

JUNE 1977

VHF-UHF DIGEST

the official publication of the Worldwide TV-FM DX Association

IN THIS ISSUE:

- *Ducting in Depth*
- *Buying DX Equipment*
- *SCA: 'Private' Radio*
- *'77 Skip Swings Into Season*

LAST CHANCE!

From (optional):

D.X. ENTHUSIAST

1977 E-SKIP WAY

TROPO, PA 15678

PLACE
STAMP
HERE!

Clarke W. Ingram
Editor, VUD
5201 Colewood
Pittsburgh, PA
15236

**RETURN YOUR
MEMBER SURVEY
NOW!**

From The Staff :

WTFDA Headquarters, P.O. Box 202, Whiting, Indiana 46394

CONVENTION '77...The hosts of this year's WTFDA gathering, Frank Aden, Bill Block, and Pat Martin, confirm the site as Portland's Holiday Inn, over the weekend of August 5 to 7. Full details weren't received in time for this edition of the Digest; we expect to have a tentative convention sked next month, along with a registration form. If funds allow, your editor will be attending. Hope to see you there!

MEMBER SURVEY...We will be summarizing the results of our WTFDA poll--taken last July--in next month's VUD. The final deadline for return of any still-absent questionnaire cards is June 20. If you haven't yet submitted your survey, this is absolutely your last chance!

ANOTHER COLUMN CHANGE...Beginning in August, the CANADIAN NEWS column will be dissolved. All TV news should be sent to Dave Pomeroy (FCC TV editor) and FM to Bruce Elving (FCC FM editor) after the final edition of this column appears next month. A special note of thanks goes to Mark Lewis and J. Joel Rosenberg for their many fine years of work for WTFDA through the CANADIAN REPORT.

TV STATISTICS/SCOREBOARD...We are still looking for an editor to measure and verify TV distance records and compile member totals for this long-dormant column. Also needed is someone to handle editorial duties for a proposed INTERNATIONAL DX column. If interested, contact editor-in-chief Clarke Ingram (address on back cover of this issue).

REVISION TIME...Remember that we're still looking for members to help with updates to the UHF TRANSLATOR DX GUIDE and the TV STATION GUIDE. If you'd like to volunteer, please write your editor. We hope eventually to publish new editions of both books (the Translator Guide is out of print, and the Station Guide soon will be).

NOTES OF NOTE...FEEDBACK and SOUTHERN FM DX will return in next month's VUD; your editor didn't have time to prepare the former for this issue, and the latter wasn't here before our deadline...We remind you that comments received on Dave Janowiak's polarization series will decide its fate.

73, *Clarke* for Pete, John, Mike, and Morrie

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MAILBOX

John Zondlo
6617 Maryland
Hammond, IN 46323
(219) 844-8694
Deadline: 15th

New Members:

Michel Guzzi	4830 Genevieve	Pierrefond, PQ H9J 1S5
Gerard Hart	1635 10th St.	Niagara Falls, NY 14305
Robert McGowan	Box 225	Burnham, ME 04922
George McKay, Jr.	P.O. Box 2100	Pomona, CA 91766
Martin Starr	9010 S.W. 56th Terrace	Miami, FL 33173
Robert C. Walker	Rt. 2, Box 17A	Westport, KY 40077
Neil G. Zank	2445 East St., Apt. 6	Lincoln, NE 68510

Renewals:

Roy Barstow, Bill Block, Joseph Bradley, Bill Feidt, Bill Frahm, Roger Gravelle, Robert Heckenlively, Hank Holbrook, Roger Horie, James Lamb, Ron LeBlanc, R.E. Lyons, Alan Mayer, Rod O'Connor, Steve Rich, Marv Robbins, Terry Robinson, William Ronecker, Peter Skinner, Bill Thompson, Mal Wessot, Jim Young, Karen Young, Robert Zent.

Rejoin:

Emile Courcy-15 Garfield St.-Taunton, MA 02780

Address Changes:

Richard Clark-Santo Cerro-LaVega, Dominican Republic
Alan Hobson-1391B Louis Lane-Ottawa, ON K1B 3P2
Timothy Miller-103 E. Stoughton, #8-Champaign, IL 61820
Terry Robinson-Lot 92, Russell Ave.-Woodend, Victoria, Australia
Lars Ryden-Semestervagan 35-17540 Jarfalla, Sweden

Renewals Due in July:

Mike Dalton, John Ebeling, Ron Ginardi, Nick Lombardi, Mark Lucas, David Martin, Vic Melis, Glen Neal, Walter Patton, R. Rikoski, Mark Robinson, John Wierhasz, Robert Williams.

New member MICHEL GUZZI has quite an impressive setup, as he describes: "A) Channel Master quantum VHF-FM model 1110 with a Blonder-Tongue Skyliner preamp and DA-IV distribution amp. B) Winegard Chromstar CH6065 FM/Stereo with a Winegard preamp AC9130. C) Channel Master UHF model 4251A 7' parabolic with a Channel Master preamp model 0071. D) A Delhi self-supporting DMX 68' concrete base tower and a 15' mast. E) Cornell-Dublier autoroter AR-33." Not bad, eh?

Joining the growing number of New York state members is GERARD HART. He tells us: "I have been interested in television DXing for about eight years. There is nothing like the thrill of receiving a television station originating hundreds of miles away. I, myself, have received approximately 80 distant stations over the years from a variety of forms of wave propagation."

17 year old ROBERT WALKER is a student who's interested in BCB, FM, and TV DX. His DX equipment includes a Realistic Modulette-929 receiver. Bob is a member of NRC's publishing crew in Louisville and has the job of answering the club mail.

Tidbits.....

This in from David Leibold: "As I come into my second year in WTFDA, I have enjoyed many of the columns featured each month. I first saw an article about the WTFDA Station Guide and being inquisitive, I wrote for more information on the Guide. When the reply came back, I got information about the club. The article was in Elementary Electronics, which I subscribe to. I also saw Morrie Goldman's article about TV DX in the latest issue of same. I have just joined CIDX (of which members include Bill Dulmage and Ludo Bertsch, both also in WTFDA) and I'm planning on getting my amateur ticket in the near future. I've seen amateurs join WTFDA, so why not have a WTFDAer be an amateur? The only things that don't mix are drinking and driving. 73 and hi."

That's it for this month.....see you in July!.....jz



FM NEWS

Bruce F. Elving, Editor
18 1/2 East Fifth Street
Duluth MN 55805

New Stations Granted

AL Prattville 95.3 3000 h,v; 230' 15,46r
CA Palm Springs *88.3 10 watts Schools
HI Hilo 97.1 28400 h,v; 240' cg
IN Angola *88.3 200 h,v; 150' 5, 22 miles,
coverage radii (primary and secondary);
"Tri-State College." Purdue U.
IN Fort Wayne *89.1 4000 h,v; 120' 9, 36 mi
IN Rensselaer *90.5 10 St. Josephs College
IA Davenport K272AK *102.3 (KUNI *90.9
Cedar Falls IA translator); \$, P. 102.3.
KS Wichita *91.1 14700 h,v; 185' 27, 82
kilometers' coverages; "Defenders School"
MA Holliston *91.5 10 High School
MI Alpena *91.7 10000 h,v; 1170' 77, 155
km coverages; Central MI U.; transmitter
believed to be in Atlanta MI; satellite
of WCMU-FM *89.5 Mt. Pleasant MI?
MI West Branch 105.5 3000 h,v; 300' mk
MN Grand Marais K296AW \$, r (WAKX-FM 98.9
Duluth), l, 10 w. MN Silver Bay K288BE \$
r, l, 10 w (WAKX-FM); "K" call letters,
and 10 watts, even though both of these
FX translators are well east of the Mis-
sissippi River! K296AW 107.1; K288BE 105.5.
NY Attica (Batavia) 101.7 1250 h,v; 440'
OH Chillicothe 94.3 3000 h,v; 300' initial
decision; subject to reversal by FCC.
PA Media 100.3 50000 h,v; 500' initial
decision; subject to reversal by FCC.
TN Etowah 103.1 3000 h,v; -14' nr
TX Port Lavaca 95.9 3000 h,v; 175' 12, 39mi
UT Moab K296AX 107.1 10 (KQIX 93.1 Grand
Junction CO); \$, r, Mutual.
WV Wheeling *91.9 10 Schools
PQ Bale-Comeau 99.7 3000 watts English--
CBC, CBM-AM Montreal low-fi repeater
PQ Montreal 107.3 French; no power or
heights given.

OFF THE AIR: Ont., Drummondville CFDM
104.3. Being bought by CBC, and probably
losing stereo and most likely losing any
local identity, including local i.d.'s.
Expected to be suffering a similar fate
is CJBR-FM 101.5 Rimouski PQ, which along
with its AM adjunct, is being sold to the
CBC. Possibly CJBR-FM is already off the
air, ruining any chances to hear it by
skip this season.

On Air and DX Ready (presumed)

CA Pacific Grove KOCH 104.9 740 h,v; 550',
probably \$; may still be Mutual (replaces
deleted station KOCH 104.9 Pacific Grove)
CO Colorado Springs KAFA *89.7 10 watts;
on air in \$, r, contrary to a previous
report. The station's signal probably
does not get into Colorado Springs itself,
"barely making it to the south gate of the
Air Academy, four miles away." Station
personnel thinking of possibly raising
the station's power to 100 watts.
IN Kokomo WHSK *89.1 10, nm; on 11 an to
3 pm school days; probably off for summer.
KS Concordia KVCO *88.3 10 watts

MA West Barnstable WKKL *91.1 10 watts
NM Denning KDEM 94.3 3000 h,v; 195' [358'
NY Monticello WSUL-FM *98.3 2000 h,v; /
NC Charlotte WFAE *90.9 10
OH Bainbridge WKHR *90.9 10
SC Clarion WCUC-FM *91.7 2300; 320'
SC Surfside Beach-Garden City WYAK-FM
103.1 3000 h,v; 300' [450'
SD Rapid City K666-FM *100.3 100000h,v,
/ TN Germantown WGTG 94.3 3000 h,v; 300' nr

On Air With Changes (selected)

CA Davis KDVS *90.3 5000 h,v; 150'
CA San Francisco KALW *91.7 1900 h,v;
920' (reduces coverage)
ME Westbrook WRQN 100.9 3000 h,v; 225'
MO Balltown WDJQ 104.3 430' (20000 h,v)

Facilities Changes

AL Butler WQGL 93.5 300' (3000 h,v)
CA San Francisco KUSF *90.3 2850 h,v,
directional (300') 14, 46 miles
CO Colorado Springs KINX 101.9 50000
(-309'), nm. One of our reporters
called the station and nobody there
knew if it has or will have vertical!
DC Washington WPFW *89.3 410' (50000 h,
v); ON AIR 24 hours now, \$, j. [Delby
IN Elkhart WVEZ 100.7 50000 h,v; 500' /
IN Richmond WR1A 101.3 adds vertical
IN Seymour WJCD-FM 93.7 " "
KS Dodge City K6NO-FM 95.5 100000 h,v;
430'; adds SCA

ME Portland WNGX 93.1 225' (50000 h,v)
WDCS 97.9 410' (49000 h,v)
MI East Lansing WVIC-FM 94.9 13500 h,v;
500' 25 miles primary; 62 mi secondary
NM Las Cruces KGRD 103.9 3000 h,v (150')
NC Wilmington WHSL 97.3 100000 h,v; 560'
38, 82 miles; \$; rock music confirmed.
OH Xenia WBBM 103.9 3000 h,v; 195' 12,
40 miles; remove Z network.
PA Philadelphia WCAU-FM 98.1 12500 h,v;
(1000'); moves up to maximum facilities
allowed for a class B under the new FM
curves: 33 mi primary; 72 secondary.
TN Knoxville WIVK-FM 107.7 100000 h,v;
1000' 45, 91 mi; on air with these
facilities!

WA Opportunity KZUN-FM 96.1 56000 h,v;
2380' 55, 104 miles. V confirmed only
because of extensive personal checking
through applications' file; v not men-
tioned in FCC announcement, so here is
where you'll get vital data on polariza-
tions not found in Broadcasting or
in Television Digest's AM-FM Facilities
Changes Addenda."

WA Topperish KENE-FM 92.7 1000 h,v(-35')
WI LaCrosse WLSU *88.9 8300 (h); 540'

SCA (67 kHz) Activities

CA Merced KAMD 101.5 adds SCA
CA Ojai KOVA 105.5 special events
(remote news, etc. on an occasional
basis. This is actually a new use
discovered for SCA, whereby a station

will utilize a small portable transmitter
at such a site as a ball game or a store
grand-opening, transmit the signal to the
station's tower, and the signal will be
returned from the tower to the station's
studio by SCA. See also Port Jervis NY).
CA San Luis Obispo KCBC *90.1 adds SCA
CO Colorado Springs KR00-FM 95.1 telemetry
only; sometimes audible tones on hour and
half hour; usually nothing heard; delete
listing as an SCA station.
KY Carroll-
ID Caldwell KEXL 94.1 adds SCA
ID Sun Valley 93.5 adds SCA
IL Plano WSPY 107.1 adds SCA
IL SCA
NY Port Jervis W0LC-FM 96.7 special events,
etc. (see comment following Ojai CA above)
NC Statesville WFMX 105.7 adds SCA
OR Albany KRKT-FM 99.9
OR Tualatin WJZY 92.1 telemetry only
TX Amarillo KACV *89.9 adds SCA
TX Lamesa K00T 104.7 adds SCA

Stereo Added, Resumed, or to be \$

IL Mount Carmel WVIC *89.1 [reported].
IL Summit WARG *88.9 music format not /
MI Alpena WHSB 107.7
VT Montpelier
PA Huntingdon WRLR 106.3 1WCS 96.7
TX Commerce KETR *88.9

Formats, Networks

AL Birmingham WENN-FM 107.7 sj, \$
AK Anchorage KNK 105.5 cr
CA Ojai KOVA 105.5 mc
CO Colorado Springs KEPC *90.5 rc, \$

K Colorado College

R Colorado Springs

C Colorado 8903

C 1.7 KW

C CLASSICAL

C FREE FORM

C ROCK

C JAZZ

fm SPECIALS

91.5 FM STEREO

C/O STEVE INGHAM

MONDAY NIGHT JAZZ

KRCC *91.5 jp, c, \$

CO Fort Collins KCSU *90.9 pc

CO Oak Creek KFMU 103.9 partially c

CT Hartford W1IC-FM 96.5 m (from mc); FCC
approves ownership change, despite
citizens' protest over formal change; mc
wind up in court.

CT West Hartford WUWH *91.3 cf; using for
c, W1IC-FM classical records; \$; may up
power with money donated by W1IC-FM.

