

# From The Staff:

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

CONVENTION INFO...The photo feature and wrap-up for WTFDA's Portland gathering in August did not arrive in time for use in this edition of the VUD, but should appear in the October Digest. Meanwhile, WTFDA is now accepting bids for our 1978 convention site. If you're interested in serving as host(s) for next year's gathering, please send your formal bid to editor-in-chief Clarke Ingram (address on back cover). State proposed site and tentative convention dates, and include if possible a paragraph on probable activities and available transportation to and around the proposed site. Whether or not you have submitted a bid, tentative or otherwise, prior to this notice, you must do so now to be considered eligible. The bidding will close on November 1, 1977 (no extensions!); accepted bids will be listed in the December VUD for voting, and results of the member balloting will appear in February.

AS JANUARY APPROACHES...WTFDA will soon be coming to the end of its tenth year of existence; and as we've said many times, our Tenth Anniversary Issue will be one you'll not soon forget! As this momentous occasion draws near, we invite all WTFDAers to send in their comments and opinions on the state of our club today as compared to past years, to other clubs, or simply in general, for publication in our January issue. Comments from newcomers and veteran WTFDAers are especially invited, but all are welcome and all will be printed in our Tenth Anniversary Issue. Send your remarks, not to exceed 250 words, to Clarke Ingram (address on back cover) before November 1st. Because of an extra-early publishing deadline, comments received after that date cannot be included.

NOTES OF NOTE...WESTERN TV DX does not appear this month due to time problems and an out-of-town trip taken by WTV editor Doug Everitt. Doug apologizes for its absence, and hopes no one is inconvenienced by its omission...Thanks to all who've volunteered for update work on the UHF TRANSLATOR GUIDE and TV STATION GUIDE. Please understand if your editor-in-chief cannot reply individually. All names will be forwarded to the project's chief compiler whenever he is selected..Keep in mind that with the dissolution of INTERNATIONAL NOTES and CANADIAN NEWS, all information on TV and FM outside the USA goes to Dave Pomeroy and Bruce Elving, respectively. Thanks!

73, Clarke for Pete, John, Mike and Morrie

### TABLE OF CONTENTS

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

New Members: Dave Harms Box 544 Ron Murray K. Noffsinger Steven Shaffer Gary Siegel Kevin Slater William Smith Brad Stanton

Bernd Trutenau

William Tudor

Dr. Michel Breger 7217 Creekside Drive Austin, TX 78752
John Clemmer 2937 W. Gilbert Peoria, IL 61604
Steven Grimm Box 8322 Erie, PA 16505 Steven Grimm Box 8322 Kenneth Kihr 11620 Klebba Taylor, MI 48180
Chris Landon 2 Casuarina Concourse Coral Gables, FL 33143
Greg Lowery Route 1, Box 82A Cadwell, GA 31009 Greg Lowery Route 1, Box 82A
Ron Murray Box 2873 7240 S. County Rd. 25A Tipp City, OH 45371 10956 Indianapolis Blvd. Hammond, IN 46326 2728 106th St. Toledo, OH 43611 4996 13th Ave. N.E. Brown Terrace 46 Dorset Drive John Timm N28 W6246 Alyce, Apt. Cedarsberg, WI 53012 221

27 Griffin Ave.

Altona, MB ROG OBO Lancaster, CA 93534 Toledo, OH 43611 Salem, OR 97303 Uxbridge, MA 01569 Canandaigua, NY 14424

D-4430 Steinfurt 2, West Germany Hoosick Falls, NY 12090

Renewals: Mike Dalton, John Dyer, Richard C. Evans, Doug Everitt, Paul Gaines, Ron Ginardi, David Martin, Vic Melis, John Parillo, Walter Patton, Don Ruland, Steve Sprachman.

Anton-Wattendorff-Str 1

Rejoin: Joe Fela-150 Robert Place-S. Plainfield, NJ 07080 George Sherman-P.O. Box 2284-Minneapolis, MN 55402

Renewals Due in October: E.D. Bair, Tom Bishop, John Callarman, Jeff Driscoll, Robert Eddy, Charles George, Alvin Harvey, Vane A. Jones, Scott Levitt, Doug Mackey, Paul Malone, Dr. Joel Rosenberg, Carleton Sarver, T.B. Schickling, Darryl Sopata, Dr. Richard E. Wood, Bob Young.

"I was surprised at the number of "old" AM DXers in the club," says new member DR. MICHEL BREGER. Dr. Breger just bought the Panasonic RF2200 receiver, and says that the AM is quite good, even for splits, and that the FM has a few overload spurs of locals around 92 MHz.

Bradley University student JOHN CLEMMER is a member of IRCA and NRC.

His equipment includes a GE multiband portable and a Realistic TRF.

STEVEN GRIMM found out about the club thru Communications World. For TV DX he uses an Archer V-125 at 30' and a U-100 at 50'.

Member John Anderson brought DAVE HARMS into the fold. Dave's DX gear is quite impressive: A Yamaha CT-800 tuner, a quad array of Delhi 10YFM (10 element) yagis at 64', a Delhi DXMD 64' self-supporting tower, CD AR-40 rotor, Blonder Tongue amp (15 db), and RG59U cable.

A recent article in Elementary Electronics by Morrie Goldman encouraged CHRIS LANDON to join. Chris has quite a few comments to make in Tidbits.

Reckon I'll let GREG LOWERY give his own introduction: "Happy to say

that I've decided to join the WTFDA! I have been interested in shortwave DK'ing since December of '75 -- this led to my interest in pursuing TV and FM DX, which I have been doing since March of this year. My DX equipment includes a Sharp 2K-31B television, which is a black and white set with a 12 inch diagonal screen. My radio is a Hitachi KH-965H, AM-FM. For both of these I use an external antenna, which is a 22 element, yagi-type Channel Master. The antenna is at a height of about 45 feet, and is equipped with a Channel Master antenna rotator model 9512. I am relatively inexperienced in TV and FM DX, but I am sure that WTFDA membership will greatly increase my knowledge."

WTFDA Mailbox September 1977

RON MURRAY is into VHF radio, and he found out about the club thru Police Call. He has 2 scanners, and also catches DX on CB.

Buckeye state new member K. NOFFSINGER is an 18 year old student who is interested in BCB and TV DX. His DX shack features an American Lazy-X antenna, an RCA XL-100 17" TV, a Channel Master 7' parabolic dish, a Channel Master rotor, and a Blonder Tongue amp. He learned of the club thru Communications World.

It's good to have another Hoosier in the club, and from Hammond no less! STEVE SHAFFER joined after hearing my relentless sales pitch, hi, after ANARC Executive Secretary Dave Browne referred him to me. Steve uses

Wards FM receiver #6282 and a Panasonic 12" black and white TV.

I've known GARY SIEGEL for a good many years, and it's about time he joined WTFDA! Gary is chief programmer for Channel 100, a pay TV outlet in Toledo. He's also a member of IRCA and NRC, with DX gear including a Panasonic RF 1200 receiver, an RCA color TV, and an antenna mounted at 40' with a rotor. During the recent IRCA convention, Gary and I, along with WTFDAer Bob Walker and IRCAn Karl Forth, left the rest of the group on Saturday night and went to Bush Stadium in Indianapolis to see the hometown Indians play a doubleheader against Denver .... it was one of the highlights of the convention.

Oregonian KEVIN SLATER DXs the PSB and FM bands. He uses a Dynaco AF-6 tuner for FM, and he was referred to the club by Dr. Bruce Elving. Kevin

is also a member of SPEEDK.

15 year old student BRADLEY STANTON found out about WTFDA from the Complete Shortwave Listener's Handbook. He has a rotatable TV antenna and a 77' dipole,

JOHN TIMM is a sales rep for WEZW in suburban Milwaukee. He's into FM

DX, using a Sansui ORX 5500.

New member BERND TRUTENAU also claims membership in the Danish Shortwave Club International. DXing gear at his place includes a Siemens RG405 receiver, 1 indoor and 1 roof FM antennas, a Universum SK2752 TV, and 1 VHF and 2 UHF antennas set in different directions.

Tidbits....

As promised earlier, we have several comments from new member Chris Landon .... perhaps someone can help him out: "I have read several books on MATV systems and am about to change our present omni-cheapo antenna to a rotorized deep fringe. In investigating technical specs from different companies, I find all of Channel Master's equipment to be superior. I've been unable to obtain specs on RCA's MATV products. The Channel Master equipment which seems best is the Model 1110 VHF/FM, with a mast mounted 7040 preamp; for UHF, the 4251 7' parabolic and a mast mounted 7364B UHF/VHF/FM preamp. The VHF/FM side of the 7364B will be used on our present crummy antenna and MATV system, with a 4403 FM antenna for omni FM reception. Of course, there's a 7208 FM/VHF splitter and a 7204 FM trap on the crummy antenna, and other goodies, like a 7008 Hi "Q" trap on channel 3, so a VTR with RF on channel 3 can be added at the head end. Stuff like single channel filters and sound carrier reducers could be added as needed later, but this local VHF/FM goes through our present MATV distribution system, which is old, and the splitters are hidden inside a wall. For the system, which is old, and the splitters are midden inside a wall. For the deep fringe system I'd like to use Belden 9230P, because of its "loss to outerdiameter ratio", but I wonder if I can find connectors to fit it. I've written them and have yet to receive an answer to that question, and to the question of why it's not sweep tested, and if this makes a difference. I've calculated completely the losses for the deep fringe system, and will use UHF like extending amps (7338). Here are my big questions: (1) Does RCA, or anyone else, make better equipment: antennas, as far as gain or directivity, or preamps, as far as signal/noise ratio? (2) Can I stack wide band antennas for added gain and directivity, say, a quad stack spaced .67 of a channel 2 wavelength, of four Channel Master 1110s.? Will I get gain on all channels, and will I lose anything? (3) Can I stack 7' UHF parabolics? What happens with a vertical or horizontal stack of two 7° UHF dishes? (4) I have read that a vertical stack increases gain mostly in the "H" plane, and that a horizontal stack increases gain mostly in the "E" plane. I can find no information on E and H planes. Can you tell me anything about this? I know about horizontal and vertical stacks as far as fading and directivity are concerned. (5) How can I determine minimum distance between UHF and VHF antennas, in various configurations?

WTFDA Mailbox September 1977

(Chris Landon, cont.) (6) What rotor would be best for all this, considering I'll have it modified to work from any of three controls, one

at a time? Does anyone make a rotor with multiple control locations in mind?" Chris' address is on page 3, if you can help him out.

My apologies to Robert Goodman for incorrectly listing his zip code in the July Mailbox...it should be 10461, not 40461. Robert has several comments this time around: "I turned on to Es accidentally last year on TV, and my primary DX interest is still TV. However, I'll also try for some FM meteoric scatter during this year's Perseids shower. FM MS even got a mention in the July 24 NY Times, as an aside in an article on the Perseids. The recent NYC power failure should have given area DX'ers a good chance to copy signals usually obscured by the locals. Unfortunately, here in the affected area itself, we needed battery power! Bela Chandler of Columbia University's Lamont-Doherty Geological Observatory says recent work suggests that sporadic E may have something to do with gravity waves. He's interested in our Es data, so I gave him WTFDA's HQ address. Of interest in tropo DX may be an article in a Scientific American last year (forget which month) on mirages. Since U/VHF tropo is analogous to visual looming, one might expect to get the former under conditions described as good for the latter. My own tropo correlates well with the presence of temperature inversions that produce lingering air pollution; so where there's fog or smog, there's likely also tropo DX. Mike Hogan tells me our Chevy Chase member (Hank Holbrook) uses aircraft reflection, normally associated with annoying multipath TVI, to advantage as a propagation mode. When broadcast TV was first taking form, consideration (apparently not too serious) was given to the idea of using circling aircraft to extend coverage range! I'd be interested in hearing of anyone's actual use of any FM, TV, or utility VHF DX propagation modes other than those cited in Beyond Shortwave. Here's a tip for anyone who wants to aurally monitor a TV channel for video: turn on an AM radio receiver near the TV receiver. Tune the radio to a frequency which is locally "dead", but which will beat with the video sweep/flyback signal to bring in a strong AM local. This allows one to monitor TV while looking elsewhere. Want a yardstick by which to gauge DX? Take the square root of the height (above average terrain) in meters of your receiving antenna, then add the square root of height in meters of the transmitting antenna (radiator). Multiply this sum by 3.6 to get a distance in kilometers. If signals traveled only in straight lines, and the earth were a perfect sphere completely opaque to rf, this is the maximum distance at which you could communicate. WBTB-68 Newark now has several hours a night of pay programming. Their scrambled picture, though, looks not much more so than many unintentionally ghosty pictures in Manhattan. Seems someone

so than many unintentionally ghosty pictures in Manhattan. Seems someone could easily construct a "pirate" unscrambler. (I disclaim any evil intent).

Here's a few kind words from Eldon Luoma: "Really enjoyed being a member of WTFDA during the past year. The VHF-UHF Digest is one of the best DX bulletin publications I've seen. I really feel the format is superior to other DX publications. The various colors make it easier for me to find a particular issue, too."

This in from Tom Yingling: "As you may have heard, the QSL Corner had some trouble with very little items being reported. Well, since the last issue of the VUD I have gotten a very nice surprise in that members have begun to report again. I got a lot of mail from the members, and will have enough for a while now if it keeps up the way it has. If you could put in your column my thanks to the members who have reported, and for the others to join in and show off their veries. I was quite happy to get the mail from the members, and it looks good for members to be active in their club." from the members, and it looks good for members to be active in their club."

Rejoining member George Sherman lists his DX interests as shortwave, FM, TV, and BCB, in that order. He's also a member of NASWA and NRC, with DX gear featuring a Pioneer TX-1000 tuner and a Winegard SC-650 antenna

with rotor.

Steve Sprachman has some words on his recent adventures: "In April, I took a job selling dictionaries in the midwest for the summer, beginning at the end of May. For three weeks after school ended I was in Cave City KY, Nashville TN, Decatur IL, Springfield IL, Champaign IL, and Peoria IL. I got very little time to DX or anything else. I couldn't hack the moving around on the job itself, so now I'm home. I did get a chance to spend a day on the way home in Chicago. I stopped in at several radio stations, including WLS and an FM at about 100."

That's it for September.....see y'all in October......jz



# FM NEWS

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

(and flip ahead two
New Station Grants pages for more new
AZ Parker 99.3 3000 h,v; -139'; mr Stations)
Newfoundland Baie Verte 97.3 5550; CBC;CBT(AM
NF Fleur de Lys 94.5 84 watts; " "
NF Portland Creek 103.1 850; " "
NF Roddickton 103.9 2000; " "
NF Mt. St. Margaret 99.9 10000; CBC
On Air and DX Ready (presumed)
AL Prattville WQIM (Calls, too) 95.3 3000

h, v; 230°
AL Stevenson WVSV 101.7 940 h, v; 490°
CA Mariposa KUBB 96.3 1100 h, v; 2080°
FL Ocala WWFQ 92.7 1600 h, v; 290°; \$;m,Q-921
WY Steny Brook WUSB \*90.1 4000 h, v; directional; 225° p;; en 7 am to 2:30 a.m.; \$
NC Nem Bern WRBK 101.9, "K-101." \$, r, 100000 h, v; 580°
OR Ontario KXBQ"-FM" 95.1 27000 h, 3000 v; /
TX Odessa KKKK 99.1 10000 h, v; 410°; \$
UT Price KARB 98.3 3000 h, v; -114°

Od Air with Changes (selected)

CA Thousand Oaks KMJO 92.7 560 h,v, directional; 630'

IN Clavaland MCLE-EM 100.7 on air with w

TN Cleveland WCLE-FM 100.7 on air with v Non-IDers (selected)

AK Anchorage KJZZ 102.1 K-102, or K-Jazz AL Gadsden WQEN 103.7 Q-104 (not Q-103) FL Mfamf Beach WWWL 93.9 Love 94 FL Rivera Beach WGMW 94.3 GM-FM IN Elkhart WXAX 104.7 FM-105 NH Dover WDNH 97.5 OK Radio 98 (possibly not a true non-IDer) NY Riverhead WRCN-FM 103.9 FM-104 NC Favetteville WQSM 98.1 uses calls whenever mentioning Q-98, so not a true noniDer. NC Charlotte #ROQ 95.1 Q-95 NC Greensboro WROK 98.7 K-99 NC Southern Pines WIOZ 107.1 W-107 NC Wilson WXYY 106.1 Y-106, rm NC Winston-Salem WSEZ 93.1 "WAIR" (when duplicating AM); and Z-93. Format r, OH Lorain WZLE 104.9 FM-104.9111 PA. Philadelphia WIFI 92.5 Y-F1 TN Memphis WQUD 104.5 Quad-104 VA Charlottesville NWWV 97.5 3WV, pr WI Reedsburg WRDB-FM 104.9 FM-104 WY Sheridan KROE 94.9 FM-94

AL Birmingham 106.9 WKXX (from WERC-FM)

AK Wrangell \*101.7 KSTK

AZ Jucson 93.7 KRQQ (KXEW-FM)

CA Auburn 101.1 KHYL (KAF1)

CA Modesto 102.3 KFIV-FM (KITA)

CA Tulare 106.7 KJUG (KWSM)

CO Boulder 97.3 KBCO (KRNW): Seeks higher

CG Sterling 96.7 KSTC-FM (KYOT) power and

FL Clewiston 106.3 WAFC altitude.

IL Mt. Carmel 94.9 WYER-FM (WSAB); \$ added.

IL Peru 100.9 WIVQ (WGSY)

KS Dodge City 93.9 KTIL ("cattle"?)

Letters

KS Garden City 97.3 KBUF-FM (KUPK-FM) KY Whitesburg 103.9 WXKQ (WTCW-FM) [air. MI Caro 104.9 WIDL (WKYO-FM); not on / MN Mankato 99.1 KEEZ"-FM" (KEYC-FM) m, MO Montgomery City 103.9 KVCM [not mc. NC Morganton 92.1 WQXX (WMNC-FM) NC Shallotte 93.5 WDZD OR La Grande 98.3 KLBM-FM (KFMI): \$ PA Braddock 96.9 WFFM (WLOA-FM) PA Chambersburg 95.1 WIKZ (WCHM) TN Soddy-Daisy 102.3 WZDQ (WZDC); \$ TX Corsicana 107.9 KXCL (KCIR) IX Harlingen 96.1 KIWW (KMRS) Ul Ogden 95.5 KVFM; VA Luray 106.3 WLCC WV Clarksburg 106.5 WKKW (WRGT) WV Williamson 96.5 WXCC (WKCN) PR San Juan \*89.7 WRIU BC Burns Lake 99.1 CBXB"-FM" BC Fort Fraser 102.9 CBXR"-FM" [English. ON Cornwall 95.5 CBOC (not CBOF-6) / 98.1 CBOF-6 " CBOC), French ON Ottawa 102.5 CBOF-FM (not CBOF"-FM") 106.9 CKO-FM1 (all news; on the air; may have v as heard on car FM in Syracuse NY area; stereo generator used, but fradulent stereo) ON Peterborough 106.3 CJBC-16, French ON Toronto 99.1 CKO-FM2 (not CKKO-2); all news. also believed to have fake \$ ON Toronto 107.1 CILQ (presumed change from CFGN-FM) PQ Montreal 107.3 CITE-FM (same call as Sherbrooke PQ; same ownership--how can same call occur for stations in the same service but in different cities?); has Stereo, v; mr. PQ Ste. Adele CIME"-FM" 99.5 has v; on

has \$tereo, v; mr.
PQ Ste. Adele CIME"-FM" 99.5 has v; on air with \$, mr (this French station identifies only as "seem FM," usually accompanied by the sounds of birds, making it hard to pick out the correct call letters when listening to them).
PQ Sept lles 95.7 CBS!
98.1 calls unknown (| had

assumed it was CBSI)
PQ Trois Rivieres \*93.9 CFCQ\*-FM\*

100,1 CBFV"-FM"

Formats/Networks

AL Albertville WGSB 105.1 S (AP Audie)
AL Birmingham WBHM \*90.3 P
AK Anchorage KGOT 101.3 pr (not k)
KNIK 105.5 mc (not cr)
AR Fort Smith KMAG 99.1 rp (from m)
CA Los Angeles KPOL-FM 93.9 rm
KGBS 97.1 NBC (was S)

KLVE 107.5 rm (Spanish?)
CA Ontario KSOM-FM 93.5 rm
CA Riverside KHNV-FM 92.7 r (from b)

CA Riverside KHNY-FM 92.7 r (from k)
CC Lakemood KPPL ("K-People") 107.5 m
CO Montrose KUBC-FM 94.1 m (not k) [98"
FL Clearwater WQXM 97.9 r (not m); "rock/

GA Atlanta WREK \*91.1 pj GA Augusta WGUS-FM 102.3 k (from m)

GA Columbus WCGQ 107.3 C GA Toccoa WLET-FM 106.1 U ID Twin Falls KMTW 96.5 r (from mr)
IL Carbondale WCIL-FM 101.5 r (not mr); Y,
music SCA.

L Crete WIAS 102.3 mp L Watseka WGFA-FM 94.1 E (not Y) N Auburn WIFF-FM 105.5 rg

IN Bedford WBIF 105.5 m (not mr)
IN Crawfordsville WLFQ 103.9 m (not k)
IN Indianapolis WNAP 93.1 rp (not p)

IN Monticello WVIL 95.3 m (not rk)
IN Muncie WBST (to go to) \*92.1 cp (not cj)

IN Terre Haute WVIS 100.7 mr IA Cedar Rapids KHAK-FM 98.1 delete M

KTOF 104.5 add M KY Paducah WPAD-FM 96.9 rp LA Crosley KHIO 102.9 to be a

MI Ann Arbor WIQE 102.9 pj MI Charlotte WCER-FM 92.7 rm; \$tereo MI Dowagiac WDOW-FM 92.1 U

MI Fremont WSHN-FM 100.1 kr; \$ confirmed MI Grand Rapios WJFW 93.7 Mutual (CBS believed dropped; Muzak on SCA.)

MI Lansing WILS-FM 101.7 pr MI Midland WRCI 93.5 rm MI Midland WRCI 93.5 rm

MI Newberry WMBY-FM 93.5 k (not m); on the air, 3000 h,v; 300', monophenic.

MI St. Johns WRBJ-FM 92.1 rm MI St. Joseph WIRX 107.1 NBC MI Spring Arbor WSAE "89.3 ], "FM-89," \$

reported for them, but I did not hear \$
on them when on a recent trip.

MI lawas City WEB! 101.7 U
MS Columbus 103.9 (new) rs

MS Gulfport WGUF-FM 96.7 add M MS McComb WTB1 105.7 off air, but to be g

MS Starkville WSMU 106.3 no \$tereo
MS Columbia KTGC 96.7 add M

MMO Springfield KSMU \*91.1 P
MMO Springfield KSMU \*91.1 P
KAFE-FM 97.3
NF Lincoln KBMI 05.3 no.

NE Lincoln KBHL 95.3 rg 'r (from m) NJ Atlantic City WAYV 95.1 rm NY New NJ Newark WBGO \*88.3 to be P RochelleWRTN NM Albuquerque KIPC \*91.5 93.5 m (was

NC Absolie WEGS-FM 99.3 k(r) | nr; adds \$)
NC Absolie WEGS-FM 99.3 k(r) | NC Dunn
NC Bolling Springs WGMG \*88.3 pr. | INQII 103.1

NC Boiling Springs WGWG \*88.3 ar | NQII 103. NC Charlette WROQ 95.1 pr | rkg NC Clieton WRRZ-FM 107.1 rk

NC Greenville WNCT-FM 107.7 m (not km)
NC Kinston WKNS \*90.5 m | TNC Raleigh WKNC
WOOM 97.7 sr | \*88.1 no 1

NC Morehead City WMBL-FM 95.9 m (not k)

NC Raleigh WSHA \*88.9 sj

NC Raleigh WSHA \*68.9 sj NC Reidsville WWWO 102.1 U NC Rocky Mount WRSV 92.1 sg

ND Minot KCJB-FM 97.1 rp (AM affiliate taking FM's former k)

OH Akron WAUP \*88.1 j (not rj); has SCA authorization for talking book, but SCA is inactive; delete listing as an SCA station. OH Bellefontaine WTOO-FM 98.3 no \$; r (nut k)

OH Cleveland WCLV 95.5 Mutual; ne SCA WMMS 100.7 rp (heard well into SE MI, where WITL-FM 100.7 Lansing should

Call

have been received)

OH Findlay WHMQ 100.5 k (from r) OH New Philadelphia WNPQ 95.9 g (not m)

OH Port Clinton WRWR 94.5 mr OH Sandusky WLEC-FM 102.7 mk OH Struthers WKTL \*90.7 rm (not me)

OK Broken Arrow KGOW 92.1 k (from r) OK Sallisaw KRBB-FM 95.9 k (from r) OK Tulsa KAKC-FM 92.9 m (Shulke Radio

Productions' "all music all the time") from r: misidentifies as "FM-93." OR Portland KJIB 99.5 rm

PA Beaver Falls WMKS. "Kiss 106." rp (not/ PA Butler WBUT-FM 97.7 rp (not m)

PA Wilkes-Barre WBRE-FM 98.5 N and S. sti all-news, despite demise of NAC's NIS. SC Columbia WMHK \*89.7 on

SD Rapid City KGGG 100,3 Y IN Columbia WKOM 101.7 k (from m)

IN Murfreesboro WMOT \*89.5 r IN Washville WLAC-FM 105.9 S (AP Audio)

TN Oak Ridge WUUU 94.3 rm IX Arlington KWJS 94.9 UPI Audio IX Beaumont KVLU \*91.3 UP

TX Clear Lake City KMJO 102.1 s: \$ presumed added (was NBC's NIS)

IX Sinton KOUL 103.3 k (from m) WV Beckley WCIR-FM 103.7 p (not mc) WV Fairmont WFGM 97.9 m (not r)

WV Keyser WKI P-FM 94.1 rm VA-IN Bristol WFHG-FM 95.9 r (from k)

VA Harrisonburg WMRA \*90.7 P VA South VA Gretna WMNA-FM 106.3 k, \$ VA Kilmarnock WKWI 101.7 mr; \$ Hill WSHV

VA Roanoke WVWR \*89.1 pcj VA Yorktown WYCS \*91.5 U

WI Menomonie WMFM 92.1 kr (from rg) NB Richibucto CBHM 98.5 French; poor

coverage--not heard on car radio until virtually in the town; id's only as "CBAZ Moncton" NB.

PQ Drummondville 104.3 CFDM? Back on air after a year's absence, with CBF-FM 95.1 Montreal programs in \$: but with no i.d. that is separate from CBF-FM. New calls? PO Sherbrooke CITE 102.7 r (was m) PR Arecibe WNIK-FM 106.5; dreps \$

PR Bayamon WEYA 94.7 drops \$ PR Mavaquez WAEL-FM 96.1; drops \$; has English accompaniment to Spanish TV PR Ponce WZAR 101.9 has English accompaniment to Spanish TV; music on SCA; believed

to be \$ when not carrying IV audio. PR San Juan WPRM 98.5 English accompaniment to Spanish TV--at least for part of its

schedule; stereo otherwise?

SCA (67 kHz) Activities

CO Boulder KGNU \*88.5 adds SCA FL Naples WCVU 94.5 SCA inactive; delete SEAVIEW

'FM STEREO 94 . 100 333 EIGHTH STREET SOUTH

SCA listing. GA Atlanta WKLS 96.1 no SCA HI Wailuku KAO1 95.1 adds SCA IL Carbondale WSIU \*91.9 no SCA, cm (not cj)

ILL Chicago WKQX 101.1 no SCA

IL Moline WHIT 96.9 teleprinter noise (not audible farm news)

IL Paris WACF 98.5 teleprinter noise (and possibly some talk) IL Urbana WILL-FM \*90.9 no longer believed

to be audible farm news: no SCA, except for open carrier SCA for telemetry IN Angola WLKI 100.1 no SCA: rock on main channel

IN Fort Wayne WPIH 95.1 teleprinter only WXKE 103.9 adds SCA

IN Muncie WLBC-FM 104.1 teleprinter only IA Dubuque KIMI 105.3 KY Murray WAAW 103.7 Muzak

KY Paducah WPAD-FM 96.9 Muzak MI Adrian WOTF 95.3 no SCA

MI Alpena WHSB 107.7 ABC relay (not music): no \$ heard on main channel.

MI Cadillac WKJF 92.9 Muzak: non-ids as

"WWAM" (AM calls, with which it simulcasts). MI Clare WRNN-FM 95.3 no SCA: 1. r

MI Detroit WLDM 95.5 no SCA (was teleprin-WABX 99.5 " " " music

WRIF 101.1 no SCA WDFT\*101\_9 adds SCA

MI E. Lansing WFMK 99.1 no SCA (was ABC): rp on main channel (not mr)

MI Midland WUGN 99.7 no SCA heard (was gospel programming)

MO Cape Girardeau KGMO-FM 100.7 music MO Clayton KFUO-FM \*99.1 and KCFM 93.7 St.

Louis have identical Muzak WC Laurinburg WSTS 96.5 no SCA heard (excep

carrier: delete SCA listing) OH Alliance WFAH-FM 92.5 no SCA OH Ashtabula WRFO-FM 97.1 music

OH Bucyrus WBCO-FN 92.7 no SCA OH Canton WHBC-FM 94.1 Muzak NTOF 98.1 no SCA; gm on main /

OH Cleveland WZAK 93.1 Muzak; ethnic and rock on main carrier; parttime \$. OH Cleveland WGCL 98.5 Muzak: WZAK, WGCL and WHBC-FM all appear to have identical Muzak; one probably picking it up off-theair from another

OH Cleveland WOAL 104.1 no SCA

OH Marion WDIF 94.3 music WMRN-FM 106.9 no SCA

OH Ottawa WPNM 106.3 no SCA OH Toledo WIOT 104.7 " " (was to have been Physicians Radio Network)

OH Wooster WWST-FM 104.5 SCA believed to be for storm warnings; no SCA heard; but announcements on main channel told of the

storm warning system available over special receivers available from WWST-FM that no other station in the U. S. has. WWST-FM's SCA previously listed for music.

CA Bakersfield KYLD-FM 94.1 no SCA; rock on main channel (was m) [music] CA Bakerstield KGFM 101.5 no SCA (was /

KKXX 107.9 CA Fresno KFYE 93.7 Muzak

KYNO-FM 95.5 no SCA CA Palm Springs KDES-FM 104.7 adds SCA CA San Luis Obispo KZOZ 93.3 no SCA KIINA 96.1 \*\* \*\*

September, 1977

CA Santa Barbara KCSB \*91.5 no SCA KTMS-FM 97.5 Muzak KRUZ 103.3 no SCA (was

[mustc) Muzak) CA Santa Maria KSMA-FM 102.5 ne SCA (was/ IX Nacogdoches KSFA-FM 92.1 music VA Richmond WEZS 103.7 WI Milwaukee WKTI 94.5 Muzak

Facilities' Changes

Al Athens W.IOF 104.3 610' (50000 h.v) CO Morrison KWBI \*91.1 6000 h.v: 11801 FL Miani WAIA 97.3 800' (98000 h.v)

KS Emporia KLRF 104.9 280' (3000 h.v) MD Catonsville WKTK 105.7 has directional

antenna MI Bay City WHNN 96.1 drops Dolby

MI Traverse City WLDR 101.9 50000 h.v: 590' (increase in v from 3 to 50 km) MN Rechester KRCH 101.7 1000 h.v. 560'.

MT Glendive KIVE 96.5 has v: UPI Audio NJ East Orange WFMU 1450 h.v (360') OR Eugene KPWW-FM 99.1 10000 h.v: 1510'

TN Memphis WSWM \*91.7 165 h.v (160') TX El Pase KEZB 96.3 88000 h,; 13901

TX Houston KPFT \*90.1 100000 h.v (4401) IX Tyler KNUE 101.5 100000 h.v; 380' WA Bremerton KBRO-FM 106.9 2380' (30000)

WI Racine WKRK-FW 100.7 500' (50000 h.v) BC Hope CBUE on 105.1, not 101.7 NS Halifax 103.5 100000 all-news station:

said to be on the air; calls not given. PQ Camp L63 CHL6 105.5 (not 100.5); Calls. PQ Longueuil-St. Lambert CIEL 98.5 \$. Dolby, has vertical

PQ Montreal CBM-FM on 95.1, with move to 93.5 apparently not materializing in the near future.

DR San Francisco HIBI-FM from 107.7 to 101.9; power at least 250 matts: \$ (announced 102.3, but monitored on 101.9)

On Air with \$tereo

AL Tuskegee WVNS 95.9, s IL Dundee WVFV AZ Sun City KWAO 106.3 1103.9 AR Conway KHDX \*89.1 CO Grand Junction KMSA \*91.3 | Spanish FL Miami WLRN-FM \*91.3 cj; some Latin, /

FL Marathon WNUM 94.3 m (not yet on air) FL Winter Park WPFL \*88.9 [IN Paoli WVAK-GA Gordon WKOG-FM 107.1, k FM 95.3, k GA Statesboro WVGS \*91.3

ID Idaho Falls KUPI-FM 99.1, k

IN Washington WFML 106.5; k (not mr) KY Stanton WSKV 104.9

MD Hagerstown WWMD 104.7 MI Mount Clemens WBRB-FM 102.7

MI Flint WFBE \*95.1 (to be \$ soon)

MI Sault Ste. Marie WSUE 101.3 k: no SCA MI Ypsilanti WEMU \*88.1 i (not cr) has

plans to move to 89.1 with 15000, but not yet an official change. MT Bozeman

MS Indianola WNLA-FM 105.5 KGLT \*91.9 MS Senatobia WN.JC \*90.1 NV Las Vegas MS West Point WKBB 100.9 1KRUD \*90.9 NJ Brick Town WBGD \*91.9 INM Las Cruces

NJ Eatontown WHTG-FM 106.3 KASK 103.1 NJ New Brunswick WRSU \*88.7, cs | NY Kings-NJ Upper Montclair WM.SG \*90.3,pc ton WBPM

NJ Upper Montciair MMCX \*88.1 194.3 NJ West Long Branch WMCX \*88.1 (was Mutual) NC High Point WHPE-FM 95.5 S (AP Audio)/

NC Raleigh WCPE \*89.7. ci NC Roanoke Rapids WPTM 102.3 ND Mandan KNDR 104.9: m (not mg) OH Georgille WOUR \*Of Q

OH Mansfield WCLW-FM 105.3; music on SCA OH Oberlin WOBC \*88.7

PA Meadville WARC \*90.3 pr: ABC-FM SC Pageland WCPL 102.3: rk

SC West Columbia WSCO 100.1 [SCA SD Brookings KUSD-FM \*89.7 MN Talking Book /

SD Spearfish KBHU \*89.1 IN Carthage WRKM-FM 102.3 TN Cookeville WHUB-FM 98.3 TX Dallas KMGC 102.9; rg (still gespel music, but emphasizes rock gospel, the station tells me); music on SCA

(KUSU \*91.5 TX Graham KWKQ 107.1. m TX Uvalde KYUF 104.9 (still on 95.3)

TX Wichita Falls KLUR 99.9 III Vernal HT Orem KOHS \*91.5, mr VT Brattleboro WKVI-FM 92.7 KUIB \*89.1 VA Charlottesville WTJU \*91.3

VA Harrisonburg WEMC \*91.7, cg tpp Isabela WA Pullman KQQQ 104.9 m (from k) WKSA 101.5 WA Wenatchee KIAM 104.9 U

WV Charleston WQBE 97.5 k (not r): "Q-97." WI Neenah WEMI 100.1. heard testing with g: telemetry on SCA. (Monaural station WTCH-FM Shawano has moved from 100.1 to 99.3.)

PR Aguada WRFE 105.5 PR Carolina WOLA 107.7: talk and music SCA PR Horniqueros WGIT 92.1 1PR San German

WRPC 95.1 WORA-FM 97.5 VI Charlotte Amalie WCRN 101.1

PR Mayaquez WOYF 94.1

Abbreviations: c classical, e ethnic, g gospel, j jazz, k country, L Latin, m middle of the road music, p progressive rock, r rock oldies, top hits, and "soft rock", s soul; A ABC-FM network, C CBS, E ABC Entertainment, I ABC Information, M Mutual, N MBC, P National Public Radio, S Associated Press Audio, U United Press Audio, Y ABC Contemporary, \$ is stereo; h horizontal effective radiated power in watts; v vertical effective radiated power in watts; SCA subsidiary communications authorization; FM frequency modulation: frequencies given in MHz (Megahertz-or "megacycles per second"); heights given are antenna heights above average terrain and expressed in feet--net tower heights, or altitudes above sea level, \* is a noncommercial station, "-FM" is an Elvinotype abbreviation meaning that a licensing authority has given the -FM suffix to an FM station's call letters when no like-calllettered AM (or rarely, TV) station exists. Readers' Reports and Comments

But first, more new FM station grants from the FCC: AZ Nogales 98, 3 215 w (horizontal only); 225', m. CA Nubieber and McArthur K276AK 103.1 \$, g (KVIP-FM 98.1 Redding CA translator); 10 watts. CA Shafter 97.7 3000 h.v; 300'; mr. 15 miles primary, 46 miles secondary. MI Elsie \*91.3 10 schools. NM Taos 99.3 3000 h.v; -655', m; NC Plymouth 95.9 2600 h.v; 325'; WY Jeffrey City K296AY 107.1 (KTAK 93.5 Riverton WY translator); \$, m. Now, to the reporters, grouped alphabetically by their last names: Frank Aden, Jr., says a religious group plans to buy one of Bend OR's FM stations, but not known which one. KSUI \*91.7 Iowa City IA. now with 100 kw, reports Robert Baker, is on the air 6:30 am to 12:30 am daily, effective Sept. 1, having expanded this schedule considerably in two months.

Phil Boersma, Spring Lake MI, is one of several expressing this thought to the column: 'Re the July FCC comments column. I feel that 'p' should NOT be replaced by 'a' in the guide. 'Album-oriented rock'is too broad a term, and its use in the guide could confuse some people. An FMer like, say, WDAI Chicago could be called 'album-oriented', since they play 'long' versions of top-40 hits, but they are not progresive; whereas WXRT is truly progressive-playing music that is avant-guarde, which is not played on any other radio station in the market. Lumping WXRT in with WDAI would be a mistake."

