-	Jacksonville FL ?	EL	kid drama
1604	94.3	WTLN	Lake City FL?		KHCB mix Sparky & Buster kid show; 1612 ad for "The Crown Jewels" store; kid shw
1607	105.7	?			C&W; one FL or the other, probably
1608	105.9	?			evangelistic begging pgfm from ELWA, Sudan Interior Mission; 1630 ID
1625	89.7	WMCU	Miami FL	1155	EL
1626	94.1	WVFM	Lakeland FL?	1160	NPR pgm; 1642 //91.7; 1659 All Things Considered break turned into end by stn, ID ment. Wake Forest; Alex Dreier
1629	88.5	WFDD	<u>Winston-Salem NC</u>	1055	ABC nx; 1638 OCI, ad First Bank of Marco Island
1631	93.5	WALJ	<u>Naples FL</u>	1155	new by Es; previously by tropo; ID; Xmas
1640	94.3	WQWV	<u>Riviera Beach FL</u>	1155	1632 ABC //93.5 (Ac), 1636 local ad; 1637 Cosell; 1759 "Ocean & 95, the Great Music Stn" last FM stn in opening
1646	91.7	WHRS	Boynton Beach FL	1155	NFR; 1752 pop mx
12/13 1646	89.7 Es	WUSF	Tampa FL	990	RR; "The Underground --" space rpt breakaway; 1754 Xmas mx, maybe WMCU Finlandia; new stn was hrd testing whle in Jacksonville 5 Dec.
1648	89.1	?	Jacksonville FL		Xmas mx
1657	88.9	WKES	Chattanooga TN?		rocky jazz; Atlanta or Jax?
1658	91.1	?			Xmas mx
1659	89.1	WNGT	Wingate NC ?		Roger Dean Chevy Shopping Cntr ad 2100 S. Dixie
1711	94.3				
1730	95.3	WSOR	Fort Meyers FL	1045	Texaco Met Opera BC promo ID, YL ancr, 79° Baptist Hour

WESTERN FM DX

Call Sign	Freq	City	State	Notes
1733	93.5		?	Es soul mx, et al
1735	101.5	WLYF	Miami FL	EL; 1744 dead air; 1745 MUF below FM
1750	91.3	WTHS	Miami FL	talk about call-in technique o/KNCT
12/19 1731	88.1		?	slow soul mx; TV from OH area
1732	88.5		?	classical mx
1732	89.7		?	talk abt Salt Fork
1733	91.1		?	popish harpsichord mx; all 4 gone by 1734
1748	89.3		?	§ jive mx; 1752 amnt vs Aretha Franklin Spirit of the Dark; next: Less McCann "She's here"; Pittsburgh & Green Bay on TV
1751	88.3		?	talk briefly
1809	89.9	WWSA	Brule WI	1245 Apollo 17 nx, // 89.3
1809	89.3	WHKW	Chilton WI	1165 // 89.9
1810	88.7	WHA-	Madison WI	1080 //other WSBS stns
1811	94.3	WISS	Berlin WI	Apollo nx by local; EL CCI, 1815 Drugstore ad, more nx
1814	95.3	WBEV-	Beaver Dam WI	1120 Carl Meyer Chevy ad in Columbus ad, CST, Beaver Dam ad, ID, more ads
1817	105.7	WAPL-	Appleton WI	1180 EL CCI to KHCB, begin "Whispered Thoughts," ¼ hr of inspl organ mx, presented by Kimberley S&L
1819	106.1	WAUK-	<u>Waukesha WI</u>	1110 EL, 1820 upbeat; 1823 Pewaukee ad for Tumble-Brook Country Club; CCI Xmas mx 1833 Hail Mary's -- same stn?
1820	106.5	WDLB-	<u>Marshfield WI</u>	1155 CCI TX, "Danke Schon"; 1831 ad for rest., entertainer Louise Carlison in Wisconsin Rapids
1820	106.7	WYEN	Des Plaines IL	1060 upb; 1829 "24 Hr §" ID, Chicago wx; fog; CCI over excast
1820	107.1		?	EL "Raindrops", inspirational erse.
1826	103.7	WEZW	Wauwatosa WI	EL vy upb CCI to KRMH; 1828 too MOR
1834	105.5		?	rock; 1843 § w/"Pinball" song
1835	99.1		?	1240 Joe's Heating on Warren just west of Southfield Freeway ad 271-1313, ID in passing; cl mx
1837	98.7	WDFG	<u>Detroit MI</u>	el mx
1839	96.3		?	1125 rapid FM car radio ad, for "Sam the Stereo Man," on Fond du Lac just north of Capitol Drive; rapid wx; ID jingle "You-You"
1839	95.7	WZUU	Milwaukee WI	1155 mono C&W; 1845 wx at Radio Park, tri-state temp, ID jingle, C&W
1843	98.5	WANG	<u>Coldwater MI</u>	1055 ads for downtown Hammond; B.F. Goodrich
1847	92.3	WYGA	Hammond IN	talk re crippled kids; 1905 el mx delayed "All Things Considered" re Apollo pgm conclusion; 1925 cl piano mx; 1955 violin
1847	91.7	WUOM	Ann Arbor MI	cl mx
1848	88.3		?	EL song -- Julie Andrews
1850	88.9	WLSU	LaCrosse WI	cl mx
1851	96.9		?	cl mx
1855	91.1	KSJN	New Brighton MN	cl mx
1855	90.9		?	CCI w/KUT; 1900 MUF falls below FM
1856	90.7		?	1080 ID onerthusiastic sports into; jazz/soul; soon gone; St Paul on TV
1858	94.3	WTGA-	<u>Plymouth IN</u>	140 ID, local Wx, ad string 0749
12/24 0748	106.3	KTGN-	<u>Belton TX</u>	105 ID; 0821 end news, ID; separable from 98.3, freq measured by SW rx oscillator harmonic. No signal at all on nominal 98.7. Reported, and two days later stn entirely off air.
0800	98.38	KTGN-	<u>Victoria TX</u>	250 ID in anticipation of change, nx
0858	96.3	WBAP-	Fort Worth, TX	Es 1165 political discussion; NPR?
1945	89.3	WHKW	Chilton WI	1080 //89.3
1951	88.7	WHA-	Madison WI	1055 //91.3
1951	91.3	WHHI	Highland WI	1220 //91.5
1951	91.5	WHMD	Suring WI	MAIL EARLY IN THE DAY

