

VHF-UHF DIGEST



COMPUTED COVERAGE CONTOURS

*91.1 MHz, 100,000 watts h&v; 860'

WGGL - FM; HOUGHTON, MICHIGAN

The Official Publication of the
WORLDWIDE TV-FM DX ASSOCIATION

Apr. 1976



publishers' notes...

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

SPECIAL FM ARTICLES... make for a very special edition of the VUD! In addition to Bruce Elving's excellent advice on "DXing Educational FM," this month we also have Pete Oprisko's review of the Sony ST-5130 FM tuner, information from Morrie Goldman on interpreting tuner specifications, and a feature from your editor on IDing the "Q" stations one finds on FM! As usual, included are the regular DX, QSL, CCI, and FCC columns which make this your favorite magazine. All in all, perhaps the best VUD issue published to date!

SUPPLY PRICES... have undergone some minor changes, as noted on the back cover this month. WTFDA's popular publication, Beyond Shortwave, is now \$1.25, while the UHF Translator DX Guide is now \$1.50. Special package deal: if either of the above publications is purchased with the TV Station Guide, the price is \$5 for both books!

NEW EDITORS... Premiering on page 39 this month, Rod O'Connor will be handling the FM CCI column, which has not appeared since 1973. Rod welcomes your contributions of FM unIDs (or IDs). Starting in May, Paul Gaines (15920 Puritan Street, Detroit, Michigan 48227) will edit a column titled This Is Your DX, featuring stories of memorable DX experiences submitted by members. Editors are still needed for the TV Statistics/Scoreboard column, Southern FM DX (replacing Charles Winters, whose membership expired), and a new "nostalgia"-type column proposed by Ken Simon. Please apply soon!

73, Clarke Ingram for Pete Oprisko, John Zondlo, and Mike Hogan

TABLE OF CONTENTS

WTFDA MAILBOX: More Members, Thin Tidbits.....	3
FCC-TV NEWS: Transcendental Meditation on L.A. TV.....	4
FCC-FM NEWS: Muzak to Sue Elving over SCA?.....	5
AFRTS TV: Yes, They Do Watch Walter Cronkite in Alaska.....	7
EASTERN TV-DX: February "Low Point of the Year".....	8
CENTRAL TV-DX: 38 in Chicago's Been Seen!.....	9
WESTERN TV-DX: For Both March and April, Yet.....	11
NORTHERN FM-DX: Conditions Bleak in Syracuse and Elsewhere.....	16
PHOTO-NEWS: A Very Special Visit with Gary Olson.....	20
WESTERN FM-DX: VUD Editorial Procedures Briefly Explained.....	22
SATELLITE TV: A \$70 Million Boondoggle?.....	24
VHF UTILITY DX: Cycle 21 Spot Groups Appearing.....	25
INTERNATIONAL NOTES: FM in Jamaica, Plus Worldwide TPs.....	26
TV QSL CORNER: Abbreviations, But No Contributors!.....	27
FM QSL CORNER: In the Meantime, This Column's First Supporter.....	28
F M STATISTICS: No MS or Au Records on 99.3 MHz?!.....	28
TV CCI: Non-TV Guide TV Listings.....	29

SPECIAL FM SECTION

SONY ST-5130: An Extraordinary Value, Says Pete Oprisko.....	30
FM TUNER SPECS: Morrie Goldman Presents an Interpretation.....	32
DXING EDUCATIONAL FM: Elving's Expertise Affords an Article.....	34
MORE NON-IDERS: Or, How to Identify "Q-102".....	38
FM CCI: Rod O'Connor, A New Editor for Your FM UnIDs.....	39

PLUS: Featurettes on the Avco TV Network, Christian Broadcasting, and...well, peruse the periodical!



WTFDA MAILBOX

John Zondlo
6617 Maryland
Hammond, IN 46323

Greetings. Slim pickings this month.....

Tim Benko	2748 179th St.	Lansing, IL 60438
J.J. Ciesielczyk	4560 S. 84th St.	Milwaukee, WI 53288
William Gove, Jr.	Box B	Wiscasset, ME 04578
Theodore Quiroz	3805 N. Harding	Fort Worth, TX 76106
Ron Seman	1712 Sheridan Ave.	Whiting, IN 46394
Karl Swartz	633 S. Hough	Barrington, IL 60010

Rejoin: James Bognar-805 W. Washington St.-South Bend, IN 46601
Roger H. Brown-1617 Linden-East Lansing, MI 48823
Andrew P. Smith-4309 Hamilton St.-Hyattsville, MD 20781
James Thomas-Box 454-Tipton, MO 65081

Renewals: Frank Aden, Dr. R.B. Ammons, Danny Buntin, Michael F. Collins, Tom Cornell, Pat Dyer, Bill Eckberg, Perry Ferrell, Harry J. Hayes, D.A. Johnson, Joseph Longmoore, Pat Martin, Henry McCoy, Donald Nelson, Fred Nordquist, Rod O'Connor, Jim Pizzi, L.E. Price, R.L. Rouse, Bob Seybold, Joseph Smith, Jr., Richard Steinberger, Michael J. Sweeney, Peter V. Taylor, Bill Thompson, Richard Tidberg.

New member TIM BENKO is an air check freak...in fact, he has his own air check company, "Windy City" airchecks. If you're interested in swapping airchecks, contact Tim.

Here's what J.J. CIESIELCZYK has in his DX shack: a Bearcat 101 rx, a Regency ACT-R10H/L/U, a Lafayette Portascan-4, an Antenna Specialist all band preamp, an A/S all band base model mon-3l antenna, an A/S Mon-41 VHF HI band translator, a Regency TMR-8A aircraft monitor, and several FM receivers. Not bad, eh?

RON SEMAN joins us from the oil city of Whiting, also home of VUD co-publisher Pete Oprisko. Ron is a 14 year old high school student who uses a Marantz 10-B receiver connected to a Channel Master Probe 9 antenna. The antenna is mounted at 53 feet, and is moved by a Ham II rotor.

Happy Birthday to newcomer KARL SWARTZ! Karl's one year membership is a birthday gift from Doug Everitt. His shack will soon feature a Marantz 2325 receiver.

Tidbits.....

I'm sure that many of the old timers, myself included, are happy to see Roger Brown back in WTFDA. Rog writes, "I've not been with you in person... but have in spirit as an active DXer. Totals (tv of course) now 462 seen including 217 Us. Haven't seen much this winter...missed all the Es but caught a little tropo. New stations lately have been new "locals"...like the 2 Canadian educational outlets on so far...CICO-18 London, GICO-28 Kitchener...and WCFL-38 (complete surprise) (it is to me too-jz). Last big day was last fall (don't have log with me)...saw 12 new including translators in Minn. and Iowa. Equipment remains the same...dish, same amps, same VHF ants, etc. All still in pretty good shape. All else has been growing...the kids (5 and 2 yrs now), the job and my body (unfortunately). I've missed the club. Am glad to be back."

The American Radio Relay League (ARRL) will hold its convention July 16th, 17th, and 18th, at the Denver Hilton Hotel in Denver, Colorado. For more information, contact KØATZ, 2450 S. Quitman St., Denver, CO 80219.

IRCA will hold its convention in San Francisco this year...the dates are August 13, 14, and 15. Further information can be obtained from Rick Heald, 534 Weldon Ave., Oakland, CA 94610. The other BCB club, NRC, will hold its convention in Derbytown (CB for Louisville, hi) September 3-6. For info, contact Wayne Murphy, 1411 Phyllis Ave., Louisville, KY 40215.

Well, that's it for another month. Keep up the fine support of this column, plus your support of the other great columns in the VUD. Remember, without you there would be no WTFDA.....jz



FCC NEWS AND DATA

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

April 1976

AUTHORIZED STARTS

•WCML-6 Alpena, MI
•WZTV-17 Nashville, TN

APPLICATIONS

Topeka, KS	(43)	1150kw	1118AAT
Dickenson, ND	(7)	235kw	596AAT
•Owensboro, KY	(19)	648kw	974.5AAT
•Paducah, KY	(29)	691kw	686AAT
•Lafayette, LA	(24)	2128kw	1595AAT
•Eufaula, OK	(3)	100kw	693AAT
•Park Falls, WI	(36)	741kw	1468AAT

CP's GRANTED

Crossville, TN	(55)	18.6kw	1180AAT
Allentown, PA	(69)	18.25kw	471AAT

CALL LETTER CHANGES

WECA-TV	Tallahassee, FL	was	WCST
KGMD-TV	Hilo, HI		KPUA-TV
WTHR	Indianapolis, IN		WLWI
WCMH-TV	Columbus, OH		WLWC
KVIJ-TV	Sayre, OK		KFDO-TV
WTVF	Nashville, TN		WLAC-TV
WZTV	Nashville, TN		new ch. 17

* non-commercial, public TV stations

TRANSLATORS GRANTED

W61AE	Newport, VT	WEZF-22
K04IF	Yakutat, AK	KYUK/KUAC
K57AD	Chester, CA	KCRA-3
K59AU	Chester, CA	KOVR-13
K05FV	Hoxie, KS	KWNB
K12KH	Quinter, KS	KWNB
K12AB	Baker, MT	KPSD
K11NC	Pump's Ranch, MT	KTVQ-2
K13NX	Pump's Ranch, MT	KULR
K07NU	White Sulpher Springs, MT	KTVM-6
K12KI	Culbertson, NE	KPNE
K65AT	Neligh, NE	KXNE-29
K13NU	Stratton, NE	KPNE
K02IC	Jacksonville, OR	KMED
K03EI	Tolo, OR	KOBI
K07NS	Helper, UT	KUED
K09MP	Malo, WA	KXLY
K11NB	Malo, WA	KREM-2
K13NV	Malo, WA	KHQ-6
K13NW	Jeffrey City, WY	KOA-4
K58AM	Rawlins, WY	KOA-4
K07NT	Saratoga, WY	KOA-4

FROM THE READERS....

New channel 43 in Topeka would be ABC and a satellite of KQTV-2 with antenna on WIBW-13 tower...WPGH-53 in Pittsburgh has lowered their ERP from 3132kw to 2338kw...WQEX-16 has increased power in Pittsburgh...Also in Pittsburgh WPCB-22 was not on as of January 29 despite November target date; WPCB is Western Pennsylvania Christian Broadcasting...WOPC-38 in Altoona has been on for some time, but is only at 21.4kw...KVST-68 Los Angeles left the air on December 24 but expects to return...WGPR-62 Detroit, black-owned station, has received quite a lot of national publicity...Georgia ETV Network is setting up a system of UHF translators to fill in area of the state not served by existing transmitters...they are Toccoa (68) Carnesville (65) Hiwassee (50) Columbus(48) Draketown (27) Cedartown (65) Carrollton (49) Lafayette (35) Flintstone(51) and Elberton (60)...FCC has proposed reassignment of channel 36 from Cumberland to Oakland, MD for PTV use; will be put into use by Maryland Center for Public Broadcasting...KHIN-36 and KBIN-32, Red Oak and Council Bluffs IA ID jointly...WNPB-13 Marquette, MI is now WNMU-TV...Greater Washington Educational Telecommunications Assoc. hopes to buy WMAL-7 to give DC a VHF public television station; WETA-26 recently was rejected for drop-in channel 12...Channel 14 translator in Arlington, VA will relay channel 53 from Goldvein, VA; frequency became open when WFAN-14 license was revoked. ...Plans are now underway to activate channel 18 in Los Angeles as a Trans-Endental Meditation station; expect to have KSCI call letters and operate from "high power transmitter near San Bernardino and studios in West Los Angeles...Oregon Public Broadcasting System took control of KVDO-3 on February 19. Thanks to Frank Aden, Jr., Bruce Elving, Ken Simon, Jim Pizzi, and Clarke Ingram.

CONVENTION NEWS

Morrie Goldman, host of this year's WTFDA convention in Chicago, informs us that the convention dates will be August 6, 7, and 8. Already tentative are a videocassette recorder demo and talk by Gary Olson, a visit to a Chicago TV station, and a technical talk. Morrie invites your comments and ideas at 5815 N. Christiana Avenue, Chicago IL 60659. In other news, we're pleased to be the first to announce that the ANARC convention will be held July 23, 24, and 25 in Los Angeles. Host: SCADS (Southern California Area DXers).

FCC FM NEWS

Bruce Elving, Editor
18 1/2 E. 5th Street
Duluth MN 55805, U. S. A.

New Stations Granted

AL Butler 93.5 3000 h,v; 230' [State U.
AL Troy *90.1 50000; 285' 26, 65 mi Troy /
AR Fort Smith 100.9 3000 h,v; 275' KFPW:
Final approval of 1971 decision, over-
turning subsequent denial of same.
AR Warren 105.5 3000 h,v; 265' kg 14, 44 mi
CA Chester K221AI 92.1 1 w omnidirectional;
translator of KSRN 104.5 Reno NV, \$, m, l.
MD Williamsport *90.5 6720; 37' 3, 26 mi.
MN Eveleth 100.1 2100 (h); 352' 15, 46 mi.
MN Morris 107.5 100000 h,v; 360' 53, 122 km
PA Sharpville 95.9 3000 h,v; 300' cm
WA Richland 106.3 2690 (h); -44'
WY Mammoth Hot Springs K280AH 103.9 [KMTN
96.9 Jackson WY] 10w, 08 degrees DA.
WY Rock Springs 96.5 98800 h,v; 1620' kr

Deletions

CA Quincy KFRW-FM 95.9
NC Wingate WNGT *89.1
WY Mammoth "K280" 103.9 [KID-FM 96.1 Idaho
Falls ID illegal translator, replaced by
"Mammoth Hot Springs" (above)]

On Air and DX Ready!

FL Crystal River WRYO 98.5 g 100000h,v; 430'
IL Barrington WBPR *88.5 10
IL East Moline WEMO 101.3 50000 h,v; 500'
ME Westbrook WRGN 100.9 890 h,v; 508' p
MI Bloomfield Hills WBFH *88.1 10
MN East Grand Forks KRAD-FM 103.9 3000 h,v;
145', monoponic, k, Mutual network.
MS McComb WTBI 105.7 100000 h, 60000; 390'
MO Portageville KMIS-FM 106.3 3000 h,v; 230'
NH Hanover WFRD 99.3 3000 h,v; 285' \$ cm
NM Albuquerque KIPC *91.5 8300 h,v; 4115' \$
OH Canal Fulton WNNR *90.9 840; 47'
OR Eagle Point KEPO *89.1 10
TX Plainview KWLD *91.5 370 h,v; 120'
Back on the Air:

MN Duluth WOTH*103.3 100000 h,v; 550' rcjs,
monaural, having replaced KUMD *89.1 in
Duluth (off the air). KUMD virtually de-
leted.

On Air with Changes (Selected)

CA Chico KCHO *91.1 1950 h,v; 24'; \$
CA Riverside KHNY-FM 92.7 80 h,v; 1620'
(Calls changed from KCNW).
ME Portland WDCS 97.9 49000 h,v; 500'
MI Ann Arbor W1QB 102.9 10000 h,v; 155'
MI Dearborn WNIC-FM 100.3 50000 h,v; 400'
OH Toledo W1OT 104.7 50000 h,v; 540'
SC St. George WPMR 107.5 100000 h,v; 440'
TX Laredo KOYE 94.9 100000 h,v; 770'
VA Fredericksburg WFVA-FM 101.5 115000h,v; 61'
WI Highland WHHI *91.3 on with v, making
all 8 WI Ed. network stations "v."
WI Milwaukee WANA-FM 102.1 50000h,v; 360' \$?
WVCY 107.7 38000h,v; 440' \$
PR San Juan W5RA 93.7 50000 h,v; 260'

Stereo Stations

CA South Lake Tahoe KRLT 100.1
GA Warner Robins WRBN-FM 101.7
LA Golden Meadow KZZQ 94.3 rp (no more k)
ME Calais WQDY-FM 92.7 ra
NJ Pleasantville WGRF 99.3, mr (or just m?)

New transmitters Installed

CT Hartford WRIC-FM *89.3
KY Paducah WKYQ 93.3 | Any of
MD Annapolis WNAV-FM 99.1 | these
MA Lynn WLYN-FM 101.7 | stations
OH Johnstown WJJJ 103.1 | now
VA Abingdon WBBI-FM 92.7 | Stereo?

Facilities Changes

CA Sacramento KXOA 107.9 27500 h,v; 420'
CA San Francisco KUSF *90.3 5000h,v; 300'
CA San Jose KJSJ *90.7 -165' (1000 h,v)
MA Boston WBUR *90.9 50000 h,v; 250'
MA South Hadley WNHG apparently to re-
main on *90.7, 10 w (CP "forfeited" to
change to *91.5; if so, this station's
operation may suffer severe interference
from the next-listed station.)
MA Springfield WTCC *90.7 4000 h,v; 92'
8, 34 miles (South Hadley is barely
out of WTCC's 8-mile contour; what
give?)

NY Ithaca WICB *91.7 adds v
NC Wilmington WWIL 97.3 no v, as Tom
Cornell suspected; FCC confirms. Their
letter to me told otherwise.
OH Paris WNCM *90.1 10000 h,v; 301', 19,
54 miles (not 10 watts as erroneously
reported before) [(100,000 h,v)
SD Sioux Falls KELO-FM 92.5 1850 h,v /
WV Charleston WTIO 102.7 45000 h,v; 400'
PR Bayamon WEYA 94.7 adds v

Vertical Polarization Confirmed

IL De Kalb WNIU *89.5; IN Vincennes WVIU
*91.1; MS Jackson WLIN 95.5; NC North
Wilkesboro WKBC-FM 97.3; OK Ada KTFN-FM
93.3; SD Sioux Falls KNWC-FM 96.5.

Horizontal Only, Says the FCC:

AL Birmingham WVOK-FM 99.5; CO Colorado
Springs KKFV 96.5; DC Washington WPFV
*89.3; GA Columbia WRBL-FM 102.9; IL
Edwardsville WSIE *88.7; MD Baltimore
WEAA *88.9; ND Bismarck KFYR-FM 92.9; ND
Minot KMOT-FM 93.7 and KCJB-FM 97.1; WA
Spokane KPBX *91.1 and KHQ-FM 98.1.

Formats/Networks

DC Washington WWDG-FM 101.1 p (from r;
calls self "DC 101")
FL Jupiter WRYZ-FM 96.7 mj
IL Crest Hill WCCQ 98.3 mr (no stereo)
ME Westbrook WRGN 100.9 p
MD Prince Frederick WMJS 92.7 m (from k)
MN Detroit Lakes KVLR 95.3 \$, rock
NJ Lincroft WJBJ *90.5 L, r
NJ Long Branch WRLB 107.1 Latin; etc.?
NY New York WKCR *89.9 L, c
NY Rochester WXXI-FM *91.5 c; P; \$?
WBFB 92.5 drops \$; now NIS.
NC Fayetteville WQSM 98.1 r (from rk);
"Q-98." PA Pittsburgh WEEP-FM 107.9 now
talk, dropping \$tereo.
SD Moberide KOLY-FM 99.5 now \$; I (was E)
TN Memphis WLYX *89.3 cr (from r only)
UT Cedar City KBRE-FM 94.9; P, A.

SCA (67 kHz) Activities

KY Winchester WKOJ 100.1 adds SCA
MN St. Paul KSTP-FM 94.5 testing SCA;
not known if SCA will be used.

Call Letters

AZ Phoenix 102.5 KNIX-FM (from KNIX)
AR Hope 104.9 KHPA
CA Monte Rio 97.7 KRJB
CA Riverside 92.7 KHNY-FM (KCNW)
GA Elberton 92.1 WWRK (WSSG-FM)
HI Honolulu 93.1 KMOQ (from KMGQ)
KY Providence 97.7 WHRZ
ME Norway 92.7 WOXO (WNNY-FM)
MO La Plata 104.1 WXTR-FM (WSMO-FM)
NE Crete 103.9 KTAP
TX Greenville 93.5 KIKT
VT Castleton *91.3 W1UV
WI Waukesha 106.1 WWIL (WAUK-FM) [FM]
Ontario, Kingston 96.3 CFMK-FM (CKWS-/

Abbreviations Used Here:

* Noncommercial station
\$ Stereo-equipped station
v Vertically-polarized station (all
stations so listed are also horizon-
tally polarized; stations listed as
"h" are horizontal only; stations not
listed as h or v are unknown as to
whether they have or will have v.)
D or DA, directional antenna.
Program codes: c classical, e ethnic, g
gospel, j jazz, k country, L Latin, m
middle of the road (easy listening), n
all news, p progressive rock, r rock
oldies and top hits, s soul, t all talk.

Network codes: A ABC-FM, B National
Black Network, C CBS, E ABC Entertain-
ment, I ABC Information, M Mutual, N
NBC, O NBC's News and Information Net-
work (sometimes abbreviated "NIS"), P
National Public Radio, S Associated
Press Audio; U United Press Audio; Y
ABC Contemporary, Z Mutual Black network.

mi = miles

km = kilometers

FM = frequency modulation

SCA = Subsidiary Communications
Authorization (usually 67 kHz differant
- from an FM radio station's main carrier)
Powers given are in watts, effective
radiated power (1 w = 1/1000 kilowatt)
Heights given are in feet and are above
average terrain (not above sea level,
not altitude).

Two-letter U. S. postal service-
approved abbreviations are used through-
out to indicate the states and U. S.
territories.

No longer all night: WLNK 106.3 Lansing
IL; WTAS 102.3 Crete IL, making for im-
proved late-night DXing in the Chicago
area. Often on very late: WJCK 97.7
Rensselaer IN, with sports.
MS Clarksdale WJBI 101.7 music
UT Salt Lake City KCPX-FM 98.7 adds SCA
VA Roanoke WSLQ 99.1 Muzak

Re-introduced into the U.S. House of Representatives: radio all-channel legislation, which would make illegal the sale of any AM-only radio selling for over \$15. Included would be AM-shortwave receivers, kits without FM (or AM) capability, and car radios selling for over \$15. FM in the Barlow Wadley? Why not? Will a law like this drive down not only the price but the quality of factory-installed FM-AM car radios; will it dictate the design of a \$14.95 AM car radio? I believe the answer is "yes" to both questions. The \$15 provision is a most unfortunate loophole, which will permit the manufacturing of millions of novelty AM-only radios for years to come.