Tom Cornell, Russ Brown and I all noticed WDUZ-FM Green Bay WI being off frequency (about 98, 6 instead of 98.5), and Tom did something about it: he called WDUZ-FM and at first their engineer was surprised, but later confirmed to Tom that a bad IC in the frequency-lock loop let the oscillator drift, and they were actually 135 kHz high in frequency! They're on 98.5 now like everybody else.

Richard Clark took a trip to PR, and you'll find many of his observations reported in the smallprint section. He also says there is a new stereo in DR, HL.. 106.1 "Radiorama," Sto. Domingo.

Mike Dorner sent an article in French from LeMonde, Paris, alluding to the fact that pirate FM radio stations flourish in France, as well in Italy. He also sent an article from the Feb. 1977 Audio from a Lou Schneider, chief engineer, KTIM-AM-FM San Rafael CA, claiming hi-fi AM performance.

Local interests in the Mpls. area are trying to get advertisers to boycott KQRS-FM 92.5 Golden Valley because of dropping p in favor of rp, or album-oriented rock. KWEY 97.3 Weatherford OK heard testing with tones in stereo, says Doug Everitt, who gets them with a 50 uv+signal in Enid at 128 km.

Louisville's noncommercial twins, WFPL 89.3 and WFPK 91.9 have both gone to 100 kw, with WFPK even having some \$tereo. Ted Fleischaker, using a new Karkota SCA adapter, reports the PRN SCA on WSAI-FM Cincinnati is fairly weak, with less modulation than WTLC 105.7 Indianapolis puts out. With regard to the p vs album-oriented talk. Ted says "AORis just a hype term by the stations seeking to change their image. This term means nothing because AOR could mean an album by Barry Manilow, which I consider rock, just as well as an album by the Eagles, which is rock, but which is progressive. . . . I d just use a 'j! for that rock and say it stood for 'junk' and then spend my time dividing the m into 'b' for beautiful, 's' for standards, 'z' for easy, etc., which is mentioned to prove a point that there is no perfect way for all. . . AOR is just a PR term used by stations, but as for the Atlas, keep the p, please!" Art Vuolo, Ypsilanti MI, who puts out radio guides, and I had a conversation about this, and he credits the industry publication, Radio and Records, for coining the AOR term, which he feels is quite useful in differentiating the major types of rock radio stations.

One of the most unusual reports in the history of this column comes from a Pittsburgh PA reader, Clarke Ingram, who has news not of just one illegal FM station but two of them. For more details, and logo, turn to the fine-print section of this column, starting on the next page, as Clarke Ingram infiltrates bootleg FM stations!

September, 1977 FCC-FM

"WCKR-FM" 98.7 Carrick PA (about 10 mi S of Pittsburgh) has been on the air for about a month, repeating an AM bootlegger (1200 kHz) which has existed for 4 years! The FM is 25w; 30' AGL. but (unintentionally?) directional to the east; barely readable at this QTH. 5 miles distant. "WCKR-AM-FM" operates 7:05 to 11 p.m. except Tues & Sat nights; schedule seems very regular!
Incredibly, "WCKR" carries ABC Contemporary news (Y) at nominal :55 each hour; this is taped off WWFM 98.3 Charleroi and may start on "WCKR" as late as :59! The phone is 412-885-4923, and it works; calling them while listening on July 22, I was invited to view their "facilities". which amount to turntables, mixer, compressor, etc. all on a chest of drawers in one bedroom! The operator, though, has his FCC 1st license...so he seems to know what he is doing (though I wonder, with an FCC branch recently opened here). As a regular "WCKR" listener, my name often is mentioned on the air, and I took the liberty of doing the voice-over for their new recorded sign-on/off...I'll be able to handle QSL requests, but am not otherwise involved with "WCKR." While visiting, I mentioned my connection with VUD, and the owner (whose name is being omitted) was excited that "WCKR" would be featured in this issue...and I expect some "WCKR" folk to join WTFDA shortly. Some of the "WCKR" staff are already avid FM DXers!

From the guys at "WCKR" I learned more about the mysterious "WBJQ" 88.7 Midland (known except on the hour as 89Q). Many of the same people are involved with both stations; the "WCKR" top-of-the-hour promos were done by 89Q personnel, DJs double at both operations, etc. On July 29, I was invited to see 89Q's facilities—which compare well to a small station and, with the owner's permission, took some exclusive pictures, soon to appear in PHOTO-NEWS. "WBJQ" began in January 1975, and now feeds 30w

input power into a highly directional antenna at 39' AGL, producing 50w ERP to the south; hence

the crummy reception here. Dial 412-531-4487, and you'll reach a phone in the air studio; the 890 transmitter has stereo capability, but 890 is not \$, nor will they be unless the mono board is re-wired. Prior equipment problems resulting in 890's absence from June 30 to July 22 seem to be solved, and if "WBJQ" ever resumes a regular schedule, they might be a good shot on Es to the south for anyone with a clear channel on 88.7. I'll gladly handle verie requests for 890, but am not otherwise involved. And, no, neither station has v or SCA, Bruce!

Glenn Hauser just took a 7000-mile trip around eastern Canada, and because the news is so timely,

and from an area where we don't see reports from every day, I'll quote from him extensively:

CBC-FM 96.9 Charlottetown PEI has local origination, all English it seems, and carries CBC AM network. Has tremendous coverace, through most of Nova Scotia, and almost to the NW corner of NB, where it begins to have interference from the Maine station. CRIM 93.5. also on the CBC French network. IDs as CBAF Moncton, and has good coverage into Cape Breton Island, but could barely detect on the N coast of PEI. On the N coast of CBI I found a parallel station on 94.3, which I assume must have been the Newfie. Kentville NS on 97.7 has a Dutch language program from R. Nederland ending at 0900 AT Sunday. In the Gaspe, 98.3 was audible east of Causapscal, but not in Causapscal! The LPRTS in Cape Breton Island were both heard, since I went through the towns-101.9 and 103.9. CBH-FM Halifax has wide coverage; I listened to it on some of the hills of PEI, for instance. So does CBZF 102.3, squnched in between the Halifaxians. Transmitter site seems to be somewhere between Fred. and Saint John. . . CJBR-FM Rimouski PQ was still on, and apparently operating as before. I'm not sure if I heard an ID, but it wasn't carrying CBC programs. Here are some comments I hope you'll print, but only if you attribute them to me:

I don't agree with Bruce Elving's FM chauvinism, in criticising the carriage of CBC AM nets on some FM repeaters. CBC AM programming is so superior-and noncommercial -- to anything on American radio, AM or FM, with the possible exception of NPR, that it should be brought to every inhabited place in Canada (and preferably in the U. S., too!) by whatever means available. The FM hand is clearly preferable for this, because of its greater power efficiency, and its ability not to degrade further the audio fidelity of the network feed it is receiving. There is no reason in the world why every FM station has to be of extremely high fidelity. With FM emerging as the primary radio service, we should not object to stations carrying AM-type programming on FM, with AM-type fidelity, as long as there are still plenty which exploit to the fullest the capabilities of FM. (I may have been too hasty in condeming the CBC for this, as a Canadian reporter just called and said the northern stations, at least, are all fed by microwave, resulting in true high fidelity of CBC programs, and many of these stations break away from the CBC for local or regional originations; however, the CBC should be pressured into giving adequate identifications of all their stations, main as well as satellites and low-power relay transmitters.) Glenn goes on: There were some spots along the St. Lawrence, out of range of 104.7 Ottawa and AM where I couldn't find any English CBC AM net service onAM or FM, in the daytime on my car radio. Groundwave of CBA 1070 Moncton, supposedly 50 kw, wasn't that great either in some parts of the Maritimes, and often wished there was CBC AM net on FM from Halifax. Fredricton and Saint John, not to mention the predominantly French area of NE NB.

WETS 89.5 Johnson City IN has a particular problem in that its transmitter on 4000' Holston Mountain, 22 mi E of J. C., is blocked in J. C. itself by a closer mountain. They ought to go the route of KPFA! But if WETS can't be heard clearly in its city of license, it has great coverage further west into Knoxville. . . I've been running DX promos on WUOT \*91.9 Knoxville

whenever I'm at home noticing MUF into FM, but so far not much result in the way of DX reports reaching me.

Regarding my comment in the July VUD about wanting to cut down the size of the FM Atlas introduction, Atlanta's Nick Lombardi suggests cutting out FMiscellany, which would save almost 2 pages. Other items could also be cut out; Nick wonders if the new Panasonic RF2200 would work well with SCA, even though it has ceramic filters. I know the Panasonics with MPX out jacks work well; I will shortly be installing SCA into (or onto) one of the \$100 "big-mouth" sets. I have found ceramic filters are a problem with some portables, purposely designed for high selectivity, but not for stereophonic receivers, designed for a wide, but steep, bandwidth. Frank Karkota, designer of the SCA unit I sell, writes in response to my article that the crosstalk really isn't so bad on his SCA adapter, and he uses it with a TV set to demodulate the SCA station WCVB (TV) is experimentally using to cue its in-the-field news crews. Indeed, the FCC is considering allowing TV stations to use SCA for such purposes, including foreign language translations (especially useful in PR or in Canada).

FCC-FM September, 1977

Joe Markewitz, Hornell Heights, Ont., says the new Kingston CBC station on 107.5 is not \$tereo, but he's heard a complete ID on it and it is different from the calls I report, CBCK. He thinks it is CBOC-1, similar to the Cornwall station on 95.5. In Manitoba, he's heard the new CBWX 95.7 in Fisher Branch, Man., which breaks away from CBW (AM) from noon to about 6 p. m. for its own northern service, hi-fi (by microwave from Winnipeg studios), mostly country music and local-service announcements. Then it rejoins CBW for a period of nonIDs, and at 1 a. m. CBW signs off, mentioning various relay transmitters. After that,a strange thing happens on Fisher Branch (and possibly other northern Manitoba stations); CBWX stays on the air with regional programming until 3 to 3:30 a. m., after which there is a test tone or open carrier all night. The new Brandon, Man. station on 97.9, CBWV, never ids, and carries CBW(AM) exclusively, making it less interesting to listen to than Fisher Branch. It also makes reception of CHMM 97.5 Winnipeg difficult in Brandon. Also on the air, Fred McCormack reports, is CBWW 105.3 Baldy Mountain, Man., also mono, with no distinctive breaks. They don't have the CBW (AM) breaks, but only dead air at ID time.

WLRG 92.3 Roanoke, now at 2000' with 20 kw, plans to apply for 100 kw, but with a directional antenna (probably avoiding the south and WCSE 92.3 Asheboro NC). WSEZ 93.1 Winston-Salem NC simulcasts with WAIR (AM), r, for part of its day, then is religous for the rest of the day—strange! reports David Nelson, Chapel Hill NC. WQMG 97.1 Greensboro NC easy-rock days, but soul at nights to pick up listeners of WEAL-1500 when that daytimer signs off. In Pensacola they hear:

Writes Walter Patton, Montreal PQ: CFQR 92.5 is still m most of the day, but after 2200 it is c or j depending on the day. CKMF 94.3 Montreal still m; they, like many French language FM's use the suffix -MF, the French equivalent of the English-FM. CJFM 95.9 Montreal, though an English language outlet, often gives its calls and frequency in French.



Ditto for CHOM 97.9 Montreal. Monophonic station CINQ 102.3 Montreal operates in five languages: French, English, Greek, Italian and Portuguese; they are on only partitime, covering only part of the city. In other parts of the city you hear WWSR-FM 102.3 St. Albans VT. WWSR-FM identifies as Stereo 102, but also gives its calls and city. CKO-FM 2 Toronto 99.1 and CKO-FM 1 Ottawa, with all news, should be easy to identify as they give their calls and locations very frequently. They use ABC for voice reports from outside Canada and just about everything in wire services for their copy. The CRTC has announced the licence for CFBC-FM 98.9 Saint John NB has not been renewed and the frequency will be available after Sept. 30, 1977 for applications from other parties. (It is not known if there will be an actual deletion, or if CFBC-FM will be allowed to stay on the air until another party, including CFBC-FM itself, should apply and be granted the channel.)

WFOG 92.9 Suffolk VA sometimes IDs as "This is your musical FOG," says Jim Pickering of VA. In Iowa, Michael W. Scheel, has not yet heard local K272AK 102.3 Davenport, but he has no trouble picking up KSUI Iowa City, despite a hill between him and them. WBST Muncie IN is having continued problems from local zoning authorities to build its 300' tower and go to 3 kw on 92.1, with construction already underway, but local officials are threatening suit to stop the building efforts.

Muncie's Ralph Strobel wonders if WVUB, r, \*91.1 Vincennes IN has quit stereo.

CA's Don Voegele sends information on "Optimod FM," which is a system at a station consisting of compressor, limiter, and stereo generator, which may give Dolby a run for the money. Don says there is now a 5NCR-FM 92.5 in Brisbane, Australia., with FM in Melbourne (2 stations), Canberra, Adelaide and Sydney (at least three stations). Dave Walcutt, Carbondale IL, who bought an SCA adapter from me at the ANARC convention in Chicago, hooked it up to a Sony ICF 5900W with a MPX Out jack, and it worked fine, resulting in some of the SCA news reported previously. Building his own SCA adapter after reading my articles is Steven Wiseblood, who installed it in a Pioneer SM Q300B. He says "Although only 2 SCA stations were heard with the adapter so far, you can bet I'll be searching relentlessly for others, and won't stop until I come across others. Has anyone ever tried to DX SCA alone? On meteor scatter?" [I doubt it; but I came close to it on a car trip recently to Akron OH from MN, when I had SCA reception the entire distance, and which provided much of the midwest SCA news} Contributors: Frank Aden, Jr., Bend OR; Rotert Baker, Humboldt IA; P. Boersma, Spring Lake MI; Thomas Casweller, Dunmore PA; Tom Cornell, Kokomo IN; Richard Clark, La Vega, Dominican Republic; Mike Dorner, Jr., Metairie LA; John Ebeling, Bloomington MK; Doug Everitt, Enid OK; Dale Fifield, Concord NH; Ted Fleischaker, Louisville KY; Glenn Hauser, Knoxville IN; Clarke Ingram, Pittsburgh PA; Edward H. isotalo, Appleton WI; Nick Lombardi, Atlanta GA; Paul Louks, Saginaw MI; Earle Lyons, Belleair Bluffs FL; Joe Markewitz, Hornell Heights, Ontario; Frank Merrill, Toledo OH; Fred McCormack, Fargo ND; David Nelson, Chapel Hill NC; Walter Patton, Montreal, PQ; J. R. Pickering, Williamsburg VA; Jay L. Rudko, Elmendorf AFB AK; Michael W. Scheel, Davenport IA; Robert Seaman, Hometown PA; Ralph Strobel, Muncie IN; John Timm, Ph.D., Milwaukee WI (who says he is joining WIFDA, and he's heard lots of skip to the gulf coast states; also VA, NC and SC); John is manager of WEZW Also: Don Voegele, Stockton CA; Arthur Vuolo, Jr., PO Box 219 Ypsilanti MI 46197 (send 25g for a copy of his rock or country music radio guides); Dave1572 E. Capitol Driva
Walcutt, Carbondale IL; Steve Wiseblood, Santa Maria CA;Larry Weil, E. Rockaway NY; Thomas J. Yingling, Jr., Baitimore MD. Milwaukee, Wisconsin 53211



# FO NEWS No DATA

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

September 1977

TV Applications			Translate	ors Granted	
Leesburg, FL	(55) 221.4	kw 316AAT	VEDAD	Topock, AZ(Needles,CA)	KYYU
Albany, GA	(19) 640		WEEDII	Baudette, MN	KTHI
*Johnson City,TN				Baudette, MN	WDAZ
			1/2740	Grygla, MN	WDAZ
Rosenberg, TX	(45) 1350		UFOAN		
Albany, GA	(31) 2630			Grygla, MN	KTHI
Jacksonville,FL	(30) 4176			Morris Camp, MN	KTHI
Miami, FL	(33) 1216			Norris Camp, MN	WDAZ
Baltimore, MD	(54) 1205	kw 812AAT	K63AS	Williams, MN	KTHI
Denver, CO	(31) 2703	kw 975AAT	K61AR	Williams, MN	WDAZ
Tampa, FL	(28) 745	kw 1429AAT	W63AH	Maplewood area, OH	WOET
Norfolk, VA	(33) 1135	kw 910AAT	W6ØAH	Stroudsburg, PA	WDAU
Santa Fe, NM		kw 4090AAT		Wintergreen, VA	WVIR
Green Bay, WI	(26) 224			Crouch, ID	KIVI
Concord, CA	(42) 1205			Terrace Lakes, ID	KIVI
Houma, LA		kw 502.3AAT	KØ4IZ		
Washington, DC	The second second			Wawona, CA	KVIE
Masilington, Do	(14) 505.9	kw 468.9AAT	KØ4JA	Del Norte, CO	KNME
of the sufference to at all.		30 AL	K64AR	Steamboat Springs, CO	KWGN
*non-commercial, p	ublic telev	ision statio		Clearfork, CO	KOAA
and the contract of the			KØ8IY	Victoria Mines, NV	KUTV
CP's Granted	A TOTAL BUILDING		K1ØKL	Victoria Mines, NV	KCPX
Dallas, TX	(33) 300	kw 1633AAT	K64AS	Ruidoso, NM	KOB
Ft. Wayne, IN	(55) 599	kw 782.9AAT	K67BD	South Fork, NM	KOB
Kansas City, MO	(50) 676	kw 1120AAT	K69A0	Millersburg, OH	WOUC
The second second second			KØ70V	Green River, UT	KUED
Call Letter Applica	tions		KØ5GH	Hydro Jet Services Mine,	
KNBN-TV Dallas,			KØ70U		KOA
*WCME Chicago,		WXXW-20	W6Ø??	Federal Mining Camp, WY	
WIVB Buffalo,		WBEN-TV	MOD::	New York City, NY	WBTB
			VOATV	(atop World Trade Center	
	g, VA HOW	WLVA-TV	KØ4IX	Anatuvik, AK	KYUK
WFFT-TV Ft. Wayn	e, IN new	ch 55	KØ70S	Diomede, AK	various
WMVW Hanover,			K120N	Glen Haven, CO	KRMA
WANX-TV Atlanta,		WHAE-TV	K12KV	Lake City, CO	KBTV
KIMT Mason Ci		KGLO-TV	KØ5GG	Gibbonsville, ID	KGVO
WHME-TV South Be	nd, IN new		K61AQ	N. Steptoe Valley, NV	KSL
			K69BQ	Quinn River, NV	KOLO
Call Letters Grante			KØ6JB	Gaita, NM	KGGM
*WQPT Moline,	IL new		W67AK	Belfast, NY	WNED
KYFC Kansas C	ity, MO new	ch 50	W65AH	Loudonville, OH	WOSU
KTVZ Bend, OR	new	ch 22	KØ7LJ	Eagle Butte, SD	KPRY
KSGW-TV Sheridan		***	KØ6JA	Ceder Canyon, UT	KTVX
*WJPT Bluffs,			KØ70R	Ceder Canyon, UT	KUTV
	ings,WY new		NOTON	ceder canyon, or	KUIV
KICH Longview		ch 16 F	ROM THE REA	ADEDC.	
WJLA-TV Washingto					
			KIVZ-21 1n	Bend, OR expects to be or	n the air
				r l as an NBC affiliate w	
WMBB Panama C	ity, FL was			mmingWHRS-42 in Boynton	
T1-4 04-4			FL reported	on in this column in Jur	ne is just
Translators Granted			"talk" not	"talk programming"; will	not be on
K21AB Colorado S		KISC	in the near	r futureWHFT-45 is seel	king approval
KØ6SE Cripple Cr		KTSC	to use West	t Indies networkChanne	1 50 in Kan-
K58AQ Steamboat S	Springs,CO			40 expects to be on the a	
K68BC Lewiston,	ID	KSPS	mer with "(	Christian programming," si	tudio will
W56AT Augusta, K'	1	WCVN	be in Kansa	asABC is continuing to	gain new
K11NZ Ashland, M				away from CBS and NBC; WS	
K130P White Sulpi	nur Springs			ow with ABCNBC will have	
KØ8IJ Gallup, NM				WRET-36KCST-39 in San	
W17AA Celina, OH				KVFD-21 in Ft. Dodge,IA st	
KØ70W Agness, OR		HODE		tornado damageIowa ET\	
K61AS Pickstown,	SD				
K69BL St. George			will compile	ete coverage of the state	/20\ C+1
KØ9NU Glenwood, N		14D THE	rans lators	; Keokuk(44), Ft. Madison	(36),31D1ey
		Manne		Rapids(25), Ottumwa(38), K	
KØ6JD Bullhead Ci				ks this month to Ken Simo	
KØ4IY Lake Havası				ert Baker, Frank Aden, Jr	., and
K6ØAX Kingman, A7		KVVU E	Bruce Elvin	g.	
					44

# NORTHERN FM DX



Fred Nordquist 7945 Boxford Road Clay, NY 13041

September 1977

Deadline; the 10th

For MD DXers in Canada, the Northwest-Central states of WA OR ID WY ND SD NE MN IA, and all

states east of the Mississippi River and north of the Mason-Dixon Line. Report your DX III

It's been a tremendous year for E-skip. Peter Sawatzky passes on this quote from Eill Tynan,
W3XO from "The World Above 50 MHz" (QST, Aug. 77, Pg. 82) regarding Es activity this season
on the 6-meter band: "As this is being written, it is mid-June. Even if not one more opening occurs for the rest of the summer, 1977 will go down in history as the 'best Es year'
since those first DX signals startled 5-meter operators 42 years ago." (by 5-meter he is
referring to different band allocations back then). Es openings were noted in July/August
by this month's reporters on: 7/1,2,3,4,6,7,9,11,12,22,23,25 thru 31, and 8/2&3.

Red O'Connor - P.O. Box 72 - Southwest Harbor, ME 04679 (EDT)

Eqt. Realistic QTA RX, Winegard 7-el. ant. aimed WSW, Winegard FM340 booster. Antenna hand rotatable, but attic mounted to protect it from sea gulls (Maine's #1 antenna killer)

7/1 Es 2045 WGMW 94.3 FL Riviera Beach(1025) 7/26 Es 1947 KHLS 96.1 AR Elytheville (1350) 2050 WCVU 94.5 FL Naples/Fort Myers 2030 WXID 94.7 KY Mayfield, "D-94"

7/7 1540 WMMK 99.7 SC Columbia (1025) 7/28 1530 WFBQ 94.7 IN Indianapolis (950) 1543 WJCL 96.5 GA Savannah, EL (1150) 1535 WRXX 95.3 IL Centralia, "REX" 1550 WKPT 98.5 TN Kingsport (920) 1645 WKIM 102.5 SC Charleston, "S-KIM" 1558 WSB 98.5 GA Atlanta (1175) 1656 WKTZ 96.1 FL Jacksonville (1300) 1601 WMUU 94.7 SC Greenville (1020) 7/29 1700 WCMC 95.9 WI Ripon (1100) 1602 WESC 92.5 SC Greenville 1020) 7/29 1700 WCMC 95.9 WI Ripon (1100) 1602 WESC 92.5 SC Greenville 1701 WNNO 107.1 WI Wisconsin Dells 1603 WEZS 103.7 VA Richmond, "E-Z 104" 1702 WDLB 106.5 WI Marshfield(1150) 1703 WCCN 107.3 WI Neillsville(1200) 1901 WJCL 96.5 GA Savannah 1150 1703 WCCN 107.3 WI Neillsville(1200) 1901 WJCL 96.5 GA Savannah 1705 WIAL 94.1 WI Eau Claire (1250) Hope all are getting good skip -- best to all, Rod. 1797 WJPB 92.3 MI Ishpeming (1080)

Mike Bugaj - 69 Sherman Road - Enfield, CT 06082
Eqt. Sony 5130, Fince FM-5@ 35' w/rotor. What a summer for Es. Most of my loggings were on E-W paths for change. 178 new stations logged since 5/6 with only 16 via tropo. Tatal now about 813. 7/14 tropo good to Columbus, Ohio @ 560 mi. No relogs are listed except for some good tropo relogs, and these are underlined.

```
now about 813. 7/14 trope good to Columbus, Onio © 500 ml. No relogs are listed exc
some good tropo relogs, and these are underlined.

5/6 Tr 1730 WHBI 105.9 NJ Newark lightning 6/6 Es 1959 WLCL 99.5 MN Minneapolis

1742 WIGY 105.9 ME Bath, Y106 knocked 2005 WWIE 103.7 WI Ladysmith

1805 WQXA 105.7 PA Fork, Q106 locals

1810 WFLN 95.7 PA Philadelphia off. 2005 KCMT 100.7 MN Alexandria

1815 WZID 95.7 NH Manchester 2030 WWJO 98.1 MN St. Cloud

5/22 2132 WBPZ 92.1 PA Lock Haven 6/8 0915 WBGI 92.1 77 Ga.?
                      2130 WMHR 102.9 NY Syracuse, gospel
 5/29
                                                                                                                                            0925 KZZQ 94.3 LA Golden Meadow
                      0228 WSEA 93.5 DE Georgetown
0235 WELK 93.7 NY Depew, soul
                                                                                                                                                 0933 KCKN 94.1 KS Kansas City
0940 WAAG 94.9 IL Galesburg
0945 KFMH 99.7 IA Muscatine, "99+"
 5/30
                   0235 WHLK 93.7 NY Depew, soul
1830 WPFW 89.3 DC Washington
0950 WHRS 91.7 FL Boynton Beach
1015 WYRL 102.3 FL Melbourne
6/1
6/5 Es
              1015 WTRL 102.3 FL Melbourne 0948 WHTT 96.9 IL Moline 1215 WRGI 93.5 FL Naples 0952 KIIK 103.7 IA Davenport, "Kick" 1715 WRUL 97.3 IL Carmi 0952 KIIK 105.5 IA Mt. Pleasant 1715 KTJJ 98.5 MO Farmington 0956 KMGK 93.3 IA Des Moines 1745 KCPI 95.3 MN Albert Lea 0957 KCWH 94.1 NE Omaha 1745 KCPI 95.3 MN Albert Lea 0959 KMGK 98.1 IA Cedar Rapids
                                                  95.3 MN Albert Lea
93.5 NE Columbus
                                                                                                                                         0959 KHAK 98.1 IA Cedar Rapids
1000 WZOK 97.5 IL Rockford
1003 KPLL 103.3 IA Pella
1005 KIWI 105.3 IA Dubuque
1007 KXEL 105.7 IA Waterloo, "X-Rock"
1014 KFMD 92.9 IA Dubuque, "D-93"
1018 KBCM 95.5 IA Sioux City
1025 WLSU 88.9 WI LaCrosse
1028 WCAL 89.3 MN Northfield
1035 KAGE 95.3 MN Winona
1155 WNMU 90.1 MI Marquette
                     1745 KTTT
                1750 KPAT 97.3 SD Sioux Falls, Rock107
1758 KSTP 94.5 MN St. Paul
1800 KVDB 94.3 IA Sioux Center
           1800 KVDB 94.3 IA Sloux Center
1810 KHBT 97.7 IA Humbolt
1811 KSEZ 97.9 IA Sloux City
1910 KQDE 92.1 MN Waseca
1910 KWDA 95.1 MN Worthington
1912 KNEI 103.9 IA Waukon
1925 KQIC 102.5 MN Willmar
1929 KIOV 104.7 SD Sloux Falls
1935 KESO 88.3 SD Brookings
1938 KOAD 10.0 MN Luxers
                                                                                                                                                  1155 WNMU 90.1 MI Marquette
                                                                                                                                                   1031 KTAV 92.1 IA Knoxville-Fella
                                                                                                                                                   1039 ???? 92.1 WI Mauston
              1938 KQAD 100.9 MN Luverne
                                                                                                                                                  1040 KRNA 93.5 IA Iowa City
1043 WSCD 92.9 MN Duluth
             1945 KUSD 89.7 SD Vermillion
1950 WIAL 94.1 WI Eau Claire
1950 KLFD 95.3 MN Litchfield
                                                                                                                                                   1048 WAKX 98.9 MN Duluth, "Wax"
                                                                                                                                                   1054 ???? 97.1 MI Escabana
```

```
Eric Fader - 23-35 Bell Elvd - Bayside, NY (ELT)
  Eric Feder - 23-35 Bell filvd - Bayside, NY (ELT)

Eqt. Concord CR-260 Stereo, Bowtie antenna, Log totals; 167, 11 states + DC. New underlined.

4/21 Tr 0126 WRVQ 94.5 VA Richmond (300) 6/1 Tr 0235 WCRB 102.5 MA Waltham, $ classical 0158 WRFT 102.5 PA Reading 0239 WTIC 96.5 CT Hartford, "%-ticks"

5/8 Gw 0005 WLVH 93.7 CT Hartford, SS music 0242 WSRS 96.1 MA Worcester, LAC 0300 WTIT 100.7 MA Boston, "TR-101"

5/22 Tr 2130 WCCB 94.9 MA W. Yarmouth (200) 0317 WCGY 93.7 MA Lawrence 0200 WEUR 90.9 MA Boston, $ (175) 6/2 1559 WWLH 91.3 CT W. Hartford 1559 WWLH 91.3 CT W. Hartford 1560 WCCZ 94.5 MA Boston, $ Prog. rock 0233 WAQY 102.1 MA Springfield, "Wacky" 6/9 0200 WVIC 104.7 MA Orleans, CBS, $ (210)
```

```
September 1977
FM DX NORTH
Eric Fader report - continued. 6/24Tr 0106 WQQQ? 99.9 PA Easton, WEZN off
6/17 Tr 0045 WCHR 94.5 NJ Trenton
                                                                                       1920 WLNG 92.1 NY Sag Harbor
             0100 WUHY 90.9 PA Philadelphia, s/off
                                                                                       2001 WRDR 104.9 NJ Egg Harbor
             0105 WCAU 98.1 PA Philadelphia, rock 6/25 0305 WHIM 94.1 RI Providence 0212 WIOQ 102.1 PA Philadelphia, "Q" 6/26 0105 WEZV 95.1 PA Bethlehem
             0222 WMGK 102.9 PA Philadelphia, magic 6/28Gw 0115 WUSB 90.1 NY Stoneybrook 0225 WMGM 103.7 NJ Atlantic City, rock Tr 0130 WBGC 104.7 MD Ocean City, L&C 0240 WRCP 104.5 PA Philadelphia. k 0135 Ralogs. PA NJ DE MD Dr. station
         O240 WRCP 104.5 PA Philadelphia, k
O242 WAMU 88.5 DC Washington
O245 Philadelphia stations(93.3,94.1)
O252 WUSL 98.9 PA Philadelphia
O252 WUSL 98.9 PA Philadelphia
O255 WCL 98.9 PA Philadelphia
O255 WCL 98.9 PA Philadelphia
O256 WCRF7 99.3 NJ Pleasantville
                                                                                       0135 Relogs: PA NJ DE MD DC stations
             0308 WJRZ 100.1 NJ Shipbottom, rock 0145 ???? 89.7 $ carrier - WGBH? 0312 WFMZ 100.7 PA Allentown 73 - Eric.
             0312 WFMZ 100.7 PA Allentown
Joseph Fela - 150 Robert Place - So. Plainfield, NJ 07080 (ELT)
RX: Pioneer SX-828. Ant: Pair of Antennacraft GFM-10s (stacked), Rotor, Underlined are new.
                                                                           7/3 Es
1056 WINZ 94.9 FL Miami, rock, ads, ID
1842 KISR 93.7 AR Ft. Smith, rock
6/21 Es
                                                                          1059 WHRS 91.7 FL Boyton Beach, ID, mixing
1925 KROZ 92.1 TX Tyler, k, "Rose of Tyler"
                                                                                                          w/Spanish. Ideas?
1930 KSUC 88.3 TX Keene, ID, religious 2006 KERA 90.1 TX Delias, ID, thn NPR stuff 1940 7777 92.1 Who had Astros BB? Not KROZ 2011 KROZ 92.1 TX Tyler, country, ID
1959 KETR 88.9 TX Commerce, council meeting 2042 KKDA 104.5 TX Dallas, s, lcl wx, K-104 2002 KCBT 89.3 TX Dallas 2048 KCR7107.9 TX Corsicana, Texas P&L ad 2014 KOAX 105.3 TX Dallas, EL, PSAs 2019 KESS7 93.9 TX Dallas, SS (KESS is SS-fn) 1300-1400 CKY 92.1 MB Winnipeg, L&C, EL, IDs
                                                                           1303 KFJM 89.3 ND Grand Forks, ID, EBS test 1337 KKDQ 92.9 ND Grand Forks, "KDQ", rock
2024 KIKM 96.7 TX Sherman, briefly w/ID
6/24 Tr
2000-2300 to SE New England. WRLM-93.3, etc. 1350 CJSD 94.3 CN Thunder Bay, EL
                                                                            7/6 Es
6/30 Es
1831 WIAL 94.1 WI Eau Claire, ads, weather 1155 WCIE 91.3 FL Lakeland, NX, ID, briefly
1853 KWOA? 95.1 MN Worthington, "$-95"
                                                                           1226 WRGI 93.5 FL Naples, ex- WALJ
                                                                    1916 RMFL 102.9 MO Marshall, ID
1929 WPLN 90.3 TN Nashville, ID, NPR
1929 WNJC 90.1 MS Senatobia, ID, NPR
1900 KSTP 94.5 MN St. Paul, KS-95, IDs
1950 WRLS 92.1 WI Hayward, WRLS report"
2100 KRAV 96.1 OK Tulsa, rock, ID
2105 KKMA 104.5 OK Pryor, ID, ABC/I NX (A1)
                                                                         7/7 Es
1207-1310 WIPR 91.3 Sam Juan, P.R. in SS.
Good taped IDs at 1230 and 1300.
7/1 Es
1905 ZEM
                 89.1 BM Hamilton, Hit Parade, IDs
1921 ZFB? 94.9 HM Hamilton, lcl ads, no ID
                                                                                            Wx in EE at 1302. My best Es (1600)
1929 WTLN 95.3 FL Apopka, LaC, religion, ID 1344 WWRN 92.1 FL W. Palm Beach, ID 1933 WAMR 92.1 FL Naples, NX, wx, ID 1359 WWOG 99.9 FL Boca Raton, ID
1942 WPCV 97.5 ft Winter Haven, country, IDs 1400 WELJ 101.1 ft Port Charlotte, ID, EL, ads 1959 WLOQ 103.1 ft Winter Park, ID, classical 1413 WFAM 91.1 ft Jacksonville, ID 2000 WGSR 102.5 ft Sarasota, legal ID, rock 1420 WSWN 93.5 ft Belle Glade, ID, WGYL QRM
7/2 ES
1700 WMNU
90.1 MI Marquette, MX, wx, ID,NPR
1805 WFDZ 93.7 FL Ocala, ID, marine weather
1701 WGGL
1811 WATV 96.9 FL Jacksonville, "Wave-97", r
1821 WFFM 107.9 FL Panama City, IDs, rock
1832 WQ?? 98.5 FL Panama City, EL(not WGNE)
1812 UNID
90.1 MI Marquette, MX, wx, ID,NPR
1700 WMNU
90.1 MI Marquette, MX, wx, ID,NPR
1701 WGGL
91.1 MI Houghton, ID
1702 WMNU
93.7 SD Winner, ID, This is a pest.
1832 WQ?? 98.5 FL Panama City, EL(not WGNE)
1812 UNID
93.5 FFe - Is Kenora on? Winnipeg
                                                                                                    Ch. 6 in at this time.
1838 WBTR 92.1 GA Carrolton, SID
1856 WJGA 92.1 GA Jackson, AM/FM ID 1907 CBV? 95.3 PQ Quebec City, Other PQ's in. 1859 WOAB 104.9 AL Ozark, ads, ID 2000 WEAA 88.9 MD Baltimore, soul, regular
1900 WAJE 107.3 FL Pensacola, ID, 1cl weather 2200 WMMD 104.7 MD Hagerstown, ex-WJEJ, EL
Will hold the rest to next month - - 73, Joe. (Nice going on that Puerto Rico catch - fn)
Steve West - 432 Kermore Road - Haverstown, PA 19083(Phone: 1-215-449-1472)
                                                                            6/6 Es
6/5 Es
1700 WDBR 103.7 IL Springfiled (775)
                                                                           1700 KOWB 98.7 MN Moorhead (1180)

        WRTL
        95.3 IL Rantoul (675)
        KMHL 10041 MN Marshall (1090)

        KDKD
        95.3 MO Clinton (1000)
        KOKO 98.5 TA Council Discount

      KDKD
      95.3 MO Clinton (1000)
      KQKQ
      98.5 IA Council Hluffs (1090)

      WIEW
      97.3 KS Topeka, acto-rock (1080)
      WCTS 100.3 MN Minneapolis (990)

                                                                                    KQKQ 98.5 IA Council Hluffs (1090)
                                                                         WALT 97.1 MS Meridian (900)
6/6 Es
1700 KXXY 96.1 OK Oklahoma City (1250)
                                                                                   WKZY 97.1 77 7
        KWEN 95.5 OK Tulsa, m (1150)
                                                                                KVLR 95.3 MN Detroit Lakes (1080)

KXXX 100.3 KS Colby, RC BB (1360)
        | WFRL | 98.5 IL Freeport (790) | KXXX 100.3 KS Colby, KC BB (13 KOER | 95.3 IA Independence (875) | KMOE | 92.1 MO Butler, "K-Moe Radio" | KCRO | 98.5 OK Tulsa (1150) | 6/8 Es | 0900 WKSJ | 94.9 AL Mobile (960)
```

```
September 1977
      | Columb | C
  | 1800 | RMBE | 92.3 NE Beatrice (1100) | 1830 | RGR | 99.9 NE Omaha (1080) | RCII | 95.3 IA Washington (880) | RLYF 100.3 IA Des Hoines, m (860) | RWTO | 98.7 KS Topeka (1100) | RWTO | 98.7 MN Moorhead (1190) | RWTO | 98.7 MN Moorhead (1120) | RWTO | 98.5 OK Tulsa (1150) | RWTO | 98.7 KY Hopkinsville (700) | RGGO | 99.3 MO Houston (920) | RGGO | 94.9 IA Des Moines (960) | RGGO | 94.9 IA
        Harry J. Hayes - Star Route - Box 226c - Gouldsboro, PA 18424 (EDT) 6/5 Es
Harry J. Haves - Star Route - Box 226c - Gouldsboro, PA 18424 (EDT)

6/5 Es

0949 WFLA 93.3 FL Tampa

6/6 Es

1030 WQID 93.7 MS Biloxi
1758 WWJO 98.1 MN St. Cloud, "$-98"
1759 KIOV 104.7 IA Sioux City
1800 KIDA 99.9 MN Moorhead
1805 KSTP 94.5 MN St. Paul, "KS-95"
1810 KGWB? 98.7 MN Moorhead, "Q-98"
1825 WALT 97.1 MS Meridian
1830 WALA 97.3 FL Miami, L&C
1831 WMJX 96.3 FL Miami, L&C
1840 WOVV? 95.5 FL Ft. Pierce, "0-95"
1845 WABB 97.5 AL Mobile

6/6 Es
1850 WKSJ 94.9 AL Mobile, country wusie
1850 KRSJ 94.9 MN Detroit Lakes, SID
1935 KVLR 95.3 MN Detroit Lakes, SID
1935 WSCD? 92.9 MN poking thin WYZZ
2000 KACH 94.9 MN Duluth, "K0-95", country mx
2000 WGGR 103.1 MN Duluth, classical music, ID
2000 WGGR 105.1 MN Duluth, station ident.
2005 Unid 101.1 "The entertainer" KBHP?
6/9 Es
1330 KMOT 93.7 ND Minot, (1330)
6/12 Es
1828 KLJV 92.1 SD Huron, thru WMJW
```

```
FM DX NORTH
                                                                                                                                                                                                                                 September 1977
 groups like "Yes", "Queen", etc., not T-40. Definitely from Maritimes as time 1th rahead. No ID heard. Is there any ID? Sounded like annr said "Radio I". I assume this was the station with a TT on 6/2 opening from this area. Totals: 422. 73 -- Harry.
Paul D. Traska - 64 Weaver Aye. - Buffalo, NY 14206
Totals: 171, 21 states, DC, 67 Educ., 3 prov., and 1 foreign. All New stations, except ZEM.

7/7 Es 1605 ZEM 89.1 EM Hamilton 7/14 Tr 1230 Unid 95.5 ON FFe (CJEC-17 -fjn)
1700 CJOB 97.5 MB Winnipeg 1315 WCLV 95.5 OH Cleveland 1430 CIGM 92.7 ON Sudbury, ex-CKSO 1930 CKRL 89.1 PQ Quebec 7/18 1330 WPIT 101.5 PA Pittsburgh 90.1 ME Portland 1430 CIGM 92.7 ON Sudbury, ex-CKSO 1930 CKRL 89.1 PQ Quebec 7/18 1330 WPIT 101.5 PA Pittsburgh 90.1 KDEZ 92.3 KS Newton 7/24 1736 CFWY 102.1 ON Brampton, ex-CHIC 2058 KRAV 96.5 OK Tulsa 7/31 Es 1828 KBRL 90.3 MO Buffalo 2058 KMOD 97.5 OK Tulsa 2030 KLC 88.5 MO Kansas City 2100 KICT 95.1 KS Wichita 8/3 1800 WIEW 97.3 KS Topeka 2130 KXXX 100.3 KS Calby 1830 KCMM 90.9 MO Warrensburg 1845 KSKU 102.1 KS Hutchinson 1915 KMKF 101.7 KS Manhattan
Frank Wheeler - 6589 Wattsburg Road - Erie, PA 16509

Eqt: Receiver - Panasonic Table Model RE 7329, Antenna - Archer VU160 VHF-UHF-FM.

6/15 Tr 0802 WRV0 89.5 NY Oswego (195) 7/14 Tr 1030 WHSB 107.7 MI Alpena (267)

6/26 0202 WXXI 91.5 NY Rochester (143) 7/20 1230 WNED 94.5 NY Buffalo (82)

0212 WDET 101.9 MI Detroit (154) 7/14 1000 CIME 107.9 ON Burlington

7/15 0856 WVIA 89.9 PA Scranton (225) 7/20 0000 CKO 99.1 ON Ottawa (313)
Bob Seybold - Bennett Road - Dunkirk, NY 14048
```