CT Westport WRLT *90.3 partially c

FL Boynton Beach WHR8 *90.7 cl; no \$

FL Winter Park WPRK *91.5 pc

GA Athens W00P *90.5 rc

GA Atlanta WSGB-FM 98.5 no NBC; has new
m syndication service. IN Elkhart WVPE
ID Nampa KUZZ 96.9 r; \$ *88.1 rp (was rs)

IN Rensselaer WJCK 97.7 still has c owners; still mc
 KY Wichita KMIW *89.1 sc
 KY Murray WKMS *91.3 rc
 MD Baltimore WKYV (from WCAO-FM) now rs (from cr—expect a format fight from the citizens here); MC Frostburg WFRB-FM 105.3 kg (from K); \$; MC Prince Frederick WMJS 92.7 r (from m); signs off 10 p. m.
 MI Grand Rapids WMLW 101.3 r(m)
 MN Mankato KYSM-FM 103.5 m
 MS Brandon WRJH 97.7 heard with g evenings
 MS Clinton WJHT 93.5 rc [A]
 MS Gulfport WRDA-FM 107.1 N (was MO Springfield KTTS-FM 94.7 no CBS; NE Omaha KIOS *91.5 c
 NY Norwich WCHN-FM 93.9 mc [3]
 NY Buffalo WNEO-FM 94.5 c (no/r)
 NY Rome WKAL-FM 95.9 m (from mr); \$; nonid as "FM-96."
 NY Syracuse WSYR-FM 94.9 r (was mc); no NEC.
 OH Athens WQUB-FM *91.3 c [r
 OR Springfield-Eugene KXND 93.1
 PA Braddock WLOA-FM 96.9 m (WLOA-FM was mc)
 PA Clearfield WCPA-FM 93.5 m (from mc). PA Martinsburg WJSM-FM 92.7 u; still g; nono.
 PA Johnstown WJAC-FM 95.5 mc
 SD Brookings KESD *88.3 rc
 TX Beaumont KVLU *91.3 rc
 TX Waco KWRU *107.1 r
 VA Roanoke WWRV *89.1 c
 VA Yorktown WYVA 94.1 k, \$
 UT Cedar City KSUB-FM 92.5 k
 WY Gillette KOLL 93.5 r
 WY Sundance K295AV 107.1 r

Call Letter Assignments

AL Montgomery 103.5 WREZ (was WMGZ); adds Mutual; still rock?
 CA San Francisco 106.1 KQUP (was KFRC-FM). IL Chicago *88.7 WLW (Loyola U). IN Rockville 104.9 WAXI. KS Hiawatha 103.9 KNZA; \$
 MI Clare 95.3 WRNN-FM (correction from WRNN-FM); \$ resumed; r.
 MS Moss Point 104.9 WKYK (WCIS)
 NC Southport 107.1 WLCF (FM)
 OH Youngstown 101.1 WSRD (WH01-/OR Brookings 95.3 KURY-FM
 PA Huntington "91.7 WKVR"-FM
 SC Pageland 102.3 WCPL-FM (WCPL)
 WV Buckhannon *89.9 WVIC
 WV Parkersburg 103.1 WQAR (WKYG-FM); m (from k); Stereo
 WI Shell Lake 95.3 WGMQ (WKCF); easy k (from mr); \$ Off 11 pm.
 WY Elthete *89.7 KJEA
 MS Brandon 96.1 C.C.M. (CKX-FM); an apparent change, deduced from reading CRTC announcements about possible "IV" carriage approval.

Mutual Network Changes

M is Mutual network; Z is Mutual Black Network; + is adding the network; - is dropping the network. Other network abbreviations: A ABC-FM, B National Black Network, C CBS, E ABC Entertainment, I ABC Information, N NBC, P National Public Radio, S Associated Press Audio, U United Press Audio, Y ABC Contemporary.
 AL Demopolis WNAN 106.3 M-AL Fairhope WLOK-FM 92.1 Z+ (from M).
 AL Huntsville WNOA 95.1 M+(Y)
 AL Selma WJUN 100.1 M- (from/AL Troy WRFS 105.7 M-
 AK Anchorage KGOT 101.3 M+, satellite interconnected?
 AZ Casa Grande KRFE 105.5 M-AR Jonesboro KRBM-FM 101.9 M-AR Little Rock KXXX 95.7 M-AR Osceola KHFO 98.1 M-AR Pine Bluff KADL-FM 94.9 M-CA Escondido KQWV-FM 92.1 M-CA Hanford K10Y 103.7 M-CA Inglewood KACE 103.9 Z-CA Redondo Beach KQDF 93.5 M-CA Sacramento KROI 96.9 M-CA San Diego KOZN 103.7 M-CA Santa Barbara KDB-FM 93.7 M+ (from U)
 CO Grand Junction KQJX 93.1 M+ and translators
 CO Loveland KLOV-FM 102.3 M-CT New Haven WYBC 94.3 Z- (still A). DE Dover WDSO 94.7 M+, "limited service." DE Georgetown WSEA 93.5 M+ "limited service."
 FL DeFuniak Springs WQJH 103.1 M-
 FL Jacksonville WQJK 95.1 EM
 FL Miami WECR 99.1 Z+ (was B)
 FL Mt. Dora-Orlando WORJ 107.7 M-. FL Quincy (if, indeed, it operates) WCNH-FM 101.7 M+
 FL Sarasota WQSR 102.5 M-CA Brunswick WYR-FM 101.5 M-CA Columbus WRBL 102.9 M- (was C) WCGO 107.3 M-
 GA Griffin WKEU-FM 97.7 M+
 GA Jackson WJGA-FM 92.1 M-ID Soda Springs K292AR (and mother station) 106.3 M-IL East Moline WENO 101.3 MI IL Flora WNO1 103.9 M-IL Granite City WGNU-FM 106.5 M-. IL Woodstock WARD 105.5 M-. IN Brazil WNCM-FM 97.7 M-IN Columbus WNKY 104.9 M-IN Crown Point WFLM 103.9 M-IN Elwood WRMP 101.7 M- (apparently WMPM's brief deletion shook off Mutual!)

IN Franklin WIFN 95.9 M+ (M-IN Martinsville WCRK-FM 102.3 /IA Cedar Rapids KHAK-FM 98.1 M-IA Estherville KILR-FM 95.9 M-KY Hartford WLLS-FM 106.3 M-KY Hindman WKCB-FM 107.1 M+ (A)
 KY Jamestown WJRS 104.9 M-(was/

SD Watertown K1XX 96.1 M-IN Red Bank WSMN 94.3 M-TX Lampasas KLT 99.3 M-TX Sinton KOUL 103.3 M-UT Price K280AG 103.9 M-VT Brattleboro W1SA-FM 96.7 MU
 VA Abingdon WBB1-FM 92.7 M+
 VA Ashland WIVE-FM 101.1 M+
 W257AA 99.3 Char-

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• 99.3 CHARLOTTEVILLE • 92.1 STAFFORD • 95.9 FREDERICKSBURG

MI Three Rivers WLMN-FM 95.9 M+
 MS Amory WAFM 95.3 M+
 MS Columbia WFFF 96.7 M- (still U). MS Greenville WOMS 100.7 M+.
 MS Gulfport W1AM 102.3 Z-MS Laurel WNSL-FM 100.3 Z-
 MO Bolivar KLTB 106.3 M-
 MO Jefferson City KJMO 100.1 M-
 MO West Plains KWPM-FM 93.9 M-NE Omaha KOWH-FM 94.1 ZE
 NE Wayne K1CH-FM 104.9 M-
 NM Albuquerque KPAR-FM 100.3 M-
 NM Clovis KNTY 99.1 M-
 NY Hornell WHHO-FM 105.3 M-
 NY New Rochelle WRTN 93.5 M-
 NY New York WBLS 107.5 Z- (is B)
 NC Asheville WBMU *91.3 PZ, s
 NC Bridgeton WSLF 106.5 M-
 NC Eden WFAF 94.5 M+
 NC Morehead City WMBL-FM 95.9M-
 ND Jamestown KJSM 93.3 M-
 OH Cleveland WMTL 107.9 M- [B]
 OH Columbus WVKO-FM 94.7 Z (was/ OH Dayton WDAO 107.7 YZ (was YB)
 OH Dover-New Philadelphia WJER-FM 101.7 M-
 OH Fairfield WLVV 94.9 M-
 OH Logan WLGW-FM 98.3 M-
 OH Milford WLYK 107.1 M+
 OH Wapakoneta WERM 92.1 M-
 OH Youngstown WOOD 93.3 M-
 OK Clinton KWOE-FM 106.9 M-
 OK Edmond KWHP 97.7 M+ (OK Tulsa
 OK Tulsa KCFD 98.5 M- (KJUL
 OR LaGrange KFMT 98.3 M- 103.3 ZA
 PA Ellwood City WFEW 92.1 M-
 PA Gettysburg WGET-FM 107.7 M+
 PA Philadelphia WNDW 96.5 M+
 WMSG 102.9 M-
 PA Pittsburgh WEEP-FM 107.9 M+
 PA Ridgway WTMX 94.3 M+
 PA Wellsville WCCR 104.5 M-
 PA Williamsport WILQ 105.1 M- (still U).
 SC Hampton WJBN 103.1 M-
 SD Huron K1JV-FM 92.1 M-

W257AA 99.3 Char-
 lottesville;
 W240AC 95.9
 Fredericks-
 burg; W221
 AA 92.1
 Stafford.

VA Marion WOLD-FM 102.3 M+
 VA Norfolk WNO1 102.9 Z+
 VA Richlands WGTH 105.5 M+
 VA Garden City W240AA 95.9 M+ (plus Roanoke originator)
 VA Williamsburg WBC1 96.5 M-
 WA Bellevue KZAM-FM 92.5 M-
 WA Pullman KQOQ 104.9 M-
 WA Spokane KEZE-FM 105.7 M-
 WI Kewaunee WAUN 92.7 M-
 WI Mauston WRJG-FM 92.1 M+
 WI Milwaukee WGS 102.9 M+
 And, covered over by the WIVE-FM logo:
 KY Maysville WFTN-FM 95.9 M+
 KY Richmond WBZF 101.7 M+
 LA Hammond WTG1 103.3 M+
 LA Leesville KVP 105.5 M+
 LA Oak Grove KDVL 96.7 M+
 MD Baltimore WDJQ 104.3 M+
 MD Oakland WMSG-FM 92.1 M-
 MD Westminster W1TR-FM 100.7M-
 MA Falmouth WCIB 101.9 M-
 MI Detroit WZKZ 97.9 M-
 MI Grand Rapids WFOR-FM 102.9 M-
 MI Jackson WJQX 106.1 M-
 MI Mt. Pleasant WCEM-FM 94.5M+
 MI Saginaw WIOG 106.3 Z-

Abbreviations

c classical; e ethnic; g gospel; j jazz; k country; L Latin; m is middle of the road or easy-listening music; p progressive rock; r rock oldies, top hits or easy rock; s soul.

Most of the Mutual Network changes from a list supplied by Mutual; most other non-facilities' changes supplied by WIFDA and FM Atlas readers, while FCC data comes from the FCC itself, ground out by the team by mimeograph!

High school station WSHR *91.9 Lake Ronkonkoma NY expanded 5 1/2 hours to its school-days' broadcast schedule to 7:30 a. m. to 10 p. m. (probably off the air for the summer now). WSHR and the new WUSB *90.1 Stony Brook will have overlapping coverages.

With WPHD back on the air in Buffalo, all may be fine on 103.3, but a new storm is brewing there—and it's not snow this time! WBUF 92.9 is being sold, and there's outright opposition to the sale for fear the p-rock format will be lost—even WBUF announcers have been bad-mouthing the sale over the air and asking concerned listeners to write the FCC. Also of concern is the probable loss of the city's only Italian-language program on WBUF. The new WNED-FM *94.5 plans a "conservative" classical music sound, playing none of the avant-garde stuff; leaving the latter, plus the jazz, etc., to weak WBFO *88.7. WBFO is hoping to go to 21,000 watts, but with a directional antenna that will send no more than 770 watts in the direction of Canada's channel 6 (Global) station at Paris, Ont. Rumors have it an application may be filed for an educational FM station at the new University of Buffalo campus in Amherst NY, north of the old campus where WBFO is located. Also there's rumor WBEN-FM 102.5 Buffalo may change call letters. WONO 107.9 Syracuse has been sold to Roy Park Broadcasting of Ithaca NY; a former WONO employee (Allen Rockford) gives it 6 months after Park gets control before it drops c and becomes rock or country.

According to a reporter, WJSM-FM 92.7 Martinsburg PA has been announcing their power as 1000 watts, but I list them as 390 watts, so I wrote them and told 'em to mention their correct effective radiated power, prompting the manager to call back and ask about my source of information (and being a good journalist I would not reveal it). He said they are not proud of being only 390 watts, but that he'd see to it that his staff does not announce the wrong power for WJSM-FM, which is still monaural gospel music, UPI Audio news.

WAVA-FM 105.1 Arlington VA, all news, is being sold, with new owners said to be evaluating the new format. Quite a few tidbits were contained in a Wilmington NC paper, which notes that WMFD-FM 100.9 plans to change from m to k as of May 1, 1977. Quite a few persons are concerned about the loss of WWIL's soul music format, which went from FM to AM, with a loss of coverage. Folks thereabouts seem to want their soul music in crystal-clear FM (and stereo), while nothing is written about any gain accruing to the rock music format by being switched from AM to FM, via WHSL 97.3. Seems like there's a situation where simulcasting of AM and FM would solve a problem.

In Florida, WHRS Boynton Beach is taking bids for its new antenna; they expect to be on *90.7 with 52,000 h, v (directional) at 185' by the end of July, having moved from 91.7. To be \$tereo. WTM193.1 Miami will be boosting its power to 100 kw h (93 kw v). Basically, c music, they do run Jewish Friday night (Sabbath) services in Hebrew. Mike Dornier muses: "Taxation on gasoline and big cars, plus federal underwriting of urban mass transit on an unprecedented scale will rob AM radio of its traditional drive-time dominance; FM's share of listeners nationwide can only grow even more. Go back over your VUD columns this past six months and note the amazing (I use the word carefully) shifting of AM calls to the FM affiliate, with the AM getting an entirely new call—and this from AM stations two decades or more older! This, I think, is an extremely significant move on the part of cold-reasoned, realistic owners." WQAW 103.1 Parkersburg WV now programmed by "The Entertainers" (same format KROC-FM 106.9 Rochester MN embraced), m, having dumped k along with their old call letters.

The new rocker WZZP 106.5 Cleveland has "gone bananas with compressors," with the writer not at all impressed with their sound quality. WVPE *88.1 Elkhart asking listeners for money to stay on the air this summer. "The DJs say the call letters frequently, and it ought to be one of Indiana's best skippers." On 8 am to midnight in the week; is on weekends at night. **WHATEVER HAPPENED TO WHFH *88.5 Flossmoor IL and WRHS *88.1 Park Forest IL?** asks Roger Winsor, who hasn't heard these two stations in years. Some schedules: WGVE Gary *88.7 8 am to 4:15 pm, except when Gary city council meets they stay on later; off summers; WVUR *89.5 Valparaiso has a very poor signal, but \$, off midnights. WLNR 106.3 Lansing and WTAS 102.3 Crete both off midnight during the week 10 p. m. Sunday; **neither on 24 hours any more.** Roger says John Zondlo brought over his Sony 5130 and it ran circles around his KT7001 receiver! Several writers reported this should be a good year for skip, with some skip noted in the educational part of the FM band in late April, and Roger says with all the new FM station grants Wyoming is surely a good target for FM DX. WDSO *89.1 Chesterton IN has a good signal for a ten-watter; plays easy rock in day, teen rock 3 pm to 6:30, often has baseball games. Microphone in studio has distinctive hum because transmitter is in the same room.

Downstate in Indiana, WBST is having problems getting local zoning approval to build its tower and to move to 92.1 with 3 kw. Folks in the neighborhood are concerned about TV reception and esthetics. The earliest WBST could move to 92.1 is Sept. 1, if that soon. Concerning my article about SCA, elsewhere in the VUD, John Ebeling notes bandwidth is 5 kc, not 7 kc, as I say.



The FCC has stayed until further notice the effectiveness of its rules providing for the use of terrain roughness in predicting FM (and television) field strength contours. The Commission issued an indefinite stay, concluding that a further rulemaking would be required—exact reasons for requiring a new study are not made clear. The FCC did say that predicted contours will be calculated using the new curves, but without regard to terrain roughness. Hey, if you want to play engineer and have a copy of the new curves (enlarged to an 8 1/2 by 11" format), send \$2 to me; they come in a nice plastic folder for ease of use and with easy-to-follow instructions. Sliding scale also included.

Up in conventionland, Oregon, where there should be a large and lively get-together of WTFDA people (hopefully, my family, too), the new automated rock sound of KSND 93.1 Eugene-Springfield has a nonID "stereo 93 K-Sound," but usually used with a singing "KSND." KWAX *91.1 Eugene is trying to raise money for a new tower. The new KUUZ Nampa ID 96.9 with r said to be putting in a very strong signal at times as far as Bend OR.

One reader writes that he likes this column, "but the small print and low contrast make it difficult to read." Reporting on FM developments in AUSTRALIA FROM the "Australian," Jan. 24 issue: Don Voegele, who used to live in Australia and lamented the lack of FM broadcasting there at the time, quotes: "FM radio sales are booming. Almost every radio now sold in Australia has provision for AM and FM. To stay in tune with the brilliant world frequency modulation allow follow our new FM program guide." Inside the listings, in the Sydney edition, are ABC 92.9 and 2MBS-FM 92.1, both mostly with classical music. Mentioned in an ad was a 3RMIT-FM. Don also heard KEX (AM) Portland OR and was most impressed with their fidelity. "In your December column were made comments on the fidelity of Australian AM broadcasting. I agree with it that AM fidelity was good (better than USA), which I was able to enjoy on a Phillips. . . Interesting that Australian AMs are to lose fi with the adoption of 9 kHz European bandwidth. I wonder why they are doing that? (Probably to squeeze in more AM stations.) With your contacts you may be able to help me out. With my weakness for European radios I recently bought a used German AM-FM-SW portable radio. It needs repair. The FM band is weak in audio. SW is weak in RF. It is an ITT Schaub-Lorenz model 104. Would anyone know where to write for a schematic? A good set, but the FM band stops at 104 MHz." Contact Don at Apt. F, 211 West First Avenue, Chico CA 95926.