CFMK"-FM" 96.3 Kingston, Ont. (formerly CKWS-FM) still same \$ format. WNTQ 93.1 Syracuse NY identifies only on the hour legally; otherwise they're "FM 93Q." WKGW 104.3 Utica NY off the air for a few weeks in February; back on with same automated r format; \$. KRAV 96.5 Tulsa said to be doing away with automation; to have gone live with "contemporary MOR" as about March 15. KZZQ 94.3 ("Z-94") now \$, 24 hours, except silent Monday morns. WQDY-FM 92.7 Calais ME has a good stereo signal at 40 miles over very hilly terrain. WSDH, 10 w, Sandwich MA was to have come on the air March 1; on 8 am to 4 pm school days. Article gave frequency as 91.9; but FCC data show 91.7. Spend your time on Cape Cod checking this one out, folks! [KZZQ (see four lines above) is in Golden Meadow LA.]

An FM station employee takes issue with my discussion of call signs in the FM Atlas ("Call Letter Roulette"): "I am surprised at the attitude you take with regard to call signs. There is no earthly reason why a non-simulcast FM station should have an AM's callsign. This is a throw-back to FM's days as a 'second class' service, and the adoption of independent call signs is an assertion of FM's new status. . . Regarding SCA: An SCA is a 'non-broadcast' service, and is protected by the privacy of communications provisions of the Communications Act of 1934, as amended. The fact that it is hidden on a broadcast station's carrier is irrelevant. Thus anyone can listen to an SCA, but they may not divulge information heard, nor use it for commercial purposes." I expect Muzak to eventually sue because I am divulging information about SCA (even more so in the next edition), and I am trying to profit from what I learn for commercial purposes. It will probably take a court test to determine the permissive amount of "divulging" that can go on before the Communications Act of 1934 is violated.

KSUI 91.7 Iowa City IA's move to high power should be accomplished by July 1, 1977 when they will begin operating 18 hours per day, 365 days/year (for years they have been on the air only 15 hours a week, only during the school year). WYOO-FM 101.3 Richfield MN is being sold to the owners of KDWB (AM) St. Paul MN, while WYOO (AM) is being sold to the owners of WAYL (FM) Minneapolis. The only program format change probably will be that WYOO (AM) will drop r in favor of m. WCBU *89.9 Peoria IL now Dolby and on 24 hours per day; a sure catch late at night during tropo from Duluth after WHSA (FM) leaves the air.

WBJB *90.5 Lincroft NJ with Latin music was getting an audience in parts of New York city for a while when WFUV *90.7 had transmitter problems and was only putting out 1,000 watts; apparently WFUV now back to 50,000 watts. Miami Beach's WINZ-FM 94.9 (no vertical; check it out!) mis-identifies as "Zeta-4," supposedly p. WFLR-FM 95.9 Dundee NY has no \$ plans; WICB *91.7 Ithaca NY on with new, higher power (5500 h,v; 105'), E network. WECW"-FM" *88.1 Elmira NY on 6:30 am to 1 am every day when college is in session (10 w). Another 10-watter, WCEB"-FM" *91.9 Corning NY is on 24 hours a day, Sept. through June, except 3 am to 6 am Sundays. Alan Hobson was nice enough to send a CRTC form for receiving information releases from Canada; so far no new information, and what does come in is sketchy. I hope Mark Lewis can help improve the situation. WQSU *88.9 Selinsgrove PA has been off the air parts of Jan., Feb., and March with a shorted out transformer; hopefully, they're back to normal now. ^{Pittsburgh's WTAE-FM 96.1 simulcasts the AM during the day monophonically, but 1 at night when separate.} ^{WJ01 93.7 often refers to self as "Beautiful Joy" or "Joy at 94, ugh" ("ugh" supplied by our reporter, not WJ01)}

WRSV 92.1 Rocky Mount NC plans to go to full 3 kw soon, but plans to stay mono; soul. Claims stereo would lose them coverage. WCPS-FM 104.3 Tarboro and WVOT-FM 106.1 Wilson both plan power increases. Off the air: WYEP"-FM" *91.5 Pittsburgh PA to "train personnel" for a new format following the forced return of some \$23,000 in CPB grants. WVCS *91.9 California PA (10 w) has top 40 days, r,j,s,t at night. The 10-watt WRCT *88.3 Pittsburgh is on weekdays only from 9 am to 1 pm and 4 pm to 10 pm. Even when "conditions are up," WRCT "barely makes it into downtown Pittsburgh."

CONTRIBUTORS THIS ISSUE (and thanks to all): John Anderson, Lowe Farm, Manitoba (who sent along a provincial highway map showing where Leaf Rapids is, and approximately where the new town of "Missi Falls" is); Robert Baker, Humboldt IA; Bill Coleman, Jr., Rocky Mount NC; Bob Currole, Golden Meadow LA; W. O. Dickerman, Williamsport PA; J. Ebeling, Bloomington MN; Paul Gaines, Detroit MI (who sent some local clippings and photos); Alan Hobson, Ottawa, Ont.; C. W. Ingram, Pittsburgh PA; A. J. Kopec, Dundee NY; R. E. Lyons, Largo FL; Mike Maloney, Bartlesville OK; Fred McCormack, Fargo ND; Rod O'Connor, SW Harbor ME; R. N. Palitz, Pleasantville NJ; Allen Rockford, Syracuse NY; Marvin Shults, Toulon IL; Ken Simon, W. Palm Beach FL; Andy Smith, Hyattsville MD; Roger Winsor, Hobart IN.

AFRTS TV IN ALASKA by Clarke Ingram

UNITED STATES SERVICEMEN IN ALASKA are entertained by seven 10-watt "mini-stations" and their translators, programmed by the American Forces Radio and Television Service (AFRTS) in Los Angeles. All stations are operated by the Military Department under the jurisdiction of the Department of Defense. Policy guidance is provided through the Office of Information for the American Forces (IAF), located in Washington, DC 20301. The AFRTS ships the bulk of the television programs to the stations. All three US commercial networks provide television programs to the AFRTS. Reception reports may be sent to the address following location of each TV station.

Ch.	Location	Address
8	Adak	US Naval Station, Box 19, FPO, Seattle, WA 98791
8	Ft. Greely	AFRT, APO, Seattle, WA 98733
8	Galena	Station Mgr., Armed Forces TV, APO, Seattle 98723
8	King Salmon	5071st AB Squadron, King Salmon AFB, Alaska 99613
8	Kodiak	US Naval Station, FPO, Seattle, WA 98790
11	Tatalina	(no further information; try the Seattle address)
13	Shemya	Station Mgr., 5073rd Air Base Squadron, Shemya Air Force Station, APO, Seattle, WA 98736

In addition, the following translators re-transmit the programs of the above stations to other military posts and Alaska pipeline workers. All stations are 10 watts; parentheses () indicate application is pending.

Call	Location	Primary
+K02GU	Dillingham, AK	King Salmon AFB-8
*K07LC	Levelock, AK	King Salmon AFB-8
*K07LB	Manokotak, AK	King Salmon AFB-8
*(K07##)	Middle Bluff, AK	King Salmon AFB-8
*(K07##)	Nulato, AK	Galena-8
*(K07##)	Ruby, AK	King Salmon AFB-8
*(K07##)	Stony River, AK	Tatalina-11
*K08HU	Aleknagik, AK	King Salmon AFB-8
*K08HS	Koliganek, AK	King Salmon AFB-8
+K10HV	Lewis Point, AK	King Salmon AFB-8
*(K11##)	Koyukuk, AK	Galena-8
+K11KR	Naknek and South Naknek, AK	King Salmon AFB-8
*(K11##)	Whiskey Creek, AK	Galena-8
*(K12##)	Egegik, AK	King Salmon AFB-8
*(K12##)	Kaltag, AK	Galena-8
*K12JE	New Stuyahok and Ekwok, AK	King Salmon AFB-8
*(K12##)	Sleetmute-Red Devil, AK	Tatalina-11
+K13KY	Portage Creek, AK	King Salmon AFB-8

*It's got so there is no place safe from TV! Now, thanks to CBS enterprise and FCC blessing, the Eskimos, Indians and Alaska oil-pipeline workers inhabiting such construction camps as Cold Foot and Living Good on the Alaskan tundra will no longer be without the joys of such fare as *All in the Family*, *Sanford and Son*, *Marcus Welby and Walter Cronkite's* news. Selected programs of all three major U.S. networks will be video-taped in Fairbanks and Anchorage and flown to 18 camps, where they will be aired on 10-watt ministations. (from TVG)*

* Send reception reports to:
State of Alaska, Dept of Public Works, c/o George W. Easley, Commissioner, Pouch Z, Juneau, AK 99801

+ Send reception reports to:
Roland D. Lynn, City Manager, Dillingham City Hall, Dillingham, AK 99576

See Ken Simon's report in the July 1974 VUD for information on TV at the other end of the world--the South Pole. In the July 1973 VUD, Don Ruland describes in great detail the AFRTS channel 8 operation in Guantanamo Bay. For those interested, there are no UHF operations at all in Alaska. --CWI

EASTERN TV-DX

Bill Thompson
1907 Seneca Street
Buffalo, NY 14210

April 1976

Deadline: 10th

Despite some reported February tropo, that month generally was the low point of the year for Eastern DXers--as usual. In some areas, March began quite severely weatherwise, hindering significant tropo development.

Ken Simon 528 Pilgrim Road West Palm Beach, Florida 33405 (305)585-7415
February (EST) 4 Tr 2000 WJKB-20 Gainesville 415km

4 Tr 1830 WJKS-17 Jacksonville 455km WUSF-16 Tampa FL 270km
WLPB-24, WTVX-34, WSWB-35, WBBH-20, WFVU-26 to 170km
WTOG-44 FL to 270km 23 1700 WJKS-17 Jacksonville 455km

"Not a real thriller...note I'm converting distances to kilometers. It's Feb 29 and Feb VUD hasn't arrived. Anyone interested in helping write a TV history of Florida, please contact me...73s for now."

Bill Thompson 1907 Seneca Street Buffalo, New York 14210 (EST)

January 8 Tr 2011 WDCA-20 Washington (285)
17 Es 1750 unIDs 2,3; gone by 1825 11 Au 1940 weak hash chs 2-9
20 Tr 2300 Detroit U's weak-fair Tr 2245 Syracuse & Utica areas up
23 0200 CICO18-18 London Ont(120) 2300 Detroit U's fair-good

February 9 Tr 1830 cx up to W. & E., 250 mi. all w/excellent signals
14 2100 Detroit U's weak-fair 2358 WKAR-23 B Lansing MI(280)
WBYL-25 Saginaw MI (255)
WWTV-9 Cadillac MI? T

March 7 Au 1930 moderate-weak hash 2-13 N. Ohio U's very strong
8 Tr 1600 WKBS-48 Philadelphia(270) CKGN29-29 Oil Springs(165)
2000 CCI on 9 from WTOP-9 0050 CICO-24 Ottawa vy strong
CCI on 22 from WAPB-22 CFMT-10 Montreal (290)
2008 WBFF-45 Baltimore MD? T

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

February 18 Tr 1715 WKBS-48 Philadelphia PA R
14 Tr 1930 WEAO-49 Akron OH R
WNBO-45 Alliance OH R 1720 WHP-21 Harrisburg PA R
WBGU-57 Lima OH R 20 2124 WOUC-44 Cambridge OH R
"fair signals of Youngs- 22 MS 0210 unID-2 "west"
town, Lorain, Cleveland" 27 Tr 0145 WXYZ-7 Detroit MI R

1935 WENY-36, WICZ-40, WBJA-34, March
WVIA-44, WSYB-18, WDAU-22 1 Tr 1600 WSYR-3, WNYS-9, WHEN-5 NY
1938 WPGH-53 PA "weak signal" "very strong signals"
1941 CICO18-18 London Ont R unID-11 "east thru CHCH"
"weak signal on 18" 8 1645 WDCA-20 Washington DC R
"CCI 22 same heading as 20"
1942 All Detroit U's
15 2000 WUTR-20, WNPE-16, CICO-24 9 MS 0159 unID-5 "south"
"weak signals" -- 0257 unID-11 "west, CATV leak"
16 1530 WPSX-3 Clearfield PA R Tr 1900 WDCA-20 Washington DC R
17 0004 Binghamton, Scranton U's "CCI 22 same heading as 20"
W63AB-63 Mansfield PA R

"The DX in Buffalo, has been really dull!! I had some UPs & DOWNs here also. One photo of MS DXing, when developed had WCIV-4 on the negative. I also sent out a few letters for one (unID) ch 3 that was IDed as KIII-3. On March 2nd the Buffalo area got hit by the worst ice-storm seen here. Trees & power-lines were down everywhere. The power to my house went out Tuesday at 1:00 a.m. and was restored Saturday (6th) at 5:30 p.m.! The longest element of my VHF antenna is somewhat bent, UHF antenna is slightly bent. But the main thing is that both antennas took the beating & plan to stay there, I hope(?); and the storm did take down some trees that were in the path of my dish. 73s"

Jim Alexander Box 2 - Bosch Hall Canisius College Buffalo, NY 14208

March (EST) 12 Tr 0043 Youngstown U's 21,27,33
11 Tr 2255 WXON-20 Detroit MI (215) WNED xtrs 26,72,80 (81?)
12 0035 CKG03-42 Oil Springs(165) "strong CCI on 25--3 stns"
WKBD-50 Detroit MI (215) 0050 WUAB-43 Lorain OH (185)
WAKR-23 Akron OH (185) WVIZ-25 Cleveland (170)

Equipment includes 8-bay UHF antenna pointed W.S.W., 80' above ground, operating without a rotor until broken CDE AR40 control unit is repaired.

CENTRAL TV-DX

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

Deadline: 12th

It looks like winter is still here to stay. Last month I mentioned we were in a warming trend but that was short lived. Temperatures are again below normal and tropo dx is practically non-existent. The ice storm that moved through the state last week knocked out the power here for a couple of hours but further South it was much worse.

Michael Hogan; 4811 Euclid Ave., East Chicago, In. 46312 CST

2-4 Tr WZZM-13 Grand Rapids 2-7 Tr WCIA-3 Champaign, also S.Bend U's
"No new loggings or antenna yet. Conditions seem to be improving. Still at 31 stations logged from 6 states."

R.W. Lord; 4129 N. Bell Ave., Chicago, Ill. 60618 CST

Everything listed is new, except WJRT--wd. 11-4 Tr 2310 WEAU-13 Eau Claire
9-28 Tr 2140 W55AE Manistique 3335(315) 3333(230)
2340 W76AI Escanabal 225(265) 2335 WJRT-12 Flint 3333
10-8 Tr 2257 W55AE Manistique 3335(315) (215)
10-10 Tr 0128 WSAU-7 Wausau 2225(230) 11-5 Tr 0010 WBKB-11 Alpena 0333
11-4 Tr 2250 WHRM-20 " 3435 " (307)
3-3 GW WCFL-38 Chicago 5555
Testing with a "window" tp.

Test pattern No.20 in Feb. '75 VUD.

Donald B. Ruland; 4448 68th Place, Kenosha, Wi. 53140 CST

1-10 Au 1700 Unideds on chs.2-8; N to E. 2-28 Tr 1730 WUAB-43 Lorain(310)
2-28 Tr 1730 WVIZ-25 Cleveland(330) 3-7 Au 1800 Chs.2,3; NNE

"I hope others have fared better than this report indicates. A much warmer than usual February(something like 23 out of 29 days had above normal temperatures) couldn't muster enough strength to provide any out of season tropo.

Picked up a Panasonic Model RF-1170 receiver(VHF hi and lo as well as UHF public service bands), so I might try some dxing in those areas."

Jim Gould; R.R.#3, Kokomo, In. 46901 (317)-452-9585 EST

2-17 Tr 2030 WBRE-28 Wilkes Barre 2-27 Tr 0700 WDEF-12 Tn. 5543(385)
2138 Des Moines V's; WBRE gone. 0714 WCOV-20 Al. 1535(571) T
2200 KRQC-10 Mn. 1412(396) (covered by WICS at 0716)
2332 KEYC-12 Mn. 2523(470) 0730 WBMG-42 Al. 2535(490)
2-20 Tr 1930 WVVU-24 W.Va. 2513(332) 3-3 VHF out of commission; will take
2-27 Tr 0657 WHNT-19 Al. 4535(410) considerable time to get it re-
0658 WAAAY-31 " 2525 " paired. Ham-M rotor damage;

apparently wind ripped out gears and motor. Antennas follow the wind like a weather vane. Tried to get a Hy-Gain roto-brake, but they are no longer made. No rotors available in Central Indiana. Closest delivery date for Ham-M replacement is last of April.

Replacement ordered from Parts Dept. at C-D; may have in a week or so.

Buck Battin; 134 E. Egan, Shreveport, La. 71101 CST

2-3 Tr 2000 KLFY-10 Lafayette(185) 2-3 Tr 2245 WAPT-16 Jackson(210)
WAFB-9 Baton Rouge(210) 2324 WLOX-13 Biloxi(325)
KPLC-7 Lake Charles(160) 2330 WDHN-18 Dothan(490)
WVUE-8 New Orleans(275) WALA-10 Mobile(365)
2005 WRBT-33 Baton Rouge(210) 2345 WCOV-20 Montgomery(435)
2040 WCHO-26 New Orleans(275) 2-4 Tr 0010 Unid-3 from SSE
2105 WWL-4 " " " 0020 KDOG-26 Houston(211)
2115 WBRZ-2 Baton Rouge(210) 0030 KHOU-11 " "
2200 WLPB-27 " " " 0035 KPRC-2 " "
KALB-5 Alexandria(113) 0040 KVUE-24 Austin(285)
2245 WMAA-29 Jackson(210) 0045 KTVV-36 " "

Battin; continued---

2-4 Tr	0105	KDFW-4	Dallas(180)	2-12 Tr	2130	WAFB-9	Baton Rouge(210)
	0108	Unid-6	; caught words ---in Central Florida---. Probably WDBO or WCTV.			WLPB-27	" " "
	0115	Unid-13	, Spanish; assume it was Mexican from ant. direction.			WRBT-33	" " "
	0124	KPVT-11	Ft. Worth(205)			KPLC-7	Lake Charles(160)
	2225	WFAA-8	Dallas(180)			KLFY-10	Lafayette(185)
	0120	KTRK-13	Houston(211)			WAPT-16	Jackson(210)
	2230	KJAC-4	Port Arthur			WMAA-29	" " "
2-6 Tr	0030	KATV-7	Little Rock(180)			WMAU-17	Bude(185)
2-8 Tr	0130	WJTV-12	Jackson(210)		2150	KVUE-24	Austin(285)
	2300	KPLC-7	Lake Charles(160)			KTVV-36	" " "
	2330	KLFY-10	Lafayette(185)		2245	KWEX-41	San Antonio(365)
2-9 Tr	0010	WRBT-33	Baton Rouge(210)	2-13 Tr	0020	KLRN-9	San Antonio(365)
	1850	WAPT-16	Jackson "		0055	KSAT-12	San Antonio(365)
		WMAA-29	" "		0100	KRBC-9	Abilene(350)
	1900	WLPB-27	Baton Rouge(210)			KTVT-11	Ft. Worth(205)
		WGHO-26	New Orleans(275) Unideds on chs.8 & 11	2-16 Tr	2230	WMAA-29	Jackson(210)
	1940	KTVV-36	Austin(285)		2245	WRBT-33	Baton Rouge(210)
		KVUE-24	" "		2250	WAPT-16	Jackson "
	2002	KNCT-46	Belton(240)		2250	WAFB-9	Baton Rouge "
	2100	KPVT-11	Ft. Worth(205)			KLFY-10	Lafayette(185)
	2130	KLRN-9	San Antonio(365)	2-19	2300	KPLC-7	Lake Charles(160)
	2145	KCTX-39	Dallas(180)				
	2235	KHTV-39	Houston(211)				
2-10 Tr	0025	WKRK-5	Mobile(365)				
	0035	KWTX-10	Waco(210)				
	0045	KTXS-12	Abilene(350)				
	0100	WFWV-9	Tupelo(310)				
	0105	WAPI-13	Birmingham(410)				
	0108	KSAT-12	San Antonio(365)	2-24 Tr	0705	KDGG-26	Houston(211)
	0125	KGEN-6	Temple(230)		0730	KUHT-8	" " "
	0730	WMSL-48	Huntsville(440)		0800	KVUE-24	Austin(285)
		WIIQ-41	Demopolis(350)			KTVV-36	" " "
	0745	WHNT-19	Huntsville(440)		2215	KJAC-4	Port Arthur(180)
	0820	WYEA-38	Columbus(505)			WLPB-27	Baton Rouge(210)
	1930	WLPB-27	Baton Rouge(210)			WRBT-33	" " "
		WRBT-33	" " "			WAFB-9	" " "
	2000	WGNO-26	New Orleans(275)	2-25 Tr	0735	U's from Dallas, Houston, Baton Rouge, Mississippi & Alabama(had to get to work ,no time to log individually	
	2055	WALT-40	Sarasota(770) (nice catch--wd)	2-27 Tr	0745	Eaton Rouge U's in full color.	
	2115	WAPT-16	Jackson(210)				
	2130	WFSU-11	Tallahassee(570)	2-28 Tr	0730	KHTV-39	Houston(211)
	2150	WDHN-18	Dothan(490)			KDGG-26	" " "
	2200	WGIQ-43	Louisville(?)		0740	KUHT-8	" " "
	2230	WKRK-5	Mobile(365)		0745	KHOU-11	" " "
		WALA-10	" " "		0900	WRBT-33	Baton Rouge(210)
2-11 Tr	0001	KHTV-39	Houston(211)				
		KDGG-26	" " "				
	0830	WFAA-8	Dallas(180)				
	2220	KARK-4	Little Rock(180)				
		KETS-2	" " "				

Shreveport total now at: 63
All tropo, no Es yet.

Paul Gaines; 15920 Puritan St., Detroit, Mich. 48227 EST

The following stations are seen by Paul almost daily: WCMH-4(ex-WLWC), WENS-10, WKYC-3, WEWS-5, WUHQ-41, WVIZ-25, WUAB-43, WNDU-16, WSET-22, WSJV-28, WFMJ-21, WKEN-27, WNEO-45, WHIO-7, WKZO-3, WOTV-8, CICO-18, WICU-12, WAKR-23, WTVN-6, CPFL-10, CICO-28, WYTV-33, WANE-15, WPTA-21, WKJG-33, WGVC-35, CKCO-13, CHCH-11, CKGN-6(Paris), WJET-24, WSEE-35.

