

From The Staff:

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

LATE ISSUES...Yes, we're aware that this Digest, like March, has been delayed in reaching you. Please bear with your editor-in-chief; he's had to contend with midterm and final examinations and deadlocked convention balloting, occurring at VUD deadlines over the past few months! As compensation for keeping you in waiting these extra days, we've included five excellent technical and non-technical features in this edition of the Digest. Thanks for your patience---now that college has ended, your issues will be arriving much earlier!

ANARC NEWS...Executive Secretary Dave Browne informs us that the 1977 ANARC Convention will be held on July 15, 16 and 17 in Schaumburg, Illinois (near the Chicago International Airport). WTFDA's editorial crew will be making a presentation on "The Production of a DX Club Publication," using the VUD as an example! For information or reservations, contact the Woodfield International DX Club (its hosts), P.O. Box 95073, Schaumburg IL 60195; please include a large SASE for reply. We expect to publish details of WTFDA's upcoming Portland convention in the next Digest.

COLUMN CHANGES...This month marks the institution of new DX reporting areas for VUD columns, and the phasing out of some sections. Please check this issue's DX columns to see which is the one expecting your reports!

CLUB PUBLICITY...It may be that WTFDA has been getting more public notice in recent months than any other DX club! Our name has appeared in the new Communications Handbook, and in Communications World; in the 1977 World Radio TV Handbook; in a new book, "A Primer on TV DXing"; in "Window on the World"; and in Morrie Goldman's article on TV DX, the cover story in the latest Elementary Electronics! Many members have also managed to place our name in newspapers across the country. WTFDA's Board of Directors sends special thanks to DXers around the world for an outstanding job of promotion!

73, Clarke for Pete, John, Mike and Morrie

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John Zondlo Deadline: 15th

New Members: Richard W. Culin Donald D. Marshall Charles Mylod William H. Oliver Kenneth Van Tassell

Box 8101 5920 Wise Ave. 13 Hampshire Road

Akron, OH 44320 St. Louis, MO 63110 Box 523 Charlottesville, VA 22902 2939 S. Sycamore, Apt. 1 Los Angeles, CA 90016 13 Hampshire Road Fishkill, NY 12524

Frank Aden, Jim Alexander, Robert Baker, David Curvin, John Czarnomski, Richard Eddie, Ricky Glasgow, R.E. Lyons, Mike Reid, Michael Sweeney, Lee

Rejoin:

Kenneth E. Blair-RD #2, Box 835-Lebanon, PA 17042

Address Changes: Tom Cornell-RR #2, Box 53A-Greentown, IN 46936 Alan Mayer-409 Indiana-Park Forest, IL 60466 Don Voegele-2852 Elmwood Ave., Apt. 36-Stockton, CA 95204

Renewals Due in June: Richard Allen, Randall Clark, John Combs, David Cox, Bob Curole, Ron Fenton, Les Goins, Mark Lewis, Rolland Lindblade, Joseph Longmoore, R.W. Lord, Andrew Mahoney, Brent Manuel, Fred McCormack, John S. Phillips, R. Randall, John Ray, Michael Sapp, Ken Simon, Jeff Smith, Steven Sprachman, Eric Strahan, Ralph Strobel, Michael Telles, Martin Theil, Mel Wilson, John Winslow.

A policeman, RICHARD CULIN is interested in shortwave, FM-TV, and public service band DXing. He's a member of NASWA, with DX gear including a Realistic DX-160 and a Realistic scanner.

Popular Electronics is where DONALD D. MARSHALL heard about WTFDA.

He's employed as a TV engineer.
The DX shack of CHARLES MYLOD features a Panasonic RF-1170, Heath GR-88 and GR-98 receivers, a Realistic Pro-16A scanner, and a Heathkit TV. Charles plans to get more sophisticated VHF/UHF receivers and one or more top of the line FM tuners. He also belongs to IRCA, NRC, and LWCA.

KENNETH VAN TASSELL is primarily interested in FM and TV DXing. He

heard about the club from the FM Atlas and Station Directory.

Tidbits

Recently rejoined member Ted Fleischaker DIs with a Pioneer TX-6500 tuner, a Pioneer SA-6500 amplifier, an Admiral color TV set, a Winegard Super Chromstar with rotor for VHF and a 6' dish for UHF. He writes, "I look forward to taking an active part in the club and since FM-TV DK is a longtime hobby for me (have some veries to 1963), I look forward again to taking part in the WTFDA. I am glad to hear of the new club leadership and hope that I can be of assistance. Louisville has a large number of DXers these days and will, in April, take over the publishing of the National Radio Club DX News, so we meet regularly and compare catches, etc. Fellow DXer Wayne Murphy is already in WTFDA and I am working on a couple other of the guys who have an interest in FM-TV as well as the MW things." Ted is also an avid collector of air checks of beautiful music FMs with a collection of over 100 taped. He would welcome exchanges from any member desiring them. Ted's address is 3023 Tremont Drive, Louisville, KY 40205.

W.R. Hepburn (5659 Highland Ave., Niagara Falls, ON L2G 4X2) recently joined WTFDA. He writes to say that he's 14 years old and interested in TV and MW DX. He heard about WTFDA from Gilfer Associates.

If you have any DX related news you'd like to page along to fellow

If you have any DX related news you'd like to pass along to fellow members, just drop me a line or call me at the number listed above. That about wraps it up for this month....be sure to keep those cards and letters and phone calls coming in. See y'all in June......jz



A MONTHLY FORUM FOR DISCUSSION OF CLUB-RELATED TOPICS

Address correspondence to: Clarke W. Ingram, editor, <u>Digest</u> 5201 Colewood Drive Pittsburgh, Pennsylvania 15236 USA

The current TECHNI-CORNER series by Dave Janowiak on understanding polarization, held for the past few issues because of lack of time to transcribe the WTFDA convention lecture tape on the subject into written features (due to your editor's final examinations), has recently drawn criticism from several club members. Among these is FCC-FM News editor Dr. Bruce F. Elving, whose comments echo those of other WTFDAers:

Much that I dislike finding fault with a fellow (WTFDA) member and article-writer, I feel that I must make some comments on Dave Janowiak's series on understanding polarization...

Much that Dave writes about is pure theory, and not based on solid experience. I, on the other hand, have experimented with vertical polarization since 1966, having erected a vertically-mounted FM yagi antenna atop its own tower and with its own rotator only one year after the FCC authorization of FM radio stations in the United States to employ horizontal and vertical, or circular, polarization. It was largely as a result of this experience that I wrote the article in the May 1975 VUD, "Those Elusive Verticals," pp. 26-27.

This system of mine for the reception of v-signals has been in continuous use since, augmented by experimental vertical antennae at Adolph. Dave, naturally, writes based more on his interest in reception of TV signals with a v-antenna, while my interest is exclusively FM. I commend to anybody who has been following Dave's articles to review, or read for the first time, my 1975 article, which is still valid, inasmuch as not all FM stations have switched to the v and h modes, as Dave tends to imply. There are still hundreds of horizontally polarized-only FM stations across the country.

Thus Dave's statement in part I, p. 18 is not quite true, where he says: "The big 'push' to vertical polarization for FM stations began, in earnest, perhaps five or six years ago. During that time, a lot of DXers could have taken advantage and received a lot more stations, if they had known which were horizontal and which were both horizontal and vertical..."

Even today, you will find many instances where you can use your vertically-mounted FM receiving antenna to cut through the signals of horizontal-only FM stations--and the FM Atlas lists them all. I take pride in showing exactly which FM radio stations have both vertical and horizontal and which FM radio stations are horizontal only. Also, the current edition indicates which FM stations have less power in the vertical plane (where there are power differentials), and what both the vertical and horizontal effective radiated powers are. If Dave had an FM Atlas and used it, he could benefit even more from his experiments with vertical antennae at FM frequencies. For example, right in his home area the following FM stations are horizontal only: WYMS *88.9, WUWM *89.7 Milwaukee, WLIP-FM 95.1 Kenosha, WNWC *102.5 Madison, WEKZ-FM 93.7 Monroe, WGLB-FM 100.1 Port Washington, and WMIL 106.1 Waukesha. By consulting the Atlas, he would know what other stations have only h, and which others also have v.

Even more serious for the DXer with limited funds and limited tower space--the DXer who must choose between vertical and horizontal--is the erroneous impression Dave gives that a vertical installation will result in more DX than a horizontal installation. While Dave's experience with listening to CFCA (not CKCO-FM) 105.3 Kitchener ON might have indicated stronger average signals over Lake Michigan over the v path rather than the h path, this is not typical, judging from my experience.

The main drawback on relying on a v receiving antenna is that you cannot as effectively rotate your antenna to null out interference in the v plane as you can in the h plane. I believe this phenomenon is explained by careful reading of James E. Kluge's article on stacking TV antennas, starting on p. 19 of the August 1976 VUD. My understanding of that article is that a signal coming in roughly parallel to the horizon will strike all elements of a v antenna at

(Dr. Bruce F. Elving, continued)

about the same time regardless of how the antenna is aimed, while for the h antenna, certain elements will reinforce and certain elements will null out the signal depending upon the antenna's orientation. Combining Kluge's and Janowiak's articles one finds that virtually the only advantage of using a v antenna is in skip, where the signals would be coming in at an angle considerably different from that of a below-the-horizon tropo signal.

So serious is the inability of a v-only receiving antenna to be effectively aimed to minimize interference from one FM station (transmitting a v signal) in order to receive another FM station (also transmitting a v signal) on the same or an adjacent frequency, that such an installation should be attempted, in my opinion, only by people who have first put up a deluxe horizontal antenna system. The v system should exist only as a supplement to the h system, complete with its own lead-in, and an antenna switch at the receiver to permit instantaneous selection of v or h signals. My switch has a third position to which I have attached the lead-in from an omnidirectional FM dipole antenna

The final argument against going exclusively v in your installation is that, in a few cases, stations send out less power in the v plane than in the h plane. This is not as true today as it was 5-10 years ago, but there are still examples of it around, as a check of the by-frequency part of the FM Atlas would confirm. CFCA 105.3 Kitchener has 100 kw h and 88 kw v, which to the DXer is probably not a significant difference. But look at KQYN 95.7 in Twentynine Palms CA with 5000 watts h and only 93 watts v!

And, despite this reliance primarily on reception of stations by h antenna (even though having access to rather good quality v equipment), even for skip, a quick check of Andy Bolin's FM Statistics column, p. 13, March VUD, will show that I have not been handicapped by this attitude, having more skip stations listed on FM than any other DXer.

I believe DXers, throughout the history of radio, have been famous for disproving the "myths" of science by detecting the presence of signals that the engineers could not have expected, following theory. Dave Janowiak, unfortunately, writes more as a scientist than as a DXer who has extensively tried out the theories that he expounds.

Bruce, because of your comments and similar remarks forwarded by other DXers, we are seriously considering termination of the already-delayed polarization series where it stands. Members' views on whether or not the articles should be continued are welcome. In the meantime, until the issue is decided, the TECHNI-CORNER column will concern itself with other subjects.

In March, we published comments from member Al Ellis of Brantford, Ontario, expressing his dissatisfaction with the 1977 World Radio TV Handbook, which was offered to WTFDAers at a special discount price for the first time. We promised to discuss his remarks in April, but became too tied up in other matters to prepare the column last month. Al's comments are reprinted below for convenience:

It is my hope that those who bought that reasonably priced World Radio TV Handbook find it a better buy than I did. To my way of thinking, there is no other publication printed as useless as that is for our use...not even worth the money spent mailing it to and from.

"Caveat emptor" ("let the buyer beware"--CWI) is even more so today than in the past. Every budding author has the very latest and "must have" book. Without it you cannot operate with any degree of intelligence...so "be dumb. and buy my book," is the attitude. Could not some member of the (Board of Directors) be our monitor on what book is good and what is rubbish? Every other year or so, up pops another "must have" book, highly touted by its author, who has something to sell. Having books printed can be a money-losing business; they have to sell them, even when they smell to high heaven. This I had to add in fairness to those who will take us, IF we allow it. Presumably, had I written this earlier, it would have been "sour grapes."

(continued on page 15)



New Stations Granted

AL Greenville #KXN 95.9 3000 h,v; 226'

AK Petersburg *100.9 10 AK Wrangell *101.7 10

AZ Prescott K280AN 103.9 10 (translator of KDKB-FM 93.3 Mesa AZ); \$, p

CA Eureka 92.3 100000 h,v; 230' 28 miles primary; 72 miles secondary

CA Oroville 97.7 3000 h,v; -471

CA Turlock 98.3 3000; 160'; 11, 38 mi; r CO Boulder K269AA 101.7 \$ c (KV0D 99.5

Denver CO translator); 10 watts 6A Gainesville *89.1 10 Brenau College

GA Valdosta 95.9 3000 h.v; 300' 15, 46 mi KS Derby 95.9 3000 h,v; 300'

MN St. Louis Park *91.7 10 Schools OH Fremont W296AA 107.1\$ g (WPOS 102.3

Holland OH FM translator), 1 watt OH Jefferson (or "Jefferson Village" or

"Jefferson Township"--near Ashtabula) *88.9 1600 h,v; 2201

OK Goodwell *91.7 380 (h); 1201 5, 23 miles primary and secondary, respectively ID Twin Falls KEZJ 95.7 620' (50000 h.v) --OK Panhandle's first FM!

TX Plains *90.7 10 Schools

WV Buckhannon *89.9 10 WV Weslavan Col. WY Ethete *89.7 10 Wind R. Indian Res.

WY Sundance K296AV 107.1 (KOLL-FM 93.5 Gillette WY translator)

BC Cache Creek & Ashcroft CFFMFM 95.3 125 watts. BC Williams Lake CFFMFM

97.5 176 watts. NF Port Hope Simpson 105,1 83 watts. CFGB

(AM) Happy Valley NF repeater, CBC. ON London 99.3 22500 - C8C French, CJBL (AM) Toronto repeater, Previously announced grant for a news station at London on 99.3 to David Ruskin now moves to a channel not known and to be decided

and announced later. ON Windsor 89.9 100000 \$. c CBC

PQ Gaspe 103.1 79

PO Riviere au Renard 97.9 58 watts Above two stations nonprofit, but not

necessarily noncommercial.

AR Walnut Ridge KCAC-FM 106.3 3000 h.v; 200' E. CA Pasadena KROQ-FM 106.7 \$ p 25500 h,v; 660'; no active SCA. On air despite several strike applications on file for the channel.

CO Durango KDUR *91.9 10

FL Arcadia WOKD"-FM" 98.3 3000 h.v: 195' IA Cherokee KCHE-FM 92.1 (or 102.3) 3000 h,v; 210'. Tune in KCHE-FM and let us know what channel they're really on! NC Chapel Hill WXYC *89.3 400 h,v; 280'\$p NC Wilkesboro WSIF *90.1 10 NY New York WBA1 *99.5 5400 h, 3800 v

1220' -- back on the air!

OH Dayton WWSU *88.5 10

TX College Station KAMU"-FM" *90.3 3210; 340'; \$, cj, National Public Radio WA Tacoma KUPS *90.1 10

On Air with Changes (selected)

GA Manchester WFDR-FM 93.3 100000 h.v; 460' LA Shreveport KRMD-FM 101.1 " MS Cleveland WCLD-FM 103.9 3000 " MT Bozeman KGLT *91,9 2000 h.v: 185' WV Charleston WQBE 97.5 50000 h.v; 500'

PR San Juan WIPR-FM *91.3 125000 h.v: 2720' 65, 119 miles--greatest FM coverage in

America! Facilities' Changes

[miles AL Birmingham WDJC 93.7 100000 h,v; 550' KS Dodge City 93.9 100000 h,v; 566' 38,82/ AZ Phoenix KBBC 98.7 adds vertical CA Tracy KSRT 100.9 300' (3000 h,v) CO Denver KXKX 95.7 750' (100000 h, 85000v) FL Clearwater WOKF 95.7 100000 h.v: 4501 FL Jacksonville WQIK 99.1 90000 h,v; 570' FL Miami WLRN-FM *91.3 adds v

GA Americus WIPE 94.3 adds v - servesPlains GA Louisville WPEH-FM 92.1 300' (3000 h.v)

IL Springfield WSSR *91.9 has v IN Batesville WRBI 103.9 1950 h,v; 360' IN Pendleton WEEM *91.7 has v; claims 54 w

h,v, which is impossible with a 10-watt transmitter, so I don't believe them! MI Detroit WABX 99.5 5500 h,v (870') Dolby MI Sault Ste. Marie WSUE 101.3 90000 h.vSCA

OH Youngstown WHOI-FM 101.1 adds v [(220')/ OR Portland KPDQ-FM 93.7 has v OR Springfield-Eugene KSND 93.1 26500 h,v/

TX Conroe KNRO 105.9 98000 h,v(530') ON AIR with enlarged facilities!

TX Dallas KKDA-FM 104.5 700' (100000 h.v) UT Salt Lake City KSL-FM 100.3 26000 h.v. (37401); qualifying for maximum allowed Class C coverage: 57, 108 miles, Dolby: presumably deleting directional antenna. VA Exmore WEXM-FM 107.5 50000 h,v (260') VA Harrisonburg WEMC *91.7 adds v

WA Prosser KACA 101.7 -255' (3000 h.v) MA Spokane KXXR-FM 93.7 56000 h.v (2380')

WV Fairmont WFGM 97.9 32000 h,v; 600'[(820') On Air and DX Ready (presumed) WI Waumatosa-Wilmaukee WEZW 103.7 19500 h.v/ ON Brampton CFNY 102.1 100000 (EHAAT and v not known); \$, p

> ON London 99.3 news station to move to new. unknown and unannounced frequency

> ON Toronto CFGM-FM 107.1 40000 h,v; 1380'

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

Non-IDers (Selected)

(Including some stations that pronounce their call letters, which I do not consider to be true nonIDERS.)

*89.3 NC Chapel Hill X-89 [SCA 93.1 Hl Hanolulu KQMQ 93-Q, r (not rm) no/

93.9 CA Los Angeles KPOL-FM 94-FM

95.1 HI Wailuku KAOI FM-95

97.5 WV Martinsburg WESM Stereo 97 97.9 CA Long Beach KNOB FM-98

98.7 CA Los Angeles KJOI "K-Jov" 98.7 DC Washington WMOD Music 98 (from FM/

100.7 VA Harrisonburg WQFO Q-100 101.9 CA Glendale KUTE "Cute" No SCA heard

103.5 CA Los Angeles KOST "Coast"

105.9 CA Los Angeles KWST "K-West." 106-FM

\$tereo Added or Resumed

AL Gadsden WEXP *91.5, with v, cmi & r.



WEXP bills itself as "An Experience in Sound." 3500 h.v: 76'.