Richard Clark reports that he has heard almost 90% of the FM stations of the Dominican Republic in Puerto Plata, including several of the Sto. Domingo 50-watters. Some of these stations come in better at 80 miles than they did in Sto. Domingo itself. (These are probably highly directional link stations, aiming their signals away from the city itself.) "I still can't understand your policy of link stations. I don't see any difference between a link station in this country and FM translators in the United States. They both rebroadcast the main station. Why is it you don't put in your FM Atlas such stations as HIF 97.3 in Puerto Plata? It is separate from their AM station and does not duplicate AM whatsoever. I have discovered a new FM station, Radio Muzak, on 159.2 in Sto. Domingo. They are on the air from 6 am to 12 M and their power is 200 watts. Their format is the same as the SCA in the United States, but this station can be received on a VHF set with no trouble at all, and this country does not sell VHF sets to the public so they can broadcast without anybody listening to them; it's all background music without voice announcements. Radio Muzak is owned by the same firm as in the US.

Not yet on the air is CBWV"-FM" 97.9 Brandon, Man., which will probably be a nonidentifying, low-fi repeater of CBW (AM) Winnipeg on FM. CJAY must be the new calls of Calgary, Alta. 103.7, as the channel 4 Brandon TV station that used to be CJAY"-TV" is now CKYB, relaying CKY-TV in Winnipeg. In Dauphin it is CKYD, Thompson CKYT, and so on.

A list sent by the FCC of Canadian FM allocations changes includes four towns for which no applications I know of have been filed. Watch for FM developments to follow on 103.5 in Dalhousie NS, 105.7 New Castle NS, 99.3 Amherst NS, and 106.9 Antigonish NS.

High Fidelity Trade News, June, 1976, reported that the trend in electronics is ever-higher power receivers (audio wattage power). And, "In the area of FM tuners, expect to see more frequency synthesizing FM tuners with extreme tuning accuracy as the cost of phase-lock-loop high frequency ICs plunges. The only thing that may slow down this welcome development is a recent rumbling from the FCC that they may be considering a reduction of spacing between FM channels (presently 200 kHz) to either 150 kHz or 100 kHz to provide more space for allocations of new stations. If that happens, not only will the digital read-out tuners be in trouble (they tune in increments of 200 kHz), but many, many stereo receivers and tuners will have a difficult time separating more closely-spaced stations. It may be time to write to the FCC again—before any action is taken on this new issue." So there you have it—the hi fi manufacturers don't want to be forced to have to market more selective receivers and tuners.

CONTRIBUTORS: Frank Aden, Jr., Bend OR; Richard Clark, Puerto Plata, Dominican Republic; Tom Cornell, now at RR#2, Box 53A, Greentown IN; Mickey Delmae, Brandon, Man.; Mike Dornier, Jr., Metairie LA; John Ebeling, Bloomington MN; Robert Eddy, Newport OH; Ted Fleischaker, Louisville KY; Rudy Forsberg III, Massillon OH; Robert L. Foxworth, Mineola NY 11501; J. M. Mangiscarne, Altoona PA; Gary A. Olson, Elk Grove Village IL (who sent an interesting new newsletter, Inside Radio); L. Price, Wilmington NC; A. Rockford, Syracuse NY; K. R. Simon, W. Palm Beach FL; R. Strobel, Muncie IN; Bill Thompson, Buffalo NY; Pete Taylor, San Francisco CA; Don Voegele, Chico CA; Nathan Williams, Oshkosh WI; Roger Winsor, Hobart IN. Contributions always welcome! 73, *Don*



FCC NEWS AND DATA

Dave Pomeroy
KTWU--Channel 11
301 N. Wanamaker Rd.
Topeka, Kansas 66604

June 1977

TV Applications

*Mountain View, AR	(6)	100kw	1370AAT
*Lake Charles, LA	(18)	1440kw	1537AAT
*Harlingen, TX	(44)	745kw	774AAT
Kansas City, MO	(62)	1320kw	650AAT
Salinas, CA	(35)	1525kw	2648AAT
*Broomfield, CO	(12)	153kw	2416AAT
*Johnson City, TN	(41)	700kw	2178AAT
*Cheyenne, OK	(12)	316kw	1067AAT
Rochester, NY	(31)	1000kw	606AAT
Rock Springs, WY	(12)	10kw	57.3AAT
Sheridan, WY	(12)	316kw	1216AAT
Oklahoma City, OK	(43)	1090kw	1480AAT
Seattle, WA	(22)	1000kw	1316AAT
W.Palm Beach, FL	(25)	4208kw	1048AAT
Springfield, IL	(55)	12.13kw	453AAT
Youngstown, OH	(58)	600kw	982AAT
Oklahoma City, OK	(34)	1489kw	1225AAT
*Juneau, AK	(3)	2.61kw	1016AAT

Call Letter Applications

KT VX	Rock Springs, WY	
WTVZ	Greenville, SC	now WFBC
*WKPD	Paducah, KY	was WDXR-29
KIGH	Longview, TX	new ch. 16

Call Letters Granted

KT VI	Medford, OR	was KMED-TV
KRON-TV	San Francisco, CA	now KRON
*WPTD	Kettering, OH	was WOFT-TV
*WPTO	Oxford, OH	was WNUB-TV
WBAK-TV	Terre Haute, IN	now WIIL-TV

CP's Granted

*Jacksonville, IL	(14)	4020kw	1608AAT
Memphis, TN	(24)	2569kw	1016AAT
Sheridan, WY	(12)	316kw	1220AAT



New Stations On The Air

*KTIN-21	Ft. Dodge, IA
*KYIN-24	Mason City, IA
KVFD-50	Ft. Dodge, IA
KORO-28	Corpus Christi, TX (Spanish)
*WCFE-57	Plattsburg, NY
KSYS-8	Medford, OR
WHRS-42	Boynton Beach, FL
*KTVR-13	LaGrande, OR

Translators Granted

K56AU	Columbia, MO	KCPT-19
W54AB	Poughkeepsie, NY	WMHT-17
W62AO	Hawley, PA	now ch. 64
W56AQ	Waymart, PA	now ch. 66
W55AG	Williamsport, PA	now ch. 74
K55BG	Wagner, SD	KUSD-2
K70FC	Laramie, WY	
K70DF	Running Springs, CA	KCET-28
K75BK	Victorville, CA	KCET-28
K67AS	Estes Park, CO	
K63AI	Kaunakani, HI	
K69AK	Grangeville, ID	
K55??	Rupert, ID	KID-3

Station Off The Air

KVST-68 Los Angeles, CA

*non-commercial, public television station

FROM THE READERS...

FCC has authorized local origination by translator W60AD in Savona, NY which normally relays WSKG-46...Applicant for channel 43 in Oklahoma City is Christian Broadcasting Company of Oklahoma...Cubans appear to be using SECAM color...ICR2 and ICR6 identify visually as "TV Cubana" and give network ID in voice announcement...All three Cuban networks appear to join for the news...ICR2 uses old ICR test pattern with "antenna that is mistaken for a palm tree"...ICR6 uses 3/4 color bars with AM RELOJ NATIONAL... Non-commercial KYUK-4 in Bethel, AK has been authorized to carry commercials on some satellite programs from ABC, CBS, NBC...May 4 tornado has put KVFD-50 in Ft. Dodge, IA off the air for an indefinite length of time; station switched from channel 21 on March 20...KBSC-52 in Los Angeles is first "on-air" pay TV in United States; began April 1 with \$17 monthly fee and equipment installation cost of \$29.95...National Cable Antenna Television Association (NCTA) in commenting on translators recently said, "There is no reason people should see for free what they can pay for"...Former KTCA-2 and KTCI-17 manager has taken over head of KOKH-25 in Oklahoma City with goal of greatly expanding program schedule...Programming on WHRS-42 is "nothing much but talk"...North Dakota legislature has appropriated \$3.6 million to provide for coverage of PTV in the entire state; new transmitters will be at Bismarck (3), Dickenson (4), Minot (6), and Williston (15)...Maryland Center for Public Broadcasting will not relocate transmitter of WMPB-67, but will probably construct translator in Frederick area to fill in poor reception area...FCC cancelled license for KEKO-10 in Elko, NV...KMOS-6 in Sedalia, MO may become PTV (now CBS) if Central Missouri State College plan is approved. NEXT MONTH: News on Italian television. Thanks this month to Robert Baker, Bruce Elving, Doug Everitt, and Ken Simon. This column is now the place for all TV data with the exception of Canada, so keep the information coming. Thanks!

C.C.I. [UNIDENTIFIED DX]

Frank Aden, Jr.
1535 NW Ithaca
Bend OR 97701
(503) 389-5488
Deadline: 10th

JUNE 1977 A few IDs this month!

Michael Scheel, 4126 Nobis Dr., Davenport IA 52802 (1977 unIDs)

Sat Apr 16 Tr ch 4 0542 CST- -"News 4" slide with "4" above "News". Seen in between news film.



0549 CST- -Three talking, one may have been black. Maybe same station as above. Started at 0545.

0552 CST- -CB seen alternating with above show.

0558 CST- -Logo seen that looks like KOA's style or close to it. A slide was also seen with hands in praying position.

IDs

Robert Williams, Jul 6, Es, ch 2, "Newswatch" is WMT. Jul 29 Es ch 3, "Waltons" may be WISC. From Michael Scheel.

John Combs, Dec 28, Es, ch 4, 1610 "Partridge Family" is WHBF. Ch 4, 1705, "Hogan's Heroes" is WHBF. Ch 5, 1710 "ABC Evening News" is WOI. Ch 3, 1724 western movie may be KTVO as it had "Marchal Dillion" from 1700 to 1800. From Michael Scheel.

John Combs, Oct 31, ch 2, 0112 "Sammy Davis Show" maybe WJEK. Nov 24, ch 4, 1715 "Dinah" maybe WWJ. From John Robertson.

I am currently in the process of collecting another set of TV GUIDES for use in this DX season. I am also trying to collect some program sources from Newfoundland and Puerto Rico. If you know of any guides from these areas please write. A source is still needed for the Mexican TV GUIA. I am working on some possible sources now but any help will be appreciated.

REGIONAL NETWORKS

Maine Public Broadcasting Network
Alumni Hall, University of Maine
Orono ME 04473

WMEM ch. 10
Presque

WMEB ch. 12
Orono

WCBB ch. 10
Augusta

WMED ch. 13
Calais

WMEG ch. 26
Biddeford

WMEM TV 10
Presque Isle

Maine Public
Broadcasting
Network

WMEB TV 12
Orono

Georgia Educational TV
1540 Stewart Ave.
Atlanta GA 30310

WCLP ch 18 Chatsworth
WJSP ch 28 Columbus
WACS ch 25 Dawson
WABW ch 14 Palhan
WDCO ch 15 Cochran
WXGA ch 8 Waycross
WVAN ch 9 Savannah
WCES ch 20 Wrens

Map next month of CETV.

WCBB TV 10
Augusta
(independent)

WMEH FM 90.9
Bangor

WMED TV 13
Calais

WMEG TV 26
Biddeford

WMEA FM 90.1
Portland

The 1977 WFTDA Convention will be held at the Portland Holiday Inn across the Willamette River from downtown. The famous Lloyd Center is within walking distance. Make Portland part of your summer vacation plans now! Full details next month.

TECHNI- CORNER

conducted
by
Dave Janowiak

How to Evaluate and Purchase DX Equipment

Although soured a bit by the usually poorer DX conditions in winter, the average TV/FM DXer looks forward to the improved spring and summer DX season with great enthusiasm. And--especially if he has saved a little scratch--the winter is usually the time for thinking about, or purchasing, a new antenna, amp, or receiver. But without specs for that product, or knowledge of how that product compares with others, he may waste his money on equipment that doesn't improve his setup.

To help him decide, the DXer may investigate one or more of five (5) sources: (1) other DXers, (2) local TV sales/service shops or distributors, (3) past magazines containing product reviews, (4) electronic warehouse catalogs, and (5) manufacturers' specifications and sales literature. Let's look closely at each one of these.

Other DXers can be a good source of information, especially if they are technically oriented or--better yet--have actually compared similar equipment. Even if a knowledgeable DXer is asked, but knows little, about a certain product, he might point out qualities pertinent to that class of products. For example, he might warn of the overload and cross-modulation effects of transistorized pre-amps. Or he might warn of the uneven gain and impedance mismatch of loaded director type of all-channel yagis. By all means, always ask knowledgeable DXers for advice.

But, since all of us are mildly prejudiced on some subjects (prejudice really is a belief in your own ideas with little or no knowledge of a given subject), advice of others must never be accepted without investigation. I have a good friend that has never bought anything but Fords--they were the best in the 1930s, he claims, so he will buy Fords until the day he dies! And so it goes. Weigh the advice from others carefully and, when asked for advice, give it honestly. Don't stick up for a product just because you bought it.

Local TV sales/service shops usually sell products of one or two manufacturers only. Since they cannot (or don't care to) test each product side by side to determine the best, their products (in their prejudiced opinion) are the best. Some shops are exclusive sales outlets for large manufacturers and sell their products only.

However, the local shop should have detailed specifications on its products. This might save you the time and effort of writing to the manufacturer. Or, the shop can give you a demonstration (but this doesn't help much when buying an antenna). Sometimes--but not often--a local shop will sell cheaper than the electronic warehouse plus shipping price. Also, if you can try a product on a trial basis, fine, but don't hold your breath. In larger cities, some distributors sell at the discount catalog price, and you save shipping costs.

Magazines that carry product reviews depend heavily on advertisements for revenue. The policy of "don't bite the hand that feeds you" generally prevails. A few years ago, I had access to most electronic magazines and was able to form opinions on how honest they were in their evaluations. The "cheaper" magazines such as Popular Electronics, Electronics Illustrated (now defunct), etc. almost never criticized a product. Others criticized more often, but only mildly.

Magazines that evaluate products only and do not accept advertisements seem impartial. The leader--Consumer Reports--is, in my opinion, an excellent publication: well written and edited, and very honest.

Catalogs from electronic warehouses such as Allied, Lafayette, Radio Shack, etc. can be valuable. Prices are usually lower than local prices, and almost all name brand manufacturers sell through one or more warehouses. However, a DXer that uses these catalogs and the wild claims in them as the only basis when choosing equipment will soon be wiser, but poorer. For example, if a DXer with limited technical knowledge and \$40 to spend for a new VHF antenna

uses a certain catalog only, he notes on page 181 that brand "A" all-channel yagi at \$37.77 claims reception to 100 miles on VHF and UHF and 60 miles for FM. But the brand "B" jewel at \$39.95 claims 175 miles VHF, 125 miles FM and 80 miles UHF. So buy the brand "B" antenna--and lots of luck! One antenna claims 325 mile reception on VHF. Anyone with a dab of antenna knowledge is aware that this is just BS. Never use mileage claims in catalogs for comparison of antennas.

Every DXer, however, should obtain catalogs from all popular warehouses for price comparison. New catalogs are issued about August of each year; supplement or sale catalogs are common throughout the year. Usually prices for identical equipment are the same or close--but there are exceptions. Select the lowest cost with shipping charges considered.

Policies on sending catalogs vary. Often catalogs will be sent for a year only unless an item is purchased within that time.

A letter to the manufacturer for sales literature and specifications is a must before purchasing equipment. Get on the manufacturer's mailing list so that you'll be aware of new products. (You may be surprised at the complete line or equipment some manufacturers have.) But pamphlets containing bushwa may be all you get. Ask politely for complete specifications in addition to, or in place of, sales literature. For antennas, ask for the gain, front-to-back ratio, and impedance on each channel. Do not accept "hi-gain," "excellent match," etc. Often, the actual gain noted on spec sheets is quite less than that advertised in their sales literature.