WESTERN FM DX

12/24	1951	91.9	WHRM	Rib Mountain WI	Es	1180	//91.5 organ mx
	1952	91.7	?	?			
12/22	0707	91.1	KSJN	New Brighton MN	Ms	1130	YL; Twin Cities temp 17°
	0815	98.38	TKN	Victoria TX		105	still off
	0815	98.1	WAFB-	Baton Rouge LA	Tropo	455	
12/28	0809	89.3	WPCS	Pensacola FL		660	giving address
	0813	98.7	KTKX	Victoria TX	Gw	105	back on air
	0813	101.5	WYMK-	Baton Rouge LA	Tropo	455	WYMK Country weather: 32°
12/29	0803	90.1	WMBI	Chicago IL	MS	1065	sermon; previously by Es
	0803	89.5	WNIU	DeKalb, IL		1035	Arlington Hts IL mx; prev by Es
1/ 1	2151	92.3	?	?	Es		EL, NW; parked here during TV Es opening from AZ, NV; soon gone
1/ 2	0804	91.3	WTBS	Miami FL ?	Ms		SS lessons
1/ 4	1158	94.9	KBIM-	Roswell NM	Tropo	410	Ac nx, 1759 Big Country KBIM ID
	1353	98.5	?	?	Ms		antenna NNW; Paul Harvey
1/ 8	1828	89.7	WUSF	Tampa FL	Es	990	All Things Considered; delayed, ID, opinion disclaimer, fluttery; 1855 solid
	1850	93.5	WALJ	Naples FL		1055	community calendar
	1851	94.9	WLCY	Largo FL ?			pop mx
	1852	93.3	WFLA	Tampa FL ?			EL
	1852	92.3	WDBO	Orlando FL ?			EL
	1855	91.1	WFAM	Jacksonville FL ?			pop mx
	1856	89.9	WJOT	Jacksonville FL ?			cl mx
	2147	88.4	XERON	Mexico DF		690	pop mx, S; 2155 RGN ID; 2208 "Melodias nortenas" amat dtectably //1110 khz mw ranchera mx; 2158 SS vocal
	2148	88.3	X	?			ranchera mx; 2158 ss vocal
	2148	88.2	XEPA	Puebla Pue ?			ranchera mx?
	2149	88.9	XHM-	Mexico DF		690	EL; 2159 ss ad; 2202 soft but forceful ID w/mx; self-adulation
	2149	90.5	XEDA-	R. Imagen, Mexico DF		690	EE EL; 2204 ID
	2150	90.3	X	?			open carrier to past 2200
	2150	91.3	XHRSM	r. Sinfonia, Mexico		690	EL SS vocal
	2150	92.1	XHFO-	R. Triunfadora, Mexico		690	latin rhythm EL; 2205 breathy YL bragging "solamente un amuseo comercial en cada corte."
	2151	95.3	XHSH-	R. Amistad, Mexico		690	roek mx
	2151	96.9	XEW-	Mexico DF		690	usgd mx; sounds more like US sta than KVMV which it COI ed; hwe visited xmtr
	2152	98.5	XELA-	Mexico DF		690	el mx; COI TX sta
	2152	99.3	XEN-	Mexico DF		690	EL
	2153	100.9	XEOY-	Estereo Mil, Mexico DF		690	EE pop mx; o/local mix
	2153	102.5	XHV-	Stereo Rey, Mexico DF		690	EE pop, EL mx
	2154	104.9	XHBST	StereoBest, Mexico DF		690	vocal mood, mx soon fade out Take Five; 2211 ACI from 88.4
	2157	88.5	XHOM-	Quernavaea Mor ?		690	mx sponsored by sev'l banks; 2206 CARNET/Masterecharge ad much wlr than others, and low modulation; previously unknown link like XERON 88.4. 2212 ads, sports; 2216 end, XEW shines //900. XEDA 90.5 QRM!
	2200	90.9	XEW-	Mexico DF			
	2223	91.3	XHJL-	Guadalajara, Jal		665	phone report on trainwreck 2248 SS song by American; 2249 Coromo ad sung, ID as "Stereo mundo 91- FM," and another phone mx report Guadalajara; 2236 ID; 2241 f/in again; mx; 2245 Stereo Jet 89 w/ whoosh of jet sound; 2252 ID "As New as Tomorrow" (ID timer must be set on 7 $\frac{1}{2}$); 2259 just before f/out "Fulltime Eng lang r in Gd"
	2230	91.1	XHR-	Guadalajara, Jal Stereo Jet 89			

Pat Dyer, 5315 Silvertip Drive, San Antonio, Texas 78228

Dec 10: Geminaids going a bit more, 2140-2310 (95.1-95.3) apx 105 events (most under 1 sec) with programming type (i.e., music or voice etc) discernable on 41 of them, though only a half-dozen lasting 5 secs. It takes about a 2 sec burst for me to react and my tape recorder going in time; a voice-operated relay Radio Shack kit has been used but doesn't shut down easily enough after the burst).

Dec 11: 000-0110, 50 events, with programming noted on 45 of them so something must have improved; longest at 0035:10 and 0101:00 ran 10-15 secs; still pretty boring though (ie. not much to send Bruce Rummel yet). 2125-2300, levels (counts) way up and too numerous to note only but larger ones; many faint ones at the rate of up to 5 per minute. However, only a few over 5 secs long. CCI on local ch 4 often much longer.

Dec 12: 0030-0100, rather poor levels considering the earlier rates. 900-1000, many faint and sub-second bursts (more than 0100-0200) though higher counts likely due to more stations on this time period. 2130-2300 very good burst rates, many 5-10 sec.; 2312:50 KRDO-FM 95.1 Colorado Springs CO (760) mentioning state. Rates down after 2340.

Dec 13: 0100-0230, rates still down from earlier but good anyway. 0131, KICT 95.1 Wichita KS (575) with weather. 0730-0930, perhaps best period for long bursts running up to 30 secs but no ID's (even though some very complete commercials); if KICT format is country-western then they have been the dominant station this shower on 95.1. 1607, Es on 88.5 mhz (makes you wonder why you try meteor scatter) intermittently until 1640 when WLNK 94.1 Lexington NC (1130 mi) with a pile of local ads; 1659, WFDD 88.5 Winston-Salem NC (1140 mi) ending NPR net pgm and ID, soon out. Ch 6 well until 1735, MUF clumbs to 94.5 for about 5 minutes. 2100-2300, meteor rates still good but down from last night, after the Es one has lost some enthusiasm for listening to bursts; 2213, KICT re-log.

Dec 19: 1725, brief Es at 88.5. 1813, Es into FM rapidly. 1828, WIAA, 88.3 Interlochen, MI (1210 mi) with station ID, §; 1830, WAUK-FM 106.1 Waukesha WI (1065 mi) with stn ID (had been in since apx 1815); WTMJ-FM 94.5 Milwaukee WI, full ID and weathercast; 1836, WZUU-FM 95.7, Milwaukee WI, local ads and ID, § 96; 1844, WKHM-FM, 106.1 Jackson MI (1150 mi) with local ads; 1850, FM very suddenly down and completely out by 1900; 2020-2025, 88.5 Es again but no ID. One of the better openings on Es in terms of stations in, etc., since August 21. Some channels were at least three deep, and the top MUF couldn't be accurately checked since our local on 107.5 fills it up well (at least the 106.1 spot is still open here).

Dec 20: 1815, some ch 6 Es evidence, though briefly only; 1930, vy rapid rise of MUF thru ch 6 and into the FM band, with perhaps a half-dozen un IDs in up to 95.1 or so. 1945, last of FM es.

Dec 22: 0130-0230, wasted time on Ursid shower as little evidence of it. Local KISS 99.5 on with tone test 0130 and likely prior.

Jan 3: 0130-0230, was trying for the Quadrantids 0000-0200 not much with largest bursts reaching 10 sec (at 0002 ch 9 MUF from one). 0900-1000 several 5 sec bursts, many 1 sec; 1116, 95.1 possible MN; 1200-1300 several good bursts up to 15 sec; 1300-1400 peaked likely near 1330 with several 20 sec plus bursts; This year down somewhat different from 1971 and 1972 as it was overall down with only a few times (lasting 10-15 mins) with good activity followed by up to 30 min of almost nil.

Jan 4: 0024:25 longest burst of shower (if it was not a sporadic) ran a good 30 sec. 1100-1200 some activity with long but very few bursts.

Jan 8: 2105, brief Es Spanish on 88.9; agn with music at 2120; 2140 88.9 agn and vy choppy, built well by 2145; 2202 XHM 88.9 Mexico City DF Mexico (690 mi) with full ID (also agn apx 2210, with slogan "Un oasis en FM"). 2205, XEDA-FM 90.5 Mexico City - slogan ID "Radio Imagen". 2210 XHM choppy agn and cut by 2200. but brief surges agn 2230-2235. An extremely late hour for Es to onset here - the 90.5 at 690 miles give MUF about 115 mhz for the properly placed spots. 73.