FM DX NOR	rh								September 1977
Peter Saw	tzky report -	continued. SD Vermillion (825) IA Storm Lake (740)	7/12	Es	2020	KOUE	102.9	TX	Househon (12/10)
7/4 Es 1	740 KVRF 102.3	SD Vermillion (825) IA Storm Lake (740) IA Storm Lake (740) SD Sioux Falls (810) NE Grand Island(925) IA Sioux City (800) IA Cherokee (755) IA Le Mars (785) IA Sioux Center(785) IA Algona (685) MN Benson (755) IA Salk Center (725) IA Clearwater (1075) IF Clearwater (1075) IF Clearwater (1070) IF Coala (985) IF Jacksonville (910) IF Ocala (985) IF Minter Haven(1065) IF Minter Haven(1065) IF Melbourne (1060) IF Orlando (1025) IF Melbourne (1060) IF Orlando (1025) IF Bengor (585) IF Bengo		-	2025	WYNK	101.5	LA	Baton Rouge (1060)
1	742 KAYL 101.5	IA Storm Lake (740)			2029	KCLC	89.1	MO	St. Charles (610)
1	740 KCHF 93.5	SD Slowk Falls (010)			2229	KJSK	101.1	ME	Columbus (865)
1	753 KRCM 95.5	TA Stour City (800)			2029	KMUW	89.1	KS	Wichita (955)
1	757 KCHE 102.3	IA Cherokee (755)			2031	KSMU	91.1	MO	Springfield (790)
1	758 KLEM 99.5	IA Le Mars (785)			2041	KETII	103.1	AR	FI Downdo (055)
1	301 KVDB 94.3	IA Sloux Center (785)			~~~	(1st	time !	ישת	new CL - ex-KELD)
1	314 KLGA 92,7	IA Algona (685)			2047	KPCG	102.5	MO	Joplin (855)
1	316 KEMO 93.51	MN Benson (755)			2048	KJAK	100.5	OK	Okla. City (1045)
7/4 1	321 KMSR 94.31	MN Sauk Center (725)			2058	KLUM	88.9	MO	Jeff. City (690)
7/6 1	SUP WEAR 97.9	E Samageta (1125)			2105	KOFM	104.1	OK	Okla. City
î.	01 WFLA 93.3	FL Tampa (1070)			2110	KMMM	106.9	OK	Muskogee (945)
1	02 WFUZ 93.7	FL Ocala (985)			2122	KVTI	104.5	V.	Delle (1130)
1	003 WWGA 100.9	GA Waynesboro (720)			2125	KNDY	103.1	KS	Marysville (860)
1	12 WKTZ 96.1	FL Jacksonville (910)			2127	KLIN	107.3	NE	Lincoln (850)
1	15 WXIM 97.3	GA Savannah (785)			2128	KARD	107.3	KS	Wichita (955)
1	710 WPUV 97.5	FL Winter Haven(1005)			2035	WSLY	99.3	AL	York (865)
11	28 WORE 101.9	F Cooo Bob (1035)			2039	KSCM	99.3	MO	Houston (730)
11	230 WYRL 102.3	E. Malbourna (1060)			2111	KSKU	102.1	KS	Hutchinson (975)
1	35 WDIZ 100.3	FL Orlando (1025)			21/10	KKRE	104.1	TX	Houston (1240)
7/7 1	739 KFMQ 101.9	NE Lincoln(prev. MS)			2156	WOLLE	93.3	T.A	New Coleans (1020)
1	43 KDMI 97.3	IA Des Moines (670)			2218	WOOF	99.7	AL	Dothan (880)
1	53 WCIB 101.9 1	MA Falmouth (515)			2220	KRVN	93.1	NE	Lexington (990)
1'	754 WKXA 98.9 1	ME Brunswick (525)			2222	KESS	93.9	TX	Fort Worth (1170)
11	SOS MAIRE A0. A 1	MAW Vermouth (535)			2228	KIXY	94.7	TX	San Angelo (1350)
1	304 WORC 99.9 1	MA Barnstable (530)			2229	KFGQ	99.3	IA	Boone (680)
1	306 WRKD 93.51	ME Rockland (565)			2250	PRIDAD	92.9	TA	Wichita Falls(1165)
10	314 KIOZ 102.9 V	WY Laramie (1280)			2255	WGRA	93.5	AT.	Genera (900)
14	319 CHFX 101.9 1	NS Halifax (830)			2257	WFSU	91.5	FL	Tallahassee (920)
	(1st time or	n 101.9, prev. 96.1)	A 1299		2304	KCSC	90.1	OK	Edmond (1070)
(0582320	325 WODY 92.7 1	ME Calais (660)	7/14	Tr	2245	CKO	106.9	ON	Ottawa (265)
(0.14)	MOST Easter	NS Halifax (830) n 101.9, prev. 96.1) ME Calais (660) rly FM sta. in US) ME Westbrook (505) ME Ellsworth (600) PEI Charlottetown n on the 7th day of nth of the 77th yr tury!!1)				Same	CL as	s CI	10 99.1 Toronto, yet
(0.00 1	46 WDEA 95.7 1	ME Ellsworth (600)			2222	Weat	ther Wa	as l	.ocal)
19	000 CBC 96.9 I	PEI Charlottetown			2356	MULT	01 7	PAT.	Packley (205)
	(Revd at 7pm	n on the 7th day of			2359	CHCK	107.5	ON	Kigston (200)
	the 7th mor	nth of the 77th yr	7/15		0012	WBKW	99.5	WV	Beckley (395)
4.	of the cent	tury!!!) ME Bangor (585) PO St. Fabien de Pene			0021	WVWR	89.1	VA	Roanoke (430)
1	103 MRCM 97.1 I	AE Bangor (505)			0732	WSKG	89.3	NY	Binghampton (245)
10	12 CDFF 102 3 1	PQ St. Fabien de Pane	7/18	W.	1730	WVPE	88.1	IN	Elkhart (300)
10	15 CBTM 93.5 F	PO The de la Mad. (945	7/22	Es	1800	WAFG	90.3	FL	Ft. Lauderdale
19	18 WPBC 92.9 1	ME Bangor (585)			1827	MLTO	101 5	IL.	Miami (1205)
19	19 WDHP 96.9 1	E Presque Isle(645)			1629	WLRN	91.3	FL	Miami
19	22 WFST 97.7 1	Œ Caribou (650)			1832	WCKS	101.1	FL	Cocos Bch (1035)
19	31 WUFK 90.3 P	E Fort Kent (630)			1835	WXOS	100.3	FL	Flantation Key
10	ON LITTLE ON E B	- Received QSL)			1838	WMJX	96.3	FL	Miami (1205)
1.	TOT WILL PLOT	a naverniti (4/0)			1839	WEDR	99.1	FL.	Miami
10	35 WOXO 92.7 N	IR Norway (495)			1841	WCKO	102.7	FL	Pompano Beh (1190)
7/8 Tr 0	40 WFMS 95.5	IN Indianapolis (380)			1853	WGLU	07 3	ET.	Ft. Lauderdale
22	02 WFCM 97.9 V	PQ St. Fablen de Paner NB Grand Manan (680) PQ Tle de la Mad.(945) ME Presque Isle(645) ME Caribou (650) ME Fort Kent (630) MA Haverhill (470) Losest Es to date) ME Norway (495) IN Indianapolis (380) W Fairmont (225)			1858	WTMT	93.1	FT.	Miami
7/9 07	25 WRCI 93.5 N	II Midland (185)			1900				Marathon (1290)
	40 WZZM 95.7 N	(I Grand Rapids (260)			1907				Stuart (1115)
7/12 Es 18		Sermuda (1140)			1929				Miami Bch (1205)
		LA La Place (1075) TX Pasadena (1240)	n/c-		1935				Winter Haven(1065)
		A Hammond (1045)	7/25		2115				Vidalia (785)
		A Lake Charles(1145)	7/26		1821				Denver (1270)
		A Baton Rouge (1060)			1825				Colorado Sprgs Minot (1050)
20	05 KJNA 99.3 I	A Jena (1030)			1848				Denver (1270)
		MS Jackson (925)			1851				Colo. Springs(1285)
20	17 WKYV 106.7 M	S Vicksburg (955)			1858				Fargo (825)
						Mark Street,			

```
Pater Sawatzky report - continued.

7/27 Es

7/26 Es

7/26 Es

1905 KCCM 95.7 MT Scobie (1240)

1905 KIVE 96.5 MT Glendive (1195)

1908 CERF 97.7 SA Regina (1235)

1910 CBI7 97.9 MB Brandon (1035)

(See Feb. 77 VUD - What are CL?)

1912 KRNW 97.9 ND Grand Forks (855)

1915 KOAQ 103.5 CO Denver (1270)

1916 KLTR 100.3 CO Denver (1270)

1929 KFLM 89.3 ND Grand Forks (855)

1929 KFLM 89.3 ND Grand Forks (855)

1937 KMAV 101.7 ND Mayville (860)

1940 KRAD 103.9 M E. Grand Forks (850)

1952 KQDY 94.5 ND Bismarck (1010)

(Ist time by new CL - prev. KEMR via MS)

1001 KOSM 99.3 MN Thief River Falls (820)

2007 CHMN 97.5 ME Winnipeg (910)

2101 KSHE 94.7 MO Crestwood (605)

2101 KKNS 94.3 MB Winnipeg (910)

2101 KSHE 94.7 MO Crestwood (605)

2102 KKNS 99.3 MN Thief River Falls (820)

2101 KKNS 99.4 MB Winnipeg (910)

2101 KKNS 99.5 ME Winnipeg (910)

2101 KKNS 99.7 MB Winnipeg (910)

2102 WWM 94.1 HL Lakeland (1065)

1802 WKOK 102.7 FL Pomano Beach (1190)

2102 WWM 94.1 FL Jacksonville (910)

2103 WFW 99.7 FL Miami (1205)

2103 WFW 99.7 FL Miami (1205)

2133 WFW 99.7 FL Miami (1205)

2145 WKNS 99.7 FL Miami (1205)

2150 WFM 99.7 FL Miami (1205)

2160 WFM 99.7 FL Miami (1205)

2173 WFW 99.7 FL Miami (1205)

21840 WICY 94.9 FL Tampa (1070)

2133 WFW 99.7 FL Miami (1205)

2145 WFM 99.7 FL Miami (1205)

2150 WFM 99.7 FL Miami (1205)

2160 WFM 99.7 FL Miami (1205)

2173 WFW 99.7 FL Miami (1205)

21840 WICY 94.9 FL Tampa (1070)

21840 WICY 94.9 FL Tampa (1070)

21840 WICY 94.9 FL Tampa (1070
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Penning w
                      FM IDX NORTH
             Michael L. Hogan - 9224 Cottage Grove Ave. - Highland. IN 46322
Eqt: Panasonic RF-877, Stereoprobe-9 ant. @17', hand-rotated. New underlined. All stations
        recorded on casette tape.

7/7 Tr

0645 WSSR 91.9 IL Springfield, ad, wx
0700 WJRE 92.1 IL Kewanee, ID

7/8 Tr

0645 WTN 94.1 WI Watertown, ad, weather
0700 WCLL 94.3 OH Chilcothe, ad, weather
0705 WMNI 99.7 OH Columbus, sports
0715 WMDH 102.7 IN New Castle-Muncie, ID, k
0730 WPOK 103.1 IL Pontiac, ad
7/11 Tr
1700 WAMK 93.3 IN Kendalville, ad

7/12 Es

7/17 to 8/1(23 new loggings in this period)
7/18 Tr
7/19 WCZ, 94.1 MO St. Louis, ID, wx (300)
7/31 Es
7/17 to 8/1(23 new loggings in this period)
7/18 Tr
7/18 Tr
7/18 Tr
7/18 Tr
7/17 to 8/1(23 new loggings in this period)
7/18 Tr
7/18 
               recorded on casette tape.
             7/12 Es
        1859 WRSU  

88.7 NJ New Brunswick, wx, ID  

Numerous Es openings have been noted espec-
ially to the NE and E parts of the U.S. On
occasion MUF's to 99.9. Totals: 207, 88-92:
37, Es: 15, 10w stns: 5, CN:1, U.S.:16, TPU:17.
John Ebeling - 9209 Vincent Ave. S. - Hloomington, MN 55431 Phone: 612-888-0816

7/3 Es

1830 WSRS 96.1 MA Worcester, ads, ID 1502 WCOL 92.3 OH Columbus, (short skip)

1840 WHIM 94.1 RI Providence, k, SCA mx on 1503 WLRG 92.3 VA Roanoke, "large"mx on SCA 1515 WYS 93.9 DC Washington; rock

1107 WYYZ 92.5 CT Waterbury, m, Tone on SCA 1516 WFLS 93.3 VA Fredericksburg, mx on SCA 1110 WLWH 93.7 CT Hartford, spanish program 1522 WKLP 94.1 WV Keyser, rock
1119 WRLM 93.3 MA Taunton, r, Stereo-93 1535 WRPL 94.5 VA Richmond, rock, "Q-94" 1130 WXLS 98.3 CT Willianntic, mx for 2 of us1539 WRFL 92.5 VA Winchester, k, mx on SCA 1131 WLKW 101.5 RI Providence, m 1542 WKMI 101.7 VA Kilmarnock 1145 WHIM 94.1 RI Providence 1545 WVHR 101.3 VA Hampton, ABC NX 1145 WHIM 94.1 RI Providence 1545 WVHR 101.3 VA Hampton, ABC NX 1202 WHVW 97.7 NY Hyde Park 1600 WGH 97.3 VA Newport News, mx on SCA 1302 WMGX 93.1 ME Portland, rock 1604 WRFL 92.5 VA Winchester, NX, mx on SCA 1305 WJED 97.3 MA New Bedford 1605 WFFL 92.5 VA Winchester, NX, mx on SCA 1305 WJED 97.3 MA New Bedford 1605 WFFL 92.5 VA Winchester, NX, mx on SCA 1604 WRFL 92.5 VA Winchester, NX, mx on SCA 1605 WJED 97.3 MA New Bedford 1605 WFFL 92.5 VA Winchester, NX, mx on SCA 1605 WJED 97.3 MA New Bedford 1605 WFFL 92.5 VA Winchester, NX, mx on SCA 1605 WJED 97.3 MA New Bedford 1605 WFFL 92.5 VA Winchester, NX, mx on SCA 1605 WJED 97.3 MA New Bedford 1605 WFFL 92.3 AL Montgomery, rock
```

```
FM DX NORTH
                                                                                                                                                                                                                                                                                                                 September 1977
John Sbeling report - continued.

//23 Es
//23 Ss
1058 RBIM
//11 Es
1120 KPIK
//11 Es
1130 WFLS
//12 Es
1130 WFLS
//11 Es
1130 WFLS
//12 E
                                                                                                                                                      7/26 Es
1058 KBIM 94.9 NM Roswell, m
   John Ebeling report - continued.
   7/23 Es
   get them 2 nights in a row via excellent trop)1813 WKTZ 96.1 FL Jacksonville, m
  7/25 Es
1814 KYKE 93.3 TX Port Arthur, k, mx on SCA
1815 WXLM 97.3 GA Savannah
2145 WTIC 96.5 CT Hartford, rock 1848 WRAS 88.5 GA Atlanta, jazz
Stations received on 7/3, 7/4 & 7/23 were logged at my cabin in Prosit, MN, so miles NW of Duluth, MN. Eqt: Sherwood S2200 tuner (tube) and 5-element attic mounted FM antenna. All
   stations received on others dates were logged at my main location in Eloomington, MN. Eqt:
   Heath AJ-15, & 10 element CM yagi. New underlined. Times in CST. Note: About the middle
   of the month I acquired a Sony ST-5130 tuner and have begun using both the Sony and Heath
   for DXing at the Elecanington location. 73 - - John.
   Fred McCormack - Des Lacs, ND 58733 (CDT)
 0501 WDLB 106.5 WI Marshfield, (595) 0822 WARX 98.9 MN Duluth, "$-99 Wax" (450) 0504 KTCR 97.1 MN Minneapolis (455) 0830 WRVM 102.7 WI Suring, gospel (650)
  0504 KTCR 97.1 MN Minneapolis (455)
New stations underlined, dash-new mode, 7/18 Tr

Eqt: Des Lacs - Heath AR-1500, JFD log ant. 2234 KCJB 97.1 ND Minot, "rock-99" (230)
Fargo - Heath AR-15, rabbit ears. 73-Fred. (received in Fargo)
   Patrick Martin - P.O. Box 14192 - Portland, OR 97214 (PST)
   | 1600 KUEZ 104.1 WA Yakima, CL change (150) | 1806 KORD 102.7 WA Pasco, rock (250) | 1/2 Tr | 1807 KONA 105.3 WA Kenniwick, KBIQ QRM (250) | 1807 KONA 105.3 WA Spokane. | 1808 KMBI7107.9 WA Spokane. | 1809 KMBI7107.
   Eqt: Receiver - Pioneer TX-9100, Antenna - 10 element Lafayette (FM), Winegard trap.
                                                                                                                                                                                          1832 KMBI?107.9 WA Spokane, g sta. u/KHPE(300)
   1610 CBC 106.7 BC Trail, CBC-very poor cl 1932 KVMT 104.7 CO Vail, c, L&C (900)
```

```
FM DX NORTH
                                                                                                                                                                                                                                                                                                                                                                                                                                     September 1977
  | North | September | 17/1 | Sep
   2226 KISM 92.9 WA Bellingham, album r, (225)2051 KVSD 89.7 SD Vermillion (1150) c
2224 KELE 93.3 WA Seattle, religious (150) 2057 KCFS? 90.1 SD Sioux Falls, 5D news items
2231 KEUT 94.1 WA Seattle 2059 KVCB 94.3 IA Sioux Center (1200)
2243 KIT 94.5 WA Yakima (150) 2100 KEFM 96.1 NE Omaha, L4C (1200)
 2231 KEUT 94.1 WA Seattle 2099 KVOB 94.3 IA Sioux Center (1200)
2243 KIT 94.5 WA Yakima (150) 2100 KEFM 96.1 NE Omaha, LdC (1200)
2246 KUCW 94.9 WA Seattle 2101 KSEZ 97.9 IA Sioux City (1200) strong
2248 KIXI 95.7 WA Seattle 2101 KSEZ 97.9 IA Sioux City (1200) strong
2248 KIXI 96.1 OR Eugene (110) 2109 KGBI 100.7 NE Omaha, local quality (LdC)
2300 KYIX 96.5 WA Seattle 2115 KFOR 102.7 NE Omaha, very strong
2306 KNBQ 97.3 WA Tacoma (125) 2118 KTFC 103.3 IA Sioux City, religious(1200)
2323 CBUF 97.7 EC Vancouver (250) FFC 2222 KTMC 98.1 WA Seattle aleasted music 2123 KUEM 106.3 NE Limpoln (1200)
    2327 KING 98.1 WA Seattle, classical music 2123 KHAT 106.3 NE Lincoln (1200)
  2340 CKLG 99.3 BC Vancouver
2345 KISW 99.9 WA Seattle
6/23 Tr
                                                                                                                                                                                                                                                             2127 KOWH 94.1 NE Omaha, soul
                                                                                                                                                                                                                                                            2131 KTAP7103.9 NE Crete, baseball (1150)
2135 KRGI 96.5 NE Grand Island (1170)
2138 KCCK? 8843 IA Cedar Rapids (1300)
2140 KQHU7104.1 SD Tankton (1150)
1930 KLLL 96.3 TX Lubbook, religious (1300)
                                                                                                                                                                                                                                                                 1931 KTSM 99.9 TX El Paso, rock (1150)
1934 KINT 97.5 TX El Paso, rock (1150)
 6/24 Tr
2010 C??? 103.1 EC Vancouver, u/translator
2252 KPDQ 97.7 OR Seaside (60) weak/fedey
That should do it for this time. As you can probably tell, I got the TX9100 on 6/22.

Most of the Tr stuff is new as I could never receive anything much between the 100kw locals
  with the Magnavox. Good DX --- Patrick.
  Fred Nordquist - 7945 Boxford Road - Clay, NY 13041 (EDT)
Eqt. Receiver - Heathkit AJ-15, Antenna - JFD LPL FM10A @ 45°AGL, Rotor, new underlined.
   Eqt: Receiver - Heathkit au-1, All St. Print Receiver - Heathkit au-1, All Receiver - Heathkit a
 2147 KJCS 103.3 TX Nacogdoches, k, SID 1826 KFDI 101.3 KS Wichita, country 2152 KSKU 102.1 KS Hutchinson, lcl ads 1857 KNID 96.9 OK Enid, BB o/semilcl WOUR 2200 KROA 95.7 NE Grand Island, ID 1858 KSIN 93.5 OK Woodward, m (1300) 2200 KETR 88.9 TX Commerce, ID/Time check 2300 WFCS 89.3 FL Pensacola, gospel, ID 1916 KAXX 105.5 OK Chickasha, gospel music 1926 KATT 100.5 OK Chickasha, country 1857 KNID 96.9 OK Chickasha, gospel music 1926 KATT 100.5 OK Chi
  2305 WKSJ 94.9 AL Mobile, ID
2310 WQID 93.7 MS Biloxi, soul, ID
 7/14 Tr to Chio (Very narrow path)
2153 WCCL 92.3 Off Columbus, rock (420)
2155 WCFM 96.3 Off Columbus, "QFM-96"
2200 WENS 97.1 Off Columbus, ID
7/22 Es 1821 tune-in to 2005 MIR. 102
 2200 WENS 97.1 OH Columbus, ID 1850 KXKI 102.1 KS Hutchinson, and 1852 KLW 107.5 LA Rustin, rock $ 
  2005 WMCU 89.7 FL Miami, lcl
7/23 Es briefly at 1612 PTA: MN
                                                                                                                                                                                                                                                         8/12 MS (Perseids)
                                                                                                                                                                                                                           0140 KXCV 90.5 MO Maryville, lol armt (970)
   7/30 Tr
  0014 WMVO 93.7 OH Mt. Vernon, ID
                                                                                                                                                                                                                                                                                                                                                                        (prev. logged via Es)
  7/30 Es 0039 to 0105. & 1725 to 1824
 7/30 Es 0039 to 0105, & 1/25 to 1027
0039 KCCM 95.7 MT Scobey, 1cl BB (State#39!) (prev. logged via Tropo)
0105 KFJM 89.3 ND Grand Forks, ID Many bursts noted with many near-IDs, on 8/12.
Corrections: 6/8 ES KIXX 96.1 SD Watertown -
                                                                                                                                                                                                                                                              0252 WZUU 95.7 WI Milwaukee, ID (585)
  7/31 Es 1730 tune-in to 1852, MUF: 108+
                                                                                                                                                                                                                                                                                                                                           replay of tape revealed "Kicks96"
 1742 KRFG 93.5 MO Greenville, k, ID
1750 WEEE 92.7 IL Taylorville, "W-3E" (715)
                                                                                                                                                                                                                                                                                                                                           SID, then into auto rock. (not KWAT)
                                                                                                                                                                                                                                                                                                                                           4/8 Ow CJBC-17 95.5 ON Balleville
 1755 KJMO 100.1 MO Jefferson City,k,"J-100"
                                                                                                                                                                                                                                                                                                                                           (not 107.5) FFe.
 1806 KRMS 93.5 MO Osage Beach, rock
1811 KAKC 92.9 OK Tulsa, lcl ads
                                                                                                                                                                                                                                                     Whew! This completes 10 pages of DX filled
```