CA Los Altos KFJC *89.7 p (from rs)

CA St. Helena KVYN 99.3

CO Colorado Springs KRCC *91.5 DC Washington WPFW *89.3, j, 24 hours

IL Morton WTAZ 102.3, p (MI Mt. Pleasant

IN Goshen WZOW 97.7, m + WMHW *91.5 IN Plymouth WICA-FM 94.3 r (from mk)

KY Madisonville WSOF *89.9 g, U ME Bangor WBGW 97.1: MN Anoka KTWN 107.9

NM Albuquerque KLYT *88.3

OH Ottawa WPNM 106.3 r (not m); Y; SCA NY Monticello OH Oxford WMUB *88.5

VA Yorktown WYVA 94.1, rm !WSUL 98.3 WA Spokane KPBX *91.1

Quitting Stereophony?

IL Benton WQRX 106.3 p (not rm) iN Scottsburg WMPI 100.9 k (from kr) PA Erie WCCK 103.7, heard without stereo, but I doubt if this is a permanent condition as WCCK is still on Dolby's list. NS Kentville CKWM 97.7; stereo has never been on this station and if stereo is planned, it's probably a long ways off.

SCA (67 kHz) Activities

AL Andalusia WQHQ 98.1 adds SCA AL Florence WQLT 107.3 adds SCA

CA Chico KCHO *91.1 adds SCA heard CA Compton KJLH 102.3 delete SCA: no SCA/

CA Fresno KFYE 93.7 music: KFRY 101.9 adds



102 Wingham, Ontario CKNX-FM STEREO

ON Wingham CKNX-FM 101.7 22000 h,v; 709', 32, 71 miles, Dolby, \$tereo.

CA Long Beach KLON *80.1 no SCA heard; delete listing.

CA Las Angeles KPFK *90.7 bird chirping telemetry only on its SCA NO SCA heard; CA Los Angeles KPOL-FM 93.9. delete listing KMET 94.7 KLOS 95.5

> KFSG 96.3 KGBS 97.1 KHOF 99.5 music K10Q 100.3 music KRTH 101.1 Muzak KBIG 104.3 ethnic (Span-

ish music & talk) KBCA 105.1 no SCA heard; delete listing KWST 105.9 " 17

KLVE 107.5 " [delete listing CA Los Altos KPEN 97.7 no SCA heard/ CA Mariposa KUBB 96.3 adds SCA

CA Sacramento KZAP 98.5 delete SCA KEWT 105.1 no SCA heard; de-

lete listing

CA San Francisco KOIT 98.5 gospel KEAR 97.3 no SCA heard; delete listing KABL-FM 98.1" "

KCBS-FM 98.9 music KYUU 99.7 music KDFC 102.1 ethnic (Chin-

KBRG 105.3 music CA San Jose KEZR 106.5 music [delete list. CA Santa Cruz KUSP *88.9 no SCA heard; / CA Santa Rosa KBBF *89.1 * *

CA Stockton KSTN-FM 107.3 music CA Walnut Creek KDFW 92.1 no SCA heard:" CA Woodland KSFM 102.5 *

CO Pueblo KZLO 100.7 adds SCA CT Waterbury WIOF 104.1 adds SCA HI Honolulu KAIM-FM 95.5 no SCA heard;

delete listing as an SCA station IL Decatur WSOY-FM 102.9 MZ (fast, brassy,

factory-type Muzak) IL Macomb WIUM *91.3 adds SCA

IA lowa City KRNA 93.5 adds SCA MI Escanaba WKZY 97.1 telemetry only

MI Grand Rapids WMLW 101.3 adds SCA

MI Muskegon Heights WKJR-FM 101.7 adds SCA MN Grand Rapids KAXE *91.7 talking book

MN Rochester KNXR 97.5 teletype noise NM Albuquerque KRKE-FM 94.1 adds SCA

NY New York WRFM 105.1 drops music after only a few weeks with it; too many listeners complaining of noise in their stereo? NY Schenectady WMHT-FM *89.1 talking book

NC Burgaw WPJC 99.9 adds SCA NC Williamston WSEC 103.7 adds SCA

ND Grand Forks KKDQ 92.9 adds SCA

OK Poteau KLCO-FM 97.9 OK Stillwater KOSU *91.7 *

PA Jenkintown WIBF-FM 103.9 adds SCA UT Cedar City KBRE-FM 94.9 adds SCA

WA Seattle KEUT 94.1 adds SCA WV Beckley WVPB *91.7 adds SCA

WI Marinette WLST 95.1 music (not Muzak); UPI Audio news on main channel

WI Suring WRVM 102.7 drops SCA; still believed to be running much lower power than authorized.

PR Carolina WOLA 107.7 sports relay

WIIWI

Call Letters Assigned AL Arab 92.7 WCRQ"-FH

AL Mobile 94.9 WKSJ (from WKSJ-FM) CA Lompoc 92.7 KLPC"-FM" (KLOM-FM)

FL Tampa 100.7 WJYW (WAVV) GA Dublin 95.9 WOZY

IL Chicaga 97.9 WLUP ("W-Loop") (WSDM)

IA Centerville 98.7 KMGO (KCOG-FM): a? IA Decorah *89.5 KLCD

KS lola 99.3 KIOL LA Minden 95.3 KASO_FM

MD Baltimore 97.9 WIYY (WBAL-FM); stereo resumed; p; drops NIS; has NBC news

MA Boxford *88.3 WBMT MI Escanaba 104.7 WFNN

MI Newberry 93.5 WNBY-FM

NM Deming 94.3 KDEM NY Buffalo 103.3 WPHD (WYSL-FM); back to/ CA San Jose KSJS *90.7 r

NY Fredonia *88.9 WJQL*-FM* NY New Rochelle 93.5 WRIN (WVOX-FM); \$?

NY Sodus *89.5 WSCS

NC Statesville 96.9 WOOO (WDBM-FM) NC Wilmington "91.3 WLOZ

OH Bellefontaine 98.3 WIOO-FM (WOGM)

OH Cleveland 106.5 WZZP (WXEN) ZIP-106! OK Ardmore 92.1 KRRO

OK Enid 96.9 KNID (KCRC-FM) OR Albany 99.9 KRKT-FM

PA Pittsburgh 105.9 WAMO (WAMO-FM) TX Alvin *91.3 KACC

TX Beeville KCWW (KJDF) - 104.9 TX Marshall 103.9 KMHT-FM

TX Mineola 96.7 KMOO-FM

TX San Antonio 97.3 WOAL_FM (KEEZ) TX Slaton 92.7 KJAK

WA Omak 103.9 K280AM (not K280AN) NA Tacoma *90.1 KUPS

WI Appleton 105.7 WCXR"-FM" (WAPL-FM) WI Neenah-Menasha 100.1 WEMI

Alta., Calgary 103.1 calls believed to be CJAY"-FM," despite a CJAY"-TV" in Brandon, Manitoba.

NEW TRANSMITTERS INSTALLED -- STEREO? AL Roanoke WELR-FM 95.3

CI West Haven WNHU *88.7 FL Sarasota WKZM 105.5

MT Hamilton KLYQ-FM 95.9

OR Klamath Falls KJSN 92.5 OR Medford KBOY-FM 95.3 TX Austin KUT"-FM" *90.7

IX Palestine KHIM 98.3

WI Milwaukee WUWM *89.7 plans to make some use of its 67 kHz, for which it has had authorization for several years. Probably talking book and/or instructional programs. Still monaural on main

channel. For continuation of formats' changes, refer to the ABC Network listing on,

there, too. Program format abbreviations used in this column: c classical, e ethnic, g gospel, j jazz, k country, L Latin, m middle of the road (easy-listening), p progressive rock, r rock, s soul, t

talk. \$ = stereo. Deletion

UT Panquitch K224AH 92.7 (KALL-FM 94.1) CC Colorado Springs KAFA *89.7 may be deleted, as a reporter did not hear them on several checkings both on the base and in town.

Formats/Networks AL Huntsville BLRH *89.3 P. \$

CA Arcadia KPPC-FM 107.1 eg, no SCA

CA Camarillo KGAB 95.9 r (not rm) CA Concord KVHS *90.5 r, \$

CA Gilroy KFAT 94.5 kp; telephone calls . heard on SCA; on with SCA rarely

CA Lodi KNIN 97.7 U CA Los Angeles KNX-FM 93.1 r (not mr) KWST 105.9 p

CA Los Gatos KRVE 95.3 m

CA Mendocino KMFB-FM 92.7 mc (some r) CA Mountain View KSFH *90.5 p (on 1300-

2130 PST, M-F, school year only) CA Oxnard KPMJ 104.7 M (from A)

CA Sacramento KXOA 107.9 no A

[p? | CA San Francisco KYA-FM 93.3 S (AP Audio)

CA San Rafael KTIM-FM 100.9 p (no Mutual) CA Santa Paula KAAP-FM 96.7 I

HI Wailuku KAOI 95.1 mc, some Hamaiian

music: some light rock HI Waipahu KULA 92.3 r

IL East Moline WEMO 101.3 I

IN South Bend WETL *91.7 m, talk; some c IN Muncie WWHI "91.3 r and talk

KY Hodgenville WLCB-FM 106,3 k (from m) KY Leitchfield WMTL-FM 104.9 E

MD Baltimore WDJQ 104.3 p (from r); now "DJ-104," not "Q-104."

MO Halfway WOCM 96.7 rp MD Towson WCVT *89.7 cp

MA Springfield WMAS-FM 94.7 soft r; drops E

MN Rochester KRCH 101.7 p, \$ NJ Newton WIXL 103.7 k (from m)

NM Albuquerque KRKE-FM 94.1 no Y

NY Binghamton WOYT 98.1 1

NY Endicott WMRV 105.7 E (has v even though one reporter says they don't come in as mell behind hills on a car radio as does WQYI

98.1 Binghamton NY, also having v)

OH Columbus WLVQ 96.3 rp (not just r) OH Cleveland WZZP 106.5 r (from e)"Zip-106"

OH Zanesville WHIZ-FM 102.5 p (from m) mono

PA Chambersburg WCHM 95.1 mr (from m) PA Greencastle WKSL 94.3 mk (from m) "Castle

Radio." PA Harrisburg WSFM 99.3 p (not rm) PA Wilkes-Barre WCLH *90.7 p (was cr)

WBRE-FM 98.5 \$ (to be quitting

. NIS. but will be all-news) SC Myrtle Beach WMYB-FM 93.5 rk

TX Orange KOF KIDF 106.1 r. \$ WV Berkeley Springs WCST-FM 93.5 rk

WV Charles Town WZFM 98.3 k (from mk)

WI Burlington WBSD *89.1 ri WI Madison WNWC *102.5 gc + translator

WI Minocqua WWMH 95.9 km (not r)

LAKELAND other page. Network abbreviations COMMUNICATIONS, INC.

MINOCQUA, WISCONSIN 54548



WI Sheboygan WWJR 97.7 r (from m) NB Moncton CFOM 103.9 m; \$; Dolby

ABC Network Changes-All Four Radio Networks

These changes result from monitorings of ABC's closed circuits and checking through ABC's published list of affiliates in the trade press. In many cases it is assumed that the FM affiliate carries the network programming, ever though the network lists the affiliation for the AM station. DXers should check to see if affiliates in their area actually do carry one of the listed newscasts on a Monday-Friday basis between 6 a.m. and midnight. Network abbreviations: A ABC-FM, B National Black Network, C CBS, E ABC Entertainment, I ABC Information, M Mutual, N NBC, P National Public Radio, S Associated Press Audio, U United Press Audio, Y ABC Contemporary, Z Mutual Black Network. In the list which follows, + means adding the network; - means dropping it.

American Contemporary Network AL Alexander City WRFS-FM106.1 AL Montgomery WHHY-FM101.9+/+ AZ Flagstaff KFLG 92.9 + AZ Phoenix KBBC 98.7 + % xltr. AR Fort Smith KMAG 99.1 -AR Paragould KHIG 104.9 -CA Marysville KRFD 99.9 -CA Palm Springs KBES-FM 104.74 CA Santa Ana KYMS 106.3 -CO Sterling KYOT 96.7 -FL Bonita Springs WLEO 95.9 + FL Pensacola WAJB 107.3 YI /M) (WHHY-FM above was 1: WLEQ was FL Pompano Beach WCKO 102.7 Y (was Z). GA Athens WAGO 104.7 +. GA Buferd WGCO 102.3 + GA Hawkinsville WCEH-FM 103.9-GA Vidalia MTCQ 97.7 + (was A) GA W. Point WCJM 100.9 + " ID Blackfoot KBLI-FM 97.7 + IL Carbondale WCIL-FM 101.5 - (was FY) IL Dun-IL Kewanee WJRE 92.1 +idee WVFV IL Ottawa WRKX 95.3 - (103.9 + /E) IL Pekin WZRO 104.9 -IL Watseka WGFA-FM 94.1 Y (was IN Indianapolis WNAP 93.1 -KS Kansas City KUDL 98.1 + KY Corbin WY60-FM 99.3 + MD Braddock Heights WZYO-FM 103.9 +. MI Clare WRNN 95.3 + (was E). MN Grand Rapids KXGR 96.7 +. MN Marshall KMHL-FM 100.1 +. MS Booneville WBIP-FM 99.3 +. MS Greenwood WSMG-FM 99.1 -. MS Hattiesburg #HSY-FM 104.5 + (was A) MS Laurel WNSL-FM 100.3 -MO Moberly KRES 104.7 -MO St. Louis KKSS 107.7 + /U) MT Billings KOYN-FM 93.3 Y(was NV Carson City KKBC 97.3 + NH Conway WBNC-FM 93.5 -NY Oneonta WSRK 103_9 + (was / NY Riverhead WRCN-FM 103.9 -NC Statesville WOOD 96.9 + ND Bismarck KFYR-FM 92.9 -ND Grand Forks KYTN 94.7 -OH Marion WDIF 94.3 + OH Toledo WKLR 99.9 - (still Z) OH Waverly WIBO 100.9 + OK Stillwater KVRO 105.5 -, p OR Eugene KFMY 97.9 + (was E) SC Columbia WNOK-FM 104.7 + /I) WA Spokane KXXR-FM 93.7 + SC Georgetown WGMB 97.7 + (was SD Aberdeen KSDN-FM 94.1 + SD Yankton KQHU 104.1 + TN Dversburg WASL 100.1 + (was TN Labelyille WTHJ + IN Tullahoma WBGY-FM 93.3 + AR Little Rock KLAZ 98.5 + /E) TX Austin KHFI 98.3 + CA Arcata KXGO 93.5 -CA Camarillo KGAB 95.9 -TX Corsicana KCIR 107.9 + (was TX El Paso KINT-FM 97.5 +(was + (was

TX Lubback KLBK-FM 94.5 + UT Brigham City KBUH-FM 107.1 + VA Apponattox WIIX-FM 107.1 + VA Norfolk WNOR-FM 98.7 + NA Opportunity KZUN-FM 96.1 + American Entertainment Network AL Scottsboro WCNA 98.3 + AR Helena KCRI 103.1 + AR Searcy KSER 99.3 + CA Hemet KHSJ-FM 105.5 + CA Los Angeles KIQQ 100.3 -CA Molave KDOL-FM 97.7 + CA Santa Rosa KVRE-FM 101.7 + CA Yuba City KHEX 103.9 -CO Pueblo KZLO 100.7 + FL Jacksonville WKTZ-FM 96.1 -FL Riviera Beach WGMW 94.3 + (was Y). GA Dawson WDWD-FM92.1+ GA Tifton WCUP 100.3 + GA Waynesboro WWGA 100.9 + 1D Emmett KMFE 101.7 -ID Moscow KRPL-FM 103.9 + (was A) IN Danville WGRT 107.1 + IL Eldorado WKS1 102.3 + IL Mendota WGLC-FM 100.1 + (wasl) IL Plano WSPY 107.1 + IN Columbia City WFDT 106.3 -IN Ft. Wayne WPTH 95.1 -IN South Bend WRBR 103.9 -KY Stanton WSKV 104.9 + /(was 1) ME Waterville WTVL-FM 98.3 + / MI Harrison WKKM 92.1 + (was A) MN Red Wing KCUE-FM 105.5 - and MN St. Peter KRBI-FM 105.5 both - (were El, now no network) MN Rochester KNXR 97.5 + (was A) MT Plentywood KPWD 100.1+(" M) NE Grand Island KRGI-FM 96.5 + NE Ogallala KIBC 93.5 + NE Omaha KOWH-FM 94.1 + (was Z) NJ Newton WIXL 103.7 + (was A) NY Amsterdam WCSS-FM 97.7 + NY Buffalo*WNED-FM 94.5 -NC Durham WDCG 105_1 + OH Bellefontaine WTOO-FM 98.3 + OK Broken Arrow KGOW 92.1 + (was MT Billings KURL-FM 97.14 trans-A). OK Oklahoma City KEBC 94.7+ TN Camden WRJB 98.3 + IN Erwin WXIS 103.9 + (was U) TN Savannah WORM-FM 101.7 + TX Abilene KNIT-FM 105.1 -TX Brownwood KOXE 101.5 -TX Denison KDSX-FM 101.7 +(was I) WA Lynden KLYN 106.5 + (was A) WA Richland KORD-FM 102.7 -American FM Radio Network AL Phenix City WEIZ 100.1 -

AZ Phoenix KNIX-FM 102.5 -

AR Little Rock KXXA 95.7 -

(translators, too)

CA Fresno KFIG 101.1 -CA Salinas KRAY 103.9 -CA San Diego KYXY 96.5 -CA San Jose KSJO 92.3 -CA Santa Clara KARA 105.7 -CA S.Lake Tahoe KTHO-FM 103.1 -CA Vacaville KUIC 95.3 -CO La Junta KBLJ 92.1 -FL Daytona Beach WWLV 94.5 -FL Ft. Lauderdale WAXY 105.9 + (was U). FL Gainesville WGVL 105.5 -. FL Lakeland WVFM 94.1-FL Miami Beach WWWL 93.9 -FL Naples WRGI-FM 93.5 -FL Orlando WDIZ 100.3 + (was Y) GA Columbus WWRH 104.9 + GA Rockmart WZOT 107.1 -10 Boise KBBK 92.3 + IL Bloomington WBNQ 101.5 -IL Galesburg WAAG 94.9 -IL Marion WDDD 107.3 -KY Elizabethtown WQXE 100.1 KY Ft. Campbell WABD-FM 107.9 + (was Y). KY Jamestown WJRS 104.9 -. KY Winchester WKDJ 100 100.1 adds E (this is in wrong celumn!). LA Baton Rouge WFMF 102.5 + (wasTX Victoria KTXN 98.7 -ME Presque Isle WDHP 96.9 -MD Frederick WFRE 99.9 & xltr MA Boston WROR 98.5 + MA Lowell WSSH 99.5 -MA New Bedford WMYS 98.1 -MA Worcester WAAF 107.3 -Y71 MI Ann Arbor WIQB 102.9 + (was / MI Battle Creek WKFR 103.3 -MI Bay City WHNN 96.1 - NY MI Jackson WHFI 94.1 -MS Corinth WADI 95.3 -MS Drew WDRU 95.3 + MS Natchez WQNZ 95.1 + (was Y) MO Jefferson City KJFF 106.9 -MO Kansas City KYYS 102.1 lators - NY Buffalo WGRQ 96.9 NV Las Vegas KLUC-FM 98.5 + NV Las Vegas KFMS 101.9 -NM Albuquerque KMYR 99.5 -NM Farmington KRWN 92.9 -NM Hobbs KSCR 95.7 -NM Las Cruces KASK 103.1 + NY Hyde Park WHVS 97.7 -NY Rochester WHFM 98.9 + (was Y) NY Syracuse WNTQ 93.1 -NC Rocky Mount WFMA 100.7 -NC Washington WITN-FM 93.3 +