Dennis Smith, 450 Poplar Avenue, Wasco, California 93280 (26-30 Dec) (PST)

I was at home at this address (away from chico) for portion of Holidays and tried a bit

WESTERN FM DX

of FM-DXing. Also was In Wasco Thanksgiving holiday but nothing heard then. In late December, high pressure over California meant stagnant air which resulted in inversion and fog building up from Christmas Day until 27th eve. Tropo built up with the inversion and was best on 27th afternoon apx 1600 with San Joaquin Valley north to Sacramento very good (up to 240 mi) and San Francisco area good (230 mi). On 27th eve, pressure broke down and another rain storm came down from north and destroyed the tropo comdx. The usual stations were heard with nothing new.

Turned antenna south on 28th and hrd an apparent clandestine operation that eve on 90.1 rock mx. Went off air 2020 after oscillation developed but returned soon on 89.5. IDed occasionally as KLUV ("K-love") but never gave location. No commercials. Rather weak on 90.1 (& sandwiched btw KCRW 89.9 Santa Monica and XHIS 90.3 Tijuana) but slightly stronger on 89.5; consistent signal. Sked 1200 to 0600(!) Remained on 89.5 for remainder of my Wasco stay. Isn't there a New Orleans AM stn which officially has the call KLUV? (No, but there's a KLUV Haynesville, LA, on the AR-LA border SW of El Dorado AR. -- ed.).

Wasco eqp includes 1957 Fisher FM-90X mono tuner and 1958 TAOO 10-element yagi 40' AG (ground elev 325' ASL). Best of DX.

Ed. Note: Pacific and Southwestern DXers will be happy to learn that the recently signed FM agreement between Mexico and the U.S. protects both countries' assignments within 200 miles of the common frontier. Additionally, a separate agreement will prohibit stations in border cities from broadcasting into the opposite nation. This was demanded by the U.S. as part of the deal, acting on protests of San Diego stations over Tijuana XHIS, XOURS, XHERS, etc. This reporter is anxious to know the fate of these Mexican-owned, leased-to-Americans stations. Would you keep an ear open? Tax.

New! -of Special Interest to DX'ers...

DATE		Pr	STATION	CH/FR	PROGRAMMING INFO,
Y-INT	OUT				

WTFDA DX LOG SHEETS

Time Standard _____ Page _____

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SOUTHERN FM DX

Editor: Richard E. Wood
820 Arlington Ave.
Baton Rouge LA 70806
Tel. (504) 343-7771
Deadline: 13th. of month

FEATURING FM FROM LOUISIANA TO MARYLAND

Ronald J. LeBlanc, 2524 Arizona Dr., Marrero LA 70072

- 12/13 Es 1730 WCTX 92.1 Palmyra PA, plus some unid. from 1715 to 1733,
2350 KFMD 92.9 Dubuque IA MS. (while you were getting PA,
I was getting Mexico & Guatemala. REW)
12/14 Es 1713 to 1721 some unid. but no ID's.
12/19 Es 1812 KFYR 92.9 Bismarck ND, 1840 KELO 92.5 Sioux Falls SD \$ pop,
new state, 1843 KWYR 93.7 Winner SD Mutual Sports, Xmas music, 1845
KKLS 93.9 Rapid City SD, 1850 KLIN 107.3 Lincoln NE \$ MoR, new
state (Very nice, REW), plus some unid.
12/23 Tr 1500 KWNU St. Louis MO \$ Xmas mx, 1900 WTJS 104.1 Jackson TN Xmas
mx, 1912 WREC 102.7 Memphis TN \$ MoR, 2125 WHTB 92.7 Talladega AL
\$, anncr mentioned they were on the air for just a few days, and
to write and let them know how reception is. (Unheard here, REW).
2150 WEZK 97.5 Knoxville TN \$ MoR. 2203 WHMA 100.5 Anniston AL \$
local mx, The Majestic Sound of \$, EL; plus many reruns LA, MS, AL,
FL & GA.
12/24 Tr 0018 WSPB 106.3 Sarasota FL, EL; plus many other FL reruns from as
far as Ft. Lauderdale.
12/28 Tr 1500 to 2400 most east Texas stns.
12/31 Tr 2200 WJDB 95.3 Thomasville AL EL sign-off. Plus a few TX, AL & GA.

FM Skip on 1/8/73; some new Mexican stns, will send in next report. Every-
thing quiet since then. (However, by phone, Ron reports results similar to
mine in Es to Honduras 1/12. REW). Total stns hrd now are 391 stns., 29
states, 6 Countries, 2 provinces. 73s.

Larry I. Vogt (K4UEO), 8213 Springfield Village Dr., Springfield VA 22152

Here is a report to help get thru the winter slump. This report
covers Aug. 6 to Dec. 24, 1972. Times thru 8/21 are EDT, then EST. Fisher
500TX receiver & Finco FM4G at 25'. New underlined.

8/6 Es from FL w/ unusually heavy fading. 2158-2304 WUSF 89.7 Tampa
(795) w/ chamber mx; 2220-31 WJCT 89.9 Jacksonville (630) new on Es, had
on Au; 2300 WMCU 89.7 Miami (910) over WUSF briefly w/ sign-off.

8/16 Tr 1758-2228 WMKY 90.3 Morehead KY (335); 1830 WBKY 91.3 Lexington
KY (390) w/ E. KY wx & mention of Univ. of KY at Lexington; 2233 WPAY 104.1
Portsmouth OH (KY) (300).

8/21 0730 WEXM 107.5 Exmore VA (115) a new semi-local. (Format and
hours, please, Larry? REW) Tr 2000-2217 WUOM 91.7 Ann Arbor MI (405); 2200
CJOM 88.7 Windsor, Ont. (380); 2300 WAMC 90.3 Albany NY (320).

8/26 Tr 1420 WYSU 88.5 Youngstown OH (245) w/ weak signals, local WAMU
off.

9/17 0945 weak sigs from WFDU 89.1 Teaneck NJ (205). Hope they stay
weak--that was a nice open freq.

12/17 Es A fine opening to the Midwest. One new local discovered &
also picked up a new MO logging. 1022 KCUR 89.3 Kansas City MO (920); (that's
excellent, getting mid-morning skip in Dec., REW); 1047, 1059 KRXL 94.5
Kirksville MO (810); 1035, 1200 KOWH 94.1 Omaha NE (1000); 1059 KICS 93.5
Hastings NE (1125); 1059 1/2, WLCC 88.9 Lincoln IL (640) w/ religion; 1100 KXCV
90.5 Maryville MO (935); 1105, 1112 KWYR 93.7 Winner SD (1215) w/ local ads
& wx; 1108, 1122 KTTT 93.5 Columbus NE (1070) w/ local ad & polkas (nice! REW)
1118 KJCK 94.5 Junction City KS (1050); 1140-1200 WOI 90.1 Ames IA (880) well
over local WGTB most of time and in \$ w/ discussion of folk songs of West,
also musical cuts; 1157 KFMX 92.3 \$ Omaha; 1159 KOIL 96.1 Omaha. KFMX w/ EL
& KOIL w/ CL (I think.) (Thanks for these formats; more format info w/ all

Larry I. Vogt (Cont.)

reports would be appreciated. REW) 1230 Tentative KWBE 92.9 Beatrice NE (1040) w/ Thayer County & Hebron, NE news items. New local WYII 95.9 Williamsport MD (65) logged in at 1259.

