The Worldwide TV-FM DX Association

Serving the VHF-UHF Enthusiast

VHF-UHF DIGEST

E-ZINE VERSION

JULY 2002

The VHF-UHF Digest is the official publication of the Worldwide TV-FM DX Association dedicated to the observation and study of the propagation of long distance television and FM broadcasting signals at VHF and UHF. The WTFDA is governed by a board of directors: TOM BRYANT, GREG CONIGLIO, BRUCE HALL, DAVE JANOWIAK AND MIKE BUGAJ.

MEMBERSHIP ENDING IN JULY 2002

Check this list. This is your last issue unless you re-up.

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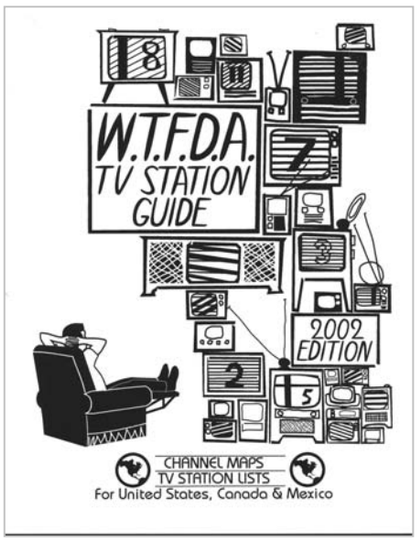
If you have a computer, hang out at the place where many of your fellow Dxers reside. That place is the WTFDA list at Topica.com. Want to know when E-skip up? You'll find out. The Topica list takes out the guesswork. Subscribe now by sending an email to WTFDA-subscribe@topica.com. Your logbook will love you for it! Have a great skip season!

CONTENTS

This month as we head into skip season we find a VUD that's growing a bit thicker. Northern FM DX is nine pages this month. Also we wrap up Bob Cooper's article on the early days of Dxing, we have an article about the recent reception of USA UHF TV carriers in Australia and an article about the historical TV and FM radio tower site on West Peak in Meriden, CT, a fun place to visit. Enjoy!



The 2002 WTFDA TV Station Guide

PERFECT FOR SKIP SEASON!

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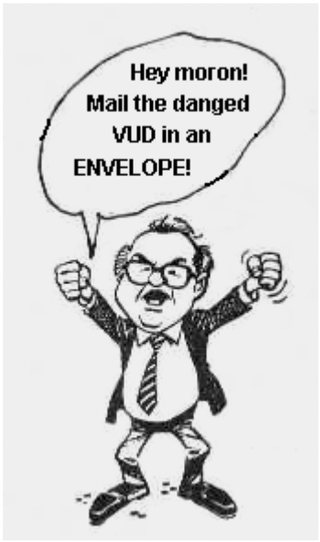
JULY 2002…YOU WANT SKIP? YOU GOT SKIP!

Well, just as I was almost ready to pack it in and write off the E skip season as a huge bust, along came June 13th and changed everything. I have never ever seen so many skip reports posted on the WTFDA list on one day. I think on the 14th there may have been easily over 100 messages posted. I stopped counting at 99. But the fact is that the Es openings on June 13 during midday and the opening on June 14th during the evening, were simply monster openings with skip on the FM band for over four hours at a time. Let's hope that we have many more of these and that Es fills the continent from Vancouver, Ashland, Phoenix and Boise to Sarasota, Boston, Montreal and Burnt River.

MEMBERS AND MORE

One comment I keep hearing more and more from people goes something like this: "I used to be a WTFDA member many years ago but then I dropped out of dxing. Recently I was just fooling around on the web and I found that the WTFDA is still around! I thought you people had gone out of business long ago!" Well, we haven't, of course. But the point I'm trying to make is that it is because of the WTFDA website over at the ANARC place and because of all the websites of our WTFDA members who unashamedly plug our club, that those folks who were out of Dxing and want to return can find their home again in the WTFDA.

More new members this time around. Welcome to **Gary Hickerson** in Fort Smith, AR, **Ed Barboni** in Norristown, PA, **Mark Lewis** in Toronto and **Matt Stutterheim** on the east end of Long Island. Gary is one who just can't get enough info about television antennas, and Gary has sent me packets of antenna information and some of this material is so unique that you will see it here as time goes on. Ed is rejoining the club after being out of the hobby since the late 70s and mentions that prior to that time he edited Eastern TVDX for a while. Ed is also glad to see that we're still around. Frankly, so am I. Mark was a WTFDA member a long while ago and had gotten himself into DTV Dxing and rejoined. Matt joined the WTFDA list, liked it and now he's here with us. A big welcome to all of you!



Here's the list of recent renewals: **Bob Seaman**(PA), **Michael Temme-Soifer**(NJ), **Bob Langridge**(IA), **Dan Oglethorpe**(LA), **David Sinclair**(BC), **Rroger Gravelle**(ON), **Rich Wertman**(NY), **Jim Wallace**(WV), **Eric Fader**(NY), **Greg Barker**(IN), **Jerry Rappel**(IA), **Gary Siegel**(OH), **Michael Parks**(WI), **Danny Buntin**(OK), **Harry Helms**(CA), **Rod Jorgensen**(WI), **Robert Ross**(ON) and **Mike Hawk**(CO), **John Ebeling**(MN), **Jeff Kruszka**(LA), **Nick Lombardi**(GA), **Jeff Lockwood**(FL), **Charles Bernth**(NY), **Mike Lapinski**(NY), **Tim McVey**(VA), **George Mileon**(MA), **Fred Laun**(MD)and **Dave Bright**(FL). Thank you to everyone who stayed on another year and I hope you have even *more* fun in the next twelve months!

SUMMER IS GET TOGETHER TIME

Bill Dvorak sends news that the 9th Annual Madison get-together for Dxers and Radio Enthusiasts will be held on Saturday, August 17, 2002. This year's hosts are Bill and Nina Dvorak and the event will take place at their home at 501 Algoma Street in Madison WI 53704-4812. Activities will begin at 1pm and end when the last person leaves (come when you can and leave when you must). You will find good fellowship and lots of DX talk in an informal atmosphere. Feel free to bring any equipment, QSLs, station souvenirs, logbooks or anything else that you would like to show or share with the group. Soft drinks and snacks will be provided. Dinner is planned for 6pm at the Esquire Club and the group will return to Bill and Nina's after that. For more information please notify Bill by email at dxerak@aol.com or call at 608-244-5497. When emailing, please mention the Madison GTG in the subject line.

WANT TO BE AN EDITOR?

Ever dream about being a rich and famous writer? Well, this job probably won't make you either rich or famous but you *will* be helping out your club. Word comes from Greg Coniglio that after fourteen years of editing FM news (and also being FM North editor and a member of the board of directors), he has to cut down a bit and give up FM News. Well, we all hate to see him stop but Greg has some good reasons for doing so. At least we knew about the possibility of this happening for a while, so it came as no shock.