2-11 Tr	0151	CFTO-9	Ont. 1122(205)	2-12 Ms	0347	WCBS-2	N.Y. 1512(490)
	0155	WTRF-7	W.Va. 1022(")	2-13 Tr	0204	WIIC-11	Pa. 1022(210)
	0200	WRTV-6	In. 1021(230)	2-14 Tr	0851	CICO-28-28	Ont. 1022(140)
2-12 Tr	0154	WTRF-7	W.Va. 1022(205)	2-15 Tr	0145	WRTV-6	In. 2522(230)

(continued on page 19)

WESTERN TV-DX

Dennis Park Smith
50 Manzanita Way
Paradise, California 95969
Telephone 916 877-2975
Deadlines: 10th of month

April 1976

Some real tropo occurred in mid-February, some ducting seen in south Texas on dates 10 as well as 12, and in Oklahoma on the 14th, at distances up to more than 1000 miles. And, after 20 January, Es (through reary March) continues to be scarce and scattered.

	am-aft	eve	aft	eve	eve	nite	am	am-aft	eve	midn+	am-aft	eve	nite	eve-nite	midn+				
Es	Jan	1	1	2	2	3	3	4	5	5	6	6	6	6	7	8			
Nr. reporters	4	1	1	1	1	5	3	3	1	1	1	1	2	2	5	1			
MUF at least 3	4	2	4	4	5	95.1	98.7	3	4	4	6	5	3	96.9	2				
aft	midn+	eve	am	noon	eve-nite	noon	nite	aft	nite	eve	eve	midn+	eve	aft	eve	nite	eve		
8	10	10	11	11	11	12	12	18	18	19	20	Feb	1	1	2	11	Mar	1	2
1	1	2	2	1	4	1	?	1	1	1	1	1	1	1	1	2	1	1	1
4	3	2	?	28.6	89.7	2	3	3	5	4	3	5	4	3	2	2	2	2	2

The following reports were in the March WESTERN-TV DX column, which did not appear because of its late arrival at this desk (February 27). CWI

Pat Dyer, 5315 Silvertip Drive, San Antonio, Texas 78228 (7 Jan - 7 Feb) (CST)

Equipment: 1971 model 9-inch Penncrest black-and-white; Archer V-100 and 8-bay bow-tie UHF array at 20 feet with rotor

J7 Es	2140	KORK-3 NV	1050	11 Es	0915-1025	2,3 unids	18 Es	1350-1500	2,3 unids	n.e.
		KPHO-5 AZ	T 835		0959	WPBT 2 FL	1150			(Superbowl on, never seemed to have Id pause)
	2155	XHAQ-5 BCN	T1010		1105	unIds 2-4				
		XHBC-3 BCN	1010		1125	XHY-3 Yuc.	820	20 Es	1935	WCBD 2 SC 1120
	2159	KNXT 2 CA	1190		1147	YSR-2 ElSal.	1200			WSAV-3 GA 1050
		KTVK 3 AZ	835		1200:	MUF to 98.6				1940 f/out
	2202	KOAI 2 AZ	T 855		1200	TGV-3 Guat.	1120	F2 tr	2300	WJTV 12 MS T 525
	2240	f/out			1330	spotty to 1435			2330	KERA-13 TX 250
10 Es	0230	unId 2			1630-2300	2-6 unids	4 tr	0000	WAPT 16 MS	525
	0245	WJBK-2 MI	1225			Mex-CentralAmer			0005	KPLC-7 LA T 325
	0255	WBBM-2 IL	1045		1813:	MUF to 89.7			0010	WCOV-20 AL CBST 750
		unId 3			12 Es	1115-30 n.e.	2 unIds		0030	WALA-10 AL T 630
	0315	f/out			2105	KID-3 ID	T1215		0103	WAFB-9 LA 450
					2127	KUTV 2 UT	T1080		0410	WJKS-17 FL T1015

Es came to a virtual halt after mid-January. The tropo of Feb 3-4 was the best in many months but was far too short-lived and didn't hold up until the morning parade of test patterns. Judging by the FM, the ducting seemed very narrow, anyway. 73, WA5IYX.

Doug Everitt, 1708 West Maine Avenue, Enid, Oklahoma 73701 (29 Oct - 20 Jan) (CST)

Equipment includes Sony KV-9000U Color Present log total: 152
This is my first report, since I've been a WTFDA member for only about a month now. I've been involved in TVDX to a varying degree for about two years but only recently did I get around to joining up.

Sorry to say, I don't have anywhere near the kind of antenna system I'd like, but it does pretty well on Es, at least. I'm using an Archer VU-160 on an AR-33 Rotator at 36'. Results are somewhat disappointing. Its directivity isn't what it ought to be, and I often have trouble nulling out the semi-locals in Oklahoma City for skip. Actually, I'd really appreciate it if someone would drop me a card on how I could get my hands on Winegard Lo and Hi-band Yagis at a good price, since I've come to respect the results some guys get with those things. Also, has anyone got a used UHF para?

Tropo has been pretty sparse, mostly due to my antenna, I'm sure. I've just begun to do any MS work, and I've had moderately good results with it. Here follows my report dating from 29 October thru 11 January.

Oct	29	tr	1327	KTKS-12	Sweetwtr TX	5554N	330	Dec	21	tr	1402	KTEN	10	Ada OK	4555	140
Nov	7	tr	1304	KTVT 11	Ft. Worth TX	3544R	250		22	MS	0558	NERZ	2	BtnRouge LA	44X5N	570
			1307	WIBW-13	Topeka KS	5555"	220				Es	1640	KVOA-4	Tucson AZ	5542N	790
	28	tr	2118	KCKT 2	Grt. Bend KS	4555"	150	Jan	6	GW	0005	KTVY 4	OKC(exNKY-,new order)			
Dec	8	tr	0709	KXTX 39	Dallas TX	3555	260		11	Es	2047	KNXT 2	Los Angeles CA	N1230		
			0724	KTVT 11	Ft. Worth TX	4555	250				2030-2110	2-3	several unids			
	19	tr	1930	KOKH-25	Oklahoma City	4555	75									

(usually not this strong this early; low power)

Don't laugh; I told you things were sparse! Next time I hope to have a more complete report. By the way, I totally missed out on the Es opening of Nov 9; that was my birthday and I was probably stuffing my face with cake, hi! It would have been a nice present if I'd gotten in on it. Well, 73s and Good DX!

Further reports from the delayed March WESTERN TV-DX column.

CWI

John Anderson, Box 186, Lowe Farm, Manitoba R0G 1B0

(Dec - Jan) (CST)

Equipment includes 25-element VHF antenna, Channel Master 0059 antenna amp., Alliance T-45 rotator, Philco R&W TV. (New; new mode of prop.)

D8 Es 1935-45 CGI on KGFE-2 0615-0700 south 4 CBS 7 Es 2345 WSJK-2 TN 1150
 12 MS 0515 WLWD 2 OH 927 (large 4 on left, CBS logo 8 Es 0002 KOAI 2 AZ 121
 0600 WMT - 2 IA N 573 on right; KDFW Dallas?) (both weak-fading; in/out
 14 MS 0100-0200 lots of choppy signals but no Ids 0650 KFDX-3 TX 1064 12 Es 2305 KMID-2 TX 1233
 0545 KTEW-2 OK 918 0653 KTVI 2 MO 824 18 Es 2010-25 west 2-5 unids
 0615 WMT - 2 IA 573 26 Es 1815-35 CGI on 2-4 2025-2100 west 2 "Ellery
 0624 KGNC-4 TX N 996 J3 MS 1600 south 2 ("TacoTime") before Id time-shucks!)

The Gemini shower on the 14th was great, with some of the strongest MS signals observed so far. Many of the bursts were strong and lasted up to 5 seconds or more. As for Es, semi-local KGFE-2, local CBWFT 3, and semi-semi-local KXJB-4, are really hampering my efforts, especially on the weaker openings.

Oh, by the way, a few months ago I managed to put together a "rhombic," one of the largest TV antennas around. It's 64 feet long and 24 feet wide, and, as you might guess from the name, is shaped like a rhombus (diamond). When built correctly, a rhombic is supposed to have a gain of 8 db on channel 2, and as the wavelength gets higher, so does the gain, up to 12 db on channel 13. The beam width is very narrow, and according to theory, the front/back ratio is almost infinite. These are ideal TV-antenna specifications, and considering the cost of materials (around \$12) the antenna would seem to be a real gold mine. However, there is one major problem that must be solved before you can have your rhombic antenna working for you. You must somehow find four supports that are at least 20 feet high and in the proper position so that the antenna can be aimed within a few degrees of the desired station. Even though I live on a farm, with a large yard, I still haven't come up with an inexpensive and practical way to get the thing up to the minimum 20 feet. After I finished building it, however, I was anxious to try it out at any height, so in desperation I mounted it on four fence-posts at the dazzling height of six feet. Just before mounting it, I hooked up the twin-lead to the TV with the antenna still lying on the ground and was amazed to see KGFE-2 at 100 miles coming in, snowy, mind you, but there. When I had the beast up on the fence-posts I managed to receive KTHI-11 at 170 miles (under relatively deadband conditions) which isn't too bad considering my antenna height. I'm sure the results would be very interesting if I could get it up to a reasonable height. Log now stands at 60. Till next report, '73's & good DX.

Patrick Martin, PO Box 14192, Portland, Oregon 97214

(1-29 Jan) (PST)

A new report—this time with a change. I have moved from Warrenton out on the coast into Portland where the FM and TV conditions are quite a bit different to say the least. I found out that I'm going to have to get a new FM tuner, as the one (Magnavox) is loaded with images and spurs in Portland. I just isn't suitable for DX purposes here. TV DX isn't so bad, and have caught a few different tropo skips. This summer should be much better, when the Es begins. So far this is what I've heard, besides the five locals.

Equipment: 23-inch black-and-white Philco console, tunable booster on rabbit ears

J3 1815 KVDO 3 Salem OR: On air daily 4PM-10PM, religious & movies, soon to be taken over by the state. 15kWV/7.5kWA. Fair pix and good sound, a regular at 50 miles.

1830 KOAC-7 Corvallis OR Public prog. Very good sound & pix, a regular at 60 miles.

15 2330 KVAL-13 Eugene OR: Regular NBC prog. but no Tomorrow Show, off 0100 daily, on at 0600. Lots of splatter from local 12. Semi-reg, 100 mi.

27 0230 KIRO-7 Seattle WA: CBS. Carrying movie at this time, semi-regular after KOAC s/off at 2300 or so daily. Poor pix/no sound. Much stronger in Astoria (my former QTH). 160 miles.

28 1600 KOMO-4 Seattle WA: ABC. Semi-regular but snowy pix/no sound. Was regular on cable in Astoria. 160 miles. Good DX & '73's.

A couple of reports with January Es can be added to the December Es chart (in the February VUD) as follows: Add Dec 9, 1 reporter, ch 2. Add to Dec 22 aft-eve 1 more reporter. Add to Dec 26 eve 1 more reporter.

TV-DX reports for the April column commence on the following page.

CWI

Bob Cooper, Jr., Rt. 5 Box 782, Guthrie, Oklahoma 73044 (8 Dec - 2 Mar) (CST)

There is a saying in Oklahoma TV DX circles—which I just made up this year—that notes "if the winter is lousy, the spring will be super." I made that up to keep up my interest during periods of lagging DX activity. This year we have really needed it. This has been the driest winter on record, and possibly one of, if not the, warmest. It is a nice combination if you grow things in a green house, but it ain't worth a darn for DX. Especially the dry part.

Leaving off as we did at the tail end of the annual December NE tropo opening, we start off there again.

Dec 8 (balance of day) tr 0915 WIIQ 41 WEIQ 42 WGIQ 43 all AL;
Es 1858-1930 ch 2, CBS, No Id.

Dec 21 tr t/in 1030 KVFD-21 IA WAPT 16 MS WJMA 40 AL WCFT-33 AL;
t/in 1130 WEMG-42 AL WMAV 18 MS;
t/in 1810 KHIN-36 IA KHNE-29 NE, 2032 KRIN-32 IA 2200 WHLA-31 WI, 2359 KDIN-11 IA.

Dec 22 Es t/in 2130 channel 2, no Id.

Dec 25 tr t/in 1840 KVFD-21 KMEG 14 KSIN-27 KBIN-32 KHIN-36 all IA KYNE-26 NE,
2047 KRIN-32 IA KCBJ-17 MO.

Dec 26 Es t/in 1804 channel 2, Canadian, no Id.

Dec 31 Es 2000-2030 channel 2.

Jan 1 Es t/in 1030 channel 2,3 north.

Jan 2 Es t/in 1820 channel 2.

Jan 4 Es t/in 1043 channels 2,3, KOAI 2 AZ KORK-3 NV.

Jan 6 Es 2055-2100 channel 2.

Jan 7 Es 2115-2200 channel 2/3 west.

Jan 10 Es t/in 2101 channel 2.

Jan 11 Es t/in 1015 channel 2; t/in 1830 channels 2-3-4, KNXT 2 CA west.

Feb 9 tr t/in 0745 KCBJ-17 MO KDNL-30 MO.

Feb 11 Es t/in 1905 channel 2 weak.

Feb 12 tr t/in 0735 KEDT 16 KDOG-26 KHTV 39 KIDZ 24 all TX.

Feb 13 tr 2120 KCBJ-17 MO KDNL-30 MO.

Feb 14 tr t/in 0803 KCBJ-17 MO KDOG-26 KTVV 36 KVUE 24 KIDZ-24 all TX, 0812 WTOG-44 FL (1020 mi) WXLT 40 FL (1070 mi), 0828 WTVT 13 FL (1020 mi, stn #650), 0844 WMFE-24 FL (1050 mi, stn #651). This was a classic high-pressure area duct, more like one would expect in August. There were very weak signs of closer-in (500-700-mile) normal kind of U's and V's along the same path. There was just a hint of WBBH-20 and WCJB-20, plus possible WUSF-16. WTOG-44 FL was still in as late as 0912, but it peaked btw 0815 & 0845.

Feb 17 tr t/in 0745 KCBJ-17 MO.

Feb 27 tr t/in 0755 KIDZ-24 KVUE-24 KEDT-16 all TX.

Mar 1 tr t/in 0640 KTVV 36 KIDZ-24 KVUE 24 KDOG-26 KHTV 39 all TX.

Mar 2 tr t/in 0745 KCBJ-17 MO KVUE 24 KIDZ 24 TX KDNL-30 MO KHIN-36 KRIN-32 KBIN-32 IA KYNE-26 NE KMEG 14 IA, t/in 0805 WICS 20 IL;
Es 1845-1855 ch 2 weak in and out, several stations. 73.

Doug Everitt, 1708 West Maine Avenue, Erid, Oklahoma 73701 (7 Feb - 2 Mar) (CST)

Equipment includes Sony KV-9000U and Archer VU-160 at 34 feet

7 tr 2352 KVIJ 8 Sayre OK 4553R Movie "Cash McCall"

13 tr 2332 KTVJ 16 Joplin MO 3555R 220 CBS Late Movie

20 tr 0902 KFDX-3 Wichita Falls TX R 170 Celebrity Sweepstakes

0905 KSWO-7 Lawton OK 5555R 170 Romper Room

0914 KTXS 12 Sweetwater TX 4554R 310 "Supernature" pt. of "Henry's Den"

0936 KTVT 11 Ft Worth TX 3554R 250 "Untouchables" w/record ads

25 MS 0615-0645 2,3,6 unIds east, ever semi-locals, 5-15 sec. bursts

26 tr 0730-1100 out to 250 mi on VHF, lots of relogs TX,MO,KS, etc.

29 tr 1058 KVII 7 Amarillo TX 3334R 230 Grammar Rock

31 tr 1100-1400 out to 250 mi, extremely strong, 20-CCI on KTVV 4 OKC

2 tr 0939 KIDZ 24 Wichita Falls TX T 170 very snowy, no pos. Id

I finally did get a Winegard catalog, and I'm saving my pennies toward one of their large VHF logs. I also decided to go ahead and order a new Finco P-7 dish, and it arrived very fast, surprising me yesterday afternoon. I plan to put it up sometime this week (Mar 4-10) at about 38 ft, to be fed w/CATV grade coax. Right now, I'd like to see a good UHF preamp for under \$60. Among other plans, if I can't afford a new Winegard log in the near future, I'm considering extensively modifying the VU-160 for VHF use only.

CATV interference has been giving me trouble lately, even with the use of well-routed coax. Channels 2 & 3 are most affected, these being local origination, although Channel 7, which relays KTVT 11 Ft Worth, does leak in occasionally, making KVII and other weak 7's difficult. (This could be radiation from the cable lines in your locality, or from unshielded radiating lead-in in a near-by house feeding a second receiver. In either situation, you will eventually get results by contacting your nearest FCC office. dps)

I seem to have missed a lot of good openings with Es and tropo during December and January, and I'm really sorry about it, since I'm just now really trying to increase my meager totals.

I'm getting rather fed up with the 'mushy' type tuner on my Sony color set. It's certainly sensitive enough, but I think detent would help me on UHF. If anyone would like to buy an early ch-4 cut-channel 4-el. yagi, I've got one. I've also got a 10-el. ch-9 cut-channel yagi. Both are in fair condition and have been restored somewhat. Results with the ch-9 yagi are very good, but I don't have any place to mount it. Anyone interested in these antennas and/or a 44-el. UHF log, please contact me.

A recent excursion to a hilltop north of Enid produced interesting results. On a day totally adverse to any type of enhancement, the GW up there extends a ways, to say the least! V's and the OKC U for 180 miles were snowfree!

That's about all. 73s and the top of DX!

John Anderson, Box 186, Lowe Farm, Manitoba ROG 1B0 (204 746-8887) (February) (CST)

1 Es 0100!unId-2 weak, east: movie w/Edw.G.Robinson & Shirley McLane
 0120 WTAE-4 Pittsburgh PA 1041 mi
 0122 WTTG-5 Washington DC 1226 mi ("Wash.432-0000;" Cerebral Palsey Campaign)
 0125 WKYC-3 Cleveland OH 928 mi
 0145 KYW-3 Philadelphia PA 1260 mi
 0100-0200 2 unId in & out basketball UCLA vs USC
 0310-0325 2 unId "The Late Late Show" movie
 0340 WCBS-2 New York NY 1279 mi
 0430!WCBS-2 fade out. (finally!)

21 tr 1900-2100 KTHI-11 & KXJB-4 Fargo ND 170 mi (2000-ft tower)
 KPME-13 Fargo ND 170 mi (400-ft tower)

2100 KFJR-5 Bismarck ND vy weak (255 mi), QRM from CKX-5 Brandon Man (125 mi)
 The Feb-1 Es was the earliest in the morning (or latest at night..) ever seen here.

All the lowband locals except CBWT 6 were off the air, making IDs much easier. An abnormal warm spell was the cause of the tropo condition of the 21st; lately the temperature has again dropped, along with the conditions. Got a new piece of equipment, a 7009 tunable highband trap by Channel Master; it does a real good job. Interference from locals CKY-7 & CKND-9 is greatly reduced on WDAZ-8 Grand Forks ND (100 mi).

I'm going to take a crack at UHF DX. I'm purchasing a Channel Master 7-ft dish for \$75 (by a stroke of luck I'm able to buy Channel Master equipment at discount from a distributor in Winnipeg without any difficulty) and also a Panasonic TR-662 12" B&W receiver for \$133 with UHF detent tuning (all TVs used so far have no UHF tuners). All UHF stations received (if I get any!) will be DX since nearest station is 275 miles distant, at Aberdeen SD. Well, that's it. Total now 76. 73's and good DX.

Jim Pizzi, 300 Park, Orcutt, California 93454 (11 Jan - 4 Mar) (PST)

11 Es 1700 KTW0-2 WY StarTrek)f/out1905 28 tr 2050 KDTV 60 San Fran.
 KSNB 4 NE 2101 XHI -2 Cd.Obregon 2058 KBHK 44 " "
 unId 5 n.e.(ABC) F1 Es 1735 unIds 2,4 Sp, s.e. 2100 KEMO 20 " "
 1800 KTVQ 2 MT 2 tr 1050 XETV 6 Tijuana 2253 KMUV 31 Sacramento
 unId 4 nne (CBS) (local KSBY off) 2259 KTXL 40 " "
 1846 KATU 2 OR 24 tr 1941 KDTV 60 SanFran.CA 2300 KGSC 36 San Jose
 1904 KWGN 2 CO (new stn.) M2 tr 1641 KVIE 6 Sacramento
 2218 unId 2 east 1953 KVIF 38 San Fran. (local KSBY 6 off)
 2224 unId 2 Spanish 4 tr 1553 KLCS 58 Los Angeles
 18 tr 2334 KFMB-8 CA 1954 KEMO 20 " " KBSC 52 " "
 19 Es 1650 t/in 25 tr KGSC 36 San Jose KLXA 40 " "
 1703 XHBS-4 LosMochis KMST 46 Monterey KCET 28 " "
 (Canal 2 net) 2321 K07ID 7 Atascadero
 1719 XHQ-3 Culiacan (of KCOY-12)
 (u/KET,ø-offset) KTXL 40 Sacramento 2323 KGO -7 San Fran.
 1738 XHI -2 Cd.Obregon KCST 39 San Diego 2325 K10FK 10 LuisObisp
 1757 unId 4 (Canal 2) (of KCOY-12)
 1859 unId 2 east(start) KNTV 11 San Jose 2329 KMST 46 Monterey

(Jim Pizzi, continued) All listings after mid-Feb are CA. Total now 162.

KØ7ID and K1ØFK have higher power now and have cluttered up chs 7 & 10 to the north. I can get only audio from KGO-7 and ch 10 is blocked completely.

My equipment right now consists of the following—3 masts, with these:

Mast 1: 10el ch2 yagi @ 40', Alliance C-225 rotor, CAC-11 coax to 13" Panasonic color TV.
Mast 2: 10el ch4 yagi @ 28', Alliance C-225 rotor, CAC-11 coax to 12" Panasonic B&W TV,
10el ch5 yagi @ 20', (same mast) CAC-11 coax to 18" Zenith color TV.
Mast 3: 5el ch3 yagi @ 20', CDE AR-30 rotor, CAC-11 coax to 8" Sony B&W TV,
5el ch6 yagi @ 20', (both vert. mounted) CAC-11 coax (switch to same 8" Sony).

And, the tower is up and operational as of Feb 21: 10-el FM log @ 77', .412 coax;
7-ft Finco UHF dish @ 73', CM line amp, .412 coax into CM-7352 head-end amp;
CM-1110 ch2-13 log @ 68', CAC-11 coax into Finco amp; horz. stack ch7-13 @ 65', .412 coax.
All systems working well—now I'm a happy DX'er. Next project: eliminate cable leakage.

(Here is part of Jim's report from two months ago, delayed here for lack of space.)

I took another short DX trip, to different areas of southern California near the coast, with interesting signals.

Dec 4: L.A. International Airport, at top of 3-story ramp garage. Time 1530 PST.