1817 KKNG 92.5 OK Oklahoma City, lcl ad, ID year for Es. 73 - Fred.

FM reports. It sure has been a fantastic



# Southern F.M.D.

2704-C Briarberry Cir. Birmingham, AL 35226

Deadlines: the 10th

SERVING FM DIAMES OF THE SOUTHRAST, SOUTHWEST, AND MEXICO

	6, Chapel Hill NC 27514 EDT 8-3-77
7-24-77 gw 0008 WLRG 92.3 VA Roanoke coming in	
a ton of bricks w/new AAT of 2	
7-27-77	1808 KDOM 9h.3 MW Window with ad
Es 2155 KCHU? 90.9 TX Dallas w/document	ary 1824 KVDB? 94.3 IA Sioux Center w/jingle
2202 KROZ 92.1 TX Tyler sk	1828 KBEM 88.3 NN Minneapolis w/ wx
2213 KAZI? 88.7 TX Austin ;j WSHA Q	MEM 1837 WUWM? 89.7 WI Milwaukee with annound
2216 KSUC? 88.3 TX Keene w/ sign of	
after tornado warning	1857 WHSA 89.9 WI Brule state nx and I
2227 KHOO 99.9 TX Waco ;k	WHLA? 90.3 WI LaCrosse tentative
7-31-77	no ID but //WHSA
Es 1839 KSJR 90.1 MW Collegeville stat	te nx WHMC? 88.3 WI Menomonie tentative
1901 KSJN 91.1 MN St. Paul w/state	e nx no ID but //WHSA
1920 KQKQ 98.5 IA Council Bluffs sp	1912 CKY 92.1 MB Winnipeg ;m
8-1-77	1914 WSCD 92.9 MW Duluth w/wx & ID 1924 KSTP 94.5 MW St. Paul "KS-95"
w 0903 WWWV 97.5 VA Charlottesville ;p	1924 KSTP 94.5 MN St. Paul "KS-95"
new call, ID as "3-W-V"	1926 WIAL? 94.1 WI Eau Claire am with
0932 WRBK 101.9 NC New Bern :r\$ "K-10	
3-2-77	1931 KBMD 93.5 MN Benson talk
or 0149 WUOT? 91.9 TN Knozville ;c very	
0155 WEBO? 93.3 NC Forest City MC nx	net 2002 KEYA? 88.5 ND Belcourt ;r with TL
0155 WEBO? 93.3 NC Forest City NC nz to 1849 KWIR 93.7 SD Winner ;r WFBC Q	HM announcer; QRM from WFDD
Just joined the club so I thought I'd gi	lve a brief intro: I'm 14 and will be going into
the 9th grade. I'm also a member of TRC	M. I've been FM-TV Diing for about a year. Had
come really great Es openings in the mid	idle of June when I was at the beach (Sunset Beach,
C) into Texas. The 8-3 mening was rea	illy nice, although the MUF was only 94.5. The
denotional hand was loaded but all the	stations were carrying 'All Things Considered' or
some other assersant with four Tibe on T di	idn't log very many of them. (A very good report,
lavid. Thanks for reporting and keep up	till o top tery many or oroms (w tork Boom robest)
marge many rat reportant and week of	) one good moths stemo
MODERATORISM MARKET MARKET STATES FOR A STATE OF THE STATE OF THE STATES	Selfa Title Come Transcript to the Parish and Parish
Ron Wing 705 W Emporia, Ap	t. 2, Wichita KS 6721k CDT
Ron Wing 705 W Emporia, Apr	t. 2, Wichita KS 67214 CDT 6-14-77
Ron Wing 705 W Emporia, Apr	t. 2, Wichite KS 67214 CDT 6-14-77 tr 0716 KTPK 106.9 KS Topeka
Ron Wing 705 W Emporia, Apr 5-20-77 5-1727 WQYK 99.5 FL St. Petersburg 1734 WQSE 102.5 FL Sarasota	t. 2, Wichite KS 67214 CDT 6-14-77 tr 0716 KTPK 106.9 KS Topeka
Ron Wing 705 W Emporia, Apr 5-20-77 Es 1727 WQYK 99.5 FL St. Petersburg 1734 WASE 102.5 FL Sarasota 1741 WHEN 102.7 FL Pensacola	t. 2, Wichite KS 67214 CDT 6-14-77 tr 0716 KTPK 106.9 KS Topeka Es 1807 WIFI 92.5 PA Philadelphia 1823 WJHL 96.5 PA Johnstown
Ron Wing 705 W Emporia, Apr 5-20-77 8s 1727 WUYK 99.5 FL St. Petersburg 1734 WSSR 102.5 FL Sarasota 1741 WKSM 102.7 FL Pensacola 5-30-77	t. 2, Wichita KS 67214 CDT 6-14-77 tr 0716 KTPK 106.9 KS Topeka Es 1807 WIFI 92.5 PA Philadelphia 1823 WHI 96.5 PA Johnstown 1845 WLEV 96.1 PA Easton
Ron Wing 705 W Emporia, Apr 5-20-77 Rs 1727 WOYK 99.5 FL St. Petersburg 1734 WESE 102.5 FL Sarasota 1741 WHEM 102.7 FL Pensacola 5-30-77 Rs 1505 WFLS 93.3 VA Fredericksburg	t. 2, Wichita KS 67214 CDT  6-14-77  tr 0716 KTPK 106.9 KS Topeka Es 1807 WIFI 92.5 PA Philadelphia 1823 WNL 96.5 PA Johnstown 1845 WLEV 96.1 PA Easton 1855 WWIB 96.5 PA Philadelphia
Ron Wing 705 W Emporia, Apr 5-20-77 58 1727 WQYK 99.5 FL St. Petersburg 1734 WSSE 102.5 FL Sarasota 1741 WHEN 102.7 FL Pensacola 5-30-77 Es 1505 WFLS 93.3 VA Fredericksburg of eived on KS himsy 96 approx.	t. 2, Wichite KS 6721k CDT  6-1k-77  tr 0716 KTPK 106.9 KS Topeka  Es 1807 WIFI 92.5 PA Philadelphia  1823 WJWL 96.5 PA Johnstown  18k5 WLEV 96.1 PA Easton  1855 WWDB 96.5 PA Philadelphia  1916 WBWR 93.3 PA Philadelphia
Ron Wing 705 W Emporia, Apr 5-20-77 85 1727 WQYK 99.5 FL St. Petersburg 1734 WGSE 102.5 FL Sarasota 1741 WHEM 102.7 FL Pensacola 5-30-77 85 1505 WFLS 93.3 VA Fredericksburg eived on KS hiway 96 approx. 6 mile West of Nelcoma KS	t. 2, Wichite KS 6721k CDT  6-1k-77  tr 0716 KTPK 106.9 KS Topeka  Es 1807 WIFI 92.5 PA Philadelphia  1823 WJWL 96.5 PA Johnstown  18k5 WLEV 96.1 PA Easton  1855 WWDB 96.5 PA Philadelphia  1916 WBWR 93.3 PA Philadelphia
Ron Wing 705 W Emporia, April 5-20-77  Se 1727 WOYK 99.5 FL St. Petersburg 1734 WESE 102.5 FL Sarasota 1744 WESE 102.7 FL Pensacola 5-30-77  Se 1505 WFLS 93.3 VA Fredericksburg sived on KS hiway 96 approx. of mile west of Nekoma KS	t. 2, Wichite KS 67214 CDT  6-14-77  tr 0716 KTPK 106.9 KS Topeka  Es 1807 WIFI 92.5 PA Philadelphia  1823 WJML 96.5 PA Johnstown  1845 WLEV 96.1 PA Easton  1855 WWIB 96.5 PA Philadelphia  1916 WMMR 93.3 PA Philadelphia  1924 WDAC 94.5 PA Lancaster  1926 WFLH 95.7 PA Philadelphia
Ron Wing 705 W Emporia, April 5-20-77 Se 1727 WCYK 99.5 FL St. Petersburg 1734 WSSR 102.5 FL Sarasota 1741 WESM 102.7 FL Pensacola 5-30-77 Se 1505 WFLS 93.3 VA Fredericksburg sived on KS hiway 96 approx. of mile West of Nekoma KS 5-1-77 Se 0745 KZUE 102.7 OK Oklahoma City fi	t. 2, Wichita KS 67214 CDT  6-14-77  tr 0715 KTPK 106.9 KS Topeka  KS 1807 WIFI 92.5 PA Philadelphia 1823 WJML 96.5 PA Johnstown 1845 WLEV 96.1 PA Easton 1855 WWDB 96.5 PA Philadelphia 1916 WMMR 93.3 PA Philadelphia 1924 WDAG 94.5 PA Lancaster 1926 WJMF 95.7 PA Philadelphia 1930 WLAN 96.9 PA Lancaster
Ann Wing 705 W Emporia, April 20-20-77  1734 WOSE 102.5 FL Sarasota 1741 WHEN 102.7 FL Pensacola 1-30-77  15 1505 WFLS 93.3 VA Fredericksburg a 1504 west of Nekoma KS 1505 KZUK 102.7 OK Oklahoma City fi	t. 2, Wichita KS 6721k CDT  6-1k-77  tr 0716 KTPK 106.9 KS Topeka Es 1807 WIFT 92.5 PA Philadelphia 1823 WJML 96.5 PA Johnstown 1845 WLEV 96.1 PA Easton 1855 WWDB 96.5 PA Philadelphia 1916 WWDR 93.3 PA Philadelphia 1924 WDAG 9k.5 PA Lancaster 1926 WTLH 95.7 PA Philadelphia 1924 WDAG 96.9 PA Lancaster 1935 WULM 96.9 PA Lancaster 1935 WULM 100.1 PA Lebanon
Ron Wing 705 W Emporia, April 5-20-77  So 1727 WOYK 99.5 FL St. Petersburg 1734 WGSE 102.5 FL Sarasota 1741 WHEN 102.7 FL Pensacola 5-30-77  So 1505 WFLS 93.3 VA Fredericksburg eived on KS hiway 96 approx. 6 mile West of Nelcoma KS 5-1-77  Fr 0745 KZUE 102.7 OK Oklahoma City fi time heard with new call lette 0755 KLUE 99.9 TX Wichita Falls	t. 2, Wichita KS 6721k CDT  6-1k-77  tr 0716 KTPK 106.9 KS Topeka  Es 1807 WIFI 92.5 PA Philadelphia 1823 WJML 96.5 PA Johnstown 1845 WLEV 96.1 PA Easton 1855 WWDE 96.5 PA Philadelphia 1916 WMPR 93.3 PA Philadelphia 192k WDAC 9k.5 PA Lancaster 1926 WTLW 95.7 PA Philadelphia 192k WDAC 96.9 PA Lancaster 1936 WIEN 96.9 PA Lancaster 1936 WUMN 100.1 PA Lebanon 1941 WQXA 105.7 PA York ID as 'Q-106'
Ron Wing 705 W Emporia, April 5-20-77  So 1727 WCYK 99.5 FL St. Petersburg 1734 WASE 102.5 FL Sarasota 1741 WHEM 102.7 FL Pensacola 5-30-77  So 1505 WFLS 93.3 VA Fredericksburg eived on KS hiway 96 approx. of mile west of Nekoma City time heard with new call lette 0755 KLUR 99.9 TK Wichitz Falls 0800 KNUS 98.7 TK Dellas	t. 2, Wichita KS 6721k CDT  6-1k-77  tr 0716 KTPK 106.9 KS Topeka Es 1807 WIFI 92.5 PA Philadelphia 1823 WJML 96.5 PA Johnstown 1845 WLEV 96.1 PA Raston 1855 WWIE 96.5 PA Philadelphia 1916 WMPR 93.3 PA Philadelphia 1924 WDAG 94.5 PA Lancaster 1926 WFIH 95.7 PA Philadelphia 1930 WLAN 96.9 PA Lancaster 1935 WUFM 100.1 PA Lebanon 1941 WQXA 105.7 PA Tork ID as 'Q-106' 6-16-77
Ron Wing 705 W Emporia, April 200-77 Section 1734 WCK 99.5 FL St. Petersburg 1734 WCK 102.5 FL Sarasota 1741 WCK 102.7 FL Pensacola 5-30-77 Section 1505 WFLS 93.3 VA Fredericksburg of sived on KS hiway 96 approx. of mile west of Nekoma KS 5-1-77 KF 0745 KZUE 102.7 OK Oklahoma City from time heard with new call lette 0755 KLUR 99.9 TX Wichita Falls 0800 KNUS 98.7 TX Dellas 5-2-77	t. 2, Wichita KS 6721k CDT  6-1k-77 tr 0716 KTPK 106.9 KS Topeka ES 1807 WIFI 92.5 PA Philadelphia 1823 WJML 96.5 PA Johnstown 1845 WLEV 96.1 PA Easton 1855 WJMB 96.5 PA Philadelphia 1916 WJME 93.3 PA Philadelphia 1924 WJMC 94.5 PA Lancaster 1926 WJFM 95.7 PA Philadelphia 1924 WJM 96.9 PA Lancaster 1935 WJM 100.1 PA Lebanon 1941 WJMA 105.7 PA Tork ID as 'Q-106' 6-16-77 tr 2130 KDVV 100.3 KS Topeka ID as 'K-dove'
Ron Wing 705 W Emporia, April 20-20-77  \$ 1727 WQYK 99.5 FL St. Petersburg  1734 WSSE 102.5 FL Sarasota  1741 WHEN 102.7 FL Pensacola  5-30-77  \$ 1505 WFLS 93.3 VA Fredericksburg relieved on KS hiway 96 approx. on the west of Nekoma KS  5-1-77  \$ 70745 KZUE 102.7 OK Oklahoma City from the heard with new call letter  0755 KLUE 99.9 TK Wichita Falls  0755 KLUE 99.9 TK Dellas  5-2-77  \$ 70744 KNID 96.9 OK Enid	t. 2, Wichita KS 6721k CDT  6-1k-77  tr 0716 KTPK 106.9 KS Topeka Es 1807 WIFI 92.5 PA Philadelphia 1823 WJML 96.5 PA Johnstown 1845 WLEV 96.1 PA Raston 1855 WWIE 96.5 PA Philadelphia 1916 WMPR 93.3 PA Philadelphia 1924 WDAG 94.5 PA Lancaster 1926 WFIH 95.7 PA Philadelphia 1930 WLAN 96.9 PA Lancaster 1935 WUFM 100.1 PA Lebanon 1941 WQXA 105.7 PA Tork ID as 'Q-106' 6-16-77
Ann Wing 705 W Emporia, April 20-77  1734 WSER 102.5 FL Sarasota 1741 WIEM 102.7 FL Pensacola 3-30-77  18 150 WFLS 93.3 VA Fredericksburg is sived on KS hiway 96 approx. of mile west of Nekoma KS 3-1-77  10 7745 KZUE 102.7 OK Oklahoma City fittime heard with new call lette 0755 KLUR 99.9 TX Wichita Falls 0800 KNUS 98.7 TX Dellas 1-2-77  10 7704 KNID 96.9 OK Enid	t. 2, Wichita KS 6721k CDT  6-1k-77 tr 0716 KTPK 106.9 KS Topeka ES 1807 WIFI 92.5 PA Philadelphia 1823 WJML 96.5 PA Johnstown 1845 WLEV 96.1 PA Easton 1855 WWDE 96.5 PA Philadelphia 1924 WDAC 9k.5 PA Philadelphia 1924 WDAC 9k.5 PA Philadelphia 1924 WTAE 95.7 PA Philadelphia 1926 WFFM 95.7 PA Philadelphia 1930 WLAN 96.9 PA Lancaster 1935 WUFM 100.1 PA Lebanon 1941 WQXA 105.7 PA York ID as 'Q-106' 6-16-77 tr 2130 KDVV 100.3 KS Topeka ID as 'K-dove'
Ann Wing 705 W Emporia, April 1980 1981 1981 1981 1982 1983 1982 1983 1983 1984 1985 1985 1985 1985 1985 1985 1985 1985	t. 2, Wichite KS 6721k CDT  6-1k-77  tr 0716 KTPK 106.9 KS Topeka  Es 1807 WIFT 92.5 PA Philadelphia 1823 WJML 96.5 PA Johnstown 1845 WLEV 96.1 PA Easton 1855 WWDE 96.5 PA Philadelphia 1916 WMPR 93.3 PA Philadelphia 192k WDAC 9k.5 PA Lancaster 1926 WTLM 95.7 PA Philadelphia 192k WDAC 9k.5 PA Lancaster 1936 WTLM 96.9 PA Lancaster 1936 WTLM 96.9 PA Lancaster 1935 WUFM 100.1 PA Lebanon 19k1 WOXA 105.7 PA York ID as 'Q-106' 6-16-77  tr 2130 KDVV 100.3 KS Topeka ID as 'K-dove' 21k5 KFOR 102.7 NE Lincoln 2213 KFNB 101.9 OK Oklahoma City
Ann Wing 705 W Emporia, April 1980 1981 1981 1981 1982 1983 1982 1983 1983 1984 1985 1985 1985 1985 1985 1985 1985 1985	t. 2, Wichita KS 6721k CDT  6-1k-77 tr 0716 KTPK 106.9 KS Topeka Es 1807 WIFI 92.5 PA Philadelphia 1823 WJML 96.5 PA Johnstown 1845 WLEV 96.1 PA Easton 1855 WJMB 96.5 PA Philadelphia 1916 WJMR 93.3 PA Philadelphia 1924 WJMA 94.5 PA Lancaster 1926 WJMF 95.7 PA Philadelphia 1930 WLAN 96.9 PA Lancaster 1935 WJM 100.1 PA Lebanon 1941 WJMA 105.7 PA York ID as 'Q-106' 6-16-77 tr 2130 KDVV 100.3 KS Topeka ID as 'K-dove' 2145 KFOR 102.7 NE Lincoln 2213 KFNB 101.9 OK Oklahoma City 6-20-77
Ann Wing 705 N Emporia, April 20-20-77  1734 WCFR 102.5 FL St. Petersburg 1734 WCFR 102.5 FL Sarasota 1741 WIEM 102.7 FL Pensacola 3-30-77  18 1505 WFLS 93.3 VA Fredericksburg of sived on KS hiway 96 approx. of mile west of Nekoma KS  1-1-77  18 0745 KZUE 102.7 OK Oklahoma City fit time heard with new call letter 0755 KLUR 99.9 TX Wichita Falls 0800 KNUS 98.7 TX Dellas 1-2-77  18 0744 KNID 96.9 OK Enid 16 2011 WJML 98.9 MI Petosky 2028 WCMQ 104.5 HI Muskegon	t. 2, Wichita KS 6721k CDT  6-1k-77 tr 0716 KTPK 106.9 KS Topeka Es 1807 WIFI 92.5 PA Philadelphia 1823 WJML 96.5 PA Johnstown 1845 WLEV 96.1 PA Easton 1855 WWDB 96.5 PA Philadelphia 1916 WMPR 93.3 PA Philadelphia 1924 WJMC 94.5 PA Lancaster 1926 WJFM 95.7 PA Philadelphia 1930 WLAN 96.9 PA Lancaster 1935 WUFM 100.1 PA Lebanon 1941 WQMA 105.7 PA Tork ID as 'Q-106' 6-16-77 tr 2130 KDVV 100.3 KS Topeka ID as 'K-dove' 2145 KFOR 102.7 NE Lincoln 2213 KFWB 101.9 OK Oklahoma City 6-2-77 Es 2037 WQDR 94.7 NC Raleigh
ton Wing 705 W Emporia, April 1720-77  1734 WCK 99.5 FL St. Petersburg  1734 WCK 102.5 FL Sarasota  1741 WINH 102.7 FL Pensacola  1790 WFIS 93.3 VA Fredericksburg relieved on KS hiway 96 approx. on the west of Nekoma KS  101-77  101-75 KZUK 102.7 OK Oklahoma City friting heard with new call letter  10755 KLUR 99.9 TI Wichitz Falls  10800 KNUS 98.7 TX Dallas  10704 KNID 96.9 OK Enid  10704 KNID 96.9 MI Petosky  10808 WCMC 104.5 MI Muskegon  10815 WSMM 99.5 MI Sault Ste. Marie	t. 2, Wichita KS 6721h CDT  6-1h-77  tr 0716 KTPK 106.9 KS Topeka  Es 1807 WIFT 92.5 PA Philadelphia 1823 WJML 96.5 PA Johnstown 1845 WLEV 96.1 PA Raston 1895 WWDE 96.5 PA Philadelphia 1916 WMPE 93.3 PA Philadelphia 192h WDAG 9h.5 PA Lancaster 1926 WTLM 95.7 PA Philadelphia 1930 WLAN 96.9 PA Lancaster 1935 WUFM 100.1 PA Lebanon 19h1 WOXA 105.7 PA York ID as 'Q-106' 6-16-77  tr 2130 KDVV 100.3 KS Topeka ID as 'K-dove' 21h5 KFOR 102.7 NE Lincoln 2213 KFNB 101.9 OK Oklahoma City 6-20-77  Es 2037 WDER 9h.7 NC Raleigh 2039 WMVA 96.3 VA Martinsville
con Wing 705 W Emporia, April 20-20-77  1734 WGSE 102.5 FL Sarasota 1741 WHEM 102.7 FL Pensacola 1741 WHEM 102.7 FL Pensacola 1740 WFLS 93.3 VA Fredericksburg a 1840 eived on KS hiway 96 approx. of 1840 west of Nekoma KS 1841-77  1840 TOTAL KZUE 102.7 OK Oklahoma City fittime heard with new call lette 1840 OKNUS 98.7 TX Dallas 1842-77  1850 TX DALLAS 1840 TX DALLA	t. 2, Wichite KS 6721h CDT  6-1h-77  tr 0716 KTPK 106.9 KS Topeka  Es 1807 WIFT 92.5 PA Philadelphia 1823 WJML 96.5 PA Johnstown 1845 WLEV 96.1 PA Easton 1855 WWDE 96.5 PA Philadelphia 1916 WMPE 93.3 PA Philadelphia 192h WDAC 9h.5 PA Lancaster 1926 WTLM 95.7 PA Philadelphia 192h WDAC 9h.5 PA Lancaster 1930 WLAN 96.9 PA Lancaster 1935 WUFM 100.1 PA Lebanon 1941 WQIA 105.7 PA York ID as 'Q-106' 6-16-77  tr 2130 KDVV 100.3 KS Topeka ID as 'K-dove' 2145 KFOR 102.7 NE Lincoln 2213 KFNB 101.9 OK Oklahoma City 6-20-77  Es 2037 WQDR 9h.7 NC Raleigh 2039 WMVA 96.3 VA Martinsville
ton Wing 705 N Emporia, April 1734 WCSR 102.5 FL St. Petersburg 1734 WCSR 102.5 FL Sarasota 1741 WCSR 102.7 FL Pensacola 1794 WCSR 102.7 W OKIAhoma City fine heard with new call lette 0755 Klur 99.9 TK Wichit Falls 0800 KNUS 98.7 TK Dellas 1795 WCSR 102.7 W OTH KNID 96.9 OK Enid 16-77 W OTH KNID 96.9 OK Enid 16-77 WCSR 104.5 MI Muskegon 2045 WCSR 104.5 MI Muskegon 2045 WCSR 105.5 MI Sault Ste. Marie Preceding loggings made on Craig 3146 caradio. Following ones on a Pioneer SX-4	t. 2, Wichita KS 6721k CDT  6-1k-77 tr 0716 KTPK 106.9 KS Topeka Es 1807 WIFI 92.5 PA Philadelphia 1823 WJML 96.5 PA Johnstown 1845 WLEV 96.1 PA Easton 1855 WJMB 96.5 PA Philadelphia 1924 WJMG 94.5 PA Philadelphia 1924 WJMG 94.5 PA Lancaster 1926 WJMF 95.7 PA Philadelphia 1924 WJMG 95.7 PA Philadelphia 1930 WJMN 96.9 PA Lancaster 1935 WJMN 100.1 PA Lebanon 1941 WJMA 105.7 PA York ID as 'Q-106' 6-16-77 tr 2130 KDVV 100.3 KS Topeka ID as 'K-dove' 2145 KFOR 102.7 NE Lincoln 2213 KFNB 101.9 OK Oklahoma City 6-20-77 Es 2037 WJMR 94.7 NC Raleigh 2039 WMVA 96.3 VA Martinsville 2044 WJMG 97.1 NC Martinsville 2044 WJMG 97.1 NC Martinsville 2044 WJMG 97.1 NC Martinsville 2047 WHLD 100.3 NC High Point
Ann Wing 705 N Emporia, April 20-20-77  1734 WCK 99.5 FL St. Petersburg 1734 WCK 102.5 FL Sarasota 1741 WEEN 102.7 FL Pensacola 3-30-77  18 1505 WFLS 93.3 VA Fredericksburg of sived on KS hiway 96 approx. of mile west of Nekoma KS  18 1-77  18 10745 KZUE 102.7 OK Oklahoma City fit time heard with new call letter 18 18 18 18 18 18 18 18 18 18 18 18 18 1	t. 2, Wichita KS 6721k CDT  6-1k-77 tr 0716 KTPK 106.9 KS Topeka Es 1807 WIFI 92.5 PA Philadelphia 1823 WJML 96.5 PA Johnstown 1845 WLEV 96.1 PA Easton 1855 WWDE 96.5 PA Philadelphia 1916 WMME 93.3 PA Philadelphia 1924 WJMC 94.5 PA Lancaster 1926 WJMN 95.7 PA Philadelphia 1924 WJMN 96.9 PA Lancaster 1935 WJMN 96.9 PA Lancaster 1935 WJMN 100.1 PA Lebanon 1941 WJMN 105.7 PA Tork ID as 'Q-106' 6-16-77 tr 2130 KDVV 100.3 KS Topeka ID as 'K-dove' 2145 KFOR 102.7 NE Lincoln 2213 KFWB 101.9 OK Oklahoma City 6-20-77 Es 2037 WJMN 96.3 VA Martinsville 2044 WJMN 97.1 NC Martinsville 2047 WGLD 100.3 NC High Point 6-25-77
Ann Wing 705 W Emporia, April 20-20-77  1734 WGSE 102.5 FL Sarasota 1741 WHEN 102.7 FL Pensacola 3-30-77  55 1505 WFLS 93.3 VA Fredericksburg a sived on KS hiway 96 approx. of mile west of Nekoma KS 5-1-77  17 0745 KZUE 102.7 OK Oklahoma City fritime heard with new call lette 0755 KLUR 99.9 TK Wichita Falls 0800 KNUS 98.7 TK Dallas 5-2-77  17 07744 KNID 96.9 OK Enid 5-6-77  18 2071 WHEL 98.9 MI Petosky 2028 WGWQ 104.5 MI Muskegon 2045 WSMM 99.5 MI Sault Ste. Marie Preceding loggings made on Craig 3146 ca addo. Following ones on a Pioneer SK-4 in the indoor dipole.	t. 2, Wichita KS 6721h CDT  6-1h-77  tr 0716 KTPK 106.9 KS Topeka  Es 1807 WIFT 92.5 PA Philadelphia 1823 WJML 96.5 PA Johnstown 1845 WLEV 96.1 PA Easton 1855 WWDE 96.5 PA Philadelphia 1916 WHDE 93.3 PA Philadelphia 1924 WDAG 94.5 PA Lancaster 1926 WTLM 95.7 PA Philadelphia 1930 WLAN 96.9 PA Lancaster 1935 WUFM 100.1 PA Lebanon 1941 WOXA 105.7 PA York ID as 'Q-106' 6-16-77  tr 2130 KDVV 100.3 KS Topeka ID as 'K-dove' 2145 KFOR 102.7 NE Lincoln 2213 KFNB 101.9 OK Oklahoma City 6-20-77 Es 2037 WOJER 94.7 NC Raleigh 2039 WMVA 96.3 VA Martinsville 2044 WOME 97.1 NC Martinsville 2047 WHID 100.3 NC High Point 6-5-77 Es 1616 WINZ 94.9 FL Miami Beach local
Ron Wing 705 W Emporia, April 1734 WCFK 99.5 FL St. Petersburg 1734 WCFK 102.5 FL Sarasota 1741 WCFM 102.7 FL Pensacola 5-30-77 WCFM 102.7 FL Pensacola 5-30-77 WCFM 102.7 FL Pensacola 5-30-77 WCFM 102.7 OK Oklahoma KS 5-1-77 WCFM 102.7 OK Oklahoma City fitme heard with new call letter 0755 Klur 99.9 TX Wight Falls 0800 KNUS 98.7 TX Dellas 5-2-77 WCFM KNUD 96.9 OK Enid 5-6-77 WCFM 104.5 MI Muskegon 2045 WCFM 104.5 MI Muskegon 2045 WCFM 104.5 MI Muskegon 2045 WCFM 105.5 MI Muskegon 205.5 WCFM 105.5 WCFM	t. 2, Wichita KS 6721h CDT  6-1h-77  tr 0716 KTPK 106.9 KS Topeka  Es 1807 WIFT 92.5 PA Philadelphia 1823 WJML 96.5 PA Johnstown 1845 WLEV 96.1 PA Easton 1855 WWDE 96.5 PA Philadelphia 1916 WMPE 93.3 PA Philadelphia 192h WDAC 94.5 PA Lancaster 1926 WTLM 95.7 PA Philadelphia 1930 WLAN 96.9 PA Lancaster 1935 WUFM 100.1 PA Lebanon 1941 WOXA 105.7 PA York ID as 'Q-106' 6-16-77  tr 2130 KDVV 100.3 KS Topeka ID as 'K-dove' 2145 KFOR 102.7 NE Lincoln 2213 KFNB 101.9 OK Oklahoma City 6-20-77 Es 2037 WODE 94.7 NC Raleigh 2039 WMVA 96.3 VA Martinsville 2044 WCMT 97.1 NC Martinsville 2047 WGLD 100.3 NC High Point 6-25-77 Es 1516 WINZ 94.9 FL Miami Beach local KICT off air W/mutr problems
Ron Wing 705 W Emporia, April 200-77  1734 WCK 99.5 FL St. Petersburg 1734 WCK 102.5 FL Sarasota 1741 WCK 102.7 FL Pensacola 5-30-77  18 1505 WFLS 93.3 VA Fredericksburg resived on KS hiway 96 approx. of mile west of Nekoma KS  18 1-77  18 0745 KZUE 102.7 OK Oklahoma City from the heard with new call letter 18 0755 KLUE 102.7 OK Oklahoma City from the heard with new call letter 18 0745 KLUE 102.7 OK Oklahoma City from the heard with new call letter 18 0745 KLUE 102.7 OK Oklahoma City from the heard with new call letter 18 0745 KLUE 102.7 OK Oklahoma City from the heard with new call letter 18 0745 KLUE 102.7 OK Oklahoma City from the heard with new call letter 18 0745 KLUE 102.7 OK Oklahoma City from the heard with new call letter 18 0745 KLUE 102.7 OK Oklahoma City from the heard with new call letter 18 0745 KLUE 102.7 OK Oklahoma City from the heard with new call letter 18 0745 KLUE 102.7 OK Oklahoma City from the heard with new call letter 18 0745 KLUE 102.7 OK Oklahoma City from the heard with new call letter 18 0745 KLUE 102.7 OK Oklahoma City from the heard with new call letter 18 0745 KLUE 102.7 OK Oklahoma City from the heard with new call letter 18 0745 KLUE 102.7 OK Oklahoma City from the heard with new call letter 18 0745 KLUE 102.7 OK Oklahoma City from the heard with new call letter 18 0745 KLUE 102.7 OK Oklahoma City from the heard with new call letter 18 0745 KLUE 102.7 OK Oklahoma City from the heard with new call letter 18 0745 KLUE 102.7 OK Oklahoma City from the heard with new call letter 18 0745 KLUE 102.7 OK Oklahoma KS 18 0745 KLUE 102.7 OK Oklahoma City from the heard with new call letter 18 0745 KLUE 102.7 OK Oklahoma KS	t. 2, Wichita KS 6721k CDT  6-1k-77 tr 0716 KTPK 106.9 KS Topeka Es 1807 WIFI 92.5 PA Philadelphia 1823 WJML 96.5 PA Johnstown 1845 WLEV 96.1 PA Easton 1855 WJME 96.5 PA Philadelphia 1924 WJME 93.3 PA Philadelphia 1924 WJME 95.7 PA Philadelphia 1924 WJME 95.7 PA Philadelphia 1924 WJME 95.7 PA Philadelphia 1936 WJMM 96.9 PA Lancaster 1935 WJMM 100.1 PA Lebanon 1941 WJME 105.7 PA Tork ID as 'Q-106' 6-16-77 tr 2130 KDVV 100.3 KS Topeka ID as 'K-dove' 2145 KFOR 102.7 NE Lincoln 2213 KFNB 101.9 OK Oklahoma City 6-20-77 Es 2037 WJMM 96.3 VA Martinsville 2044 WJMM 97.1 NC Martinsville 2047 WGLD 100.3 NC High Point 6-25-77 Es 1616 WJMZ 94.9 FL Miami Beach local KIGT off air W/xmtr problems 2219 KOMA 105.3 WA Kemnewick
Ron Wing 705 W Emporia, April 20-20-77  1734 WCSE 102.5 FL Sarasota 1741 WEEM 102.7 FL Pensacola 5-30-77  28 1505 WFLS 93.3 VA Fredericksburg resived on KS hiway 96 approx. on the west of Nekoma KS 5-1-77  28 1505 WFLS 93.3 VA Fredericksburg resived on KS hiway 96 approx. on the west of Nekoma KS 5-1-77  28 170745 KZUE 102.7 OK Oklahoma City frictime heard with new call letter 0755 KLUR 99.9 TX Wichita Falls 0800 KNUS 98.7 TX Dellas 5-2-77  38 20714 WJML 98.9 MI Petosky 2028 WCMQ 104.5 MI Muskegon 2045 WSMM 99.5 MI Sault Ste. Marie Preceding loggings made on Graig 3146 caradic. Following ones on a Pioneer SX-brith indoor dipole. 5-9-77  25 1720 KJOK 93.1 AZ Yuma 1746 KILA 95.5 NV Henderson 1749 KYXX 96.5 CA San Diego	t. 2, Wichita KS 6721k CDT  6-1k-77 tr 0716 KTPK 106.9 KS Topeka Es 1807 WIFI 92.5 PA Philadelphia 1823 WJML 96.5 PA Johnstown 1845 WLEV 96.1 PA Easton 1855 WWDE 96.1 PA Faston 1916 WMME 93.3 PA Philadelphia 1924 WJMC 94.5 PA Lancaster 1926 WJM 95.7 PA Philadelphia 1924 WJM 96.9 PA Lancaster 1935 WJM 100.1 PA Lebanon 1941 WJMA 105.7 PA Tork ID as 'Q-106' 6-16-77 tr 2130 KDVV 100.3 KS Topeka ID as 'K-dove' 2145 KFOR 102.7 NE Lincoln 2213 KFNE 101.9 OK Oklahoma Gity 6-20-77 Es 2037 WJM 94.7 NC Raleigh 2039 WMVA 96.3 VA Martinsville 2044 WJMF 97.1 NC Martinsville 2047 WGLD 100.3 NC High Point 6-25-77 Es 1616 WJMZ 94.9 FL Miami Beach local KTCT off air w/mwtr problems 2219 KONA 105.3 WA Kennewick 2220 KDEM 98.3 MT Dillom
Ron Wing 705 W Emporia, April 20-20-77  1734 WGSE 102.5 FL Sarasota 1741 WHEN 102.7 FL Pensacola 5-30-77  35 1505 WFLS 93.3 VA Fredericksburg resived on KS hiway 96 approx. of mile west of Nekoma KS 5-1-77  16 70745 KZUE 102.7 OK Oklahoma City fright heard with new call letter 0755 KLUE 99.9 TH Wichita Falls 0800 KNUS 98.7 TH Dellas 5-2-77  16 70744 KNID 96.9 OK Enid 16 6-77  17 0744 KNID 96.9 MI Petosky 2028 WGWQ 104.5 MI Muskegon 2045 WSHM 99.5 MI Sault Ste. Marie Preceding loggings made on Craig 3146 cs radio. Following ones on a Pioneer SI-1 of thindoor dipole. 17-9-77  17 1700 KJOK 93.1 AZ Tuma 1746 KILA 95.5 NV Henderson 1749 KXXY 96.5 CA San Diego 1751 KORK 97.1 Las Vegas	t. 2, Wichita KS 6721h CDT  6-1h-77  tr 0716 KTPK 106.9 KS Topeka  Es 1807 WIFI 92.5 PA Philadelphia 1823 WJML 96.5 PA Johnstown 1845 WLEV 96.1 PA Easton 1855 WWDE 96.5 PA Philadelphia 1924 WDAC 9h.5 PA Philadelphia 1924 WDAC 9h.5 PA Lancaster 1926 WFLE 95.7 PA Philadelphia 1930 WLAN 96.9 PA Lancaster 1935 WUFM 100.1 PA Lebanon 1941 WOXA 105.7 PA York ID as 'Q-106' 6-16-77  tr 2130 KDVV 100.3 KS Topeka ID as 'K-dove' 2145 KFOR 102.7 NE Lincoln 2213 KFNB 101.9 OK Oklahoma City 6-20-77 Es 2037 WOJER 9h.7 NC Raleigh 2039 WMVA 96.3 VA Martinsville 2044 WCME 97.1 NC Martinsville 2047 WHLD 100.3 NC High Point 6-5-77 Es 1616 WINZ 9h.9 FL Miami Beach local KICT off air w/xmtr problems 2219 KONA 105.3 WA Kennewick 2220 KDEM 98.3 MT Dillon 2255 ? 93.3 MT Missoula called it
Ron Wing 705 W Emporia, April 20-20-77  5-20-77  5-1721 WCK 99.5 FL St. Petersburg 1734 WGSE 102.5 FL Sarasota 1741 WHEM 102.7 FL Pensacola 5-30-77  5-30-77  5-31-77  5-30-77  5-31-77	6-14-77 tr 0716 KTPK 106.9 KS Topeka Es 1807 WIFI 92.5 PA Philadelphia 1823 WML 96.5 PA Johnstown 1845 WLEV 96.1 PA Easton 1855 WMD 96.5 PA Philadelphia 1924 WMAC 94.5 PA Philadelphia 1924 WMAC 94.5 PA Philadelphia 1924 WMAE 93.3 PA Philadelphia 1924 WMAE 95.7 PA Philadelphia 1930 WLAN 96.9 PA Lancaster 1935 WUFM 100.1 PA Lebanon 1941 WQKA 105.7 PA York ID as 'Q-106' 6-16-77 tr 2130 KDVV 100.3 KS Topeka ID as 'K-dove' 2145 KFOR 102.7 NE Lincoln 2213 KFNE 101.9 OK Oklahoma City 6-20-77 Es 2037 WQMR 94.7 NC Raleigh 2039 WMVA 96.3 VA Martinsville 2044 WQME 97.1 NC Martinsville 2047 WHLD 100.3 NC High Point 6-25-77 Es 1516 WINZ 94.9 FL Miami Beach local KICT off air W/Xmtr problems 2219 KONA 105.3 WA Kennewick 2220 KDEM 98.3 MT Dillon 2255 ? 93.3 MT Missoula called it self 'SD-93' Does anyone have an
Ron Wing 705 W Emporia, April 20-20-77  \$5 1727 WCYK 99.5 FL St. Petersburg  1734 WSER 102.5 FL Sarasota  1741 WHEN 102.7 FL Pensacola  5-30-77  \$5 1505 WFLS 93.3 VA Fredericksburg resived on KS hiway 96 approx. of mile west of Nekoma KS  5-1-77  \$6 0745 KZUE 102.7 OK Oklahoma City from the heard with new call letter  0755 KLUR 99.9 TX Wichita Falls  0800 ENUS 98.7 TX Dellas  5-2-77  \$7 0744 KHID 96.9 OK Enid  5-6-77  \$7 2018 WJWL 98.9 MI Petosky  2028 WCWQ 104.5 HI Muskegon  2045 WSHM 99.5 MI Sault Ste. Marie  Preceding loggings made on Craig 3146 cs.  rith indoor dipole.  5-9-77  \$8 1720 KJOK 93.1 AZ Yuma  1746 KILA 95.5 NV Headerson  1749 KYXY 96.5 CA San Diego  1751 KORK 97.1 Las Vegas  1759 KFMB 100.7 CA San Diego  1811 KBBC 98.7 AZ Phoenix	6-1h-77 tr 0716 KTPK 106.9 KS Topeka Es 1807 WIFI 92.5 PA Philadelphia 1823 WJML 96.5 PA Johnstown 1845 WLEV 96.1 PA Easton 1855 WJME 96.5 PA Philadelphia 1924 WJMC 94.5 PA Philadelphia 1924 WJMC 94.5 PA Philadelphia 1924 WJMC 94.5 PA Lancaster 1926 WJMM 96.9 PA Lancaster 1935 WJMM 100.1 PA Lebanon 1941 WJMA 105.7 PA Tork ID as 'Q-106' 6-16-77 tr 2130 KDVV 100.3 KS Topeka ID as 'K-dove' 2145 KFOR 102.7 NE Lincoln 2213 KFNB 101.9 OK Oklahoma City 6-20-77 Es 2037 WJMR 94.7 NC Raleigh 2039 WJMA 96.3 VA Martinsville 2044 WJMI 97.1 NC Martinsville 2047 WJMD 100.3 NC High Point 6-25-77 Es 1616 WJMZ 94.9 FL Miami Beach local KICT off air W/JMTr problems 2219 KONA 105.3 WA Kennewick 2220 KDEM 98.3 MT Missoula called it self 'SD-93' Does anyone have any idea of the call letters?
Ron Wing 705 W Emporia, April 20-20-77  So 1727 WCYK 99.5 FL St. Petersburg 1734 WSER 102.5 FL Sarasota 1741 WEEM 102.7 FL Pensacola 5-30-77  So 1505 WFLS 93.3 VA Fredericksburg relieved on ES hiway 96 approx. on the west of Nekoma ES 6-1-77  FO 0745 KZUE 102.7 OK Oklahoma City frictime heard with new call letter 0755 KLUR 99.9 TI Wichita Falls 0800 ENUS 98.7 TX Dellas 6-2-77  FO 0744 WHEL 98.9 MI Petosky 2028 WGMQ 104.5 MI Muskegon 2045 WSHM 99.5 MI Sault Ste. Marie Preceding loggings made on Graig 3146 caradio. Following ones on a Pioneer SX-b with indoor dipole. 6-9-77  So 1720 KJOK 93.1 AZ Yuma 1746 KILA 95.5 NV Henderson 1749 KIXI 96.5 GA San Diego 1751 KORK 97.1 Las Vegas 1759 KFMB 100.7 GA San Diego 1811 KBBC 98.7 AZ Phoenix 1815 KBBL 99.1 GA Riverside	t. 2, Wichita KS 6721k CDT  6-1k-77 tr 0716 KTPK 106.9 KS Topeka Es 1807 WIFI 92.5 PA Philadelphia 1823 WJML 96.5 PA Johnstown 1845 WLEV 96.1 PA Easton 1855 WWDE 96.5 PA Philadelphia 1916 WMME 93.3 PA Philadelphia 1926 WFLM 95.7 PA Philadelphia 1926 WFLM 95.7 PA Philadelphia 1930 WLAN 96.9 PA Lancaster 1935 WUFM 100.1 PA Lebanon 1941 WQXA 105.7 PA Tork ID as 'Q-106' 6-16-77 tr 2130 KDVV 100.3 KS Topeka ID as 'K-dove' 2145 KFOR 102.7 NE Lincoln 2213 KFWB 101.9 OK Oklahoma City 6-20-77 Es 2037 WQDR 94.7 NC Raleigh 2039 WMVA 96.3 VA Martinsville 2044 WQML 97.1 NC Martinsville 2047 WGLD 100.3 NC High Point 6-25-77 Es 1616 WINZ 94.9 FL Miami Beach local KTCT off air w/mwtr problems 2219 KONA 105.3 WA Kennewick 2220 KDEM 98.3 MT Dillom 2255 ? 93.3 MT Missoula called it self 'SD-93' Does anyone have an idea of the call letters?
Ron Wing 705 W Emporia, April 5-20-77  85 1727 WCYK 99.5 FL St. Petersburg 1734 WSER 102.5 FL Sarasota 1741 WHEM 102.7 FL Pensacola 5-30-77  85 1505 WFLS 93.3 VA Fredericksburg relieved on KS hiway 96 approx. of mile west of Nekoma KS 6-1-77  85 70745 KZUE 102.7 OK Oklahoma City frime heard with new call letter 0755 KLUE 99.9 TX Wichita Falls 0800 KNUS 98.7 TX Dellas 6-2-77  85 2071 WJHL 98.9 MI Petosky 2028 WCMQ 104.5 HI Muskegon 2045 WSHM 99.5 MI Sault Ste. Marie Preceding loggings made on Craig 3146 car redio. Following ones on a Pioneer SX-4  With indoor dipole. 6-9-77  85 1720 KJOK 93.1 AZ Yuma 1746 KILA 95.5 NV Henderson 1749 KYEN 96.5 CA San Diego 1751 KORK 97.1 Las Vegas 1759 KFMB 100.7 CA San Diego 1751 KORK 97.1 Las Vegas 1759 KFMB 100.7 CA San Diego 1811 KBBC 98.7 AZ Phoenix	6-1h-77 tr 0716 KTPK 106.9 KS Topeka Es 1807 WIFI 92.5 PA Philadelphia 1823 WJML 96.5 PA Johnstown 1845 WLEV 96.1 PA Easton 1855 WJME 96.5 PA Philadelphia 1924 WJMC 94.5 PA Philadelphia 1924 WJMC 94.5 PA Philadelphia 1924 WJMC 94.5 PA Lancaster 1926 WJMM 96.9 PA Lancaster 1935 WJMM 100.1 PA Lebanon 1941 WJMA 105.7 PA Tork ID as 'Q-106' 6-16-77 tr 2130 KDVV 100.3 KS Topeka ID as 'K-dove' 2145 KFOR 102.7 NE Lincoln 2213 KFNB 101.9 OK Oklahoma City 6-20-77 Es 2037 WJMR 94.7 NC Raleigh 2039 WJMA 96.3 VA Martinsville 2044 WJMI 97.1 NC Martinsville 2047 WJMD 100.3 NC High Point 6-25-77 Es 1616 WJMZ 94.9 FL Miami Beach local KICT off air W/JMTr problems 2219 KONA 105.3 WA Kennewick 2220 KDEM 98.3 MT Missoula called it self 'SD-93' Does anyone have any idea of the call letters?
Ron Wing 705 W Emporia, April 20-20-77  18 1727 WUXK 99.5 FL St. Petersburg 1734 WEER 102.5 FL Sarasota 1741 WHEN 102.7 FL Pensacola 3-30-77  18 1505 WFLS 93.3 VA Fredericksburg resived on KS hiway 96 approx. on the west of Nekoma KS 3-1-77  18 1707 O745 KZUE 102.7 OK Oklahoma City frictime heard with new call letter 0755 KLUR 99.9 TX Wichitz Falls 0800 KNUS 98.7 TX Dellas 3-2-77  18 1710 WINL 98.9 MI Petosky 2028 WCMQ 104.5 MI Muskegon 2045 WSMM 99.5 MI Sault Ste. Marie 2045 WSMM 99.5 MI Sault Ste. Marie 2040. Following ones on a Pioneer SX-b 2071 KJOK 93.1 AZ Tuma 1746 KILA 95.5 NV Henderson 1749 KYXY 96.5 GA San Diego 1751 KORK 97.1 Las Vegas 1759 KFMB 100.7 GA San Diego 1811 KBEC 98.7 AZ Phoenix 1815 KBEL 99.1 GA Riverside	t. 2, Wichita KS 6721k CDT  6-1k-77 tr 0716 KTPK 106.9 KS Topeka Es 1807 WIFI 92.5 PA Philadelphia 1823 WJML 96.5 PA Johnstown 1845 WLEV 96.1 PA Easton 1855 WWDE 96.5 PA Philadelphia 1916 WMME 93.3 PA Philadelphia 1926 WFM 95.7 PA Philadelphia 1926 WFM 95.7 PA Filadelphia 1930 WLAN 96.9 PA Lancaster 1935 WUFM 100.1 PA Lebanon 1941 WQKA 105.7 PA York ID as 'Q-106' 6-16-77 tr 2130 KDVV 100.3 KS Topeka ID as 'K-dove' 2145 KFOR 102.7 NE Lincoln 2213 KFWE 101.9 OK Oklahoma City 6-20-77 Es 2037 WQLR 94.7 NC Raleigh 2039 WMVA 96.3 VA Martinsville 2044 WQMI 97.1 NC Martinsville 304 WQMI 97.1 NC Martinsville 305 COAT WGLD 100.3 NC High Point 6-25-77 Es 1616 WINZ 94.9 FL Miami Beach local 307 KCT off air w/mwtr problems 308 KNA 105.3 WA Kennewick 309 KNA 105.3 WA Kennewick 300 KNA 105.3 WA Kennewick

(Many thanks for the report, Ron! ...dsc)

Es 1045 WSAI

Clint McAuliffe 1103 7th St. Apt. 6E, Greeley CO 80631

Well, it is the end of June and time to send in another DX report. I had only two really good days this month, the 9th and 22nd. Sure am glad that I had my SCA adapter; it helped me figure out many stations. I have tried a number of different SCA adapters using the Signetics 565 phase-lock loop. They all work, but not nearly as well as the circuit found in the 1977 Popular Electronics Experimenter's Handbook. The integrated circuit in this adapter contains a complete FM strip on a single chip. Connections are the same as for the PLL adapters. I run the output from the adapter through my second tape monitor switch on my Pioneer SX-636 receiver. That way I can check a station instantly for SCA. The tape monitor switch completely chuts off the main channel program. The audio output of this adapter is greater than the PLIs. That is, there is no need to increase the volume when the adapter is switched on. There is very little or no cross talk with this circuit when compared to the PLIs that I have tried. Although I do not use the squelch control when DXing, it is very effective; it works far better than the squelch control on Southwest Technical's PLL SCA adapter. Southwest Technical Products Corporation no longer sells the kit, but they will send you a completely assembled SCA adapter for \$29.95. That is a rip-off. \$13.50 to Communications Poly Services, 46 Groton Rd., Westford MA 01886 brings you a far better SCA adapter in a fun to build kit. Use an IC socket when assembling; one should be included with the kit but is not. Enjoy. On to the DX report. Equipment: Pioneer SX-636 receiver with Jerrold 14 element Yagi @ 30 ft. Underlined are relogs. SCA indicated with a + mark.