Now is your time to go after an editor position if you want the job. It doesn't matter if you haven't done anything like this before. You will receive lots of help and OJT. The only real requirements are that you be online and familiar with MS Word or Wordperfect. You should know the basics like page formatting, setting margins and switching from one column mode to two-column mode and back without trouble. Reference material will be supplied and you are free to use whatever other resources you decide.

Please contact myself or any board member (or Greg himself) for more info. Check the inside back cover for our email addresses.

THE ATLANTIC SPANNED ON 144MHZ?

This month's RadComm (RSGB, the British national ham radio organization) reports a claim of a trans-Atlantic two-way contact on 144mhz.

The claimed contact was between an Alex Dutkewych N2PIG operating portable in eastern Newfoundland and his wife Debra VA3PIG in Shannon, Ireland. High power (for amateurs) was used along with digital processing techniques remotely similar to those used by Tony Mann to detect American UHF-TV carriers in Australia (for those who follow such things, they used the "WSJT" mode). The distance claimed is 3044km, a bit over 2000 miles.

Details are still sketchy and confirmation lacking. If proven true, however, it would be a **very** interesting development. *-This info from Doug Smith.*

CLEAR CHANNEL STATIONS DEBUT TEXT MESSAGING

There May Be Life for RDS in the United States After All

dMarc Network's Dynamic Radio Data Service (dRDS) - which allows text to be broadcast onto car radio screens in static, paging and scrolling formats - will debut on five Clear Channel/L.A. stations - KBIG, KHHT, KIIS, KOST and KYSR - on June 15. Along with song and artist information, the software provides station playlists, time of day, traffic, news, weather, stock reports, sports scores and advertising. Clear Channel Regional VP Roy Laughlin says the software will help the company "enhance the overall revenue potential of our stations." dMarc expects to deploy dRDS across Clear Channel's 27 area FM stations in Southern California over the next several months and plans to initiate a national expansion of its dRDS toward the end of Q2.

Jim Thomas emailed dMarc Networks regarding their working with Clear Channel and rolling out RDS in Los Angeles. In an email reply from Ryan Steelberg of dMarc Networks, Mr Steelberg wrote "We have already launched in Los Angeles and will be expanding across 53 additional California stations over the next several weeks. National expansion is underway. We provide a complete managed IP-network over FM subcarriers, which includes RDS support."

So, is much-maligned Clear Channel Communications actually doing something to benefit FM Dxers in North America? It seems so.

HOW IS YOUR SKIP SEASON SO FAR?

We asked and we got replies: Lennie Goldberg(OR) "…I think I'll be looking for a new hobby; not a minute of e-skip since 6/1", Adam Rivers(MA) "It got off to a real slow start but it has fired up recently and I'm very happy with it…", Bruce Elving(MN) "If no other skip is observed this entire year, I would say that one opening (June 14) placed the season ahead of all of 2001", Kevin Redding(AZ) "To this point, out in the west, it's been very slow and a very weak season. I am hoping it picks up again but I have had two days with any Es. There was one decent Mexico day and one decent Canada day and that's it", Jeff Kruszka(LA) "It s*cks", Neil Kazaross(IL) "Here, near Chicago, I'd have to say "poor". Last season started earlier and was better." Since this is being written on June 17th, only time will how it all shakes out.

LAST BUT NOT LEAST… There is a big bunch of renewals I haven't processed yet. These will get listed next month. Membership is 274 as of the 21st. Anyone know where the Es went to? -Mike

TV News

July 2002

Douglas E. Smith W9WI
1385 Old Clarksville Pike
Pleasant View, TN 37146-8098
W9WI@w9wi.com http://www.w9wi.com

Abbreviations:

AF	Applied for (a new station)
CC	Call change
CL	City-of-license change
DE	Station deleted
FC	Programming (format) change
LC	License to cover (for changes or new station)
NO	Not on the air
NS	New station granted permit
NW	New station on the air
PC	Power (or tower height) change on the air
PG	Power (or tower height) change granted
PR	Power (or tower height) change requested
QC	Channel change on the air
QG	Channel change granted
QR	Channel change requested
RA	Returned to the air
ROA	Request of applicant
SI	Off the air ("silent")
STA	Special Temporary Authority
XC	Transmitter site change on the air
XG	Transmitter site change granted

DTV stations ***in italics***; full-license stations in **boldface.**

News:

Alabama:

Birmingham	2 WBXA-CA	PR>1.2kw
Gadsden	*45 WPXH-DT*	*NW, 225kw/309m, 33-53-27/86-28-13; STA for same(?!)*
Huntsville	**31 WAAY-TV**	**PG<517m, 34-44-12/86-31-59**
Huntsville	*41 WZDX-DT*	*STA 15kw/371m*
Mobile	*47 WPMI-DT*	*NW, 1000kw/558m, 30-36-40/87-36-27*
Montgomery	5 WBXM-CA	PG>700w
Montgomery	**13 new**	**AF dismissed**
Montgomery	*27 WAIQ-DT*	*QR from ch. 14*
Opelika	*31 WSWS-DT*	*STA 3.94kw/147m*
Tuscaloosa	**23 WLDM**	**NW 890kw/266m, 33-03-15/87-32-57**

Alaska:

Anchorage	56 K56HV	NS 15kw, 61-37-12/149-15-19
Nome	2 K02PR	NS 1kw, 64-30-07/165-24-26
Nome	14 K14KX	NS 150kw, 64-30-07/165-24-26
Palmer	12 KYEP-LP	PC>3kw, 61-43-34/149-25-46

Arizona:

Bullhead City	61 K61HA	QG from ch. 20, 56.8kw, 35-14-58/114-44-34
Flagstaff	*22 KNAZ-DT*	*PR 885kw/465m, 34-58-06/111-30-28; STA 39.73kw/495m*
Flagstaff	*32 KCFG-DT*	*STA 1kw/597m*
Flagstaff	48 K48GI	PR<1.44kw
Kingman	49 K68AK	QC fm ch 68, 1.2kw
Phoenix	18 K49DF	QC fm 49, 8.06kw
Phoenix	*24 KTVK-DT*	*PR 1000kw/501m, 33-20-01/112-03-45; STA 487kw*
Phoenix	42 K24EI	QR fm ch 24, 4kw
Phoenix	*49 KASW-DT*	*PR 591kw/497m, 33-20-02/112-03-44; STA 66kw*
Phoenix	53 K67FE	QC fm ch 67, 20kw
Tusayan	21 K21GG	NS 1kw, 35-59-30/112-07-36
Winslow	43 K43HL	NS 1kw, 35-08-42/110-29-03
Yuma	*16 KSWT-DT*	*STA 54.4kw/399m*