You'll be surprised how much help you may receive and how frank the company may be. While I have been discouraged by the sales blurbs of some antenna manufacturers, they have been very cooperative when specific data is requested. For example, Finco sent me complete data when I requested info on the Fro-Back Screen, an option for the popular double-collateral TV antenna in the 1950's. While the screen helped front/back ratio on all channels, it reduced gain on channels 2-6, as the data showed and the Finco rep pointed out. He advised against this screen because of channel 2 and 5 fringe reception from Chicago here. (He didn't know I was a DXer.) And Winegard was most courteous when I returned their low-band yagi and pointed out that element length could not possibly be correct for that band. This was a "new design," said the Winegard rep, and he was most happy to hear an early "field report." (I haven't seen this antenna in Winegard's "bag" since!) Money was refunded.

One word of caution: Show the manufacturer that you are knowledgeable. Avoid questions such as "How far out will I get with this antenna?" And if you do have a gripe about construction or instructions after purchase, let the manufacturer know courteously that you don't care to spend good money, for example, on an antenna that corrodes rapidly or is difficult to assemble.

In conclusion, seek advice and opinion from DXers, local shops, magazine reviews, but weigh them carefully. Get the best price from local shops and catalogs, and by all means request complete specs. If you cannot interpret these, send for them anyway and let others interpret them. All this boils down to simply learning as much as you can about a product and shopping around. (When shopping locally for those products that may need repairs, such as receivers and preamps, check warranty policies and the dealer's reputation.)

Of course, in addition to the list of five sources just described, the chief source should be experience and textbook knowledge. With this, it is easy to evaluate some specs or designs and laugh at the ridiculous claims. However, most DXers don't have this knowledge at first and possible never acquire it. But there's nothing that speeds the interest in a subject than swallowing some of these wild claims and buying a "pig in a poke."

If all this seems like too much bother, lots of luck; just flip a coin and buy on that basis, but don't cry when your results are unsatisfactory!

73, Dave Janowiak

EDITOR'S NOTE: Dave Janowiak's series on understanding polarization is still being held after critical comments from some WTFDAers. Your comments on the value of the series and whether it should continue will decide its fate. CWI

FM DX NORTH

Fred Nordquist
7945 Boxford Drive
Clay, NY 13041
Deadline: the 10th

June 1977

For FM DXers north of the Mason-Dixon Line and including IA NE WY ID OR WA MT ND SD MN and Canada. All reports are welcome! DX conditions have greatly improved, with several DXers reporting a super tropo opening along the Atlantic coast down to Norfolk, Va. A nice Es opening was noted on 5/7 due to the formation of an Es cloud in western VA. Several new Canadian stations were reported on the air. If you happen to tune in to some Es openings this summer, give your DXer friends a call & share the excitement. Now to the reports:

Ralph Strobel - 2510 E. McGalliard Road - Muncie, IN 47302

2/7 Tr 0500 WPNM 106.3 OH Ottawa,r\$,FM106	3/17 Tr 1800 WLRH 89.3 AL Huntsville,\$
2/18 0000 WVWR 89.1 VA Roanoke	3/21 0105 WNCM 102.5 WI Madison,c\$,s/off
2/22 0200 WTAZ 102.3 IL Morton,p\$	3/27 0400 WMMN 92.7 IL Arlington Hts.,p,r\$
2/23 0233 WBEN 102.5 NY Buffalo,r\$	3/28 0300 WZZF 106.5 OH Cleveland,r\$,Zip106
2/27 0600 WMPY 100.9 IN Scottsburg,k,s/on	4/8 0005 KSAV 96.1 IA Clinton,m,mono
2/28 0200 WCCK 103.7 PA Erie,r,mono,s/off	4/25 0110 WTMF 98.9 WI Tomah,m\$
3/7 1600 WSOE 89.9 KY Madisonville,g\$	4/30 0805 KTOF 104.5 IA Cedar Rapids
3/14 1630 WETL 91.7 IN So. Bend,m,c,mono,s/off (0800-1630).	

Antenna is fixed toward Lafayette due to inoperable rotor - Ralph.

Mike Bugaj - 69 Sherman Road - Enfield, CT 06082 (EST)

Eq: Sony ST-5130, Finco FM-5 @ 35' w/rotor. New Underlined. Total:636.

4/20 and 4/21 had super tropo w/most signals pegging the meter.

4/19 Tr 1930 <u>CECK</u> 107.5 ON Kingston,mono	4/20 Tr 2127 <u>WKTK</u> 105.7 MD Cantonville
1945 <u>CTEL</u> 98.5 QE Longueil,FFc,\$	2145 <u>WTVR</u> 98.1 VA Richmond
4/20 0650 <u>WXRI</u> 105.3 VA Norfolk	2145 <u>WEZS</u> 103.7 VA Richmond
0650 <u>WOLC</u> 102.5 MD Princess Anne,g	4/21 0445 <u>WTSR</u> 91.3 NJ Trenton,r
0651 <u>WQRK</u> 104.5 VA Norfolk	0452 <u>WGMS</u> 103.5 DC Washington
0652 <u>WSFL</u> 106.5 NC New Bern	0500 <u>WASH</u> 97.1 DC Washington
0654 <u>WESR</u> 103.3 VA Tasley	0500 <u>WLIF</u> 101.9 MD Baltimore
0655 <u>WYFI</u> 99.7 VA Norfolk	0505 <u>WKYS</u> 93.9 DC Washington,r
1720 <u>WGH</u> 97.3 VA Newport News	0510 <u>WHUR</u> 96.3 DC Washington,s
1721 <u>WNOR</u> 98.7 VA Norfolk	0510 <u>WPGC</u> 95.5 MD Morningside
1730 <u>WEXM</u> 107.5 VA Exmore	0512 <u>WAVA</u> 105.1 VA Arlington
1815 <u>WKWI</u> 101.7 VA Kilmarnock	0528 <u>WEZR</u> 106.7 VA Manassas
1825 <u>WTVA</u> 94.1 VA Yorktown,k	0535 <u>WSUL</u> 98.3 NY Monticello
1831 <u>WFOG</u> 92.9 VA Suffolk	0550 <u>WTTR</u> 100.7 MD Westminster
1920 <u>WSFL</u> 106.5 NC New Bern	0550 <u>WFAN</u> 100.3 DC Washington,s
1945 <u>WJLY</u> 92.1 NC Moyock,r	(New CL for above - WOOK; uses
2055 <u>WRVQ</u> 94.5 VA Richmond	OK-100 as slogan - fjn)
2115 <u>WRFK</u> 106.5 VA Richmond	0700 <u>WYCR</u> 98.5 PA York,r
2150 <u>WDYL</u> 92.1 va Chester,g	0710 <u>WEAA</u> 88.9 MD Baltimore
	0715 <u>WCTA</u> 92.1 PA Palmyra

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

Eq: Zenith Transoceanic w/whip, Sony 11-transistor, whip.

4/20 Tr 0130 WUSB 90.1 NY Stony Brook,tant	4/21 Tr 0750 WMGK 102.9 PA Philadelphia,Magic
0225 WFPG 96.9 NJ Atlantic City,EL	0800 WOLC 102.5 MD Princess Anne (210)
0300 WKSS 95.7 CT Hartford (160)	0831 WGMS 103.5 MD Bethesda (170)
0306 WADB 95.9 NJ Pt. Pleasant,EL,\$96	0900 WFRE 99.9 MD Frederick
4/21 From Wilkes-Barre,w/Sony.	0914 WPC 95.5 MD Morningside,weak
0725 WPSI 107.9 MD Annapolis (160)	0937 WIOQ 102.1 PA Philadelphia,strong
0730 WWSH 106.1 PA Philadelphia (90)	Log total for Wilkes-Barre and Goulds-
0749 WBSA 103.3 PA York,EL (100)	boro at 386.

After a long dead winter the FM band suddenly comes alive in the 3rd week of April. Things are back to normal (4/27) as a series of low pressure systems w/unstable wx patterns pass down from Canada. On 4/21, a super tropo day, I had to go into Wilkes-Barre. I neglected to take my Zenith sown w/me. So DXing at my former DX location, which is now my aunt's house, I proceeded to DX on her 11 transistor Sony, and did better than I expected, even adding WOLC. Since W-B and Gouldsboro, are only 10 miles apart, I keep a joint log. Given a choice between Wilkes-Barre and Gouldsboro, I think I would take the former since I'm wide open to the SW there and blocked from QRM causing NYC locals. In Gouldsboro it's just the opposite in that NYC is always in and the SW direction is blocked out by a nearby hill. This despite the fact that Gouldsboro is about 2000' above sea level; 73 and lots of dog days of humid tropo producing wx.

Michael L. Hogan - 9224 Cottage Grove Avenue - Highland, TN 46322

Eq: Panasonic RF-877, Stereo Probe ant. @ 15 ft. w/hard rotor. Reporting period 4/7-5/5.
 Total: 94, w/27 in educ. band, 6 states & 1 prov. All stations taped. Phone: (219)924-2361.

4/7	1900	WKVI	99.3	IN Knox, PSA	5/2	1330	WDCQ	95.1	IL Decatur
4/8	1744	WVYK	103.1	IL Highland Park, PSA		1420	WHIC	96.1	MI Holland, EBS test
	0800	WEPM	99.5	IL Chicago, E. Airl. ad		1430	WJFM	93.7	MI Grand Rapids, ID
	1814	WXAX	104.7	IN Elkhart, ad		2030	WFRL	98.5	IL Freeport, k
4/9	2200	WNIL	95.3	MI Niles, s/off annt		2100	WANG	98.5	MI Coldwater, Buddy Corrsell
4/14	1930	CJOM	98.7	ON Winsor, in briefly		2200	WDEK	92.5	IL Dekalb, r
4/20	0930	WDSO	89.1	IN Chesterton, 10w.	5/3	2200	WHBF	98.9	IL Rock Island, Rock-99
	1700	WKZN	96.9	IL Zion, auto dealer ad	5/4	1900	WSTR	99.3	MI Sturgis, ID
4/23	1100	WJVL	99.9	WI Janesville, ad					73's - Michael. New underlined.

Bruce Goldsen - 27 Spruce Hill Road - Georgetown, CT 06829

Eq: Panasonic Stereo, Omnia antenna. New underlined. Today (4/20) was a great day for what I assume was tropo. Everything went crazy on the TV, and when I got home from work (about 10 pm) I want to the stereo to do some DX. It seems there was some kind of duct between here and Norfolk, VA. New underlined.

4/20	Tr	2218	WGH	97.3	VA Newport News, Chamber mx, spots for Benny Goodman/ Norfolk Concert
			WCMS	100.5	VA Norfolk, many station ads, PSA at 2231
		2233	WJRZ	100.1	NJ Ship Bottom, mx by Rufus, wx, Stereo-100
		2259	WFLN	95.7	PA Philadelphia, ID TC, NBC NK at 2300
		2301	WKTK	105.7	MD Catonsville, ad-MacDonald's, ad-King's Dominion discount coupons
		2306	WXRI	105.3	VA Norfolk, comments on Carter's energy speech
		2331	WVHR	101.3	VA Hampton, BB -- probably minors, Straight ID on 4hr.
		2345	WDVR	101.1	PA Philadelphia, beautiful mx, ID
		2347	WPBS	98.9	PA Philadelphia, Carpenter -- "close to you"
		2351	WCAU	98.1	PA Philadelphia, s
4/21		0002	WQIC	102.5	MD Princess Anne, s/off

That's it from the Golden Gate of DX - Bruce.

Peter Sawatzky - 244 Neilson Ave. - Waterloo, ON N2J 2M3

RX: Heathkit AJ-15; Ant: Delhi 1047 @c.30'; loggings on MS tape control unit asterisked*; new underlined; times EST.

1/30	Au	1830	WMBI	90.1	IL Chicago (375)
2/1	MS		WQID*	93.7	MS Biloxi, (1000) male; "...Favorite music... 94 WQID..." (taped between 1200 and 1800)
2/2	MS		KMBQ*	93.7	LA Shreveport (1035) male; "...new location... Monday morning... 19 ... in downtown Shreveport." (taped 0730-0900) (1st time by Ms, previously by Es)
2/18-19	Tr		WTFP*	103.7	OH Tiffin (215), TC, ID (taped 0730-0200)
2/24	GW		CKNX	101.7	ON Wingham (50) \$ carrier noted several evenings form NW, probably new CKNX-FM testing.
3/7	Tr	1822	WMJQ	92.5	NY Rochester (145) 1st time by new CL, r (ex-WNWX, ex-WBFB)
3/23	MS		WBNC*	99.1	NC Whiteville (640) male; "...-ENC Weatherwatch, 64-..." (taped 0800-1800)
3/26	Tr	1029	WZZP	106.5	OH Cleveland (145) 1st time by new CL - ex-WXEN (rock)
4/3	Au	2100	light Au		noted, no ID's. 73's -- Pete

Fred Nordquist - 7945 Boxford Road - Clay, NY 13041

Eq:	RX - Heathkit AJ-15, Ant: JFD LPL-FM10A at 45'	AGL. New underlined. Totals: 860.									
2/13	Tr	1932	WFRL	92.5	VA Winchester, AI NX	5/7	Es	2043	WQID	93.7	MS Biloxi, r
2/24		2242	WPOC	93.1	MD Baltimore, r, \$			2056	WRNO	99.5	LA New Orleans, r
4/4	GW	2230	CECK	107.5	ON Kingston, c, mono			2136	WMEZ	94.1	FL Pensacola, KL
4/5	Au	1805	No IDs					2158	WTSU	90.1	AL Troy, \$m, TSU promo
4/7	Tr	2000	Detroit/Cleveland stations					2155	WBLL	92.9	MS Biloxi, r, lcl ad
	GW	2022	WPHD	103.3	NY Buffalo, r, ex-WISL			2157	WFRL	97.7	AL Auburn-Opelika, r
4/8	GW	1205	CJBC-17	107.5	ON Belleville, FFC			2202	WGNE	98.5	FL Panama City, Q-98
4/18	GW	2129	CHEZ	106.1	ON Ottawa, r, \$, Chay106			2209	WOOF	99.7	AL Dothan, r, mutual nx
4/22	AS	2032	WOOK	100.3	DC Washington, OK100, r						CEN stations WVIV-95.1, WVIV-101.9, WEIV-103.7, WOIV-105.1, WEIV-107.7 are //, g, & use slogan "Sunshine Radio", & are AN6.
4/25	Tr	1821	WGTE	90.1	DC Washington, discuss						Stations hrd w/Yankees BB: WKRT-99.9, WFLC-102.3, WCLI-106.1, WSYR-94.5 (also Mets BB).
	GW	2000	WCNY	91.3	NY Syracuse, Chiefs BB						Pirates BB-WAVT-101.9, WCEB-102.1. Blue Jays BB-CKTB-97.7, WWOL-104.1, CWKS-96.3. Phillies BB-WBRE-98.5. Anybody hearing a TTer on 101.7 during the Es opening on 5/7 at 2217, it was WBCQ. 73's - Fred
4/26	Tr	1827	WVNO	106.1	OH Mansfield, ad						
4/29	AS	1547	WYCR	98.5	PA York-Han., "YCR"SID						
5/2	GW	2300	WKAL	95.9	NY Rome, FM96, m, \$, ex-r						
5/5	GW	2150	CJBC-18	99.5	ON Kingston, FFC						
	Tr	2220	CTEL	98.5	QE Longueil, FFC, \$, voc						
5/7	Es	2039	WABB	97.5	AL Mobile, r						
		2040	WPMO	99.1	MS Pascagoula, pol. ad						
		2049	WTUN	100.1	AL Selma, k, mono						