All L.A. VHF's (2,4,5,7,9,11,13) 5555 with lots of ghosts. L.A. UHF's (22,28,30,34,40,50,52,58,68) 5555 like CCTV—no ghosts. San Diego VHF's (8,10) (apx 100 mi) fair w/adjacent channel interference. San Diego UHF's (15,39) fair to poor. Tijuana VHF's (6,12) fair.

At 1707 on US 101 near Moorpark (btw L.A. & Ventura) a big surprise—KMPH 26 Tulare (Fresno area sta) at VAFI 4445. Was in shadow of big 6500' peaks. Noted also KBSC 52 L.A. with no sign of any other VHF or UHF.

Then, at Gaviota Pass, right on the coast, 27 miles west of Santa Barbara (apx 110 mi from Los Angeles and 230 miles almost total water path to San Diego.

KNXT 2 L.A.	2253	KABC-7 L.A.	4555	KOOP 13 L.A.	5555	KBSA 46 L.A.	2055
KEYT 3 S.Barb.	5555	Ch8: CCI KØ8FL/KFMB-		KPBS-15 SanDiego	5555	KOGE 50 RedondoBch	1035
(moved rod ant-20kHz		S.Barb./S.Diego		KWHY 22 L.A.	2355	KBSC 52 L.A.	3555
CCI- poss. XHBC-3)				KHJ -9 L.A.	2555	KCET 28 L.A.	3555
KNBC 4 L.A.	3455	KGTV 10 SanDiego	4555	KHOF-30 SBern/LA	1035	KLCS 58 L.A.	4555
KTLA 5 L.A.	3455	KTTV 11 L.A.	5555	KMEX 34 L.A.	3555	K61..(KCET28)SBarb	3455
Ch6: CCI KSBY/XETV		KCOY-12 S.Maria	2354	KCST 39 SanDiego	5555	KVST 68 L.A.	4555
S.LuisOb./Tijuana		(CCI XEWT 12 Tj.)		KLXA 40 L.A.	4555		

At that location, with any kind of decent antenna system, all signals would probably be 5555—all 29 stations; for DXing, I'm glad I don't live there. Equipment for the trip was Sony TV-960 8" B&W with rod VHF & clip-on UHF bowtie. 73's.

A couple of closing notes: There was one report this time with some December Es. If desired, add these to the December Es chart in the February column: Dec 8 eve, 22 nite, 26 eve, 31 nite, 1 additional reporter for each date, all ch 2 this report.

To all reporters: feel free if desired to add your telephone number along with your address at the top of your report as a few are now doing in this and other reporting columns. Sometimes DXers can aid each other by phone when an opening occurs.

Best of DX to all

Dennis

**THIS WEEKEND
700 CLUB
TELETHON**
A GREAT EXPERIENCE IN
TELEVISION VIEWING

9
WSTV

53
WPGH-TV

38
WOPC

33
WYTV

CBN, the Christian Broadcasting Network, continues to pick up part-time affiliates in major markets. Their most recent telecast, the 700 Club Telethon aired on the weekend of March 20-21, was carried by stations in Pittsburgh, Chicago, Detroit, and many other major cities. 17 outlets in all carried the telethon; in addition to the four at left, WSIL-3, WHBF-4, KPOB-15, WVTU-18, WXON-20, WKFE-22, WAKR-23, WEYI-25, WUTV-29, KDNL-30, WUHO-41, KBMA-41, and WSNS-44 were on the network. Not a great deal of MS possibilities, but perhaps a few UHF tropo enthusiasts logged new stations!

NORTHERN FM-DX

Fred Nordquist
302 Sandra Lane
N. Syracuse,
New York 13212
Tel 315-458-2365
Deadline: 10th

April 1976

No new reports were received by the 10th of the month. I suspect that FM DX CX were pretty poor in the North judging from the bleak CX here in Syracuse. However, I have just received a bunch of very interesting DXers' reports of last summer/fall that were not previously published. FM Es openings noted in the 11 DXers' reports were as follows: May 15,20,21,25,27-29,31; June 2,6,8,13,15-19,21,22,26,28,30; July 1-3,5,16,19,20; and August 1,5,9. Scattered tropo and MS DX were also noted. The following reports are extremely edited due to the bulk and oddness of the material. They should bring back memories of last summer's DX highlights and whet our appetites for the coming season.

John Ebeling - 9209 Vincent Ave So. - Bloomington, MN 55431

(CST)

7/1 1830 KFXD 94.9 ID	7/20 1453 WKRA 105.9 VA cw	7/20 1617 WVED 97.9 NY
Es 1900 KID 96.1 ID SCA67k	Es 1455 WMAL 107.3 DX rr	Es 1626 WPIX 101.9 NY rr
1927 KFMA 92.7 ID rr	1458 WSLI 106.5 NC cw/rr	1630 WHLI 98.3 NY
1930 KUFM 89.1 MT NPR	1459 WAVA 105.1 VA mxSCA	1633 WNEW 102.7 NY rr
2000 KREM 92.9 WA rr	1503 WCMS 100.5 VA	1635 WKTU 92.3 NY
2006 KYSS 94.9 MT MoR	1509 WPOC 93.1 MD cw	1638 WERI 103.7 RI
7/2 1615 KWLW 93.9 TX rr	1511 WMMR 93.3 PA rr	1640 WHCN 105.9 CT SCA
Es 1620 KIXY 94.7 TX rr	1517 WECT 96.5 VA BB-SCA	1645 WQXR 96.3 NY cl
1432 KORG 100.7 TX cw	1536 WKYS 93.9 DC rr	1646 WKSS 95.7 CT
7/9Tr1700 KHKE 89.5 IA new fr	1541 WDCG 105.1 NC	1648 WPOC 93.1 MD cw
7/20 1416 WYTD 96.1 NC MoR	1545 WESM 97.5 WV nx	1653 WPRO 92.3 RI rr
Es 1419 WPXI 95.1 SC cw	1555 WAFL 97.7 DE cw	1700 WJMG 92.7 NY
1427 WPEG 97.9 NC mxSCA	1558 WQCM 96.7 MD	1718 WIVA 89.9 PA
1430 WETA 90.0 DC	1600 UNID 88.1-WNUT;WMUC?	1730 WNHU 88.7 CT
1432 WENC 99.1 NC wx	w/harpsloord mx u/ID	
1438 WNET 107.7 NC mxSCA	1601 WFDU 89.1 NJ	7/22 2317 WLKE 99.3 WI BB
1440 WVOT 106.1 NC	1603 WZLW 99.9 CT MoR	Tr 3
1451 WKDE 105.5 VA 5 ads	1615 WPKN 89.5 CT nx/rr	7/30 0600 KCKK 88.3 IA pwr up

New stations underlined. (Hope you & Bruce Elving salvaged your UNID on 88.1 - fjn)

Andy Bolin - 709 Lincoln Ave. - Charleston, IL 61920

5/15 1913 WRPM 105.1 NY (Es)	6/6 0930 KHTO 104.3 MX	7/1Es1902-2100 KLCM KANR KYSS
5/18 1930 WJPR 96.3 MS (530)	Es 1000 KEZB 96.3 TX \$MoR	all MT w/\$MoR
Tr 1930 WPCS 89.3 FL (640)	1001 KPQE 94.1 NM \$MoR	2000 KUFM 89.1 MT NPR
2300 WBOQ 91.7 AL \$	6/8 2115 KLAQ 107.5 CO,	7/2Es1703-1820 CO MUF to 108
5/19 0000-1400 KND/et al-TX,	also AZ/UT Es to 2155.	7/3Es1330-1420 TX MUF to 108
Tr WZZK/et al-AL	6/13 1532 KDUV 100.3 TX \$MoR	7/4Tr0327 L&C to KS NE AL
WNOR/WHEZ-et al-LA	6/15 1147 Es to El Paso area	7/5Es0920-0950 QUON MUF 101
& FL + many others.	6/17 1220-1730 Es to FL,S,TX	7/16*0930 KAYD 97.5 TX
5/20 1910 KBBC 98.7 AZ(Es)	6/18 0724 WITF 89.5 PA (615)	7/19*1535-1600 S.FL MUF 103.5
5/21 0030 WQID 93.7 MS (635)	Es 0730 WJNL 96.5 PA(485)	7/20*1145-1814 of cont. skip!
Tr 0030 WABB 97.5 AL (610)	1000 WAKX 98.9 MN 1 hr!	1145 ZEM ZFB L&C
WQUE/et al LA (670)	1030 WATW 95.9 WI (505)	1430 WJLY WGAY WPGC WJMD
0345 WTAM 102.3 MS (640)	1100 WHSA 89.9 WI(490)	1814 WPTM WPNL WSLF WSNJ
Es 0830 KPFC 97.9 WI (890)	1100 WBEZ 106.7 MA	WNCT WHCN WQXA WDRC
Tr 2030 KCLD 97.9 OK rr	1315 KCLS 93.9 SD (840)	WBJB WRLL WSHS WRWR
2310 KPJL 98.9 OK (590)	1330 KVSF 97.9 SD g mx	WHUS CHOM WGSU WRSU
5/22 0050 WHPH 97.7 OK (580)	1630-1830 Many TX stas.	CFDM WLIR WVOI Plus
Tr 0130 WJSR 104.7 GA rr	6/19 1805 WDAY 93.7 ND (Es)	many re-logs MA 10w
5/25 1230 KRDO 95.1 CO (Es)	6/21 1030 KOXE 101.5 TX \$ cw	7/22 2200-0000 Buffalo NY L&C
5/27 1015 WSHH 103.5 FL	Es 1245-2000 KBAT KPJH KDEP	8/5Tr0000+ Little Rock AR L&C
Es 1320 KBIM 94.9 NM (1010)	KUPD KUNM KBUZ ZEM ZFB	Es1630 KSID 95.3 NE (795)
2220 WQXR 96.3 NY	2030 WTGM 89.5 VA \$cl	8/7a8/8 Tr KS MN L&C 2000a0830
5/28 0200 CPMQ 92.1 SK	6/22 1103-1500 KPAR KREK KVEI	8/9Es1715 WRBS 95.1 MD g mx
Es 1000-1420 FL, 1700 S. TX	Es S.TX FL KBAR KSNN KRWN	8/11 0408 WWIL 97.3 NC \$(665)
5/29 1130 KEKL 104.5 TX (Es)	6/26 0000-0145 CJUS&CFM(Q)(Es)	MS 3 0408 WJER 99.5 DE \$(665)
5/31 0810 WSHH 103.5 FL (Es)	6/28 1500 CO,WY 1715 NE(Es)	8/12 0230 WXTC 96.9 SC \$(645)
6/2 1055-1115 So.FL & Cuba	6/30 0750-1300 FL/Cuba	MS 2 0244 KTKH 97.1 MN \$(465)
Es 2210-2245 AZ & El Paso	1717-2127 TX LA OK NM	1255 WLAQ 93.9 IL \$(160)
XHTO 104.3 MX \$MoR	1800 KHJD 98.9 NL \$rr	1301 KAUM 96.5 TX \$(785)
6/4 0745-0930 MS/FL/AL (500+)	KAYD/KRLY/KBRM/KLCL-rr	GN 2000 WIDR 89.1 MI 10w!
Tr 1330 KRAV/KAKC OK	7/1 1859 KRW5 95.3 MT (1070)	8/13 0130 Tr to NE OH
	Es 1900 KBOW 94.1 MT \$MoR	MS 1300 KRDO 95.1 CO \$(885)

Underlined are Re-logs! Anybody want to swap taped DX goodies? Write me if interested.

Paul E. Petosky - 712 Brook Street - Munising, MI 49862 (EDT) Tele: 906-387-4712

6/29Tr2030 WEXW 103.7 MI (235)	7/20Tr2245 WGGL 91.1 MI (102)	7/20Tr2330 WDUZ 98.3 WI(145)
7/20Es1707 WGGW 88.3 NC	2310 WIAA 88.3 MI (130)	2340 WRVM 102.7 WI(125)
1730 WXTG 96.9 SC (1010)	2315 WQWQ 104.5 MI (220)	7/21Tr0025 CKCY 104.3 ON(125)
1730 WOPM 94.9 TN	2330 WBAV 101.1 WI (145)	7/23Tr0045 WDCR 93.9 WI(110)
Tr1800 WIBA 101.5 WI (274)	2330 WDUZ 98.3 WI (145)	0110 WAFL 105.7 WI(170)

I've been fm/tv DXing since 1954. I welcome FM reports at WQXO-FM 98.3 where I am VP & GM & part owner, and will send nice QSL cards. WQXO is AN w/cw on weekends. (Thank you for the report - f.jn)

Robert Bddy - Box 338 - Newport, OH 45768 (EST)

6/8 Es1328 KBAT 93.3 TX cw	7/1 Es1909 KPMA 92.7 ID#1 cw	8/8 Tr0058 WMDH 102.5 IN ID
6/16Es1747-1804 KAUM KLEF KIOU	7/20Es1544 KPAT 97.3 SD	0100 KRNQ 102.5 IA rr
KTRM - all TX	1545 KHBT 97.7 IA wx	8/9 Tr1819 CKFM 99.9 ON nx
6/18Es1644-1828 KORQ KEID KTEZ	1553 KDLO 96.9 SD PSA	1959 CHSC 105.7 ON ID
KLAW KGOU KPOE KLEA	1558 KRFO 104.9 MN nx	2221 WDFI 94.3 OH ad
KCSC KWHW KVCW KFJL	1601 KICD 107.7 IA nx	(WMOA-off)
KNTU - TX/OK/NM	1619 KBHP 101.1 MN ads	2244 WPKY 97.9 NY nx
6/21Es0947-1828 KESI KPWF KROB	1620 WCCN 107.5 WI	2256 WCMF 96.5 NY rr
KSAQ KBUC KQXT - TX	1655 CBW 98.3 Man. nx	2316 WVCOR 100.5 NY EB
6/22Es0929-1129 KZFM KDOU KVMV	1658 KKDQ 92.9 ND rr	2335 WSPM 99.3 PA PSA
KELT KMMK KPLK - TX	1832 WCCB 94.9 MA BB	8/13Tr1803 WRDX 106.5 NC
6/30Es1723-1829 KXKL KHER KTFM	7/26Tr2154 KFIN 107.9 AR nx	(WRGT-off)
KOKE KULM KRMH KSTA	2242 WIKY 104.1 IN	8/17Gr1458 WVHF 92.7 WV rr
KOKE KOAK KVIL WRR	2303 WMC2 105.7 IL rr	(ET - New Sta.)
KDIX KVTI KDNT KMWT	2331 WHPL 97.7 MO cw	Tr1929 WMO 102.1 NC g nx
all from TX.	2334 WNGH 95.9 IN rr	8/22Tr1941 WGOL 98.3 VA ID
1832 KKAJ 95.7 OK ads	8/1 Es1629 KODA 99.1 TX wx	8/24Tr0933 WMOU 100.1 VA nx
1852 XHEC 102.4 MX ads nx	1636 KILT 100.3 TX ad	1750 WHTK 93.7 NC nx
1921 KINL 92.7 TX rr	The 7/1 logging of KPMA is most distant DX to date.(1730mi!)	

Peter Sawatsky - 244 Neilson Ave - Waterloo, ON N2J 2M3 (EDT)

Tuner - Heathkit AJ-15; Antenna - Archer Twin-Drive FM 15-8205.

7/5 2240 WPLB 107.3 MI	7/20 1548 WLBG 100.5 SC	7/20 1744 KCLO 98.9 KS
Tr 2350 WJGS 98.5 MI	Es 1550 WBBQ 104.3 GA	Es 1759 ZBW 89.3 FM
7/6 1728 WQLR 106.5 MI	1553 WCGQ 107.3 GA	L&C to 2020
Tr	1556 WEAT 104.5 FL	
7/17 0800-1400 (DX Tape)	1600 WACG 90.7 GA	1802 KCUR 89.3 MO
MS KERA 90.1 TX	1601 WQUE 93.3 LA	U. of K.C.-cl
	1601 WMTM 93.9 GA	1558 KPEL 99.9 LA
7/20 0915 WAUS 90.9 MI	1610 WRPM 107.9 MS	
Tr 1142 WGGN 97.7 OH	1613 WRNO 99.5 LA	7/27 1039 WIBW 97.3 KS
1228 WDFI 94.3 OH	1615 WLPR 96.1 AL	MS 1100 WKBC 97.3 NC
Es 1500 WAFG 90.3 FL		
1502 WVFM 94.1 FL	1617 WBYU 95.7 LA	8/2 1940 WKYO 104.9 MI
1507 WJSR 104.7 GA	1621 WJIZ 96.3 GA	Tr 1954 WFYC 104.9 MI
1510 WMCF 92.7 FL	1624 WABB 97.5 AL	8/5 0736 WSHN 100.1 MI
1512 WLQY 98.7 FL	1628 WFMF 102.5 LA	Tr
	1631 WYNO 104.5 TN	0744 WOOD 105.7 MI
1513 WBEU 98.7 SC		
1515 WDUV 103.3 FL	1635 WLAG 104.1 GA	8/8 0749 WHAD 90.7 WI
1518 WGLF 104.1 FL	1635 WXBW 102.7 FL	0805 WEAU 104.5 WI
	1638 KAPB 97.7 LA	0821 WSPF 97.9 WI
1520 WKCO 102.7 FL	1640 WAQT 94.1 AL	0848 WDLB 106.5 WI
1521 WSOJ 98.3 GA	1648 WMGL 98.3 TN	
1522 WPCV 97.5 FL	1653 KPFD 102.1 TX	0856 KSTP 94.5 MI
1527 WIRK 107.9 FL	1657 WSJC 107.5 MS	most distant Tr
1527 WORJ 107.7 FL	1659 KSMU 91.1 MO	0858 CKPR 94.3 ON
1530 WHCG 104.9 GA	1702 WJMJ 94.3 TN	0911 WIFC 95.5 WI
1532 WGUS 102.3 GA	1702 KTEN 93.3 OK	0912 WDMJ 95.7 MI
1537 WQTK 99.1 FL	1706 WJMI 99.7 MS	0926 WWRW 103.3 WI
1540 WONE 98.5 FL	1707 WKOF 100.3 KY	0933 WDEZ 101.9 WI
1542 WQYK 99.5 FL		(was WRIG)
1543 WQSR 102.5 FL	1711 WNSL 100.3 MS	0945 WJPD 92.3 MI
	1716 KROK 94.5 LA	0959 WRVM 102.7 WI
	1716 KWNS 93.1 KS	1029 WHRM 91.9 WI

(continued next page)

(Peter Sawatsky report - continued)

Tr 2255	WZUU 95.7	WI	8/9	0038	WYTL 103.9	WI	8/19	0730	WHAD 90.7	WI	
8/8	2304	<u>WKTY</u> 94.5	WI	Tr	0039	<u>WIFY</u> 103.5	IL	8/29	0721	<u>WMMR</u> 93.3	PA
	2310	CFMO 93.9	OH		0048	<u>WBMX</u> 102.7	IL				
	2312	WBFS 102.9	WI		0058	<u>WQFM</u> 93.3	WI	9/2	2201	WAUS 90.9	MI
	2328	WQTC 102.3	WI		0143	<u>WYCA</u> 92.3	IN	Tr	2201	WMBI 90.1	IL
	2331	WRKR 100.7	WI						2303	WVPE 88.1	IN
	2337	<u>WLKE</u> 99.3	WI		0135	<u>WYXE</u> 92.1	WI	9/3	0215	<u>WEZW</u> 103.7	WI
					0146	<u>WKKB</u> 92.1	WI	Tr			
	2347	WDOR 93.9	WI						0233	WISN 97.3	WI
	2354	WAUN 92.7	WI		0152	<u>WZMP</u> 98.3	WI		0721	<u>WHIZ</u> 102.5	OH
	2356	WERN 88.7	WI		0157	<u>WRWC</u> 103.1	IL				
8/9	0005	<u>WLVE</u> 94.9	WI						0814	WBCH 100.1	MI
Tr					0201	<u>WEZW</u> 103.7	WI		0832	<u>WMUK</u> 102.1	MI
	0010	WGRD 97.9	MI		0206	<u>WQFL</u> 100.9	IL				
	0022	<u>WZEE</u> 104.1	WI		0211	<u>WHPT</u> 94.7	MI				
	0035	<u>WPAW</u> 107.3	WI								

(New underlined)

Frank Wheeler - 6589 Wattsburg Rd - Erie, PA 16509

Antenna: Archer VU-160. Total logged now at 134.

7/14Tr	0759	WQED 89.3	PA ID	9/29Tr	0905	WHLQ 106.9	OH	10/26Tr	1503	WLDM 95.5	MI(154)	
		0828	WYSQ 88.5	OH mx		0930	WHME 91.5	OH (195)	10/22	1000	WDOK 102.1	OH(92)
8/12Tr	0800	WIAA 88.3	MI (333)	9/30Tr	0124	WGCL 100.7	HO	11/5	1015	WLQR 101.5	OH(185)	
8/14Tr	0918	WKSU 89.7	OH v/1	10/7Tr	1530	WECQ 101.7	NY (164)		0829	WMZK 97.9	MI(GG)	
9/10Tr	1315	WBFG 98.7	MI (154)	10/8Tr	0939	WERB 102.7	MI (149)		0828	WJLR 99.9	OH wx	
		0700	WVIA 89.9	PA (223)		1800	WRWR 91.1	OH (153)	11/9	0818	CJCM 88.7	OH(153)
9/11Tr	1002	WVCC 101.7	PA			1304	WWCL 104.1	NY (82)	11/11	0700	WDB 94.9	OH mx
9/15Tr	0215	WFIM 102.9	PA	10/12	0348	WLYT 92.3	OH (92)	11/12	0320	WJZZ 105.9	MI mx	
9/19Tr	1230	WCMU 89.5	MI (262)	10/13	0832	WKTN 95.3	OH (205)		0902	WDNT 107.9	OH mx	
9/22Tr	1000	WFAH 90.5	OH	10/22	1500	WBNY 96.1	NY (83)	11/17	0826	WBOE 90.3	OH ID	
9/27Tr	1200	WKAAR 90.5	MI (232)	10/23	1200	WMZK 97.9	MI (154)				All above sta. recvd via tropo.	

Harry J. Hayes - Star Route Box 226c - Gouldsboro, PA 18424 (EDT)

Eq: Masterwork stereo w/RCA rabbit ears, & Zenith Trans-Oceanic w/ pole antenna.