Arkansas:

Batesville	33 K53FM	QR from ch. 53, 150kw, 38-49-50/94-31-57, CL to Belton, MO
El Dorado	19 K66EX	QR from ch. 66, 50kw, 32-30-32/93-44-35
El Dorado	34 K69HO	QR from ch. 69, 133.2kw, 32-39-38/91-59-28, CL to Monroe, LA
Fort Smith	54 K54IE	QG from K18EU, 48.9kw, 35-04-18/94-40-42
Harrison	8 K08NG	NW 3kw, 36-10-40/93-12-40
Little Rock	*30 KLRT-DT*	*NW 1000kw/449m*
Little Rock	*32 KARK-DT*	*STA 4kw/339m*
Mountain Home	41 K43CJ	QC from ch. 43, 10.2kw

California:

Blythe	29 K29EZ	QC, 990w, 33-34-12/114-20-56
Clovis	*44 KGMC-DT*	*NW 288kw/642m*
Delano	11 K14IK	QR from ch. 14, 3kw, 35-26-16/118-44-28, CL to Bakersfield
Eureka	14 K59FW	QR from ch. 59, 119.6kw, 40-39-06/122-31-32, CL to Redding
Eureka	19 K67GU	QR from ch. 67, 4.6kw, 44-51-14/123-07-22, CL to Salem, OR
Eureka	38 K17EH	QR from ch. 17, 79kw, 38-42-26/121-28-37, CL to Sacramento
Fort Bragg	*15 KFWU-DT*	*STA 1.95kw/733m*
Fresno	28 KJKZ-LP	FC to ShopAtHome
Fresno	*34 KGPE-DT*	*PR<257kw/526m*
Fresno	68 KQJA-LP	FC to Telefutura? (sold to Univision) Reported SI.
Los Angeles	*42 KWHY-DT*	*STA 86kw/873m*

California:

Modesto	27 KEXT-CA	FC to Telefutura? (sold to Univision)
Oceanside	41 K41HW	QC from K33FZ dismissed, Mexican objection
Oroville	8 K08NH	NS 3kw, 39-27-46/121-34-49
Quincy	5 K11JU	QR from ch. 11
Red Bluff	27 K27HC	NS 20kw, 40-12-56/122-07-53, modified for 24kw.
Red Bluff	49 KMCA-LP	NW 810w, 40-15-32/122-05-20
Redlands	45 K66ED	QR from ch. 66, 6kw, 33-57-44/117-16-48
Riverside	25 KBLM-LP	PR>26.6kw
Sacramento	23 KEZT-CA	FC to Telefutura? (sold to Univision)
Sacramento	34 KCSO-LP	QC from ch. 60, 150kw, 38-07-10/120-43-27
Sacramento	*35 KCRA-DT*	*STA 687kw/462m*
Salinas	33 KDJT-CA	FC to Telefutura? (sold to Entravision)
San Diego	*18 KUSI-DT*	*STA 22.9kw/564m*
San Francisco	28 KBIT-LP	PR dismissed ROA
San Jose	*49 KSTS-DT*	*STA 200kw/688m*
San Luis Obispo	*15 KSBY-DT*	*STA 2.8kw/506m*
Santa Barbara	64 KSGA-LP	PG 64.43kw, 34-01-20/117-17-46, from ch. 59, CL to San Bernardino
Stockton	22 K52CK	QR from ch. 52, 85kw, 37-52-54/121-55-05, CL to San Francisco. (XR on Mt. Sutro)
Vallejo	*40 New-DT*	*AF 135kw 38-09-04/122-15-34 but already dismissed.*
Visalia	35 KMCF-LP	FC to Am. Store
Yreka	23 K23GG	NS 250w, 41-36-28/122-35-08

Colorado:

Alamosa	44 K44GJ	NS 1kw, 37-28-10/105-51-49
Denver	*35 KCNC-DT*	*STA 11kw/177m*
Estes Park	27 K65AA	QR dismissed ROA
Fort Collins	*21 KFCT-DT*	*STA 880w/233m*

Connecticut:

New London	*34 WHPX-DT*	*NW 90kw/363m*

Delaware:

Millsboro	4 WLWP-LP	PG>3kw

Florida:

Big Pine	16 W16CA	NS 36.7kw, 24-39-02/81-18-36, //WEYS-22
Clermont	*17 WKCF-DT*	*STA 596kw/472m*
Gainesville	33 WBXG-CA	QR from ch. 31, 32kw, 29-37-55/82-25-08
High Springs	*28 WGFL-DT*	*STA 5.47kw/154m*
Hollywood	*47 WAMI-DT*	*STA 650kw/297m*
Jacksonville	*13 WTLV-DT*	*STA 13.7kw/310m*
Jacksonville	**44 WJEB-TV**	**QR from ch. 59, 2109kw/287m**
Leesburg	*40 WACX-DT*	*STA 100w/58m*

Florida:

Melbourne	*48 WOPX-DT*	*NW 1000kw/456m, 28-05-37/81-07-28*
Miami	*19 WBZL-DT*	*STA 500kw/252m*
Orange Lake	8 W08DT	NS 600w, 29-21-32/92-19-43
Panama City	*19 WMBB-DT*	*STA 38kw/392m*
Panama City	54 W54CU	PG 23.5kw, 30-11-41/85-37-51
Rock Harbor	43 W61AI	QR from ch. 61, 45kw, 28-02-21/82-39-20, CL to Lealman, FL near Clearwater
Stuart	*59 WHDT-DT*	*STA 130w/25m*
Tampa	30 WTAM-LP	QG from ch. 6, 144.6kw, 27-49-10/82-15-39
Tequesta	*16 WPBF-DT*	*STA 670kw/454m*
Tice	**49 WRXY-TV**	**PR>429m**
Union Park	13 WSWF-LP	QC from ch. 19, 90w, 28-34-07/81-13-56

Georgia:

Atlanta	40 WIRE-CA	PR>50kw, 33-48-26/84-20-22
Augusta	16 WBEK-LP	QG from ch. 67, 150kw
Augusta	*31 WRDW-DT*	*STA 346kw/443m*
Augusta	*42 WJBF-DT*	*STA 14kw/341m*
Colquitt	39 W30BO	QR from ch. 30, 100kw, 30-16-53/81-34-15, CL to Jacksonville, FL
Colquitt	46 W26BM	QR from ch. 26, 50kw, 28-02-21/82-39-21, CL to Tampa, FL
Columbus	*35 WLTZ-DT*	*STA 2.93kw/154m*
Dawson	*8 WACS-DT*	*QR from ch. 26*
Pelham	*5 WABW-DT*	*QR from ch. 20*
Rome	*51 WPXA-DT*	*NW 1000kw/622m*
Savannah	*13 WVAN-DT*	*QR from ch. 46*
Savannah	*39 WSAV-DT*	*STA 18kw/126m*
Savannah	46 WXSX-LP	QR from ch. 13, 133kw
Savannah	57 W57CT	QG from ch. 67, 35.4kw
Vidalia	53 W53CG	NS 2kw, 32-12-29/82-29-48, TBN
Warner Robins	**35 new AF dismissed (2 apps)**	
Waycross	*9 WXGA-DT*	*QR from ch. 18*
Wrens	*2 WCES-DT*	*QR from ch. 36*