PHOTO-NEWS

Jim Alexander
4 Brook Court
Farsippany, NJ 07054

June, 1977

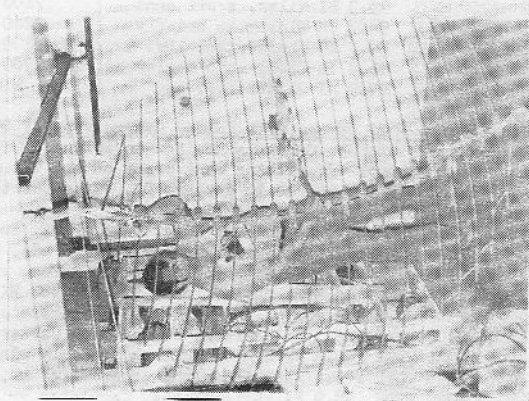
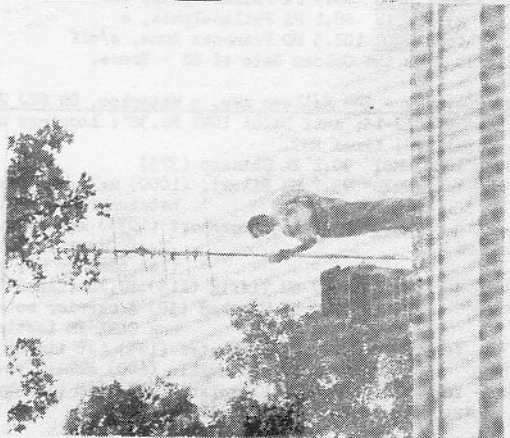
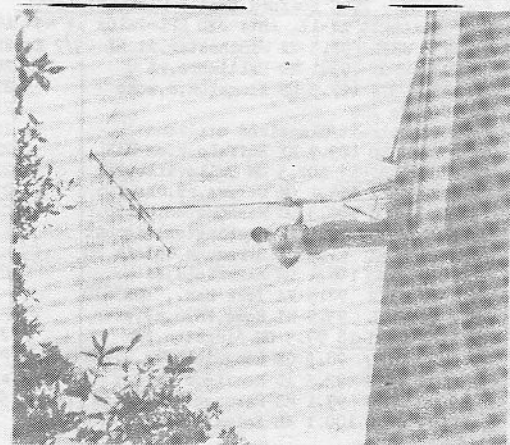
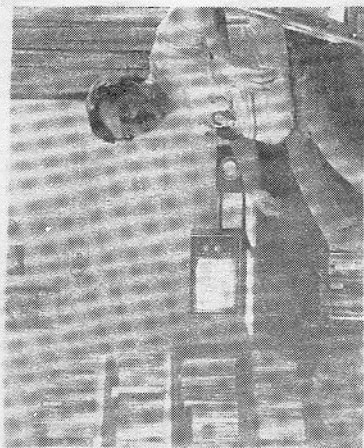
Feature: A visit to Orlando, Florida

This month, PHOTO-NEWS travels to Orlando, FL to visit John Combs' QTH. At the left is a photo of John with his TV set, T-45, and U-100 rotor controls. At bottom left on this page is an Archer V-150 for VHF, mounted at 30° and turned by the T-45 rotor. At lower middle of the page are two stacked 4-bays and AC-4990 UHF amp, mounted at 25-30 feet and turned by the U-100 rotor. Both VHF and UHF systems are intended to be temporary, for use until John's planned installation can be put together. Part of that planned installation is shown at bottom right -- a 7' heli dish for UHF-TV, which presently resides in John's garage. If these parabolics don't seem that big in photos of them mounted up on a roof or tower, note the size perspective given by this photo, with the dish shown almost dwarfing its owner! 3 Stooges' fans, also be sure to note the shirt John is wearing!

My thanks to John Combs for this month's feature.

73 and good DX,

Jim

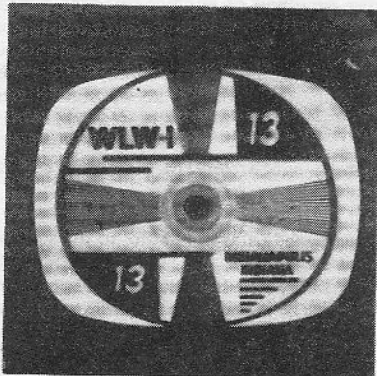


Memorabilia

Robert J. Williams
251 6th Avenue East
Twin Falls, Idaho 83301
Phone: (208) 733-3621
Deadline: 10th of month

June 1977

This month, some more photos of TV-DX of yesteryear, thanks to Bill Draeb of Kewaunee WI:



WLW-I 13 Indianapolis IN
320 mi. Tr (now WTHR 13)



KROC-10 Rochester NY
248 mi. Tr (now KTTC 10)



KFIZ-34 Fond du Lac WI
(now off)

What kind of days were they? Days like all DX days.....filled with propagational events that enhance and illuminate our boob tubes.....and..... YOU WERE THERE!!!

73s, good DX to all,

Bob

SCA: Radio the FCC Doesn't Want You to Own



By Bruce F. Elving, Ph.D.

Virtually ignored by the consumer press, by the high fidelity and stereo industry, and by FM listeners in general is a medium of communication available free for the taking in almost all parts of North America—namely, FM subcarrier broadcasting. First demonstrated by FM's inventor, the late Edwin H. Armstrong, in 1953, FM multiplexing of more than one program on a single station's carrier was authorized to begin by the Federal Communications Commission in 1955. Long since eclipsed in the public eye by another multiplexing development, FM stereo-phony, subcarrier FM has subsequently been the exclusive province of special interest groups, and not the public. That such is a wrongful turn of events this article will attempt to demonstrate. Illustrative of a patronizingly ignorant attitude toward subcarrier FM is the following quote: ". . . This signal, which is used for commercial 'storecasting' services, has nothing to do with home FM reception, and it is filtered out in the adapter circuits, so we shall ignore it." (William F. Boyce, Hi-Fi Stereo Handbook [New York: Howard W. Sams Co., 1972], p.124.)

Lending credence to this keep-the-public-ignorant-of-subcarrier-FM-listening are the following recent developments:

Item: The Federal Communications Commission persuaded Lafayette Radio to discontinue marketing an FM receiver that included a circuit designed to receive the "background music" subcarriers sent out by many FM stations. Since then, Lafayette has been selling only "educational kits" which can be made into SCA adapters. (SCA stands for Subsidiary Communications Authorization. In Canada, the comparable service is called "SCMO," for Subsidiary Communications Multiplex Operations.)

Item: A basic SCA circuit, which is so simple to build that almost anybody who has ever used a soldering iron can build it, is no longer illustrated and distributed with the instructions accompanying the Signetics 565-type phase-lock loop. The 565 integrated circuit, which sells for about \$2.00 at just about any electronics store, is the heart of all modern SCA circuits. Possibly, the discontinuance of the printing of this circuit diagram was due to clout from the Muzak Corporation, or from one of the larger makers of SCA receivers, such as McMartin Industries, Omaha NE.

Item: Discrete quadrasonic broadcasting, if it is approved by the Federal Communications Commission, would displace SCA from its present popular setting of 67 kHz to 95 kHz, according to McMartin literature. This would result in somewhat lesser SCA bandwidth than presently, but more significantly, would require the junking or extensive modification of all SCA receiving equipment. This would not be true for stations not electing to jump on the quad bandwagon. Even if discrete quad took over to the extent stereo FM has today, the changeover could take at least 14 years to implement, judging by the length of time since FM stereo was introduced until stations effectively stopped using the former 41 kHz frequency for SCA. Just as the old 41 kHz frequency and FM stereo were incompatible, so would 67 kHz and discrete quad broadcasting, thus requiring wider bandwidth receivers to detect SCA, which might make some sets that were previously modified for SCA not suitable for the new SCA channel, especially monophonic sets. Matrix quad, as now broadcast by many stations, has no effect on SCA, which in itself may constitute a very important reason for the FCC not to consider discrete quad, and to rule that henceforth all quad broadcasting should be matrix [matrix requires no special FCC approval].

Item: The Muzak Corporation is experimenting with a satellite, which could eliminate the need for some or all of their SCA stations. If such a changeover were complete, it would be the end of "MZ" SCA stations, but not necessarily the end of background music via FM-SCA, for other companies, such as Magnetics, and FM stations on their own, are in the background music business. Conceivably, many of the stations losing Muzak as a subcarrier customer might gain some other background music supplier, but the prospect does exist that some areas of the country which now receive SCA music might one day be without this service. Muzak, however, is still actively interested in SCA developments and may always have a stake in SCA FM, as company president Umberto V. Muscio notes in the article, "SCA and 4-Channel Broadcasting," in the publication, 4 Channel Scene, April, 1977:

Muzak, as a music service company that utilizes the SCA channel on 182 FM stations across the United States, has carefully studied these pending [four-channel broadcasting] technologies and how they will affect SCA activities both for users

and potential users. . . The value of SCA can be seen clearly by FM broadcasters in dollars and cents. The revenue earned by SCA background music broadcasting for some broadcasters can mean the difference between profit and loss. In view of this, it would be difficult to understand why any broadcaster would want to give up the money-making options that SCA offer for a "discrete" 4-channel broadcast system.

Should a radio station consider the "discrete" method of 4-channel broadcasting, it would necessitate changing its SCA channel from 67 kHz to some other proposed band allocation. As an SCA background music company, such a change would require us to modify about 70,000 receivers at 70,000 locations at a cost of \$50.00 per unit, a staggering \$3.5 million, to restore the background music service for our customers. During this transition, as many as half of our customers could be without service for some time until these modifications were made. While I am not an advocate for or against quad sound, it is difficult for me to understand why a "discrete" system should be considered at all when a much more reasonable technology called matrix allows a broadcaster to transmit quadrasonic sound over his existing facility without changing his station coverage area and, equally as important, without changing the SCA service. . . We at Muzak support the FCC Laboratories' current investigation and testing of these 4-channel matrix systems and hope that a matrix recommendation is soon forthcoming. We hope that these FCC tests will once and for all put to bed the many myths created by opponents of matrix 4-channel. We have always felt a close kinship for FM broadcasters in our long years of association with them, and we hope they will support our contention that matrix 4-channel broadcasting is the right way to go.

Most of the items listed previously appear bleak from the standpoint of the SCA-equipped listener, but they do not portend the end of what I believe to be the most valuable unexploited broadcast resource in America. The needs of a growing population to be better informed about specialized matters will dictate more uses of SCA, redounding to the benefit of FM stations and the public alike. I, therefore, look to the day when SCA capability will be incorporated into all FM sets sold in the United States—if not including SCA circuitry, at least an SCA (or "MPX out") jack so that an external (inboard or outboard) adapter can be added. Inexorably, SCA activity will snowball, as enlightened consumers, led by the DXing fraternity and other hobbyists, help to popularize SCA listening and SCA-awareness. Eventually, the FCC will be persuaded to allow widespread manufacture of SCA-equipped radios, but until this sanction comes such radios will have become fairly commonplace, as more and more manufacturers choose to defy the FCC's recommendation and exercise their legal right to make and market SCA receivers to the public.

Concerns presently deeply involved in SCA, such as Muzak, will quit fighting retailers like Lafayette as they, too, realize that the medium of SCA is being artificially held back because of public inaccessibility to it. Background music operators will be satisfied to have exclusive access to the in-store market, collecting fees from legitimate commercial users, and not worrying about private consumers listening in their homes, over portables, or in their vehicles—as they have every legal right to do.

Other groups may not be so easy to placate, however. Organizations like Minnesota State Services to the Blind seemingly like SCA to be a "private" channel, because they have no restrictions as to the type of material that is broadcast—from religious readings to the ~~rawest~~ pornography (that which I taped for my Chicago convention talk was "mild"). They want it that way, because they believe the blind should have access to the full spectrum of the printed word, without having to be concerned about FCC rules regarding profane and indecent language, as they would if SCA were considered "broadcasting" (which the U. S. FCC does not—unlike Canada, which is more apt to consider SCMO as another form of broadcasting). Undoubtedly, other users of SCA, such as the Commodity Market Services, might object, especially if they derive revenue from the rental of SCA-equipped sets to places like grain elevators, as many purveyors of SCA programming do. Some rental income from leased SCA sets might still accrue in cases where the customer would require a special crystal-controlled receiver, for use in difficult receiving locations, or for use by handicapped individuals who would have difficulty operating ordinary, tunable sets. However, it is my contention that any loss of revenue from not being able to rent out sets would be offset by a greater good to the greater number—in effectively opening new channels of broadcasting, commercial, ethnic, religious, and instructional—to the multitudes. Undoubtedly, the restricted nature of the programming will still dictate that the target audience will be the principal listening audience. Others may have some curiosity about hearing farm reports, the daily papers read to them, etc., but this will be a transitory interest, far eclipsed by the tunings-in by those to whom such broadcasts are intended. Especially is this so when one considers the multiplicity of audio and video program sources available to the average listener in any metropolitan area in the United States, and to a lesser extent in Canada.

It is not illegal to own an SCA receiver, although there are some things you cannot do with one. You cannot use it in your business establishment to play the same programming available

locally for a charge. Probably you could pipe in a "DX" SCA music service, especially if it is supplied by a company different from that which is available locally, although this possibility has not been tested in the courts. In Wisconsin, background music is on the air many hours a day over the state educational radio network, so conceivably a business could use this source if it wished to. However, at times talk programs interrupt this music flow, and it was with one of these talk series that I got into some trouble. I taped a program about "broadcast ascertainment" and attempted to sell copies of the tape to local radio stations. One manager became suspicious of my motives, and asked if I had permission from the University which supplied the program to distribute it. After then writing and trying to obtain such permission, I found the university had no copyright clearance to allow third parties to distribute their lectures. If you want to be enterprising in your distribution of SCA programs, it's best to check in advance for any necessary permission or clearance.

As noted previously, I do not look forward to an approval of discrete quad by the FCC. There are concerns in high fidelity, such as writer Harry Maynard and 4 Channel Scene, which are opposed to discrete quad, contending that the matrix product is good enough, since matrix results in no deterioration of an FM station's signal range, while discrete quad does. Therefore, I expect 67 kHz to be the mainstay SCA frequency for the foreseeable future.

Even more significant to the SCA listener is the recent growth in services related to broadcasting, now carried on SCA. These include the Physician's Radio Network in several cities, with doctors supplied with SCA receivers. The revenue here, however, is basically from the sale of advertising to doctors. Yes, Virginia, there are commercials on SCA! In Chicago, New York and Los Angeles, stations are known with ethnic (foreign-language talking and music) programs on their SCAs. Most likely, these services are financed through the sale of advertising rather than from rental of receivers. In Midland MI, WUGN 99.7 sends out a separate SCA religious service from that offered on its main channel, doubling its program appeal to individuals and groups that it normally serves. Obviously, for all these latter services, the ready availability of SCA-equipped radio receivers would be a great benefit. Think of the busy doctor being able to listen to the PRN in his car, if only an SCA-equipped car radio existed! This idea has been proposed, but apparently manufacturers have heeded warnings from Muzak not to make such receivers available, because if a set could tune in the local PRN station, it could also bring in the Muzak outlet. But, as I pointed out, there is no conflict between mobile listening and loss of revenue to a background music operator, even if Muzak doesn't pull stakes from SCA entirely. And the foreign-language purveyors of SCA programming would benefit from an expanded access to their outpourings.

Just what can be programmed on SCA? The FCC rules are very general on this point. In 73.293, "Subsidiary Communications Authorizations," the FCC says:

(A) A FM broadcast licensee or permittee may apply for a Subsidiary Communications Authorization (SCA) to provide limited types of subsidiary services on a multiplex basis. Permissible uses must fall within one or both of the following categories:

(1) Transmission of programs which are of a broadcast nature, but which are of interest primarily to limited segments of the public wishing to subscribe thereto. Illustrative services include: background music; storecasting; detailed weather forecasting; special time signals; and other material of a broadcast nature expressly designed and intended for business, professional, educational, religious, trade, labor, agricultural or other groups engaged in any lawful activity.

(2) Transmission of signals which are directly related to the operation of FM broadcast stations; for example: relaying of broadcast material to other FM and standard broadcast stations; remote cueing and order circuits; remote control telemetering functions associated with authorized STL [studio transmitter link] operation, and similar uses.