WHSL Becomes WHSL-FM Stereo 97.3

NC Wilmington WHSL 97.3 YA and believed to be rock music now. OH Ashtabula WREO-FM 97.1 -OH Cincinnati WKRQ 101.9 -OH Toledo WMHE 92.5 + (was M) OH Toledo WIDT 104.7 -OK Lawton KLAW 101.5 + (was I) OK Nowata KNFB 94.3 -OK Tulsa KMOD 97.5 -OK Tulsa KKUL 103.3 + PA Clearfield WCPA-FM 93.5 -PA Erie WLVU 99.9 -PA York WYCR 98.5 -SC Beaufort WBEU-FM 98.7 -SC Florence WSTN 106.3 -SC Spartanburg WSPA-FM 98.9 -/U) IN Fayetteville WYTM 105.5 + (was TN Jackson WKIR 104.1+(was E) IN McMinnville WBMC-FM 103.9 -IN Memphis WQUD 104.5 -TX Big Spring KFNE 95.3 -TX Corpus Christi KIOU 95.5 -TX Galveston KUFO 106.5 -IX Jacksonville KOOL 106.5 -TX Lubbock KW60 99.5 + TX McAllen KQXX 98.5 -TX Palestine KLIS 94.3 -/N) ITX San Marcos KCSW 103.7 -UT Oaden KQPD 101.9 -UT Salt Lake City KWHO-FM 93.3 + UT Salt Lake City KALL-FM 94.1 -(also affecting all of KALL-FM's translators!) VA South Boston WJLC 97.5 -WA Seattle KVI-FM 101.5 -WA Seattle KZDK 102.5 + WI Madison WZEE 104.1 -|Albany WI Racine WFNY 92.1 -WY Cheyenne KFBC-FM 97.9 At American Information Network

AL Abbeville MXLE 94.3 + AL Enterprise WIRB_FM 96.9 + AL Monroeville WMFC-FM 99.3 + AZ Globe KIKO-FM 100.3 + AR Berryville KAAM 107.1 4 AR Dardanelle KWKK · 102.3 + AR Hot Springs KBHS-FM 96.7 + AR Little Rock KEZQ 94.1 -AR Mountain Home KTLO-FM 98.3 -CA San Diego KSON-FM 97.3 + (was Y). CA Twentynine Palms KOYN 95.7 -. CO Aspen KSPN 97.7 + (was A). CO Ft. Morgan KBRU 101.7-GA Americus WPUR 97.7 -6A Savannah WJCL-FM 96.5 - (was A) 1L Olney WSEI 92.9 -IL Sullivan WFWA 106.3 + (was A) IN Kokomo WZWZ 93.5 (92.7) +(was C) IN Peru WARU-FM 98.3 -IN Valparaise WLJE 105.5 + (wasMU)

IN W.Terre Haute WWVR 105.5 -LA Lafayette KTDY 99.9 - (was IE)

MD Baltimore WDJQ 104.3 - MD Cumberland WPVM 102.9 - MA Pittsfield WQMB 105.5 - MI Petoskey WJML-FM 98.9 - MI Ishpeming WMQT 107.1 + MN St. Cloud WWJQ 98.1 - MS Bay Springs WXIY 93.5 + MC Clathage KRKD LEW 95.3 -	MO Springfield KWTO-FM 98.7 + (was Y). MT Glendive KIVE 96.5 & translators / A) MT Missoula KYSS-FM 94.9 + (was/NE Sidney KSID-FM 95.3 + NV Reno KSRN 104.5 & xltrs - NJ Ship Bottom WJRZ 100.1 + NM Humble City KPOE 94.1 + NM Roswell KBIM-FM 94.9 -	NC Franklin WFSC-FM 96.7 + NC Wilson WXYY 106.1 + OH Cincinnati WUBE-FM 105.1 - OH Cleveland WDOK 102.1 - /N) OH Columbus WBNS-FM 97.1 + (was OK Bartlesville KYFM 100.1 - OR Neuport KNPT-FM 102.5 + PA Pittsburgh WEEP-FM 107.9 - PA Sharon WYFM 102.9 (was A)	UT Cedar xltr + (VA Roanok WI Marshf WY Sherid
NO KIT KOTT TO A TOOL TO THE TOTAL TO		A COUNTY OF STREET ONE	1 (1 11/2 1111)

IX Wichita Falls KLUR 99.9 +
UI Cedar City KBRE-FM 94.9 &
xltr + (was A)
VA Roanoke WPVR 94.9 & xltr WI Marshfield WDLB-FM 106.5 WY Sheridan KWYO-FM 96.5 +
Two mysteries appear on the ABC
lists, and both stations are
given as ABC-FM affiliates:
In Indiana is given the call
WHKC (FM), and in Texas KCSW
(FM). Anybody know these?

DOMINICAN	REPUBLIC ACTIVE	EM	STATIONS
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					DCMINICAN REPUBL	10
					s Slogan AM Adjun	
Alto Bandera	102.7	HIFA-FM	L	2000	HIFA	1380
La Romana	97.7	81			Radio Guia	?
La Vega	92.7	HIDL-FM	L	250	Radio Novedades	1030
	97.9	HIDY-FM			Radio Santa Maria	590
Puerto Plata	97.3	HIF		50	La Voz del Atlantico	?
	99.7	HIBN \$		50	Radio Puerto Plata	
San Francisco	94.7	HICJ \$	v m	1000	Radio Merengue	
	107.7	HIBIFMS		50	HIBI Radio	1070
San Juan	100.1	H18Z-FM	L	50	Radio Centro	1340
Santiago	89.0	HIJC \$		150	Radio Maiba	
	90.1	HIRL \$		1000	Radio Exitos	
	92.1	HICK \$		50	Ondas del Yaque	
	93.1	HIBG-FM	L	50	Radiolandia	1160
	94.3	HIAG \$	r	200	Radio Azul	
	95.1	HIAAFH\$	L	50	Radio Ritmos	560
	97.1	HISA-FM	L	500	Radio Cibao	980
	98.3	HIDS-FM	L	50	Radio Libertad	
	101.8	HIJM		200	Radio Amistad	?
	103.5	HIAQ		1000	Radio Monumental	?
		HISC-FM	L	50	Radio Nacional	1380
Santo Domingo				1000	Radio Mirador	
		HIZ-FM		250	HIZ	730
		HIAN-FM			Radio Guarachita	690
					HIN [Pantera	1220
		HIBL-FM			Radio Pueblo, La /	1510

MORE items of international interest relayed by Ken Simon --

A clip from the Sydney Morning Herald in 1976 says Australian TV channel 5 (101-108 MHz) is being vacated to make room for 15 to 35 FM stations. Currently Sydney has ZMBS-FM on 91.1 and ABC-FM on 92.9. 2JJ h s 93.7 allocated as a rock station but lack of money is holding it up. There are three classes of FM station in Australia: (A) Australian Broadcasting Corp.; (B) Community stations; (C) commercial stations. Information from DON VOEGELE.

From DARIO MONFERINI in Milano, Italy, comes word of the chaotic Italian FM and TV scene. He says the government has declared its RAI monopoly dead and there are now about 1,200 FM stations and 150 TV stations. FM top power is 1 kw and he doesn't think there is much chance for skip! Lots of FM station news, all of it in Italian, was sent by Dario, so if anybody reads or speaks Italian in the club, let Ken Simon know. (Ken's address is 520 Pilgrim Road, West Palm Beach FL 33405.)

Digging through the Italian clippings and photocopies that came, it appears that the most popular Italian FM transmitting antenna is a two-bay vertically polarized, similar to what our (U.S.) FM stations might use to maintain private radio communication with a news vehicle (Marti units). A very extensive Italian FM listing sent along indicates that many of the FM stations in Italy broadcast in English, such as 96.00 Radio City Palerno and 102.50 Radio Palermo Stereosound, in Palermo. It is not clear from the list whether any RAI stations are included, or if the list is confined only to commercial stations. Also seemingly omitted are Vatican City's FM station(s) and San Marino's stations, which one would think would cover part of Italy itself.

CITAD EIV	OLALI	CHO				
	92.5	HION-FM	L	50	Radio Central	1040
	92.9	HIEGEMS	п	1000	Radio Femina	1595
	94.9	HIJP \$	m	100000	Commercial Esteres	
		HIJB \$		1000	H1 JB	
	96.5	HIMS-FM	Ĺ	50	Radio Cristal	570
	97.5	HIGO \$	51	1000	HIGO	
	98.0	HIAT-FM	1	200	Radio Universal	650
		HIL-FM			La Voz del Trópico	790
		HIXZEMS		10000	Radio Listin	1350
	103.1	HIBE-FM	L	50	Radio Mil	1180
		HIBA-FM	-	200	Radio Popular	920
		HICM-FM		250	Radio ABC	540
		HI.		100	Radiorama	
		HIT-FM	L	50	Radio Visión	1260
		HIFA \$	107		HIFA	
Villa Tapia					Radio Cumbre +67 H	HzSCA
		above 1	ist:			
Alto Bandera					Radie Clarin	860

Ihanks to Richard Clark for this information, with updates supplied by Mike Dorner, and relayed through Ken Simon. Left out of this list are several stations listed as inactive, and "FM" stations not operating on the conventional 87.5 to 108 MHz band. If any of the inactive stations return to the air, please let us know, and word will be passed along.

TACKAERT in Belgium sent some information on the European FM scene. BRT2 has now gone \$tereo for Veltem 93.7 50 km, Schoten 97.5 10 km and Aalter 98.6 50 km. British Forces Broadcasting is getting set to go stereo in West Germany. They just opened a new station on 101.5 in Birlefeld. SR-Sveriges Radio has announced plans for stereo on the 2nd and 3rd networks during 1978. Stockholm and Göteberg now have 2nd network stereo outlets.

FRAN Sveriges Radio
105 10 STOCKHOLM

MIKE DORNER says that Radio Clyde, Glasgow, Scotland, and Radio Picadilly, Manchester, England, are now broadcasting quad over their FM stereo outlets.



Although most of Italy's stations are small, there exist big stations as well, with pictures showing massive self-supporting towers and antennas that look like the huge Federal square loop antennas of a few years back here. I am sure a closer look might reveal circular polarization of many of these.

Dangerous precedent? FCC allows KSL, Inc. a waiver of the FM translator station identification requirement (which currently applies to translators having more than 1 watt). "Currently, the signal of KSL-FM is retransmitted by more than 30 FM translators in Utah, Idaho, Wyoming and Nevada. Three times daily, KSL-FM broadcasts a list of 32 FM translators that carry its programs, requiring about 1 1/2 minutes to complete." The Commission noted that the purpose of station identifications is so that FCC field inspectors can pinpoint the source of interfering stations. The waiver is permanent, for KSL-FM Salt Lake City. Perhaps the FCC should be notified that the station identification rule benefits more than Commission personnel —DXers, principally. A c.p. holder, KSCF 97.1 Florissant MO, tried to get the FCC to change its authorization from Class B to C, and allow it to go to 100 kw at 540°, instead of its authorized power of 50 kw at 500°, but the FCC threw the request out because of short-spacings to WBBA-FM 97.7 Pittsfield IL and KKSS 107.7 St. Louis (10.7 mHz removed).

CBC-FM Charlottetown PEI now on 96.9, with signal greatly improved in Nova Scotia; however, it is puzzling why the CRTC acts as it does, because CBC-FM now is interfered with often by WDHP 96.9 Presque Isle ME. A new CBC station for Halifax has been approved, to be 100 kw directional to the S. shore area of Nova Scotia, unnamed frequency, ----- but to be FM and a CBH AM repeater. As a result of years of complaining by residents of the south shore, the CRTC will be moving ahead and building this station to improve reception of CBC programming. No information as to whether this is to be a Canada-wide policy or not. Mike Dunn is wondering if it is proposed that AM network programming be spread throughout wide areas all over Canada by means of high power [and might I add nonidentifying] FM stations? None of the Maritimes' low power repeaters on FM are on the air, such as CBHJ, CBHI. There are problems in getting equipment, although transmitter sites and phone links are reportedly in. No sign of the new CJCH-FM Halifax, although it has a construction permit. "No sign of them yet, and no amount of prodding can get any info out of station. . They don't know when they are coming on." Robert McGowan, Burnham ME, contacted the manager of WTOS Skowhegan ME, who said it has no plans to move to 106.7 (from 105.1; 106.7 being the channel now allocated to Skowhegan by the U. S. FCC). "He told me that there is an allocation pending in Plymouth NH for the last 5 years that the FCC has yet to act on which may affect a change of antenna location for WTOS (?). . . A move to 106.7 might cause interference with WBZ-FM Boston, but he wasn't sure of this. He also said 'We like it here at 105.1, and plan to be here for a long time'. He also said WBLM Lewiston is seeking a power increase and become a Class C station; also WJBQ Scarborough a frequency change and power increase as a Class B station. "

WHRW *90.5 Binghamton NY now on 7 am to 4 am 7 days per week, and will try to maintain this long schedule all this summer. Joe Smith, Jr., Johns on City NY, lives near McIntosh's headquarters and now uses the MR-78 for his FM DX listening. While this is not an equipment review column, let's note his comparison with a Sony 5130 tuner, which he tried out this winter. He could hear WAMC 90.3 Albany while his local WHRW 90.5 was on the air with the McIntosh, but not with the Sony. He got the local stations on 35 different places on the dial with the Sony, but the McIntosh brought in locals at only one place on the dial where they did not belong. However, he says he befriended some of the engineers at McIntosh to modify his set so that it would perform more like a DX tuner than a hi-fi tuner. They "told me they are making a new tuner a MR-79, and when it is ready they are going to give it to me for two weeks and they want to know how good it will be for DXing. But it might be two years before the new tuner is ready. "Admittedly, McIntosh products might be nice and they are treating Joe very well, but I find their advertising about the "FREE McIntosh Catalog and FM Directory" dishonest and deceptive, and have written their advertising manager asking that they refrain from claiming that their publication covers all of North America when it does not and from implying that they publish a useful and up-to-date list, when the list I received recently had information in it that was no newer than 5 years old. No reply to myletter to them yet, although I wrote in December, 1976. Joe would rather see music formats in the by-frequency part of the Station Directory rather than networks, because 'you only hear the news for about five minutes and the music programs are for 55 minutes," and the networks change frequentlysee especially the two pages almost full of changes in the ABC networks alone. Perhaps if somebody were to come to Duluth and do the tedious work of adding format data to my by-frequency list it could be done, but I just do not have the time.

Williamsport (PA) Area Community College plans to apply for *88.1 with 10 watts, but have not yet mailed their application to the FCC, so says the "city edition" of Grit, a national paper published there. Several reporters mentioned WBAI 99.5 New York being back on the air, sounding like it did before. Their program director, Pablo Guzman, who was the center of controversy when the station was taken off the air, resigned. Another station with its share of troubles is WXPN*88.9, which an FCC judge recommended to lose its license for broadcasting "licentious slime and nauseating verbiage," and without proper supervision by the licensee, the University of Pennsylvania. WGAL FM 101.3 Lancaster PA now WNCE — "Nice Radio"; format still m; "Nice 101," promos obnoxious."

FCC-FM May, 1977

The new WXYC *89.3 Chapel Hill NC doesn't answer its phone, but "they are putting one helluva signal out as received here in Durham about 8 miles away," writes Warren Bird. "X-89" will be on 5 am to 2 am. In Kentucky, WAKQ 101.1 Russellville, "KQ101," programs more to nearby Bowling Green than to its city of license. One writer with SCA equipment, Ted Fleischaker, feels it important to maintain the distinction in listings as to which stations have Muzak and which music, "because Muzak has a 1-2 minute pause of silence every quarter hour and this differs from the other services which program continuously. . . If the guy who complained would. . .listen to either or both any length of time as I do, he would know the difference immediately, which also means they could serve as an ID aid and also tell me which to listen to when on a trip (I favor the Muzak over the other). I find the Atlas valuable."

WTBf 105.7 McComb MS still not on the air; have they applied vanishing cream? Station WRES 105.7 Troy AL not observed on a recent tropo opening into southern AL; Mike Dorner wonders if the old WTUB is off the air again? Mike says AM can legally offer a fairly flat 50-15000 Hz response, but the limiting factor is poor signal to noise ratio on that band-especially in the South with frequent thunderstorms and higher noise levels on the band than in the North. On the Atlas: I prefer the maps retain call letters and not formats, as they are getting cluttered. Give institutional names for the EFM stations. This is more valuable than for commercial outfits newly formed for the purpose of running a radio station; we're really not that interested to know their corporate names. Also for DXers mailing a reception report postal employees know the commercial calls, but often a letter will not be delivered to a college station unless the institution's name is on the envelope. On listing non-IDers: "more stations are using them almost exclusively. . . Let's face it, call signs are a holdover from telegraphy days and have disappearedalmost everywhere on the broadcasting scene except in North America. You rely on the help of DXers, which is good, since someone else does all this compiling, and club participation is broadened. You get info that helps the Atlas and the compilers get a satisfaction of seeing their work in print, . . The arrows on the maps look poor, . . Perhaps sectional maps are the answer, the breaking of scale such as on pp. 42-3 looks bad and is confusing; the one for California looks good." WZZP 106.5 Cleveland OH now on with new 50000 watt, higher tower facilities, \$ rock.

Ralph Strobel in IN receives some 16 ten-watt FM stations, which he is taping, hopefully to be done before summer puts a stop to some of these stations' activities.

Charlie Taylor in Indianapolis caused me to go to the FCC rules and, he's right, there is nothing in them that limits the frequency response of AM stations. He feels all Indianapolis AM stations send out signals in excess of 10 kHz. He says I have been wrong to abbreviate FM's frequencies as mHz, that MHz (capital M means Mega, small m means milli, for'megacycles' while kiloHertz should still be given as kHz, the capital H being for Herr Heinrich! Yet the FCC speaks of audio frequencies as "hertz," but capitalize the abbreviation, "Hz." Taylor worked for the founder of WFMS 95.5 Indianapolis, Martin R. Williams. "There is no doubt in my mind that Mr. Williams liked neither the old WFMS format (after he sold it to Susquehanna), nor the new one. Unfortunately, the original format just didn't attract a large listenership."