Hawaii:

Glenwood	16 KBLO-LP	PR 26kw, 19-29-33/155-06-22
Hilo	*22 KHBC-DT*	*STA 4.72kw/-170m*
Honolulu	**38 KALO**	**NW 206kw/579m, 21-23-33/158-05-43**

Idaho:

Boise	*26 KTVB-DT*	*STA 85.5kw/787m; another STA for 73.9kw*
Caldwell	*10 KNIN-DT*	*STA 150w/768m*
Coeur d'Alene	*45 KCDT-DT*	*PG>38kw/465m*
Idaho Falls	*36 KIDK-DT*	*STA 2.2kw/-8m*
McCall	25 K25HQ	NS 5kw, 44-54-37/116-05-56

Idaho:

McCall	48 K48HQ	NS 5kw, 44-54-37/116-05-56

Twin Falls	27 KBAX-LP	NW, 16kw, 42-43-48/114-24-52
Twin Falls	45 KCTF-LP	NW, 16kw, 42-43-48/114-24-52
Illinois:		
Bloomington	51 W51CT	PR 7.2kw, 40-28-59/88-59-43
Carthage	44 W44CA	NS 40kw, 41-57-36/89-09-14
Champaign	*48 WCIA-DT*	*STA 1.28kw/265m*
Chicago	*21 WYCC-DT*	*NS 98.9kw/378m*
Chicago	*31 WFLD-DT*	*PR>690kw*
Chicago	*47 WTTW-DT*	*STA 200kw/465m*
Decatur	*18 WAND-DT*	*NW 350kw/379m*
East St. Louis	*47 WHSL-DT*	*NW 109kw/318m*
Holcomb	7 W07DH	NS 1.9kw, 41-57-36/89-09-14
Peoria	*46 WTVP-DT*	*STA 133kw/216m*
Springfield	*53 WCFN-DT*	*STA 1.81kw/179m*
Urbana	*9 WILL-DT*	*QR from ch. 33, 30kw*
Indiana:		
Bloomington	*14 WTIU-DT*	*PR<224kw/221m, 39-08-31/86-29-42, already granted*
Evansville	**9 WNIN**	**PG>304m, 37-59-01/87-16-13, leaves WTVW-7 tower**
Gary	*17 WYIN-DT*	*PG>300kw/468m, 41-52-44/87-38-08 on the Sears Tower in Chicago*
Gary	*51 WPWR-DT*	*STA 350kw/523m*
Indianapolis	*16 WHMB-DT*	*STA 18.6kw/140m*
Indianapolis	*46 WTHR-DT*	*STA 700kw/267m*
Indianapolis	50 WALV-LP	QC from ch. 27, 10kw, PR>14.9kw, already granted
Salem	*51 WFTE-DT*	*NS 1000kw/390m*
South Bend	69 WMWB-LP	PG>131kw, 41-35-58/86-11-07
Iowa:		
Cedar Rapids	*47 KPXR-DT*	*NW 500kw/309m*
Davenport	**36 KQCT**	**FC to IA Pub. TV**
Des Moines	*16 KDSM-DT*	*STA 9kw/612m*
Des Moines	*56 new*	*QR for new applicants, from ch. 69*
Fort Madison	64 K64GC	QG from ch. 38, 12.8kw
Iowa City	*25 KWKB-DT*	*STA 2.7kw/112m*
Lansing	66 K66GC	QG from ch. 41, 1.05kw, 43-20-59/91-13-16
Mason City	*42 KIMT-DT*	*STA 117kw/62m*
Ottumwa	51 K51FJ	QG from ch. 36, 10w, 40-57-50/92-23-51
Sioux City	*49 KPTH-DT*	*STA 2.6kw/77m*
Kansas:		
Garden City	34 K34GG	NS 25.46kw, 38-01-20/100-57-20
Hays	*16 KOOD-DT*	*PR<496kw/304m, already granted*
Hutchinson	*19 KWCH-DT*	*STA 119kw/410m*
Lakin	*8 KSWK-DT*	*QR from ch. 23, 100kw/149m*
Kansas:		
Liberal	41 K41HG	NS 150kw, 37-04-38/100-50-37
Overland Park	27 K68DK	QC from ch. 68
Topeka	43 KTLJ-LP	PR 29.3kw, 39-03-50/95-45-49
Kentucky:		
Louisville	*55 WHAS-DT*	*STA 46.1kw/359m*
Madisonville	*20 WWAZ-DT*	*STA 1.11kw/202m*
Paducah	*32 WPSD-DT*	*STA 4.47kw/74m*
Paintsville	**69 new**	**dismissed (2 apps)**
Talbert	20 W20BO	PG>150kw, 37-10-18/83-07-42
Louisiana:		
Baton Rouge	58 K56DR	QC from ch. 56, 3kw
Hammond	*42 new*	*QR from ch. 62 for new applicant*
Lake Charles	14 KFAM-LP	QG from ch. 58, 150kw, 30-13-24/93-18-36
Monroe	*7 KNOE-DT*	*STA 1kw/518m*
New Orleans	*15 WGNO-DT*	*PG 870kw/309m, 29-58-57/89-56-58*
New Orleans	*36 WWL-DT*	*STA 319kw/311m*
Slidell	*24 WUPL-DT*	*PR 1000kw/272m, 29-55-11/90-01-29*
West Monroe	17 KWMS-LP	CC from K17FV; PC>21kw
West Monroe	*38 KMCT-DT*	*STA 8.1kw/85m*
Maine:		
Bangor	*25 WLBZ-DT*	*STA 500kw/199m*
Meddysbemps	59 W59DU	NS 999w, 45-01-45/67-19-24
Orono	*9 WMEB-DT*	*NW, 15kw/375m, 44-42-12/69-04-47*
Portland	15 WLLB-LP	QC from ch. 45, 6.5kw, 43-41-48/70-21-46
Portlan d	*38 WGME-DT*	*STA 100kw/491m*
Portlan d	*44 WCSH-DT*	*requests DA; STA 500kw/588m*
Presque Isle	*20 WMEM-DT*	*NW, 160kw/346m*
Maryland:		
Baltimore	*41 WUTB-DT*	*STA 530w/314m*
Salisbury	12 W12CZ	NS 100w, 38-21-26/75-37-04
Massachusetts:		
Marlborough	*23 WUTF-DT*	*STA 47.9kw/334m*
Michigan:		
Battle Creek	*44 WZPX-DT*	*NW, 212kw/305m*
Berrien Springs	25 WRDY-LP	PG>37.8kw, 41-35-58/86-11-07
Big Rapids	52 W52DB	PR<21.7kw, 43-18-50/86-09-17 near Muskegon
Detroit	*21 WDWB-DT*	*NS 500kw/324m, 42-26-52/83-10-23*
Detroit	23 WBXD-LP	QG from ch. 5, 50kw, 42-26-52/83-10-23
Grand Rapids	25 WOGC-CA	PG>30kw, 42-48-59/85-57-20
Houghton Lake	26 W31BN	PR dismissed ROA
Kalamazoo	*2 WWMT-DT*	*NW 6.9kw/305m*
Mount Clemens	*39 WADL-DT*	*NW 1000kw/170m*
Mount Pleasant	62 W62CV	PG 242w, 43-41-56/84-46-11
Michigan:		
Pinconning	9 W09CK	PR 85w, 43-07-09/83-40-38, CL to Flint
Pinconning	15 W15BP	PG<250w
Pinconning	32 W32CQ	QG from ch. 52,