Obviously, most of the examples I have mentioned have fallen into group (1), programs of a broadcast nature with specific appeal. There are so many services that SCA can provide that one's imagination is virtually the only limit as to what can be done with this medium. It's a pity, therefore, that many stations with SCA either do not make use of their SCA authorization, or merely use it for remote meter reading and telemetry, falling under category (2). In addition to telemetry, these stations could use their SCA generators for creative and lucrative programming. Also in the second group are stations that engage in "program relay." I have never been satisfied with that general term, which the FCC uses, but try to find out what programs specifically the stations will be relaying—ABC networks, NBC radio, Mutual, or occasional live sportscasts. Some stations use SCA only as an emergency STL back-up, relaying the

programs of an affiliated AM station from its studio to the AM transmitter when something like a storm knocks out the regular microwave or telephone line. Otherwise, their SCA channels are blank. If SCA receivers got into the hands of the general public it could create some problems for companies like ABC, for everybody then could hear their "closed circuits" and other materials sent over the network but not intended for broadcasting. Stations, too, might be concerned, lest the public find being able to tune in the pure network more interesting than listening to their local programming. However, I feel that any fragmentation of the audience that might result would be minor, especially when compared to the other attractions that are available via the electromagnetic media, and that the basic viability of the American broadcasting structure would not be undermined.

Third parties can get into the SCA act. If you would like to get into the broadcasting business, but do not have the funds to buy out an existing station or start a new station, consider approaching the manager of a local station not presently using its SCA with ideas as to how you could provide a lucrative and meritorious service in exchange for a nominal monthly rental to the FM station. Specific SCA services have to be listed with the Commission, and if a station wishes to change its service from, say, background music to ABC network program relay, it has to get FCC approval. To me, this seems inconsistent, because the FCC does not require advance approval when a station changes the nature of its main-channel programming, which is broadcasting, but does for changes in SCA programming, which the FCC does not consider to be "broadcasting." As such, you'd expect the FCC to be less restrictive in administering SCAs, but it is not in this instance. SCA operators, however, are free of such rules as the fairness doctrine and equal time requirement and, obviously, the profanity taboos.

To the DXer, SCA listening is interesting in itself, and integral to FM. Knowing what a given station on a given channel has on its subcarrier can help distinguish that station from another station, which either lacks an SCA, or has different material on its subcarrier. If you are like me and you've heard all the stations in your area, a new area of discovery awaits you when you first tune in SCA-FM. Not only are the programs different, but the reception characteristics differ. You'll find SCA DX more difficult than main-channel DX, and you'll find some stations run their SCA carriers at odd hours, resembling the problems of DXing main-channel FM some 20 years ago, when even major market stations were often on the air very short schedules, such as 3 to 9 p. m. daily; or like DXing ten-watt educational stations today, when many such stations operate limited hours during the school year or not at all during vacations. Even trying to find out information from SCA stations can be far from routine. Not everybody employed at the stations even knows that an SCA exists and what it is used for—and if they know they may be paranoid about it and not tell you. I am sure some stations have failed to verify a reception report or to order an FM Atlas from me when I have pressed them for specific information about their SCAs.

Being able to tune in SCA at home, on a portable, or on a car radio, is the absolute ultimate in elitism in radio listening, I maintain. You are in a class unlike 99.99% of your neighbors, because SCA receivers are that difficult to come by, or to connect and operate properly. Yet, once installed, the reception and even the fidelity are amazingly good—probably better than you'd expect, even when using a cheap adapter. SCA's audio channel can give a response up to 7,000 Hz, which is better than what most AM radio stations send out, and within its primary service area is entirely static-free, as is FM itself. Should Dolby-type noise-processing techniques be applied to SCA, chances are its performance would be improved even more. Considering that SCA is sent out with only 10 percent of the energy that the main station's FM carrier uses, reception of SCA under most conditions is surprisingly good and uncritical, especially when an SCA adapter is used with the proper receiver or radio.

My next article will concern the various SCA adapters and receivers on the market, and their installation in a home receiver, in a portable, and in a car radio.

71, *Bruce*

EASTERN TV-DX

Bill Thompson
1907 Seneca Street
Buffalo, NY 14210

June 1977

Deadline: 10th

Various areas reporting to this column enjoyed very good tropo conditions in April. Specifically, areas from North Carolina to Maine along the Eastern Seaboard saw very much improved conditions around April 20th. The evening of the 20th was especially good, producing some 400 mile UHF loggings over coastal paths. For instance, Larry Vogt in northern Virginia caught UHF from Boston; Tom Yingling in Baltimore saw WNEB-26 from Maine; and northern New Jersey DXer Jim Alexander reports lowband tropo from over 350 miles away through a local--which shows how intense coastal openings can get! In the Great Lakes regions, there were few openings, and mostly nothing special. Moving further south, things get very interesting again regarding tropo in April. Ken Simon reports some UHF in the 500-600 mile range from southern Florida on April 16th. That's the kind of Spring tropo that would be very welcome farther north! We have a few reports of early May B-skip activity; as of mid-May, your editor has noted several fair B openings, but nothing out of the ordinary. Hopefully, we'll have much more news about the skip season for you next month!

Tony Ward, VE3IAT RR4 Guelph, Ontario N1H 6J1 (519)824-1918

"Took down my Delhi dish to put up my cubical quad for ham radio. Now--having impatiently served my 1 year apprenticeship which is mandatory here--I've got my Advanced license with full phone privileges on all bands. Spend my time country hunting--125 to date. Have little present interest in TV-EH DX but will no doubt continue a bit. Using a simple corner reflector with CMA-Ub on UHF!! (WJWJ-54 still OK!) Would sell my 7' dish...it's in perfect condition ...would also sell Delhi 1047--in slightly more 'used' condition, as we head home to New Zealand for an extended vacation in Fall & it would have to be stored. May not return to Guelph. Also have BTX!!! converter & Jerrold 13 ch pushbutton converter I could sell if anyone wants them! No DX off the ham bands this winter--lousy conditions anyway!! Best 73s."

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

March		29 Tr	1700 WJCL-22 GA	16 Tr	1130 WJWJ-16 SC
2 Es	1815 unID-2 "o/WPBT"		1718 ICR6-9 CUBA		1942 WRJA-27 SC
11 Tr	1515 ICR6-9		1758 ICR2-13 CUBA		1945 WAWW-14 GA
	1700 Cuban CGI on 2	30	1300 WJCL-22 GA		2030 WERA-14 SC
14	0624 W69AA-69 FL		1952 WJWJ-16 SC		WCJB-20 FL
	0900 WJCL-22 FL				unID-33 CGI
15	1315 WJWJ-16 SC		2000 ICR6-9 CUBA		2100 WFOK-19 SC
	WJCL-22 GA		ICR2-13 CUBA		2114 WATU-26 GA
	both 5555	2	0630 WJCL-22 GA		2117 WOKK-35 SC
17	2100 WJCL-22 GA		1652 ICR2-13 CUBA		2230 WOLO-25 SC
18	0900 WJCL-22 GA	3	0800 WJCL-22 GA	17	0700 WJCL-22 GA
19	1808 W69AA-69 FL		0820 WCJB-20 FL		0741 WLCY-10 FL
	2000 ICR6-9 CUBA		1705 WJWJ-16 SC		0806 WBCA-27 FL
	ICR6-8 CUBA		WJCL-22 GA		0824 WCJB-20 FL
	2030 ICR2-13 CUBA	4	0552 WCWB-41 GA		unID-26 CCI
	"At this point Cubans		0625 WJCL-22 GA		2139 WERA-14 SC
	seem to fit patterns		0630 WJWJ-16 SC		WFOK-19 SC
	in list of July '74,		WRJA-27 SC		WCJB-20 FL
	but saw ID that said	5	1957 WCJB-20 FL		2154 WRK-35 SC
	'TV Cubana'...IDs for	6 Es	1930 unIDs 2-4 west		unID-33 CGI
	nets are made in audio		2147 unID-2		2300 WJCL-22 GA
	w/same TV Cubana vis-	8 Tr	1805 WJCL-22 GA		WCJB-20 FL
	ual ID used by ICR2	9	0653 WJCL-22 GA	18	0628 WJCL-22 GA
	& ICR6..."		0700 WOLO-25 SC		0643 WJWJ-16 SC
20	1830 ICR6-8 CUBA		0750 W69AA-69 FL		0650 WBCA-27 FL
	ICR6-9 CUBA		1958 WCJB-20 FL	23 Es?	1930 "20 CGI WPBT"
	ICR2-13 CUBA		2030 WBCA-27 FL	24 Es	1649 YVVA-2
21	1536 ICR6-9 CUBA	15	1957 WJCL-22 GA		VENBZURHLA
	1629 ICR2-13 CUBA	16	0624 WJCL-22 GA		1858 WMAH-2 MD
	"using old ICR TP"		0645 WTCG-17 GA	25 Tr	0600 W69AA-69 FL
26	1454 WJCL-22 GA		WHAB-46 GA	Es	1808 unID 2,3 SS
27	0120 WJCL-22 GA		0728 WYEA-38 GA	26 Tr	0605 W69AA-69 FL
	0550 WYEA-38 GA		0740 WBCA-27 FL	Es?	1600 "hvy CGI WPBT"
	0600 WTCG-17 GA		0745 unID-30 fill CB	27 Tr	0600 W69AA-69 FL
	0645 WHAB-46 GA		0755 WATU-26 GA	29 Es	1926 YNTC-2
29	1400 WJWJ-16 SC		0759 WCJB-20 FL		NICARAGUA

Not listed: many relogs of WJKS-17 FL.

John F. Combs 816 W. Harvard Orlando, Florida 32804 (EST/EDT)

<u>March</u>		3 Tr 2300	WCTV-6 FL	29 Tr 1000	WABW-14 GA 244
20 Tr 0220	WCTV-6? FL		WDTB-13 FL		WECA-27 FL 221
	WDTB-13 FL 263	8	0900 WDTB-13 FL	30	0800 "14 & 27 agn"
21	1900 WCTV-6 FL 226	17	0825 WCTV-6 FL	<u>May</u>	
	WFSU-11 FL 230		WJHG-7 FL	3 Es 1015	unID-2 CCI
	WDTB-13 FL		WDTB-13 FL	Tr 1015	WABW-14? GA T
	WABW-14 GA 244		WDEH-18 AL 301	4	0905 WRBT-36 NC 465
	WECA-27 FL 221		WECA-27 FL		WRLE-35 SC 385
			WITV-7? SC		WCCB-18 NC 465

<u>April</u>		2230	WNOK-19 SC 392	0920	WNOK-19 SC 392
3 Tr 0025	WCTV-6 FL		WOLO-25 SC 380	Es 0920	unIDs 2,3 CCI
	WJHG-7 FL 274		WECA-27 FL 221	Tr 0925	WRJA-27? FL T
	WDTB-13 FL	29	0000		

"Loggings until April 29 all made on Archer V-150 VHF antenna...finally got time to go up on roof and check antenna set-up. Pre-amp fine (not malfunctioning as previously suspected), but the problem rather was VHF & UHF antennas too close...UHF was useless (TV & FM signals all over the band)...Removed VHF antenna, UHF now back to normal. Presently only using bunny ears for VHF...In about 1-2 months, my family will be moving to the other side of town from where we are now, about 7 miles farther east. Unfortunately, that puts me 7 miles closer to Bithlo tower with locals 6, 9 and some FMs...If anyone needs photos of my locals or semi-locals, I will be glad to trade some...My new address will probably appear next month. God bless and 73s..."

Larry Vogt, N4VA 7724 Harwood Place Springfield, Virginia 22152 (EST)

"Installed 7' dish with AC4990 at 25' on 4/13. Using small VHF/UHF before that (and still on VHF). DXing time has been very limited, but had a good night on 4/20 with 10 new stations logged."

<u>January</u>		20 Tr 2108	WEDH-24 CT	20 Tr 2317	WHYN-40 MA
29 Es 1455	KARD-3 KS		Hartford		Springfield
	1501 KTFV-2 MO		2122 W76AN-76 VA 134	2328	WGBX-44 MA
	1600 KETS-2 AR		Cobbs Creek(WCVW-57)		Boston
<u>April</u>			2122 W74AU-74 VA 134		"And 24 other stns
15 Tr 2000	WWPB-31 MD		Cobbs Creek(WCVB-23)		on UHF, including
	Hagerstown		2142 W42AC-42 VA 71		WLVI-56 MA, WHNB-30
20	2041 WNJB-58 NJ		Signal Knob(WVPT-51)		CT, WSEB-38 MA,
	New Brunswick		2232 WFMZ-69 PA		WEDW-49 CT, WXTV-41
	2042 WNJM-50 NJ		Allentown		and WNYC-31 NY.
	Montclair		2300 WBTB-68 NJ		All NJ UHFs seen."
			Newark		

"With the dish and preamp, W41AB Fork Mountain VA @ 78 miles is now a semi-local with VAFI3455. I was surprised on 4/20 to get W74AU and W76AN without seeing even the slightest signal from W73AS or W75AP Oak Grove VA, or W79AX/W81AL Heathsville VA. All six of these translators are 1177 watts ERP at 300'. Oak Grove and Heathsville are much closer and in the same general direction. Planning to raise the dish to 40' and change the lead in from 8228 to CAC-11. Also will install a large VHF antenna (probably Winegard CH5200). Receiver is Sony KV1920D. Will report again when some new ones come through. 73 and best of DX to all."

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

<u>April</u>		20 Tr 2215	WEDN-53 CT	20 Tr 2235	WCBC-19 MA
11 Tr 2030	WFMZ-69 PA		Norwich 260		Adams 310
	Allentown 120		WEDW-49 CT 250	2300	WATR-20 CT
20	2000 WLIW-21 NY		WCVW-57 VA		Waterbury 260
	Garden City 200		WSEB-36 RI	2310	WRLP-22 MA
	2015 WRDU-28 NC		Providence		Springfield 290
	2030 WUNK-25 NC		unID-41 CCI WXTV		WRLP-32 MA
	2040 WYAH-27 VA		WSMW-27 MA		Greenfield 340
	WCVB-23 VA	2220	WGBX-44 MA		WHNB-30 CT 250
	WHRO-15 VA		Boston		WVIA-44 PA 200
	2100 WNYE-25 NY		WLVI-56 MA 360		WNBP-16 PA
	WNYC-31 NY		WGBY-57 MA		WDAU-22 PA
	2200 WBDH-24 CT		Springfield 290		Plus many others
	WEDY-65 CT	2230	WTEG-26 ME		closer, such as
	New Haven 240		Bidderford 450		most New Jersey U's

"I've got an AC-4990 on a Jerrold CYD-1430 Sharp Shooter as a temporary antenna until 5' dish is relocated on top of VHF antenna. I got some good UHF trop on April 20th with my first Maine on UHF. This was a good all around night with many new loggings on UHF and FM radio. Hope to have dish up by end of May--73s"

Randall B. Clark Rt. 5 Dutch Ridge Parkersburg, West Virginia 26101 (EST/EDT)

April	18 Tr 2345	WPMJ-21 OH	26 Tr 2150	WKMR-38 KY
6 Au 1545	"Weird type of 'dirty' Es or Au on chs 2-4"	WKRP-22 OH		WKLB-46 KY T
		WAKR-23 OH		WTVQ-62 OH T
Es 2000	"Super-intense Es opening from FL-CUBA area... Cuba on all chs 2-6; unID-5 SS baseball game"	WVUU-24 WV	27 0730	"As above"
		WVIZ-25 OH	T 28 2045	"As above"
		WKYT-27 KY	29 0855	"As above"
		WYTV-33 OH	May 3 Tr 1500	"All stns in from Ohio"
		"over WJUL"		WVIX-19 KY
		WOSU-34 OH		WKYT-27 KY
		WKMR-38 KY		WGTE-30 OH T
2205	Tale-Bebebe-3 CUBA T	WFBO-42 OH		unID-31 CCI
15 Tr 0915	W31AA-31 OH	WDBO-45 OH		WKHA-35 KY T
	WKYT-27 KY	WPGH-53 PA		WKMR-38 KY
	WKMR-38 KY T	WUAB-43 OH		WDEB-41 KY T
17 0235	WBAL-11 MD	19 0800	WTVQ-62 KY	WDEB-41 KY T
18 2345	WOFB-16 OH	24 Es 1934	ICB-2 CUBA	"CCI on 42,44"
	WJAN-17 OH	26 Tr 2150	WZTV-17 KY	T WKLB-46 KY
	WLAN-18 KY		WJFR-24 PA	WCBT-48 OH T
	"over WHIZ"		W31AA-31 OH	WBSU-57 OH T
				WTVQ-62 KY T

"It sure seems like tropo was in extreme abundance for April...I've recently heard that there was a rare "North to South" DX tropo duct that brought in 2 Meter (144-148 MHz) signals directly from Florida to Canada. How's that for DX?! Es not getting off to a good start as there were only 2 minor openings. Let's hope things shape up better at your QTH! Best of DX."