Verification from ZFB-FM Stereo 96 received. They are 24 hours/3 kW/94.9 MHz (Cf. above? REW)/300 ft. above sea level.

Been watching the FM translator applications closely (listed in Broadcasting Magazine). They will be an interesting addition to the FM scene. KIRO Seattle has applied for ten 10-watters and WPCS Pensacola FL for thirteen 1-watters in MS, AL & FL. One of the WPCS translators would be in Hattiesburg MS, 140 mi. from Pensacola! With high gain antennas, these stns could have ERPs of many times their licensed power output. Who will be the first to log a 1-watt FM translator by Es? (I eagerly look forward to the WPCS relays, which will be fine Tr challenges in this area. In these flat lands of the Gulf Coast where direct WPCS reception is so good, however, I wonder whether all the translators are needed. REW)

Total now at 439 stns from 35 states. Still need NH, VT, & ME, which are in the 340 - 715 mi. range. There are just too many stns in the "north-east corridor" in the way. Also need ND, which should be an easy catch. (KFYR- 92.9 heard Dec. 19 here, REW). The corners of MT & NM are also within single-hop distance, but I'm not too optimistic about them. Still waiting for that first double-hop catch also. (So am I, REW). Maybe in '73? (With such a date, '73 is bound to be the year, REW)

To all DXers, ---... ---

Dr. Richard E. Wood, 820 Arlington Ave., Baton Rouge LA 70806. CST.

One excellent trop day and numerous Es openings characterized generally lively mid-winter DX season cx. I don't know whether the rest you in the FM South reporting area have been missing it, but when I look at the recently published Membership List and the many names of silent members, including some in states like Mississippi from which I never hear, I wonder why you are not supporting the column. It's not for lack of DX conditions, anyway.

Dec 10 Geminids				
2230	MS 92.9	KWBE- Beatrice NE	746	local school nx item, \$; verified
Dec 13				
0749	MS 93.1	KBHB- Sturgis SD	1185	new stn; wx report from Rapid City; -8° temp.; \$; verified
Dec 19				
1810-1850	Es 91.3	KDCR Sioux Center IA	922	religious; 1830 into state nx, local wx; Xmas mx
1822-1830	Es 92.9	KFYR- Bismarck SD	1239	area nx; powerful sig.
1830	Es 92.9	KWBE- Beatrice NE	746	nx for NE & KS, two different nxcasters alternate; \$; prev. MS
1912	Es 94.5	KWMT- Ft. Dodge IA	848	local store spot, \$
1900	Es 95.3	KLFD- Litchfield MN	unn.	ID; local nx
1912-1930	Tr 94.5	KROK Shreveport LA	208	auto RR, but sounded live; \$, formerly KWKH-FM; ID "K-ROK"
Dec 20				
1938-1947	Es 93.7	KWYR- Winner SD	1020	promo, auto MoR/EL, \$
1945-2000	Es 97.9	WFNW- Fargo ND	1173	religious sermon; all above verified. Out of order:
Dec 18				
1800	MS 90.7	KWMU St. Louis MO	567	random MS; prev. by Tr
Dec 23				
0738-0800	Tr 92.1	KETX- Livingston TX	252	local wx; spots, nx
1206-1231	Tr 102.7	WREC- Memphis TN	328	\$ EL live; last Memphis needed, alongside local WJ80- 102.5
1247-1300	Tr 90.1	WNJC Senatobia MS	295	long-sought; very weak; Xmas mx, loc wx, ann. "A service of Northwest Junior College"
1700-1730	Tr 103.3	KOUL Sinton TX	450	C&W \$ ID "Sinton-Aransas Pass"

Dr. Richard E. Wood (Cont.)

Dec 23

2140-2200 Tr 100.5 WHMA- Anniston AL 380 Xmas mx. \$, spots, nx 2200; my 1st. on 100.5, last comm. fq.
 2240-2302 Tr 91.1 WFAM Jacksonville FL 566 "Fame R.", MoR, stud anncr, s/off w/ SSB military band version

Out of town for several days, upon returning:

Dec 31

0100-0130 Tr 98.3 WMGL Pulaski TN 415 UPI Audio nx (this should be listed as a Network, like others); live C&W, many PSA's

1973

Jan 6

2258-2330 Tr 93.3 WQUE New Orleans LA 73 new, ex-WDSU-; EL auto \$ "Your Beautiful Island", "\$ 93"; change Jan. 4

Jan 8

2115-2130 Es 88.9 XHM México, D.F. 909 U.S. standards, MoR, SS ann's, possibly auto; late skip!
 2119 Es 89.7 XEBS- México, D.F. 909 Latin, "La Chica Musical"; unn.
 2120-2130 Es 90.5 XEDA-? México, D.F.? tent. auto U.S. EL
 2130-2200 Es 91.3 XHJL Guadalajara, Jal. 1018 "Estereomundo 91.3 FM" nx.,unn.
 2135-2220 Es 95.5 XHRO Guadalajara 1018 continental mx, FF, II; ID's,\$unn.
 2126-2210 Es 89.0 XEJT- Altamira, Tams. 650 All EE, U.S. anncr., mni ID's as "\$ Jet"; EL/MoR, 2200 AP nx; add \$, move from 89.2 in lists; a real surprise. Serves Tampico.

2135-2225 Es 97.9 XETIA- Guadalajara 1018 "Fórmula Melódica", auto Latin mx\$
 2148-2215 Es 97.1 XEBA- Guadalajara 1018 auto U.S. MoR/EL, \$
 2157-2205 Es 101.1 XHMA Guadalajara 1018 romantic Latin mx, \$; unn.
 2219 Es 98.7 XHLC? Guadalajara? tent. U.S. EL \$; skip out before ID

Jan 12

1740-1830 Es 92.9 HRN- Tegucigalpa 1150 mariachis, promos Canal 5 de TV; (La Voz de Honduras) dedications, mni spots, call ID's, nx; loud sig; unlisted WRTH; mono
 1822-1840 Es 88.7 HRLP- Tegucigalpa 1150 mixed LA/U.S. mx, spots, name ID, comic pgm, ment. cold wx; mono; unlisted WRTH. Also hrd 88.8 Guat.
 1825-1830 Es 91.7 HROF- San Pedro Sula 1054 lt. mx. EL; too little to report; (R. Estéreo Centro) to weak to check if \$

The above skip openings to Mexico and Honduras/Guatemala respectively came before, and after, unseasonably cold weather which brought snow to Baton Rouge, a statistical happening once in ten years. On Jan. 8, North-Central Fla. recorded temperatures in the low 30's while Naples (South-Central) had readings in the 80's; the front between these extremes probably extended across the Gulf, producing the skip. Next deadlines Feb. 13, Mar. 13. Support FM SOUTH!

FEATURE:

There are now two 98.1 stations in northeastern México IDing as "La Chica Musical": Es and tropo alike make these likely DX catches through much of the USA. The two stations can be told apart in the following ways, observed by Glenn Hauser on 17 January in Texas:

	XHMLS ID	Frequent "LCM"	Music	adstrings	
<u>Matamoros</u>	on the hour	IDs, spoken only by YL	no deejay	mostly EL	incl PSAs, Amy jingles ?
<u>Monterrey</u>	Never IDs with call!	Less frqt. "LCM" IDs with music and chorus	male DJ on cart w/in-tro, rqtst	vocals English, u/ground	few subdued ads; mostly spoken on past 0100 perhaps all night



VHF UTILITY DX

Pat Dyer
5315 Silvertip Drive
San Antonio, TX 78228
Deadline: 12th of month

FEBRUARY 1973

Hank Holbrook, 7211 Chestnut Street, Chevy Chase, MD 20015 QSLed, GMT

10-21: 1339, N7818N 119.7 15 mi e of Friendship Arpt, MD (Baltimore Aviation Ser, Inc; Piper 180D, 1-en, 4-st; 7000')
1404, N6601P 118.6 ov N Bch, MD (Dura Bilt Metal Products, Inc.; Piper Commanche PA-24, 1-engine, 4-seat)
1449, N630TL 128.1 vic Newport News, VA (Time, Inc.; F-27; 1200')
1546, N30854 119.7 Swan Pt, MD (Transamerican Airports, Inc.; Cessna-177B, single-engine, 4-seat; 4500 ft)

Now, my loggings. Allied A-2586 with 30-ft indoor random-wire antenna.
All Es unless noted. New underlined. GST used.