		13.5kw, 43-12-00/83-33-30, CL to Flint
Pinconning	51 W51CS	QG from ch. 12, 250w, 43-50-46/84-05-32
Pinconning	57 W57CS	PG<250w
Pinconning	69 W69DW	PG<250w
Traverse City	54 W54CR	PR>30.45kw
Minnesota:		
Alexandria	*36 KSAX-DT*	*PR 1000kw/340m, 45-41-59/95-10-35*
Appleton	48 K48HP	QG from K17CS, 1.23kw
Austin	*20 KSMQ-DT*	*PG>400kw/303m, 43-38-34/92-31-35*
Austin	*33 KAAL-DT*	*STA 4.9kw/165m*
Mankato	*38 KEYC-DT*	*STA 117kw/291m*
Minneapolis	**9 KMSP-TV**	**FC to Fox in Sept.**
Minneapolis	*22 KMWB-DT*	*STA 20kw/410m*
Minneapolis	**29 WFTC-TV**	**FC to UPN in Sept.**
Rochester	*36 KTTC-DT*	*STA 324kw/328m*
Starbuck	64 K64BG	OFF?
Mississippi:		
Greenville	*17 WXVT-DT*	*STA 250w/59m*
Greenville	**44 WDTL-TV**	**NW 1000kw/145m, 33-32-35/90-50-48**
Hattiesburg	30 W30CB	NS 1kw, 31-21-20/89-13-27
Hattiesburg	35 W35BX	NS 6.1kw, 31-21-21/89-13-27
Jackson	**40 WDBD**	**PR>5000kw/598m, 32-12-49/90-22-56, already on**
Jackson	*41 WDBD-DT*	*STA 50kw/598m*
Jackson	43 WJKO-LP	PR>83.7kw, 32-16-53/90-17-41
Jackson	46 W46CW	QG from ch. 62, 12.6kw, 32-25-30/90-08-06
Jackson	*52 WJTV-DT*	*STA 33kw/279m*
Missouri:		
Branson	38 KBNS-CA	PG 150kw, 36-43-52/93-10-02
Jefferson City	*20 KNLJ-DT*	*STA 12kw/248m*
Kansas City	*31 KCWE-DT*	*STA 525kw/332m*
Kansas City	*34 WDAF-DT*	*STA 1.1kw/69m*
Kansas City	*47 KSMO-DT*	*STA 9kw/356m*
St. Louis	*14 KNLC-DT*	*STA 63.2kw/285m*
Springfield	**27 KDEB-TV**	**PR 4575kw/517m, 37-13-08/92-56-56**
Warrensburg	32 K32FH	PG>150kw
Montana:		
Billings	*10 KTVQ-DT*	*QR from ch. 17*
Billings	*11 KULR-DT*	*NW 6.08kw/191m*
Bozeman	32 KMZV-LP	PR>11.8kw, 45-40-00/111-03-10
Bozeman	44 K44GE	PG 210w, 46-35-37/111-59-05, already on air
Great Falls	*8 KFBB-DT*	*NW 3.39kw/146m*
Miles City	41 K41HK	NS 100kw, 46-29-24/105-40-03
Nebraska:		
Columbus	41 K41FU	PG>116.4kw
Grand Island	*19 KTVG-DT*	*STA 5.3kw/139m*
Hayes Center	*18 KWNB-DT*	*STA 532w/121m*
Kearney	*36 KHGI-DT*	*STA 4.2kw/179m*
Lincoln	**45 new**	**AF dismissed (4 apps)**
McCook	*12 KSNK-DT*	*PR>13.6kw/177m*
Norfolk	26 K26GW	NS 100w, 42-03-07/97-29-13
Omaha	*38 KXVO-DT*	*STA 16.3kw/116m*
Omaha	*43 KPTM-DT*	*STA 17.3kw/116m*
Superior	*34 KSNB-DT*	*STA 534w/78m*
Nevada:		
Austin	41 K58EV	QC from ch. 58
Dayton	45 K45GZ	QG from K13PD, 500w
Ely	**3 KBJN**	**NW, 100kw/270m, 39-15-53/114-53-35**
Eureka	15 K60AQ	PR dismissed ROA, see ch. 51
Eureka	17 K17FY	QG from K68CS
Eureka	21 K21GJ	QG from K63CH
Eureka	51 K60AQ	QR from ch. 60
Hawthorne	33 K33GZ	NS 890w, 38-27-37/118-45-39
Laughlin	67 K67HO	NS 2.43kw, 35-14-58/114-44-34
Paradise	*40 KBLR-DT*	*STA 32.4kw/357m*
Reno	**11 KRXI-TV**	**CC from KRXI (adds -TV)**
Reno	*20 KAME-DT*	*NW 53kw/176m*
Reno	*26 KREN-DT*	*STA 4kw/874m*
New Hampshire:		
Littleton	*48 WLED-DT*	*NW 45kw/388m*
Manchester	28 W28CM	QG from W29AT, 1.04kw, 42-43-23/71-27-39
New Jersey:		
East Orange	34 W23BA	QC from ch. 23, 20kw
Newark	*61 WNET-DT*	*STA 2.66kw/94m*
New Mexico:		
Albuquerque	*16 KRQE-DT*	*NW, 75kw/1268m, 35-12-40/106-26-57*
Albuquerque	*21 KOAT-DT*	*STA 140kw/1264m*
Albuquerque	*35 KNME-DT*	*STA 384w/1231m*
Clovis	*20 KVIH-DT*	*STA 260w/89m*
Deming	43 K43FU	QC from ch. 60, 2.5kw
Farmington	*17 KOBF-DT*	*STA 10kw/82m*
Farmington	23 K23BT	FC to KWBQ-19, WB
Grants	31 K31GG	NS 25kw, 35-07-55/107-53-15
Grants	40 K40GV	NS 5kw, 35-07-55/107-53-15
Hobbs	68 K68GI	NS 14.359kw, 32-40-48/103-09-00
Raton	20 K20CV	PR<1.03kw
Roswell	33 KKGD-LP	PR 7kw, 33-21-44/104-31-25
Roswell	44 KPLP-LP	PR same as KKGD
Roswell	68 K68GJ	NS 19.649kw, 33-27-21/104-30-47
Santa Fe	*27 KASA-DT*	*STA 210kw/1278m*
Santa Rosa	30 K30FP	QC from ch. 74, 1.17kw/126m, 34-57-20/104-40-53
New York:		
Buffalo	*33 WGRZ-DT*	*PG<480kw/295m*
New York:		
Carthage	*35 WWNY-DT*	*STA 500kw/203m*
Deer Park	39 WNYN-LP	QR from ch. 51, 50kw, 40-44-50/73-56-38 on Manhattan, but dismissed ROA