WWJR/FM98

now has Drake-Chenault's top 40 contemporary sound. WWJR 97.7 Sheboygan WI deviates from this only from 7 to 10 am Sundays "to meet the public affairs commitment." In MN, Minnesota Public Radio will be buying time from noncommercial KBEM *88.5 Minneapolis to offer a classical music alternative 6 to 9 am M-F, while the network continues to offer Garrison Keillor and the Morning Show, with its folk music, comedy, poetry, and interviews. Cost of this service for 12 months: \$14000.

John Ebeling spent about \$2000 to give readers of this column special FM station and SCA news for Hawaii and southern California, so I am glad to make use of it. I also encourage others to take expensive vacations so that they can contribute information to this column! John was on several of the islands and found Honolulu stations coming in on the island of Hawaii, on Maui, on Kauai and on Oahu. KKEA Hilo not on air, not listed in phone book. KUMU 94.7 Honolulu "koo-moo". Could not get KKAI 96.3 while in Honolulu-passed thru town (Kailua) on bus, but no radio, not sure if on air, not listed in the paper. No SCA heard on any station. On Atlas, it would be helpful to have island names on map. . . island of Maui not drawn very well. In southern CA, John listened on his SCA-equipped portable, and supplied many of the SCA and format data listings elsewhere. He also noted that KGAB 103.9 Inglewood is still off the air. KYAC-FM Seattle 96.5 which has new call letters, KYYX, is pronounced "kicks." KTOP-FM 100.3 Topeka applies for new calls-KDVV.

KUSF *90.3 San Francisco has been testing since December; good strength. KRJB 97.7 Monte Rio, KDVS *90.3 Davis, and the new Davis c.p. on 105.5 as well as [*88.1] El Cerrito are all still apparently not on yet. Sheldon Remington, Oakland CA, also has an SCA adapter and supplied much of the SCA news for northern CA in this column. He received my "FM DX Demonstration Tape," which I sell

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for \$1.25, and enjoyed the old WOR-FM i.d. (And if you're new to the WTFDA and wonder what the FM Atlas is, which I publish, refer to the back cover for a description of the little book and ordering data.)

Pete Taylor sent an article, in Feedback (a publication of the Nat'l Asn. of Broadcasters) alluding to the old non-ID problem; the article was signed by John F. Hurlbut, president, WVMC and WSAB Mt. Carmel IL: "One reason why 'roadside' radio is gaining momentum has to do with broadcasters. You and I have both expressed our frustration at driving cross country and listening to radio stations that may have fancy jingles that do anything but tell you WHERE the station is. There are many ways of identifying beyond the legal requirements, and everyone knows if you're going to have any hope of attracting the itinerant traveler who is 'signal searching' his dial, then the call letters AND TOWN have to be mentioned pretty often. But if broadcasters continue to keep their locations so top secret, frustrating the traveler...a lot of motorists will be grateful to know WHERE to tune for the kind of information suggested in the proposal." I believe "Roadside Radio" is a proposal to string a long wire parallel to a freeway with AM radio programming on a special frequency. Radiation would be limited to over the roadway and programming would be full of travel tips, news of scenic attractions, special events, and commercials. I oppose the idea because it puts reliance on listening to moribund AM radio and not on FM (or FM-SCA!), while conventional broadcasters oppose it because it would siphon off listening by some of the travelers and advertisers might be attracted to it instead of using the facilities of regular stations. Mr. Taylor's station is

WBOE *90.3 Cleveland is now stereo and NPR, but unchanged otherwise. "They come on with less than a minute of warm-up time at 6 a. m. 'This is WBOE the Bored (they do

KFOG

104.5 Ghirardelli Square San Francisco 94109

sound that way) of education station with studios and transmitter in Cleveland', then the Star Spangled Banner, followed with children giving the pledge of allegiance." Offering contradictory evidence on the AM "hi-fi" situation is Al Ellis from Ontario, who lived in San Francisco early in this century:

"All this baloney about hi fi in the broadcast band. Why does not some one mention that there are two stations in the continental U.S.A. with permits to do so and they have done so for years? The first is WQXR New York, and KXEL Waterloo IA. That to the best of my knowledge is all. . . WHAM in Rochester NY years ago installed the equipment for quality sound. Then had the lawyer make application to the FCC for permission to use it. I must mention here Stromberg Carlson, the quality radio firm, owned them then. Before their letter from the lawyer made it to Washington they received a letter from the FCC mentioning that they were doing a 'no-no,' and it would not be tolerated. . . Scott of Chicago made a number of nickel-plated hi-fi receivers for the broadcast band during the depression of the thirties, when ordered. Understand they did not sell any real amount of them. People used to hearing sound from the heater-cord type sets prevalent at that time would not have recognized quality sound had it tripped them. . . We have good FM on the market, so why try to make a silk purse out of a sow's ear? Some will claim all sorts of things to sell what they have for sale. Caveat Emptor." KEX AM Portland OR was heard at night in CA, and it did sound good to Don Voegele, who continues to keep up to date on Australian FM developments. One thing he sent was an article giving the schedule of 3RMT FM 102.7, the Radio Station of the Royal Melbourne Institute of Technology, which seems to be a combination of public and student programming. Eric Norberg in Portland, KEX program director, feels if AM stereo is authorized more attention will be paid to AM bandwidth and overall quality in receivers.

Also from Canada, electronics expert Antonio Randaccio, reports he is still interested in FM DXing, but he is having some trouble with customs authorities for bringing into Canada monitoring equipment from Italy covering 20 to 1000 MHz. The new format of CKNX-FM 101.7 Wingham, Ont. is varied, "according to local variations of the new FM regulations of the CRTC. Music varies from mor, rock, easy listening, country and specialized, with programming 6 am to midnight (on at 8 Sundays)." CONTRIBUTORS last month: Paul R. Anderson, Hartford CT (who monitors ABC's daily "Closed Circuits" for news of new affiliates); Robert Baker, Humboldt IA; Thomas E. Connatser, Sevierville IN; Tom Cornell, Kokomo IN; David Cox, Birmingham AL; Dwight Crabtree, Lafayette NY; Mike Dorner, Metairie LA; Roland Earnst, WDOW-FM Dowagiac MI; John Ebeling, Bloomington MN; Al Ellis, Brantford, Ont.; Doug Everitt, Enid OK; Wm. Fait, Willoughby OH; Ted Fleischaker, Louisville KY; J. Lobaito, WRSQ Geneseo IL; Nick Lombardi, Atlanta GA; Mark S. Lucas, Lancaster OH; Robert McGowan, Burnham ME; Rod O'Connor, SW Harbor ME; Gary Olson, L. Forest IL; Shelby Remington, Oakland CA; John Robertson, Croswell MI; Allen Rockford, Syracuse NY; D. E. Smith, KUER Salt Lake City UI; Wm. Stanger, Scotia NE; R. J. Steinberger, Hudson MA; Paul D. Traska, Buffalo NY; Larry Weil, E. Rockaway NY; Bruce Winkelman, Greensboro NC. CONTRIBUTORS this month: Anderson, Jose Bahr, WVIS Frederiksted VI; Warren Bird, Durham NC; W.O. Dickerman, Williamsport PA; Dorner; Mike Dunn, now at PO Box 64, RR#2, Head of Chezzetcook, NS, Canada; Ebeling; Ellis; Fait; Robert Fischer, Fairbanks AK; Fleischaker; Robert L. Foxworth, New York NY; Harry Greenwald, manager, WWJR Sheboygan WI; Michael Hofmann (Lee Michaels) WWMH Minocqua WI; Clarke W. Ingram, Pittsburgh PA; Joe Markewicz, Hornell Heights, Ont.; McGowan; James Mead, Mt. Pleasant MI; Gary Moon, CKNX-FM Wingham, Ont.; Eric Norberg, Portland OR; Dave Pomeroy, Topeka KS; L. E. Price, Wilmington NC; Antonio Randaccio, Montreal PQ; Remington; Jack Shusdock, Enfield CT; Andy P. Smith, Dillsburg PA; D. R. Smith, WEXP Gadsden AL; Joseph Smith, Jr., Johnson City NY; Ralph Strobel, Muncie IN; Charles A. Taylor, Indianapolis IN; Peter Taylor, San Francisco CA; Don Voegele, Chico CA; Weil; Todd Williams, Oxnard CA; R. Zent, Huntington IN; John Zondlo, Hammond IN. Next month, I promise a shorter columni

CANADIAN NEWS REPORT

NORTH OF THE BORDER REPORT

MAY 1977

MARK L. LEWIS #701-345 Waverly St Ottawa, Ont K2P OW4 J. JOEL ROSENBERG Willowdale, Ont M2J 507

TV NEWS ** APPROVALS

APPLICATIONS

EDMUNDSTON, NB ch. 5 2 kw. Sat. OFCM Quebec (TVA)
TROIS RIVIERES, Pych. 16 11.6 kw. Sat. OBMT Montreal
MATANE, PQ CBGAT Press ch. 9 15.5 kw & Mt. Logan Press ch. 6 3.2 kw & St Adelme
MATANE OBGAT-6 ch. 6 422 w. To discontinue operation
STE ANNE DES MONTS ch. 8 45 kw. Sat. OBGAT Matane
MCNT LOUIS EN HAUT ch. 19 3.35 kw. Sat.

GRAND VALLEE CBGAT-5 Press ch. 11.5 watts, 200 ft. Prop. ch. 6, 587 w., 796 ft.
CAUSAPSCAL OBGAT-5 Press ch. 6 5 watts Prop. ch. 9 11.3 w.
MURDOCHYLLE OBGAT-2 Press ch. 6 5 watts 70ft. Prop. ch. 10 1.6 kw., 1276 ft.
MONT CLIMONT OBGAT-1 Press ch. 11 343 w. Prop. ch. 10 1.6 kw., 1276 ft.
MONT CLIMONT OBGAT-1 Press ch. 11 343 w. Prop. ch. 15 708 w.

BAIE COMEAU ch. 28 3.5 kw. Sat. OBC FR
RIMOUSKI ch. 11 142 kw. Sat. OBC FR
RIMOUSKI ch. 11 142 kw. Sat. OFCM-TV Quebec (TVA) & local studio
SEPT ILES ch. 11 3.8 kw. Sat. ch. 11 Romouski (TVA)
RIVIERS DU LOUP ch. 9 49 kw. Sat. CFCM Quebec (TVA)

RIVIERS DU LOUP ch. 9 49 kw. Sat. CBWFT Winnipeg

SENORA ch. 2 3.8 kw. Sat.

VERKILLICN BAY ch. 74 10 watts Sat. W
SASKATOON, SASK ch. 15 132 kw. Sat. #

SASKATOON, SASK ch. 15 132 kw. Sat. #

PRINCE ALBERT ch. 9 27 kw. Sat. #

ESTERHAZY ch. 25 10 kw. owned by OBC AS Sat. CKOS-TV Yorkton

MONTREAL LAKE ch. 11 168 watts Sat. OBXFT Edmonton

European FM Changes

Mike Dorner, Jr. 1409 Hymelia Ave. Metairie, La. 70003

Data based on a line-by-line, page-by-page comparison of the 1975 and 1976 World Radio Television Handbooks. This compiler has an index file of World FM listed in WRTH arranged on a frequency basis. If sufficient interest is expressed, headquarters says that it will consider publishing it.

* stereo.

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		71.81			
	14				

Frequency cha	inges cont.				New in Stereo	
	R Gerona was	90.0	to 88.2	Denmark	All Danish FM a	
	R Vigo	99.2	to 99.4	Finland	Pihlpudas *8	8.6
	R Toledo "	90.9	to 97.2			9.2
	R Jaen "	93.3	to 96.9		Jyvaskyla *8	9.9
	RJ Espana,				Kuopio *9	1.6
	Madrid "	89.7	to 89.6		Koli *9	3.4
	RJ Alamansa "	91.8	to 88.8		Alitari *9	4.6
	RJ Sabadell "	89.1	to 89.4		Oulu *9	7-3
			State Miles	France	Antisanti *9	4.8
				Great Britain	Talconeston *8	9.7 BBC
	Power Increases				Talconeston *9	1.9 BBC
Austria	Kahlenberg	97.9	100 kw		N. Hessary Tor *9	0.3 BBC
	Kahlenberg	99.9	100 kw		Redruth *9	1.9 BBC
	Kahlenberg	91.9	100 kw		Pontop Pike *8	8.5 BBC
Finland	Koli	90.1	30 kw		Pontop Pike *9	0.7 BBC
	Vuotoso	90.1	3 kw		Pontop Pike *9	2.9 BBC
	Ruka	90.7	2 kw		Sandale *8	88.3 BBC
	Antari(A)	91.9	3 kw		Sandale *9	0.5 BBC
	Ruka	92.8	2 kw		Sandale *9	2.7 BBC
	Koli	93.4	30 kw		Ayr *8	8.7 BBC
ermany	Tegernseer Tal	87.7	½ kw		Ayr *9	0.9 BBC
	Bremerhaven III	95.3	1 kw		Ayr *9	3.1 BBC
	Bad Marienberg	89.8	25 kw		Milburn Muir *6	88.8 BBC
	Bad Marienberg	95.4	25 kw		Milburn Muir *9	1.0 BBC
	Bad Marienberg	93.1	25 kw		Milburn Muir *9	3.2 BBC
	Bonn	90.7	3 lov		Rosneath *8	9.2 BBC
reat Britain	Birmingham				Rosneath *9	1.4 BBC
	BMRB Radio	94.8	2 kw		Rosneath #9	3.6 BBC
fugoslavia	Crni Vrh I	89.7	40 kw		Sandale, Sct. *8	38.1 BBC
	Crni Vrh II II	199.3	40 kw		Sandale, Sct. *9	0.3 BBC
	Pohorje II III	96.9	7 kw		Sandale, Sct. *9	2.5 BBC
	Nanos	101.1	3 km	L)	andrindod Wells	A STATE OF THE STA
					Lland. Wells *6	9.1 BBC
In late 1976.	Broadcasting m	agazir	ne (USA)		LLand. Wells #9	1.3 BBC
	Sweden is buyi				Lland. Wells *5	3.5 BB0
	iters to change				Divis *9	0.1 BB0
	complete stereo					2.3 BBC
	reports that I					4.5 BBC
	tal stereo stat			Portugal	All Radio Clube	
and Turino.		2			Portugal FM are	

FEEDBACK (continued from page 5)

MAY 1977

A California member writes in defense of the World Radio TV Handbook:

The WRTVH may not be of much use to the TV DXer, but a vast majority of WTFDAers are also into BCB and SWBC and the WRTVH is an indispensable tool for such DXers. Though its accuracy and typography are marginal and its U.S. distribution system is abysmally lacking, it is still the best source of information, under one cover, for a majority of DXers. At the discount price of less than 2¢ per page, it sure beats a lot of publications of so-called non-profit DX clubs, both in terms of price and accuracy.

Mike Dorner of Metairie LA comments that the WRTVH actually provides excellent coverage of European and Asian FM, "contrary to what some may believe!" Mike's listing of European FM changes, gleaned from the latest WRTVH, appears in this edition of the Digest.

Al, your editor recently invested in the 1977 WRTVH, and doesn't see his \$8.45 as having been poorly spent, even though I am not into AM or SW DX. The WRTVH does lack in its USA TV-FM listings, but it is a useful reference for such stations overseas, and as such seems worth the price. The Handbook has been around for more than 30 years, and as such has established its quality; truly, it isn't another of the yearly "must have" books. I don't anticipate buying another WRTVH edition, but I am glad to have the current issue on my shelves. Although it is next to worthless for domestic TV-FM DXing, I have the notion that eventually it will prove useful.

Next month, the debate over Winegard's AC-4990 is scheduled to resume, with comments on hand from several prominent DXers. Yours are always welcomed!

Clarke W. Englan

M DX NORTH

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

For FM Diers in Camada, the following northwestern states: WA OR ID WY MT ND SD NE WI IA, & all states east of the Mississippi River and north of the Mason-Dixon Line, Report your DXI The 80° wx up here in the North should kick off the tropo conditions, and the Es season is fast approaching us. So be alert for the openings. Es was noted by reporters on 12/21. 1/26 & 1/31. Tropo was noted on 3/27 in the upper midwest. Not much else was noteworthy from the 6 reports that follows:

Rod O'Connor - P.O. Box 72 - SW Harbor, ME 04679
Eqt: Panasonic RF888 AM/FM/PSB w/built-in whip antenna.

12/21 1530 YTMQ 106.5 TN Chattanooga,(1130) 1551 WHCE?103.9 SC Orangeburg,AM-ID(1130)
Es 1537 WCCV 97.5 VA Charlottesville,(700) 1630 WREL 102.9 GA Columbus,o/Lel WGAN 1549 WQSM 98.1 NC Fayetteville,"Q-98",(870) 1632 WPL0 103.3 GA Atlanta, "P-103",(1250) 1550 WFOX 97.1 GA Gainesville,o/Lel WBGW 1700 Es faded out

It was strange getting this Es, as most of the Es I have gotten was during a warm summer day, not when it was snowing! (This report was buried under a 6 foot snow drift for over 2 months -- I found it while policing up my front yard in March! -- fjn)

Roger Winsor - 1030 S. Colorado - Hobert, IN 46383 2/17 WGLT 89.1 IN Normal, non-stop c

WDSO 89.1 (location? - fjn) RS,m in AM, r for school kids. lcl talent w/mike hum. 1/10 0000 WGTE 91.3 () s/off. Hrd earlier in PM mixing w/WCSG.

WLST 95.1 WI Marinette, FM-95 nonIDs plus lcl ads, \$, Mixing w/WLIP.
Totals:708. My antenna system is terrible, my RX needs work, and I have several joints in my lead-in (sounds like mine-fjn) yet DX floats in from time to time. My job takes me away from the house a lot, so I don't have a lot of time to listen. Just waiting for this year's skip season. 73, Roger.

Fred McCormack - Des Lacs, ND 58733
3/27 Tr 1613 KCLD 104.7 MN St. Cloud,r,(400) 3/28 Tr 0018 KELO 92.5 SD Sioux Falls,(395)
1615 KCMT 100.7 MN Alexandria,k,(330) 0856 CHM 97.5 MB Winnipeg,ex-CJOBA 1628 KMAV 101.7 ND Mayville, k, (205 (New underlined)

Weak scatter type tropo was first heard in many months, and it was welcome. 73. Fred.