Bob Jant 1835 Fruit Street Huntington, Indiana 46750 (EST)

April	23 Tr 2030	Peoria U's 220	24 Tr 0740	CIC059-59 OH
15 Tr 0645	WJET-24 PA 300	2050	WIC0-20 IL 235	CHLFT3-48 OH
	0647 WSRB-35 PA 300	2100	KIML-30 MO 305	0745 KIML-30 MO 305
	WUAB-43 OH 200	2200	WKZZ-23 KY 240	27 0630
	WAKR-23 OH	2205	Lexington & Louisville U's	Chatham U's 200
16 0655	CKGN29-29 OH		Louisville U's	Oil Springs U's
	CKO03-42 OH	2215	WFBO-42 OH 200	29 0645
	CHLFT3-48 OH	24 0715	"Louisville 41 & 32 strong!"	Lexington & Louisville U's
0735	CIC059-59 OH		0728	WCKN-27 OH 250
	CHLFT2-40 OH		0730	Erie U's 300
	CIC028-28 OH			WUAB-43 OH 200
				WAKR-23 OH 200

"Since P-7 parabolic at 45'. No VHF antenna up presently. I may put up my low band Yagi temporarily on a separate mast for Es."

William J. Draab Ellis St. R.R. #2 Keweenaw, Wisconsin 54216 (CST/CDT)

"Not too much DX during the past month. The weather hasn't settled down yet; one day in the 80's and the next day in the 40's. Today it got up to 48 with a frigid East wind off Lake Michigan. Saw a trace of Es on two occasions but no IDs."

April	13 Tr 2136	WHRD-17 NY 445	30 Tr 2235	KIML-30 MO 432
7 Tr 1843	KIML-30 MO 432	15 1933	WJBT-24 PA 405	4 Es 2004
9 0623	WPHI-10 IN 348		WSRB-35 PA 405	2028 unID-3
	0630 WLKY-32 KY 437		WQLB-54 PA 405	7 Tr 0825
	0642 WFTU-30 IN 376	20 1925	WUTV-29 NY 445	WJBT-24 PA 405
	0651 WBBT-25 IN 420		WUAB-43 OH 340	WSRB-35 PA 405
	1831 WML-33 KY 498	Es 2120	unID-4 south	2002
10 1941	KIML-30 MO 432	23 Tr 0611	CKGN22-22 OH	WFTU-30 IN 336
13 1904	WCKN-27 OH 420			2052
	WOSU-34 OH 395			WBBT-25 IN 420
	WML-33 WV 498			WMB-40 IN 336
1929	CICA-19 OH 410	0616	CIC0-18 OH 328	Es 2058
	CHLFT 25 OH 410	0640	CHLFT4-44 OH T	WBDU-3 FL T
2044	CITY-79 OH 410	28 2345	WUSI-16 IL 402	2107
	CIC0-28 OH 345	29 0745	WFIL-14 IN 420	unID-2 ø offset
	CHLFT176 OH 345		WBBT-25 IN 420	"Boston vs. Montreal
2109	CHLFT240 OH 328		WMB-40 IN 336	hockey"
	CIC0-18 OH 328		WLKY-32 KY 437	8 Tr 0628
	WUTV-29 NY 445		WBAK-38 IN 348	0628
				WKYT-27 KY 473
				WTVQ-62 KY 473

"Log still at: 661" (Your unID-2 at 2107 on 5-7 was probably WPBT-2 Miami. I noted them carrying NHL Stanley Cup playoffs--unusual for a Public TV sta! -bt)

Donald B. Ruland 4448 68th Place Kenosha, Wisconsin 53140 (CST/CDT)
 March 22 Tr 0600 WWUP-10 MI 330 3 Tr 2045 WNMU-13 MI 280
 8 Tr 0655 WFIE-14 IN 320 26 0630 WKIX-19 OH 300 2100 W55AB-55 MI 250
 WBHT-25 IN 320 7 0730 WWUP-10 MI 330
 WVUT-22 IN 270 0655 WCET-48 OH 300 2200 KDNL-30 MO 300
 "First DX since 12-19-76" 2130 W55AB-55 MI 250 WCET-48 OH 300
 April May "Log remains at 438"
 9 Tr 0600 WLKY-32 KY 330 2 Tr 2030 WUAB-43 OH 330

Jim Alexander 4 Brook Court Parsippany, New Jersey 07054 (EST/EDT)
 December 20 Tr 2000 WHRO-15 VA 280 20 Tr 2250 WLVI-56 MA
 21 Es 1730 WRBL-3 GA WYAH-27 VA 295 Boston 190
 January Salisbury MD U's 2340 WHP-21 PA
 3 Tr 2000 WCDC-19 MA 2100 WSHK-38 MA Harrisburg 135
 Adams Boston 190 21 0005 WLYH-15 PA
 April WSMW-27 MA Lancaster 130
 19 Tr 2000 WCPB-28 MD WHCT-18 CT 0027 WWLP-22 MA
 WYAH-27 VA 295 Hartford 105 Springfield
 2200 WHRO-15 VA 280 2130 "Ø CGI on WABC 0040 W5BA-43 PA
 from WITN-7 NC" York 135
 20 0720 WDBT-12 VA 275 WTEV-6 MA 0125 WBAL-11 MD
 WDCG-20 DC WJAR-10 RI Baltimore 155
 WCVB-23 VA 275 WPERI-12 RI 0155 WTPA-27 PA 135
 WBFF-45 MD WCVB-23 VA 275 0550 WTOP-9 DC
 Baltimore 155 "audio only" Washington 175
 0740 WTVR-6 VA 2215 WUNK-25 NC 0553 WTEV-6 MA
 Richmond 275 Greenville 390 0555 WTTG-5 DC
 "just under WPVI-6" "longest tropo so far from NJ" Washington 195
 0800 WKEX-8 VA 275 2235 WJZ-13 MD "under WNEW-5"
 2000 WUND-2 NC Columbia 355 WGAN-8 PA Lancaster 115
 "audio over WCBS" 2250 WGBX-44 MA 0602 WWBT-12 VA 275
 2000 WAVY-10 VA Boston 190 May
 Norfolk 295 7 Es ??? WEAR-3 FL

"Equipment: 1971 Zenith B/W rx, 8-bay UHF @ 30' w/AC-4990 preamp, recently installed GM Quantum 1114 @ 25'. Best days for DX were April 19-21, which had the first 200+ mile tropo in 7 months. The opening was also the first good tropo seen in nearly a year at New Jersey. It peaked here on the night of the 20th, the most interesting catch being WUND-2. Didn't expect the first NC logging to be made through a local!"

Richard Clark Santo Cerro La Vega DOMINICAN REPUBLIC

"Hi everyone! Well, it has been quite a while since I reported my DX, but after 2 moves in this country, first in Puerto Plata, I'm now living in Santo Cerro with two local TV stations only ½ mile from me: HIT-2, HIN-11!!! My antennas now are 30' high, but this summer they're going up to 1000'!!! That's right! I am building a house on top of a mountain overlooking everything. I know DX is very good there and I should be able to get Venezuela on tropo! Remember, I am only 450 miles from Venezuela and 650 miles from Florida. Now for my report; all tropo and these stations are daily: WKAQ-2 San Juan PR (350 miles), WIPM-3 Mayaguez PR (280), HISS-4 Santo Domingo (RTVD)(79mi), WAPA-4 San Juan PR (350), HISS-5 Alto Bandera (RTVD)(35 miles), WORA-5 Mayaguez PR (Rikavisión)(250), WIPR-6 San Juan PR (350), WRIK-7 Ponce PR (Rikavisión)(300) HIN-7 Santo Domingo (new--Rahintel)(79mi), WSUR-9 Ponce PR (300), HWP-11 Santo Domingo (Telesistema Dominicana)(79 mi), HISS-12 La Romania (RTVD)(120mi) WOLE-12 Aquadilla PR (240), HIND-13 Santo Domingo (Tele-Inde)(79mi). Also, I get Rahintel on 168.7 MHz audio only from studio in Santo Domingo. They run feed programs and commercials when the TV stations are not on the air...I guess their power is 1 kw since it is as strong as all the FM I get from Santo Domingo. (The DX possibilities from your new QTH are fascinating! Hope you'll be able to report often--you should be able to see a lot of DX from both North and South America, plus Central American skip. Wow! -bt)

Summer has arrived! And so has our peak DX season. Things often get so hectic that TV and FM DXers put things off until the last minute. If you're seeing or hearing DX, don't forget to send in a report. We'd like to hear from you today! Also, now that the season is here, it will soon be time for the annual WTFDA Convention. Plan to attend your club's convention in Portland on August 5th, 6th, and 7th. No matter where you live, if you're a TV or FM DXer, it's worth the effort to get there. This year, don't just settle for reading about it--be there. You're in for a great time whether you're a new or veteran DXer!

WESTERN TV-DX

Doug Everitt
1710 W Maine
Enid OK 73701
(405) 233-4890
Deadline: 10th

A few spurts of tropo here and there; Es levels up, but not up to par; Au noted in Northern areas. Conditions seem to be improving bit by bit in the WTV zone...

John Anderson, Box 186, Lowe Farm MB ROG 1EO (April)

Delhi 1057 at 64'; CM 10-element horizontal lo-band yagi at 20'; Panasonic 12" b&w

03 Au 2000-2100 thru 4	08 tr 1901 KQSD 11 SD 300	09 tr 2115 KFME 13 snowfree
06 Au 2045-2145 thru 4	09 Au 0100 thru 3	(once in a blue moon...)
07 Au 1745-1830 MUF 11	tr 0830 KTSD 10 SD 370	2300 WTCN 11 MN 360
tr 1900 KWCM 10 MN 300	(KTSD snowfree)	28 Es 2100-2205 Mex. MUF 4
08 tr 1500 WIRT 13 MN 242	0900 KABY 9 SD 275	30 tr 0900 KXMD 11 ND 300
WDIO 10 MN 300	KDSD 16 SD 275	
KMNF 12 MN 200	On rabbit ears, of all things!	Good DX to all,
WTCN? 11 MN 360	Western North Dakota also up.	John

Steven C. Wiseblood, 707 Loma Way, Santa Maria CA 93454 (10 Apr - 07 May)

Antennas: ACA-525 VHF at 25'; ACA UHF at 30'

23 Es 1525 MUF 5	23 Es 1808 KENS 5 TX	28 Es 1846 MUF 4 Mexico
1632 KDFW 4 TX 1346	1830 MUF 100.3 to TX	29 Es 1411-1430 MUF 3
1659 KMID 2 TX 1066	1955 KMOL 4 TX	1544 KFDX? 3 TX
1700 KACB? 3 TX	2014 KMID 2 TX 1066	1600 KMDX 2 TX 1066
1755 KDBC 4 TX 829	24 Es 1305 CBUT 2 BC 1000	KENW 3 NM

Save for the MUF being 100.3 on April 23rd, this was a fairly poor start for Es so far. Absolutely nothing seen April 30th to May 7th. However, as this is being written at 1117 PDT on May 7th, the MUF is slowly but surely pushing its way through 40 MHz, and is approaching 50 MHz to see Arizona. If anything is seen on TV, it will be in my next report. Let's hope the Es season picks up by next month, OK? ('I'll second that motion ..de) It's raining outside today; well, that's all folks! 73s = Steve

Pat Dyer, 5315 Silvertip Drive, San Antonio TX 78228 (CST) (06 Apr - 07 May)

1971 & 1976 9-inch b&w Penncrests; Archer V-100 & 8-bay bowtie UHF array at 20' w/rotor

06 Es 1130 WJXT? 4 FL 1015	23 Es 1715 XEWH? 6 SON 765	29 tr 0357 WLCY 10 FL 980
WEDU? 3 FL 985	1730 XHBC? 3 BCN 1010	0421 WJTV 12 MS 525 tp
1159 WESH 2 FL 1055	XHAQ? 5 BCN 1010	0425 WAFB 9 LA 450
1225 MUF 95.5 MHz	1825 XETV 6 BCN 1100	KLFY 10 LA 395
1310 WCBDF? 2 SC 1120	2024 MUF 107.1 MHz	0920 WBRZ? 2 LA 450
1425 WSAV? 3 GA 1050	2250 apx f/outs	Es 1925-2000 YSR? 2 E1 S
1429 WDIQ 2 AL 730	26 tr 2352 KFDM 6 TX 275	2030-35 YSR? 2 E1 S
1445 f/outs	2359 KPCL 7 LA 325	30 Es 1629 WESH 2 FL 1055
1745 KTVX? 4 UT 1080	28 Es 0900-50 MUF 3	1702 WJXT? 4 FL 1015
1757 KUTV 2 UT 1080	1045 KPHO? 5 AZ 835	1758 WEDU? 3 FL 985
1905 KID? 3 ID 1215	KVOA? 4 AZ 750	1808 WPBT? 2 FL 1150
1942 KORK? 3 NV 1050	(vy weird, as nil on 2,3)	1810 WTVJ? 4 FL 1150
2015 f/outs	1055 KUAT? 6 AZ 750	WCIX? 6 FL 1150
tr 2215 WRBT? 33 LA 450	1108 KTVK? 3 AZ 835	1813 MUF 89.7 MHz
WLPB? 27 LA 450	1129 KOAI 2 AZ 855	1820 f/outs
KPLC? 7 LA 325	1155 KVVU? 5 NV 1040	02 tr 0929 KRCB 11 TX 340
WAFB? 9 LA 450	1159 KORK 3 NV 1050	0959 KLBK 13 TX 340
07 tr 0100 WGNO? 26 LA 510	1220 MUF 98.7 MHz	KMCC 28 TX 340
2345 WGNO? 26 LA 510	1330 f/outs	2120 KOSA 7 TX 280
KPLC? 7 LA 325	1525 KUTV? 2 UT 1080	03 tr 0940 KLBK? 13 TX 340
WRBT? 33 LA 450	1659 KNOP 2 NE 815	KMCC? 28 TX 340
08 Es 1220-30 MUF 2	1703 KDIX 2 ND 1225	0959 KENW 3 NM 430
10 tr 2315 WGNO? 26 LA 510	1729 KUSD 2 SD 920	RSWS 8 NM 440
11 Es 1915 MUF 2	1750 WCCO? 4 MN 1110	KRCB 11 TX 340
13 Es 1940-2030 MUF 4	1759 KTCA 2 MN 1110	1040 KAMR? 4 TX 440
20 Es 1105-1110 MUF 2 nw	1932 KWGN? 2 CO 810	1328 KMID 2 TX 275
tr 2350 KORO 28 TX 135	2000 f/outs	Es 1807-15 KWGN? 2 CO
Corpus Christi; SS; new on air	2110-20 KNXT? 2 CA	KTWO? 2 WY 1015
23 Es 1500 YSR? 2 E1 S 1200	tr 2330 KALB? 5 LA 385	1935 KUTV? 2 UT 1080
YSU? 4 E1 S 1200	WGNO? 26 LA 510	1945 KTVX? 4 UT 1080
1525 XHTV? 4 DF 690	WBRZ? 2 LA 450	1950 KID? 3 ID 1215
1545 XHGC? 5 DF 690	2359 WRBT 33 LA 450	2110 KLINE? 3 NE 785
1635 TGV? 3 Guat 1120	29 tr 0037 KLFY 10 LA 395	2120 f/outs
KVOA? 4 AZ 750	0042 WFLA 8 FL 985 tp	04 Es 1910-2005 MUF 4
1705 KNXT? 2 CA 1190	0200 WAPT? 16 MS 525	05 tr 0043 KATV 7 AR 515
KNBC? 4 CA 1190	0342 KNOE 8 LA 440 tp	0055 KSLA 12 LA 350 tp
KTLA? 5 CA 1190	ms 0350:50 WAGA 5 GA 880	Es 1550-55 Cuba 2 tp

05 Es 1945 MUF 2 briefly
 06 Es 1700 WJBK? 2 MI 1225
 WWJ? 4 MI 1225
 07 Es 1715 f/out
 1802 MUF 2 briefly
 07 Es 0859 WDIQ 2 AL 730
 0920 WSAV? 3 GA 1050
 0920 f/out