<u>12-13:</u> 1408, KIN 645	25: 1627, KSJ 815	6: 1828, KQD 313
1428, KIF 651	<u>28:</u> 1300, <u>KGL</u> 704 (F2)	2117, KFL 936
1512, KIY 508	<u>30:</u> 1011, KFL 943	7: 1145, L Beach
1536, KIQ 999	1208, KLR 503 (F2)	1304, KME 438
1819, KQC 877	1249, KGC 482 (F2)	1705, KQC 877
1820, <u>KA</u> A 893	1300, KCA 695 (F2)	1831, KSJ 815
1824, <u>KSC</u> 644	<u>31:</u> 1916, L Beach	1834, KQD 609
<u>14:</u> 1254, <u>KSJ</u> 815	<u>1-1:</u> 1830, KSC 645	1838, KSC 645
1652, KQD 607	1902, KAI 927	8: 1110, L Beach
1835, KSC 644	1930, KFL 936	1125, KMA 829
1858, KSB 230	1943, KDN 402	1256, KFL 936
1912, KSD 326	1950, L Beach	1305, <u>S Diego</u>
1929, KSC 645	2003, KFL 943	1537, KSC 644
<u>15:</u> 1735, Eugene (F2)	3: 1906, KFL 936	1542, KQD 607
1737, Portland (F2)	1925, KFL 943	1547, KSC 645
1756, KLF 527 (F2)	1934, L Beach	1617, KIN 645
<u>16:</u> 1100, KCA 410 (F2)	4: 1316, Salem (F2)	9: 1113, KCC 482 (F2)
<u>19:</u> 1124, <u>KLD</u> 863 (F2)	1317, KOG 634 (F2)	1124, KQD 609
1148, <u>KLR</u> 503 (F2)	1937, KIN 645	1134, <u>KME</u> 438
1712, KCC 482 (2Es)	5: 1530, KOP 303 (F2)	1142, L Beach
<u>20:</u> 1906, KSC 644	1546, KOG 634 (F2)	1257, <u>KFL</u> 936
<u>21:</u> 0145, KQC 884	1551, KOK 418 (F2)	2056, KIY 999
<u>23:</u> 1152, KQC 877	1553, Portl. (F2)	2105, KIY 508
1154, KFF 891	1631, KJR 354 (F2)	2206, KMA 829
1213, KSC 645	6: 1030, KIN 645	11: 2047, L Beach
1236, KQD 313	1107, KIY 508	<u>12:</u> 1835, KIY 508
1258, KLR 503 (F2)	1110, KQC 884	1913, KIQ 999
1300, KCA 695 (F2)	1142, KSC 645	
1305, KCF 308 (F2)	1354, KAI 927	

KJR 354 add: 3-27-72: 1200; 10-25: 1500; 11-28: 1535

The following solar radio noise bursts logged agreed with listings in the weekly report on solar activity from Boulder (GMT).

10 Mar 72: 1920	25 Oct 72: 1634	2043
24 Oct 72: 1750	26 Oct 72: 1642	29 Oct 72: 1714
1800	2140	31 Oct 72: 2245
1815	27 Oct 72: 1703	8 Jan 73: 1822

Many other bursts were noted the last week or so of October but could not be verified by the other lists.

VHF UTILITY DX

FEBRUARY 1973

KAA 893	35 +	St. Louis, MO *	KME 438	35.22	Orange, CA *
KAI 927	35.34	Denver, CO	KOG 634	33.82	Kent, WA-f
KCA 410	33.9	Wareham, MA-f	KOK 418	35 +	(west) * mp
KCA 695	33.78	Manchester, ME-f	KOP 303	35.46	Langley, WA-mp *
KCC 482	35.22	Concord, NH	KQC 877	35 +	Cincinnati, OH *
KCF 308	33.66	N Reading, MA-f	KQC 884	35 +	Highland Pk, MI *
KDN 402	35.54	Omaha, NE *	KQD 313	35.50	Dayton, OH *
KFJ 891	35 +	Columbus, OH *	KQD 607	35.50	Grand Rapids, MI *
KFL 936	35 +	(west) *	KQD 609	35.22	Lansing, MI *
KFL 943	35.58	Las Vegas, NM	KSB 230	42 +	Joliet, IL-sp
KGL 704	30.74	New York, NY-t	KSC 644	43.58	Chicago, IL
KIF 651	35.58	Ft Lauderdale, FL	KSC 645	35.58	Chicago, IL *
KIN 645	35.22	Miami, FL *	KSD 326	35.58	Indianapolis, IN *
KIQ 999	35.34	Mobile, AL *	KSJ 815	35.22	Fort Wayne, IN *
KIY 508	35.22	Orlando, FL	-	35.26	Eugene, OR-mp
KJR 534	33.90	Seattle, WA-f	-	35.58	Long Beach, CA
KLD 863	33.70	Rockland, ME-f	-	35.26	Portland, OR-mp
KLF 527	35.22	Honolulu, HI	-	35.26	Salem, OR-mp
KLR 503	33.02	Boston, MA-h	-	35.46	San Diego, CA-mp
KMA 829	35 +	San Diego, CA *	(* A2 Morse tone ID's)		

f-fire; h-hospital; mp-mobile phone; sp-state police; t-transit;
rest are pagers

For new members (as well as some old ones), a few words are in order concerning paging stations. There are two main groups (voice and tone) with a goodly number of hybrids as well.

Considering the 35-MHz region first, the variety there is the more simple. Voice-only pagers (e.g., Long Beach; KIY 508) run a continuous tone loop with either a 'no message' announcement or a number/letter (or even color!) code for the subscriber whose message then follows. The ID on these may be complete with the call and town or just simply the town with a slogan (e.g., 'Air Call'; 'Radio Paging ...'). Subscribers carry pocket-sized receivers which are fixed-tuned to the pager. Average service area is around 20 miles or so. With a little practice a DXer can come to recognize these stations by the voices (usually female) on the tape as well as the style of message code used.

Also on 35-MHz, to the distress of some, tone-only pagers are in growing numbers, many having changed from voice type operation. These use a set of two, three, or four tones which will activate only a particular subscriber's receiver so that he can then telephone in and get the message waiting. The big 'advantage' is privacy. The big problem can come in IDing these, as most use rapid A2 Morse code (up to 20-25 wpm) at intervals of a few minutes to 30 minutes or more. Some are in slow code but the faster ones might need a tape recorder used with slow playback to decipher calls. Up until very recently there was at least one example of a tone pager with voice ID (KOA 796, Portland). With enough practice at it, one can recognize the tone system used and make a good guess without an ID (though many sound alike, e.g., KAI 927 and KIQ 999).

Other types of pagers in the 30-31 and 33 MHz (and likely many other spots) use short tone bursts (some coded to a particular receiver) with or without a voice message following. Station identifications are rare (except for KLR 503) and likely only in voice. This type of pager seems limited to institutions (schools, hospitals, plants).