8/2	Tr2230	WCGY 93.7	MA rr	8/12MS	tent.	WMDR 96.9	IL	9/10Tr	1120	<u>WMMN</u> 105.7	OH rr		
		2344	<u>WREI</u> 103.3	MA rr		UNID 103.3	w/BB		1130	<u>WRKY</u> 103.5	OH rr		
8/9	Tr2130	WRCN 103.9	NY rr			Above all on rabbit ears.			1937	<u>WTKK</u> 105.7	MD (140)		
		Es1900	UNID 91.5	or 91.7	9/10Tr	0955	<u>CHSC</u> 105.7	OH (225)		1945	<u>WDJQ</u> 104.3	MD rr	
		w/30's	mx	PTA1MO/OH		1005	<u>WYSL</u> 103.3	NY rr		2015	<u>WFSI</u> 107.9	MD (160)	
8/12MS	0056	<u>WXTZ</u> 103.3	IN (665)			1100	<u>WDMT</u> 107.9	OH MoR		2033	<u>WZSR</u> 106.7	VA MoR	
										9/14Tr	0105	<u>WYSL</u> 103.3	NY ID
										9/16Tr	1930	WBGO 88.3	NJ

Steve West - 432 Kenmore Rd - Havertown, PA 19083 (Tele: 215-449-1472)

6/18Es	0730	<u>KYCS</u> 99.9	AR cw	7/20Es	0500	<u>KBCM</u> 95.5	IA cw	10/11Tr	2000	<u>WKYS</u> 93.9	DC disco
		<u>KARC</u> 92.9	OK rr			<u>KKTC</u> 99.1	MN	10/15	0200	<u>WRAL</u> 101.5	NC rr
	0800	<u>KBJH</u> 98.5	OK g			<u>KTCR</u> 97.1	MN ID			<u>WNYK</u> 93.7	NC K-94
		<u>KKUL</u> 103.3	OK rr			<u>KGOO</u> (2 f.n)	IA			<u>WFOG</u> 92.9	VA (225)
		<u>KOSU</u> 91.7	OK			<u>KFOA</u> 95.1	MN MoR	12/6	1130	<u>WMDC</u> 101.1	DC rr
6/21	2000	<u>KARC</u> 92.9	OK gold			<u>KRBT</u> 97.7	IA	12/14	1300	<u>WESM</u> 107.5	VA (160)
		<u>KMRJ</u> 96.9	OK //AM		0600	<u>KSJN</u> 91.1	MN cl	12/17	1830	<u>WIVE</u> 100.1	VA g mx
7/20	0400	<u>KEZO</u> 92.3	NE EZ mx	8/1	Tr0700	<u>WSFL</u> 106.5	rr			<u>WRPK</u> 106.5	VA NPR
		<u>KRTP</u> 96.9	IA			<u>WJEJ</u> 104.7	MD (150)	12/19	1700	<u>WHLN</u> 106.5	PA rr
	0500	<u>WJRE</u> 92.1	IL Hit P.		0800	<u>WESM</u> 97.5	WV (160)	1/10	0030	<u>WILQ</u> 105.1	PA Q105

Eq: SONY TFM-7250W AM-FM Portable (\$44.95 Model) AR-15, 5 elem. FM Yagi 30AGL w/2 rotors for horiz/vert use. All loggings after 8/1 were on AR-15, the rest w/SONY w/whip ant. I strongly recommend any DXers considering hooking their antenna for horiz-vert use, to increase adj. ch. rejection & overload. This allowed me to get WMDC-101.1 over lcl WDVR, just 7 mi. away. The WMYK logging was while WSTW-93.7 was off the air.

Fred Nordquist - 302 Sandra Lane - N. Syracuse, NY 13212(EDT) (New Underlined)

8/6	MS2200	KLIZ 95.7	MN ID	8/9	Tr	0815	WMBI 90.1	IL g	8/9	MS	2155	<u>WKOP</u> 100.3	KY ID
8/8	Tr	2213-2330	<u>WPBF</u> <u>WDR</u> <u>WHIO</u>				<u>WFTS</u> <u>WUCB</u> <u>WHNN</u>		8/21	GM	2200	<u>WLCL</u> 102.3	NY cw
			<u>WNCO</u> <u>WMOH</u> <u>WVNO</u> <u>WJCN</u> <u>WPTM</u>			Es 1813	<u>WDLT</u> <u>KAMO</u> <u>WBLQ</u> <u>KHRM</u>						*2nd time recvd by MS

Joseph Fela - 150 Robert Place - So. Plainfield, NJ 07080 (EDT)

Eqt: Receiver - SX-828 Antenna - JFD FM-10A 35AGL w/rotor

Continuation of 7/20 Es in SEPT 1975 VHF-UHF Digest - Page 44.

7/20 Es 1618 WNET 105.7 IL Peoria rr
 1625 KRES 104.7 MO Moberly "Kres ctry"
 1626 WMBM 104.5 IL Sprgfd cw/ID/wx
 1635 KDFI 101.3 KS Wishita A/FM nx/cw
 1644 KTPK 106.9 KS Topeka auto. cw
 1659 KUDL 98.1 KS KC rr
 1700 KCID 93.7 IA Carroll AP nx
 1707 KXEL 105.7 IA Waterloo ads/wx
 1709 KOOO 104.5 NE "K triple-O" cw
 1713 KJAN 103.7 IA Atlantic pop mx
 1714 KLIN 107.3 NE Lincoln beaut. mx
 1719 KTCR 97.1 MN M'n. L&C cw 6/WNWS
 1734 WCCO 102.9 MN " A/FM nx/wx
 1754 KELO 92.5 SD Kelo-land FM nx
 1800 KIOV 104.7 SD Auto. cw, A/I nx

7/20 Es 1804 KSLQ 98.1 MO St. Louis PSA rr
 1818 WMMH 95.9 WI Minecqua nx/ID
 1828 WIAL 94.1 WI Eau Claire ID
 1830 WATL 93.7 MN Minn. E-2 mx
 1851 KLIZ 95.7 MN Brainerd jingle
 7/23 Tr 2300 WIVA 94.1 VA Yorktown MoR
 Most other Norfolk in
 8/9 Es 1822 KARC 92.9 OK Tulsa rr/jingle/ad
 1831 KRAV 96.5 OK " E-2 mx
 (like WRFM-105.1)
 1859 KUMR 88.5 MO Rolla nx/ID
 1901 KBJH 98.5 OK Tulsa ID & ment.
 Amer. Christian Coll.
 1903 KEMA 104.5 OK Tulsa nx/ID
 1906 KGGW 92.1 OK Broken Arrow w/
 KTOW-KGGW IDs/cw
 73, Joe

Mike Bugaj - 69 Sherman Rd - Infield, CT 06082

8/9 Es 1818 KIMO 98.9 MO Kennett ID
 1820 KLCO 97.9 OK Poteau Don's Honda
 1904 WSDU 91.9 IL Carbondale ID/MoR
 Tr 2030 WCLW 105.3 OH Mansfield wx/annts
 2125 WCSS 97.7 NY Amsterdam ID/rr
 2146 CFCA 105.3 ON Hamilton ID-\$ 105
 2158 WELD 98.5 NY Nia. Falls cl/rod ad
 8/21 Tr 0700 WKNW 104.1 PA Allentown beaut.mx
 (WTOF off)
 8/29 Tr 2002 WGH 97.3 VA cl mx. Also WJLY WSFL

9/1Tr 0040 WMRV 105.5 NY Endicott Hit Par.
 (now 105.7-40/85)
 1740 WVOS 95.9 NY Liberty ID
 (Still unlogged-fjn)
 9/21Tr 1600 WIBF 103.9 PA Jenkintown ID -
 Greek/Ital. prog.
 10/19*2200 good tropo to Norfolk lols
 10/23*2130 More " "
 2200 WRVQ 94.5 VA Richmond Rock
 "Q-94" "Super-Q"
 10/24 1815 WUNH 91.3 NE Durham Hit Parade

Central Tv-Dx (continued from page 10)

April 1976

Gaines; continued---
 2-15 Tr 0159 WLWI-13 In. 1021(230)
 (now WTHR--wd)
 0341 KDKA-2 Pa. 1532(210)
 2-21 Ms 0359 WCBS-2 N.Y. 1512(490)
 2-22 Tr 0334 WFTV-4 In. 1522(230)
 2-26 Tr 0209 WRTV-6 In. 1032(230)
 2311 WKBK-11 Mi. 5532(190)
 2324 WGTU-29 Mi. 1031(205)
 2341 WFLD-32 Il. 1532(225)
 2-27 Tr 0001 WKRC-12 Oh. 2521(235)
 0140 WOWK-13 W.Va. 1522(280)

3-1 Tr 0221 WRTV-6 In. 1022(230)
 3-2 Tr 0156 WTRF-7 W.Va. 1513(205)
 0252 WITI-6 Wi. 1012(245)
 3-3 Tr 0203 WQAD-8 Il. 1022(375)
 0234 WITI-6 Wi. " (245)
 0243 WTMJ-4 " " "
 3-5 Tr 0155 WRTV-6 In. " (230)
 0228 WITI-6 Wi. " (245)
 0855 WVED-17 N.Y. " (215)
 3-6 Tr 0255 WTMJ-4 Wi. 1122(245)
 0314 WITI-6 " 1022(" "
 3-8 Tr 0206 WRTV-6 In. 1023(230)

Paul sends along numerous articles pertaining to the ice storm that hit Lower Michigan a couple of weeks ago. As one article put it; there were about 285,000 homes without power at one time or another in Michigan alone.

William J. Draet; Ellis St. R.R.#2, Kewaunee, Wi. CST (414)-388-2350

2-20 Tr 1822 WKYT-27 Lexington(473)
 KBNL-30 St. Louis(432)
 2-23 Tr 1943 KSIN-27 Sioux City(463)
 2-24 Tr 0724 Youngstown U's(420)
 WVIZ-25 Cleveland(355)
 0732 WJET-24 Erie(405)
 WSEE-35 " "
 1235 KSIN-27 Sioux City(463)
 KKNE-19 Norfolk T
 1244 KNEG-14 Sioux City(463)
 1255 KVPD-21 Ft. Dodge(365)
 1706 WUAB-43 Lorain(340)
 1805 WKYT-27 Lexington(427)
 Indianapolis U's(336)

2-26 Tr 1657 CICO18-18 London Tent.
 (appeared to be 0 offset)
 Cleveland U's(340-355)
 1719 WKUL-33 Huntington(498)
 1825 CICO28-28 Kitchener T
 2014 WOSU-34 Columbus(395)
 2048 KBNL-30 St. Louis(432)
 3-5 Tr 1132 " " "
 3-6 Tr 2007 Unideds on 2, 3 & 4.
 3-7 Au Sonny & Cher on ch.3 delayed 1
 hr. Other stations seen also;
 no i.d.'s.
 3-14 Au chs.2-4

PHOTO-NEWS

Jim Alexander
Canisius College
Box 2 - Bosch Hall
Buffalo NY 14208

April, 1976

FEATURE: This month, we have our first individual photo of a WTFDA member. Gary Olson (below) is the first ever to appear in the PHOTO-NEWS column. As an added attraction, we'll also pay a visit to Gary's place in Deerfield, Illinois.



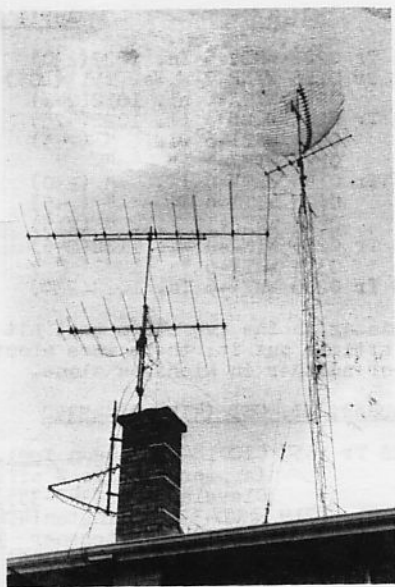
Details of Gary's set-up:

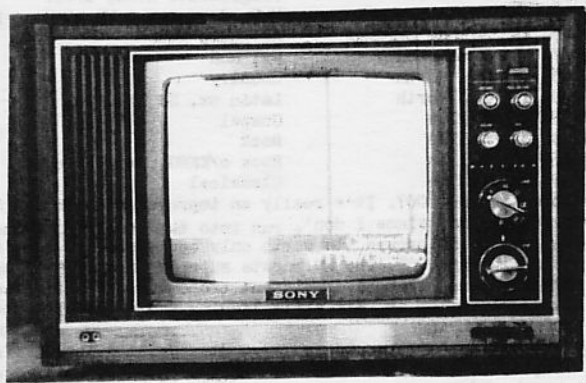
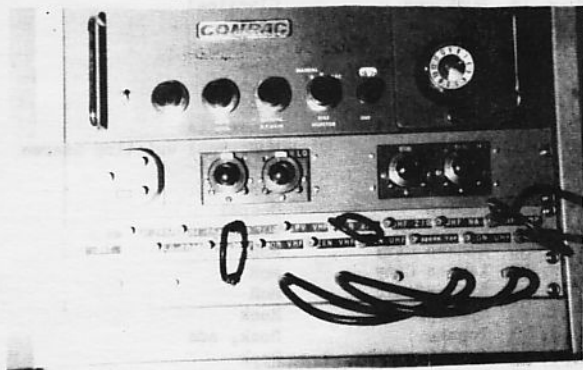
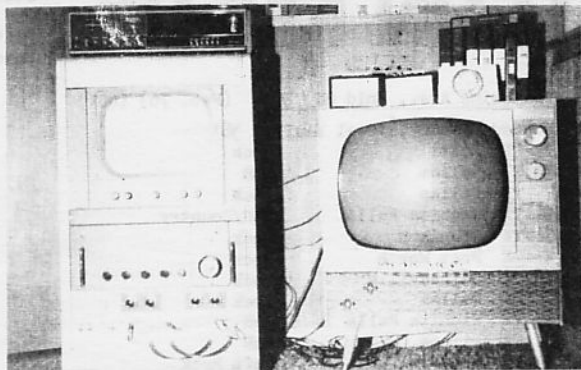
To the left is the antenna installation. Mounted on the chimney are the UHF house antenna, VHF house antenna, and ch 2 - 6 lowband VHF. Mounted on the tower are the 7' parabolic dish for UHF, and ch 7 - 13 highband VHF antenna.

On the next page appear photos of Gary's DX shack. In the photo at the top of the page are, at left, 12" video monitor (B+W), Conrac AV82E VHF-UHF, panel w/splitter and high band + low band traps, and custom patch panel. In the same photo, at the right are Zenith 1960 B+W TV and 3 rotor controls on top.

The second photo on page 2 is a close-up of the custom patch panel, traps, and Conrac.

The bottom photo is of a Sony CVM - 1225 receiver/monitor used for color video feeds from DX equipment as well as for regular viewing.





IMPORTANT NEWS for anyone that reads this column. The word has come that plates can and will be made available for materials used in this column whenever needed. What does this mean? With plates, photos of such items as people and equipment can be used on a regular basis. Photos of TV-DX need not necessarily be super-high contrast to reproduce properly if offset plates are made. **THIS IS YOUR CHANCE** to see yourself, your DX set-up, and your DX photos in the VUD. **DON'T** miss out! If you have a photo of yourself, your equipment, or a good DX catch, send it in today! My thanks to our publishers for the good news.

Be watching for an address change in coming months... 73 and good DX, *Jim*

WESTERN FM-DX

Steven C. Wiseblood
707 Loma Way
Santa Maria CA 93454
Deadline: 5/12, 6/10

Doug Everitt, 1708 West Maine Ave., Enid OK 73701 (Feb. 76) (CST)

Equipment includes Kenwood KT-8007, 10-el YAGI at 38'

4	Tr	0939	KWNS	93.1	KS	Pratt	Rock	100
		1339	KTLC	100.3	TX	Dallas	MoR	260
		1534	KVIL	103.7	TX	Dallas	Rock	260
		1649	KLUR	99.9	TX	Wichita Falls	MoR/Country	190
		1654	KGCC	89.7	TX	Dennison	Rock	220
5		1256	KFWD	102.1	TX	Fort Worth	Rock	250
		1405	KGAF	94.5	TX	Gainesville	Rock	200
		1845	KNUS	98.7	TX	Dallas	Rock	260
6		1303	KBID	92.9	TX	Wichita Falls	MoR	190
		1319	KORQ	100.7	TX	Abilene	MoR	300
		1341	KKAJ	95.7	OK	Ardmore	Soft Rock	160
		1345	WRR	101.1	TX	Dallas	Classical	260
		2206	KMMM	106.9	OK	Muskogee	Classical	150
7		0052	KWXI	97.1	TX	Dallas	Rock	260
		1054	KLCO	97.9	OK	Poteau	Country	210
		1057	KMAG	99.1	AR	Ft. Smith	News	220
		1101	KINB	107.3	OK	Poteau	Country	210
		1110	KYFM	100.1	OK	Bartlesville	MoR	100
8		2356	KERA	90.1	TX	Dallas	Bluegrass	260
11		2213	KORQ	100.7	TX	Abilene	MoR, Full Quieting Stereo	300
12		1141	KGAF	94.5	TX	Gainesville	Rock	200
		1450	KOAX	105.3	TX	Dallas	MoR	260
		2156	KPCG	102.5	MO	Joplin	Gospel	220
13		2129	KTCS	99.9	AR	Ft. Smith	Country	220
14		0058	KEBQ	104.3	MO	Kansas City	Rock	260
		0105	KMBR	99.7	MO	Kansas City	MoR	260
		0111	KTKR	101.5	MO	Springfield	MoR	270
		0128	KWTO	98.7	MO	Springfield	Rock	270
15		0149	WIBW	97.3	KS	Topeka	Rock, ads	220
		0154	KJCK	94.5	KS	Junction City	Rock	180
		0200	KANU	91.5	KS	Lawrence	Progressive Rock, s/off	220
16		1322	KFIN	107.9	AR	Jonesboro	MoR, Occasional MS bursts, K-FINE	410
		2001	KVOA	106.7	AR	Siloam Springs	AP Radio News	210
20		0808	KNER	99.7	MO	Kansas City	Wx, MoR	260
		0946	KSCS	96.3	TX	Ft. Worth	Country	250
		0949	KBUY	93.9	TX	Ft. Worth	Latin mx, SS o/MSPI	250
		1018	KDTX	102.9	TX	Dallas	Gospel	260
		1020	KZEW	97.9	TX	Dallas	Rock	260
		1022	KAFM	92.5	TX	Dallas	Rock o/KKNG, Very Strong	260
		1024	KCHU	90.9	TX	Dallas	Classical	260

I'm very pleased with my new KT-8007. It's really an improvement over the STA-76. Its capture ratio is very clean, and since I don't run into two stations on the same freq. in the same direction ($\pm 10^\circ$), it proves its worth only occasionally, such as the capture over KKNB by KAFM on the 20th. The MS bursts superimposed on KFIN on the 16th were considerably stronger than the more consistent tropo signal. I strained for Memphis that morning, but never quite made it. I'm still lacking the state of Tennessee. Well,

73s and BEST OF DX!, Doug

Editors Note to Doug Everitt: I'm sorry if you were disappointed in not finding your report in the Feb. VUD, but I guess I'll have to explain to you exactly how the VUD works. All Reports sent to me should be here by the deadline that you see at the top of this page. I then send them to Clarke Ingram (The "Head" Editor), and he sends them to the new publishers. By the time all this has finished, and the VUD's are sent through the mail, approximately one month has elapsed. So, as you can see, nobodys report appears in the VUD in the same month it is mailed to me. In order to see your report in print, always add one month from the time you mail it, and this will give you the issue that you will see your report in. Your report which I just received here (3/10) will be in the APRIL VUD. I'm sorry if I caused any confusion. Now on to much more DX!!!!

Pat Dyer, 5315 Silvertip Drive, San Antonio TX 78228 (Feb 7-Mar 12) (CST)

9 Tr	2331	KDMT	106.1	TX	Denton	ID, automated rock	275
	2335	KYKX	105.7	TX	Longview	C&W, ID	310
	2355	KJDF	104.9	TX	Beeville	s/off	85
	2358	WXEL	105.3	LA	Slidell	soul, ID	530
		KOAX	105.3	TX	Dallas	ID, EL	250
10 Tr	0002	KTAL	98.1	TX	Texasarkana	C&W	380
		WRR-	101.1	TX	Dallas	ID	250
	0005	KJCS	103.3	TX	Nacodoches	EL, ID	275
	0140	WEZI	105.9	TN	Memphis	EL, ID	675
	0152	WMC-	99.7	TN	Memphis	RR, ID	635
	0215	WKXI	94.7	MS	Jackson	MoR, ID	525
	0228	WBYS	95.7	LA	New Orleans	EL, ID	510
	0231	KROK	94.5	LA	Shreveport	RR, ID	350
	0235	WQUE	97.3	LA	New Orleans	Rock!, ID	510
	0245	WKSJ	94.9	AL	Mobile	C&W, ID	630
	0250	WKRQ?	99.9	AL	Mobile	RR	630
11 Tr	0135	WKMK	106.7	AL	Enterprise	RR, MoR, ID (Prior by Es)	765
		WXEL?	105.3	LA	Slidell	RR (Very narrow ducting)	530
13 Tr	0145	KTAL?	98.1	TX	Texasarkana	C&W	380
	0200	KYKX?	105.7	TX	Longview	C&W	310
25 Tr	0209	WXEL	105.3	LA	Slidell	Soul, ID	530
	0225	KIKS?	96.1	LA	Lake Charles	RR	325
	0250	KYKR	93.3	TX	Port Arthur	C&W, ID	280
10 Tr	2227	KOYE	94.9	TX	Laredo	Automated MoR, ID, (moved from 92.7)	145
	2237	KOOI	106.5	TX	Jacksonville	MoR, ID	260
11 Tr	0106	KCIL	107.1	LA	Houma	MoR, ID, PSA	475
	0136	KYKR	93.3	TX	Port Arthur	C&W, ID	280
	0145	KCHU	90.9	TX	Dallas	ID	250
	0230	KSNS	96.1	LA	Lake Charles	Automated MoR	325
	1004	KOOI	106.5	TX	Jacksonville	C&W, ID	260

Correction from last report, WMUS - Muskegon is 106.9 and is not 107.1. Got a few new tropo loggings this time to make up for the lack of Es, Feb 9-11 period was the best in about a year.