Steve West - 432 Kermore Road - Havertown, PA 19083 Eqt: Heath AR-15, Stereoprobe 9 antenna 35°AGL, Alliance rotor - horiz/vert use, CDR AR-10 rotor for azimuth rotation. 11/4 MS 0030 KATL 101.5 IA Storm Lake (1050) 4/1 Tr 2200 WIYY 97.9 MD Baltimore (100) 12/6 Tr 1700 WEXZ 95.9 MD Baltimore (100) 4/3 2300 WPFW 89.3 DX Washington (130) 12 23 Tr 0000 WOOK 100.3 DC Washington (130) 4/4 GW 2230 WDNR 89.5 PA Chester (10) 1/26 Es 1700 WRYO 98.5 FL Crystal River (775) 4/6 Tr 1830 WCLA 90.5 ?7 not in Atlas.c

Michael Hogan - 9224 Cottage Grove Ave. - Highland, IN 46322
2/11 Tr 1658 WILL 90.9 IL Urbana (125) 2/23 Tr 1815 WHLA 90.3 WI Lacrosse (295)
2/22 GW 2003 WWMM 92.7 IL Arlington Hights 3/14 Tr 1305 WGTD 91.1 WI Kenosha (72)

Log total: 77. Educational band: 25. 73 - Michael. Paul D. Traska - 64 Weaver Ave. - Buffalo, NY 14206

Total: 89. States:8 +	DC. 88-91 MHZ: 37.	My 1st	Es on FM	n 1/31 wa	s a thrill.
1/3 Tr 1700 WUHY 90	.9 PA Philadelphia	3/11 Tr	2204 WHYP	100.9 PA	Northeast
1/6 1350 WDTR 90	.9 MI Detroit		1100 WDTR		
1/10 1730 WETA 90	.9 DC Washington		1600 WKTL		Struthers
1/29 1700 WOSU 89	.7 OH Columbus	3/13	1700 WRTI		Philadelphia
1/31 Es 1600 KPFT 90	.1 TX Houston		1730 WVIA		Scranton
		3/15	0200 WVKO		Columbus
1920 WYSU 88.	.5 OH Youngstown		0230 WPEZ		Pittsburgh
	.5 NY Rochester		1700 CFNT	101.5 ON	Peterborough, (ex-CHEX)
		3/18	1200 WAMC	90.3 NY	Albany
		3/19	2130 WDBA		
		3/21	1345 WOSU	89.7 OH	Columbus
		3/23	2035 WRLX	106.9 NY	Auburn
					Meadville,WMGW-ID
1700 WVWC 88.		3/27	0208 CFRC	91.9 ON	Kingston
	L		1700 no ID		



Southern F.M.DX

DAVE COX 2007-E Brandywine Ct. Birmingham AL 35216

May 1977

Deadlines: the 10th

SERVING FM DIers OF THE SOUTHEAST, SOUTHWEST, AND MEXICO

This month marks the beginning of the new, expanded coverage area for this column, as amnounced in previous issues of the VUD. Many of the nation's top FM INGER reside in the areas added to Southern FM DX and, consequently, will be reporting their DXing results in this column in addition to those crack DXers of the Southeast who have always supported Southern FM DX. As editor, I look forward to the opportunity of working with the FM DXers of the Southwest, Southeast, and Mexico. Here again is the list of states reporting to this column: AL, AR, AZ, CA, CO, DE, FL, GA, KS, KY, LA, MD, MO, MS, NC, NM, MV, OK, SC, TN, TX, UT, VA, & WV.

FM DXing during March was very poor according to our reporters. In fact, the only DX heard in March was a few short range tropo openings. One DXer does report, however,

a February Es opening where the MOF went to at least 104.3 mHz.

Ted Fleischaker, 3023 Tremont Drive, Louisville KY 40205 EST Equipment: Technics ST-7600 and Winegard SC-650 at 25 feet

Am late with this one, but since I just rejoined after a couple of years absence from the WTFDA, figured I'd best get it in somewheres. Best winter Es opening heard in many years here on 2-7-77. New loggings were:

years here on 2-7-77. New loggings were:

1945 KMNJ 103.3 TX Midland

2001 XHTO 104.3 Ciudad Juares, Mexico
1959 KNFM 92.3 TX Midland

2030 KTTT 92.9 TX San Antonio

Also heard oldies such as KASE 100.7 in Austin TX, which I got a good \$ tape of for over
ten minutes. Only other new logging was 3/1 when heard WSOF 89.9 Madisonville KX which
is a new station on air from a Christian School there.

Just bought the new ST-7600 and am waiting for the DN season to try out the selectivity feature; it seems to help a lot in this crowded station area of semi-locals, so have high hopes. Also, just replaced antenna downlead after a hard winter which left me with crowled cable and shorts, so it is good to be able to go 360 again.

cracked cable and shorts, so it's good to be able to go 360 again!

DX related side hobby is swapping of \$ FM tapes — if interested, drop me a line at address above! 73, Ted (Many members will remember Ted is a former editor of Southern FM DX. Thanks for reporting, Ted, and welcome back! .. dsc)

Doug Everitt, 1710 W Maine, Enid OK 73701 CST

Equipment: Kenwood KT-5007 tuner and 10 element FM yagi at 35 feet
Well, I guess the latest shuffle of zones puts me in your reporting area, so I thought
I'd drop a note. FM DX conditions have been generally lousy for the past month, with enly
a few short-range intense type tropo openings, which produced scores of dull relogs, which
I won't bore anyone with right now. Es has yet to show for its summer season at this
writing (early April), but I'm hoping for an early appearance this year. The FM yagi will
probably remain at 35 feet until several other DX related projects are completed. I hape
to have a more substantial report for SFM next month, but this will have to do for now.
...Good DX to all... (Thanks for the report, Doug, and welcome to SFM! ... dso)

Hank Holbrook, 7211 Chestnut Street, Chevy Chase MD 20015 BST
DXing from our cottage at Fair Haven MD overlooking the Herring and Chesapeake Bays, about
15 miles below Annapolis MD.

Several trips to the cottage in March and we managed to turn up two new ones for our log: 3/10 2200-2328 WPFW 89.3 DC Washington r; (35mi) Friends Program, mx, & 45 minutes of news 50kw, Pacifica Foundation. Present schedule 0800 to 1700 but will go to 24 hours when technical problems cleared up

3/19 03h0-0h12 WWWV 97.5 VA Charlottesville r;(120) ex-WCCV 50kw
Veries now at 797 stations in 35 states and from Manitoba, Ontario, Quebec, and Nova
Scotia plus Bermuda, Cuba and Puerto Rico. 73, Hank

To add further to the confusion resulting from the changes in the reporting areas, a change of address is in the works for your editor. We will remain in the Birmingham area, but my wife, Ginny, and I have decided the time has come to move on to a bigger and better apartment. Unfortunately, our new address is not known definately as of this writing, but it should be known in time to be published in the June VUD. The best policy, I believe, will be to mail reports to the old address, given above, until you know my new address. Even reports mailed to our old address after we move (June 1) should be delayed only one or two days by forwarding (provided the post office cooperates, hi!). So, report, regardless of the address you use. Next month, we will be able to give you our new address.

Until next month, Best of DX to All

EDITOR'S NOTE: The running series on understanding polarization is again held this month due to lack of time to transcribe the convention lecture tape, and a number of negative comments received at this desk (see FEEDBACK this issue). Your comments on whether or not the series should continue are welcome. --CWI

BALUNS

Many a DXer has seen balums priced from \$1 all the way to \$10 or \$12, and has asked himself what the difference is, if any. Just what you get for your money when buying balums is indeed a good question. You might get less of a balum than you need for your installation; or you might pay for features you don't need. But first, let's look at that seemingly simple balum.

What It Does

For maximum transfer of power from antenna to receiver, impedances must be matched, regardless of the "signal conditioning devices" in-between (traps, boosters, splitters, etc.). If impedances are mismatched, the receiver never "sees" all the power it should. Power loss increases (but not proportionally) as mismatch increases.

A balum makes devices of dissimilar impedance work correctly. For TV and FM all receiving gear is designed for either 75 ohm or 300 ohm impedance. Thus the word "balum," since it deals with 300 ohm BALanced and 75 ohm UNbalanced impedances, was adopted.

Since only two impedances are involved, balum design is simple. It just converts, or changes, impedances by a factor of 4 to 1, or 1 to 4. For example, if 75 ohm coax is used with a 300 ohm antenna and TV, the 300 ohm side of the balum is connected to the antenna and the 75 ohm side connected to the coax. The 4 to 1 conversion "down" in the balum means that a match is obtained between antenna and coax. At the set, another balum is connected, and the balum converts "up" to 300 ohm to match the set. While the conversion within a balum does change the voltage, it does not change the power.

Note that a balun cannot correct, or compensate, for impedances of devices connected to it. It just converts what it "sees." For example, if antenna impedance in the previous example was actually 200 ohms (instead of 300), the 4 to 1 conversion "down" means you would wind up with a 500 (200/4) ohm load connected to 75 ohm coax.

What It Is

Briefly, all baluns are housed in simple enclosures, as little as ½" on a side to as large as 6". The 300 ohm connection may be (1) short 300 ohm flat line, or (2) two parallel wires separated by spacers (like 300 ohm open T-line), or (3) round or rectangular solid rods, separated for 300-ohm impedance. Some 300 ohm lines have spade lugs. Some outdoor models have toothed washers and terminal screws. You slip your own 300 ohm line beneath the washers and then tighten. The 75 ohm side consists of a connector. Usually, hardware is included to attach to coax for mating with the 75 ohm connector. Finally, some sort of mounting harness might be included. The "guts" inside a balun will be discussed later.

Factors When Buying

There are five basic factors to consider when buying a balum: (1) impedance transfer for frequency desired, (2) shielding, (3) enclosure, (4) 75 ohm connector, (5) goodies.

(1) Several methods for achieving the 4 to 1 impedance conversion have been used in balum design. Apparently-per discussion with Bob Cooper--the method

TECHNI-CORNER MAY 1977

used for all modern baluns is torroidal. (A torroid is a coil, or group of coils, wound on a core.) With this method of manufacture, it apparently is quite hard to make a balun that doesn't maintain a 4 to 1 impedance change over a specified range. (Some DXers have commented to me that loss was quite high with baluns they used. I can't comment on this since I don't know (A) design of balun, (B) if they were used at correct frequency, or (3) if moisture had contributed to loss, especially if "indoor" type was used outdoors.)

It's thought that the rise of CATV equipment may have "forced" improvement of all baluns. In CATV lingo, any device has a "flat" response if it maintains a characteristic within $+\frac{1}{2}$ dB. With baluns, flat response means it maintains a 4 to 1 conversion within $+\frac{1}{2}$ dB over a specified frequency range. One-half dB means about 6 percent power loss. Thus, with modern baluns, a true 300 ohm device would be converted to 75 ohm + 6%, or about 70.5 to 79.5 ohms. ($\frac{1}{2}$ dB is indeed little, when you consider that the impedance of all-channel VHF antennas, especially yagi types, may vary from 200 to 400 ohms, even good ones!) The so-called "conversion loss," therefore, is quite tolerable.

Note that term "specified frequency range." Since impedance involves frequency (as opposed to purely resistive devices), it follows that a balun can keep the 4 to 1 conversion only over a certain range. As frequency increases, the effectiveness of conversion is reduced. With the balun, stray capacity, etc. contributes to the loss at frequencies above the designed frequency.

However, all TV baluns are designed for two specific ranges: up to channel 13, and up to channel 83. It's within these specified ranges that conversion loss should be maintained. Most 2-13 baluns usually maintain impedance within $+\frac{1}{2}$ dB, while 2-83 models usually maintain impedance within $+\frac{1}{2}$ dB from ch. 2-13, and within $+\frac{1}{2}$ dB (about 12 percent) from ch. 14-83.

Obviously, a 2-13 only balun used for UHF could mean disaster. Unfortunately, most catalogs specify a balun "for TV." That's a lot of help!

- (2) Shielding usually consists of aluminum foil inside that should surround the balum. The torroid can pick up quite a bit of RF signal itself, especially at UHF, and especially if mounted at antenna in strong signal areas. But don't think you're safe with an unshielded balum at the set. It too can pick up a lot of RF in strong signal areas or can pick up radiation from TV oscillator to IF. Your best bet, I imagine, is to buy a shielded type whenever the chance of RF pickup is likely. If saving is significant, you could use the unshielded type near quality FM receivers. But if cost difference is small, don't take a chance: buy the shielded type.
- (3) The type of enclosure usually indicates whether it can be used indoors or outdoors. Obviously, outdoor types must be weatherproof. However, I have "opened" some outdoor balums and found mildew, moisture, etc. The better outdoor types seem to be totally enclosed (possibly with protective rubber boots) some may even be encapsulated. The poorer ones have plaster cases with snapconnected insulators holding the guts. These types, obviously, aren't very moisture-proof. The fact that they can be opened easily by prying at the corners indicates inadequate moisture seal.
- (4) Coax connectors now are usually the F-fitting type, but some use other types. Quite honestly, I don't know if one connector is any better than the others; maybe one is easier to work with, but I don't know. Some DXers have reported poor luck with assembling coax connectors. Personally, I made many coax patch cables years ago, for audio and RF, and know from experience that you can make more bad coax connections than good ones if (1) you don't have precise instructions, dimensions, etc. for stripping coax and fitting into connectors, or (2) you aren't careful. If anyone can comment on the ease of assembly or better performance with a certain type of connector, speak upl
- (5) Goodies cover such things as special mounting hardware, possibly for convenience or strength--or possibly a more convenient 300-ohm side connector arrangement as described earlier. Little except convenience would be gained with this arrangement.

Again, like all products, get <u>detailed</u> specifications from the manufacturer and compare costs. Buying from <u>electronic</u> catalog data only isn't the answer.

EASTERN TV-DX

Bill Thompson 1907 Seneca Street Buffalo, NY 14210

May 1977

Deadline: 10th

After mid-March, a fair amount of tropo finally began to show up in Midwestern and Northeastern areas. In some places, it seemed as if Spring wasn't going to arrive this year—but it did, and many areas on the Bastern Seaboard had record temperatures by early April. Unfortunately, some violent weather took place in the Midwest also. There was a bit of Es activity in early April, and your editor noted a strong Aurora on April 6 that showed up even on highband VHF; perhaps we'll have some auroral DX to report next time. The skip season is here!

Dr. Joel Rosenberg Apt. 909 40 Godstone Road Willowdale, Ontario W2J 3C7 From North Wismi Beach, Florida: "Feb. 13/77 to Feb. 20—VHF (hotel antenna): Wismi, Falm Beach locals. UHF (with bare terminals): received all Mismi-Ft. Landerdale stations including satellites of WCIK-6 on 33, 61, 64, 69. Feb. 16 Tr 0015 WKVU-26 Naples, 110 mi. (no antenna!!)."

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

Barch 25 fr to PRB wild..." 28 Rs 1707 "Low level Rs

14 fr 1800 "Fantastic open- WTOL-11 OH in for very Tr 1800 "Fantastic openin for very 1200 20 CCI WKRF-22 short time ... ing...all Ohio to stas in except 26 0730 "Same cx as yes-WDHO-24...four terday; wild CCI to stms in except willow terday; wil earlier I noted wild Es on CB" 31 Tr 1900 "All VHF chs have CCI etc." 0759 WLEX-18 KY WEEF-22 OH April 1 Tr 0800 "continuing... unID-18 CCI T WJET-24 PA WWVU-24 WV WVIZ-25 OH W31AA-31 OH to most stations 0950 in from Ohio" W31AA-31 OH T WOSU-34 OH WENR-38 KT 2 Bs 1415 "Increasing Au WYTV-33 OH to WOSU-34 OH WVIZ-25 OH Es type activity WPBO-42 OH WCRT-48 OF T to W/WFMY-2 & "w/CCI!!! Sure other CCI. Vy 1955 20 CCI on 44 0000 CCI on WHIZ-18 1955 20 CCI on 44 ain't Ashland! 1550 intense @ 1435" Tr 1700-"Same type of 2355 Tr cx as 3-26" 1755 "As above-vy CBLFT?" 21 WKEF-22 OH WKMR-38 KY WPBO-42 OH CCI on ch 33
WKMR-38 KY
WPBO-42 OH
WKYT-27 KY to good-excellent "W/CCI" WUAR-43 OH Front weaken-*CCI on 44" 2230 at 2225 EST* 1330 WNBO-45 OH 4 Es 1715 WPBT/WTHS-2 FL 1745 "Terrific CCI 1729 KETS-2 AR 22 Bs 1040 WTHS-2 FL 1729 KETS-2 AR 5 1110 unID-2 "Co 1159 unID-2 CUBA 23 MS 1158 KLNB-3 NB T most chs 2-13" 1110 unID-2 "Cuban" 23 MS 1158 KLME-3 ME T most chs 2-13* 25 Tr 0900 "Super Tr open- 27 0145 "Bands still Log totals: 180 ing...VHF high open up to 1130"

"Does anyone have any info on local AM-FM station remote broadcasting pickup feeders...this aspect of VHF DXing has been ignored for quite some time...the type of stuff I've heard over remote freqs would be most unprintable indeed: DJs swearing at one another for failing to ID at proper times, etc. etc.!

May 1977

Roy D. Horsley Rt. 10 169 Lakeshore Dr. Gadsden, Alabama 35901 (205)442-2540

January and called KVIA-13 May have missed January 26 Es 1810-2040 many unIDs May have missed for confirmation of most of it though. program. They said they had gotten a call from Tuscaloosa "This was the same With a bad antenna MESS that Glenn and and cablevision many of the other next door I didn't realize the higher channel interfer-DXers received... earlier." ence was Es. Rats!" April "KTXT or KNME" February 6 Es 1830 TV Cubana-4 CUBA 2030 KACB-3 TX 2100 unIDs 2,3 Spanish 7 Es 1928 KENW-3 NM "thought it was off" 1930 KAVE-6 NM 1840 Tele-Rebelde-3 "I was working that night and just hap-"I have never seen a "ID as canal 5 NTV" 1910 unIDs 2 & 5 skip overtake WHRC-6 like this one...I pened to turn the "same sound as 3" took a wild stab store TV on ... 1930 "S.D. vs CUBA basketball on 3,5"

"I think I have about as many unIDs as IDs. Wish we had more current info on Cuban and Mexican stations. I am 28, married, have 2 boys--Chip and Chad. I am a registered pharmacist working in Rainbow City. Have been DXing 19 years -first skip being WLBZ-2 in 1958. Planning to invest a wad in an antenna system pretty soon. Hope those "twisters" don't come back through here soon. Totals: 145 stations, 77 Es, 5 countries. Good DXing."

William J. Draeb Rllis St. R.R.#2 Kewaunee, Wisconsin 54216 (CST)
"Not much DX to report this month. Just when I thought Spring was here to stay we got blasted with 11 inches of snow and record cold temperatures."