Mobile-phones in the 35-MHz may be mistaken for tone pagers when they use the set of tones to activate the mobile unit ringing system. A few of these use A2 Morse code ID's instead of the more common '-- mobile' with the town.

73, Pat WA5IYX

FM QSL CORNER

Dennis Moe
8140 Storms Hall
ISU
Ames, IA 50010
Deadline: Feb. 13

- MISSOURI:** KCFM St. Louis 93.7. Spec ltr frm Edward B. Bench, CE, an associate of Bob Cooper. Enclosed specs and article on CADCO Interdigital Preamp. (RW)
- KWMU** St. Louis 90.7. "We are amazed, and you are the first to notify us of reception from so distant a point," says Robert W. Thomas, General Manager. (BE)
- NEBRASKA:** KWBE-FM Beatrice 92.9. Long, very specific, pleasant ltr for MS reception (in my experience, the stations love to get meteor scatter reports, and verie them specifically), from Arlin Holle, Asst. GM & Eng. Sup. FM-only CM is on back of letterhead. Most dx reports have come from Springfield VA; Hagerstown MD; Bla ck Mountain NC; Harrisburg PA; Weston ONT; and Long Island. (PW)
- NEVADA:** KLUC-FM Las Vegas 98.5. Keith Stewart, engineer: "KLUC-FM, believe it or not, is actually the weakest FM station in Las Vegas. This makes your reception of KLUC-FM a t 1400 miles quite a catch, to say the least." (BE)
- NEW JERSEY:** WADB Point Pleasant 95.9. "Sorry you're not a regular listener. If you were I don't think you'd be DXing so much (1)." Frank D. Murphy, Prog. Dir. (BE)
- WOBM** Toms River 92.7. Paul Most, Gen Mgr., says they were heard in LA in June. (BE)
- NEW MEXICO:** KOB-FM Albuquerque 93.3. Nice letter from Bill Beck, Manager. (BE)
- KAFE-FM** Santa Fe 97.3. Short letter from Ken Hightower, CE. (BE)
- NEW YORK:** WNYC-FM 93.9 and WQXR-FM 96.3 New York City both sent pos tcard veries. (BE)
- NORTH CAROLINA:** WBAG-FM Burlington 93.9. "Congratulations on the most distant reception report ever received on WBAG-FM" said Jack Starnes, General Manager. (BE)
- WVWB** Bridgeton 97.7 (P.O. Box 239 New Bern, Steve Gannon, prog. dir.): "I read your letter and was astounded to say the least. Not only because you were receiving us beautifully, but also because I am from Minneapolis. . . I think your organization is a great and much needed service or association." Station will increase to 100kW on 106.5 and change calls to WSFL. (BE)
- WRNS** Kinston 95.1. A warm, friendly letter from Jack Rider, President, who says "your report is by a considerable margin the most distant, out we do have regular listeners over a 100-mile radius." (BE)
- WLXN** Lexington 94.1. Short note from O. G. Hilton, Tech. Dir., who says also on July 2, 1972, they were heard in San Antonio (Hauser?) (Dyer? IMM). (BE)
- WWDR-FM** Murfreesboro 98.3. Don A. Burnett, Pres.: "Your report represents the longest distance, by far. I am surprised that you were able to capture the stereo pilot, almost as much as I am surprised at your reception." (BE)
- WKBC-FM** North Wilkesboro 97.3. Very informative letter from Ed Racey, news director. "WKBC-FM does not have \$ at this time. Our FM is automated and we will need some additional equipment. . . Your report in regard to the two news items was very accurate." (BE)
- NORTH DAKOTA:** KPFR-FM Bismarck 92.9. Dave Montgomery, prog. dir. writes that on June 2 they were picked up in Erwin TN and Athens AL and on June 12 in Tuscon AZ. (BE) Specific letter from Dave Montgomery, Program Director. (RW)
- KDLR-FM** Devils Lake 96.7. Chief engineer scribbled a verie note on my letter, saying "we have been heard in Louisiana." (BE)
- KCJB-FM** Minot 97.1. Rex Pettijohn, Manager., scribbled a note on a Xerox copy of my letter: "It is far and away the greatest distance from which we have received a report." (BE)
- OHIO:** WHIO Dayton 99.1. Card in 6 days signed by the Chief Engineer. (GL)
- WDBN** Medina 94.9. Letter from Bill Hudson, Prog. Dir., with power info. (AO)
- WCHO-FM** Washington C. H. 105.5. Robert Lutz, Stn. Mgr., "If our skip ever gets up your way again, we hope you'll be listening. If it gets in there regularly, maybe we can sign you on as a commission salesman!" (BE)
- OKLAHOMA:** KAFG Oklahoma City 102.7. Letter, specific, and CM from Jay Perkey, CE. Most distant report is from Boise ID. (RW)
- PENNSYLVANIA:** WFFI Philadelphia 92.5. Form letter from Jeff Steinwedel, CE. (BE)
- WPEN-FM** Philadelphia 102.9. Ltr frm Charles Burtis, CE, who says they are not stereo and this is the greatest distance. (BE)
- WUHY-FM** Philadelphia 90.9. Ltr frm Nathan Arnold Shaw, Stn. Mgr., who appreciates my "good wishes concerning the challenge to our license." (BE)
- WSH** Philadelphia 106.1. Tierney W. Smith, Jr., CE, was surprised that I was able to copy them in \$ a t that distance. (BE)

WGCB-FM Red Lion 96.1. Fred W. Wise, Asst. Mgr. mentions "the most distant letter we received was from Mr. Fred McCormack, Des Lacs ND 58733 (1)." (BE)

SOUTH DAKOTA:KTEQ Rapid City 88.1 (Box 881, Surbeck Center, S.D. School of Mines & Technology, Rapid City SD 57701.) Nice letter on stationery with magnetic-stype letters. For a tentative tape Es rpt of last May. Signed Bill Franks, Station Engineer. ERP of 20w from ant. on KBHE-TV tower. (GH)

KBHB-FM Sturgis 93.1. Pleasant letter, specific about program details but not mentioning date or time, from Ray Riccio, PD. Enclosed AM CM. FM went on air Dec. 6, 1972. Mine is most distant report. (RW)

KWYR-FM Winner 93.7. Pleasant, long, 2-page, specific letter and CM from Al Clark, President..Enclosed AM, FM CM's. (RW)

TENNESSEE:WDYN Chattanooga 89.7. Douglas Schriner, Prog. Dir., confirms reception and thanks for article on "DX-FM Listening"(still available from B.E. at \$1.30 for 50 sheets from Box 24, Adolph MN 55701). (BE)

WCLE-FM Cleveland 106.7. Pleasant, specific ltr and CM from Ronald L. Murray, CE. (RW)

WNBL-FM Covington 93.5. Heard also in Broomfield CO (Probably Marv Robbins when he lived there): Katherine C. Whiteley, partner. (BE)

WUOT Knoxville 91.9. Specific letter from Norris Dryer, PD. Like me, Dryer used to work for WFIU, 95.7 in Bloomington IN. (RW)

WDXE-FM Lawrenceburg 95.9. Pleasant, specific letter from Dan Hollander, PD. Most distant report is from Tucson AZ. Enc. FM CM, AM sked. (RW)

WFLN Nashville TN 90.3. Letter in 31 days giving power-antenna info; signed by Alvin L. Bolt, Manager. (PD)

TEXAS:KTBC Austin 93.7. Sent very brief letter in 11 days signed by J. C. Kellam, General Manager. (PS)

KEZT Dallas 104.5. Cryptic, inspecific letter on outdated KIXL-FM letterhead from Bob E. Tripp, CE. Enclosed Lucky Number card. (RW)

KNUS Dallas 98.7. Sent letter, windshield sticker, and promotional material in 19 days. Signed by Bill Thompson, CE. (PS)

KRLD-FM Dallas 92.5. Brief but definite letter from Jon Dillon, PD. Enc CM. (RW)

KDSX Denison-Sherman 101.7. Brief letter from B. V. Hammond, President. (RW)

KDLK-FM Del Rio 94.3. Jeri F. Roberts, sales manager, says they have been heard in MA; mentions that the "station in the sister city of Ciudad Acuna, Mexico, broadcasts on 96.4 with 2660 watts."