6-22-77 Es 0925 WVWR 89.1 VA Roanoke (1360);c, \$ ID Es 0920 CHFI 98.1 ON Toronto (1315);m\$ +music 0935 WIAA 88.3 MI Interlocken (1010);c,\$ 0921 CBL 94.1 ON Toronto (1315);c\$ 0945 WCMU 89.5 MI Mt. Pleasant(1060);c,\$ 0922 CKFM 99.9 ON Toronto (1315);m\$ ID 6-9-77 0923 CHIN? 100.7 ON Toronto (1315) French 0830 WAMU 88.5 DC Washington(1460);P\$ ID 0924 CHUM 104.5 ON Toronto (1315);pr\$ +music 89.7 OH Columbus(1150);\$ ID 0850 WOSU received the above for over one hour in-91.7 WV Beckley (1275) 0900 WVPB ID mitantly 94.3 OH Marietta (1230) ID 0905 WMOA 0930 WVOR 100.5 NY Rochester (1400);rm \$ w/ 88.9 WV Buckhannon (1300) ID 0915 WVPW oldies & ID; +music 0945 WQOX 88.5 TN Memphis (880);r \$ 0935 WDUX 92.7 WI Waupaca (840) \$ ID 98.1 IN Princeton (925) \$ 0935 WKCQ 98.1 MI Saginaw (1090);r\$ ID 0946 WRAY 0938 CIGM 92.7 ON Sudbury (1260);mr \$ ID 0948 WHKW 98.1 AL Fayette (1050);r\$ with 0942 CKLA 106.1 ON Guelph (1270) \$ ID ID as "FM-98" 0950 WHIC 94.3 KY Hardinsburg (990);k\$ 0945 WHSB 107.7 MI Alpena (1120);kr 97.5 KY Louisville (1020);m\$ + 0955 WAMZ 0950 WBLK 93.7 NY DePew (1380);s\$ + Physi-SCA Muzak cian's Radio SCA 0955 CKQS 94.1 IL Mt. Vernon (855);m\$ + 1000 WMIX 94.9 ON Oshawa (1350) \$ wx, ID + with music SCA music SCA 1001 KWPM 93.9 MO West Plains (740) \$ + 1000 WIAA 88.3 MI Interlochen (1010);c\$ 88.7 ON Windsor (1130);m \$
97.7 MI Manatee (970);r\$ "FM-98"
98.9 MI Petosky (1050);r\$ ID w/ mx, ID, music SCA 1010 CJOM 1015 WKSU 89.7 OH Kent (1210) \$ + talk 1015 WRRK about plays 1020 WJML 1020 WKNT 100.1 OH Kent (1210);r 99.7 MI Midland (1080);g\$ +bird 1023 WUGN 1022 WVJC 89.1 IL Mt. Carmel (910);r\$ chirp SCA (possibly a w/ID. Still 10w? transmitter-studio link 1025 WHIN 104.5 TN Gallatin (1020);r\$ ID used for remote meter 1032 WDEB 103.9 TN Jamestown (1120) \$ ID 1033 WSMT 105.5 TN Sparta (1090) ID reading, etc.? ...dsc)
1025 WSMM 99.5 MI Sault St. Marie (1090);kr 97.3 MO Sikeston (850);k ID 95.1 KY Glascow (1040);g ID 1030 WDBI 101.7 MI Tawas City (1110);m\$ : 1031 CHEX 101.5 ON Peterborough (1370);m\$ KSIG 1034 WGGC 95.1 AL Huntsville (1070);g\$ 1036 WNDA 1035 WCBY 105.1 MI Cheboygan (1080); m mono + 94.3 TN Lewisburg (1030);g 10LO WJJM talk(Paul Harvey) & music 93.3 TN Tullahoma (1090)\$ on SCA (an ABC net? ..dsc) 1040 CFGM 107.1 ON Toronto (1315);pr\$ "Boogie radio for the Mid-South" 1045 WFON 107.1 WI Fond du Lac (870) \$ 88.9 TN Chattanooga (1120);g 1100 WKLA 106.3 MI Ludington (965);m\$ ID 1045, WMBW 89.7 TN Chattanooga (1120);g 96.5 TN Chattanooga (1120);k\$ WDYN 1110 WKZY 97.1 MI Escanaba (950) "Cozy Radio" 1046 WDOD 1113 WLST 95.1 WI Marinette (910);r\$ +music 1047 WLRH 89.3 AL Huntsville (1070);c\$ 1115 CBJN? 95.1 ON North Bay (1330) mono with no SCA heard French spoken 1050 WQXI 94.1 GA Smyrna (1205) \$ "94-Q" 6-30-77 6-17-77 Es 1330 KELT 94.5 TX Harlingen (1070);k\$

Physician's radio SCA 1335 KBFM 104.1 TX Edinberg (1060);r\$ 1047 WMUB 88.5 OH Oxford (1065) w/ID, nx 1336 KVMV 96.9 TX McAllen (1070);g mono That is about it for this time. The stations that did not give an ID have been figured out by mention of location, SCA, time, or dead reckoning. While receiving the Canadian stations, I tuned up over 108 mHz and heard several VOR stations, but no IDs. Good DX to everyone, Clint.

music SCA

94.1 OH Cincinatti (1080);pr\$+



Having recently purchased a Pioneer KP-500 FM Supertuner, I have nothing but praise for this incredible piece of equipment which from my experience far outperforms any car FM receiver currently on the market as a piece of DX equipment. I found it, in fact, to be so impressive that there should be no real reason for not using it as a home receiver rather than just in the car. Naturally, a 12-volt supply would have to be added, but this apparent disadvantage might well become an advantage in the case of an opening coinciding with a power outage (which has happened here on at least one occasion) as

battery backup could be employed.

To assess the value of the KP-500 as a DX receiver, I have made comparisons between it and the Heathkit AJ-15 in a home installation and between it and the Heathkit CR-1000 car FM tuner with CRA-1000-1 power amplifier in an automobile environment using only

an ordinary automobile whip as antenna.

First, to the comparison with the AJ-15. Both the KP-500 and AJ-15 were connected to a common antenna (an Archer 5-element twindrive) via a 300-ohm splitter. Connection was made to the AJ-15 via its 300-ohm terminals and to the KP-500 via a balun to its 75-ohm terminal. A Realistic STA-65C receiver was used as an amplifier for the AJ-15 and the audio outputs of the two units were switched into a common speaker (only one channel was used for comparisons) to en-

able direct A-B comparisons.

From the standpoint of sensitivity, no discernable difference could be found between the two units. The Heathkit AJ-15 claims better than 1.8 uV IHF sensitivity while the Pioneer KP-500 specs state 1.1 uV IHF. While it is conceivable that Pioneer is being somewhat optimistic in this rating, it should be noted that in previous tests of my AJ-15 when compared with a Marantz, it was found to be one of the hotter AJ-15's in terms of sensitivity. Therefore, how much better than 1.8 uV the sensitivity actually is is in question. Also. the KP-500 was matched with a balun for this test and it will have some inherent losses. One can see therefore that if no discernable difference is found sensitivity-wise, the KP-500 is indeed impressive in this respect. Numerous stations in the 150-250 miles range were compared, many of which were right on the noise threshold. The KP-500 exhibited a very steep quieting curve, possibly even better than that of the AJ-15. This is supported by the specifications. The KP-500 claims 30 dB quieting at 1.1 uV IHF and 50 dB already at only 1.4 uV!! The AJ-15, on the other hand, has a somewhat more slowly rising curve specified with 1.8 uV at 30dB and 50dB does not occur until about 2.8uV.

Alternate channel selectivity claimed by the KP-500 is 73dB at +400 KHz and 75 dB at -500 KHz, better than the claimed 70dB of the AJ-15. While this claim was neither proven nor disproven, it was found that the KP-500 did not exhibit superb adjacent channel selectivity which the AJ-15 is famous for. It was quite tolerable, however, and only a noticeable problem when compared with the AJ-15 on stations next to semi-locals (a.g. WLVE 02 3 Clayelond next to CVDC 02 1 Part next to semi-locals (e.g. WLYT 92.3 Cleveland next to CKPC 92.1 Brant-ford - Cleveland at 145 mi. and 27 KW, Brantford at 25 mi. and 50 KW) when antenna bearing for the two was very much the same. The AFC had when antenna bearing for the two was very much the same. The Arc had a greater tendency to pull towards the stronger station in the KP-500 than in the AJ-15 in these cases. Due to the proximity of CFCA 105.3 Kitchener (about 10 miles and 100 KW), there is considerable splatter experienced abou this frequency. This was considerably more evident in the KP-500 than in the AJ-15 in trying to receive CHUM 104.5 Toronto at 55 miles and 40 KW. However CHSC 105.7 St. Catherines at 70 mi. and 50 KW could still be received without undue problems from CFCA and CKMA 106.1 Guelph at 15 miles and 50 KW. CHSC is a classical test and CKLA 106.1 Guelph at 15 mi. and 50 KW. CHSC is a classical test in this area for selectivity as it is situated between these two locals spaced 800 KHz apart.

Capture ratio appeared to be about the same on the AJ-15 and KP-500 (the AJ-15 claims 1.5 dB IHF and the KP-500 1.7 dB) when tested on 94.9 between CKQS Oshawa and WDBN Medina.

Switching from mono to stereo is not defeatable in the KP-500 and this feature can be somewhat annoying when a station's signal

strength varies frequently over a short period of time, as S/N ratio is considerably worse in stereo with weak signals than in mono, as is the case with any receiver. I hesitate to make any comparisons of stereo S/N ratio between the KP-500 and the AJ-15 as this is a function of too many variables - stereo threshold setting, amplifier response, tone control settings, signal strength, etc.

It can be readily seen from the preceding comparisons that the KP-500 performs incredibly well. The fact that a carradio can even be

compared with a unit such as the AJ-15 is remarkable.

Next a comparison was made between the KP-500 and the Heathkit CR-1000 car FM tuner in conjunction with its CRA-1000-1 power amp. An ordinary car whip antenna was used and the location was abominable from a DX standpoint - in a garage, in a gully, between brick houses. Conditions were basically poor tropo-wise. First, the CR-1000 was Conditions were basically poor tropo-wise. First, the CR-1000 was scanned from one end of the band to the other to net the following stations: CKGN, Channel 6 (20 mi.); CJRT, 91.1 (55); CKPC, 92.1 (25); CHAY, 93.1 (75); CBL, 94.1 (55); CKDS, 95.3 (35); CFPL, 95.9 (55); CKGL, 96.7 (10); CHFI, 98.1 (55); CKWR, 98.7 (0); CKO, 99.1 (55); CKFM, 99.9 (55); CKOT, 101.3 (45); CKNX, 101.7 (50); CFNY, 102.1 (35); WBEN, 102.5 (90); CHUM, 104.5 (55); CFCA, 105.3 (10); CJOY, 106.1 (15); CILQ, 107.1 (55); and CING (35). Many of these stations were quite noisy, especially those at or beyond 50 miles. Toronto stations at 55 mi. were only fair. Going across the band on the CR-1000 netted effectively no new stations in addition to those already listed.

Then the KP-500 was scanned across the band. All of the stations which had been received on the CR-1000 were in, virtually all with which had been received on the on-love were in, virtually all with near full quieting. In addition the following were heard: CJOM, 88.7 (155); WQIN, 91.3 (100); WBUF, 92.9 (90); WBLK, 93.7 (90); CKQS, 94.9 (90); WDCX, 99.5 (90); WNIC, 100.3 (155); CHIN, 100.7 (55); WRIF, 101.1 (155); WDET, 101.9 (155); WYFM, 102.9 (155); WPHD, 103.3 (90); WMUZ, 103.5 (155); WCCK, 103.7 (100); WZZP, 106.5 (145); WWWW, 106.7 (155). Going across the band again, one noticed that some of the preceding stations were gone, but new ones were in: WGPR, 107.5 (155); WBEA, 107.3 (170); WWOL, 104.1 (90); WCRF, 103.3 (145); CKTB, 97.7 (70); WAEZ, 97.5 (180). Going quickly across the band a third time an ID was even heard from WKWK, 97.3 (240). All this on a day with no tropo at all on a car FM radio in an abominable DX location.

The CR-1000 claims an IHF sensitivity of better than 3 uV compared to 1.1 for the KP-500. These figures, if not proven, are certainly proven relative to one another by the above listing of stations. The CR-1000 basically has just has enough sensitivity to pull in the ground wave stations while the KP-500 pulls in those beyond 100 miles which flutter in and out due to minor atmospheric variations. It seems that every time one goes through the band on the KP-500 a new batch of stations is heard while on the CR-1000, it's always the same ground

wave stations.

While no comparison could really be made on the selectivity of the two units (simply because not enough stations could be heard on the CR-1000), the CR-1000 claims only 60 dB alternate channel selectivity while the KP-500 claims 73/75 dB.

From an audio standpoint, the KP-500 also sounded considerably better than the CR-1000. The CR-1000 has only one tone control while

the KP-500 has separate base, treble, and loudness controls giving

considerable range of sound quality.

Other features of the KP-500 include:

1) Local/DX switch - gives 25 dB attenuation when travelling near transmitters

2) Power output of 8 watts RMS - more than enough for most people

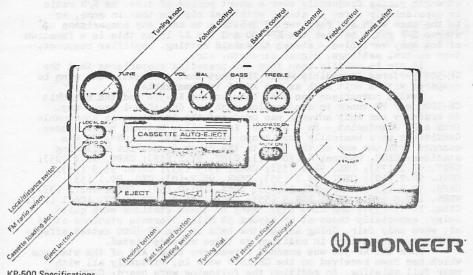
2) Fower output of 6 watts RMS - more than enough for most people
3) Muting switch - provides interstation muting if desired
4) Cassette player - with fast forward, fast rewind, electromechanical eject button, auto-eject at end of tape, and tape pilot light
5) Automatic switchover from tape to radio after auto-eject

6) Stereo pilot light

7) Lighted dial and separately lighted dial pointer Lafayette Radio Electronics' 1977 price on this unit is \$159.95. The Supertuner is also available with 8-track (TP-900) or 8-track plus AM (TP-7005). The TP-7005 is in-dash mounting while the others are under-dash.

The Pioneer KP-500 schematic and spec sheet follow. 73's,

Peter and



### **KP-500 Specifications**

iii ooc openiioations	
General General	
No. of ICs	1
No. of semiconductors	
Grounding system Negative type	
Power output (rated) 8 watts (RMS	
Tone control effects	
Treble ±10dB (10kHz	ſ
Loudness contour switch effect +9dB (100Hz), +4dB (10kHz)	
Load impedance 4 ohms (2-8 ohms allowable	
Power source DC 13.8V (11–16V allowable	
Dimensions (W x H x D) 192 x 75 x 190mm	
(7-5/8 x 3 x 7-1/2 in.)	
Weight	
Tape section	
Tape Compact cassette tape (C-30 ~ C-90)	
Tape speed	
Fast forward time Within 100 sec. for C 60	
Rewind time Within 100 sec. for C-60	

Crosstalk			More than 45dB
9ignal-to-noise ratio			. More than 50dB
FM Supertuner			
Frequency range			88-108MHz
Usable sensitivity		12d	Bf. (1.1 aV/75 ohms)
50dB quieting sensitivity		14.3dl	Bf (1.4µV/75 ohrns)
Signal-to noise ratio			
Capture ratio			1 7dB
Selectivity	730	dB (+400kHz	), 75dB (-400kHz)
Image rejection			61dB
Distortion		0	
Frequency response		30	-12.000Hz (-3dB)
Muting level			5dB
Muting level	ct		25dB attenuation
Stereo separation			

Features of FM Supertuner
Usable sensitivity of 1.1µV (IHF); automatic FM mono-stereo switching; automatic FM noise-cut filter, FM muting

# SCHEMATIC CIRCUIT DIAGRAM

# PH TO-NEWS

Jim Alexander 4 Brook Court Parsippany, NJ 07054

September, 1977



WITN- 7 Washington, NC 320 mile tropo (West)



KYCU- 5 Cheyenne, WY 1,325 mile E-skip 7/1/76, 1700 EDT (Brindle)



KDFW- 4 Dallas-Ft. Worth, TX 965 mile E-skip (Combs)



KOSA- 7 Odessa, TX 410 mile tropo (Everitt)

### Contributors:

Steve West, Havertown, PA

Ed Brindle, Latrobe, PA

Doug Everitt, Enid, OK

John Combs, Orlando, FL

73 and good DX,



# EASTERN TV-DX

Bill Thompson 1907 Seneca Street Buffalo, NY 14210

September 1977

28

Deadline: 10th

B-skip activity in July far surpassed almost everyone's expectations. There were a number of very intense openings throughout the month, with many DXers following the MUF to 107.9 MHz on several very good days. Highband skip, mostly brief instances of unidentified ch 7 stations, was observed by some. The very high Es MUFs in many July openings also meant unusually short skip distances were possible on lowband, and some interesting short distance catches are indeed reported. A good example is Dave Egan's catch of WTTG-5 DC at around 450 miles on July 7. In addition to all the unusual short skip, some Midwestern and Northeastern DMers noted many more openings into the Maritime regions of eastern Canada than usual. In late July, when the Es season comes to an end for many, it was still going strong—right into the first half of August. For that reason, plus the fact that a number of reports have been delayed (due to both your editor and the U.S.P.S.), we will delay the Es chart yet another month. Since some are comparing this season's activity to the best Es years they can recall, we'll examine it further next meath. There was some excellent tropo in Midwestern and Mortheastern areas in mid-July, but due to the weather extremes we'te been suffering thru this summer (too much moisture in some areas, extreme heat, and not enough moisture in other places), tropo development has been upset. Note the super Gulf tropo in Rick Glasgow's report on June 27th!

June	Wheeler			21 Es	1500	KHOP-2	NE	1066				WERZ-2	TA 10	020
2 Bs	1130 WER	Z-2 IA	1020		1600	KDLO-3	SD	846				CBHT-3		805
5	0900 KPR	Y-4 SD	1032		1630	WRAR-3	FT.	912			1730	WHS-2		
	0901 KTV	S-3 CO	1188		1830	KATC-3	LA	1056				KDUH-4		
	1231 KWG	E-2 00	1292		1900	WER 7-2	T.A	1020	9			WBR2-2	LA 1	020
	1301 東西			22	0925	KDUH-4	BE	1138	12			KCKT-2		
6	0958 WES				0928	KCKT-2	KS	1015				KQTV-2		779
	1000 KCK				1000	KOTA-3	SD	1169			1503	WBRZ-2	LA 10	020
	1631 KUS					KLEB-3		1016			1700	KETS-2		825
	1731 KOT				1130	KYCU-5	WY	1272			2015	WDIQ-2	AL S	815
	1738 KTI					KTVS-3		1100			2025	KHAS-5 KSEB-4 KCKR-2	DE C	946
	1904 WIN					KHOP-2					2100	KSEB-4	NE S	932
	2132 KOA				1738	KDIX-2	BE	1169			2259	KCKT-2	KS 10	
	2201 KWG			23		WIHS-2			13			KWSH-2		
8	2300 KDI					KPRC-2		1210	15	Tr	0700	WEEP-16	PA :	223
	2301 KDE			24		WESH-2		920				WIRIN-28		
	2345 KTC				2131	WPBT-2	FL	1098				kes bar		223
9	1000 KCK!			25	1058	WPBT-2	FL	1098				WCMU-14		
	1315 KXJ					WEDU-3		994	18	Es		WERZ-2		
	1630 KWG			26	1730	KCRT-2	KS	1015	19		1900	WPBT-2	FL 10	398
4	1300 KPR			July					22			KCKT-2		
	1301 KTE			2 Rs	1630	WPBT-2	FL	1098	23			WEDU-3		994
	1314 KARI				1800	WIVJ-4	FL	1098	25			WDIQ-2		815
	1400 KFD				1828	WEDU-3	FL	994				<b>WE記Z-2</b>		
	1431 KTM				1830	WPTV-5	FL	1081	26		1312	KCKT-2	KS 10	015
	1500 KXAS	-> TX	1143		1900	WMTS-2	<b>#??</b>	24			1830	KDLO-3	SD 8	346
	1600 KTV				2158	HATC-3	LA	1056			1900	KGFS-2	ED 9	917
	1800 KDU					WBRZ-2			27		1100	WPBT-2	FL 10	99
	1831 KOTA			200	2200	KCKT-2	KS	1015				WEDU-3		994
9	2319 KTV			3		WPBT-2		1098			1230	KETV-3	TE E	315
	2324 KPR					WEDU-3		994				KCKT-2		
	2327 KFD					WEAR-3		912			1301	KQTV-2	EO 7	779
	2328 KETS			. 1957	2300	KPRC-2	TI	1210			1500	KARD-3	TO 0	-
0	1318 KTEW		943	4		KTW0-2		1322			1632	KPRC-2 WEDU-3	PX 12	210
	1330 KFD					KOTA-3		1169			1859	WEDU-3	FL 9	194
	1409 KTVY					KFSM-5		897			1900	WJXT-4		330
	1537 KCKI					KTBW-2		943			2100	WDIQ-2		315
	1821 WSB-		630			KTVY-4					2158	KATC-3	LA 10	)56
	1828 WIVE		805			KMTV-3		.815	28		1100	WEDU-3	FL 9	94
	1900 WDIQ		815	- 8		KUSD-2		851			1200	KTEW-2	OK 9	43
	1930 KWGH			6		WIHS-2					1300	WTHS-2	FL 10	98
	2100 KDFW	-4 TI	1117		1300	WEDU-3	FL	994						
	2107 KXAS				1358	KATC-3	LA	1056			1330	KNOP-2 1 WBRZ-2 1	A 10	20
	2216 KARI		953		1400	WMAB-2	HS.	840				KQTV-2		79
1	1312 KCKT					WDIQ-2		815				CHHT-3 N		05
	1316 KARL	-3 KS	953		1530	WEAR-3	FL	912						
0						The state of the s								

```
Rick Glasgow, WDX5GE/G.R.M.S.-TV Box 16 Ackerman, Mississippi 39735 (CDT)
"Very little DX noted here during May. One nice opening at the end of June.
Not much time for DX, as I work at night lately. I'll have to catch more of
those early a.m. tropo and midday Es openings. Equipment: Hitachi PD1 B/W
portable & Hitachi PD5 color set, Channel Master VHF Quantum & Channel Master
UHF parabolic."
```

May		19 Tr	2300 WOWL-15 AL 130	7 Tr 0120 XET	-6 NL
	1715 KOAA-5 CO	008	WHNT-19 AL	COS IS LON	terrey 840
20 110	Pueblo 920		WAAY-31 AL		tch! -bt)
-		27	0015 KPLC-7 LA 310	0130 KXA	S-5 TX
	Denver 975	086	0036 KALB-5 LA 260	debugge 2-Pt	Worth 460
1	"probably ch 2 Den-		0047 WAFE-9 LA 250	0138 KZT	V-10 TX
	ver in also but		0050 KARK-4 AR 202	Corpus	Christi 605
	local WMAB a big		0100 KGBT-4 TX 687	0210 KVI	V-13 TX
	problem"		0105 KTRK-13 TX 425	Ols an Lar	redo 705
June	mark full tar 0200		"so many stations	0215 KDF	₩-4 TX 430
	0950 CKPR-2 OM		coming in, I	0231 WSM	<b>一4 四</b> 230
-	Thunder Bay 1250		couldn't handle 'em.		D-13 "saw
	"Sunday morning		Just like opening	what I t	hought was
	WMAB off til 11:30		Christmas presents!"	KLTM Mon	roe(?)
	1001 KDIX-2 ND 1150		0110 KSAT-12 TX 602	logo"	Zest 0855
	1003 unID-2 BTV		0111 KTRE-9 TX	(That's	KLTE-13
	"KGFE ND?"		Lurkin 335	Monroe I	A -bt)
MTor c	+ 126 731g and good	TY B	# 1878 E. GETTE ON THE		por nors

"Log at 126. 73's and good DA."

Bob Walker 2220 W. Highway 524 Westport. Kentucky 40077 (EDT)
"After about three months in the club I thought I was overdue to report. Very
poor equipment has enabled me to see quite a few goodies. All I use is rabbit
ears and a UHF bow-tie antenna with a 12" Admiral portable. Here's what I've
seen (all newies as I don't write down the repeats).
May

14 Rs 1900 CKCK-2 SK 1235 8 Tr 2030 WPT0-14 OH

 May
 14 Bs
 1900 CKCK-2 SK
 1235 SK
 8 Tr
 2030 WPT0-14 OF

 18 Rs
 1720 KDIX-2 ND
 1030 2000 KQTV-2 MO
 505 12 Bs
 2159 KRGV-5 TX

 23 1957 KPRC-2 TX
 13 Tr
 2300 WHIO-7 OH

 14 Rs
 1700 KFTR-5 ND
 945
 2 Tr
 0941 WCIU-26 KY

"WHIO seen the night of the blackout carrying 'Courtship of Eddie's Father' in favor of CBS net. Log total now stands at 65. Also DX BCB and a little FW; I'm a member of NRC. I'm willing to trade airchecks and always welcome correspondence. 73."

Edward R. Cotton 4106 2nd Street Chesapeake, Virginia 23324 (EDT)
"This is my first report to WTFDA. I use a RCA 19 portable and a Motorela 9"
B/W TV with a Channel Master automatic rotor and antenna at 31°. For the past
two weeks things have really opened up here. Reception has come in from Canada
to South Dakota down to the Gulf coast and into the Carribean."

	Jume	F SIG ELAWY	24 Es	2000 CMLB?-5 CUBA	1 Es	1645 unID-5 CUBA
		1850 KXON-5 SD	25	1230 unID-2 CUBA		"test patterns on
	1084	2130 KHAS-5 MB	QAR	1753 KMOL-4 TX		two Cubens"
	21 Tr	0635 WECT-6 MC		1820 KXAS-5 TX	2	2030 WCBI-4 MS
	Es	1900 KFSM-5 AR	26	1000 WAPA-4 PR		2200 KJAC-4 TX
		1930 K000-5 OK		1900 KTVY-4 OK	3 001	0830 KPRC-2 TX
		1955 KOTV-6 OK	28	2000 KDFW-4 TX		0900 WRZ-2 LA
		2100 KALB-5 LA	29	1900 CHSJ-4 NB		1000 WPBT-2 FL
	22	0900 KTCA-2 MN		1930 unID 2,4 CANAD	A ALA	1240 WMAB-2 MS
	23	1930 KTXT-5 TX	July	olor set: 1962 9* @	Tr	2300 WBFF-45 MD
	24	1930 unID-4 CUBA	1 Es	1645 unID-4 CUBA	4	0825 WCIV-4 SC
9	"They	sure skipped around.	I al	so take pictures of	IDs, te	st patterns, etc. I
۳	use a	Polaroid 220 and 107	, 2000	speed B/W film. I	t does a	pretty good job but
	T can	only get about 5' fr	om the	TV. Good DX to all	1."	

	Martin	J.	Theil	12 Pr	inceton	Drive E	. Holi	day,	Florida	33	589 (1	EDT)		
ĕ	July	Bani	1	a tat	6 1	3s 0100	CELT-5	ON	20	) Es	1800	CBLT-5	ON	
			WJCT-7						2	Tr	1900	WJHG-7	FL	
	Re	0815	KTCA-2	MN		0610	CKCO2-	2 ON	22	2	1900	KPLC-7	LA	
			WESH-2				WGR-2	NY	23	Es	1930	WTVH-5	NY	
			WJHG-7		18	1800	WCBS-2	NY	2	1	1640	WAPA-4	PR	
			WKTV-2		19	1800	KCKT-2	KS				KRGV-5		
			WFTV-9		e Areat A		WKTV-2	NY				KPRC-2		
			WTVH-5			1900	WTWO-2	IN						
					e Bear Ca									
					s to the									

scanners and TV. Help!!"

29

```
Horsley Rt. 10 169 Lakeshore Dr. Gadsden, Alabama 35901 (205)442-
1 times CDT) 30 Bs 1330 CKFR-2 ON 1020 21 Es 1055 WFRV-5 WI
2100 WBAR-3 FL 250 1400 WJMN-3 MI 750 1105 CKGN2-2 ON
Roy D. Horsley Rt. 10 169
May(all times CDT)
3 Tr 2100 WBAR-3 FL 250
                                                                                               (205)442-2540
                                                                                     1105 CKGN2-2 ON
Bancroft
               WSLA-8 AL 150
                                               1440 KPRY-4 SD
                                               1445 KXON-5 SD 1000
WCCO-4 MN 850
        "seldom received"
                                                                                      1115 unID-5 CHAU?
                                                                                      1130 KDAL-3 MN 950
1200 KWGN-2 CO 1225
        2130 WKRG-5 AL
                                               unID 2,3 CANADA
1130 KGBT-4 TX 900
               WALA-10 AL 250
                WDIQ-2 AL
                               200
                                      31
                                                                                             KOA-4 CO 1225
 7 Es 2000 WFSB-3 CT
WCES-2 NY
                               950
                                                      unID 3-5 Spanish
                                                                                             "many unIDs"
                               800
                                      June
                                                                                      1930 WYOM-4 MI
                                        1 Es 1700 KMID-2 TX 950
1728 KACB-3 TX 860
1945 XEFB-3 NI 1030
                                                                                     Cheboygan 850
0825 unID-2 IHTP
0900 CHSJ-4 NB 1325
        1815 unID 2-5 Spanish
        1820 XEW-2 DF 1200
               XEZ-3 Oro 1200
XHD-4 Tams 1000
                                                                                      CEPR-2 OF 1020
0920 CEFT-2 OF 1030
                                               "it's been a long
        1830 XHY-3 Tue 810
XHGC-5 DF 1200
1905 XHTV-4 DF 1200
                                               time..."
                                                                                      0930 unID-3 French
1000 unID-4 "IDed
                                               1130 WBZ-4 MA 1000
                                                      WCVB-5 MA 1000
        1630 KMID-2 TX 950
                                                                                      as'ch 6, cable 2--
CEC"; any ideas?"
                                               2230 XEZ-3 Qro 1030
12
                                               1920 KWGN-2 CO 1225
                "unIDs 2 & 3
                                                                                     (probably CBWT2 -bt)
1740 unID-3 Spanish
1741 KIII-3 TX 800
1810 XEFB-3 BL 1030
1830 KOAA-5 CO
                                               MUF ch 4
1000 WCBS-2 NY
WFSB-3 CT
                til 1730"
        2250 unIDs 3,4 Spanish 5
1600 MUF ch 5, unIDs
                                                                      800
                                                                    950
                in Spanish
                                                                     1000
                                                      WBZ-4 MA
              KOB-4 NM
                                               1630 KOB-4 NM
                                                                    1225
        1635 KMID-2 TX
20
                              950
                                                      umIDs to ch 4
                                                                                             Pueblo
                                                                                                            1100
               KOB-4 NM 1225
                                               1700 WLBZ-2 MB 1180
                                                                                             KDAI-3 ME
KCKT-2 KS
                                                                                                           950
        1700 KENW-3 MM 1040
1700 KFDX-3 TX 750
KNMR-5 MM 1175
                                                      WPSB-3 CT
                                                                      950
                                                      WBZ-4 MA 1000
                                                                                      1900 KMID-2 TX
                                               1815 unID-5 Spanish
                                                                                             KARD-3 KS
                                                                                                           675
                                                                                      1950 XEZ-3 Qro 1200
                                               1830 MUF ch 6
               KAMR-4 TX
                               920
                                                                                      1350 IEFB-7 NL 1030
1445 unID-5 Spanish
1550 KMOL-4 TX 800
                                               1900 KUSD-2 SD
2000 KFTR-5 ND
        1705 KOB-4 NM 1175
MUF to ch 6
                              1175
                                                                                                           1030
        "bad interference
                                                      Bismarck
                                               1000 WCBS-2 NY
                                                                      800
        to WERC-6"
                                                                                      1600 KRGV-5 TX
                                                                                                             900
        1705 KMID-2 TX
                               950
                                               1830 XEFB-3 NL 1030
                                                                                             KGBT-4 TX
                                                                                                             900
        1730 KTXT-5 TX
                               920
                                               1800 KTCA-2 MN
                                                                      850
                                                                                      1610 KRIS-6 TX
                                               KDAL-3 MN
1801 WCCO-4 MN
0900 KQTV-2 MO
                                                                    950
                KHMB-5 NM
                                                                                      Corpus Christi
                                                                                                             800
                                                                                      1625 KENS-5 TX
            Almaquerque 1175
                                                                      850
                                                                                                             800
        1750 KAMR-4 TX
                               920
                                                                      650
                                                                                      1755 KYCU-5 WY 1160
        1820 KAVE-6 RM 1100
1845 KACE-3 TX 860
1910 KWAE-4 TX 800
                                               1300 KTCA-2 MN
1310 KDAL-3 MN
                                                                                      1900 KIII-3 TX
XEFE-3 NL
KGBT-4 TX
                                                                      850
                                                                                                             800
                                                                      950
                                                                                                           1030
                                               2000 MUF ch 6
                                                                                                             900
        0900 KINE-3 NE
                                                                    1075
                                                                                      1930 XHGC-5 DF 1200
1940 XBZ-3 Qro 1200
                               920
                                               2030 KPRY-4 SD
21
                                               2040 WNEW-5 NY
New York
               KDUH-4 NE 1100
        0930 KTVS-3 CO 1060
KYCU-5 WY 1160
                                                                      800
                                                                                      2000 IHTV-4 DF 1200
                                                      WCVB-5 MA "CCI"
                                                                                             XEW-2 DF
                                                                                                            1200
                                                                      800 29 Tr 0110 WLCY-10 FL
               KTW0-2 WY 1300
                                               2100 WCBS-2 NY
                                              WFSB-3 CT 950
unID-5 CBC
0930 CBOT-4 ON 1000
        1030 KWGN-2 CO 1225
                                                                                             Largo
                                                                                                             480
        1145 KHAS-5 NE 940
1800 unID-3 color bars 21
1830 XEZ-3 Qro 1200
                                                                                      0130 WSPA-7 SC
                                                                                    "CB with ID at
                                               0958 CKS01-3 ON
Elliot Lake 950
                                                                                     bottom--an easy
        1800 KMID-2 TX
                               950
                                                                                      late night ID"
```

29 1800 KMID-2 TX 950 EILLOT Lake 950 Late night 15
30 1310 CKRN-4 QB 1075 1020 KBJR-6 MN T
1315 unID 2-4 CANADA 1030 CENB-4 ON 950
"Equipment: 1972 19" Admiral color set; 1962 9" GE B/W set; 9" Sears B/W set;
Lafayette 3 element VHF antenna; 4-bay bowtie UHF antenna. As of June 26 I
have installed Alliance rotor, Channel Master 20 element VHF antenna, 7' Channel Master Parabloid UHF dish, Blonder-Tongue Voyager VEF-UHF pre-amp. System
is working great. I am now receiving all 4 Atlanta UHFs daily. All night
stations in this area include: WTCG-17, WWML-15, WTV-4. I've had more Es
openings than I ever dreamed of. CCI 2-4 daily. I'm still having trouble with
Shanish ID slides. WLCY was the first real long Tr I had ever seen. I had to Spanish ID slides. WLCY was the first real long Tr I had ever seen. pinpoint the antenna. Sometimes you just get lucky. Anyone wishing to swap TV GUIDES just mail me yours and you will get the Alabama edition in return.

Michael L. Hogan 9224 Cottage Grove Ave. Highland. Indiana 46322 (219)924-2361 "Equipment: DuMont portable B/W about 12 years old; Stereo Probe FM antenna & Winegard CH-9065 for UHF, both antennas at 12 feet & hand rotated." July August 5 Tr 0745 WICD-15 IL 31 Es 1900 KMOL-4 TX 3 Es 1700 WWAY-3 NC "in solid for seen at John Zondlo's" "in w/local nx" about 2 hours" "Totals: 52 stations from 14 states and 2 Canadian provinces; 16 Es."