73, Pat, WASTIX

James Thomas, 317 W. Cooper, Tipton MO 65081

Hello Again. I am happy to be a member once again and hope to continue to be a member and help the club in whatever ways possible. Well, I'm in a new state now with completely different surroundings. There are completely different DX possibilities here, even though I'm right next to the state where I use to live. I lived in Hutchinson KS until Nov. 75. I DXed the band for three years in South-Central KS. My total number of stations before moving to MO added up to 288, with 22 states and 1 province. I averaged out at 8 stations per month. Now in MO with my same gear and set-up, a KLB-FM-21 mono receiver and a Channel Master 5-el @ 60', in four months time I've DXed 143 stations averaging out to 35 stations per month. I would like to know if any WFFMA members would be interested in swapping cassette tapes that have their regional FM station ID's recorded on them. I will swap them with my tape with practically all the Missouri FM station ID's, and whatever Kansas, Iowa, Illinois and Arkansas stations I can receive. It would be an easy and economical way for DXers in other parts of the country to know what ID's from the Central states sound like, for the times when they can get Missouri by Es, Tr, MS, Au. I don't have any stations to report at the present time, still getting the log book organized since I'm in a new area now. 73's and the best of DX!

Danny Buntin, 1020 S. Duncan, Stillwater OK 74074 (Dec. 4 - Mar. 8) (CST)

Equipment includes Pioneer TX-9100, Archer 10 element antenna (2-elements missing), rotor.

12-4 Tr 1841 KLYP 100.3 IA Des Moines ID, EL, \$

1-14 Tr 1905 KRHD 102.3 OK Durant ID, IRN, New on air

3-8 GW Noticed that KRAV 96.5 Tulsa has gone back to Rock after 6 years of EL. Often ID's as "FM-96".

I haven't heard a trace of Es since Aug. 14th. Tropo slightly better, though.

I recently made use of a Realistic tunable FM trap and it makes for a whole new tuning experience. Its like getting a new radio for \$2.95 (Cost of trap). I can now aim the big antenna south and DX Texas better without saturating the whole band with images if KSPI/KOSU. All strong images are virtually eliminated, leaving only a handful of weak ones most tropo signals most tropo signals should be able to override. The trap seems to weaken signals on the lower half of the band, though not to significantly. This new development makes me more ambitious than ever to replace my tornado damaged antenna. My plans call for two 10-element Antennacrafts double stacked near the 55' level. Waiting for delivery. Welcome to fellow Oklahoman, Doug Everitt.

Satellite TV Project Turns Into \$70 Million Boondoggle

By H. PETER METZGER

The federal government is caught up in a \$70 million space-age boondoggle that it no longer wants.

In fact, the only people who want the project to continue seem to be those who are getting paid to demonstrate and test its usefulness.

Beaming TV To Remote Areas

Called satellite-beamed educational TV, the project is designed to test the feasibility of using a \$211 million satellite to beam TV to remote areas of Alaska, Appalachia and the Rocky Mountains.

As for the project's acceptance:

"In one village in Alaska," says a Washington official who toured several of the remote sites there, "the villagers have scheduled their bingo games to conflict with the satellite broadcasts."

"This was not done as a deliberate affront," he added. "Bingo was simply more important to them."

Evaluating The Concept

An "outside evaluator," a Syracuse, N. Y., educational research group which HEW paid \$445,000 to evaluate the experiment, has decided to evaluate the concept of the project, instead of the experiment itself.

Conceding that nobody learns more through the use of costly technology, Laurence B. DeWitt, the study director, said, "No significant difference in learning gain has ever been found between any method of instruction, either between conventional teaching or using television or radio or whatever. So there was no expectation that a satellite would turn out any differently."

The project's failure came as no surprise to some.

The National Aeronautics and Space Administration (NASA) and the U. S. Department of Health, Education and Welfare (HEW) have invested more than \$70 million in the nine-month experiment to bring space-age benefits down to Earth.

But all the project has "proven" so far is what was known already: That television can be broadcast to remote sites by satellite, that children like to watch TV during school hours and that rural communities have no objection to expensive educational baubles so long as others will pay for them.

Another thing it has proven is that if federal money is lavished on research-

ers with little review by the government, it may be spent in questionable ways.

Illegally Inflated Salaries

There was, for example, the usual litany of illegally inflated salaries.

Sons and friends of project director Gordon Law were on the payroll and a swank apartment in downtown Denver was maintained for an absentee administrator, Jack Campbell, ex-governor of New Mexico.

The telephone bill topped \$80,000 one year when there were fewer than 100 employees and there were heavy travel expenses for "seminars" both here and in Europe.

As early as 1971, an internal HEW memo called it a "prelude to disaster."

A 1973 HEW team of experts, visiting the remote sites, voted to cancel the project "the sooner the better," but political reasons kept the project afloat even when its technical support vanished.

One HEW expert on that 1973 trip was Theodore R. Conant, New York communications specialist:

"We knew at the time," Conant said recently, "that the satellite project was like giving teachers in the Rocky Mountains a Rolls Royce when they really needed a Ford."

Conant said the entire concept had been disproved eight years ago by the failure of a project in which an airplane circling high over Indiana had beamed educational programs in much the same fashion.

"That fact," said Conant, "was conveniently ignored because the real reason for the satellite program was not technical, it was political."

"It was to provide a glamor project to help keep NASA alive, to keep the satellite and electronic manufacturers busy

and to build an empire for the project's promoters."

The Indiana project died soon after its Ford Foundation support dried up. The schools involved wouldn't pay for it themselves, and the project was discontinued in 1967, after spending \$20 million.

\$70,000 Per Student

Conant puts the price to deliver educational-TV via this satellite at \$70,000 per student, "many times the cost of conventional methods such as films and TV cassettes."

But the biggest blow to the educational satellite came in early 1974, even before the experiment started. The project's political support vanished.

Because of pressure on the White House from the broadcast industry, NASA was directed to get out of the communications satellite business: A followup satellite, designed to expand the present experiment, was killed after \$20 million was already spent on it.

The second bird will be destroyed for parts and what remains will be donated to the Smithsonian Institution museum as an "artifact."

(via Clarke Ingram)



NASA antenna outside a school in Monte Vista, Colo., part of satellite project that didn't get off ground.



VHF UTILITY DX

Pat Dyer
5315 Silvertip Drive
San Antonio, TX 78228
Deadline: 10th of month

APRIL 1976

Hank Holbrook, 7211 Chestnut St., Chevy Chase, MD 20015 Regency AR-136D, 10-e Finco FM Yagi with rotor and Blonder-Tongue FM booster; GMT, QSLed

8-25: 2329, N410PA 134.0 (PanAm Clipper 222; Montego Bay-NYC route)
11-29: 1703, N21942 119.7 ov Tipton Army Field, Ft. G.G. Meade, MD
(Jack E. Munroe; Cessna 150, 1-e, 2-s; 25 w)

My loggings. Allied A-2586, Hallicrafters SX-62, Hammarlund SP-600-JX-10 (with ICM BAX-1 tuned preamp); 30' long wires at 12' ne-sw and nw-se runs; F2 mode unless noted (bs-backscatter) with daily peak; GMT

2-12:	0220, KFL 943 (Es)	19:	2130, 32.000	3-1:	2332, KQC 884 (Es)
	0303, Los Ang (Es)	20:	0029, KIE 953 (Es)	2:	0211, KSC 645 (Es)
	0334, KME 438 (Es)	21:	2030, 32.96		1555, 32.000
13:	1616, KIE 953 (Es)	25:	1940, 35.28	3:	1728, 35.28
	1915, 35.62 bs	26:	2105, 35.28		2100, 35.62 bs
	1950, 35.28		2115, 35.62 bs	4:	1930, 32.000
	2015, 30.96 US	27:	1932, KKV 690 bs	6:	2050, 40.000
16:	2025, 32.96		2102, 40.85	7:	2045, 40.74
17:	2155, KSV 810	28:	1915, 32.96	8:	2055, 32.000
	2156, APRTS		35.62 bs	9:	1750, 37.000
	2200, 35.62 bs	29:	1700, 35.62 bs	10:	1645, 32.000
	KPC 59		1724, KKV 690 bs		1720, 35.58 bs
	2213, 35.22		1805, 35.28		

APRTS	30.66	CA-ha	KPC 59	33.98	Fortuna, CA-sf
KFL 943	35.58	Las Vegas, NV *	KQC 884	35.58	Detroit, MI
KIE 953	35.58	Atlanta, GA	KSC 645	35.58	Chicago, IL
KKV 690	35.62	Houston, TX	KSV 810	33.08	Portland, OR-h
KME 438	35.22	Orange, CA	Los Ang	35.38	Los Angeles, CA-mp

h-hospital; ha-h.f. harmonic; mp-mobile phone; sf-state fire; rest are tone message/ID pagers except * which is voice ID

Feb 1976 10.7-cm solar flux (Ottawa)/A-Index (Boulder)

1: 71/16; 2: 71/16; 3: 70/14; 4: 70/9; 5: 69/7; 6: 70/9; 7: 71/16;
8: 70/17; 9: 70/22; 10: 70/17; 11: 70/10; 12: 70/12; 13: 72/18;
14: 72/15; 15: 71/5; 16: 71/6; 17: 71/9; 18: 72/14; 19: 72/19;
20: 72/16; 21: 70/14; 22: 70/10; 23: 71/6; 24: 71/3; 25: 70/2;
26: 70/8; 27: 70/22; 28: 69/14; 29: 69/23

Avg: 70.5

There has been some definite Cycle 21 spot groups appearing, but they have been small and short-lived.

For the mostpart, it takes a bit of geomagnetic activity to push the F2 MUF's over 30 MHz in any direction these days. This will likely be the poorest spring in that respect since 1964.

The good levels of Mar 6-7 came very near 2 solar rotations after the very large Jan 10 events.

73, Pat WA5IYX

INTERNATIONAL NOTES from

KENNETH R. SIMON
528 Pilgrim Road
West Palm Beach, Fla. 33409

FIRST---"GUIDE TO WORLD-WIDE TELEVISION TEST CARDS" by Keith Hamer and Garry Smith is a first rate way to get a glimpse of the test patterns used around the world. It is well done and available from Keith Hamer, 7 Epping Close, Derby DE3 4 HR Great Britain....Now don't forget the British pound has dropped below the \$2 mark, making the price much more attractive than before...Write Keith for price and mention the column.

BAHAMAS--ZFHQ-6 ch 11 on the TCOM balloon appears to be gone. Aviation and Space Technology said recently they are testing a new, bigger balloon at Elizabeth City, NC.

BOMBAY--FEB.10--Talking to representatives of the Film Writers Association of India, the Minister for Information Vidya Charan Shukla said that commercial services will soon be introduced in all TV centers.

LONDON--FEB.11--An experimental BBC local TV station was shelved by the web in the name of economy. Plan called for the station at Stoke to use one of the vacant channels for a limited six-week run accent community access programming.

NEW DELHI--Feb.17--ATS-6 Satellite will be moved from over India in August despite an Indian government request to NASA to keep it there longer in the SITE (Satellite Instructional Television Experiment) program in which 2,400 remote villages are receiving programs bounced from the satellite.

Foreign members are requested to send any information and loggings to me for use in this column.

The West Indies and Caribbean Yearbook 1975 says:

BARBADOS	Radio Barbados	98.1 MHz	
ANTIGUA	ZDK-FM	99(.0?)	10 w.
TRINIDAD	VP4RD-FM	95.1	4 kw. "Radio Trinidad"
	VPL6-FM	98.9	10 kw. "Radio 610"
JAMAICA	RJ-Spur Tree	90.5	
	JBC-Cooper's Hill	91.1	\$
	JBC-Montego Bay	92.1	\$
	RJ-Montego Bay	92.9	\$
	JBC-Spur Tree	93.3	
	RJ-Kingston	94.7	
	RJ-Kingston	95.7	\$
	JBC-Cooper's Hill	96.3	
	JBC-Kingston	99.1	\$-stereo
	RJ-Christiana	101.3	\$
	JBC-Spur Tree	103.3	\$
	RJ-Kingston	104.5	
	JBC-Kingston	105.7	\$

also listed is a "Channel 90 FM Stereo" in Aruba NWI and on the official Panama government list--40 FM stations...

That's about it for now, 73s & gud DX

Ken



TV QSL CORNER

PAUL D. TRASKA
64 WEAVER AVENUE
BUFFALO, NY 14206

As of this issue, NO ONE has sent any QSL's, Jim Alexander & Ken Simon seem to be my sole contributors and myself: all other QSL's seen in this column are from the master file, which Ken sent some time ago.. so would you please contribute to not only this column but also the QSL corner.
(do it--don't sit on it)

(WTFDA will love you for it)

A few more additional abbreviations to be used in the TV QSL CORNER./

DP-director prog/ED-engineering dept./E-engineer/FD-film director.....
IS-information specialist/MTO-manager technical operations/OM-operations manager/PRA-public relations asst./PCO-production Co-ordinator.....
PR-public relations/PC-post card/SOC-studio operations chief/SM-supervisor maintenance/TEM-TV eng. manager/TE-transmitter eng./TOM-technical-operations manager.....

- AR KETS ch 2 Conway-350 south donaghey, 72032.L-Vernon L. Dillaplain, CE-25 days (DE)
KY WKYT ch 27 Lexington-winchester rd.40501. 7x5 $\frac{1}{2}$ QSL card.Harold Schumacher DE. (K4ASB) 15 days (PDT)
LA KATC ch 3 Lafayette-Box 3347, 70501.L-Roy LeJeune CE.8 days w/RP (SS)
MI WJRT ch 12 Flint-2302 lapeer rd.48503.L-M & sticker, Becky Compton - PA. 6 days (JJA)
WJIM ch 6 Lansing-2820 E.saginaw st.48904.QSL card, Carl Onken CE.5-days (JJA)
MS WLBT ch 3 Jackson-Box 1712, 39205.L & M Floyd Kinard.DE.12 days w/RP-(SS)
MT KFBB ch 5 Great Falls-Box 1139, 59401.WTFDA QSL form sent, w/confirmation typed-in.Earl W.Crowder CE. 11 days (SS)
NC WBTW ch 3 Charlotte-one julian price place, 28208.L & TP photo, O.E.-Simerly TOM. 16 days (PDT)
NY W53AA NYC.WCBS, 51 west 52 st.10019.card-xltr location 168 miles, from Tr. garden state parkway NJ.logged when ken was in travel-mobile. 1 week (KRS)
WOR ch 9 NYC.-1440 broadway, 10018.AM card no date, time nor signature....12 days (CWI)
OK KOCO ch 5 Oklahoma City-P.O.box 32325, 73132. L-Ted P. Newcomb, VP & CE. 6 days (JFC)
PA WPSX ch 3 Clearfield-201 wagner building, university park, 16802.L---Gary E.Miller. IS, 67 days (JFC)
SC WCIV ch 4 Charleston-highway 703 mt.pleasant, 29464.L,M,S & decal.--Carl E.Shaw CE. 11 days (PDT)
TX KIII ch 3 Corpus Christi-4750 lexington blvd.78411.w/my PC returned- & confirmation signed.Bob White SM. 9 days (PDT)
WI WKOW ch 27 Madison-Box 100, 53701.L-Robert L.Zuelsdorf CE.5 $\frac{1}{2}$ weeks -- (JJA)
CANADA
MB CJAY ch 4 Brandon-2940 victoria ave.R7A 6A5.L-Lawrence Dubois.CE.--7 days (DE)

73' s Paul



AVCO TV NETWORK SOLD! In light of the recent absence of the FCC-TV News column, we feel that one important development must be reported herein. WLW radio in Cincinnati has disposed of the stations in the Avco Network (TV), resulting in some interesting changes. WLWC-4 Columbus, if you do not yet know, is now WCMH-4, while WLWI-13 Indianapolis has become WTHR. As of this writing, WLWT-5 Cincinnati and WLWD-2 Dayton apparently have retained their call letters, but any new information is appreciated! CWI

FM QSL CORNER

THOMAS J. YINGLING
221 Pinewood Rd.
Baltimore, Md. 21222

- WSKG 89.3 Binghamton, NY - p o box 97, Endwell, NY 13760 - letter, and map from Edward Y. Wright Eng. Manager- tells me of another report from someone in Chevy Chase. I guess Hank Holbrook? Reply in 2 weeks. (tjy)
- WQSU 88.9 Selingsgrove, PA - Susquehanna University - letter & bumper-sticker from Larry D. Augustine, General Manager. Reply in 2 weeks. (tjy)
- WTF 89.5 Hershey, PA - box Z, 17033 - Nice letter from John A. Bosak, K3IBN, CE ' to my knowledge, yours is the longest verified reception...' also send promo on Town of Hershey & program guide. Reply in 3 weeks after 3rd try. (kra)

Well, I got my First Contributor, at last from Ken Simon. I guessed he would be, after I send him so many when he was the TV QSL editor. Now come on you all. Send in your latest FM QSL news. Just send in your report in letter form or post card. I'm going to drop the idea of 3 x 5 index cards. WTFDA & me wants your support! Send in reports regularly. Receiver used is a Pioneer TX-9100.

73'5 Tom

FM



APRIL 1976

Glenn Hauser, editor
1312 West Oak Ave.
Enid, OK 73701 USA

99 MHZ FM DX RECORDS

MHz	Prop	Call	Location	Miles	DXer, Location
99.1	Es	KSCO	Santa Cruz CA	1440	Glenn Hauser, Von Ormy TX
	Tr	KODA-	Houston TX	1095	Carlton Howington, Uniontown OH
	MS	WFMK	East Lansing MI	905	Fred MCGormack, Des Lacs ND
	Au	KGVM-	Idaho Falls ID	595	Fred MCGormack, Des Lacs ND
99.3	Es	WEZY-	Cocoa FL	1420	Bruce Elving, Duluth MN
	Tr	WEZY-	Cocoa FL	1080	Glenn Hauser, Von Ormy TX
	MS				
99.5	Au				
	Es	WTCX	Saint Petersburg FL	1415	Bruce Elving, Duluth MN
	Tr	WQYK	Saint Petersburg FL	975	Glenn Hauser, Von Ormy TX
	MS	WGAY	Washington DC (MD)	1380	Fred MCGormack, Des Lacs ND
99.7	Au	WDGX	Buffalo NY	535	Andy Bolin, Charleston IL
	Es	WOOF-	Dothan GA	1450	Fred MCGormack, Des Lacs ND
	Tr	WLTA-	Atlanta GA	890	Glenn Hauser, Von Ormy TX
	MS	WMNI-	Columbus OH	1080	Fred MCGormack, Des Lacs ND
99.9	Au	WMC -	Memphis TN	590	Frank Merrill, Milan MI
	Es	KTSM-	El Paso TX	1645	Robert Seybold, Dunkirk NY
	Tr	KROB-	Robstown TX	1170	Russ Brown, Saint Joseph MI
	MS	WVAF	Charleston WV	895	Glenn Hauser, Enid OK
	Au	KFAB-	Omaha NE	550	Fred MCGormack, Des Lacs ND

It has always been my policy that to be considered for FM DX records, reports must be sent directly to me; I do not have the time to scan years of published reports....thanks, Glenn.

TV CCI

UNIDENTIFIED TV-DX

Frank Aden, Jr.
1535 NW Ithaca Ave.
Bend OR 97701

APRIL 1976

- Mike Reid, 109 Arjay Crescent, Willowdale, ONT (1975 & 1976 unids)
Thu Jun 26 Es ch 4 0055 EDT--"Tonight Show" delayed one hour. Possibly KDUH as KOTA had it at that time. Also could be KARK, WKY, WDAF, & KTIV. Could be KDUH as they run the same as KOTA (FEA).
- Es ch 6 0158 EDT--S/OFF with electronic SSB. PTA: KS, MO, NE, IA, SD, MN.
Es ch 2 0218 EDT--TV Movie, possibly a mystery, one actor had a French accent, VTR quality, not ABC. PTA: as above plus KTWO & KWGN.
Es ch 4 1300 EDT--NBC, "Somerset" at 1300, another soap at 1330. Possibly KARK, WKY, KAMR(ex KGNC), & WDAF. See photo below.
- Sat Jul 5 Tr ch 2 0635 EDT--TP & TT. Video too weak to tell what kind of pattern. WKTW?
Es ch 2 1900 EDT--"Public Broadcasting for Southern Florida". Def. WTHS or WPBT but which one? TV Guide does not tell (FEA).
- Wed Jul 9 Tr ch 9 0217 EDT--Anthem and Canadian coat of arms seen, 3/4 bar then nothing. Antenna pointed east, probably CBOFT or maybe QKLV(CBET) coming from behind.
Tr ch 12 0217 EDT--Bar TP and beeping tone. Possibly CBFST3, but this is usually parallel to CBOFT (see above). If not then CBFOT, or CELAT.
- Wed Aug 20 Tr ch 2 1500 EDT--Some show with judge at bench, game show panelist? Something written on what appeared to be a microphone. Not CKGN, CBC French.
- Thu Sep 25 MS ch 2 0243 EDT--"SSB" could be heard for about 15 seconds Antenna pointed WSW. Not WJHK.
- Wed Feb 11 Es ch 4 0142 EDT--Western movie seen for about a minute. Antenna pointed WSW. This rose out of nowhere on otherwise dull evening.



- Paul Gaines, 15920 Puritan St., Detroit MI 48227 (1976 unids)
Mon Jan 26 MS ch 2 0518 EST--CB -TP, see photo. PTA: SE from Detroit.



I have compiled a list of schedule publications which can be used to fill in the gaps TV Guide misses. The list is not complete but what I have so far is below. I expect more information to be presented in the next couple of columns. If other publications are known please send a copy of them or a description.

Noront TV News, 968 Elisabetha St., Sudbury, ONT CANADA, price is 30¢. Contains skeds for CKSO, CKNC, CKNY, CHNB, CFCL, CJIC, and others.

Thunder Bay Guide, 837 Ft. William Rd., Box 3074 Postal Stn. F, Thunder Bay, ONT CANADA, price is 30¢. Contains skeds for CKPR, CHFD, and others.

TV HEBDO, Les Publications Eclair Ltee, 9393, avenue Edison, Ville d'Anjou 437, Quebec, CANADA, price 30¢(I think). Contains skeds for CFQM, CKMI, CJFM, and others.

CIA Tele-Guia, Calle San Juan Bautista #55, Puerta De Tierra, San Juan, Puerto Rico, 00906. Current information unavailable at this time.

Halifax Chronicle-Herald TV Entertainment Magazine, Halifax, NS CANADA, has skeds for NS, NB, PEI, and Maine stations.

Detroit Free Press, THE TV BOOK, Detroit MI, contains WXON, WGPR and others.

Tele-Guia, (Mexico), contains skeds for Mexico City stations and has some inserts for other areas. Good reference for the Mexican networks.