KSET-FM El Paso 94.7. Pleasant, specific letter from Mr. Audrey Lewis, M. CM. (RW)

KFWD Ft. Worth 102.1. Pleasant specific letter from John Wallus, PD. Enc CM. Interested in DX-ing, asked how he could get a sample copy of VUD. (I told him).

KESY Galveston 106.5. Pleasant, spec ltr from Luke Stripling, E. Mr Stripling (PW) had kindly waited until new KESY letterheads were prepared (ex-KGBC-FM). (PW)

KQUE Houston 102.9. Sent letter and card in 9d signed Errol R. Coker, Studio Eng. The letter contains considerable technical detail, and Mr. Coker states that my letter was posted in the main control room for the employees to read, due to distance of reception. KQUE is one of the most powerful stations in the US with 280 kW horizontal and vertical ERP. (PS)

KRBE Houston 104.1 sent letter, business card, and a whole book of promotional literature. Signed by Meyer Gottesmann, who states he is a ham (W6GIV/5), and describes his own entire FM setup in San Francisco, CA. (PS)

KVMV McAllen (Pharr) 96.9. "You have established a record for reception of KVMV, and your letter will have a permanent place in our archives. . . May God bless you real good!" From John A. Pankratz, Manager. (BE) Two separate, specific ltrs frm Donald Borgman, E. Enc copy of good report frm WTFDA'er Lowell E. McCown in Prestonsburg KY, also CM and brochure. (RW)

KQXX McAllen 98.5. Specific letter from Chuck McKasson, GM. (RW)

KOBS Orange 104.5. Brief, detailed letter from Charles H. Kobs (cf. station call; also Orange Broadcasting Service); new address is Rt. #3, Box 483-E, Orange TX 77630. I am the first listener beyond Lake Charles. Some WTFDA'er can surley beat this 195-mile record. (RW)

KLIS Palestine 94.3. Hand-written, specific letter and rate/sked sheet from L. D. Harris, President. (RW)

KYND Pasa dena 92.5. Sent letter stating that mine was record reception distance and giving studio and transmitter equipment detail. Signed by A. N. Meineke, who stated that he'd keep my Canadian dime as a souvenir of my reception. (PS)

CONTRIBUTORS: Peter Sawatzky, Waterloo ONT; Adela Ossowski, Erie PA; Richard Wood, Baton Rouge LA, Bruce Elving, Adolph MN; Pat Dyer and Glenn Hauser, San Antonio TX.

CCI

FM

Bruce Rummel
R.D. 1, Box 385
Fleetwood PA 19522

[UNIDENTIFIED-DX]

FEBRUARY 1973

This year will probably be an excellent one for FM DX, for several reasons. First, the growing number of FM stations will result in more loggings for more members; those of us who are being crowded out locally by stations will be turning to better receivers, better antennas and better DXing locations. One major kit manufacturer (Heath) has introduced a low-cost, high-quality automobile FM receiver which should be useful for DXing anywhere one goes. Furthermore, openings have been far from dry even for northern FM DXers in these winter months. Tropo and skip reaching into the FM band have been noted here in January. Interesting weather patterns will result in many new loggings for many DXers. And, thanks to WTFDA, the average FM DXer finds himself better equipped and better prepared for his hobby than ever before. Now for some FM CCI. Only a few unID's this month, but the alert reader should be able to identify those in his general area. Remember, the most important feature of this column is for the member who knows to drop a card to the originator or to this column.

Adela Ossowski, 412 East 12th St., Erie PA 16503

Wed Nov 15	Tr	90.9	1530 EST	- -	Sign on, college station. PTA: Great Lakes area, NY. Suspected: WGUC, WILL-FM, WDUB, WVIK. Note sign-on time!
Sat Aug 21	Tr	89.5	1939 EDT	- -	These 1971 loggings have not been IDed.
Sun Aug 22	Tr	89.5	1230 EDT	- -	Programming was church services (Catholic) daily at 1115 and 1315, one hour later Sun. Suspected: WSAJ, WSOU, or an unlicensed wireless system. Now blocked (after 1200 anyway) by WITF-FM.

Dr. Richard Wood, 820 Arlington Ave., Baton Rouge LA 70806

Thu Dec 14	Ms	92.3	0000 CST	- -	Station signing off, STL has call WYN31.
			or 0100 EST	- -	PTA: Midwest, north US. Anyone know them?
Mon Jan 8	Es	97.5	2136 CST	- -	Automated MoR/EL ID'ing as <u>KOCI</u> in CST. Es into central Mexico in progress. Suspect call change from KINT-FM El Paso (MST time zone?) or KSJT San Angelo TX.

Richard Wood's second unID will be undoubtedly solved in several weeks, the time it takes for a call change to filter through the communications barrier of the communications industry. If WTFDA had an interested member in DC who could pick up the free FCC Public Notices each day on Broadcast Actions and Broadcast Applications! These are issued each working day at 1100 and 1500 by the FCC Public Information Officer. A volunteer member or friend of same in the Washington DC area who could do this would be a fantastic help, as the FCC does not maintain mailing lists and Press Agency pickup would cost far too much. In this way FM CCI and the station data columns would be up-to-the-minute and freed from the errors, omissions, and vagueness of the data in the slow industry publications.

IDENTIFICATIONS. Pat Dyer's logging of a low-band Es station listed in FM CCI last month as possibly WIAA or WHWC is not WHWC, according to Bruce Elving.

Thanks to Adela Ossowski for supplying FM CCI with program information on Canadian and educational FMs in her area. Additionally, I wish to thank Richard Wood for furnishing me with a complete copy of his FM DX Log, containing valuable format and hours of operation information which will be used in FM CCI.

And that's about all for now. One reminder which might help along the lines of FM CCI: New FCC rules require that an FM station identify only at hourly intervals, as close to the hour as possible without breaking the continuity of programming. The old rule was within two minutes of the hour and half-hour. Good DXing and 73 de Bruce.

TV-CCI

[UNIDENTIFIED-DX]

FEBRUARY 1973

Leslie J. Prus
1615 Pierre Street
Manhattan, Kansas 66502
Telephone: 913-537-7886

(Unidentified TV DX)

ERROR! The second-class postage rates given in last month's TV-CCI column were obtained from a now-obsolete U.S. Postal Service pamphlet. According to the current "Notice 59" the second-class rates for newspapers and such periodicals as TV GUIDE (copies mailed by the public) are "6 cents for the first two ounces, 2 cents each additional ounce or fraction thereof..." Keep in mind that a TV Guide weighs four ounces in a 6x9 envelope, and so two TVGs ordered from a TVG office would require 18 cents return postage. I'd recommend a maximum of only two TVGs per 6x9 envelope; that way the envelope will not burst enroute. For DXers mailing TVGs to each other, it's better to remove the cover and glossy pages. Not only does this cut the weight of the TVG in half and allows you to send more in each envelope, but with the edition name on page "A-1" of the TV Guide exposed, the TVGs can be more easily stored and more quickly referred to.