79				(Baye proper	Leading application
William	J. Draeb Ellis St	R.R.#2	Kewaunee, Wiscons	in 54216 (	DT)
	DX to report agai				
	accounted for the				
via Es (	480 mi). The last	time that	happened was ove	r twenty ye	ears ago (before
I starte	d keeping a log) w	then I saw	KDKA-2. The trop	o opening	of the early
morning !	hours of the 14th	was quite	welcome as it gav	e me the of	portunity to
	of those Canadian		that have been el	uding me re	or so long."
July 18	40 WCBS-2 NY 740	8 58 203	5 WDIQ-2 AL 925 WEAR-3 FL 986	12 58 191	WECT-6 NC 882 WCSO-5 SC 916
) Pp 10	WNBC-4 NY 740	9 152	7 WDIQ-2 AL 925	191	7 CFRE-3 AT 1320
	WNEW-5 MY 740	, ,,,,	WRAR-3 FL 986	210	KTVX-4 UT 1264
Tr 21	30 KOZK-21 MO 588		WIVY-4 AL T		2 KSL-5 UT T
	KMTC-27 MO 588	153	3 WWAY-3 NC T	210	KUTV-2 UT T
	KCBJ-17 MO 450 KHIN-36 IA 457	457	WCBD-2 SC 916		KWEM-2 00 T
22	36 WATL-36 GA T	100	6 WJXT-4 FL 1039 WSAV-3 GA T	212	2 WMAY-3 HC 882
The state of the	WISHT-25 IN 420	202	0 WMAB-2 MS 784	213	KATO-3 LA 1026
	WKYT-27 KY 473		6 KMID-2 TX 1176		5 区图第-3 国第 1103
	WLKY-32 KY 437		KACB-3 TX 1143	220	5 KPIX-3 TX 945
	WDRD-41 KY 437	四类 5%	KAMR-4 TX 991		KAUZ-6 TX T
	08 WAAY-31 AL 685		0 KDFW-4 TX 957	555	7 KNOL-4 TX 1213
6 Ra 11	52 KINI-30 MO 432 30 WEDU-3 FL 1192		2 KHNW-3 NM 1103 0 KWAB-4 TX 1135	223	KAMB-4 TX T
0 75 11	WIHS-2 FL 1372		5 KFDX-3 TX 945	22)	XXAS-5 TX 972
	WESH-2 FL 1130		2 unIDs 2,3 S.	223	1 KCH-6 EX 1075
	WTVJ-4 FL 1372		0 WMUI-33 WV 498	13 103	0 KOA-4 CO 952
	30 WRAR-3 FL 986		WVIZ-25 OH 355		O Youngstown U's
12	40 WIVY-4 AL T		owfree over WHII'	6 部	CICA-19 ON 410
	WJXT-4 FL T WDIQ-2 AL T	202	O CELFT-25 ON 410		CHIFT-25 CM 410 WJAN-17 OH 395
14	27 WMAB-2 MS 784		WUAB-43 OH 340 CICA-19 ON 410	181	4 CITY-79 OF 410
	30 KPRC-2 TX T		Youngstown U's		9 WWWU-24 WV 513
# 017/m/45	KJAC-4 TX T	202	5 Erie U's 405		WJET-24 PA 405
15	00 WJXT-4 FL 1039	203	7 KOZK-21 NO 588		2 WPGH-53 PA 480
	WIMO-6 FL 1164		KMTC-27 MO 588	203	0 BUTY-29 EY 445
	30 WSAV-3 GA 933	240	KTVJ-16 MD 633	204	103年34 0至 395
10	30 WCED-2 SC 916 WCIV-4 SC 916		7 WUSI-16 IL 402 5 KSIM-27 IA 463	204	3 WEED-17 HY 445 WOLE-54 PA 405
	WWAI=3 NC 882		KTIN-21 IA 365	205	1 MY2-53 VA T
18	33 WCSC-5 SC 916		KYIN-24 TA 300		WVIR-29 VA T
Tr 21	35 KYIN-24 IA 300		0 KCBJ-17 MO 450		7 WOUG-44 OH 427
	KTIN-21 IA 365	213	3 KHMA-41 MO 525		5 WHIZ-18 OH 400
7 Da 40	KSIM-27 IA 463 55 KMID-2 TX 1176		WAKR-23 OH 380		0 004-74-44
	19 KAMR-4 TX 991		WEAO-49 OH 380		eterborough 458 0 mmy-36 MY 575
198	KENW-3 NM 1103		WOHX-16 PA 480		O WKYT-27 KY 473
	25 KDBC-4 TX 1355		WPGH-53 PA 480		4 WSEE-35 PA 405
15	00 WDIQ-2 AL 925	00% 144	WNEO-45 OH 406		4 WTAP-15 WV 476
	WEDU-3 FL 1192 WTVY-4 AL 934		4 WJAN-17 OH 395	001	9 WHEY-32 KY 437
16	WTVY-4 AL 934 30 WEBH-2 MA 840		6 WTAR-4 PA T		CRLF76=32 OF
	WBZ-4 MA 840		0 WUTY-29 NY 445	002	Kingston 543 8 CBLFT5-15 OF T
	WCVB-5 MA 840		4 KTVJ-16 MO 633		O CENT-10 OF
OSE BL	WFSB-3 CT T		KOZK-21 MO 588	C5.4 355	North Bay 415
16	45 WCBS-2 NY 740	THE VE	KMTC-27 MO 588		CHIEB-4 OH
46	WEBC-4 NY 740 50 KYW-3 PA T		5 WUSI-16 IL 402	000	Borth Bay 415
10	50 KTW-3 PA T WPVI-6 PA T	12 Rg 127	7 WKMU-21 KY T 5 WCBD-2 SC 916	020	5 CHLT-5 ON Toronto 410
16	57 WLBZ-2 MB 925	15 40 12			CFT0-9 ON 410
TELL SE	WABI-5 ME 925	180	4 WUNG-4 NC 749		CKNC-9 CM 350
	10 WCSH-6 ME 855	181	2 KTVX-4 UT T		CKNC1-7 ON 270
17	15 WCAX-3 VT 722		KID-3 ID 1214		
	20 CBHT-3 NS 1170		KUTV-2 UT T	T- 404	CKS0-5 ON 350
	30 CJCH-5 NS 1170 57 CHSJ-4 NS 1085	102	KXLF-4 MT 1219 6 KRTV-3 MT 1157		5 KOA-4 CO 952 9 KTVS-3 CO 837
	30 CHAU-5 QB 1040		O CFAC-2 AT 1310	194	9 KTVS-3 CO 837 KWGN-2 CO 952
	CHSJ1-6 NB	n seed of	TOTALD 3 PT. 096	195	8 KRMA-6 CO 952
20	27 CJBR-3 QB 951		WKRG-5 AL 967	200	1 KDUH-4 NB 767
Tr 21	00 WUTV-29 NY 445		MIAI-4 WT 324		8 CBLFT-25 ON 410
Pa 24	WKEN-27 OH 420 27 CJCH6-6 NS		60 WCTV-6 FL 972 01 KDUH-4 NR 767		8 KYCU-5 WY 900
ו2 מם	21 OG OTTO-O MD	190	1 TTOTT-4 III (0)	201	8 KTWO-2 WY 947

The second of the second			September 1311
William J. Draeb (continued)			
July 14 Tr 2031 WFMJ-21 OH 420	2 Es 1705 WJ.	SH-2 FL 1039 25 1	ls 2035 CBHT-3 NS 1170 2050 WCBD-2 SC 916
WKEN-27 OH 420	1725 WE	AR-3 FL T	WWAY-3 NC T
Es 2033 KOTA-3 SD 776	WOK	RG-5 AL T	2054 CHSJ-4 NB 1085
2053 KID-3 ID 1214	1730 WS		WCIV-4 SC T
2055 KTVX-4 UT 1264 2107 KUTV-2 UT 1264		GA-5 GA 768 TC-27 MO 588	2058 CJER-3 QB 951 2119 WLBZ-2 ME 925
2150 KAID-4 ID 1424		BJ-17 MO 450	CKCW-2 NB 1117
15 Tr 1758 KTIN-21 IA 365		PC-15 KT 432	2131 WCAX-3 VT 722
KSIN-27 IA 463		KY-32 KY 432	2154 WGBH-2 MA 840
WKHM-27 OH 420 WFMJ-21 OH 420			r 2154 WKYT-27 KY 473 ss 2232 KYW-3 PA 705
WITV-33 OH T		IN-36 IA 457	2235 WBZ-4 MA 840
WMUI-33 WV 498	2121 KB	IN-32 IA 476	WCBS-2 NY T
2014 KTCI-17 MH 280		MA-44 MO 525 -	WNBC-4 NY T
"both rare here"		NE-26 NE 481 26 VJ-16 MO 633	1753 KTW-3 PA T 1800 KRTV-3 MT 1157
2014 KMBG-14 TA 463		PT-19 MO 525	KXLF-4 MT 1219
		VJ-16 MO 633	1830 KTVM-6 MT 1219
WYTV-33 OH 420 WJET-24 PA 405		TC-27 MO 588 SD-27 KS 560	KUTV-2 UT T
CEEN 22-22 ON 413		TT-27 KT 473	1858 CFRM-3 AT 1320 1910 CILT-4 AT
2357 WSEB-35 PA 405		PB-49 IN 319	Lloydminster 1175
16 0018 CRLFT-25 ON 410		IU-30 IN 376	"saw local wx report
0602 CBLFT-25 CN 410 CBLAT1-8 ON 368		KY-32 KY 437 RB-41 KY 437	at 1914; wr girl
CKNC-9 ON 350		HT-25 IN 420	giving forecast called station for
0620 CICA-19 OH 410	Bs 1430 un	IDs 2-4 S.	confirmation of re-
Rs 2118 WCBD-2 SC 916		IB-14 IN 420	ception and wx girl
2127 WCIV-4 SC 916 2139 WWAY-3 NC 882		PC-15 KY 437 NL-30 MO 432	answered phone. She said the stn has
17 1350 WEDU-3 FL 1192		MJ-21 OH 420	been on for about
WSAV-3 GA T	WK.	IN-27 OH 420	two months."
1355 WTVJ-4 FL T		IM-27 IA 463	2015 WRCB-3 TH T
1408 WJXT-4 FL 1039 Tr 2020 Youngstown U's		IN-21 IA 365 IN-24 IA 300	WPBT-2 FL 1372 2030 WSB-2 GA 768
		IX-19 OH 400	2030 WSB-2 GA 768 2036 WUNC-4 NC 749
2041 WQKX-16 PA 480	0008 WB	AK-38 IN 348	WWAY-3 NC 882
2052 NJAN-17 OH 395 18 2015 CHFD-4 ON 300		AS-11 KY 437	WECT-6 NC 882
18 2015 CHFD-4 ON 300 Duluth V's 286		PO-9 OH 400	2040 WCBD-2 SC 916 WCIV-4 SC 916
2310 CHTAT-13 OW		NG-9 OM 350	2050 WESE-2 FL 1130
Geraldton 415		NY-10 ON 415	2100 WJXT-4 FL 1039
2315 CHLAT-8 ON 368		BN+27 OH 420 YT-27 KY 473 27	2335 unid 2-4 N.W.
2345 CHLAT3-9 CM 270		HT-25 IN 420	1135 KAMR-4 TX 991 KENW-3 NM 1103
19 2055 WUTV-29 EY 445	WH	IZ-18 OH 400	1159 KATC-3 LA 1026
WEMJ⊕21 OH 420 WKHE-27 OH 420		MJ-21 OH 420 TV-29 NY 445	1200 KOA-4 CO T
WJET-24 PA 405		SU-54 OH 395	1215 KDFW-4 TX 957 KXAS-5 TX 972
WJAH-17 OH 395	2037 WK	SO-29 KY 538	1253 KMID-2 TX T
WOSU-34 OH 395		HA-35 KY 551	KWAB-4 TX T
2108 WITV-33 CH 420 2113 WSER-35 PA 405		MT-48 OH 400 1	1950 WFMJ-21 OH 420
WQIH-54 PA 405		KY-32 KY 437	WKEM-27 OH 420 KTIN-21 IA T
2120 KHIN-36 IA 457	WID	RB-41 KY 437	is 2003 WEDU-3 FL 1192 ~
21 0830 KTIN-21 IA 365		PC-15 KY 437	WESH-2 FL 1130
KSIN-27 IA 463 KVIN-24 IA 300		VQ-62 KY 473 TL-36 GA T	2017 WPBT-2 FL 1372
KMBG-14 IA 463	2125 WU	SI-16 IL 402	WCBD-2 SC 916 2039 WUFT-5 FL 1071
CBLFT-25 OH 410	LS 2133 WK	GB-53 KY 530	WDB0-6 FL 1164 -
0855 Buffalo U's 1234 WKYT-27 KY 473		ine of thun-	2054 WRBI-3 GA 853
22 0651 WJRT-24 PA 405		ms from north IN to S.E. IL	2057 WEAR-3 FL T
WKEN-27 OH 420		on WGN-9 wx	2100 WCIV-4 SC 916 WSAV-3 GA 933
Es 1705 WIES-2 FL 1372	radar	.what's the 28 T	
WEDU-3 FL 1192 WTVJ-4 FL 1372		e record for	WJET-24 PA 405
WUFT-5 FL 1071		ou may well , although	2044 WHAG-25 MD T
WPTV-5 FL 1305		distances	2115 CRLFT9-68 ON T
22	are pos	sible -bt)	

```
William J. Draeb (continued)
7017
28 Tr 2142 KDNL-30 MO 432
2147 WMOI-33 WV 498
Bs 1230 WRBL-3 GA 853
WFWL-3 FL 1192
                                          31 Es 1218 KBTX-3 TX 1079
                                                                                    31 Es 2024 KAMR-4 TX
                                                    1220 XEFB-3 NL
                                                                                              2037 KIMB-3 HB
                                                           KMOL-4 TX 1213
                                                                                              2200 KIII-3 TX 1295
                                               1230 KPRC-2 TX 1118

KJAC-4 TX 1080

1249 KMS-5 TX 1213
                                                                                              2231 KJAC-4 TI
                 WEDU-3 FL 1192
                                                                                    August
         WDIQ-2 AL
WTYY-4 AL
1248 WJXT-4 FL
1327 WEAR-3 FL
1600 WPBT-2 FL
                                                                                      1 68
                                                                                              "unIDs on ch 2-4"
                                  925
                                             1550 WCBD-2 SC
                                                                                              2000 CJEE-3 QB 951
2045 CHAU5-2 QB T
                                  934
                                                                            916
                                               1600 WRC-4 DC
WHSV-3 VA
                                     T
                                                                             650
                                                                                              2117 CFCM-4 QB
2124 WCAX-3 VT
CEHT-3 WS
                                                                                                                      803
                                  986
                                     T
                                                        Harrisonburg 620
                                             1610 WTAR-3 VA
1620 WTAR-4 PA
         1630 CHHT-3 NS 1170
                                                                             785
                                                                                                      CBFT-2 QB
                 CHSJ-4 NB
                                                                                                                      690
                                1085
         CJCB-4 NS 1350
1700 CJER-3 QB 951
1723 CBIT-5 NS T
                                                         Pittsburgh
                                                                             480
                                                                                              2200 CJCB-4 HS 1350
                                           1629 WUNC-4 NC 749
                                                                                              2225
                                                                                                     CBVT2-3 QB 756
                                                                                              1100 KATC-3 IA 1026
                                                           WIVR-6 VA
                                                                             710
                                                   1634 WRAL-5 NC
1641 WUND-2 NC
         1725
                 CJCB1-6 NS
                                                                             764
                                                                                              1230 WIVE-4 AL
                                                                                                                       934
                                                                                             1300 KTBS-3 LA
1600 WMAB-2 ES
WCBI-4 MS
WERZ-2 LA
1630 WURC-4 MC
         1800 CFCM-4 QB 803
2315 CHSJ-4 NB 1085
                                                                               T
                                                                                                                       901
                                                   1658 WWAY-3 NC
1700 WBTV-3 NC
1715 WCIV-4 SC
                                                                             882
                                                                                                                       784
                 CHRES-3 NS 1170
CJCB-4 NS 1350
                                                                             736
                                                                                                                       770
                                                                             916
                 CBIT-5 WS 1350
                                                           WTVZ-4 SC
WCSC-5 SC
         2330 WCAX-3 VT
                                     T
                                                                             916
                                                                                              1636 WCIV-4 SC
                                                                                                                       916
                 CJCH-5 NS 1170
                                                   1728 WSAV-3 GA 933
1730 WJXT-4 FL 1039
                                                                                              1640 WMAY-3 MC
                                                                                                                       882
                                                                                              1655 WEDU-3 FL 1192
         "Ks-Au combination;
         umID ch 4 morth"
                                                    1800 WWI-4 LA
                                                                                              1730 WUPP-5 PL 1071
                                                                           1028
    0056 KAID-4 ID T
1659 WCED-2 SC 916
WRDU-3 FL T
WREL-3 GA T
Tr 2000 WKYT-27 KY 473
                                                   WEAR-3 FL 986
WKRG-5 AL 967
WERZ-2 LA 1002
WCTV-6 FL 972
1803 KALB-5 LA 961
KATC-3 LA T
                                                                                              1801 WRAL-5 MC
WECD-6 MC
30
                                                                                              2015 KRST-3 NH 1103
KRTD-2 TX 1176
2050 KAND-4 TX 991
KTX3-5 TX
                 ₩₩JJ-33 WV 498
         2055 WOSU-34 OH 395
                                                           WDSU-6 LA 1028
                                                                                                      abbock
                                                 1808 WERC-6 AL
         0835 Youngstown U's
                                                                                              2125 KPRC-2 TX 1118
                                                                             The state of
     Es 1100 WTVY-4 AL 934
                                                   1830 WMAB-2 MS
                                                                             784
                                                                                                     KRIZ-3 TX 1079
                                              2000 KTBS-3 LA
         1103 WEDU-3 FL T
1159 KIII-3 TX 1295
1200 KGBT-4 TX 1400
                                           2001 KATC-3 La 1022
2010 KENW-3 RM 1103
4212 tower was h
                                                                             901
                                                                                              1900 WEDU-3 FL 1192
```

"In last month's report I said WARO-12's tower was blown down. Apparently, it wasn't that had. They returned to the air the following day. I also noted on 7-29 before CHSJ-4 signed off they put a slide on showing their repeater stations. One of them was on ch 4 in Campbellton, HB. Has anyone seen this ene?"

```
Donald B. Ruland 4448 68th Place Kemosha, Wisconsin 53142 (CDT)

June 21 Tr 0700 WUAB-43 OH 330 26 Tr 0600 WIT-27 NT 360

B ES 0628 WLBZ-2 ME 950 BS 1815 WEDU-3 FL 1070
10 Tr 0555 WLKE-32 KY 330 1830 WJXT-4 FL 920 July
WAAT-31 AL 550 1900 WESH-2 FL 1020 8 Tr 0600 WKM-27 OH 380
WEXT-27 KY 360 23 1900 KATC-3 LA 900 WARR-23 OH 340

0640 WEMG-42 AL 640 26 Tr 0550 WFGH-53 PA 430
13 MS 0527 WTAB-4 PA 430 0600 WUAB-43 UH 330 "Log remains at 439"

21 Tr 0700 WVIZ-25 OH 330
```

Dean R. Markoshan 10636 Avenue "B" Chicago, Illinois 60617 (CDT)
"In retrospect, July was one of the most productive months in my short DXing career. In order not to bore the readership with countless reloggings, I will only list my new findings henceforce. Some of the Rs was so potent that it actually engulfed locals WERM-2 and WMAQ-5, eventually consuming TLS-7 as well. Without the undivided attention of my fiancee, Mary, many of these memorable sightings would not have been possible. Good DX to all.

July 26 Tr 0730 KFLR-11 MO 31 Rs 1732 KGRT-4 TX

18 Tr 0200 KMOX-4 MO	20 II Old Krimeli mo	)1 BE 1/32 KGBT-4 TA
18 Tr 0200 KMUX-4 MO	0735 WEHT-25 IN	1745 KRGV-5 TX
24 0230 WNEM-5 MI	29 Es 1825 WWL-4 LA	1738 KMS-5 TX
25 Bs 1800 KOTA-3 SD	31 0155 KMOL-4 TX	1900 KRIS-6 TX
KDUH-4 NE	0204 KFDX-3 TX	KBTI3 TX
1900 CBOT-4 ON	0243 KACB-3 TX	Present log total: 129
1916 KDSJ-5 SD	1730 KIII-3 TX	

Jim Gould R.R.#3 Kokomo.	Indiana 46901 (317)452-9585	(CDT)
July	Indiana 46901 (317)452-9585 4 Rs 0121 unID-3 "ad for Austin & San Antonio stores; video was covered by a second stationstn w/San Antonio ad was zero or minus offset nothing correlates w/Station Guide weak signals might not rule out low power translators" 0205 unID-3 E.  Tr 0850 KDIN-11 IA 390 KMEG-14 IA 540 VIVIL 26 TA 470	8 Tr 0715 WWVU-24 WV 332
1 Es 1735 unID-2 WSW	Austin & San Antonio	0720 WSBA-43 PA T
1745 WBRZ-2 LA T	stores; video was	0722 WBFF-45 MD 508
1750 WDIQ-2 AL 648	covered by a second	0730 WVIA-44 PA 540
1825 WSAV-3 GA 655	stationstn w/San	1900 WICU-12 PA 338
1830 WEAR-3 FL 710	Antonio ad was zero	1930 WUTV-29 NY T
1844 KATC-3 LA 793	or minus offset	2000 unID-29 NBC
"wierd opening!"	nothing correlates	"E.S.B." (WVIR? -bt)
1900 KELD-2 TX 1087	W/Station Guide	2050 "CCI from
2000 KUBI-4 IX 1230	weak signals might	WHRE-28, WSHA-43,
SOLO MEDITINE IN 1000	not rule out low	WBFF-45, WKBS-48,
2032 TEFE_2 Tame 1187	0205 unTD-3 F	and unknown CCI on
2050 KACB-3 TY 1020	T- 0850 KDTN-11 TA 390	Q Ee 1730 FRETT-2 TY 1027
2200 KTTT-3 TX 1102	KWRG-14 TA 540	1810 YEFE-2 Toms T
2234 KWGN-2 CO T	KHTN-36 TA 470	1820 KRNW-3 NM T
2 Tr 0833 WAAY-31 AL 410	WHO-13 TA 390	1830 WESH-2 FT. T
Es 1250 KWGN-2 CO T	"under local"	2140 KWGN-2 CO 990
1650 WEDU-3 FL T	0901 KTTC-10 MN 396 1	0 Tr 0720 "very strong
1730 KMID-2 TX 1087	0912 KCCI-8 IA 390	signals from Brie
KENW-3 NM 1035	0918 KOLR-10 MO 440	PA thru MI. WI & III'
2Es 1802 WIPM-3 PR	Es 0925 CHAU1-2 QB	1030 KOLR-10 MO 445
Mayaguez 1900	Ste Marguerite-Marie 600	Es 2102 KENW-3 NM T
Es 1850 KWGN-2 CO 990	0958 CJER-3 QB 1020 1	2 1234 WPBT-2 FL 1090
1900 WPBT=2 FL 1090	1030 KOTA-3 SD 940	1330 KTWO-2 WY 1090
2000 WINT 4 FT 4000	1040 KWGN-2 CO T	1340 WTVJ-4 FL 1090
2000 MDWILE BY 1016	1100 KDIX-2 NC 970	WEDU-3 FL T
2026 WCTV-6 RT. 1090	1640 VOWE 2 ND 605	1704 WPBT=2 FI, T
2052 WESH-2 PT. T	1610 Kere-2 MD 605	1707 WOTE 6 18 B
2350 unID-2 MEXICO	Varmouth 1050	1753 (W/W2 SW 1120)
3 0048 KENW-3 NM 1035	Tr 1920 KOLR-10 MO 440	1800 CKBO-2 SK 1225
0150 unIDs 2 & 3 W.	2000 WHO-13 IA 390	1900 WDTO-2 AT. 648
Tr 0308 WARO-12 WI 385	"thru local"	WUFT-5 FL T
0315 KYTV-3 MO 440	0205 UNID-3 E.  Tr 0850 KDIN-11 IA 390	1901 WERZ-2 LA T
0316 WREC-3 IN I	Es 2010 XEPM-2 Chih T	unID-5 Spanish
ES 1000 WPBT-2 FL T	5 1659 CHAU1-2 QB 700	1930 KATC-3 LA 793
Tr 1030 WAAI-31 AL H	1722 CJBR-3 QB 1020	1941 unID-3 N.W. FF
1116 unTD-4 Spanish	2115 WARY 34 AT 440	1952 unlDs 3 & 4 N.W.
minus or plus off	WIFTO 36 AT 405	"IOOTDALL"
set appears to be	WYTTR-AR AT. 410	2000 KPRC-2 TA 920
more than 10 kc."	2140 WATL-36 GA 485	2031 KYT.R.A MT 1372
1629 KJAC-4 TX 865	2230 WHAE-46 GA 485	2040 KMOT-4 TX T
1743 KXJB-4 ND 685	2232 WTCG-17 GA 485	KENS-5 TX T
1753 WBRZ-2 LA 760	2303 WBMG-42 AL 490	2130 KID-3 ID 1330
1758 WWL-4 LA 770	2311 VZTV-17 TN 315	2140 KACB-3 TX T
1842 KWGN-2 CO T	6 Es 1800 NCBS-2 NY 640	2200 KYCU-5 WY 970
1900 WDTO-2 AT 649	2311 //ZTV-17 TN 315 6 Es 1800 //CBS-2 NY 640 KYW-3 PA 573 1830 WTAR-3 VA 590	2230 WUND-2 NC -
WESH=2 RT. T	Tr 2225 VAAV-31 AT. 440 4	COLUMBIA 632
2000 WPBT-2 FL 1090	KYW-3 PA 573 1830 WTAR-3 VA 590 Tr 2225 WAAY-31 AL 410 1 2230 WEMG-42 AL 490 0710 WEMG-42 AL 490 Es 1720 WLBZ-2 ME 925 1730 CJER-3 QB 1020	#thm Chianne
2002 WEDU-3 FL 925	7 0704 WAAY-31 AT, 410	0632 KTTC-10 MT 306
WTVJ-4 FL 1090	0710 WBMG-42 AL 490	WHO-13 TA 390
2004 WCIX-6 FL : T	Es 1720 WLBZ-2 ME 925	2040 WUTV-29 NY 404
2005 unID-5 Spanish	1730 CJBR-3 QB 1020	2102 WENY-36 NY 490
-1 -000 HOME 10 MO 440	CJCB-4 NS 1240 1	4 0445 CFTO-9 ON 410
Es 2100 "still in ch 6	MABI-5 ME 925	0500 CKS01-3 ON
deep; but being push-	CJCB1-6 NS 1320	Elliot Lake 432
ed out by increasing tropo signals semi-	1800 CHT-3 NS 1170	CKCO-13 ON 350
locally"	1900 CHSJ-4 NB 1150 WGBH-2 MA 785	CJOH-13 ON -
Tr 2120 WAAY-31 AL 410	2000 CBIT-5 NS	Ottawa 623
Es 2200 WDSU-6 LA 770	Sydney 1240	0506 WBRE-28 PA 540 0507 WNEP-16 PA 540
"on vertical anterna"	2020 WCVB-5 MA 785	0516 WSYB-18 NY
2252 KBTX-3 TX 900	2032 WCBS-2 NY 640	Elmira 490
2258 KATC-3 LA 793	8 Tr 0622 WICZ-40 NY 537	"covered by CICO18
4 Tr 0045 KYTV-3 MO 440	0623 WENY-36 NY 490	at 0518*
WREC-3 TN T KTVO-3 MO 330	0659 unID-41 ES.E.	0520 WICZ-40 NY 537
KTV0-3 MO 330	(W41AA Wheeling? -bt)	0536 WHEC-10 NY 477

24	OTP	Th TA.	144				Seprement 19/1
Ji	n Ge	ould	(continued)				samet 195-6 mas 1 time
Ju	T			25	Tr	0625 KHEG-14 IA 540	29 Bs 1246 unTB-3 south
14	Tr	0544	WUTR-20 NY			0636 KTTC-10 MM 396	"Spanish-not CUBA"
		0640	Utica 584	26	Tie.	0543 WHO-13 IA 390	1256 WRAR-3 FL T
	Re	1827	WENY-36 MY 490 KMID-2 TX 1087		58	1330 KTVQ-2 MT 1220 1700 KMID-2 TX 1087	1309 KIII-3 TX 1102
	110	1957	KOTA-3 SD 940			WGHH-2 MA T	1326 IRFS-3 No 1312 1430 KGBT-4 TX 1230
		1958	KDIX-2 ND 970			1730 KTWO-2 WY 1090	KRGV-5 TI 1230
			KTVQ-2 MT 1220			KOTA-3 SD 940	1605 "intense from
	020		KXLE-4 MT 1372			1801 <u>KDSJ-5</u> SD	ene, ese, sw & w."
40			WENY-36 NY 490			Lead 940	1700 "mostly gone
15			KYIN-24 IA 402 KDIX-2 ND 970			1803 KPRY-4 SD 770	with WBAR-3 &
17			WWUP-10 MI 422			1830 CJFE-5 SK "was probably CJFE, but	Maritime Canadian
•			WAAX-31 AL 410			long call slide	on ch 2" 1728 WKRG-5 AL 700
			WYUR-48 AL 410			locked like 'CJLB'"	WERZ-2 LA 760
	Es		KMID-2 TX 1087			1830 CHAT-6 AT	1730 "ATV channels
40	-		WERZ-2 LA T			Medicine Hat 1360	2, 3 & 4 Maritime
10	TT	0445	KDKA-2 PA 320 WOAY-4 WV 300			1854 KXGH-5 MT	Canadiams"
			WATE-6 IN 346			1858 CEOS-3 SK 1075	1740 CHAU-5 QB
			WBIR-10 TH 346			1930 CKCK-2 SK 1120	"out to supper at
		0910	WWVU-24 WV 332			1949 WCBS-2 NY 640	1745; back at 2027; Bs ch 6 deep inte
			WUTV-29 NY T			2000 WEBC-4 NY T	Texas with ch 2 to
			WERE-28 PA T			2330 KOLR-10 MO 445	WEs to E. gone"
	Be		KOLR-10 MO 445 unID-3 Spanish	27	Be	1007 unID-2 west	2030 KRGV-5 TX 1230
	100		WPHT-2 FL T			"test pattern"	30 Tr 1049 "Ames & Des
			"into Texas,			1030 KWGN-2 CO 990 1105 CKCK-2 SK 1120	Moines IA VHFs
			ch 5 deep*			1130 KOA-4 CO 990	under locals (400ml) 31 Es 1059 KGBT-4 TX 1230
	Tr		WUTV-29 HY 404			1200 KTVX-4 UT 1365	1100 KRGV-5 TX 1230
			CITY-79 OH 410			1300 KYCU-5 WY T	1200 KXAS-5 TX 800
19			KMMA-41 MD 458 KMMC-27 MD 445			1305 KAMR-4 TX 931	KCBN-6 TI T
			KTSB-27 KS 510			1400 KDFW-4 TX 800	1800 "channel 6
			WHO-13 IA 390			1800 WUND-2 NC 632 WWAY-3 NC 632	deep2 & 3 stat-
			KDIN-11 IA 390			1900 WPBT-2 FL 1090	ions toward Texas 2300 unID-2 west
20			"to CUBA ch 3"			2030 "Es very heavy	"BGADS, WHAT A WAD!"
24			WUTV-29 NY 404	9		from NC, FL, TX,	WITH ARE CHILDREN TO SEE
21	EB		IEFE-3 NL T			and possibly CO	WO phares 4
22	Tr		WHO-13 IA 390			heavy CCI thru ch 6" 2045 WEDU-3 FL 925	., , , , , , ,
			"thru local"			2047 WTVJ-4 FL T	140 000 000
			KTTC-10 MN 396			WCIX-6 FL T	WVIR-TV
			KHIN-36 IA T			2050 XEFB-3 NL T	
23		2345	KBMA-41 MO 458			2104 XHY-3 Yuc T	
4)			WTCN-11 MN 466 KMBC-9 MO 458			2140 unID-5 "color	
			WDAF-4 MO 458			bars or resolution chart SSW"	
			KAKE-10 KS 642			2226 unID-2 as above	
			KMTC-27 MO T		Tr	2250 KOLR-10 MO 445	WHBF TV4
			KTVH-12 KS 660	28	Es	0947 unID-2 west	
			KCMO-5 MO 458 KYTV-3 MO 445			1000 WPBT-2 FL T	WINEE
			KBMA-41 MO 458			1100 CKCW-2 NB 1125 umID-4 "ATV	The state of the s
			WTVK-26 TN 346			net same as CKCW-2"	
			KTVH-12 KS 660			(probably CJCB-4 -bt)	
		0610	KOTV-2 MO			1100 WWAY-3 NC T	CHATTANOGA CHATTANOGA
		0644	St Joseph 458			1200 WCBD-2 SC 645	
			WIHL-11 TN 360 WIEW-13 KS 510			1201 WCIV-4 SC	WQAD-TVB
		0010	"over local"			Charleston 645 1216 unID-2 S.E.	13
		2000	WHT.4-31 WT 339			"color bars"	
24		0555	WEFF-45 MD 508			1304 CFCM-4 QB 854	MINTA
		0556	WDCA-20 DC 492			1500 "Canadian ATV	
			WNEP-16 PA 540			network channels 2,	
		0602	WBOC-16 MD Salisbury 580			3, and 4"	
		0635	WETA-26 DC			1500 WLBZ-2 ME 925	
			Washington 492	29	Tr	1530 CJBR-3 QB 1020 1100 WUTV-29 NY 404	buffalo, n.y.
		0639	WHAG-25 MD 445			1242 unID-2 CUBA	1988
					24.0575	THE PERSON NAMED IN COLUMN TWO IS NOT THE OWNER.	AF

27 24				
David J. Egan 9-321 Jeanne May (all times EDT) 29 Rs 2346 unID=2	Mance	Valleyfield, Quebe	J6T 5	82 (514)373-4374
May (all times EDT)	7 Es	0057 WDAF-4 MO 1115	9 Es	1813 unID-7 "roll-
29 Es 2346 unID-2		0629 unID-2 o/CBFT		ing bars Ø offset
30 0006 tmID-3		0723 unID-6 NBC 4		for 30-40 seconds,
1620 WJXT-4 FL 1100		1230 CKPR-2 ON		
1628 WSAV-3 GA 975		Thunder Bay 775	10	1513 unID-3 CBC ADT
1704 WDAF-4 MO 1115		"strong CBC color &	11	0824 unID-5 "weak"
1718 KTVO-3 IA 965		audio over CBFT"	12	1138 WCCO-4 MN 920
June				1140 "all lowband
2 Es 1205 WEDU-3 FL 1270		1239 CHFD-4 ON 775 1243 CEWFT-3 MB 1120		chs obliterated"
1209 WTVJ-4 FL 1365		a for eight years		1147 KTCA-2 MN 920
1220 WCBD-2 SC 910		T comldn't get it &		1200 KDAL-3 MN 870
1221 WSAV-3 GA 975		this wear I have it		1201 KBJR-6 MN 870
1222 WCIV-4 SC 910		"for eight years I couldn't get it & this year I have it shoved down my		KCMO-5 MO 1115
1227 WJXT-4 FL 1100		throat every time I		1228 CKPR-2 ON 775
1240 WFMY-2 NC T		turn on channel 3"		1739 KDLO-3 SD 1130
1620 WSAV-3 GA 975		1245 CEWT2-4 MB 1050		1744 KPRY-4 SD
1620 WSAV-3 GA 975		1750 WWW 2 MM 030		Pierre 1385
1646 WJXT-4 FL 1100 3 1105 unID-3 "Spanish"		1806 FAFE 2 WD 1215		1756 KXON-5 SD 1215
3 1105 unID-3 "Spanish"				1804 KPLO-6 SD
1219 WSB-2 GA 955		101) CDWF1-) ND 1120		
				Reliance 1350 1806 KUSD-2 SD 1225
6 1810 Bs right thru		1813 CBWFT-3 MB 1120 1841 CKYB-4 MB 1240 1848 CKX-5 MB 1240 1852 CBWT-6 MB T		
ch 6; 2 or 3 thick	0	1000		1809 WCCO-4 ME 920
on chs 5 & 6, as	0	15)0 NDDW-5 III I		1824 KDAL-3 MN 870
many as 7 or 8 thick		WMT-2 IA T		1829 WJM - 3 MI 625
on lower channels"		KTVO-3 IA T WHBF-4 IL T KTIV-4 IA T		1838 KBJR-6 MN 870
1811 WJXT-4 FL 1100		WHBPoot ILI T		1839 KSTP-5 MN 920
WTVY-4 AL 1155		KTIV-4 IA T		1841 unID-7 "Ø CCI
1813 WCCO-4 MN 920		1455 CBWFT-3 1120		weak for under one
1822 unID-6 o/CBMT		1800 KUSD-2 SD T		minute w/no ID*
1829 KXON-5 SD 1215		1859 KTVO-3 IA 965 1900 KTVI-2 MO 945		1849 KGFE-2 ND 1225
1835 unID-7 "super				1850 CKPR-2 ON 775
rolling bars o/CHLT		1901 KTCA-2 MN 920		1855 KXJB-4 ND 1150
1835 unil-7 "super rolling bars o/CHLT for over one minute		1904 WCCO-4 MW 920		1904 CBWIFT-3 MB 1120
-no ID"		1905 "CBFT obliter-		1907 CHFD-4 ON 775
1852 KAAL-6 MN T		ated in all direc-	13	1058 unIDs to 5
1859 KDLO-3 SD 1130		tions for first	18	1200 unIDs to 6
1907 KOMO-5 MO 1115		time in several	19	1708 WSAV-3 GA 975
1920 KDAL-3 MW 870		years"		1719 WESE-2 FL 1185
1924 KTVO-3 IA 965		1912 WHBF-4 IL 865		1723 WCBD-2 SC 910
1927 KMOX-4 MO 945		1913 KTIV-4 IA 1105		1729 WJXT-4 FL 1100
1932 WOC-6 IA		1915 KGLO-3 IA 970		1736 WJRF-6 GA 910
Davenport 935		KMTV-3 NE 1125		1737 WPTV-5 FL 1335
"wiped out CBMT with		1928 WOI-5 IA "so		1758 WUFT-5 FL 1190
color confirmed"		strong that WPTZ	20	1758 WUFT-5 FL 1190 1748 WREC-3 TN 1095
1938 KMTV-3 NB 1125				1758 WPBT-2 FL 1380
1955 WOWIL-6 NE 1125		edw		1814 WWI-4 LA 1385
1956 WMAQ-5 IL T		1939 WOC-6 IA T		1830 WTVY-4 AL 1145
2000 KHAS-5 NE 1300		2025 KSMB-4 NE 1300		1832 WTVJ-4 FL 1380
2129 CKCK-2 SK 1430		2037 WMT-2 IA T		1841 WESE-2 FL 1185
2159 KDAL-3 MN 870		2038 WOWT-6 NE 1125		1846 WCSC-5 SC 910
2210 KBJR-6 MK T		2047 KHAS-5 NE 1300		1900 WLBT-3 MS 1255
2215 CHWT-6 MB T		2050 KINE-3 NE 1320		1058 WMAB-2 MS 1180
2218 WDAY-6 ND 1095		2100 WMT-2 IA 900		
2231 KDAI-3 MN 870		KUSD-2 SD 1225		1159 WNGE-2 TN 910 1200 WREC-3 TN 1095 WSM-4 TN 910
"dominating w/3 or		2108 KQTV-2 MO 1125		WSM_A THE Q10
4 others,"	9	1216 KHAS-5 NB 1300		1210 WCBT-4 MS 1110
2249 WCCO-4 MN 920	10-1	1218 KMTV-3 NE 1125		1212 "Es was up as
2256 KSTP-5 MN 920		1219 KINB-3 NB 1320		high as 90.3 on FM
2300 KTCA-2 MN 920		1231 KSNB-4 NE 1300		then faded out"
KAAL-6 MN 920		1420 CBWFT-3 MB 1120	23	2100 WPBT-2 FL 1370
"moderate o/CEMT"		1426 CKYB-4 MB 1240	26	1858 WSAV-3 GA 975
2304 KFTR-5 ND		KXJB-4 ND T	20	1900 WDIQ-2 AL 1180
Bismarck 1380		1430 CKX-5 MB 1240		1903 WEAR-3 FL 1250
2318 KGFE-2 ND		CBWT-6 MB T	30	1231, 1245 unIDs 3
Grand Forks 1215		1703 CBWFT-3 MB 1120	20	1810 t/in; MUF 105.7
		1706 CKCK-2 SK 1430		1856 WBTV-3 NC 785
2320 CBWFT-3 MB1120		1709 KGFE-2 ND 1215		
2345 CEWT-6 MB 1120		1726 CKOS-3 SK	7227	1900 KCMO-5 MO 1115
2346 CKYB-4 MB 1240		Torkton 1500	July	1829 WEDU-3 FL 1270
2357 KDLO=3 SD 1130		1734 CHKMT-4 SK		1830 WPTV-5 FL 1335
2358 KBJR-6 MN 870		Moose Jaw 1650		ION HETATO EN 1999
00		moose daw 1070		