(continued on page 33)

The Sony ST-5130 Tuner

Last July I decided to get into FM DXing. I wanted to buy the best available, "state-of-the-art" equipment regardless of cost. I was led to believe the \$2,600.00 Sequerra Model 1 would fill my needs and had taken preliminary steps to have one built for me. The day before I was to go to the bank and withdraw the money I phoned Morrie Goldman. He advised me to "A-B" compare and consider several other tuners. He suggested I try the Sony ST-5130, Pioneer TX-9100, and Kenwood KT-8007. Needless to say, I'm glad I took his advice. However, I also carried his suggestion a step further by including the Mc Intosh MR-78, Yamaha CT-7000, and Sansui TU-9900.

I found that most dealers will permit you to try a tuner for several days if you put up the money with the understanding that they will give you a refund if you are not satisfied. Several months later, after much shopping and putting hundreds of miles on my car, I decided to buy the Sony ST-5130.

I started FM DXing on New Year's Day. In my first 25 days I logged 50 education band stations, many of them flea-powered, 10-watters. After three months my log now lists 62 education band stations, a level of accomplishment that usually takes about three years. I have logged at least one station on every frequency, and as many as seven stations on one frequency. These stations cover 7 states and 1 Canadian province. I might hasten to point out that this was accomplished under the handicap of mid-winter, "dead-band" conditions. I have yet to experience what greater distant stations I may receive during the coming tropo and E-skip seasons later this year. By the way, my antenna is neither sophisticated nor elaborate. I am using a single Channel Master Probe 9 (model 4408) mounted at 60 feet, turned by a CDE AR-44 rotor.

On February 2nd, 1976 a tuner clinic was conducted by Yamaha in nearby Hammond, Indiana. The results proved to be somewhat embarrassing when my ST-5130 out-performed the \$1,200.00 Yamaha CT-7000 and the Sequerra Model 1 in several important categories.

It is worthy to note that Sony, as a matter of company policy, is conservative in publishing specifications. For instance, the owner's manual states sensitivity to be 1.2 microvolts at 30 dB of quieting. Beside being checked at the tuner clinic I had it checked at Sony in Miles, Illinois and the actual sensitivity turned out to be 0.8 microvolts for 30 dB. (the lower, the better) Educational stations 250 to 300 miles away are heard daily. It goes without saying that good sensitivity is extremely important in DXing.

A word about the ST-5130's selectivity is in order. As you know I have taken on the publishing responsibilities for WTPDA. This has put limitations on my leisure time. Perhaps some of you have become aware that I have decided, therefore, to limit my FM DXing activities to the education end of the FM band (88-92 MHz), where so many low-powered, hard-to-get stations are located. This end of the band becomes even more challenging when you realize that my strongest local station is only 3 air miles away-WYCA, running 30,000 watts at 92.3 MHz, 24 hours a day! Nevertheless, on the adjacent channel (92.1 MHz) I have no problem pulling in 4 stations on almost a daily basis.

Although the ST-5130 has many good features, I would feel remiss if I didn't mention the defeatable AFC switch and the Impulse Noise Suppressor. I personally have experienced times when defeating the AFC combined with careful tuning has made the difference between having and not having a station. Once you have DXed using defeatable AFC, I doubt you will want it any other way. As for the INS feature, all I can say is it works surprisingly well.

When you study and compare the ST-5130's specifications with those of other tuners remember they are the minimum to permit the unit to leave the production line. Now you can understand how I have been able to log so many low-powered educational stations in such a short period of time since I purchased the Sony ST-5130 tuner. From a serious DXer's point of view, for it's price, it is an extraordinary value.

Anyone having questions regarding the Sony ST-5130 tuner may feel free to call or write to me. My phone number is 219-659-2954.

---Pete Oprisko
1932 New York Avenue
Whiting, IN 46394

Fm Tuner Section

Tuning range:	87.5 MHz - 108 MHz
Antenna terminals:	300 ohms balanced 75 ohms unbalanced
Intermediate frequency:	10.7 MHz
Sensitivity:	1.5 μ V, IHF 1.2 μ V, S/N=30 dB
Image rejection:	100 dB
I-f rejection:	100 dB
Spurious rejection:	100 dB
A-m suppression:	60 dB
Capture ratio:	1 dB
Selectivity:	100 dB
Signal-to-noise ratio:	75 dB
Frequency response:	20 Hz - 15 kHz \pm 1 dB
Harmonic distortion:	Mono 0.2% Stereo 0.3% at 400 Hz, 100% modulation
Stereo separation:	42 dB at 400 Hz
19 kHz, 38 kHz suppression:	60 dB
SCA suppression:	55 dB
Muting level:	Less than 5 μ V

A-m Tuner Section

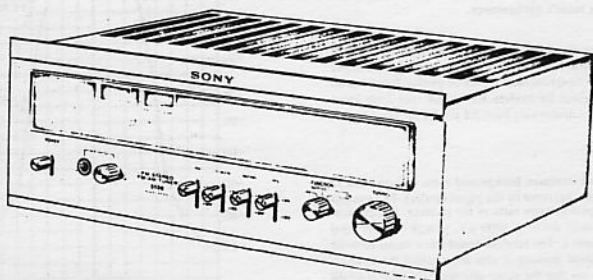
Tuning range:	530 kHz - 1,605 kHz
Antenna:	Built-in ferrite bar antenna and external antenna terminal
Intermediate frequency:	455 kHz
Sensitivity:	50 dB/m, built-in antenna 20 μ V, external antenna
Signal-to-noise ratio:	50 dB
Image rejection:	45 dB at 1,000 kHz
I-f rejection:	41 dB at 1,000 kHz
Harmonic distortion:	0.6%

General

Outputs:	FIXED 750 mV, 10 kohm impedance VARIABLE 0-2 volts, 1.8 kohm impedance MULTIPATH (VERTICAL/HORIZONTAL) 150 mV, 18 kohm impedance
System:	Fm stereo, fm/a-m superheterodyne
Semiconductors:	4 FET+22 transistors for reception 5 FET+26 transistors for auxiliary circuits 41 diodes
Power requirements:	120 volts, 50 Hz/60 Hz ac
Power consumption:	25 watts
Dimensions:	15 $\frac{1}{4}$ (w) \times 5 $\frac{3}{4}$ (h) \times 13 $\frac{1}{8}$ (d) inches
Weight:	16 lb 8 oz (net) 22 lb 4 oz (in shipping carton)
Supplied accessories:	Fm ribbon antenna (1) Connecting cord RK-74 (1) Polishing cloth (1) 75-ohm cable connector (1)

Sensitivity, interference rejection, and other vital factors which affect the quality of a tuner are greatly determined by the characteristics of the front end. The front end of the ST-5130 has MOS FET's in the mixer and r.f. stages, thus it achieves exceptionally high sensitivity, overload capability, image rejection, superior cross-modulation rejection, and low internal noise. The ST-5130 delivers clean audio output even if the unit is operated near a powerful transmitter, or receives very weak stations in distant fringe areas.

The fm i.f. section has eight solid-state filters (which are permanently-aligned ceramic filters) to contribute to the tuner's selectivity and long-term stability. The solid-state filters permit reception of weak signals without interference from strong adjacent stations.



INTERPRETING FM TUNER SPECIFICATIONS

by Morrie S. Goldman

This article is reprinted with permission of Bell and Howell Schools. This feature does not include information on the Institute of High Fidelity's new FM specifications. Interested members should consult the February issue of RADIO-ELECTRONICS for an article on the subject; or, for a complete copy of of the new standard (IHF-T-200), send \$6 to the IHF, 489 Fifth Avenue, New York, New York 10017.

The information presented herein is a section of a lesson in Bell and Howell School's home study course in "Audio Technology." Bell and Howell has now closed its home study operation, making this and all other courses unavailable at this time.

Sensitivity

Sensitivity is a tuner's ability to detect weak signals. The more sensitive a tuner is, the weaker the signals that it can detect. This is only part of the story, however. An audiophile is not interested in merely detecting the presence of a signal; he is interested in listening to the programming of the signal with a minimum amount of noise and distortion. The IHF standard describes sensitivity for 30 dB of quieting. This means that noise and distortion will be suppressed (below signal level) by the audio output by 30 dB.

Figure 1 charts the sensitivity of a modern FM tuner. The top curve shown in Figure 1 is the audio output of the tuner, including noise and distortion. The

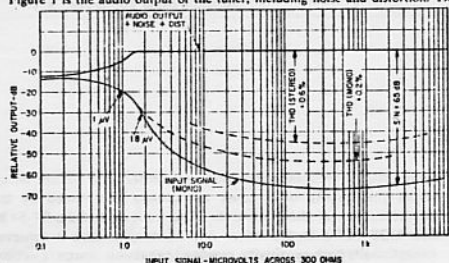


Figure 1

carrier of the received signal is being modulated to 100% by a 400 Hz tone. The dashed lines indicate the relationship of total harmonic distortion (in the tuner's audio output) to the strength of the incoming r-f signal. The bottom curve plots the relationship between an unmodulated input signal in microvolts and audio quieting.

In Figure 1, the mono THD curve is the only one of the two THD curves which can be directly compared with the indicated mono input signal. A stereo sensitivity curve would be necessary to indicate the direct relationship between a stereo input and the tuner's stereo THD. However, as a general rule, the mono and stereo THD curves should have about the same shape.

Note in Figure 1 that 1.8 μ V of input signal across 300 Ω is required to provide 30 dB of quieting and only 1 μ V of signal is needed for 20 dB of quieting. Unfortunately, the IHF standard of 30 dB of quieting does not provide very pleasant listening. A better figure for quiet, noise-free reception would be 50 dB. On this receiver, the 50 dB quieting point occurs at about 4.5 μ V. The steeper the quieting curve, the better the tuner's performance.

For equal quieting, FM tuners require at best a stereo signal of twice the signal strength required for mono reception. Normally, FM tuners require three to five times more signal for clean stereo reception than would be needed for the same quality mono signal. Sensitivity figures for modern FM tuners vary from about 1.4 μ V to 3.5 μ V (IHF). Stereo sensitivities vary from 2.8 μ V for the same tuners.

Signal-to-Noise Ratio

As the strength of a received signal increases, background noise will continue to drop until it levels off (is completely overcome by the signal carrier). The amount of quieting at this point is the signal-to-noise ratio of the receiver. For convenience, this measurement is frequently made at 1000 μ V, though another level could be used. Refer again to Figure 1. The receiver tested has a signal-to-noise ratio of 65 dB. The point of greatest quieting is also often called the ultimate signal-to-noise ratio. We can then say that the mono ultimate S/N ratio of 67 dB occurred at 400 μ V. It is probable that 1000 μ V or more may be required to produce the stereo ultimate S/N ratio. The S/N ratio specification may also be referred to as "hum and noise." As input signal level exceeds the point of the ultimate S/N ratio, the S/N ratio of the tuner may slightly worsen. The 65 dB specification is typical of many high-quality tuners.

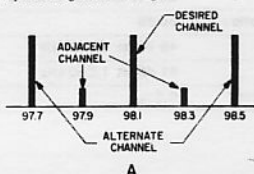
Selectivity

Selectivity is the tuner's ability to reject interference from stations on nearby frequencies. IHF standards state that selectivity should be a measure of the tuner's ability to reject an alternate channel frequency. The alternate channels are two channels away, both above and below the desired channel, as shown in Figure 2A. The desired channel is 98.1 MHz and the alternate channels are 97.7 and 98.5 MHz. The adjacent channels, as the name implies, are adjacent to the desired channel frequency. Occasionally a manufacturer will state both alternate and adjacent channel selectivity, but the common practice is to state only alternate channel selectivity.

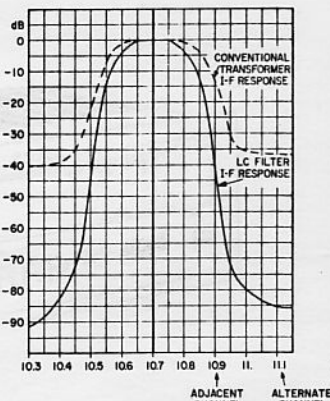
Advances in i-f filter design have made highly selective tuners commonplace. Most modern high-quality FM tuners have an alternate channel selectivity that is between 55 and 95 dB. A very common figure is 70 dB. In some tuners, selectivity may be degraded by an AFC circuit that has too wide a hold-in range. That is, the receiver stays locked to an incoming signal even though the user is attempting to tune to another signal several channels away.

Figure 2B shows the i-f response curves of two different FM tuners. The dashed-line curve shows the response of a receiver with a conventional tuned transformer i-f amplifier. Alternate channel rejection is about 40 dB for the lower alternate channel and 36 dB at the higher alternate channel. Note that the dashed response curve is not linear in shape. This shape can be varied during alignment, but its ultimate linearity is limited by component values and tolerances.

The solid-line response curve of Figure 2B shows the response curve of an i-f amplifier that contains a multisection "LC filter." This filter is shown to provide 90 dB of alternate channel rejection, while maintaining a very linear shape. LC filters do not require realignment with age.



A



B

INTERPRETING FM TUNER SPECIFICATIONS (continued)

The selectivity of a tuner is mainly determined by the i-f section, since the frequencies involved in the i-f are about 1/10 the frequencies in the front end. Thus, for the same Q, the i-f stages typically have 1/10 the bandwidth that the r-f stages have. Ordinarily, then, increasing the Q of r-f stages is of very little consequence in the tuner's overall selectivity.

There is a limit to how much selectivity can be employed in the i-f stages. The FM signal must be allowed to deviate fully. If it isn't, clipping results, distorting the audio output.

Capture Ratio

FM has a number of unique properties which sets it apart from AM. One of these is capture effect. When two stations are both operating on one channel (in different locations) and are received at one location, the stronger signal will completely eliminate the interference from the weaker signal. When this occurs, the stronger station has captured the channel. The ratio of the difference in signal strengths between the two signals necessary to allow the stronger station to capture the channel is called capture ratio. Capture ratio is expressed in dB, with a smaller number indicating a better capture ratio. For example, suppose that two signals of different strength are present on a given channel; one is received with 1000 μV strength and the second is received with 750 μV . A receiver with a 3 dB capture ratio would reproduce the audio of the stronger station 30 dB above the audio of the weaker station. In practical terms, the weaker 750 μV signal would be completely suppressed by the stronger 1000 μV signal. Most high-quality FM tuners have a capture ratio of 2 dB or less; a few tuners are as good as 0.75 dB.

It is obvious that a good capture ratio would be of value in a fringe area where most stations are a fair distance away. A receiver with a good capture ratio will also lessen the amount of distortion caused in cities by multipath reception. Multipath reception is the FM equivalent of TV ghosting. Reflected (multipath) signals are received by the tuner's antenna along with the direct (nonreflected) signal. The reflected signal will be out-of-phase with and weaker in strength than the desired signal. As a result, the receiver responds to the two signals as if they originated from two separate stations.

According to the IHF capture ratio standard, the audio from the weaker signal must be suppressed by 30 dB for capture to take place. The stronger of the two signals used in the IHF capture ratio test is 1000 μV .

Maximum Input

Maximum input is the amount of input signal to the tuner's front end that will cause an increase in distortion that is higher than the rated distortion of the tuner. As the input signal passes this level, distortion increases until the input stage is overdriven. This condition is commonly called overloading.

The amount of maximum input signal that a tuner can handle is not normally included in tuner specifications. Presently, the only manufacturers that include this information in their specifications do so because their designs provide impressive signal handling capabilities.

SCA Rejection

SCA rejection indicates a receiver's ability to reject 67 kHz SCA broadcasts. The amount of SCA rejection is largely based on the effectiveness of the tuner's 67 kHz traps. Virtually all tuners have adequate SCA rejection. For that reason, this specification is frequently omitted.

Image and Spurious Rejection

Essentially, image and spurious rejection is a tuner's ability to reject signals that are outside the FM broadcast band. An image frequency is normally separated from the desired frequency by twice the intermediate frequency. It is produced by the heterodyne (mixing) characteristic of superheterodyne receiver design. Spurious signals (spurs) can occur at almost any frequency as a result of the mixing of several signals. A strong local station may even act as a substitute local oscillator, causing spurious signals. Direct pickup of an r-f signal on or near 10.7 MHz is also considered a spurious signal. Rejection of this spur is often called i-f rejection. A tuner with a high Q front end is less susceptible to spurious signal production than one with a broadly tuned front end.

AM Suppression

AM Suppression is a measure of how well the tuner's limiter stages are functioning. If they limit amplitude variations well, electrical noise (which can amplitude modulate an FM signal) and spurious signals will be greatly attenuated. Because amplitude variations may be created by multipath interference, this type of interference may also be reduced by well-designed limiters. AM suppression is expressed in dB, and indicates how much a received AM signal will be suppressed when compared to a received FM signal of equal strength. Most high-quality tuners feature 50 to 60 dB of AM suppression. In some tuners employing discrete i-f stages, the detector circuit and AGC may provide the unit's only limiting.

Drift

As tube circuits faded from FM tuner design, so did oscillator drift. With a well-engineered solid-state design, FM tuners could be built with sufficient stability to eliminate the need for AFC circuits. The lack of need for AFC changed, however, when varactor diodes were used as replacements for conventional tuning capacitors. Because varactor diodes change value with changes in applied voltage, they introduced a new source of drift. Modern AFC circuits have now eliminated this drift problem as well. Virtually all modern FM tuners have adequate stability.

© COPYRIGHT 1975
BELL & HOWELL SCHOOLS, INC.
ALL RIGHTS RESERVED

TV-CCI (continued from page 29)

APRIL 1976

Minneapolis Tribune TV Week, Minneapolis, MN. Contains skeds for western SD & NE stations. Schedules have not been complete.

Que Pasa, Yuma Daily Sun. Weekly magazine contains schedule for KBLU, Yuma, AZ.

Rapid City Journal and TV Scene, Rapid City, SD. Contains skeds for Western SD stations.

KDUH-4 is now in the Colorado edition of TV Guide. KDUH is a semi-sat. of KOTA.

WOWK-13 (ex WHTN) is in the West Virginia edition of TV Guide.

73's until next month

Frank

DXing Educational FM 88-92mhz By Bruce F. Elving

[An updated version of a similar article appearing in the January, 1971 mimeographed VUD.]

In more ways than programming the FM stations found between 88.1 and 91.9 mHz are different from those between 92.1 and 107.9 mHz. Those in the lower frequency range almost never carry commercials, often operate shorter schedules than do the other stations, vary in power from the ubiquitous 10-watters to Ann Arbor's 230,000-watt WUOM, and are usually under-represented in DXing logs. I say "almost never carry commercials" because the practice of underwriting in which some stations engage is akin to commercial presentation, and the Texaco sponsorship of Metropolitan Opera broadcasts contains too many sponsor mentions to be legal under Federal Communications Commission rules. The latter point is disputed by many educational broadcasters, but the Wisconsin Educational Network (WERN Madison, WHAD Delafield, et. al) is at least one concern that cuts away from the network during the time commercials are given.

According to my count as of February 1, 1976, there were 863 noncommercial, educational frequency modulated broadcasting stations in the United States (excluding territories) between 88 and 92, as well as 32 other educational stations that operate at scattered points on the dial in the commercial band (92 to 108 mHz). Four of the exceptions—educational FM stations that have invaded the commercial band—are in Michigan, while, interestingly, there is one commercial station in the Michigan area using an educational channel by international agreement: CJOM "FM" 88.7 Windsor, Ont., while another Windsor channel (89.9 mHz) is available for commercial licensing, but is unapplied for. Undoubtedly, the existence of educational stations in Flint, Kalamazoo, and Grand Rapids has much to do with WJIM-TV channel 6 Lansing in persuading these old educational stations to seek frequencies in the commercial part of the dial to avoid interference. Now, however, with commercial FM channels almost filled to the hilt the opportunity for educators to seek places to broadcast higher on the dial is closed. Indeed, whether such a "solution" was ever justified is open to question, since channel 6 TV stations are characteristically anxious to look upon educational FM as a scapegoat when people complain of interference, whether such interference is caused by an educational FM station or not. The FCC has been recently taking a new, tough stand against channel 6 TV stations, permitting more and more public FM stations of significant power in the secondary service area of channel 6 TV stations—the very areas most susceptible to interference from high-power operation within 88 to 92 mHz, which immediately abuts channel 6 TV in the electromagnetic spectrum. It is possible that, as pressures mount to establish even more commercial FM stations, educational stations will be removed from the commercial part of the dial to the educational section, with the would-be commercial applicant reimbursing the educational station for costs incurred in the shift of frequency. Another way in which new educational stations are being created is through share-time operation. An application for 88.3 by the City College of New York asks for share-time operation with Newark's Board of Education station, WBOE. And there is a scattering of other share-timers on FM, notably low-powered stations in the Long Island-New Jersey area.

Education has 20 percent of the spectrum space allocated to FM broadcasting. With 863 educational stations between 88 to 92 in the United States out of a total of 3792 FM stations of all types, fully 24 percent of the nation's FM broadcasting is contained within the frequencies reserved for noncommercial, educational radio. This figure seems impressive only until we take note of the fact that 439 of the educational stations are 10-watters, including three ten-watters operating on commercial channels in Alaska, because the FM band in Alaska does not take in the lower 10 mHz, thus requiring educational FM stations in that former territory to locate higher up on the dial. Therefore, out of 895 educational FM stations, fully 436, or 49 percent, are only 10 watts in power, thus limited in their listening outreach and in their prospects as DX targets.

Despite the large number of 10-watters, there is plenty of DX to be found in the educational part of the dial, with even 10-watters being heard by skip and tropes under ideal conditions. Any DXer with less than 10 percent of his or her FM loggings within the 88 to 92 mHz area should question why loggings are lagging in this rich-for-DX part of the FM dial. For example, only 112 of 1349 stations that I have received in the Duluth, Minnesota, area are on the educational channels. This figures to 8.3 percent of the total, up from 5.7 percent of the total I had when I wrote an article similar to this in 1971. I suspect that relatively few FM DXers have logged

more than 10 percent of their FM station totals on the educational FM channels. The reasons for this disparity warrant scrutiny, and may well indicate how most of us stand to reap a harvest from a rich source of potential DX.

Educational channels in most parts of the country have been slow to fill up with high-powered, fulltime stations, thus leaving open many ready-for-DX frequencies, while on the commercial channels—especially in the eastern and central states, as well as in much of California—congestion is a real impediment to a lot of potential DX. In light of this knowledge, it is surprising that such a high proportion of FM station loggings continues to be on the crowded commercial channels. Part of the reason may be that the growth in educational FM is a comparatively recent phenomenon, with government only getting into the financing of public radio station construction and operation in a big way since about 1971. More importantly, however, are several practical problems in DXing educational radio that should be analyzed with a view of closing the gap between one's DXing success on the commercial channels and one's success in tuning in what may well prove to be the most promising portion of the FM dial: the lowest four megaHertz.