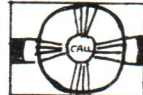
The ATLANTA regional production office of TV Guide has agreed to make its thirteen editions available to DXers under the conditions described in last month's TV-CCI (p.30). The list of editions can be found in the Dec. 1972 VUD (p.43). And now to the unIDed loggings of your editor: All 1972

Mon Jan 3 MS ch 3 0613 EST - - slide at right, probably
Wed Apr 26 MS ch 3 0608 EST

an early morning news report, otherwise why the world map? PTA is East US, Suspect KYW.



Mon Jan 3 MS ch 3 0626 EST - - CBS Test Pattern as at right with call letters unreadable. PTA: E. US Suspect WRBL, WCAX, WKZO Which do & which do not use a CBS TP mornings?



3 0640 EST - - "Story of Jesus" PTA: East US. Suspect WAVE, WSAZ, WBTW, WWAY. (Pls chk ur TVGs!)

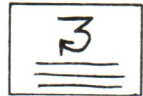
3 0653 EST - - CBS-TP, as above. Suspect either WCAX or WREC (which is in central timezone)

3 0557 CST - - ID slide as at right

3 0657 EST



with a peculiar logo featuring a "3" with an arrow on its tail. PTA: East, Midwest US



Wed Apr 26 MS ch 3 0619 EST - - Slide: "Farm News" PTA: East US. Chief suspects are WKYC and WPAR.

3 0650 EST - - Test pattern similar to CBS-TP above but inner circle had "3" in the upper half and "W???" in lower. Suspect WWAY.

Mon May 15 Es ch 4 1035 CDT - - local movie in PTA: TX, LA, NM or AZ area. (1950s crime drama with criminal and his hostages searching for hidden \$ in the U.S. desert southwest.) Since there is no sign of morning movie in TVGs, please check TVG for that day for any channel with above movie on that day/time. (xltr?)

Mon May 29 Es ch 3 1850 CDT - - Woman seated behind desk giving nx, commentary or interview. PTA: South Texas with these possibilities: KIII, KACB, KBTX

73,
Les



NORTH OF THE BORDER: FOR NEWS IN CANADIAN BROADCASTING FEBRUARY '73

TV APPROVALS

CHARLOTTETOWN, PEI ch. 8 $14.5/1.45$ kw dir Sat OKOW-TV Moncton NB (OTV)
MOUNT BAKER, BC ch. 10 .9 kw ERP Sat OBUBT Cranbrook (OBC)
CRANBROOK, BC OBUBT Press: ch. 10 1.1 kw Preps: ch 65 27.7 watts EHAAT 681 dir
RAPIDES DES JOACHIMS, PQ ch. 8 .161/.0161 kw dir Sat new ch 11 Chapeau (RADIO-CAN)

TV APPLICATIONS

LEAF RAPIDS, MAN ch. 15 .26 kw dir Sat OBWT Winnipeg (OBO)
THUNDER BAY, ONT ch. 4- Pres: .52 kw EHAAT 180 Preps: 30 kw EHAAT 1197 OHFD-TV
BARRIE, ONT OKVR-TV ch. 3 100 kw Press: EHAAT 820 Preps: EHAAT 1118
FRDERICTON-SAINT JOHN, NB ch. 5- Applied fers: 18.5/3.7 kw EHAAT 480
New appls: 33/6.6 kw EHAAT 637.5 new site Sat OBAFT Moncton (RADIO-CANADA=cbc fr)
FERNIE, BC ch. 8 58.5 watts vid ERP Sat OBUBT Cranbrook (OBC)
MORRISSEY RIDGE, BC ch. 21 29.5 watts vid ERP Sat OBUBT cranbrook (OBO)
KEARNS, ONT ch. 11 Pres: 65 kw Preps: 162 kw OKSO-TV-3 (CTV)

TIDBITS

###NEW CALLS: ch. 13 Sept-Îles PQ CBST ch. 6 Deserente ONT OJOH-TV-6
ch. 8 Red Deer ALTA CFRN-TV-6
###By request of ORTO, 2nd Fr language TV service will be greatly expanded.
OHLT-7 Sherbrooke wishes to join TVA NETWORK (consisting of CFTM Mtl, CFOM Que, &
OJPM Chicou). Thus new OBC FR needed for Sherb. Appl'ns have been received for
Ottawa-Hull; will accept for lower StLawrence & N Shere, Gaspé, n NB, n PQ.
Also wanted is 3rd french service for Mtl & Que. Details at later date.
###OEOA, Ontario's ETV, will apply for U's in Ottawa, Kitchener, London, Windsor &
Chatham. Last 4 are more xmtrs than needed, we feel. OEOA also wanted ch 6 Kings
###CFAC-2 Calgary may go indpt, so OBC would build their own station as replacement.
###We're all in favor of a TELEPHONE DX NETWORK mentioned in Jan VUD. It should
extend from WIS-ILL to QNT-PA. Hope many participate.

TV-DX Techniques

DO YOU THROW UP YOUR HANDS IN DISCUST when the translator band is full of DX but your UHF tuner can't tell you which channel is which??? THEN BEAT YOUR FM TUNER with your TV set! HOLD IT!—We mean beat it electronically. If you have an FM tuner whose frequency you can read to $\frac{1}{2}$ MHz, then you can apply this simple frequency measuring method. The table below shows the FM frequencies which will produce a beat (screen darkening) on each UHF translator channel, via an oscillator harmonic (+10.7 MHz^{assumed}). If your equipment is too well shielded to pass these 8th harmonics, you may have to run a wire near the antenna terminals. Bonus! this video carrier injection may bring in weak UHF audio. Glenn Hauser doesn't want to see any potential translator records go to waste! TRY IT...

UHF	FM	72	91.71	75	93.96	78	96.21	81	98.46
70	90.21	73	92.46	76	94.71	79	96.96	82	99.21
71	90.96	74	93.21	77	95.46	80	97.71	83	99.96

Of course, you can use the same system to measure lower UHF channels. Only chs 15, 16, 17, are untouched by any FM band oscillator harmonic. Simply divide the video carrier frequency of any channel by 4, 5, 6, 7, or 8 and then subtract 10.7 until you find which lies within the FM band. Those of us with TV Factbooks will gladly check translator un-IDs—once YOU supply the exact channel as a starting point.

SERVING THE
VHF-UHF DX
ENTHUSIAST



P. O. BOX 163
DEERFIELD, ILLINOIS 60015

The VHF-UHF DIGEST is the monthly publication of the Worldwide TV-FM DX Association. WTFDA is a nonprofit organization and a member club in the Association of North American Radio Clubs.

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|||||SUPPLIES|||||

WTFDA Emblem Rubber Stamp: \$2 (Design is as shown at top center of this page. Full size is 1 1/2".)

FM Atlas and Station Directory: \$2.50 3rd class, \$3 1st class. By Dr. Bruce F. Elving, WTFDA FCC FM column editor. Very detailed, and probably the most accurate FM listing available. Offset printed.

Stationery: Features official WTFDA emblem printed in blue. Ideal for all your correspondence. 45 sheets: \$1.

Log Sheets: Perfect for keeping your running log neat and organized. Punched for a three ring binder. Pad of 100: \$2.

VUD Boxes: A great way to keep your copies of the VHF-UHF DIGEST neat and protected. Very attractive and a bargain at \$1.25!

Station Report Forms: For requesting QSL's. 45 sheets: \$1.

DX Column Report Forms: For reporting to columns. Free w/ SASE

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