Fair to good Es so far, with 23 April best so far in season. Duct of trop on 28-29 Apr was very narrow, as nil from other FLs. Now have separate FM antenna, so may get more ch.6 etc. IDs when FM is open some. 73 = Pat = WA5IYX

Buck Battin, 4305 Pitt, Duluth MN 55804 (CST/CDT) (April)

01 tr 1930 KRIN 32 IA 300	09 tr 1017 WCEE 23 IL 350	20 tr 1858 WTVO 17 IL 350
02 tr 1530 KRIN 32 IA 300	1207 WTVO 17 IL 350	1935 KDUB 40 IA 310
03 tr 1606 KRIN 32 IA 300	2030 KRIN 32 IA 300	21 tr 0615 CHFD 4 ON 175
04 tr 0658 KRIN 32 IA 300	10 tr 1155 KRIN 32 IA 300	Usually can't see this one
1235 KDUB 40 IA 310	11 tr 0710 KTIN 21 IA 315	because of WCCO off the back
05 tr 1910 KRIN 32 IA 300	1917 Madison Us 295	and the local on 3.
06 tr 1840 KRIN 32 IA 300	1918 KRIN 32 IA 300	24 tr 1900 KRIN 32 IA 300
1902 KDUB 40 IA 310	1935 KDUB 40 IA 310	WKOW 27 WI 295
07 tr 1850 WPNE 38 WI 255	12 tr 0720 Madison Us 295	25 tr 0725 Madison Us 295
1905 KRIN 32 IA 300	1915 KTIN 21 IA 315	KRIN 32 IA 300
2328 WKOW 27 WI 295	KRIN 32 IA 300	26 tr 0810 Madison Us 295
2333 WMTV 15 WI 295	13 tr 0720 KRIN 32 IA 300	2200 WCFC 38 IL 405
08 tr 0700 KRIN 32 IA 300	2012 KTCI 17 MN 140	2202 WFLD 32 IL 405
0706 WKOW 27 WI 295	14 tr 0712 Madison Us 295	Chicago stations there for
0722 WPNE 38 WI 255	KRIN 32 IA 300	just a few seconds, then
1859 KRIN 32 IA 300	0800 KTIN 21 IA 315	gone. No other DX activity
1902 KTIN 21 IA 315	1950 WCEE 23 IL 350	present. (AS, Buck? ..de)
1948 KDUB 40 IA 310	15 tr 0720 Madison Us 295	27 tr 0720 KRIN 32 IA 300
1952 WHA 21 WI 295	KTIN 21 IA 315	0730 KTIN 21 IA 315
2023 WGTU 29 MI 350	KRIN 32 IA 300	28 tr 0630 WNDU 16 IN 470
2057 WTVO 17 IL 350	18 tr 0720 WKOW 27 WI 295	WMTV 15 WI 295
2158 WCEE 23 IL 350	KRIN 32 IA 300	0715 WKOW 27 WI 295
2246 WVTV 18 WI 355	19 Au 0625 2 thru 6	0737 WGVC 35 MI 425
2254 WMTV 36 WI 335	tr 0630 WBAY 2 WI 255	0740 WEYI 25 MI 475
2311 WCIU 26 IL 405	WFRV 5 WI 255	0744 WUHQ 41 MI 375
09 tr 0750 WMTV 15 WI 295	WLUK 11 WI 255	29 tr 0630 KGLO 3 IA 260
WKOW 27 WI 295	0635 WLUC 6 MI 225	(I'll have to omit KRIN and
0805 WGTU 29 MI 350	20 tr 1858 WCEE 23 IL 350	others next time, Buck ..de)

The new UHF system works great. The Finco P-7 seems to be slightly better than the Jerrold JUP-4; however, the JUP-4 is probably an underrated antenna. I had to think about it a while before I gave the edge to the P-7. The big difference is the CMA-Ub. Before I installed the preamp, I would get an occasional glimpse of WPNE-38 Green Bay, at 255mi., and that was the best I could do. But with the CMA-Ub, I'm now out to about 300 miles during normal reception conditions. (We'll have to wait & see if that's year-round ..de) With just the slightest bit of help from conditions, weak signals start fading in and out in the 350mi. range. Unfortunately, with the exception of some early morning stuff on the 28th, that's about all I've seen; normal or slightly better than normal conditions. The weather has warmed up, stationary fronts have settled over the area, fog has set in for a few days at a time, and still no decent tropo openings. Another equipment note: Since this is the first time I've used 75-ohm transmission line on UHF, I did some experimenting with different baluns. My CMA-Ub has a 300-ohm input, so the only balun in the system is at the set. I tried a Jerrold, Winegard, and Radio Shack balun. The Radio Shack balun clearly allowed more UHF signal to pass through than the other two. The Jerrold appeared to have the most loss on UHF. Some years ago, I tried the same thing on lo-band using just a Jerrold & Radio Shack balun, and discovered exactly the opposite. On weak lo-band signals, I had better results with the Jerrold balun. Speaking of lo-band; after having more than a month to evaluate my new Winegard K-10-26 yagi, I'd say there's no noticeable difference between it and the Jerrold I had been using. If DXers in the Southern part of the country would like to send me some of their tropo, I'll take it! Meanwhile, here's wishing 'hot clouds' to all as the Es season begins again. Buck

Robert J. Williams, 251 6th Avenue East, Twin Falls ID 83301 (July 1976)

29 Es 1300 KMOL 4 TX	29 Es 1443 KCKT 2 KS	29 Es 1534 KARD 3 KS
1319 XHCR 2 TAMS	1449 KENW 3 NM	1647 KCSA 2 AT
1335 KACB 3 TX	WOI 5 IA	1852 WKZO 3 MI
1358 KMID 2 TX	1529 KSTP 5 MN	1858 WJMN 3 MI
1430 KWAB 4 TX	1534 KHAS 5 NE	2000 KDAL 3 MN

Richard Noel Allen, Billings OK 74630 (CST) (April)

Equipment: Sony KV1212 color, 11-element VHF log & 44-element UHF log

05 Es 1917-1926 MUF 3 Mexico	11 tr 0545 KLTV 7 TX 495km	11 tr 0549 WBRZ 2 LA 990km
06 Es 1824 XEW 2 DF	0547 KDFW 4 TX 420km	KXAS 5 TX 420km

<u>11</u> tr 0556 KTBS 3 LA 555km	<u>23</u> Es 1800-1900 XEPE 2 TAMS	<u>23</u> Es 1939-2001 XET? 6 NL
<u>22</u> Es 1824-59 XEW 2 DF	1830-2200 XEW 2 DF	1959-2012 MUF 93.7
<u>23</u> Es 1800-1940 XEZ 3 QRO	1830-35 XHD 4 TAMS	

Doug Everitt, 1710 W Maine, Enid OK 73701 (CST/CDT) (12 Apr - 09 May)

Winegard K-10-26 lo-band yagi, K-10-713 hi-band yagi; Finco P-7 UHF dish; preamps

<u>13</u> Es 1935 XHIA? 2 COAH	<u>05</u> tr 0610 K68AU Sayre	<u>05</u> tr 0850 KALB 5 LA 490
<u>22</u> Es 1820 XEW? 2 DF	0635 KVUE 24 TX 420	KAIT 8 AR 410
<u>28</u> Es 1245 KTVN? 2 NV	KIVV 36 TX 420	KSLA 12 LA 370
1300 xltr? 2 NV?	KMTC 27 MO 270	0855 KLAA 14 LA 430
1320 KIEM 3 CA	0640 KHIN 36 IA 340	0900 WMAW 14 MS 620
1330 KOTI 2 OR	KTIN 21 IA 450	0920 WLPB 27 LA 570
KOBI 5 OR	0650 WIBW 13 snowfree	<u>06</u> Es 1801 WTWO? 2 IN
1340 KXLY? 4 WA	0720 KCBD 11 TX 280	1820 WCBD 2 SC
1345 KRON? 4 CA	KLBK 13 TX 280	<u>07</u> tr 1104 KLOE 10 KS 290
1359 KTVK 3 AZ	0730 KRBC 9 TX 290	1115 KMCC 28 TX 280
KVOA? 4 AZ	0735 KYTV 3 MO 270	Es 1510 WMAR? 2 MD
1405 KPHO 5 AZ	KOLR 10 MO 270	1540 WKTV? 2 NY
<u>29</u> tr 0623 KOLN 10 NE 300	0740 KCTV 8 TX 370	2245 WCBD 2 SC
0700 KTXS 12 TX 310	KMOM 9 TX 440	<u>08</u> tr 1100 KTXS 12 TX 310
<u>30</u> Es 1005 WTHS/WPBT? 2 FL	KTXS 12 TX 310	2140 KOZK & KMTC s/free
<u>03</u> tr 1145 KAMR 4 TX 230	0800 KMOM ruining KWTV	<u>09</u> tr 1120 KTXS 12 TX 310
KVII 7 TX 230	0805 WRBT 33 LA 570	Es 1756 WWAY 3 NC
KFDA 10 TX 230	0810 KTEJ 19 AR 410	1823 WFBC? 4 SC
1200 KCBD 11 TX 280	0815 KMID 2 TX 380	1845 WCBD 2 SC
KLBK 13 TX 280	WAPT 16 MS 530	1935 WUND 2 NC
1220 KGIN 11 NE 310	KDOC 26 TX 480	WBTW 3 NC
<u>05</u> tr 0600 KBMA 41 MO 260	0820 KHTV 39 TX 480	WUNC 4 NC
0610 KMCC 28 TX 280	0840 WMAV 18 MS 500	WRAL 5 NC
K66AQ Sayre OK	0845 WMAA 29 MS 530	WECT 6 NC

Not included in the above report are numerous relogs of stations seen between 15 and 100% of monitoring time by tropo or groundwave. The opening of May 5th was a surprise, with very good signal levels noted on both VHF & UHF. By 0800, KMOM was destroying my local KWTV entirely towards the SW, with ABC's 'Good Morning America' booming thru. KDOG was snowfree much of the period, beginning at 0820, as were several Vs from KS & MO. KALB was a total surprise at 0850, since lo-band hadn't looked that good up til then, but it made it thru KOCO alright. I'll be out of town most of the next reporting period, and with my luck, we'll have a duct into Florida while I'm gone... By the way, I'm counting KTIN as a new logging, although Cooper won't agree with this; comments welcome...

Es Date	Mar	20	21	22	23	24	Apr	(03 Au)	05	06	(06 Au)	(07 Au)	08	(09 Au)	11	13
# reporters	1	1	1	1	1	1	1	1	2	4	1	1	2	1	1	2
MUF at least	5	2	4	2	6	4	4	89.7	95.5	4	11	2	3	2	4	

(19 Au)	20	22	23	24	28	29	30	May	03	04	05	06	07	09	***Those interested in the future	
1	1	2	3	1	4	2	2	1	1	1	2	2	1	1	of the UHF Television band might	
6	2	2	107.1	2	98.7	3	89.7	4	4	2	4	4	88.9	take a look at the Editorial in		

the June issue of POPULAR ELECTRONICS. Mr.Salsberg discusses the possibility of invasion of the upper channels by Community Educational Radio Fixed Service (CERFS), which might pose a threat to UHF DXing as we know it. As far as I'm concerned, the FCC allocated those channels for TV Broadcast; now, why are they taking them back?? Any discussion on this subject should make interesting comment material... Television MS/Au Records on Built-In Aerials deadline has been extended to 20 June. If insufficient response is received, the project will be cancelled or postponed. Have a good summer, wherever you are...

73 & the Best for now,

Doug

THE "96 KICKS" FIX

Your editor is not exactly known for being fond of the notorious non-IDers (see list, Jan VUD), and the latest development in this nonsense is no exception: the spawning of a situation which DXers might call "The 96 Kicks DX Fix." Consider possibly having to distinguish between WXXK Pittsburgh, KXXY Oklahoma City and K1XX Watertown SD--all on 96.1 and all using the non-ID "96 Kicks." KXXK 95.7 Denver, KYXX 96.5 Seattle and KXGR 96.7 Grand Rapids MN are at it, too. And K1KK-FM 95.7 Houston, KYXY 96.5 San Diego, and KXTR 96.5 Kansas City are suspect on call letters alone, as KSNS 96.1 Lake Charles LA would be had it kept its former call letters--K1KS-FM! When will this idiocy end, you ask? Probably not until there are dozens of stations screaming "96 Kicks"--unless the FCC "kicks" them off the air! CWI

QSL CORNER

Thomas J. Vingling, jr.
221 Pinewood Road
Baltimore, MD 21222
Deadline: 10th

TV-QSL

ME WREG 26 Biddeford, % University of Maine, Alumni Hall, Orono, 04473. Letter from Ed Winchester, Dir of Eng for Maine Public Broadcasting Network. (Vingling)
MA WCDC 19 Adams, % WTEN-TV, 341 Northern Blvd, Albany, NY 12204. Letter and map from Gene Gildow, CE in 15 days. (Vingling)
WVLP 22 Springfield, P. O. Box 2210, 01101. Letter and map from Robert F, Donahue in 16 days. (Vingling)
ND WDAY 6 Fargo, P. O. Box 2466, 58102. Letter from Lance Lee, CE in 1 month. (Vingling)
NY WTEN 10 Albany, 341 Northern Blvd, 12204. Letter & map from Thomas V. Johnson, CE in 1 month. (Vingling)
ULIW 21 Garden City, Ellington Ave, West, 11530. Letter from Ben Linder, CE in 20 days. (Vingling)

FM-QSL

DC WPFW 89.3 Washington, 1030-15th St. N.W. Suite 552, 20005. Letter and information sheet of station from Sunny Pietrofess, CE in 2 weeks. (Vingling)
MI WQRS 105.1 Detroit, 1200 6th Ave, 48226. Letter & monthly schedule magazine with apology for late reply from John Inglehart, CE in 7 months! (Simon)
WRIF 101.1 Detroit, Broadcasting House, 48219. Written note on original report. "All correct" signed by Tom Bender, prog. dir. 2 weeks on second try. (Simon)
PA WSFM 99.3 Harrisburg, % WCMB-AM, Box 3433, 17105. QSL Card for WCMB-AM filled-in for WSFM in 1 month from W. L. Thompson. (Vingling)
WUSL 98.9 Philadelphia, 440 Domino Lane, 19128. Letter & card from J. Alan Handley, CE in 9 days. (Vingling)
WIVD 99.1 Ebensburg, P. O. Box 787, Johnstown, 15907. Nice long letter from David McDermott, Operations Mgr. in 2 weeks tells me about what happened when the station was hit with a bolt of lightning, and he was at the master control board while running his show. (Vingling)
VA WSLO 99.1 Roanoke, P. O. Box 6002, 24017. Note on back of xeroxed map. "Accurate Reception Verified" from John P. Love, CE in 2 1/2 weeks. (Vingling)

Only one reporter which was Ken Simon of West Palm Beach, FL and some of my own qsl's that make this QSL-Corner look like my corner. Last month I forgot to name Dave Cox of Birmingham AL as a reporter; sorry. Please somebody send in a report. I have no more items as now, but my own, which I wish not to be the only reporter. Send in anything, any way you can. '73's to later on, and good dx'ing to everybody. Don't forget, report today. *Tom*

EDITOR'S NOTE: On Tom's behalf, I'd again like to encourage you to send in any verifications you may have---especially TV QSL's and the hard-to-get PSB QSL's. Also feel free to send in details of any particularly difficult or interesting QSL's, or QSL cards themselves for publication. We need your support! -Clarke

BOB'S TEK-NOTES (continued from page 18)

JUNE 1977

than anything else, ducting requires an awareness of what its causes are, and when to look for it--and in what direction to look for it. Remember:

- (1) Your local and fringe signals are not reliable indicators;
- (2) It happens fast, and may not last very long;
- (3) You will get it from just one direction, and along a very narrow path (you might get two separate ducts at once working for you, but that is rare). If you happen to be in the middle, you may get it from two directions, 180 degrees apart going both ways along the front;
- (4) There is no best time of day--it all depends on when the weather front moves through your area;
- (5) Signals are best at the highest frequency carried by the duct. This means usually UHF is best, FM is good (because of much better receiver sensitivity than VHF-TV) and high band VHF is worst. Low band VHF is rare and is seldom good;
- (6) Anyone east of the Rockies can participate!

73, Bob Cooper, Jr.



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