David	J. Egan (continued)				liano) puna 15 Almai
July		7 Bs	1650 WUNG-4 NC 700	12 Bs	1132 WMC-5 EN 1095
	1834 WIVJ-4 FL 1370		1661 monTD 7 Womanon		AATT WARE A SEE ATOO
2	1950 MUF 107.5 FL		rolling bars for a minute ormore o/CHLT		1159 KCK9-2 KS 1365
2	1728 WTVJ-4 FL 1370 1730 WPTV-5 FL 1335	in .	1653 WITHIT 7 GO		- KQTV-2 MU 1225
	1731 WCIX-6 FL 1410		#-/g		ARCH MANAGE TO 1979
			"w/Sesame St. but f/out before ID Charleston dominat- ing 2.4 & 5 reinfor-		1809 WOWN_6 WR 1125
	1751 unID-5 Spanish		Charleston dominat-		1813 WWI-4 TA 1385
	2040 KYTV-3 MO 1135		ing 2,4 & 5 reinforo-		1828 KDLO-3 SD 1130
	2056 KTEW-2 OK 1345		ing my ch 7 belief"		1831 KAUS-5 3D 1215
	2130 KTYY-4 OK T		1715 unID-7 "- off-		1856 WKRG-5 AL 1265
THE STATE OF	2153 WEDU-3 FL 1270		set CCI for 40 sec"		1858 WRAR-3 FL 1250
	2158 WSAV-3 GA 935		1740 *ch 2 was 6 or		1900 TRCB-3 TH 925
	2202 WUFT-5 FL 1190 2206 WJXT-4 FL 1100		7 thickch 6 was		1902 WSAV-3 GA 965
3	1359 WEDU-3 FL 1270		2 or 3 thickFM		2000 NUF 107.9 2003 WJXT-4 FL 1100
-	1900 WEDU-3 FL 1270				
	1911 WMT-2 IA 900		periodic Rs on ch 7"		MUCO-E OF
	"super color o/CBFT"		1/00 WUXD-0 TM /40		2112 CBWFT-3 MB 1120
	1912 WHRF-4 IL 865		1802 WTAR-3 VA 605		2115 KOFS-2 ND 1215
	1919 KUSD-2 SD 1225		1807 WRAI-5 MC	and and	2126 ETTV-3 MO 1135
	KTIV-4 IA 1105		Raliegh 930	14	1120 unID-2 weak
			CONTRACTOR OF THE PARTY OF THE	16	1020 unIDs 2 & 5
	1944 KGFM-2 ND 1215 1945 KDLO-3 SD 1130		Washington 455	17	2308 unID-2 CTV
	2013 KHTV-3 WR 1125		ever viewed here	19	2325 unID-5 French 1829 WEDU-3 FL 1270
	KQTV-2 MO 1125	7	confirmed recently	Serie and	1834 WESE-2 FL 1185
	JUST WITH TO UN A		1 SIA S WILLIAM S WAY IN	24	1808 mm Thm 2 7 6 10
	2058 WOI-5 IA 1015		1850 "Es finally	23	1225 unID 2-4 weak
4	0053 unID-2		1850 "Es finally dropping back to	24	1830 unID-2 weak
	1210 KMTV-3 EE 1125		107 MHs PM MUP	25	1159 WEEL-3 GA 1135
	וטעו מת כיינשמת עוזו		1300 ITMITE STO	-	2129 WMI-4 IA 1385
	1224 WDAN-4 NO 1115		1912 WCCO-4 MM 920	26	1722 KFYB-5 HD 1380
	1237 CENTIZ-4 MB 1050 1425 MUF to 92.5		1913 KBJR-6 NE 870		1731 EXJB-4 ED 1150
	1429 WGCO-4 MM 920		1747 HOME -7 GW 305		1754 1007-2 10
	1448 KBJR-6 MN 870		1920 WORK- / WC 700		Dickinsen 1500
			1930 WCIV-4 SC 890		1811 WWAY-3 HC 790 1822 WCIV-4 SC 890
			WJXT-4 FL 1100		1858 WING-2 IN 790
			1945 WHITE three 1070		1859 KDLO-3 SD 1130
	1632 KARD-3 KS 1340		again"		1901 KARK-4 AR 1200
FFEE	1637 KQTV-2 MO 1225		2000 WTAR-3 VA 605		1910 KPSM-5 AR 1265
	1638 KCKT-2 KS 1365		2018 WJRF-6 GA 910		1914 WCEL-4 MS 1110
	1710 KSNE-4 NE 1300 1740 *MUF knocking		2030 WCSO-5 SC 890 2108 WBRC-6 AL 1050	207	1939 11095
			2131 WIVY-4 AL 1145	27	1157 WEEKS-3 PL 1270
			CIJI #412-7 AD 1147		1218 KIVI-2 NO 945 1529 WIVJ-4 FL 1370
	rolling bars for 40		educational Tes hands	E-DIE	1656 WCBD-2 SC 890
	seconds solid"		2141 WERG-5 AT. 1265		1700 WESH-2 FL 1185
6	1830 MUF to 90.5				1706 WHAY-3 HC 790
	1858 WEAR-3 FL 1250		2149 WDIQ=2 AL 1135 2149 WDIQ=2 AL 1180 2233 WWFE=2 TA 900		1752 WCSC-5 SC 890
					1807 WCIV-4 SC 890
7	1906 WKRG-5 AL 1265 1150 "lowband south		2240 WEBM-2 IA 705		1829 WJXT-4 FL 1100
'	Florida strong		2241 WGLO-3 IA 965 WTMJ-4 WI 700		1831 WUFT-5 FL 1190
	1545 *ioined in		2242 WOI-5 IA 1015		1843 WINO-6 FL 1225 1859 WRNL-3 GA 1135
	1545 "joined in w/MUF high in FM"		2244 WOC-6 IA 935		1900 WJBF-6 GA 910
	1545 WUFT-5 FL 1190		2300 "Es finally		1904 WTVI-4 AL 1145
	1549 "perhaps double		petered out on low-		1935 WEAR-3 FL 1250
	hop in SS at around		band-one of the		1936 WEDU-3 FL 1270
	89.9Puerto Rico		most extensive open-		1959 WTVJ-4 FL 1370
	mentioned several		ings encountered	28	1128 WEDU-3 FL 1270
	times" 1603 WRAR-3 FL 1250		best Es ever seen		1130 WJXT-4 FL 1100
		8	in 15 years" 1230 WCBD-2 SC 890		1505 "weak Es noted
	1647 "the loudest Es	11019	1502 WMT-2 IA 900		to ch 4 in GA-FI-SC
		10	2150 WTWO-2 IN 790	29	region" 1626 CJOX-3 NF 945
	past 107.9 on FM	000	2315 WCIA-3 IL 795	FAL 6	1635 CJON=3 NF 945
		12	1128 WSB-2 GA 955		1638 WCBD-2 SC 890
	skip drone from		1130 WRBC-3 IN 1095		1643 CJCN-4 NF 875
	time to time"				07

```
David J. Egan (continued)
                                                                                 29 Bs 1825 KDLO-3 SD 1130
1826 KHAS-5 HE 1300
1830 KMTV-3 NE 1125
                                                                                                                                                                  29 Rs 1906 unID-3 CBC ADT
1926 WRCB-3 TN 925
 29 Es 1647 WUNC-4 NC 700
1656 CENT3-5 NF
1700 KTTV-3 MO 1135
1702 CJOX-3 NF
1735 CJWN1-4 NF
Stephenville 750
                                                                                                                                                                                     1944 CJOXI-2 NF 820
                                                                                                                   CBWT2-4 MB
                                                                                                                                                                                     1953 CENATI-3 NF 890
                                                                                            1831 CBWT-6 MB T
1832 CBWFT-3 MB 1120
                                                                                                                                                                                     1955 CBNAT4-6 NF
                                                                                                                                                                                                St Anthony
                                                                                                                                                                                                                                   880
                                                                                       1834 KGFE-2 ND 1215
1837 WOWE-6 NE 1125
                 Stephenville
"undercutting CJCM, 1837 WUNT-D MA
+ offset matching 1846 KDAL-3 MN
KXON-5 SD

KXON-5 ND
                                                                                                                                                                                     "o/CEMT, ID as ch 8"
                                                                                                                                                                  30
                                                                                                                                                                                     1655 KETS-2 AR 1198
1702 WBRZ-2 LA T
+ offset matching
CBOT...800 watts"

EXCN-5 SD 1215

1708 KTVI-2 MO 945

1754 KQTV-2 MO 1125

1855 WDAY-6 ND 1075

1804 WCCO-4 MN 920

1858 KTCA-2 MN 920

31 1100 WPTV-5 FL 1335

1823 CBWCT-5 ON T

1900 KSTP-5 MN 920

1115 WTVJ-4 FL 1370

"I've changed location and the Bs this year is simply unbelievable...on several occasions MUF has reached channel 7, although no positive IDs. With the log-ging of the low-powered relays in Newfoundland 7-29, 1977 seems to be heading into the record books as one of the most productive Es years I can remember.

Tive hed no less than 4 new loggings over 1500 miles in distance this year, and
                                                                                                                                                 870
```

Into the record books as one of the most productive as years I can remember. I've had no less than 4 new loggings over 1500 miles in distance this year, and with the 800 watt Newfie relay, I suppose this is my rarest catch ever (surpasses my double hop to Puerto Rico in 1974)...I think that this year's activity may approach the legendary 1950's when everyone was in on cross-continental Rs. I was too small to know about it, but any Diers who went thru the time, your comments and comparisons would undoubtedly be interesting...At the end of July log total is 249, 122 of which are via Es. I've seen 111 Es stations in two months counting relogs...I'm averaging 95% confirmations for my reception reports this year...I photographed many ID slides, which will hopefully appear in PHOTO-NEWS in upcoming issues. Until next time, 73"

Bob Seybold Bennett Road Dunkirk, New York (EDT)
"Here is some sort of a DX report for past 30 days;" E-skip evident on a great
many days in the period June 12 - July 15, especially in late June-early July."

many days in the period June 12 - July 15, especially in late June-early July."

June

12 Tr "Hills DK-fair opening: WTAP-15 WMJU-16 WMEP-16 WJAN-17 CICO18-18

WSYE-18 WHIZ-18 WXXM-20 WDCA-20 WUTR-20 WMEP-21 WDMO-24 WEXI-25 WTPA-27

WERE-28 WDAU-22 WTAF-29 WENY-36 CICO32-32 WWEP-31 WOPC-38 WITF-33 WSRA-43

WICZ-40 WBJA-34 WKED-50 WPCH-53 WTVS-56 CICO59-59 WMPR-62 W63AB-65 PA

WFBO-42 WOUC-44 WNBO-45 WKBS-48 W41AA-41 WV, & others"

14 Es "Heavy skip about 1200—channels 2-6 extreme skip—FM loaded—Kansas
noted first, then Texas, Louisiana, Oklahona, New Mexico, MEXICO. Some
of best logged: INW-2 Mexico City DF, XHTV-4 Mexico City DF, XHEC-3

Mexicali BC, KENW-3 Portales NM, KOB-4 Albuquerque MM (all double-hop Es)
and 2 high band skippers, WFAA-8 Dallas TX & KTBC-7 Austin TX. Too many
others seen to list—nearly every low band stn in Texas and others."

Tr "Trops very good also that day—Binghamton, Klmira, Scranton, etc."

"From the hills—good in a.m.: WTAP-15 CRUFT5-15 WANE-15 WHOD-16 WDCA-20
WUTR-20 WEYI-25 WUEQ-41 WVIA-44 CENLFT5-15 WANE-15 WHOD-16 WDCA-20
translators on 72,73,76,80,81,82; all Canadian U's very good."

Es "a.m.: WERZ-2 KATC-3 WWL-4 WDSU-6"

"Excellent—CFAG-2 Calgary AT, CRUT-5 Edmonton AT CKRD-6 Red Deer AT,

"Excellent—CFAC-2 Calgary AT, CHIT-5 Edmonton AT CKRD-6 Red Deer AT, CKK-5 CHWFT-3 CHWT-6 CHISH-4 Churchill MB CKBI-5 CHSS-6 CKOS-3 (some nice single and double hops to the central and western provinces, Bob -bt) CBHT-3 CKCK-2 CHAU-5 Carleton CB"

KATC-3 WERZ-2 KALB-5 WDSU-6 "and others-good skip"

"Very heavy skip in a.m. into early p.m., then evening again. Texas, Louisiana, Oklahoma, Kansas-some seen: KFDM-6 KALB-5 KTVI-4 KCKT-2

KARD-3 WDSU-6 & many others." "Heavy skip mid-morning to mid-afternoon-Denver chs 2-4-6, also Kansas, Wyoming, etc. Early evening skip: CKCW-2 CHRT-3 CJER-3 and others to

northeast-good opening." 23 to 30 Es "Some skip throughout period. Some short skip to Minnesota-KDAL-3 and some double hop to Idaho, Montana and Utah ... did not keep detailed loggings."

July
1 to 5 Rs "Heavy skip in this period especially on chs 3,4,5 including Rs into Mexico again and double hop. High band skip again on channels 7 and 8."

13 Tr "Super trops noted in hills. U's in from Michigan to Iowa. Some seen: WTVO-17 WCFC-38 WSNS-44 WCIU-26 KHIN-36 Red Oak IA, WFLD-32 KRIN-32 KVFD-50 Ft Dodge IA (through WKBD-50), WCAR-50 KTIN-21 Ft Dodge IA W75AK-75 Jacksonville II, KINI-30 WICD-20 WICS-20 WMBD-31 WFNR-38 WOUB-20 WCER-23 WSJV-28 WNDU-16 WSBT-22 WNIT-34 WBGU-57 WLIO-35 WGVC-35 WKAR-23 & others."

Bob Seybold (continued)

July 14 Tr "Trops opened up great and became super opening by evening. It had been "Trops opened up great and became super opening by evening. It had been quite good all day, then continued all night and was still strong next a.m. Some very good stuff seen and several new—huge run of translators. VHF trops: WMAR-2 KYW-3 WOAY-4 WGAL-8 WFVI-6 WCAU-10 WDIY-5 WTVR-6 WKMI-8 WCHS-8 WSWP-9(rare) WBOY-12 WOWK-13 WGTQ-8 Detour, MI; WEKB-11 WWTV-9 WWUP-10 WZZM-13 CHLAT-13 WJRI-12 CFCF-12 CJOH-13 & others. UHF: WCMU-14 WLYH-15, all Scranton-Wilkes Barre U's excellent, Fhilly 17,29 & 48 good also; CHLFT5-15 CHLFT8-34 Pemetanguisheme ON, CHLFT4-44 CHLFT2-40 CHLFT3-48 CHLFT7-55 Harrie ON, CHLFT1-76 CHEFT-78 plus all TVO translators 18,24,28,32,59, WHFF-45 WHFB-67 WKPT-19 WHNT-19 Huntsville AL, WOUB-20 WDCA-20 WHTR-20 WHR-27 WHNR-30 WSGAA-30 WAAY-31 Huntsville AL WHAG-25 WBTA-26 WXAH-27 WKYT-27 WHNB-30 W3ØAA-30 WAAY-31 Huntsville AL, WNYC-31 WLKY-32 WAUL-33 WBTK-33 WITF-33 WOSU-34 WLIO-35 WKHA-35 WCYC-35 WKMR-38 WOPC-38 WSEK-38 WLVT-39 WUNJ-39 Wilmington NC, WDRB-41 W41AA-41 WNEO-45 WKLB-46 WSVN-47 WKON-52 WPGH-53 WKYH-57 WDGU-57 WPBO-42 WSBA-43 WOUC-44, also WMEG-26 Biddeford ME. Translators: W50AA-50 Watertown NY W68AE-68 Ogdensburg NY (both WUTR xltrs), W55AC-55 Cohocton NY (WSKG xltr), W6AB-68 Ogdensburg NY (Both WUTR xltrs), W5AC-55 Cohocton NY (WSKG rltr), W76AE-76 Rustburg VA (WCVE), W76AP-70 Lovingston VA (WCVE), W86AN-80 Amherst VA (WERA), W76AN-76 Cobbs Creek VA (WCVW), W74AU-74 Cobs Creek VA W66AD-60 Savona NY (WSKG), W76BC-70 Harrisburg PA (WPHL), W76BA-70 Williamsport PA (WHP), W66AB-66 Mehoopany PA (WVIA), W75AC-75 PA, W72AT-72 Towanada PA (WVIA), W76AI-77 Wyalusing PA (WVIA), W75AC-75 Clarks Summit PA (WVIA), W79AC-79 Clarks Summit PA (WVIA), PROSAC-76 Clarks Summit PA (WVIA), plus other translators on 63, 64, 65, 66, 70, 71, 72, 73, 74, 76, 80, 81, 82, 83."

"a.m.—trops continuing—mostly eastern U's & V's—WCDC-19 WDGA-20 WEOC-16 WVAH-27, Waryland U's, eastern PA eastern NY WARF-17 WUWD-20

15 WBOC-16 WIAE-27, Maryland U's, eastern PA, eastern NY, WMHT-17 WUTR-20 WEIA-26 WHAG-25 & others...quite a few translators."

16 to 23 Tr "Trops through entire period-mostly average with some peaks.

Indiana, Michigan, Pennsylvania, NY U's, Canadians good. 16 to 23 Es "Some occasional skip on channels 2-4."

24 Tr "a.m. trops—WANE-15 WNDU-16 WKAR-23 WUHQ-41(very good) & others."
"Totals now 754. Not included in this report is recent skip this past week.
Some good stuff including CUEA, also up into northeast—Newfoundland, Maine
(WCSH-6 short skip) and others. Details next report." (WCSH-6 short skip) and others. Details next report.

-	AT 8-METW OF IS			ADDX ODES			an 8-mm aget
	Thompson 1907 Seneca	Stree	t Bu	ffalo. New York			
June	38 C - 3860 FUCT 85	14 Es	1338	WEAR-3 FL	21	Be	1400 KARD-5 KS
9 Bs	0000 KOTA-3 SD 0015 KDLO-3 SD		1400	KFSM-5 AR			1404 KTVC-6 KS
	0015 KDLO-3 SD			KXAS-5 TX			1430 KIMB-3 NE
	0159 KPRY-4 SD		1535	KYTV-3 MO			1503 KTVS-3 CO
	Pierre			KFDX-3 TX			1530 KDLO-3 SD
	0159 KPRY-4 SD Fierre 0217 KDUH-4 ME Hay Springs		VE D	KJAC-4 TX			1830 KATC-3 IA
	Hay Springs			thru WEEN			WERZ-2 LA
2E8	USZU KUTY-Z UT		1600	KAUZ-6 TX			thru WGR
	Salt Lake City		1659	KATC-5 LA			1913 WLBT-3 MS
Es	0346 unID-4 with		1727	KRMA-6 CO			1915 KALB-5 LA
	KGIN-11 ID slide		1729	KTVS-3 CO	22		1059 KWNB-6 NE
2Es	0358 <u>KORK-3</u> NV			KINE-3 NE			KYCU-5 WY
	0358 KORK-3 NV Las Vegas		1800	KYCU-5 WY			1129 KRMA-6 CO
Es	1229 KDLO-3 SD		1830	KSNB-4 NE			KINE-3 NE
	1229 KDLO-3 SD 1253 KPLO-6 SD 1300 KOTA-3 SD			thru WEEN			1229 KTVS-3 CO
	1300 KOTA-3 SD		1851	KOCO-5 OK	23		2000 KTBS-3 LA
	KFYR-5 ND		1900	KTVY-4 OK			
	1319 WDAY-6 ND			thru WBEN			1300 WCIX-6 FL
	Fargo		1930	KOTV-6 OK			WINDO-6 FL
		15	0028	KOTA-3 SD			
	thru WBEN			KOA-4 CO	26		1859 WPBT-2 FL
	1329 CBWFT-3 MB		0221	KTVS-3 CO			1931 WEAR-3 FL
	1330 CBWT-6 MB		0223	KWGN-2 CO			2130 unIDs to 6
	Winnipeg			KDUH-4 NE	27		1159 WEDU-3 FL
	1357 CHWCT-5 ON	16	2024	unTDs 2 S	28	The	0030 conditions are
	Ft Frances	19	2059	KATC-3 LA KFDX-3 TX KFDX-3 TX		4	good to north
10	1830 CJAP-3 NF		2301	KFDX-3 TX			0131 CFCF-12 QB
	1900 CEHT-3 NS	20	1406	KFDX-3 TX		Rs	1859 WEDU-3 FL
11	1700 KATC-3 LA		1820	WRAD_3 PT	29		2350 unIDs 2 & 3 S.
	2000 TREC-3 IN		2107	KBTX-3 TX	30		1800 unIDs to 6
12	1800 unIDs 2-5 W.		YT F	MUF 100 MHz;	,		1909 KXON-5 SD
				skip soon gone			1928 KTAR-3 NR
	The state of the s						, , , _ , _ , _ , _ , _ , _ , _ , _

7122					September 197
June	Thompson (continued)	0 70	2045 mmTD 7 W	07 19-	ACED TOTAL OF THE PROPERTY OF
30 Es	2030 KTVI-2 MO	12	2045 unID-3 W. 1600 KATC-3 LA	2) 58	1859 KDIO_3 SD
Ta. 7	2100 WKRG-5 AL		WDIQ-2 AL thru WGR 1845 had to leave 2100 MUF around	Boos	2100 WRBI-3 GA
July	1012 WOWN_6 PT.		thru WGR		WSB-2 GA
1 250	1947 WPTV-5 FT.	COUNTY A	2100 MIR excura		thru WGR
	2000 WPET-2 FL		100 MHz upon return		2357 FDTA_3 SD
	thru WGR		2130 KXAS-5 TX	26	0028 KMTV-3 NR
	2046 WRAR-3 FL		2230 WDSU-6 LA		1859 KOTA-3 SD
	2100 KFDX-3 TX		WABG-6 MS		WDAY-6 ND
	2200 WRTH-3 PT.	14 4	2100 MUF around 100 MHz upon return 2130 KXAS-5 TX 2230 WDSU-6 LA WABG-6 MS 2300 KARD-3 KS 1330 Toledo V's in like locals 1407 WCMI-6 MI Alpena 1410 CKSO-5 ON thru CHLT 1430 WGTQ-8 MI T		1918 KYTV-3 MO
	2234 WERZ-2 LA	14 77	in like locals		1920 KULO-5 SU
2	2000 WEDU-3 FL		1407 WCMI-6 MI		Grand Forks
	2130 WEAR-3 FL		Alpena		thru WGR
7	0270 unTD 2		1410 CKSO-5 ON		1931 CKOS-3 SK
J. A.	briefly after local		1430 MOTO O MT		1947 CBWFT-3 MB
	off: to south		WWWV_Q MT		2000 KIME-3 NE
	1130 WEDU-3 FL		1759 WEYI-25 MI		then WGR
	1329 WPDT-2 FL		1900 all VHF chs		2130 WLBT-3 MS
	1745 MUF to 6, but	· united	loaded w/CCI N.W.;		2228 CKCK-2 SK
	2303 KTES-3 TA		thru CRUT 1430 WGTQ-8 MI T WWTY-9 MI 1759 WEYI-25 MI 1900 all VHF chs loaded w/CCI N.W.; Sudbury V's in over Toronto 5 & 9; UHF wide open to west 1930 KMLO-3 SD 2030 WKFI-22 KY	007	thru WGR
	2314 KTAL-6 LA		wide onen to west	21	1009 WUFI-5 FL
4	1730 KXON-5 SD	Rs	1930 KDLO-3 SD		WEITI-3 FT.
	1800 KINE-3 NR	Tr	2030 WKPI-22 KY Pikeville		1229 KINB-3 NB
6	1100 WEDU-3 FL		Pikeville		KTVO-3 IA
	1829 WIRD-6 PT.		2040 N. OH U's super		1314 KARD-3 KS
	1831 WBAR-3 FL		WDDO-42 OF		1329 KFIX-3 TX
	1929 WBRZ-2 LA		WMJL-33 WV		1850 WEIST_Z PT.
3	thru WGR		Pikeville 2040 N. OH U's super 2045 WTAP-15 WV WFBC-42 OH WMAUL-33 WV thru WYTV		1900 WCTV-6 FT.
7	1430 WDSU-6 LA	hasaidh	WEMR-38 WV		2030 WEDU-3 FL
	1506 WITHT-5 PT.	*4.2060	2058 WOSU-34 OH		2100 WEAR-3 FL
	1700 KINB-3 NE		2138 WOUD-20 UH		2130 WDSU-6 LA
	WOWT-6 NE		WOIIC-AA WV	28	1501 (MERGE Z NO
	1711 KHAS-5 NB		2140 WENS-10 OF	20	1924 KTRS-3 TA
	1715 KWND-6 NE		2158 WKHA-35 KY		1929 WEDU-3 FL
	throw WCD		over WSKE	29 Au	0034 hash 2-13;
	1730 KTVS-3 CO		ZZUU WSVN-4/		fairly heavy 2-6,
	1745 mnID-3 N.B.		Grandview	Re	1658 CJON_6 MP
	w/ATV slideHB??		w/super sigs	200	1700 CBIT-5 NS
	1800 CHURA 7 NO		2230 WTVN-6 OH		1759 KATC-3 LA
	1805 WART-5 ME		WHIZ-18 OH		1858 KOTA-3 SD
	Bangor	15	0000 WINK-18 KY	30 40	1950 GJAP-3 RF
	1807 CHAU-5 QB	.,	WWNY-7 NY	Bs	1600 unTDs on 2
	Carleton		######################################	31	1735 KYTV-3 MO
	1825 CICH_5 NS		0133 WEYT-27 KY		1759 KOTV-6 OK
	CJCH6=6 NS		OZOA WGA7-3 WY		1830 KTVY-4 OK
	1829 CKCW-2 NB		Huntington		1900 KFDX-3 TX
	swamping WGR-2				1929 KARD-3 KS
	1830 CJCB1-6 NS Inverness	19 Au	0300 hash 2-6		1932 KOCO-5 OK
	1859 CHSJ1-6 NB	20 IT	0147 CFCF-12 QB		2000 KFSM-5 AR
	Bon Accord	CC DO	1825 WPTY-5 FL 1826 WCIX-6 FL	Ass one ord	2127 KINE-3 NE
	1900 CJER-3 QE		1830 WPBT-2 FL	August	1930 unID-2 N.B.
	1929 CJPM-6 QB		thru WGR	1 112	1959 KTTV-3 MO
	Chicoutimi 2030 WLBZ-2 ME		1853 umID-6 Spanish		2100 CBNAT4-6 NF
	thru WGR		1858 WEDU-3 FL		St Anthony
	CHSJ-4 NB		1900 KTTV-3 MO 1918 KTVY-4 OK		2159 CJAP-3 NF
	St John		thru WBEN		plus many unIDs N.E. til 2300
	thru WHEN		2200 KFDX-3 TX	2	1530 unIDs 2-6 N.R.
	2154 KATC-3 LA		1625 unIDs to ch 6	1	1859 KINB-3 NE
An					The same of the sa

Bill Thompson (continued)					
August	3 Es 1900		5 Es	1930	CENATI-3 NF
2 Es 1859 KARD-3 KS		Memphis			Baie Verte
3 1658 KATC-3 LA	1912	KTAL-6 LA		1940	CJON-6 NF
1728 KARD-3 KS	1925	KTVC-6 KS			CJAP-3 NF
1736 WDSU-6 LA	1929	KIVV-5 SD	7	0344	CBWT2-4 MB
1758 KOTV-6 OK	1959	KINE-3 NE	Olimpian to the		Lac du Bonnet
1805 KALB-5 LA		KCKT-2 KS	EDITOR COLUMN		CBWCT-5 ON
1859 KFSM-5 AR		thru WGR	2Bs	0408	CFRN-3 AT
Contract There's children is			District to	SERVICE STATE	Edmonton

What a season! Except for a few good days, I had considered June to be pretty dull. But July was something else altogether; more short skip than I can ever remember, and many interesting openings to the Maritime provinces—continuing right into August. I never expected to catch double-hop again this season after an all-night opening June 9, but it happened again on August 7th. It seems like the only way for me to catch 2Es is to stay up into the wee hours—but Bob Seybold IDed a lot of it in the midday period this year. The tropo on August 14th & 15th was fantastic; just like the best Fall inversions.

lune	D. Traska 64 Weaver							TD 770
	1430 KFDX-3 TX	( 15	3 1750	CJCH-5 NS	15	TT		unID-72
4 100				WCAX-3 VT				ying WPHL-17
	1500 KXAS-5 TX			Burlington				W72AT-72 PA
	1610 KJAC-4 TX		1900	CHSJ1-6 NB				W65AG-65 PA
	Port Arthur			Hon Accord	1000			taintop(WDAU-2
	I LOO VIADED CO		1910	CARK-2 OR	20		0130	CHEB-4 ON
	1/30 KLBE-3 NE			LIMOUSKI			0131	CBFST-7 ON
	KRMA-6 CO	10 T	2345	Ft Wayne U's			0150	CKSO-5 ON
	1900 KOTV-6 OK	12 E	1530	unIDs on 3 S.W.				CKNY-10 ON
	0230 KDUH-4 ME	14 T	0020	WUHQ-41 MI			0205	WNEM-5 MI
	KOTA-3 SD			WNDU-16 IN			0240	CJOH-13 ON
	0259 KWCN-2 CO			unID-18 W.				WPTZ-5 NY
	0310 KOA-4 CO			WILX-10 MI			0217	Plattsburgh
	2100 KATC-3 LA		49 116	WJIM-6 MI	23	Re	1730	KIME-3 NE
	2325 KFDX-3 TX	I also		WNEM-5 MI	26	До		
	1406 KFDX-3 TX		1410	WCMI-6 MI	26			KOTA-3 SD
	1800 WEAR-3 FL		1410				1930	KGFE-2 ND
	2130 KOTV-6 OK		4540	Alpena				Grand Forks
			1540	WGTQ-8 MI				CKCK-2 SK
	1100 KATC-3 LA			Detour				CBWFT-3 MB
	1330 KTVC-6 KS			WPBO-42 OH			1940	CKOS-3 SK
	1400 KARD-3 KS			WHMB-40 IN				Yorkton
	1500 KINE-3 NE		2002	WOUC-44 OH	27		1130	WEDU-3 FL
	1504 KTVS-3 CO		2003	WTAP-15 WV			1245	KARD-3 KS
	1900 WLBT-3 MS			WOSU-34 OH	28		1300	KINE-3 NE
	1040 KRMA-6 CO			WEAO-49 OH			1400	WEDU-3 FL
	2000 KTBS-3 LA		2035	WSVN-47 VA	29			CJON-6 NF
MU	1137 WEDU-3 FL			WKPI-22 KY	Sha .			CJAP-3 NF
4.7	1100 WEDU-3 FL			WOUB-20 OH	31		1800	KOTV-6 OK
	1930 WEAR-3 FL			WMUL-33 WV			,000	KYTV-3 MO
	2330 WEDU-3 FL	0.95 10	2235	WSWP-9 WV			1845	KTVY-4 OK
	0027 CELFTS-34 ON			Grandview				KOCO-5 OK
	Penetanguishen	15	0030	WLEX-18 KY			1900	
Pe	1926 KMTV-3 NB	- 1)	0000					KCMO-5 MO
ly	1920 AMIV-) NB		0045	WIKY-32 KY		gust		STORES OF SEC.
	1930 WEDU-3 FL			unID-56	1	ES		KYTV-3 MO
L <sub>B</sub>				r of WVIA-44"	3			WEDU-3 FL
	1200 WEDU-3 FL			unID-66				KARD-3 KS
	1330 WCTV-6 GA			r of WDAU-22"				KTVS-3 CO
	1800 KATC-3 LA			unID-71 CBS				KCMO-5 MO
	2130 KALB-5 LA		0058	W73AC-73 PA			1930	KIVV-5 SD
	1130 KTVS-3 CO			W64AE-64 PA				Lead
	KYCU-5 WY			W63AB-63 PA			2000	KINE-3 NE
	1200 KOTA-3 SD		0100	WFMZ-69 PA	7	The		CBLFT7-55 ON
	1400 KFDX-3 TX			W66AB-66 PA		-	0140	Barrie
	1300 WEDU-3 FL			W7ØBA-70 PA		Re	0350	CBWFT-3 MB
	1400 KATC-3 LA			W72AM-72 PA		410	0,00	CBWCT-5 ON
	1100 KATC-3 LA			Duboistown				
	1300 WRBL-3 GA			CUTPA_OT TIAN				Ft Frances
	1700 KINE-3 NE		0115	(WTPA-27 xltr)			. 11	CBWT2-4 MB
			0115	WBFF-45 I/D				Lac du Bonne
	1710 CHAU-5 QB		0470	NLYH-15 PA			0410	CFRN-3 AT
	Carleton			unID-48				Edmonton
			rera:	ying WJET-24 PA				4

1900 WSS-2 FL

"thru a local"

1900 MJIT-4 FL Jacksonville

Daytona Beach

Rs 1045 unIDs on 3

to

1800 WEDU-3 FL

1900 KYTV-3 MO

Tampa

Robert Goodman 2030 Hering Avenue Bronx, New York 10461
"This is my first report...I'm reporting from two locations—here, where I'm from, and Cicero, Illinois, where I am most of the time lately. At neither of these locations is my equipment anything special; in the Bronx, it's downright atrocious. There I have a limping 1965 RCA portable, with a choice of built-in rabbit ears (with a loose connection) or a fixed dipole aerial, plus a UHF loop. rabbit ears (with a loose connection) or a fixed dipole aerial, plus a UHF loop. I'm not particularly high up at either location. In Cicero I have the cheapest model Ward Airline portable, with monopole whip and UHF loop...most of my tropo comes over Lake Michigam. In Jume this year the Chicago area had a week-long ozone advisory from a temperature inversion; this produced lots of tropo, but no new logs for me. Logged via tropo since May '76: Milwaukee, Grand Rapids, Battle Creek, South Bend, Indianapolis. I think I've also gotten Rockford and a downstate Illingis station, but have no log. In the Bronx over several years—including lately: WEIH-24 & WHMB-30 CT; WMLF-22 MA; WJAR-10 & WPRI-12 RI; WFRL-17 PA; WEAL-11 MD. Plus probably some others, no log. The 7/16 tropo accompanied severe air pollution over Connecticat, and produced my first Massachusetts log. HYC blackout might have provided DK opportunity, but no battery set!" (At Cicero IL: ) (At Bronz NY: ) 2 Tr 2330 WATR-20 CT June (CDT) June (EDT) 24 Es 1200 WSAV-3 GA Materbury 6 Es 1700 mnID-3 CANADA 0100 WPRI-12 RI 150 1030 unID-3 Savannah 0200 WJAR-10 RI 150 1930 mmID-3 14 WHAR-3 PL 0430 WCAU-10 PA 2000 KATC-3 LA Philadelphia 100 Pensacola Lafayette 27 1200 mmID-3 "ID by Mike Hogan" July New Bedford

Tr 2300 WHNB-30 CT 80 Springfield 2030 WEDU-3 FT "A trope bending condition, probably associated with an area temperature inversion, opened up starting late Tuesday night, 8/2. The opening improved over the early morning hours, with distances increasing and frequencies decreasing. Tropo ended late Wednesday morning, 8/3, with rain following locally. Mean-mails sporadic B skip came in for the rest of the day. Not many IDs from this very crowded, fadey Es, but lots of grist for Frank Aden's CCI mill."