There are several types of educational FM station, each with its peculiar programming and operational characteristics. The principal types of educational FM stations are:

University and College stations. Often distinguishable by their call letters (WRUR University of Rochester; KUOW University of Washington), these stations almost always operate a fulltime schedule, usually at least 18 hours per day seven days per week, especially when qualified by the Corporation for Public Broadcasting, and carrying National Public Radio's daily All Things Considered, which is a 1 1/2 hour program which originates live in lateafternoons on the network. The CPB now requires its qualified stations to maintain an 18-hours-per-day schedule. These stations are sometimes the home bases for networks which may cover all or part of the state in which the main station is located; examples are the networks in Wisconsin, Maine, South Carolina, and Minnesota. These stations utilize professional, nonstudent staffs for the most part.

Student-operated University and College stations (WRFWRiver Falls WI, WFNM Lancaster PA) typically operate afternoons and very late into the night (or early morning), but may be silent during much of the summer, at spring break, Thanksgiving vacation and during the Christmas-New Year's period. Such stations are often easiest to receive after midnight, after the more powerful educational stations and networks have left the air, during fall and spring tropo openings. A few of these stations (WAER Syracuse, WSUP Platteville WI) may operate around the clock, either every night during the school year or during specific weekend "marathons," and thereby are, for short periods, true "clear channel" stations on FM.

Local boards of education are increasingly adding FM stations of their own. Again, the call letters will often identify such stations: WBOE Cleveland, WFBE Flint. The school board stations are often the toughest of all to receive by DXers, as they typically are only on the air during the hours schools are in session for instructional purposes or school disc jockey training (example: KSLH 91.5 St. Louis is on the air only during the hours schools are in session, only about 12 percent of the possible broadcast time). During the summer months when DX is hottest and when almost all vacation travel occurs, almost all of these stations are silent. Similar are the high school stations, like WCSQ Central Square NY, which operate into the evening, but have early sign-offs and almost never provide service on weekends or during the DX-productive summer months or during the prime time for December skip—Christmas vacation.

Accounting for a small number of stations, but a significant and growing number, are so-called community, free-access stations. The impetus for growth in this area is largely from Lorenzo Milam and Jeremy Lansman of Los Gatos CA, the gentlemen who achieved some fame recently from their petition to the FCC that religious organizations be barred from owning non-commercial FM and TV stations on reserved-for-education channels. I should note here that religious stations on the educational channels can only be licensed when there is a religious college in the town, with stations like WPCS Pensacola stymied in their efforts to expand into other cities utilizing the educational channels. This is mainly why you find so many noncommercial, religious stations on the commercial part of the dial. Many of the latter may actually be commercial in that they have definite rates they charge broadcasters, such as Back to the Bible and Dr. Carl McIntyre's Twentieth Century Reformation Hour. But I digress.

Community-access stations result from the FCC having been persuaded to allow local groups to apply for noncommercial stations to provide for public affairs programs and shows dealing with the needs of oppressed minorities, or merely people who feel they have been denied access to the media. WYEP Pittsburgh, KRAB Seattle, KAXE Grand Rapids MN are examples of community-access stations. The history of and opportunities to get involved in this kind of broadcasting are very well discussed in Milam's book, Sex and Broadcasting (VUD, September, 1975, p. 6).

Other educational FM stations have come about as the result of being FM offshoots of older, more established public TV stations. WCNY-FM Syracuse NY and WGTE-FM Toledo are examples of recent forays into FM by public TV outfits, who are notoriously adept at commandeering government grants and program underwritings, and who will parlay this advantage into making their educational FM radio stations economically viable.

For the FM DX listener the days of a wide-open 88 to 92 mHz portion of the FM dial may be over, or soon to be over, depending upon where the DXer lives. Certainly, before additional nearby stations come on the air is the time to tap some of the close-by, low-powered, limited-hours stations that, as time goes by, may either be phased out and supplanted by wide coverage noncommercial stations, or eclipsed by them, making the DX that is today's nice challenge tomorrow's impossibility. During the fall through spring period it pays to concentrate your best efforts in the educational part of the FM dial for stations that may not be operating during the summer when DX on FM is at its seasonal best. Whatever is picked up on those channels may be of the never-to-be-heard-again variety, and will reward the DXer both in helping to build totals and in increasing the quality of his or her average loggings. Go after your share of the 49 percent of the educational stations which have only 10 watts. Ten watts is adequate for skip under ideal conditions, but there is a correlation between low power and short operating hours. Few 10-watters broadcast 52 weeks a year, and maintain the long hours of the larger public radio stations, especially in the summer. Your chances, therefore, of getting a 10-watter by skip are reduced, not merely because of the lower power, but because of the fact that such stations usually aren't around when skip is at its hottest. Thus only four of my 112 educational stations are 10-watters, with only one received by skip.

Aside from physical and operational differences between commercial and educational FM stations, the programming of public radio is often such as to discourage attention, from the standpoint of the person spinning the dial looking for frequent mentions of call letters and station promotions. Fifty-minute lectures, hour-long speeches, complete operas (with interruptions only between acts), radio documentaries and dramas, and symphonies demand uninterrupted presentation. Sometimes the required identification is at more than one-hour intervals, and this is perfectly legal, as the FCC and most listeners would prefer that a speech, play, opera or long jazz or classical work continue until its conclusion or logical interruption within the work itself. Classical music, once a mainstay of commercial FM, has been relegated to educational stations in more than one market. Virtually all classical music in Columbus OH, Cincinnati, and Atlanta is now available on educational stations, whereas formerly commercial FM stations had it. A knowledge of how classical music is programmed on radio and an appreciation of the music itself, I believe, is essential to success in DXing a maximum number of stations between 88 and 92 mHz.

Other programming on educational radio often resembles radio in the pre-TV era, where every 15 minutes or half hour something different can be presented. A few educational stations are "modern" formatted, specializing in jazz, rock or more rarely, middle of the road or country music. WOUB-FM Athens OH is an example of a station in the latter category, offering wide-appeal music and short educational snippets instead of commercials to its predominately rural audience. On educational radio there may be a lot of amateurish chatter by students getting their first on-air radio experience to the other extreme where programming becomes a bit too pedantic and cerebral to really communicate effectively. On public radio you're likely to hear forms of music not generally available elsewhere, such as folk music of other countries, dixieland jazz, and modern "classical" music.

As a side-benefit, most educational stations are enthusiastic about listener mail received from outside their service areas, and will verify—not with a perfunctory card, but with a warm, sincere letter. You don't usually even have to enclose return postage, which is a consideration now that postal rates have gone up considerably. Many stations publish their own program schedules, and are quick to add DXers to their mailing lists for free program guides. Even if

you do not collect verifications, a note from a listener at a great distance can be treasured at a small educational station that doesn't receive much mail, where students, faculty and staff may long remember the time when, as WFBE wrote me: ". . . our signal was heard 20 times the distance our engineers calculated we should be received."

DXing 88 to 92 mHz is a rewarding experience, and the goal of 10 percent of one's loggings on FM within that region is entirely reasonable—as long as you do so before smaller stations drastically increase their power or new fulltime, full-power stations are established close to you. Finally, two groups—Operation Outreach in Washington DC and the University of Maryland in College Park—are trying to get the FCC to extend the educational FM band to include the 87.9 mHz frequency. Each has filed a developmental application asking for 10 watts' operation. One application stresses its interest in experimenting to determine tunability of the 87.9 frequency on existing FM radios, and extent of any interference with any other stations, including presumably channel 6 TV stations. It is thought that if 87.9 is opened up at all it will be only for 10-watt stations, and away from locations where channel 6 TV stations are viewed. A thought I once entertained would have all ten watt stations moved to even frequencies (like 88.0, 88.2, 88.4. . .), which would enable more stations to be accommodated in a given area and serve as a good means of identifying to the public which stations are 10 watters and which have more power. Translators, too, could be put on even frequencies, at 700 kHz spacing from existing stations instead of the present 800 kHz. So my next article on educational FM might say "DXing from 87.9 through 92.0 mHz." By that time the FCC will have rethought their channel numbering scheme, calling 87.9 No. 200, and perhaps calling 91.4 No. 217 1/2. And manufacturers of digital receivers will have figured out how to make all such sets tunable to 87.9 as well as the even frequencies.

APPLICATIONS FOR FACILITIES' CHANGES—EDUCATIONAL FM

Updated through February 12, 1976, as compiled by the FM Atlas from data going back to 1972. Any earlier applications are not shown. Not all these applications, of course, will be granted, and many, such as Laramie WY's, are delayed by the FCC and not approved until funds are OK'd by such sources as the Dept. of Health, Education and Welfare. [Does not include applications for new educational FM stations, which data are planned for inclusion in the '76 FM Atlas.]

CA Davis KQVS *91.5 to *91.1 700; 137'	NY Lancaster WSMH*-FM* from *91.3 to *91.1
CA Fresno KFCF *88.1 393; 1876'	NY Schenectady WRUC from *90.9 to *89.5 10000 h,v; 840'
CA Los Altos KFJC *89.7 108 h,v; 1845'	NC Warrenton WMIP *90.9 50000 h,v; 500'
CA Los Angeles KUSC *91.5 15850 h,v; 931'	OH Berea WBWC *88.3 1440; 59'
CA Stanford KZSU *90.1 to add v (500 h,v;-10')	OH Reading WRJC *89.3 333 (h); 125'
FL Boynton Beach WHRS *91.7 to *90.7 35480 (300')	OR Ashland KSOR *90.1 1966 h,v; 1336'
FL Jacksonville WFAM *91.1 925 h,v; 463' (from 40000 watts)	OR Eugene KLCC from *90.3 to *89.7 9680; 719'
FL Panama City WKGC*-FM* *90.7 10000 h,v; 160'	PA Indiana WIUP*-FM* from *91.3 to *90.1
FL Winter Park WPRK *91.5 1320 h,v; 98'	PA Pittsburgh WYEP*-FM* from *91.5 to *91.3 21000h, 9000v; 425'
GA Atlanta WRFG *89.3 28000 (h); 312'	SC Columbia WUSC*-FM* from *89.9 to *91.9 10w h,v. WUSC lives!
IL Chicago WMBI-FM *90.1 100000 h,v; 1290' Super-maximum!	TN Memphis WLYX *89.3 37200 (h); 182'
IL Mount Carmel WVJC*-FM* *89.1 50000 h,v; 323'	TN Nashville WNAZ from *88.9 to *89.1 1000 h,v; 146'
IL Wheaton WETN *88.1 400 (h); 139' DA	TX Austin KUT*-FM* *90.7 100000 h,v; 958'
IN Indianapolis WBDG *90.9 400 h,v; 78'	TX Dallas KCBT *89.3 1500; 660'
IN Valparaiso WVUR*-FM* from *89.5 to *90.9	TX Fort Worth KTCU*-FM* *89.1 3000 h,v; 124' [NNE Alvin TX]
IA Fort Dodge KICB from *88.1 to *88.9 (to make way for a new Sioux City station of high power on *88.1)	TX Houston KUHF *88.7 27000 h,v; 967' (transmitter to 3 miles/
KY Louisville WFPK *91.9 100000 h,v; 235'	TX Lubbock KXTM*-FM* from *91.9 to *88.1 18500 h,v; 341'
MA Boston WBUR *90.9 50000 h,v; 250'	TX San Antonio KSYM*-FM* from *90.3 to *90.1
MA North Adams WJJW from *89.5 to *91.1	VA Chesapeake WFOS *90.5 1500 h,v; 145' [How patriotic!]
MA Springfield WTCC *90.7 4000 h,v; 92'	VA Williamsburg WCMW from *89.1 to *90.7 1776 h,v; 16'
MO Buffalo KBFL *90.3 3900 h,v (245')	WA Olympia KAOS *89.3 40 watts, 13½' (from 1600w, -14')
MO Jefferson City KLUM*-FM* *88.9 40000 h,v; 476'	WA Pasco KOLU *90.1 3897; 67'
MT Bozeman KGLT *90.1 to *91.9 2000 h,v; 183'	WI Colfax WHWC *88.3 to change license to Menomonee WI
MT Missoula KUFM *89.1 18400 h,v (2510') [Ramah]	WI Holmen WHLA *90.3 to change license to La Crosse WI (WHLA's transmitter is across the river, just west of La Crescent MN)
NM Ramah KTDG *89.7 100000h,v; 374'(transmitter 17 mi SSE of/	WI Kenosha WGTD *91.1 to add v
NY Greece WGMG *90.1 1260 h,v; 361'	WY Laramie KWUR from *91.5 to *91.9 50000 h,v; 1150'

Here, therefore, is a glimpse into some of educational FM's upcoming changes. Some of these changes will result in better DX targets for listeners at good distances from the stations involved, while those in the local areas of such stations would do well to monitor for out-of-the-area DX on or near the frequencies involved before the changes actually take place.

MORE NON-IDERS

WILL THERE BE NO END
TO THIS AWFUL TREND?
by Clarke W. Ingram

THE CURRENT PRACTICE of using sub-identifications by FM stations is far from extinction. In fact, the trend has taken a definite upswing in recent months. Subordinating their call letters in favor of such ridiculous slogans as Q-102, stations have reduced their ID times to the legal FCC limit of one ID per hour. DXers can aid in the identification of stations engaging in such practices by sending the calls of known offenders to this writer at 5201 Colewood Drive in Pittsburgh, PA 15236. The latest list of "non-IDers" (see June, 1975 VUD for initial list) reveals two stations on the same frequency (105.1) referring to themselves as "BJ-105" and "JB-105," and uncovers a disturbing fact for DXers (particularly for Pete Oprisko): the spread of this disgusting practice from the commercial to the educational end of the US FM band. Mike Dorner was the only contributor to this list; all other listings were gleaned from Elving's FCC-FM column and from FM-DX reports in the VHF-UHF Digest, which only goes to show how much one can learn from thoroughly reading one's VUD each month! Enough ado; here's the US list, along with one Mexican noted by Richard Clark.

FREQ	CALL	LOCATION	NON-ID
91.1	KCSM	CA San Mateo	FM-91
91.3	WSSU	WI Superior	91-S
92.1	WYXE	WI Sun Prairie	Blue-92
92.3	KBBK	ID Boise	Rock-92
92.5	KPQX	MT Havre	QX
92.9	WZGC	GA Atlanta	93-G
92.9	KFYR	ND Bismarck	Y-93
93.1	WNTQ	NY Syracuse	FM-93-Q
93.3	WQVE	LA New Orleans	Q-93
93.7	KMOT	ND Minot	M-93
94.3	KVFM	CA San Fernando	Valley-94
94.3	KZZQ	LA Golden Meadow	Z-94
94.5	KWKH	LA Shreveport	94-WKH
94.5	WPEZ	PA Pittsburgh	Stereo-Z
94.5	WRVQ	VA Richmond	Super-Q-94
94.7	KYTN	ND Grand Forks	Y-95
94.9	WKSJ	AL Mobile	Country-95
94.9	WINZ	FL Miami Beach	Zeta-4
94.9	KFXD	ID Nampa	XD-FM
96.5	KAUM	TX Houston	FM-96½
96.9	WGRQ	NY Buffalo	QFM-97
97.3	WATA	FL Miami	FM-97
98.1	WQSM	NC Fayetteville	Q-98
98.5	WYCR	PA Hanover	98-5-YCR
98.7	KCPX	UT Salt Lake City	Stereo-X
98.9	WHBF	IL Rock Island	Rock-100
99.1	KUAD	CO Windsor	Quad-99
99.7	WMC	TN Memphis	FM-100
99.9	KGOR	NE Omaha	99-KG
100.3	KIQQ	CA Los Angeles	K-100
100.3	KLIR	CO Denver	FM-100
100.3	KQFM	OR Portland	Stereo-Q-100
100.5	KRSJ	CO Durango	J-100
100.7	KFMB	CA San Diego	B-100
100.7	WHYI	FL Fort Lauderdale	Y-100
100.7	WBIZ	WI Eau Claire	Z-100
101.1	WWDC	DC Washington	DC-101
101.3	WYOO	MN Richfield	Super-U-100
101.9	WWL	LA New Orleans	Rampart-102
101.9	WKRQ	OH Cincinnati	Q-102
101.9	WDEZ	WI Wausau	FM-102
102.1	WMBJ	IL Danville	Concept-102
102.1	WIOQ	PA Philadelphia	Q-102
102.5	WFMF	LA Baton Rouge	FM-102
102.9	KQCR	IA Cedar Rapids	Q-103
102.9	WZZQ	MS Jackson	Q-102
102.9	KIOZ	WY Laramie	K-102

(continued on next page)

FM CCI

UNIDENTIFIED FM-DX

Rod O'Connor
P.O. Box 72
Southwest Harbor, ME
04679

Howdy Folks!!

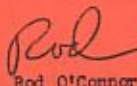
As the new FM CCI Editor I would like to cordially invite you all to send in any of your problem ID's to this "Down-East" address. (AYUH)

I would like to request any FM Guides, or other FM publications which could help us in identification of the really elusive stations. Although I know most of the stations in the Northeast and New England, I must confess that stations to the west of the Mississippi are all quite unfamiliar. Fortunately, I have a few new Atlases and Guides for the East. Any publications or even lists from newspaper Radio columns would be much appreciated. Thanks.

Not much else to add to this introductory column except please keep any reports coming, and I'll do my best to help all. Hopefully within the next few months we can get some interesting articles and reports.

One question in which I am going to toss out for grabs is to know if there is any publication which lists Canadian FM Broadcasts (like the FM-Guide of many large US Metro areas??) If any of the Canadian DX-ers could let me know, it will indeed be appreciated. Also if any DXer in the Baltimore/Washington DC area could tell me if FORECAST FM is still being published. I haven't seen an issue in over three years, and was curious about their status. I recall it having excellent listings for the Balto/Wash. area.

Until next month, Good DXing



Rod O'Connor

MORE NON-IDERS (continued from previous page)

<u>FREQ</u>	<u>CALL</u>	<u>LOCATION</u>	<u>NON-ID</u>
103.1	WWRW	WI Wisconsin Rapids	W-103
103.3	WYSL	NY Buffalo	Musicradio-Y-103
103.5	XHEM	MEXICO Ciudad Juarez	M-104
103.7	KGRA	LA Lake Charles	Nova-104
103.9	KHEX	CA Yuba City	FM-104
104.1	WZEE	WI Madison	Z-104
104.3	WKGW	NY Utica	KG-104
104.7	WKFM	NY Fulton	FM-Rock
104.9	WWWY	IN Columbus	Tri-W-Y
104.9	WCVO	OH Gahanna	FM-105
104.9	WVVV	VA Blacksburg	V-105
105.1	WBJW	FL Orlando	BJ-105
105.1	WILQ	PA Williamsport	Q-105
105.1	WPJB	RI Providence	JB-105
105.5	WXTQ	OH Athens	Q-105
105.7	WWCT	IL Peoria	Kick-106
105.7	WWWM	OH Cleveland	M-105
105.9	WEZI	TN Memphis	FM-106
106.1	KFRC	CA San Francisco	K-106
106.1	KIOF	TX Orange	K-106
106.3	WRCK	AL Sheffield	106-Rock
106.3	WIOG	MI Saginaw	W-106
107.1	WTAI	FL Melbourne	Rock-107
107.3	WQLT	AL Florence	Q-107
107.5	WSGH	NC Winston-Salem	FM-107

Revisions and additions to this list are most welcomed. In analysis, the practice of "non-IDing" is rapidly proliferating, with no signs of regression. Mike Dorner suggests that the FCC adopt these slogans as legal IDs, but I doubt that call letters will be soon abandoned...73s.

Clarke

POST OFFICE BOX 163, DEERFIELD, ILLINOIS 60015 USA
WORLDWIDE TV-FM DX ASSOCIATION



SERVING THE
 VHF-UHF DX
 ENTHUSIAST

DUES: USA and Canada, \$11 (first class); overseas, \$18.

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

All persons contributing their efforts for the Worldwide TV-FM DX Association do so without monetary compensation. Dues and all other revenue cover printing, postage and other expenses.

The WTFDA is governed by a five-man board of directors.

BOARD MEMBERS

Bruce F. Elving
 Morrie S. Goldman
 David T. Janowiak
 Gary A. Olson
 Donald B. Ruland

VUD EDITOR: Clarke Ingram
 PUBLISHERS: Peter Oprisko
 John Zondlo
 Michael Hogan
 CONTROLLER: Gary Olson
 BOOKKEEPER: Bruce Elving
 PROCESSING: Dave Janowiak

S U P P L I E S and D X L I T E R A T U R E Member rates only.

VUD Back Issues.....	Available: Nov 1973 issue to the present. Sent by first class or special book rate.	75c each 4 for \$2.50
<u>Beyond Shortwave</u>	An introduction to TV, FM, and V-U radio DX, written by Glenn Hauser, Bruce Elving, and Terry Colgan, with many illustrations.	\$1.25
<u>TV Station Guide</u>	An accurate listing of North and Central American TV stations, featuring maps for each channel pinpointing their locations.	\$4.00; nonmember price, \$5.
<u>The FM Atlas and Station Directory</u>	An accurate and detailed FM listing by Dr. Bruce F. Elving, FCC FM News editor.	\$3.25 by First Class
<u>UHF Translator DX Guide</u>	A complete listing of US UHF translators, including call, location, power, and primary. Also features a section on "DXing the Translators" by Bob Cooper. 28 pages.	\$1.50
WTFDA Stationery....	Features the official WTFDA emblem as at top of this page, printed in blue on bond.	45 sheets \$1.00
DX Log Sheets.....	These sheets, punched for a 3-ring binder, (TIME TO RE-ORDER?) help to keep your running DX log in order.	Pad of 100 \$2.50
VUD Boxers.....	Attractive cases designed to keep your copies of the VUD neat and organized.	\$1.50 each
Station QSL.....	For requesting QSL's (verifications) from Report Forms TV or FM stations. Now offset printed!	45 sheets \$1.00
DX Column.....	For reporting to the various DX columns Report Forms appearing monthly in the VHF-UHF Digest.	Free for a SASE

All columns and feature articles to appear in the VHF-UHF Digest should be sent to editor Clarke Ingram in Pittsburgh, PA, by the 20th of each month. All information for VUD columns should be sent to the appropriate editors; all club business (supply orders, etc.) should be sent to HQ in Deerfield.

SUPPORT THE WORLDWIDE TV-FM DX ASSOCIATION BY REPORTING AND BUYING SUPPLIES.