March

16 Tr 2059 WOSU-34 OH 395 24 Tr 1955 WOET-16 OH 368
14 Tr 1840 WMUL-33 WV 498 18 2100 WXXT-27 KY 473 25 1838 WOSU-34 OH 395
1902 WJET-24 PA 405 22 1938 KDNL-30 MO 432 2359 WIII-38 IN 348

WSKE-35 PA 405 1956 WUSI-16 IL 405 26 0000 WAB-43 0H 340
WINDU-29 NY 445 1956 WHW-36 IA 457 30 166 WDNL-30 ND 432 14 Tr 1840 WMILE-33 WV 498 1902 WJET-24 PA 405 WSKE-35 PA 405 WUTV-29 NY 445 1956 KHIN-36 IA 457 30 1656 KUNI-30 MO 432 1906 Youngstown U's 23 2148 KDNL-30 MO 432 April 2111 WQIN-54 PA 405 24 1939 WKYT-27 KY 473 6 Tr 1828 KINI-30 MO 432 2118 WOSU-34 OH 395 1955 KINI-30 MO 432 "P.S.--on 4-8-77 I noted WITI-6 & WISN-12 Milwaukee switched networks. Six is now CBS and 12 is ABC. 73s & good DX." 6 Tr 1828 KDNL-30 MO 432

"Does anyone know where I might purchase about four F-11 connectors? My dealer can order them but only in large quantities, and I am a bit reluctant to buy a package of 10 or 25."

Marvin Shults R.R.#1 Toulon, Illinois 61483 (CST)

Pebruary 7 Es 1850 XET-6 NL

Monterrey

Monterrey 23 Tr 0830 KHIN-36 IA KSIN-27 IA 1800 XRFE-2 TAMS 2045 XEFE-2 TAMS 1805 KACB-3 TX Tr 2200 KBMA-41 MO 0900 KHNE-29 NE 1810 "XHFI or XHAB-5" 10 1415 WLUK-11 WI 0759 KMTC-27 MO 1823 KWAB-4 TX 11 0900 WKJG-33 IN Big Spring KTVJ-16 MO 0800 KOZK-21 MO

"The program on 2-7 at 1810 on ch 5 was the same dramatic program as was showing on XEFE-2. I have received this ch 2 & 5 combination before but still have not been able to identify the ch 5 component. XEFE-2, XHFI-5(-) and XHAE-5(+) are Net 2 (Canal Dos) stations. That's the primary reason I was asking about the KSD-5 offset. Recently I saw WERZ-2 mentioned on ABC News. Have WERZ-2 and WRBT-33 exchanged affiliations? ABC is red hot. Finally, I wish to thank Bill Draeb for the fine job that he's done as CENTRAL TV-DX editor."

Steve West 432 Kenmore Road Havertown, Pennsylvania 19083 (215)449-1472 (BST) November 25 Es 1730 KTEW-2 OK 1150 January 26 Es 1700 "Cuba-2" 1200 March 10 Tr 0800 WUNK-25 NC 330 WCRA-47 PA 100 December WSBA-43 PA 100 4 GW 2355 WFMZ-69 PA 50 23 Tr 0800 WVIR-29 VA 220 "unusually strong" "Just enough DX this winter to keep my sanity. The spring tropo hasn't gotten here yet, even though it reached the 80's. It's cold again, in the 30's at night, so I'm hoping a warm snap will bring in NC & SC some morning.

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

WCIX? 6 FL 1150

WEDU? 3 FL 985

MUF 89.7 MHz

2029 WPBT 2 FL 1150

2105 f/outs

06 Es 0850-0855 WTHS? 2 FL

For TV DXers in all states west of the Mississippi and Canadian provinces Manitoba & west

Well, after a good turnout last month, things seem to have dried up in the Western TV DX zone. Seems to be a feast or famine situation... No more of the long-haul ducting we were hoping for, like Rick Samford saw in February, but Es seems to be picking up to some degree. On the other hand, I don't think it ever stops in San Antonio ...

Pat Dyer, 5315 Silvertip Drive, San Antonio TX 78228 (CST) (07 Mar - 06 Apr) Equipment: 1971 & 1976 models Penncrest 9-inch b&w sets; Archer V-100 and eight-bay UHF bowtie array at 20 feet with rotor. 15 tr 0900 KARK? 4 AR 515 22 Es 1850-2230 YSR 2 E1 S 09 tr 0103 KPLC 7 LA 325 23 Es 2050 WFMY 2 NC 1175 10 Es 1958 KTVQ 2 MT 1245 KOTA 3 SD 1040 (2 in until near noon) 1740 WBRZ? 2 LA 450 2129 WMT 2 IA 945 17 tr 1029 KMID 2 TX 275 KDSJ? 5 SD 1065 2215 f/outs 24 Es 1645 KUTV 2 UT 1080 KDIX 2 ND 1225 KOSA 7 TX 280 1715 KCPX? 4 UT 1080 1810 WBRZ? 2 LA 450 2025 KXLF? 4 MT 1365 18 Es 1845-1910 KDIX 2 ND 1730 KSL? 5 UT 1080 2215 KTVI 2 MO 790 1753 KPVI? 6 ID 1195 2002 KOTA 3 SD 1040 2250 f/outs 2050 KTWO? 2 WY 1015 1759 KBCI 2 ID 1370 11 Es 1640 TGV? 3 Guat 1120 KOA? 4 CO 810 1829 KID 3 ID 1215 1710 YSR? 2 E1 S 1200 29 tr 0815 KPLC? 7 LA 325 1735 YSU? 4 E1 S 1200 2100 KWGN? 2 CO 810 KALB? 5 LA 385 1915 WEDU? 3 FL 985 tr 2225 XHX? 10 NL 275 2227 WRBT 33 LA 450 WPBT? 2 FL 1150 XEFB? 3 NL 275 WGNO? 26 LA 510 19 Es 2005 KNXT? 2 CA 1190 WESH? 2 FL 1055 2345 WLPB 27 LA 450 1945 XHTV? 4 DF 690 KEYT? 3 CA 1270 05 Es 1410-20 WTHS? 2 FL 2025 f/outs 2055 f/outs 1445-1510 Cuba 2 2055-2100 KUTV 2 UT 12 Es 0810 WTWO? 2 IN 935 1920 Cuba? 2 2115 KID? 3 ID 1215 0834 WITV? 4 IN 950 2015 WTVJ? 4 FL 1150 20 Es 2029 KORK 3 NV 1050 0835 WRTV? 6 IN 995 2025 WPTV? 5 FL 1150 KVVU? 5 NV 1040 0859 MUF 90.1 MHz

2055 KOAI? 2 AZ 855

2115 KTVK? 3 AZ 835

0755 WGNO? 26 LA 510 2140 KNXT? 2 CA 1190 KALB? 5 LA 385 2200 f/outs 21 Es 1845 KTWO 2 WY 1015 0800 WRBT? 33 LA 450 1850 KOAI 2 AZ 855 0829 WLPB? 27 LA 450 14 tr 0059 KTRE 9 TX 265 1900 f/outs Es 1640-45 MUF 3 TGV? 15 tr 0855 KETS 2 AR 515

1045 f/outs

13 tr 0750 WAPT? 16 MS 525

1029 WESH 2 FL 1055 22 Es 1845 YSU? 4 E1 S 1200 0959 WPBT/WTHS 2 FL 3 Guat 1120 Es levels in March kept up fairly well (March is usually the poorest of the year for it) with a lot of openings to the northern US, as well as the more normal Latin American stuff. However, for the second year now, there has been a lack of trans-Gulf ducting, which seemed common in 1973-75. Had some indirect information that the Midwest might which seemed common in 1773-73. Must be low solar activity, prospects for any Re-TR link-ups this far north yet are very poor on TV. 73 Pat WA5IYX

Buck Battin, 4305 Pitt, Duluth MN 55804 (CST) (March)

any Es-TE link-ups this far north yet are very poor on TV.

I said in my last report (to Bill Draeb) that February was the second worst month for DX I'd ever had. Well, that's not true. I checked my back logs, and discovered that last March in Shreveport I only logged two stations...both were 210-mile trops. February this year is thus downgraded to my third worst month. My new system is almost ready to go. My wind-damaged Jerrold 10-element lo-band yagi has been replaced with a Winegard. Conditions have changed so much since then, it's hard to say which is the better antenna. It appears too close to call. And I finally have the equipment I need to beef up my UHF capabilities. I never got the RG-11/u foam cable I ordered...the company says it never received my order. (If your check clears, be suspicious, hi...de) But I found it locally, so I'm in business there. And my CMA-Ub finally arrived from Blonder-Tongue... it was back-ordered for over a month. I should have everything installed within a few days. It will look like this: a 7-foot Finco dish at 35' with a CD-44 rotor; the 300 Ohm input on the CMA-Ub will be fed with Belden #8275 foam-filled twinlead. From there, the signal will be carried down the mast and into the house by Belden #8213 RG-11/u foam coax. Next report, I'll tell you how it works. It's started to warm up here, and hopefully, that means some decent tropo is in the offing. On March 7th and 8th, a couple of stations in the 150-mile range began trying to tear the antenna off the roof, but so far no long distance stuff. (best of luck with the new system, Buck...de) 13 tr 0025 WJMN 3 MI 250 08 tr 0727 WPNE 38 WI 255 07 tr 2106 WHLA 31 WI 210 WLUC 6 MI 225

WHLA 31 WI 210

2203 WXOW 19 WI 210

Distances are measured to

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Buck Battin continued ...
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KXTV-10 Sacrmto, 45 miles*

14 tr 1230 WHLA 31 WI 210 15 ms 0545 WSYR 3 NY 830 May watchers of local pro-1950 WPNE 38 WI 255 27 tr 1900 WHLA 31 WI 210 grams be plagued w/CCI=Buck

John Phillips, 4559 Downing Court, Pleasanton CA 94566 (PST) CM 3617/0040b VHF Ant/preamp, CM 4248/0071b UHF Ant/preamp, 1975 Zenith Chromacolor II. March 1977 08 tr 0930 KJTV 17 CA 239 08 tr 0945 KCOY 12 CA 218 08 tr 0930 KIXE 9 CA 205 KERO 23 CA 239 KBAK 29 CA 239 KRCR 7 CA 205 0945 KEYT 3 CA 247 (Here's the list of fulltime stations John sent in... Asterisk means snowfree 100% ..de) KHSL-12 Chico, 163 miles KTVU-2 Oakland, 31 miles* KQEC-32 San Fran, 31 miles* KCRA-3 Sacramento, 45 miles* KOVR-13 Sacrmto, 45 miles* KGSC-36 San Jose, 13 miles* KRON-4 San Fran, 31 miles* KCSM-14 San Mateo, 27 miles KVOF-38 San Fran, 29 miles* KPIX-5 San Fran, 31 miles* KLOC-19 Modesto, 50 miles* KTXL-40 Sacrmto, 45 miles* KVIE-6 Sacramento, 45 miles* KEMO-20 San Fran, 29 miles* KBHK-44 San Fran, 31 miles* KGO-7 San Fran, 31 miles* KFTV-21 Hanford, 160 miles KMST-46 Monterey, 75 miles KSBW-8 Salinas, 66 miles* KMJ-24 Fresno, 159 miles KJEO-47 Fresno, 140 miles KOLO-8 Reno, 152 miles KTSF-26 San Fran, 29 miles* KTEH-54 San Jose, 23 miles KDTV-60 San Fran, 29 miles* KMPH-26 Visalia, 202 miles KFSN-30 Fresno, 140 miles KQED-9 San Fran, 31 miles*

KNTV-11 San Jose, 36 miles* KMUV-31 Sacrmto, 45 miles* actual xmtr site I also receive a 1000-watt channel 29 translator rebroadcasting KGSC-36 San Jose. It is located in Monterey, 75 air-miles distant. (That would be K29AB...de)

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

 Delhi 1057 at 64', CM traps, Panasonic 12" baw, Radio Shack PRO-3A (for 41MHz monitoring)

 13 Es 0000 KMID 2 TX 1233
 29 tr 1800 KWCM 10 MN 300
 Tropo on the 30th was just detectable on the monitor
 29 tr 1800 KWCM 10 MN 300 . Tropo on the 30th was just detectable on the monitor receiver, with no traces at all on the set itself. A weak signal, to say the least! I'm looking around for some sort of power supply that would allow me to run the Panasonic from a 12-volt power source, so far no luck, but I'm still looking. 73=John (John, is your monitor directly coupled to the IF, or is radiation good enough? ..de)

Doug Everitt, 1710 W Maine,	Enid OK 73701 (405) 233-4890	(CST) (11 Mar - 11 Apr)
11 Es 1710 XEW? 2 DF 1200 14 tr 0730 KMCC 28 TX 280 K66AQ Sayre OK K68AU Sayre OK K73AW? Turkey TX	06 Es 1029 Cuba 3 1142 Cuba 2 1201 Cuba 5 1805 XHI? 2 SON XHBS? 4 SIN	08 Es 1215 WESH? 2 FL 1100 1746 WTHS/WPBT 2 FL 11 tr 0740 KXTX 39 TX 250 KGIN 11 NE, KERA 13 TX
01 tr 1830 KXTX 39 TX 250	08 Es 1205 WTHS/WPBT? 2 FL	KCBD 11 TK, KAIT? 8 AR

Conditions have been generally lousy around here for a while, with a lot of those annoying short-haul super-intense tropo openings, many of which I didn't bother logging. Cuba on 06 Apr was very solid thru 1300, with Palm Tree TP on 2 and 5, and c/b on 3. Channel 3 also had a music program and cartoons during the period. R.National audio was used with the 3/4 c/b---no color was noted, so I assume they are using SECAM, as Ken Simon indicated a while back. Both CBS and NBC (particularly the former) have been letting their New York flagship station IDs slip over the net a lot lately, notably the WCBS-2 ID seen on Carol Burnett 02 Apr. The dish may go to 50' soon... I'll probably replace the old preamp with a B-T CMA-Ub or CMA-ULN.

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\frac{13}{1} \ \frac{14}{1} \ \frac{18}{1} \ \frac{19}{1} \ \frac{20}{1} \ \frac{21}{1} \ \frac{22}{1} \ \frac{23}{1} \ \frac{24}{1} \ \frac{\text{April}}{1} \ \frac{05}{1}
MUF at least 6 4 90.1 4 3 4 3 5 2 4 2 6
                                                                                                           89.7 5 2
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A REMINDER...We're still accepting reports of MS/Au reception on Built-In antennas here. The deadline for the records listing will be 20 May. If you have any candidates, send them in before that time. If response is slow, the deadline may be extended, but we'd really like to get this project completed before the summer gets too hectic...

MORE REMINDERS... If you see a given station more than 15% of the time by tropo or extended groundwave, it probably isn't newsworthy, and beginning in June, these will be edited from reports reaching this desk. Comments should be submitted with a report, although these are not mandatory. If you like, you can list your phone # (with area code) so that other DXers can contact you during openings, etc. Distances should be given on tropo loggings (for statistical compilation by other members) in either miles or kilometres... in this column, distances are always in miles unless noted otherwise...



Jim Alexander 4 Brook Court Parsippany, NJ 07054

May, 1977

Before beginning with this month's photos, a couple of items to take care of. First, WTFDA Hq has received a request from someone writing a book on DXing. It reads: "In order to 'garnish' the book I'm writing on DXing with photos ... I would appreciate it if you could send me as soon as possible ... photographs of interesting uses and installations." If you'd like to give the author any photographic material for his book, send the photos to: Van Waterford, c/o Van's Press, 228 El Molino Ave., Pasadena, CA 91101.

Second, the description of Andy Bolin's DX shack (March VUD, page 16) should read "The shack in detail (from right to left, around the room)..." Your editor mistakenly typed "from left to right." Hope this didn't cause any confusion!



KMTV- 3 Omaha, NE 855 mile Es (Le Blanc)



WPGH-53 Pittsburgh, PA 205 mile tropo (Gaines)



WTHI-10 Terre Haute, IN 285 mile tropo (Gaines)



KFSM- 5 Fort Smith, AR 900 mile Es 2/15/77, 0959 EST (Combs)

Contributors:

Ron LeBlanc, Marrero, Louisiana Paul Gaines, Detroit, Michigan John F. Combs, Orlando, Florida

73 and good DX,



QSL CORNER

Thomas J. Yingling, jr. 221 Pinewood Road Baltimore, MD 21222 Phone # 1-301-2649 Deadline: 10th

- ONT CBL 94.1 Toronto, Box 500, Station A, M5W 1E6. Standard CBC QSL Card, with incorrect date (date of letter, not reception), signed by L. Caplan in 10 days. Simon
- FL WKGC 90.7 Panama City, Gulf Coast Community College, 32401. Letter from Charlie Wooten, CE in 5 days (and that includes a weekend). COX
- IL WITT 93.5 Tuscola, 600-0 Main St, 61953. Letter from Frederick W. Seibold, owner x CE. Hathaway
 - WRTL 95.3 Rantoul, Box 115, 61866. Prepared card in answer to third report from Bob Brown, CE. Hathaway
- IN WSMJ 99.5 Greenfield, Box 248, 46140. Letter signed by Curtis R. Steele, CE said they just completed a new 500 foot tower. Hathaway
- MD WCRH 90.5 Williamsport, Rt 2, 21795. Letter from Robert W. Dundkle, Station Manager, tells of new 200 foot tower that is only 27 feet above average terrain, also send bumper-sticker. Yingling
 - WESP 106.3 Cambridge, Box 237, 21613. Send a memo note for QSL from the desk of Sam Cannon, CE. Yingling
 - UJMD 94.7 Bethesda, 5530 Uisconsin Ave, Checy Chase, 20015. Letter from Gary Hess, Tech. Dir. on sister station letter head paper from UUST-AM. Yingling
 - WRBS 95.1 Baltimore, 3600 Georgetown Rd. 21227. Letter % bumper-sticer from Barry Freeman, CE, also send coverage map. Yingling
 - WCAD 102.7 Baltimore, 40 W. Chase St., 21201. Send picture post card showing stations towers from the air. QSL from W. J. Marshner, Sr. Tech. Yingling
 - WLIF 101.9 Baltimore, 1570 Hart Rd, 21204. Letter % coverage-map from Richard Seaby, CE. Yingling
 - WTTR 100.7 Westminster, Box 828, 21157. Letter from Ronnie H. Wright, CE. Yingling
 - WOLC 102.5 Princess Anne, Box 13D, Cristfield Lane, 21853. Letter, map % bumper-sticker from David Downes, Eng. Yingling
 - WGMS 103.5 Bethesda, 1 Central Plaza, 11300 Rockville Pike, Rockville, 20852. nice
- form letter from H. K. Leyh, CE. Yingling

 MI WJPD 92.3 Ishpeming, Box D, 49849. Letter from Steve Holmgren, PD Typed a verification

 while I was visting their studio (they failed to answer my written reports)

 Station has been heard in Canada, but Duluth is a far as they have been herd

 in Minnesota. Elving
- MN KKWB 104.9 Breckenridge, Box 249, 56520. Letter from Charres Sjostrum, CE says "Duluth most distant. It is all the more interesting since we are a class A with only 3 kw 2 mounted on side of AM tower, which is not too high." Elving
- WKLK 100.9 Cloquet, P. O. Box 309, 55720. Letter from Kevin J. Abram, CE. Elving KOBC 90.7 Joplin, Ozark Bible College, 1111 N. Main St. 64801. Friendly non-date letter..."We have been picked up in CA x NC, we even were heard once in Springfield, VA while on 10 watts (I wonder who ? krs)-(L.T. Vogt ed.) Signed by James Taylog, gen. man. reply in 10 days. Simon
 - KOPN 89.5 Columbia, 915 E. Broadway, 65201. Friendly letter from Dave Taylor, production director mentions that West P. B. Florida is a new dx record for station.