Tr 2330 WHEB-30 CT

2345 WEDE-24 CT

WWI.P-22 MA 110

80

90

Huntington, Indiana 46750 (EST) 26 Tr 0800 WJAN-17 OH 210 3 Tr Bob Zent 1835 Fruit Street June 3 Tr 0730 CHLFT3-48 ON 200 CBLFT2-40 ON 260 July 1 Tr 0630 WRHT-25 IN 230 WKPC-15 KY 2125 WKGB-53 KY 275 WEST-25 IN 230 CICO-18 ON 260 CECO-42 ON 200 WFIR-14 IN 230 14 Rs 1530 WERZ-2 LA 800 KATC-3 LA 840 1630 KTWO-2 WY 1110 "quite strong thru local WANE-15" CKGN-29 ON 200 CBLFT1-76 ON 300 2 0700 CICO-18 ON 260 CICO-28 ON 300 1634 KOTA-3 SD 975 1640 KDIX-2 ND 1000 1900 KTBS-3 LA CKGN-22 OF CKGN-22 ON 0745 WPGH-53 PA 290 WJET-24 PA 290 CKGH-29 ON 200 CKCO-42 ON 200 Shreveport 750 CBLFT2-40 ON 260 WSEE-35 PA 290 26 Tr 0015 WAND-17 IL 200
WRAU-19 IL 220
WREK-25 IL 220
WICS-20 IL 240 CBLFT5-48 ON 200 Youngstown U's CICO-59 ON 200 0725 WKYH-57 KY 290 0750 WKZT-23 KY 240 Lexington U's Lexington U's 0810 CBLFT-25 ON 360 0030 WCBE-23 IL 215 WTVO-17 IL 215 WKOW-27 WI 255 0740 WRAU-19 IL 220 WEEK-25 IL 220 WNED-17 NY 370 WUTV-29 NY 370 WMBD-31 IL 220 WNBO-45 OH 220 WBAO-49 OH 205 Rs 1900 WPBT-2 FL 1105 2000 WTVJ-4 FL 1105 0050 KIMI-30 MO 305 0750 WPGH-53 PA 290 0755 WFMJ-21 OH 250 "unIDs on 3&5" WAKE-23 OF 205 2030 KPRC-2 TX 970 WKHN-27 OH 250 WVIZ-25 OH 200 WBRZ-2 IA 800 -WYTV-33 OH 250 WVIZ-25 OH 200 Youngstown U's WAKR-23 OH 205 0730 CICO-59 ON 200

Note to RASTERN TV-DX Reporters: When you send in a list of your loggings to any DX column editor, it's best to try to separate your comments from the loggings themselves. This makes it much easier for your editor to scan the report before he types it up. Any pertinent and interesting comment can be printed at the beginning or end of a report, thus reducing what some readers consider to be "clutter" in the VUD.

### MAJOR MARKET VACANT TV CHANNELS

Mike Dorner, Jr. 1409 Hymelia Av. Metairie LA 70003

In view of the fact that the FCC has been considering decreasing the number of UHF TV channels, the following study should be of interest. \*: channel reserved for educational television by the FCC. #: application pending. Channels with construction permits are omitted from this listing, which covers the first 63 markets and is correct to May, 1977. —md.

listi	ng, which covers the first 63 markets and is correct to May, 1977.	Arms - responsible	ma.
RANK	MARKET	VACANT CHAI	NNELS
1	NY New York-Riverhead		55
2	CA Los Angeles-Orange County		. *68
3	IL-IN Chicago-Elgin-Gary	56	66
4	PA Philadelphia	*35	@57
5	CA San Francisco-San Jose-Vallejo-Concord-San Mateo	942 48	66
	MA Boston		
7 8	DC-VA-MD Washington-Fredericksburg-Hagerstown		69
9	OH Cleveland		.,
10	TX Dallas-Fort Worth	@21 @27	
11	PA Pittsburgh		
12	TX Houston-Rosenberg *		49
13	MN Minneapolis-St. Paul		
14	FL Miami		39
15	GA Atlanta		69
17	FL Tampa-St. Petersburg		38
18	WA Seattle-Tacoma		*56
19	IN Indianapolis-Bloomington		*69
20	MD Baltimore-Annapolis		<b>@54</b>
21	WI Milwaukee		
22	CT Hartford-New Haven CO Denver-Boulder @**12		
23 24	CA Sacramento-Stockton		
25	OR Portland		30
26	MO Kansas City		*68
27	OH-KY Cincinnati-Portsmouth-Covington		64
28	NY Buffalo		49
29	CA San Diego		
30	RI Providence		
31 32	TN Nashville		*42 *39
33	NC Charlotte		
34	OH Columbus		*57
35	TN Memphis		@24
36	SC-NC Spartanburg-Greenville-Asheville		62
37	OK Oklahoma City		@43
38	LA New Orleans		38
39 40	FL Orlando-Daytona Beach		
41	MI Grand Rapids-Kalamazoo		*52
42	NY Albany-Schenectady-Troy		45
43	TX San Antonio		29
44	WV Charleston-Huntington-Ashland		61
45	PA Harrisburg-York-Lancaster-Lebanon		
46	OH Dayton		*45
47 48	VA Norfolk-Portsmouth-Newport News-Hampton		*55
49	PA Wilkes Barre-Scranton		64
50	AL Birmingham		68
51	NY Syracuse-Elmira		62
52	MI Flint-Saginaw-Bay City #2		66
53	UT Salt Lake City	14 20	*26
54	NC Greensboro-Winston Salem-High Point*3 KS Wichita-Hutchinson*15	32 @45 48 24 33 36	61 *42
56	OK Tulsa		41
57	OH Toledo		60
58	TX-LA Texarkana-Shreveport	17 33	34
59	AR Little Rock		29
60	VA Richmond		63
61	TN Knoxville	*15	43 69
62 63		4 *43 63 11 *31 33	44
0)	IN THE TEMPORAL PROPERTY SHAPE STATE	, ,,, ,)	-14

# QSL CORNER

Thomas J. Vingling, jr. 221 Pinewood Road Baltimore, MD 21222 Phone 1-301-282-5649 Deadline: 10th

- AK KFAR 2 Fairbanks, P.O. Box 910, 99707. Send qsl-card with tv filled for a most unusual report. I don't report for qsl's, but in this case I could not resist. (either could I John, ed.) Signed by Don Garrett, CE. Anderson
- FL WPBT 2 Miami, P.O. Box 610001, 33161. Letter from Stephen L. Rogers, VP of Eng X Planning in 18 days. Samford
- MTVJ 4 Miami, 316 N. Miami Ave, 33128. Friendly letter % coverage-map from Kenneth S. Littrell, Manager of Tech Oper. in 10 days. Samford
  - WJXT 4 Jacksonville, P.O.Box 5270, 32207. Letter R technical data from King Harrison, Eng. Manager in 1 week. "...always glad to receive reception reports. Goodman
- WESH 2 Dayton Beach, Box 1551, 32015. Card in 1 week from Mac Gagle, CE. Goodman
- L WCIU 26 Chicago, (no address given) reception verified with note written on original letter, signed by R. L. Ashefelter in 17 days. Walker
- letter, signed by R. L. Ashefelter in 17 days. Walker
  MO KOTV 2 St. Joseph, P.O. Box 247, 64506. QSL-Card in 15 days unsigned. Walker
- MS WAPT 16 Jackson, P.O.Box 10297, 39209. Very friendly hand-written letter from Fred McRae ? (no title given) in 5 days. Samford
- OK KOCO 5 Oklahoma City, P.O. Box 32325, 73432. Letter from Mike Palmen, VP of Broadcast Operations. Cottan
- PA WTAF 29 Philadelphia, 4th x Market Sts., 19106. QSL-Card for 29, signed by Robert N. Owens, CE. Cottan
- 5C UCBD 2 Charleston, P.O. Box 879, 29402. Form letter from Walter M. Nelson, Dir of Eng. in 9 days with reception date left blank. Samford
- TX KSAT 12 San Antonio, Box 2478, 78298. Letter in 1 week X kept SASE send on second try. Signed by David Carr, CE. Glasgow
- IT KUTV 2 Salt Lake City, 179 Social Hall Ave, 84111. Letter send from Reid Carpenter, DE in 6 days for my double-hop-E-skip. (nice, ed.) Traska

#### PSB-QSL

- PA KGC-400 35.22 Scranton, Radio Paging of Northeastern PA, 301 Cedar Ave. 18505. Send back prepared card, 500 watts, voice-id unreadable signer. Santosuosso
  - KGC-397 35.22 Wilkes-Barre, Radio Paging of Northeastern PA, 134 S. Main St. 18701.

    Same as above, qsl with prepared card % verie signer was the Vice
    President-Manager, but unreadable. Santasvosso
- OH KOK-593 35.58 Cleveland, Digital Paging Systems of Cleveland, Inc., 1367 E. 6th=5t.,
  44114. Prepared card, no signer for code id report. Santosuosso

#### FM-OSL

- ON CKNX 101.7 Wingham, 215 Carling Terrace, NOG 200. Letter in reply to report % my air check. "...! was thrilled to learn of the quality % strength of our signal in your city of Brantford." Signed by Gary Moon, Program Co-ordinator.

  Reply in 2 weeks. Ellis
- AL MIRB 96.9 Enterprise, P.O. Box 1436, 36330. Letter % sticker from Larry Searcy, CE

  "It was quite an honor to know that you received out signal about 890 miles
  away...Yours is the first from Canada." Sawatzky
- AR KKYK 103.7 Little Rock, 1001 Spring St., 72202. Letter R card from Jeffery Gulick, CE
  W85WRX in 3 months. He urged me to become a ham, which ironically I had
  done just before I got the letter. Sawatzky
- MN KLOH 98.7 Pipestone, Box 512, 56164. Letter signed by Wallace Christensen in 10 days for reply. Glad to hear there station is getting out here. West

Reporters are: John F. Anderson of Lowe Farm, Man, Canada; my most northern reporter, Rick Samford of Surnet, TX, Robert Goodman of Bronx, NY, Robert C. Walker of Westport, KY, Edward R. Cottan of Chesapeake, VA, Rick Glasgow of Ackerman, MS, Paul Traska of Buffalo, NY, Albert H. Ellis of Brantford, ONT, x Peter Sawatzky of Waterloo, ONT x Steve West of Havertown, PA. My thanks to all my reporters. I'm so happy that the column is now going strong again, I got so many new reporters! I got another new PSB-QSL reporter of John Santosuosso of Lakeland, FL. John Anderson of Lowe Farm reports the first QSL from Alaska that anybody has ever reported to this column that I know of. New, just because I got alot of reports, please don't stop. Keep it up and support your club QSL-Corner, and show off that prize qsl that we all like. 73's

## [UNIDENTIFIED DX]

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

SEPTEMBER 1927 SOURCE FOR PR TELE GULA FOUND!

Ken Simon reports that Franco Communications, Inc., 41-11 150 St., Flushing, NY 11353 can supply copies of the Puerto Rico "TELE GUIA". I have not yet had time to buy some copies from the above but will report on results when in.

A source is still needed for the Mexican "Tele Guia".

The San Francisco office of TV GUIDE reports the Eureka and Redding stations are in the Northern California Edition. 2130, MAGRET LIG.7 \* 2 ml n Ammen. C

Frank Wheeler, 6589 Wattsburg Rd., Erie PA 16509 (1977 unIDs)
Sat Jul 2 Es ch 2 1900 EDT- - "WMTS Austin City, Channel 2" FL stations in at the time. (There are many Austins in the US but no Austin Citys listed. Could this be a new station? ---FEA.)

Paul Traska, 64 Weaver Ave., Buffalo NY 14206 (1977 umlDs)

Fri Jul 15 Tr ch 56 0045 EST- -W56?? xltr of WVIA-44. Must be a new one but what is location?

ch 66 0056 EST- -W66?? xltr of WDAU-22. Information like above. ch 71 4958 EST- - W71?? xltr of CBS programing, probably WDAU-22.

Location NE/PA.

ch 48 0130 EST- -Xltr of WJET-24, do they have a new xltr?

ch 72 0210 EST- -Xltr of WPHL-17, location Harrisburg area. Seen after W72AM Duboistown s/off.

Wed Jul 20 Tr ch 4 0220 EST- -Talk show or news, too weak to tell. Location east, tent. WBZ. (WEX has "Tomorrow" at 0000 and "news" at 0100. ---FEA.)

Thomas J. Yingling, Jr., 221 Pinewood Rd., Baltimore MD 21222 (1977 unIDs)
Mon Jun 6 Es ch 6 1721 EDT- - "Diana Shore" PTA: ND, SD, MAN. (WOWT checks. -

A.) ch 5 1752 EDT- - "Flintstones" PTA: As above. (TV GUIDES no help. ---FEA.)

ch 3 1922 EDT- - "Gomer Pyle" PTA: As above. (TV GUIDES again no help. ---FEA.)

ch 6 1933 EDT- -"Get Smart" PTA: As above. (Same as above. ---FEA.)
ch 3 1939 EDT- -"Name that Tune" PTA: Same as above. (KGLO checks.

---FEA.) ch 4 1941 EDT- -"Hee Haw" PTA: As Above. (KXJB checks. ---FEA.)

Tue Jun 12 Es ch 4 ???? EDT- -PBS station with program produced by Maine PTVN. (This might be WUNC as MPTVN is a member of the Eastern Ed. TV Network as with WUNC. --- FEA.)

Sun Jun 24 Es ch 3 1914 EDT- - "Hee Haw", Guba in on 3 & 6, WLBT? KATC? (All TV GUIDES for deep south are negative. --- FEA.) s the ID to shreds very often, Most nesm to have voor

Unidentified FM DX

Frank Wheeler, address above (1977 unIDs) Fri Jul 15 Es 107.9 1000 EDT- - "CINB, Burlington, 107.9" New station?

Thomas Yingling, address above (1977 unIDs) Sun Jun 24 Es 94.3 1850 EDT- -ID for KMIX with ad for "Jarnells".

96.7 1854 EDT- -Call letters KIMP heard with C & W music and contest The soul book makings and ID the Mystery Country Loving Person. Gave CDT time done of a 40% and fag check, of manadantain oldensia and a

aised of sensingouse nois

John Ebeling, 9209 Vincent Ave. S., Eloomington MN 55431 (1977 unIDs)
Sat Jun 9 Es 92.4 1620 CST- - "music, written by Dr. Herb Wald... music up in the Frisco area... Dr. Hedley Tripps hair cutting, 2620 West Butler Dr... Telephone info service negative for San Francisco and Ios Angeles. Stations in for CO, AZ, WY and MT. (There is a Frisco in CO, maybe KGRE. --- FEA)



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

SEPTEMBER 1977

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

12-18: 1530, N1924V 133.5 vic DC(Genesco, Inc.; Falcon 10, 2-e, 7-s) ov Annapolis(Mitchell & Collins, Inc.; 119.7 4-16: 2028, N7696J Piper Cherokee Arrow PA-180R, 1-e, 4-s) 2 min Annap. (Blue Jay Flying Club; Cessna C-177; 1-engine, 4-seat) ov Ches. Bay Br. (Lloyd D. Kauffman, Jr.; Piper Cherokee 140; 1-engine, 2-seat) 2130, N34843 119.7 2229. N8426R 119.7 2306, N581FH 119.7 vic Balt. (Michael R. Nash; Fairchild FH 1100 helicopter; 1-engine, 4-seat) 162.475 Philadelphia, PA (NOAA Weather Radio; 1 kw, 8-bay dipole about 550 feet ASL) 118.1 10 mi s Annap. (Robert A. Ross; Piper Cher-5-7: 0130, KIH 28 1922, N4554T 118.1 okee 180G, 1-engine, 4-seat)

### Martin J. Theil, 12 Princeton Drive East, Holiday, FL 33589 with a new Bearcat 210 Scanner, rod antenna

35.66 New York (mobile phone) 37.575 Tampa (power)
35.26 Detroit (") 153.620 FL (power)
35.26 Philadelphia (") 156.21 Cape May, NJ (police)
35.26 Cleveland (") 38.75 Iowa (wx)

KKC 374 37.26 OK Co, OK KSB 234 39.46 IL (police)
KER 720 33.78 Millburn, NJ KSA 358 39.46 Yorkville, IL (police)

My loggings, Allied A-2586 w 30' wire at 12' (nw-se run); VOR's on Heath GR-98 with 6-el RM antenna at 20 feet; all Es unless noted; new; CMT

7-23: 1853, KFL 936 35.58 (west) (tone pager)

26: 0645, KKI 445 35.58 Houston, TX (tone pager) (tropo)

29: 0225, KOA 796 35.58 Portland, OR (tone pager) (2Es)

2255, "ELW" 108.6 Electric City, SC (VOR, tone/voice)

2315, "FEG" 109.8 Simmons, NC (VOR, tone/voice)

2323, "SOT" 108.8 Snowbird, TN (VOR, tone/voice)

2347, "CIT" 110.6 Charlotte, NC (VOR, tone)

8-5: 1548, KOE 257 35.22 Phoenix, AZ (tone pager)

6: 1932 - 30.30 (F2)

Though I've managed to log several VOR's this season on Es, it was far from the simple task I'd expected it to be (e.g., easy-to-read Morse tone ID's every 10-15 seconds). Fading on these is usually rapid and that chops the ID to shreds very often. Most seem to have very poor modulation percentages to begin with.

August QST has some of the details of the 50-MHz California-Japan Es opening of June 4. Later issues should fill in more on events that took place later in June and into July. Even into late July the Guam to Japan and to Alaska paths were often open on 6-m.

Solar fluxes are running above last year at this time, so the prospects for something of a fall F2 season in 30-50 MHz appear good, though it may take some magnetic disturbances to really get the MUF's up much. We'll know a lot more about that in about 2 months or so. There may be some slim chances to Es-TE links in Sep-Oct for the southern US.

73, Pat WASIYX

### Memorabilia

September 1977



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

#### THE OLD "CONCERT NETWORK"

This month, MEMORABILIA remembers the FM "Concert Network" of the 1950s. This network of four FM stations served New York City and vicinity (including parts of New Jersey and the very eastern end of Pennsylvania), and parts of New England. The stations comprising this network were WECK-104.1 Boston MA, WXCM-101.5 North Foster RI, WHCW-105.9 Meriden CT, and WECN-104.3 New York City NY. The original station was probably WTMH (FM) in Providence RI. The Concert Network was run by T. M. Hastings.

Thanks to Richard J. Steinberger of Hudson MA for supplying the above information and the coverage MASS WHC THE CONCERT NETWORK PRIMARY SIGNALS PENE AREA CONTAINING 3,600,000 FM HOMES WHOSE PEND MORE THAN \$18 BILLION EACH YE! Keep the memories coming, fellas. 73s, gud DX, Bob

#### ALL ABOUT TRANSMISSION LINES

Unquestionably, the transmission line (T-line) is the most misunderstood and misused component in the average DXer's receiving set-up. When upgrading an existing receiving system—or installing an entirely new system—most attention is given to high-gain antennas, tall masts, boosters, etc. The poor neglected T-line is usually taken for granted.

But one fact cannot be ignored: As much as 50% of the useable signal at the antenna may be lost due to an incorrect choice and/or installation of the T-line. Improvement of any receiving system should begin here.

What T-line is best for me? Why is installation so critical? What about velocity factor and impedance? Hopefully, these questions and others will be answered in this article.

#### WHAT IT DOES

A T-line in a receiving system transfers power from the antenna to the receiver. Simple, but then not so simple. The ideal T-line would transfer this power to the receiver (1) without loss and (2) without introducing other signals not received by the antenna. Point 2 can almost be achieved, but point 1 can never be achieved. Selection and installation of a T-line, however, should be based on how close you can come to the above two points; that is, how much of the original signal is left at the receiver and how "pure" it is. Sometimes, a compromise is necessary. But first, let's look at how a T-line is constructed.

#### HOW IT'S BUILT

Conventional T-lines for VHF/UHF reception consist of two parallel conductors separated by an insulating material. Power is transmitted from one antenna terminal down one conductor to the receiver and back through the second conductor to the other antenna terminal. (In this case, the antenna acts as a power generator, and the receiver is the load.)

The two conductors are not always of the same material. Coaxial T-line (coax) might consist of two different conducting materials. A center wire of copper or steel forms one conductor; this is surrounded by the first insulating material (or materials). Many types of material, all with high RF resistance, may be used. The second conductor, actually a shielded or braided material usually made of copper, surrounds the first insulating layers. The outer insulator completes the coax—which actually consists of "layers" of concentric insulators and conductors. Coax for TV-FM installations, which can be purchased from most large electronic warehouses, usually has an impedance of 72 ohms. However, coax is often designed for any impedance needed for a particular application.

In the construction of flat 300 ohm T-line, only two materials are used: the identical parallel conductors made of steel, copper, or a combination of steel and copper; and the insulating jackets, usually made of polyethylene.

In addition to coax and flat line, there is one more basic type of T-line construction: open T-line. This type is constructed just as the name implies. Two stiff parallel conductors are supported every six inches by small insulating spacers to keep the conductors spaced properly. During manufacture, each conductor is forced partially into a slot in the spacer, and this slot is forced closed so the conductor cannot pull out. No insulation surrounds the conductors. These conductors are copperweld wire: usually #18 steel wire with a copper coating. The steel provides tremendous tensile strength, and the copper is an excellent low-corrosion conductor.

While this type of line has extremely low loss (to be discussed later), it is difficult to install since the conductors can easily short to the mast. Or, the conductors may not remain very parallel, especially at midpoint between spacers. Open wire has been available in impedances up to 1000 ohms, but 300 and 450 ohms seem most common now.

Several improvements in the three basic types of T-line and hybrids are common. The flat line type of construction, for example, has graduated into oval, hollow tubular, and tubular-filled types. Advantages of these types are the lower signal loss per foot, especially when wet. This is achieved, basically, by providing a longer path for moisture, either due to the larger circular route moisture must take to get to the conductors or due to a thicker insulating web. (While the dry loss per foot of round types of T-line may be no better than that of a good grade flat line, the loss when wet of round types may only approach 50%, but wet loss of flat line approaches 90 to 95%.) Some types of tubular T-line have a foam center for improved performance when wet.

TECHNI-CORNER SEPTEMBER 1977

The most popular hybrid is the shielded 300-ohm line recommended for color TV. While construction varies, this type resembles the basic flat type, but several layers of insulator as well as an aluminum shield surround it, with conventional polyethylene insulator holding this "sandwich" in place. The shield, although increasing the loss per foot slightly when compared with other tubular T-line, improves reception by reducing the effects of metal gutters or masts. Also, man-made noise (ignition, etc.) is reduced, and the T-line does not serve as an antenna itself (a problem that could destroy a color picture).

#### T-LINE CHARACTERISTICS

Of the many characteristics associated with T-lines, only some characteristics are important to Dkers. Data may be obtained in catalogs or from local TV shops, but usually not enough is provided for a thorough evaluation; a letter to the manufacturer is needed for complete data. Let's look at these important characteristics.

#### LOSS

The loss (attenuation) characteristic reveals the power lost between antenna and receiver in the T-line per distance at a given frequency under ideal conditions. Power loss is usually given in decibels (dB) for a 100-foot line at specified frequencies. Typically, loss for 300-ohm open line is given as 0.5 dB for 100 feet at 200 MHz. (Catalog statistics can be vague, however. The same 300-ohm line is given a 1.9 dB loss over the "entire" UHF band in one catalog. This is, of course, impossible; line loss always increases with frequency. The stated 1.9 dB loss probably is for the low end of the UHF band.)

For those not familiar with power losses expressed in dB, the following table is given:

dB LOSS	% OF POWER LEFT	dB LOSS	% OF POWER LEFT	dB LOSS	% OF POWER LEFT
0.5	89%	2.0	63%	5.0	32% 20%
1.0	80%	3.0	50%	7.0	
1.5	70%	4.0	40%	10.0	10%

Losses are given under ideal, dry conditions. Since moisture increases losses, a more meaningful figure is the line loss when wet as well as dry. Manufacturers should supply this figure. "Low loss" lines usually mean low loss when wet. For example, good round T-line might have as much loss as cheap flat line when dry at a low frequency. But the loss for flat line might increase by 20 times when wet, especially at the high frequencies.

Since you, the customer, don't know if the wet loss is for a "damp" line or for a line totally immersed in water, even these characteristics can be misleading. But, the dry and wet loss is the most important characteristic when selecting a T-line. Later on, in discussing the selection of a T-line for DX, I'll list typical loss figures for popular lines.

#### IMPEDANCE

Maximum power is transferred from antenna to receiver if impedances are matched. Usually, a 300 ohm line matches a 300 ohm antenna and receiver. But pre-1950 TV sets and some recent color TV sets have 72 ohm input terminals also. A 72 ohm antenna can be connected directly to this input with 72 ohm coax. Some antennae have a built in matching transformer (balun) for converting the 300-ohm antenna to a 72 ohm T-line. The balun is discarded if 300 ohm line is used. However, the customer usually must purchase a balun whenever matching a 72 ohm line to a 300 ohm device. Some loss always occurs due to baluns. For DXers, the 300 ohm antenna, receiver, and T-line are best under normal conditions.

#### INSULATORS AND CONDUCTORS

Except for coax and open T-line, stranded steel (or copper and steel) wire form the conductors. More wires in a given strand increase strength (wire size being the same). Low cost T-line may use only four strands; these could weaken and break in a wind. Web thickness indicates strength and possible resistance to moisture; not only is T-line with a thicker web stronger, but its wet loss per foot will be less due to the greater distance from the conductor to the outer surface. Polyethylene is the most common insulator. Cheap flat line—which may have a clear, cheaper type of insulator—can be used, but indoors only. However, it may soon become brittle or crack.

#### NOISE

Open wire picks up man-made noise (power mower, shaver, neon lights) more than others, for obvious reasons. Coax or shielded 300 ohm line pick up the least. Noise effects will be discussed later on in this feature.

#### COST

Like many items, you usually get what you pay for. Spare no cost in selecting a T-line. This is only a small part of the total antenna/receiver cost, so don't cut corners here. (I've known a few people who spent \$50 and up for stacking a second antenna, but never realized the 50% power gain increase because they installed cheap flat line in place of a better grade original T-line!)

The very best T-line is still inexpensive compared to the investment in DX antennas, receivers, preamps, etc. Since the proper T-line is crucial to your DX receiving system, be sure you don't overlook its quality.

49

TECHNI-CORNER SEPTEMBER 1977

With few exceptions, only the lowest loss T-lines should be used for DX. Hather than note the best and add the "ifs" and "buts," I'll comment on each individually. The type, typical loss, noise pickup, and installation are noted for each. The dry and wet losses are approximate and expressed in dB per 100 feet.

FLAT LINE: If only one idea is remembered from this article, make it this: Never use flat T-line outdoors for DXing. The loss of flat line, quite high at high frequencies, jumps tremendously at all frequencies when wet. For example, only 1% of power is left at ch 19 with wet flat line! dB Loss: 100 MHz: dry 1.2, wet 7.3. 500 MHz: dry 3.2, wet 20. 1000 MHz: dry 5.0, wet 30. Noise Pickup: Moderate, usually no problem except close to neon signs or machinery. Like all T-lines, except 300 ohm shielded and coax, flat line will serve as an antenna (especially if run horizontal and broadside to transmitter). This will cause some phase shift and degradation of color TV or multiplex FM signals.

Installation: Very easy. However, line deteriorates after a few years and must be replaced.

<u>OPEN LINE</u>: Lowest loss of all. This is the ideal T-line to use if loss only is considered, if carefully installed, and when man-made noise is no problem. Especially good at UHF or where long runs are required.

Noise Pickup: Slightly more than flat. Might be a problem for color, but not black and white.

(Power mowers, shavers, etc. have been operated within 10 feet of my open wire with no effect on picture with 1963 Zenith b&w TV set.)

Installation: Difficult. Mast standoffs are hard to come by. I used a good grade round T-line from antenna to roof, then open wire supported by "nail-type" roof standoffs for open wire. In contaminated areas, open line might have to be replaced in two or three years.

ROUND LINE: In this general class are tubular, tubular filled, oval, etc. If open line cannot be used, this is usually the next best choice; it is the most popular type used for DX. dB Loss: 100 MHz: dry 1.1, wet 2.5, 500 MHz: dry 3.0, wet 6.8. 1000 MHz: dry 6.0, wet 12.0. Noise Pickup: Slightly less than flat.

<u>Installation</u>: Fair. Hard to fir through some standoffs and hard to attach to some antennas. Has longer life than previous two types.

300 CHM SHIELDED LINE: This is the best for color. It's a compromise between fairly low loss (more than round line but much less than coax) and immunity to man-made noise. The shield also reduces signal pickup due to the line itself, which could subtract from the principal aignal. It's probably a good choice if a color set is used for family viewing as well as DXing. dB Loss: About 20% greater than round; approximate typical loss figures not at hand.

Noise Pickup: Very little, its greatest advantage.

Installation: Fair. Easy to run, but difficult to strip, feed through standoffs, and attach to some antenna terminals. Should last longer than previous types.

72 OHM COAX: Loss is the greatest by far with coax, although moisture has almost no effect. At UHF, dry loss is too high for serious DXing. The main advantage of shielding can be duplicated with 300 ohm shielded line, without sacrificing gain and buying baluns. However, this type is OK at VHF if (a) length is 50 feet or less, (b) noise is extreme, and/or (c) line must be routed through or over metal.

dB Loss: For the RC-59U type, dry loss is 3.7 dB at 100 MHz, 9.6 dB at 500 MHz, and 14.5 dB at 1000 MHz. For RG-11U (not offered in many catalogs), dry loss is about half that of RG-59U. In foreign countries, lower loss coax is available and is used almost exclusively.

Noise Pickup: With 300 ohm shielded, lowest of all.
Installation: Very easy. Should last two or three times as long as previous types.

From the above, it is obvious that each DXer must evaluate his own setup. If lowest noise is mandatory, select open line, install it very carefully, but be prepared to replace it in a few years. At the other end of the line, coax lasts the longest, costs the most, is the easiest to install, but has the highest loss. Never use coax for UHF. Shielded type compromises, with emphasis on reduction of noise and ease of installation. Round type compromises also, but lower loss is emphasized.

#### INSTALLATION OF T-LINE

Merely choosing the ideal T-line for your particular case will not guarantee best performance. The line must be installed correctly.

Shielded T-line allows a "sloppy" installation. The line can lie on or near metal, or it can be routed broadside to a power generating device with no effect. The only rule is to make line length as short as possible due to the higher loss per foot.

Installation of other types of line is more critical. This last section will outline basic rules that govern <u>conventional</u> installations: 300 ohm line to 300 ohm devices. No attempt is made to describe the use of various connectors or baluns or how to correctly ground the T-line.

Three basic rules for conventional 300 ohm lines must be followed: (a) keep it short, (b) avoid horizontal runs, and (c) keep it away from both insulating and non-insulating surfaces. Note that most of the rules on the next page are simply extensions of these three basic T-line rules for <u>conventional</u> systems. To maximize the performance of the T-line you choose, be certain to observe these guidelines.

50

TECHNI-CORNER SEPTEMBER 1977

1) Plan the best route <u>before</u> purchase, using the rules noted below. T-lines usually come in discrete lengths (50, 100, 250 feet), so planning beforehand to determine approximate length can save money. Usually, choose the most direct route, considering antenna height, best entry into house, location (present or future) of receiver, etc. However, avoid long horizontal runs that place the line broadside to strong local transmitters or within five feet of AC power lines, even if doing so increases line length.

- 2) Attach line tightly to antenna or preamp terminals. Preferably, crimp or solder a closed eyehook connector to each conductor; this will simplify installation and strengthen these connections. Or, twist strands together, tin with a soldering iron, and form a loop to simplify the attachment.
- 5) When attaching T-lines other than the flat type to no-strip terminals with serrated washers that are supposed to pierce the insulation, exercise special care. Since it is almost impossible to pierce the insulation enough to make good contact with the conductor, either (1) cut off enough conductor from the end of the line to form a thin section resembling flat line, and insert and tighten under the no-strip washers, or (2) discard the serrated washers and attach as in rule 2 above.
- 4) If a strain relief is not supplied on the antenna boom, mount a mast standoff near the terminals. Always use the longest mast or roof standoffs available; those with an insulating eyelet are best. (The other type—with metal loop that surrounds the line—can attenuate signals.)
  Most standoffs accept all types of T-line.
- 5) If tubular hollow line (no longer popular) is used, insert a plug into the end to prevent any moisture from entering.
- 6) Use mast standoffs only as often as necessary to prevent contact with guy wires, mast, boom, etc. Do not force T-line so hard into the eyelet that the conductor spacing, and impedance, is altered. Conversely, if T-line fits loosely through the eyelet, wrap a few turns of waterproof tape around the T-line on both sides of the standoff to prevent slippage.
- 7) Twist T-line about one turn for every five foot length to reduce electromagnetic pickup. But be careful that open wire doesn't "flip" over and short out!
- 8) On multi-antenna masts (not recommended for DXing, but usually a necessity due to economics), use waterproof tape to hold T-line from upper antenna several inches away from the elements on the lower antenna. Arrange mast standoffs 180° away from each other to reduce coupling.
- 9) Allow enough loop or slack for rotation. Usually, the rotor control and antenna are pointed south initially so that an equal minimum of slack allows rotation in either direction.
- 10) Keep T-line as far as possible from rotor cable. Dual standoffs allw about 5" separation.
- 11) Avoid T-line bends greater than 900 between antenna and receiver.
- 12) Use roof standoffs sparingly, but keep T-line away from gutters, flashing, etc. Make sure the T-line cannot pull through the eyelet and touch metal by taping as in rule 6. Screw roof standoffs in far enough for strength. (Tar can always be used to prevent a leaky roof.) Roof standoffs that just pierce the shingle may bend due to strong wind and/or iced T-line.
- 13) Form rain loop and ground suitably where T-line enters house.
- 14) Insulating tubes, available in most major catalogs, fit into a drilled hole in the wall and make installation neat appearing but—more functionally—prevent contact with any metal inside the wall structure.
- 15) Use only enough T-line to reach the receiver. If slack must be left for moving the receiver, never coil the excess wire behind the set.
- 16) If several antennas are used for DXing, such as indoor or remote dipoles for E-skip, use the clothespin-type clips for rapid removal.

Check your T-line periodically after installation for trouble signs. Contaminants in the air, strong winds, or squirrels with unusual appetites can ruin a T-line. Reception that "just isn't like it used to be" is often traced to cracked, open, or poorly insulated T-lines. Good luck!

(Next month: hopefully, the return of "Understanding Polarization,")

73, Dave Janowiak

SEPTEMBER 1977

CCI (continued from page 45)

Identifications sent in by Ken Simon:

Scott Levitt, June 27, ch 2, WPBT checks. June 28, ch 4, "Nanny" not WTVJ.

David Leibold, May 7, ch 4, "Space 1999" is WIVJ.

Roy Horsley, May 11, ch 4, probably XHTV or net. May 12, ch 2, "Zoom" is WPBT.

138!

hack ada



THE FM ATLAS AND.

STATION DIRECTORY

(Newest Edition!)

UHF TRANSLATOR . . .

DX GUIDE

#### Post Office Box 202 - Whiting, Indiana 46394 DWIDE TV-FM DX ASSOCIATION

TOUGH Established 1967 TO BEAT!

SERVING THE VHF-UHF DX ENTHUSIAST



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).

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

The WTFDA is governed by a five-man board of directors, now composed of Morrie Goldman, Mike Hogan, Clarke Ingram, Pete Oprisko, and John Zondlo. ANARC representatives are Morrie Goldman, Clarke Ingram, and Pete Oprisko.

EDITOR-IN-CHIEFClarke Ingram	COMPTROLLER
PUBLISHER Pete Oprisko	BOOKKEEPER
CIRCULATIONJohn Zondlo	PROCESSING
DISTRIBUTIONMike Hogan	LITERATURE

COMPTROLLER.				Gary Olson
				Bruce Elving
PROCESSING	4			Dave Janowiak
LITERATURE				.Morrie Goldman

SUPPLIES and DX LITERATURE WTFDA member rates only.

REPRINT SERVICE	.Articles from May 1972 to	the pres	ent are	now available.
	A complete 1976 catalogue	can be of	btained	from WTFDA HQ.
VIII) Rack Tormer	Arroilable Non 1072 dense	e a trade and	Assertation and the second	FO. 1

VUD Back IssuesAvailable: Nov 1973 issue to the present.  Sent by first class or special book rate.	50¢ each
BEYOND SHORTWAVE An introduction to TV, FM, and V-U radio	\$1.00

An	introduction	to	TV.	FM.	and	V-II	radio	\$1.00
DV		42					244	72.00

		DA	willred s	ma eartea	by promine	nt Diers.
TV	STATION	GUIDEAn	accurate	listing of	f North and	Central
		Ame	TITE man inc	a+a+1	factoria -	

American	TV st	ations	, fea	turing	maps	for
each chan	nel p	inpoin	ting	their	locati	ons.
Agreem to recommend		and the same of	Andrew Carlos	and the second		activities (

An accurate	e and detail	led FM listing with
		articles, by Bruce
F. Elving,	VUD FCC-FM	News column editor.
A complete	ligting of	IIS HHE translators.

notes	cal	11, 100	atio	n, po	wer,	and	pri	mary	
Also:	a s	section	on	DXing	The	Tran	isla	tors.	
Offici	a1	WTFDA	emb1	em a	s at	ton	of	this	

Club Kubber Stamp.	UIII clai WIFDA emblem, as at top of this
	page, but 37 mm in diameter. Order from
	Weldon Patterson-Box 25-Adolph, MN 55701.
WTFDA Stationers	Footumes the official timens

WIFDA Stationery	. Feat	ture	s the	off:	icial V	VTFDA	emb1e	em a	as at
	top	of t	this	page	printe	ed in	blue	on	bond.

DX Log	Sheets	These	sl	neets	punched	for	a	3-ring	binder
		help	to	keep	DXers'	runni	ng	logs	orderly.

VUD	Boxers	.Attr	active	cases	designed	to	keep	copies	
		of t	he VHI	-UHF D	IGEST neat	an	d ore	anized	

Station QSL	For requesting QSLs	(verifications) from
Report Forms	TV and FM stations.	Now offset printed!

DX Column	For rep	orting	to t	the	numer	ous	DX	columns
Report Forms	printed	each	montl	h in	the	VHF-	-UHF	DIGEST.

nonmember price, \$5 \$3.50 via First Class Mail.

\$3.00;

Sold Out (No Longer Available)

\$3.50

45 sheets \$1.00

Pad of 100 \$2.50

\$1.50 each

45 sheets \$1.00

Free for a SASE

All columns and feature articles to be printed in any VUD issue should be sent to editor Clarke W. Ingram, 5201 Colewood Drive, Pittsburgh PA 15236. All information for VUD columns should be sent to the appropriate editors; all club business (supply orders, etc.) should be sent to HQ in Whiting. SUPPORT WIFDA BY PARTICIPATING --- REPORT TO COLUMNS AND PURCHASE SUPPLIES.

HF·UHF DX Enthusiasts