 Reply in 4 weeks. Simon
- NC UKNC 88.1 Raleigh, Box 5748, 27607. Friendly letter from Robert A. Sadler, CE tells me that my letter caused a lot of excitement for I'm the most farest to hear their station. They just had a power increase from 10 watts to 2.9kw, and is waiting for more reports from UTFDA members. Vingling
- PA UNCE 101.3 Lancaster, 24 S. Queen St, 17603. A short letter from Wayne Campbell, CE new call from WGAL-FM is because of ownership of station. Yingling
- TX KETR 88.9 Commerce, East Texas State University, QSL card on decal ognam % letter discussing other reception reports % telling of other Texas DX station I heard that day, plus an apology for being late in replying from Jerome A. Erickson, CE reply in 3 weeks. Simon
- WV WVPO 88.9 Buckhannon, West Virginia Westeyan College, 26201. Nice letter X map from Ronald E. Roth, Dir of Eng. tells me that I'm the first one who heard them in Maryland. New call sign from WVWC-FM. Yingling
- Reporters are John D. Hathaway, Bruce Elving, Ken Simon, Tom Yingling, editor. This was a good month for the FM QSL's. Somehow I receive more FM reports then TV or PSB. Remember all are welcome. When you send in a report please give call, frequency, city % state. Some

reports coming with not all of the information about a station, like no freq. given, etc.50 please report all qsl's received on FM, TV x PSB for next month, I'm running low on items.

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Andy Bolin, Editor 709 Lincoln Ave. Charleston, Illinois 61920 Deadline June 10th

MAY 1977

MHz PROP CALL LOCATION MS200 DX RECORDS

88.1 Es WAUP Tr Unstemala Guat MS KDPS Au KSOZ Au KSOZ SEN Gines IA Au KSOZ Foint Lookout MO SEN Francisco CA Tr KSUC MS WHWC Colfax WI Au WAER SYracuse NY S	MHz PI	ROP CALL	LOCATION	Miles	DXer LOCATION
Tr MS KDPS MS KDPS MS KSDPS MS MINO MS MPD MS MA MS MPD MS MA MS MPD MS MHA MAdison WI MS WHA MS WESC MS WINO MS WESC	88.1 I	Es WAUP	Akron OH	1255	Glenn Hauser Von Ormy MV
MS KDPS Des Motnes IA Au KSOZ Point Lookout MO 565 John Beling, Bloomington MN RSOZ Foint Lookout MO 565 John Ebeling, Bloomington MN Robert Cooper, Oklahoma City OK MS WHWC MS WHWC Au WARR Syracuse NY 675 Andy Bolin, Charleston IL Glenn Hauser, Von Ormy TX Robert Cooper, Oklahoma City OK MS WHWC Au WARR Syracuse NY 675 Andy Bolin, Charleston IL Glenn Hauser, Von Ormy TX Robert Cooper, Oklahoma City OK MS WFDD Winston-Salem NC Au WFGR Am Ms WFDD Winston-Salem NC Au WFGR Am Merst MA 705 Robert Cooper, Oklahoma City OK Glenn Hauser, Von Ormy TX Robert Cooper, Oklahoma City OK Robert Cooper, Oklahoma C					Mike Balton Clearwater ET
Au KSOZ Point Lockout MO S8.3 Es KQED San Francisco CA Tr KSUC Keene TX MS WHWC Colfax WI Au WARR SWHWC Colfax WI S8.5 Es WFCR Amberst MA 88.6 Es TGRT Guatemala Guat Tr WRAS Atlanta GA MS WFDD Au WFCR MS WHYC Au WFCR MS WHYC Au WFCR MS WHYC Au WFCR MS WFDD Au WFCR MS WHAD S8.7 Es HRLP Tegucigalpa Hond MS WHA Madison WI Au Warico City DF MS WKSS Chattanooga TN Au WEKSU Au WEKU Richmond KY Au WEKSU Au WEKU Au WE					
SB. J ES KQED San Francisco CA TKSUC MS WHWC Colfax WI Au WAER Syracuse NY 88.4 ES TGRT SR.5 ES WFCR Amherst MA WFCR AMB WFDD Au WFCR Amherst MA WFCR Amherst MA SWFDD Au Whorst Tr WRAS Adaison WI SR.7 ES HRLP Tegucigalpa Hond Tr HRLP Tegucigalpa Hond Tr TRRT Au Wha Madison WI SR.8 ES TGRT Guatemala Guat 1130 Glenn Hauser, Von Ormy TX Russ Brown, Saint Joseph MI Glenn Hauser, Von Ormy TX Glenn Hauser, Von Ormy TX Russ Brown, Saint Joseph MI Glenn Hauser, Von Ormy TX Mike Dalton, Clearwater FL Glenn Hauser, Von Ormy TX Mike Dalton, Clearwater FL Glenn Hauser, Von Ormy TX Mike Dalton, Clearwater FL Glenn Hauser, Von Ormy TX Mike Dalton, Clearwater FL Glenn Hauser, Von Ormy TX Mike Dalton, Clearwater FL Glenn Hauser, Von Ormy TX Mike Dalton, Clearwater FL Mike Dalton, Cl					John Pholing Planmington MN
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NEW DX RECORDS FOR 100+MHz

100.1 Es WIVE	Ashland VA	1420	Fred	McCormack, Des Lacs ND
100.3 Es KIQQ	Los Angeles CA	2150		Dalton, Clearwater FL
100.5 Es WCMS	Norfolk VA	1505	Fred	McCormack, Des Lacs ND
100.7 Es WDAE	Tampa FL	1750	Fred	McCormack, Des Lacs ND
100.9 Au KQAD	Luverne MN	420	Fred	McCormack, Des Lacs ND
101.3 Es WWDM	Sumpter SC	1480	Fred	McCormack, Des Lacs ND
101.3 Au WEZO	Rochester NY	1210		McCormack, Des Lacs ND
101.5 Es CJBR	Rimouski PQ	1480	Fred	McCormack, Des Lacs ND
101.7 Es WJJS	Lynchburg VA	1365		McCormack, Des Lacs ND
101.9 Es WCIB	Falmouth MA	1580	Fred	McCormack, Des Lacs ND
101.9 Au WRIG	Wausau WI	625		McCormack, Des Lacs ND
103.3 MS KNTO	Wichita Falls TX	1345		Jefferson, Concord CA

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

This month, MEMORABILIA presents:

"THIS IS YOUR DX"

The following is an account of a day of FM DXing in the DX career of Mike Dalton. (Congrate, Mike---that was a nice "big fish"---rjw)

About a year ago, we (Mike Delton and others) had a rather nice sporadic-E opening to the Texas-Oklahoma area. We were trying to add stations as fast as we could pick new ones out of the mess that was on the (FM) band.

Unfortunately, I had not yet learned the value of running a recorder while DKing, so I was unable to leisurely review the day's activity. But even though I did not have a tape machine in operation, I had an octave band equalizer in the circuit. This equalizer can really help in cutting down on noise and increasing intelligibility.

The day was passing with normal results. There was a very weak signal at just above 90 mHs. coming in. I was semewhat surprised to be hearing a weak signal, as mest stations could really move the signal indicator for a while at least. My greatest fear was that I would wind up listening to some parasitic signal from a local radio station. In any event, I continued to listen to this station as it continued to play rack music. There was semething very strange about this station? At first I was too dombfounded to know what the problem was. After about what seemed like hours, it dawned on me that the ammouncer was speaking in Spanish. I couldn't figure out why I was lagging songs in English which I recognised very well as a sort of "top 40", you I couldn't figure out what the Spanish had to do with it. After checking Elving's lag and the Mexican listings, I couldn't seem to find much on that frequency. After continuing down the list, I found a station on the frequency listed for Tijuana that played rock music.

New, that wasn't possible. No one around here had ever heard a station even close to that distance out from here. There wasn't any precedent for such a reception; if only we had heard something earlier during MX sessions from Colorado er some such place. Alas, no such signals had been received from these areas. Well, as you can imagine, the station took one fade too many and disappeared into the noise, never to be heard again.

After signals subsided that day, I had a chance to think about the station that I could scarcely hear with my equaliser in the audio chain. There wasn't a college-looking station in the log pages nor a suspect station in Oklahoma, Kansas, or elsewhere. With complete nonchallance I sent a QSL form to KMIS in Tijuana. I didn't ever expect to resolve this problem; in fact if I get a Maxican QSL returned it is a miracle since I don't speak or write Spanish.

Much to my delight I received a positive confirmation of reception from the people at XHIS. For quite some time, the reception has continued to bring me pleasure and to absolutely amaze people who have visited our store and looked at the DX map.

For some years now, I have been trying unsuccessfully to top this reception. That is the trouble with DMers...given one big fish they figure that there has to be something better out there that an antenna can touch. The trouble is, that unlike fish stories, DM stories about the ones that got away have little or no meaning, and, unlike the fisherman, we do not even have the pleasure of recognition?

(The above "fish" story from an account by Mike Dalton,-ed.) 73s, Bob

A TRAIL OF BLEACHED BONES

Below is an incomplete list of defunct UHF TV stations and construction permits since UHF was first authorized in 1953. The listing, arranged by channel, was compiled by Mike Dorner, Jr., with minor additions by Bob Cooper and by this writer. Additional information on these outlets or other defunct UHF stations is most welcomed for our academic research.

— CLARKE INCRAM

-		-			-	-					
KTRB-T	V 14	CA	Modesto	KHBC	2	o c	O Denver	KTVQ	26	01	Oklahoma City
KIHP-T	V 14	CA	Santa Barbara	KIRV			O Denver	WCOS-T			Columbia
WFAN-T			Washington	KUII-TV			I Honolulu	KAVU			(Victoria
WJJY-T			Jacksonville	WIND-TV			L Chicagoh				(Victoria
WTVG	1000		Joliet	WJMR-TV			A New Orleans	WACO-TY			
WJZB-T	P. C. C. C. C.		Worcester	WAAB-TV			A Worcester	WVNA-T			Florence
KACY-T			Festus	WOAC-TV			I Ann Arbor	KDEN			Denver
WIET			Ithaca	WPAG-TV				WNLC-TV			New London
KLPR-T			Oklahoma City	WHCU-TV			I Ann Arbor I Ithaca	WHFC-TV	10000		Chicago
WPSJ	1600		Ponce	WUHP-TV		120	R Ponce	WJEE			Indianapolis
WVEW-TY			Wheeling	KUAB							Terre Haute
KLUZ			Phoenix				X Houston	WCKG			New Orleansq
WPFA			Pensacola	KCTL			A Seattle				Ann Arbor
WBLN				WTVS	2	360000	L Gadsden	WNYP			JamestownT
WINT			Bloomington Waterloo	KUSH	2		A San Diego	WSWO-TV	26	OH	Springfield
KLMI-TV			Lafayette	WIRK-TV			L West Palm Beach	WSTF			Stamford
KNIO-TV				WKLO-TV	1000		Louisville	WMIE-TV		500000	Miami
WCBF-TV			Omaha Duffe-1-	WROK-TV		N)	Poughkeepsie	WHKP-TV	2700		Hendersonville
			Buffalo	WROH	#21	77000	Rochester	KPTV			Portland ⁵
WCAF-TV			Oneonta	WUTV			I Youngatown J	WCMB-TV	27	PA	Harrisburgt
WICA-TV			Ashtabula	AMIY			Lancaster	KLIF-TV	27	TX	Dallas
WLBR-TV			Le banon ^a	KFWT	21		Fort Worth	MIOA-IA	27	VA	Norfolk
WACA-TV			Canden	KVAN-TV			Vancouver	WRLU	27	VA	Roanoke
WPDT			Florence	KNCO			Fort Collins	WROV-TV	27	VA	Roanoke ^U
KMYO-TV			Little Rock	WJNR-TV	22	FI	Clearwater	KDWN-TV	27	WY	Cheyenne
KPIC-TV			El Centro	WIFE	22	OF	Dayton 1	KUSC-TV			Los Angeles
KKOG-TV			Ventura	WENS	22	PA	Pittsburghc	WTSS-TV			Tampa
MOMM-LA			Lakeland	WUHM-TV	22	PF	Mayaguez	WNBH-TV			New Bedford
WTAC-TV	1000000		Flint	KTVW	22	TX	Wichita Falls	WCTV			Plint
WKTR-TV	16	OH	Kettering ^D	KTLF	22	WA	Seattle	WETV			Raleigh
WENS			Pittsburgh ^C	KETV	23	AR	Little Rock	WNAO-TV			Raleigh
WUHM-TV	16	PR	Mayaguez	WFTL-TV			Pt. Lauderdale	KIKS-TV			Lake Charles
WET	16	RI	Providence	WJIA-TV			Auburn	WCTC-TV			St. Paul
KVVV-TV	16	TX	Galveston	WMCN			Grand Rapids	KAMB			Tulsa
KHER	16	TX	Longview	KTMA-TV			Minneapolis	WIP-TV	100000		Philadelphia ^X
WWOD-TV	16	V.A.	Lynchburg	WPTR-TV	23	NY	Albany	WTIE-TV			State College
KBTV	17	AR	Little Rock	WIVF	23	NY	Buffalo	KLIF-TV			Dallas
WITY	17 1	FL .	Ft. Lauderdale	WMAC-TV	23	OH	Massillon ^m	KXYZ-TV			Houston
KCTV	17	[A]	Des Moines	KCEB	23	OK	Tulsa	KBRT			San Antonio
KSO-TV	17 1	LA :	Des Moines	WCTI	23	PA	Philadelphia	WOTV	1000		Richmond
WTBO-TV	17 1	D (Cumberlandd	WGVL			Greenville	WDUV-TV			Jacksonville
VI-MAIN	17 1	Œ:	Lewiston	KDTX			Dallas	WOBS-TV	50-0105		Jacksonville
MCOM-IA	17 F	IN :	St. Paul	KTVP	23	TX	Houston	WMSB			East Lansingy
WKDN-TV	17 1	J (Camden	KIT-TV			Yakima	KFUO-TV			Clayton
WRTV	#17 I	TY .	Al bany ^e	WTIP-TV	23	WV	Charleston	WCOC-TV			Meridian
WBUF	17 1	TY :	Buffalof	KAON-TV			Fort Smith	WRLO			Plymouth
KSPG			Pulsa	WCHF			Hartford	WUHT-TV			San Juan
WSCV	17 5	3C 5	Spartanburg	WDAN-TV			Danville	WKTO-TV			Nashville
KITO-TV			San Bernardino	WMET-TV			Baltimore	WMKE-TV	7.000		Milwaukee
KSTT-TV			Davenport	KGSL-TV			St. Louis	KTVJ			Stockton
WILF			Baltimore	WTVE			Elmira	KTOV-TV			Denver
WFLB-TV			Payetteville	KPVC-TV			Portland	WPCT			Melbourne
WECT			Slmira	KPIC			Salem	WSFO-TV	100000		Marion
WTSJ			San Juan	WGLJ			Memphis	WDCL			
KCTV			Austin	KTVA			Austinn				Owensboro
CDCD-TV			idland	WBTM-TV			Danville	WRLH			Lebanon
CWCS-TV	*18 T			WCAN-TV	2000			WEOL-TV			Elyria
VJS-TV)wensboro				Milwaukee				Newark ^z
KTIC-TV				WJUD			West Palm Beach	WRWR-TV			Port Clinton
/LNS-TV			St. Cloud	KTAG			Lake Charles				Washington
			acksonville	KCTY			Kansas City	WPGT			Clearwater
TILV			lew Brunswick	WROA-TV			Gulfport	WTLE			Evanston
CLPR-TV			klahoma City	WJAQ-TV			Jackson	MCMO-TV			New Orleans
CAEC-TV CETX			lacogdoches				New York	KWKC-TV			Abilene
	19 T	A I	yler	WQXXV-TV	25	OH	Cincinnati	KGPA-TV	33 .	AZ :	Phoenix
32											

				When the second section is a second section of the second second section is a second section of the second
WCCT	33 FL Miami	WONH	43 NY Syracuse	WCEE-TV 58 NJ Asbury Park
WMFL	33 FL Miami	WTVT	43 TN Chattanooga	WRTV 58 NJ Asbury Park
WEEU-T	V 33 PA Reading	KTLG	43 TX Corpus Christi	WJTN-TV 58 NY Jamestown
KMEC-T	V 33 TX Dallasa	WOPT	44 IL Oak Park	KMIV 58 OK Miami
KXTX	33 TX Dallasa	WSCS	44 IN Evansville	WELI-TV 59 CT New Haven
WACH	33 VA Newport News	WJDW	44 MA Boston ^P	WPTV 59 KY Ashland
WNTU-T	V 33 VA Norfolk	KWIH	44 MN Winona	WHES-TV 59 NY Buffalo
KSLN-T	V 34 KS Salinab	KALR	45 NE Lincoln	KQEC *60 CA San Franciscoy
WILK-T		WKNE-TV	45 NH Keene	WLXT 60 IL Aurora
KMXN-T	V 34 TX Lubbock	WOWE-TV	45 NY Albany	WITH-TV 60 MD Baltimore
KANG-T		WKST-TV	45 PA New Castleq	WKAR-TV *60 MI East Lansing
WRDU-T		KBIE-TV	46 CA Sacramento	WUHF-TV 61 CT Hartford
WSWB-T		WSEE-TV	46 MA Fall River	WKBF-TV 61 OH Cleveland
WEEQ-T		WCIG-TV	46 NC Durham	WHUM-TV 61 PA Reading
WIVM	35 MI Muskegon	WFPG-TV	46 NJ Atlantic City	WAXN 62 IN Hammond
WTRI-T		WQTV	#46 NY Binghamtonr	WHEF-TV 62 MA Brockton
WIMA-TY		WCHA-TV	46 PA Chambersburg	WFMD-TV 62 MD Frederick
WUHY-T		WKNA-TV	46 WV Charleston	WBID-TV 62 MI Detroit
KALA	35 TX San Antonio	WNEX-TV	47 GA Macon	WXON 62 MI Detroitaa
WRTU-TV		KCTR-TV	47 MN Rochester	KPTC-TV 62 MO Kansas City
WJPB	35 WV Fairmontd	WNCI-TV	47 OH Columbus	WISE-TV 62 NC Asheville
KSTN-TV		WTVQ	47 PA Pittsburgh	WBAS-TV 62 NY Syracuse
WJHP-TV		WJLD-TV	48 AL Birmingham	WCNE #63 CT Norwich
KWTV	36 IA Sioux City	WKAB-TV	48 AL Mobile	KWIG-TV 63 IA Des Moines
WQXI-TY		KFAS-TV	48 CA San Jose	WAZL-TV 63 PA Hazleton
WACE-TY		WIRM-TV	48 MI Jackson	WBKZ-TV 64 MI Battle Creek
WNOH	36 MA Northampton	WTVX	48 NC Gastonia	WVIR-TV 64 VA Charlottesville
WKMI-TV		WUBC	48 NC Greensboro	WWWU-TV 65 MI Battle Creek
KSTM-TV		WOSH-TV	48 WI Oshkosh	WVNE 65 NJ Vineland
KTVU	36 MO St. Louis	WSJL	49 CT Bridgeport	WERE-TV 65 OH Cleveland
WAYS-TV		WBBU-TV	49 NY Buffalo	WDNB-TV 65 OH Defiance
WIVG	36 OH Mansfield	WAKR-TV	49 OH Akrons	WFNT 66 IL Elgin
WRAK-TV		WNOW-TV	49 PA Yorkt	WAAC-TV 66 IN Terre Haute
KFIZ-TV		WOUC	49 TN Chattanooga	WHAX-TV 66 MI Flint
WGOV-TV		WTVQ	49 VA Norfolk	WKNY-TV 66 NY Kinston
WSUN-TV	() :: (', ', ', ', ', ', ', ', ', ', ', ', ',	KFTY	50 CA Santa Rosa	WEPA-TV 66 PA Erie
WGNO-TV		KHCD	50 CA Santa Rosa	WLEU-TV 66 PA Erie
WFTV .	38 MN Duluth	WSON-TV	50 KY Henderson	WAIV-TV 67 IN Anderson
KWTT	*38 TX Tyler	KCIT-TV	50 MO Kansas City	WNES-TV 67 IN Indianapolis
WTLB	38 WI LaCrosse	WXPO-TV	50 NH Manchester	WMTI-TV 67 OH Canton
WIML	39 FL Miami	WLEV-TV	51 PA Bethlehem	WHHH-TV 67 OH Warren
KAKS-TV		WRPA-TV	51 PA Reading	WFMZ-TV 67 PA Allentownbb
WQCY	39 PA Allentowni	WLTV	51 WV Wheeling	WCFG-TV 68 AL Birmingham
WSHA	39 PA Sharon	KCOA	52 CA Corona	WQTV 68 MA Boston
KDTY	39 TX Dallasa	WRAY-TV	52 IN Princeton	WMOS-TV 68 OH Marion
KNUZ-TV		WTBO-TV	52 MD Cumberland	WMSU 69 PA Allentown
KCCC-TV		WOCN	52 NJ Atlantic City	WCHE #71 CT Bridgeport
WNFA-TV		WCIC	52 NY Ithaca	WCTB 71 CT Bridgeport
KHTV	40 LA Baton Rouge	KBID-TV	53 CA Fresnou	WTPA-TV 71 PA Harrisburgcc
WWHO-TV		WKJF-TV	53 PA Pittsburgh	WLOK-TV 73 OH Lima
WCCT	40 NC Fayetteville	WAHB	54 GA Augusta	WFMJ-TV 73 OH Youngstowndd
WQHO	40 PA Greensburg	WTRT-TV	54 GA Columbus	WTVU-TV 73 PA Scranton
WLOU-TV		WTVI	54 IL Belleville	WMGT 74 MA North Adams
WOXL-TV		WUHF-TV	54 MD Baltimore	WTOH-TV 79 OH Toledo
WROW-TV	41 NY Albany ^m	WILS-TV	54 MI Lansing	
KWID-TV	41 OK Tulsa	WMKG	54 MI Muskegon	* = educational UHF station.
KTVR	41 TX Galveston	WDKS-TV	54 OH Toledo	NOTES, FIRST PACE: (a) Channel
KCOR-TY		WCMN-TV	54 PR Arecibo	now occupied by WLYH-15. (b)
WSGN-TV		WLIC-TV	55 FL Leesburg	Channel now occupied by educa-
KCFT-TV	The state of the s	WPNG	55 IL Springfield	tional WOET-16, (c) When WQEX
		WPAQ-TV	55 NC Mount Airy	was authorized on this channel,
WIL-TV	42 MO St. Louis			
WIL-TV WLEC-TV	42 MO St. Louis	WRIV-TV	55 NY Riverhead	WENS CP was altered to specify
WLEC-TV	42 MO St. Louis 42 OH Sandusky		55 OH Akron ^W	WENS CP was altered to specify channel 22. It never returned.
WLEC-TV WNAM-TV	42 MO St. Louis 42 OH Sandusky 42 WI Neenah	WRIV-TV	55 OH AkronW	channel 22. It never returned.
WLEC-TV	42 MO St. Louis 42 OH Sandusky 42 WI Neenah 43 CA Visalia	WRIV-TV WCOT-TV		channel 22. It never returned. (d) Revival of WTBO-17 on chan-
WLEC-TV WNAM-TV KAKI KICU-TV	42 MO St. Louis 42 OH Sandusky 42 WI Neenah 43 CA Visalia	WRIV-TV WCOT-TV WKRL	55 OH Akron ^W 55 WI Kenosha	channel 22. It never returned. (d) Revival of WTBO-17 on channel 52 failed, too. (e) Chan-
WLEC-TV WNAM-TV KAKI KICU-TV WFTT	42 MO St. Louis 42 OH Sandusky 42 WI Neenah 43 CA Visalia 43 CA Visalia	WRIV-TV WCOT-TV WKRL WCMI	55 OH Akron ^W 55 WI Kenosha 56 IN Gary 56 MS Gulfport	channel 22. It never returned. (d) Revival of WTBO-17 on channel 52 failed, too. (e) Channel now occupied by educational
WLEC-TV WNAM-TV KAKI KICU-TV WFTT WICC-TV	42 MO St. Louis 42 OH Sandusky 42 WI Neenah 43 CA Visalia 43 CA Visalia 43 CT Bridgeport 43 CT Bridgeport	WRIV-TV WCOT-TV WKRL WGMI WGCM-TV	55 OH Akron ^W 55 WI Kenosha 56 IN Gary 56 MS Gulfport 57 MI Saginaw ^X	channel 22. It never returned. (d) Revival of WTBO-17 on channel 52 failed, too. (e) Channel now occupied by educational WHHT-17. (f) Channel now occu-
WLEC-TV WNAM-TV KAKI KICU-TV WFTT WICC-TV WGNH	42 MO St. Louis 42 OH Sandusky 42 WI Neenah 43 CA Visalia 43 CA Visalia 43 CT Bridgeport 43 CT Bridgeport 43 IL Bloomington	WRIV-TV WCOT-TV WKRL WGMI WGCM-TV WKNX-TV	55 OH Akron ^W 55 WI Kenosha 56 IN Gary 56 MS Gulfport	channel 22. It never returned. (d) Revival of WTBO-17 on channel 52 failed, too. (e) Channel now occupied by educational WMHT-17. (f) Channel now occupied by educational WMED-17.
WLEC-TV WNAM-TV KAKI KICU-TV WFTT WICC-TV WGNH WACH-TV	42 MO St. Louis 42 OH Sandusky 42 WI Neenah 43 CA Visalia 43 CT Bridgeport 43 CT Bridgeport 43 IL Bloomington 43 IN Richmond	WRIV-TV WCOT-TV WKRL WGMI WGCM-TV WKNX-TV WCOG-TV	55 OH Akron ^W 55 WI Kenosha 56 IN Gary 56 MS Gulfport 57 MI Saginaw ^X 57 NC Greensboro	channel 22. It never returned. (d) Revival of WTEO-17 on channel 52 failed, too. (e) Channel now occupied by educational WHHT-17. (f) Channel now occupied by educational WHED-17. (g) Channel now occupied by
WLEC-TV WNAM-TV KAKI KICU-TV WFTT WICC-TV WGNH	42 MO St. Louis 42 OH Sandusky 42 WI Neenah 43 CA Visalia 43 CA Visalia 43 CT Bridgeport 43 CT Bridgeport 43 IL Bloomington	WRIV-TV WCOT-TV WKRL WGMI WGCM-TV WKNX-TV WCOG-TV WGLV	55 OH Akron ^W 55 WI Kenosha 56 IN Gary 56 MS Gulfport 57 MI Saginaw ^X 57 NC Greensboro 57 PA Easton	channel 22. It never returned. (d) Revival of WTBO-17 on channel 52 failed, too. (e) Channel now occupied by educational WHHT-17. (f) Channel now occupied by educational WRED-17.

NOTES, FIRST PACE (continued): (h) Channel now occupied by educational WXXW-20, which itself has temporarily suspended operations. (i) Channel now occupied by educational WXXI-21. (j) Channel now occupied by WFMJ-21. (k) Channel re-assigned to Harrisburg and now occupied by WFP-21. (l) Channel now occupied by WEFF-22. (m) Channel re-assigned to Akron and occupied by WAKR-23. (n) Channel now occupied by WCFF-22. (m) Channel now occupied by educational KOKH-25. (p) Channel now occupied by WCIU-26. (q) Channel now occupied by WCNO-26. (r) Channel now occupied by a high-powered translator of WNED-17. (s) Merged with channel 12, Portland, which now bears its call letters. (t) WCMB-27 switched channels, towers, and transmitters with WTFA-71; the former never returned. (u) First UHF station to fold following the FCC's 1948-52 freeze, after transmitting less than three months. (v) Channel now occupied by educational KCET-28. (w) Channel now occupied by WTAF-29. (y) Originated as WKAR-60, switched to WMSB-30, then to channel 10, then went dark and was revived as WKAR-23. (z) Ohio ETV now operates a 1000-watt translator on this channel.

NOTES, SECOND PACE: (a) KMEC-33 became KXTX, then moved to channel 39 when KDTV owners donated facilities. (b) Channel now occupied by translator K34AA. (c) Channel now occupied by WLIO-35. (d) Switched to channel 5, later calls to WDTV. (e) Now operates as WXIA-11. (f) Channel now occupied by WRET-36. (g) Only known station on channel 37, now reserved for radio astronomy. (h) Switched to channel 26; see note (q), first page. (i) Channel now occupied by educational WLVT-39. (j) Channel now occupied by KHTV-39. (k) Channel now occupied by KTXL-40. (l) Channel now occupied by WDRB-41. (m) Switched to channel 10, changing calls to WTEN. (n) Channel now occupied by KWEX-41. (o) Channel now occupied by WEMG-42. (p) Channel now occupied by educational WGEX-44. (q) Moved to Youngstown OH, later to channel 35, using calls WYTV. (r) Channel now occupied by translator WA9AB. (u) Channel now occupied by KAIL-53. (v) WRIV-55 was to be satellite of WSNL-67 Patchogue NY, which is now temporarily off the air itself. (w) CP was held by Rex Humbard, the Sunday-morning TV evangelist. (x) Switched to channel 25, later calls to WEYI. (y) Channel now occupied by WGFR-62; WKON moved to channel 20. (b) WFFE was recently revived on channel 69. (cc) See note (t), first page. (dd) WFMJ bought CP for channel 21; see note (j), first page.

CANADIAN NEWS REPORT (continued from page 13)

MAY 1977

TV APPLICATIONS CONT'D

KELCNA, BO ch. 21 1675 watts ERP Sat. OBUFT Vancouver
MT. THOMPSON ch. 80 100 watts Sat. CHAN-TV Vancouver
CRANBROCK/KIMBERLEY ch. 5 234 w. Sat. W
CRANBROCK/KIMBERLEY ch. 13 87 w. Sat. OFCH-TV-5 Lethbridge

TIDBITS

OFVO ch. 30 Ottawa-Hull is off air due to bankrupcy. (as of late March) ## OKVR-TV-3 ch. 5 100 watts in Haliburton, Ontario left the air on Nov. 1/76 when the site lease expired. Since 1974, parent CKVR Barrie with increased EHAAT has made the Haliburton amtr redundant. Thus, application to move to ch. 6 was withdrawn. Licence revoked for 3rd French network at Montreal ch. 29 and quebec ch. 2. ## CBJET ch. 58 Chacoutimi PQ on air in late Dec. /76. Sat. of CBMT Montreal. ## Applications will be considered later this year for Multicultural TV in Toronto. One includes CFMT-TV ch. 45 180 kw. for 20 language programming. ## New Call: CKMO-TV ch. 12 Swift Current SK, Sat. of CKMJ Marquis. ## Satellites of CKSO-TV Sudbury in Timmins (ch. 3 55 kw.), Keerns (ch. 11 162 kw.), and Kapuskasing (ch. 10) will carry separate local newscasts out of Timmins. (i.o. departure of some programs from perent in Sudbury) Decision Deferred: ST. JOHN'S, NFLD GJCN-TV-5 now ch. 2, 5 watts matr power, requested move to ch. 4 with 4220 w. ERP. The CRTC requested that the signal of CJON parent (full power ch. 6) be improved, rather than allowing 2 identical high power stations to operate in the same city. We feel that ch. 4 is reserved for CBC FREMCH! # CBUFT ch. 26 Vancouver took to the air in about early October/76 at a cost of \$2.5 million, protested by a petition signed by 40,000! An audience survey has shown a peak prime time audience of 3600 and fewer then 100 viewer during mid-day, considered by many to be the worst ratings in Canadian TV history. \$8 PM NEWS: CN AIR- OBOK-FM Kingston 107.5 100 kw. ID A3 OBCK Kingston & OBOB Brockville

OFNY-FM Brampton, CMT 102.1 finally approved to go to 100 kw.



Deadline: 10th of month

MAY 1977

Hank Holbrook, 7211 Chestnut St., Chevy Chase, MD 20015 QSLed, GMT

8 mi w Phil.Int.Aprt.(Hardberger, Branton & Herrara,Inc., Piper Comanche 260C) 8-29: 1448, N9404P 134.5 11-28: 1542, N6728 131.55 nr Bal. (TWA 243:707-131B; 25 watts)

Now, my loggings. Allied A-2586, Hallicrafters SX-62, Hammarlund SP-600 JX-10; two 30' long wires at 12' (run ne-sw, se-nw); all are F2 unless noted with daily peak MUF; bs-backscatter; GMT used

```
3-11: 2005, 36.15
                                           22: 2030, 35.28
                                                                                30: 2307, KKV 690 bs
                                                                              31: 2235,
4-1: 2155,
          2103, KKI 445 bs
                                                            35.62 bs
                                                                                                37.35
   12: 0108, OK City (Es) 0245, L Ang-b (Es)
                                                 2115, LA-a (Es)
LA-b (Es)
                                                                                 2250, 35.58
4: 0000, 32.82
                                                                                                35.58 bs
          1912, S Die-a (Es)
                                           23: 2104, LA-b (Es)
          2145,
                                          2105, SD-a (Es)
2230, 35.58 bs
2300, 35.28
24: 1821, KSC 645 (Es)
                   35.28
                                                                                      2045, 30.30
   13, 2020,
14, 1925,
15, 1920,
16, 1905,
                                                                                5: 2000, 37.000
2042, KIN 645 (Es)
6: 2142, low-33 nw US
2205, 42.14
                    38.85
                   35.28
36.45
                   35.28
                                                 1930, 37.000
                                           25; 1840, 30.30
26; 2030, 36.55
27; 2220, 35.28
                   35.22 bs
                                                                                     2305, KIF 651 (Es)
                    33.14
                                                                                71 0218, KAA 893 (Es)
                                                                              2220, 35.28
2225, 35.62 bs
2225, 37.000
91 1900, 36.55
101 2310, 32.000
   18: 2228,
                   35.28
   19, 2205,
                   32.96
                                                            35.62 bs
                                         28; 2127, 37.35

29; 2120, 37.35

30; 2135, 38.85

2217, KKI 445 bs
   20: 2205,
                   35.28
   2207, KKI 445 bs
21: 2140, KIF 651 bs
         2235, 37.35
```

35.22 St. Louis, MO KSC 645 35.58 Chicago, IL Los Ang 35.38 Los Angeles, 35.22 Miami, FL b-35.46 (mobile photos) KAA 893 KIF 651 Los Angeles, CA (mobile phone) 35.58 Houston, TX 35.62 Houston, TX OK City 35.58 OK City, OK S Die 35.38 San Diego, CA-mp KKI 445 KK V 690

mp-mobile phone; rest are tone pagers with A2 Morse ID, except OK City which is still voice message with voice ID

Starting in May there will be a beacon on 50.1 MHz from France. The call is FX3VHF. It will be running c.w. f.s.k. (170-Hz shift) with about 100 watts into a 5-element beam aimed at Central America. Plans call for it to be active for 24 hrs/day thru August. Reports of reception should go to W1HDQ (and also to this column). This experiment to observe Es across the North Atlantic has been carefully planned and its results may be a step in reclaiming some portion of 50-MHz in Europe/Africa for amateur use.

Where are they now ? (continued) -

```
KIF 650
           35.58
                                              KIF 653
                                                          35. --
                  Birmingham, AL
                                                                  Memphis, TN
           35.58 Augusta, GA
35.34 Mobile, AL
                                             KIQ 510
KIY 508
KKJ 460
KIG 844
                  Augusta, GA
                                                          35.58
                                                                  Jacksonville. FL
KIQ 999
                                                                  Orlando, FL
                                                          35.22
                    Montgomery, AL
San Fran., CA
Stockton, CA
Portland, OR
KIY 757
           35.22
                                                          35.22
                                                                   Dallas, TX
           35.22
35.58
35.58
KMB 305
                                              KMD 342
                                                          35.22
                                                                   Fresno, CA
KMD 347
KOA 796
                                              KMD 349
                                                          35.58
                                                                   Bakersfield, CA
                                              KQD 303
                                                          35.22
                                                                   Detroit, MI
                                             KQD 607
KSC 864
KSJ 815
WWA 335
KQD 600
           35.22
                    Mansfield, OH
                                                          35.50
                                                                   Grand Rapids, MI
           35.22
                   E. Lansing, MI
Indianapolis, IN
KQD 609
                                                          35.58
                                                                  Peoria, IL
KSD 326
           35.58
                                                          35.22
                                                                   Pt. Wayne, IN
                   Honolulu, HI
KUA 217
           35.58
                                                                  San Juan, PR
                                                          35.22
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73, Pat WASIYX

-more later-



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TOBERT Established 1967

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DUES: USA and Canada, \$11 (via first class); overseas, \$18 (via air mail). The VHF-UHF DIGEST is the official publication of the Worldwide TV-FM DX Association. WTFDA is a non-profit organization and a member club in the Association of North American Radio Clubs (ANARC).

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