Garden City	*22 WLIW-DT*	*PG<82kw*
Hamburg	40 WDTB-LP	QR from ch. 39, 50kw, 42-52-47/78-52-35, CL to Buffalo
Long Island	17 W17CH	FC to HITN (Spanish)
Moravia	52 W52CQ	FC to WPCB-40, Cornerstone relig.
New York	*24 WNYE-DT*	*STA 21.5kw/176m*
New York	**31 WPXN**	**RA 2800kw/193m, 40-48-08/74-14-48 near Montclair, NJ (about 4mi. SW of WNJN-50)**
New York	39 WXNY-LP	PR dismissed ROA New
York	53 WKOB-LP	PR<6.52kw, already granted
Riverhead	*57 WLNY-DT*	*STA 30.9kw/179m*
Oneida	15 W15BR	FC to WPCB-40, Cornerstone relig.
Rochester	15 WBXO-LP	RA here (not ch. 36)
Rochester	*59 WOKR-DT*	*NS 1000kw/143m*

North Carolina:

Andrews	67 W67DY	QG from ch. 59, 25.4kw
Asheville	*45 WASV-DT*	*STA 48kw/523m*
Buxton	28 W28CL	NS 1kw, 35-15-49/75-31-42
Franklin	60 W60DA	QG from ch. 56, 20.6kw
Goldsboro	63 W63CW	PG>34.4kw
Greensboro	*51 WFMY-DT*	*STA 500kw/569m*
Hickory	*40 WHKY-DT*	*STA 6.39kw/183m*
High Point	*35 WGHP-DT*	*STA 4.2kw/281m*
Jacksonville	**19 WUNM-TV**	**PC 2400kw/561m, 35-06-15/77-20-12**
Lexington	*19 WTWB-DT*	*STA 9kw/157m*
Linville	*54 WUNE-DT*	*PR 138kw/531m, 36-03-50/81-50-33*
Roanoke Rapids	60 WNVN-LP	QR from ch. 69, 7kw, 36-27-38/77-33-52
Rocky Mount	*15 WRPX-DT*	*NW 180kw/354m*
Wilmington	*30 WSFX-DT*	*STA 5kw/38m*
Wilmington	*44 WECT-DT*	*QR from ch. 54*
Wilmington	51 W20AL	QC from ch. 20, 17.4kw
Winston-Salem	*29 WXLV-DT*	*STA 750kw/576m*
Winston-Salem	*31 WXII-DT*	*STA 408kw/572m*
Winston-Salem	*32 WUNL-DT*	*PR 198kw/479m, 36-22-33/80-22-18*

North Dakota:

Bismarck	69 K69IK	NS 12kw, 46-49-38/100-46-29

Ohio:

Centerville	32 WWRD-LP	QG from ch. 55, 40kw, 39-42-47/84-15-16
Cincinnati	**5 WLWT**	**AF 69.2kw/199m (aux backup)**
Cincinnati	**5 WLWT**	**PR<295m**
Cincinnati	*35 WLWT-DT*	*STA 125kw/288m*
Cleveland	**8 WJWPR 236kw/333m**	

Ohio:

Cleveland	**8 WJWAF 61.5kw/257m (aux backup)**	
Columbus	*21 WBNS-DT*	*STA 700kw/279m*
Dayton	*51 WKEF-DT*	*STA 95.5kw/351m*
Lorain	*28 WUAB-DT*	*NW 200kw/337m*
Lorain	**43 WUAB**	**PC>337m**
Marietta	22 W22CU	NS 2.02kw, 39-29-22/81-26-32
Marietta	64 W64CS	NS 25kw, 39-26-07/81-27-12
Newark	*24 WSFJ-DT*	*NS 1000kw/132m, 40-04-45/82-41-41, has STA for 920w/172m @ analog site*
Newark	**51 WSFJ-TV**	**PG 724kw/132m, 40-04-45/82-41-41**
Toledo	*17 WTOL-DT*	*STA 700kw/263m*
Youngstown	39 W39CN	QG from ch. 52, 10kw, 41-11-04/80-41-31
Zanesville	**18 WHIZ-TV**	**PG<161m**
Zanesville	*40 WHIZ-DT*	*PG<620kw/169m*

Oklahoma:

Glencoe	50 KOKQ-LP	CC from K50DF
Okmulgee	*28 KTPX-DT*	*NW 1000kw/219m*
Tulsa	13 K33EK	QR from ch. 33, 1kw
Tulsa	*22 KOKI-DT*	*STA 4kw/74m*
Tulsa	*55 KOTV-DT*	*STA 300kw/490m*
Woodward	**35 KUOK**	**CC for new station**

Oregon:

Elkton	11 K66BE	QR from ch. 66, 40w, 43-37-16/123-32-03
La Grande	**16 KPOU**	**CC from KBPD**
Pendleton	21 K21EK	PC>500w, 45-59-20/118-10-29
Portland	**12 KPTV**	**FC to Fox?**
Portland	**30 new**	**dismissed**

Pennsylvania:

Clearfield	**3 WPSX-TV**	**PR 42.4kw/395m, 41-07-20/78-26-29**
Dillsburg	35 W40AF	QR from ch. 40, 150kw, 40-18-19/77-00-28
Erie	*52 WICU-DT*	*STA 950w/261m*
Harrisburg	*4 WHP-DT*	*NW 2.3kw/349m; STA 575w*
Lancaster	*23 WLYH-DT*	*NW, 325kw/386m*
Philadelphia	7 WWJT-LP	FC to independent
Philadelphia	**10 WCAU**	**XC 40-02-31 (unofficial correction)**
Pittsburgh	*42 WCWB-DT*	*STA 20kw/315m*
Reading	*25 WTVE-DT*	*PG>120kw/395m, 40-19-35/75-42-15*
Scranton	*49 WNEP-DT*	*STA 68.1kw/506m*

South Carolina:

Charleston	21 W21BX	PG>30kw
Columbia	*17 WLTX-DT*	*PR<500m*
Greenville	**4 WYFF**	**PC 100kw/610m, 35-06-43/82-36-24**
Greenville	*59 WYFF-DT*	*STA 392kw/577m*

South Dakota:

Pierre	32 K32FW	NS 8kw, 44-22-15/100-24-15, 3Abn

South Dakota:

Rapid City	33 K33CO	PG 33.1kw, 44-02-49/103-14-45
Springfield	33 K33GX	NW, 13.7kw, 42-48-26/97-58-46

Tennessee:

Jellico	*23 WPXK-DT*	*NW 18kw/608m, 36-11-53/84-13-51*

Knoxville	*31 WBIR-DT*	*STA 420kw/530m*
Lexington	*47 WLJT-DT*	*PG>282kw/167m*
Memphis	**3 WREG-TV**	**PC<297m, 35-10-32/89-49-56**
Memphis	*25 WPTY-DT*	*STA 87.3kw/340m*
Memphis	*28 WREG-DT*	*STA 393kw/313m*
Memphis	*53 WHBQ-DT*	*STA 1.2kw/65m*
Murfreesboro	**39 WHTN**	**requests change in DA pattern**
Nashville	*27 WKRN-DT*	*NW, 946kw/411m, 36-02-50/86-49-49*
Tazewell	**48 WVLR**	**PG>431m, 36-15-30/83-37-43**

Texas:

Abilene	40 KTES-LP	PG>99.3kw
Alvin	*36 KFTH-DT*	*PR<579m*
Amarillo	*23 KVII-DT*	*STA 280w/85m*
Austin	**42 KEYE-TV**	**PR<380m, 30-19-19/97-48-12**
Austin	*43 KEYE-DT*	*PR>1000kw/395m, 30-19-19/97-48-12*
Austin	*56 KTBC-DT*	*STA 800w/80m*
Beaumont	*50 KBMT-DT*	*STA 10.5kw/33m*
Beaumont	64 K64GB	NS 25kw, 30-00-06/94-05-37
Borger	**31 KEYU**	**CC from KBCA**
Brownsville	**23 KVEO**	**coordinates corrected to 26-06-02/97-50-20**
Bryan	*50 KBTX-DT*	*PR 1000kw/477m, 30-33-16/96-01-51*
Crockett	36 KTWC-LP	QG from ch. 12, 11.143kw
Dallas	*36 KDFI-DT*	*STA 11.2kw/384m*
El Paso	**14 KFOX-TV**	**PR>420kw**
El Paso	*15 KFOX-DT*	*PR>604m*
El Paso	40 K40FW	QG from ch. 69
Fort Worth	*51 KFWD-DT*	*NW 375kw/545m, 32-35-19/96-58-05*
Galveston	*47 KTMD-DT*	*QR to ch. 48*
Galveston	**48 KTMD**	**QR to ch. 47**
Hereford	12 K12PL	NS 1kw, 34-45-00/102-22-54
Houston	*19 KTXH-DT*	*NW 421kw/596m, 29-33-44/95-30-35*
Houston	21 KVQT-LP	QR from ch. 24
Jasper	66 K66GA	NS 20kw, 30-58-32/93-59-25
Kerrville	15 K15GB	NS 15kw, 30-03-31/99-08-16
Killeen	16 K16CY	PR dismissed ROA
La Vernia	46 KQVE-LP	PG>20kw, 29-25-42/98-29-33
Matador	47 K47GE	QG from ch. 68, 550w, 33-58-54/100-54-48
Nacogdoches	**19 KLSB-TV**	**PR>4270kw/457m, 31-54-20/95-05-05**
Pecos	20 K20HD	QG from K18EO
Quanah	33 new-LP	AF 750w, 34-12-41/99-44-05, but already dismissed
San Angelo	*11 KLST-DT*	*STA 760w/84m*

Texas:

San Angelo	41 KANG-LP	FC to Telefutura? Sold to Entravision.
San Antonio	7 KJLF-LP	PC>1kw, 29-27-34/98-24-24
San Antonio	51 KRYT-LP	QG from ch. 68, 40kw, 29-37-21/98-46-38
San Antonio	*55 KENS-DT*	*STA 29.4kw/445m*
Snyder	42 K42ET	QC from ch. 69, 8.4kw
Stamford	44 KIDT-LP	QG from ch. 43, 10kw
Victoria	*15 KAVU-DT*	*STA 340w/46m*
Waco	*53 KWTX-DT*	*STA 501kw/515m*
Weslaco	*13 KRGV-DT*	*STA 5.7kw/445m*
Wichita Falls	51 K51GP	NS 10kw, 33-52-23/98-21-09

Utah:

Provo	*29 KUPX-DT*	*NW 530kw/1171m, 40-39-12/112-12-06*
St. George	*18 KUEW-DT*	*PR 1.62kw/67m, 37-03-50/113-34-20*
Salt Lake City	*28 KSTU-DT*	*STA 2.5kw/1116m*
Salt Lake City	*40 KTVX-DT*	*STA 434kw/1256m*

Vermont:

Hartford	**31 WNNE**	**PR<1820kw/684m**
White River Jct	27 new	WMTW-8 translator grant rescinded

Virginia:

Bristol	9 WOPI-LP	QR from ch. 56, 840w
Hampton	*16 WHRO-DT*	*NW 950wk/361m (replaces STA for 475kw)*
Hampton	*41 WVEC-DT*	*STA 363kw/344m*
Norfolk	*38 WTVZ-DT*	*STA 8kw/361m*
Norfolk	*40 WTKR-DT*	*STA 724kw/377m*
Norfolk	*46 WPXV-DT*	*NW 1000kw/360m*
Roanoke	*36 WPXR-DT*	*NW 700kw/623m*
So. Rockingham	16 WAZC-LP	PC>2.1kw, 38-38-27/78-36-51
Virginia Beach	30 W67CZ	QC from ch. 67, 36-46-32/76-23-11
Wytheville	41 WKPZ-LP	QR from ch. 3, 700w, 36-54-28/81-04-06

Washington:

Everett	*31 KONG-DT*	*STA 35kw/218m*
Ocean Park	24 K24FS	NS 1kw, 46-32-04/123-52-49
Seattle	*44 KHCV-DT*	*STA 31kw/714m*
Vancouver	**49 KPDX**	**FC to UPN?**
Yakima	*14 KAPP-DT*	*PG>200kw*

West Virginia:

Charleston	*39 WLPX-DT*	*NW 1000kw/350m*
Huntington	**13 WOWK-TV**	**PR 115kw/414m**

Wisconsin:

Adams	48 W18CM	QR from ch. 64 (never operated on 18?), 11.8kw, 44-01-13/89-33-29
Appleton	*59 WACY-DT*	*STA 4.14kw/279m*
Eau Claire	*39 WEAU-DT*	*STA 500kw/585m*
Fond du Lac	*44 WMMF-DT*	*STA 2kw/-23m*
Green Bay	**38 WPNE**	**PG>375m, already on air.**
Green Bay	*41 WGBA-DT*	*STA 4.14kw/279m*

Wisconsin:

Green Bay	*42 WPNE-DT*	*PG<375m*
Janesville	**57 WHPN-TV**	**PR>428m, 43-03-21/89-32-06 on the Madison community tower; already granted**
Madison	*20 WHA-DT*	*PG 124kw/408m*
Madison	*50 WISC-DT*	*STA 380kw/466m*
Milwaukee	**6 WITI**	**NS 34.6kw/123m, 43-05-26/87-53-50 (aux. backup)**

Milwaukee	*33 WITI-DT*	*STA 16.7kw/38m*
Milwaukee	*61 WVTV-DT*	*PG>850kw/302m, 43-05-44/87-54-17*
Rhinelander	26 K26GU	NS 7kw, 45-37-10/89-25-09, TBN (wrong side of Mississippi for K!)
Wisconsin:		
Whiting	24 W40BC	QR from ch. 40, 150kw, 41-54-33/91-39-17, CL to Cedar Rapids, IA
Whiting	32 W24BV	QR from ch. 24, 86.2kw, 41-32-49/90-28-35, CL to Rock Island, IL
Wyoming:		
Pinedale	39 K39GC	NS 24kw, 42-51-59/109-52-08
Rock Springs	43 K43HK	NS 15.1kw, 41-39-28/109-09-40
CANADA:		
Ontario:		
Prince Township	29 CICE-4	QR from ch. 49 due to WWUP-DT
Saskatchewan:		
Eastend	2 CJFB-1	DE
Val Marie	2 CJFB-2	DE

Thanks to Ryan Grabow, Rick Lucas, John Zeis, and Fred McCormack for information in this month's column.

Further CRTC action confirms that CJFB-1 and CJFB-2 will be deleted. The CBC says their existing transmitters already cover both communities. CICE-TV-4 is the first known cross-border LPTV displacement<grin>.

We have another TBN asking to swap its analog and DTV channels. WJEB-59 in Jacksonville, Florida wants to move to channel 44. Again, this would be an analog station on channel 44. In a case covering yet another group owner, Telemundo (NBC) has applied to swap the analog and digital channels of KTMD-48/KTMD-DT 47 Galveston, Texas. The analog operation would end up on channel 47. Remember that one such move has already been granted in Oklahoma City.

There are tons of DTV STAs listed this month. These are special authority to operate at lower power and/or antenna height than specified on the station's permit. Many STAs seem to be for relatively high power - note WISC-DT's in Wisconsin, at 380kw/466m it's not that far short of their authorized 603kw. Others, with unusually low antenna heights, will probably use a 1kw or so transmitter on the studio-transmitter link tower at the studio. A good example is WHBQ-DT in Memphis, 1.2kw@65m/200'.

There are also a fair number of requests to change DTV assignments. Especially in Georgia, where many of the GPTV PBS affiliates have applied to change their DTV assignments from UHF to VHF channels.
Rick is seeing new LPTV W52CQ Moravia, NY. It's 61 miles away and WPXJ-51 causes some adjacent-channel interference; hopefully the channel 51 trap will fix this. W52CQ carries the Cornerstone network - apparently as a translator of WPCB-40 in suburban Pittsburgh. When Rick's local WBXO-LP [15] was briefly off in May, he was able to log W15BR Oneida. It, too, is carrying Cornerstone. (It also has not yet moved to channel 36. In fact, the channel 36 permit has now disappeared from the FCC database...

A new community tower is going up in Philadelphia; according to John Zeis' letter it was about 1/4 complete as of May 14. It's only about 100' from the WCAU-10 tower. Stations I see listed with permits for the new tower include channels 31 (WPPX-DT or -TV), 32 (WPSG-DT), 34 (WYBE-DT), 35 (WYBE), 54 (WPHL-DT), 65 (WUVP-DT), 66 (WUVP), and 14. (WTSD-LP) The coordinates for WCAU-10 in the FCC database are slightly in error. It's on the same tower as WCAU-DT for which the right coordinates are listed - 40-02-31N, rather than 40-02-36 in the database.

John describes the programming on WWJT-LP [7] as "miscellaneous LPTV junk". I suspect most of us know exactly what he's talking about - I'll just tag it "independent"...

He also reports WPXN-31 New York back on the air but weaker than WXTV-41 and WFUT-68. (Both of

which are on the Empire State Building) WPXN has an application on file to move to a site in New Jersey; I'm making the rash assumption a special temporary authorization has been issued to begin using these facilities before the application is acted on. Those are the facilities listed in this month's column. Incidentially, Chip Kelley's site http://www.100000watts.com reports WNET-DT 61 New York is also back on the air. They have a STA for 2.66kw/94m at 40-45-11/73-59-56, which is pretty close to (if not on) Madison Square Garden. Obviously that's a pretty puny signal and will be badly shielded by buildings to the east. Folks in New Jersey might stand some chance of seeing it though.

Fred took a trip to Alexandria, Minnesota and checked out the always-changing wireless-cable system there. The lineup, as of late May:

Callsign	**Network**	**Callsign**	**Network**
K16CO	TV Land	K48DV	WFTC-29, Fox
K18DG	Good Life TV Net	K50DB	Weather Channel
K26CL	KMWB-23, WB	K52DZ	History Channel
K30AF	KWCM-10, PBS	K55ID	Great American Country
K32EB	FamilyNet	K58DS	Discovery Channel
K34AF	not certain	K60EJ	All News Channel
K36AA	KARE-11, NBC	K62AU	Hallmark Channel
K38AC	KMSP-9, UPN	K65HD	C-Span
K44GH	not seen	K67HI	KSAX-42, ABC

The new stations on channels 21 and 46 (not yet granted) weren't seen. Neither was K44GH. K34AF couldn't be seen at Fred's motel either, but he did see it the next day while leaving town. (safety note: his wife was driving. I know some of our members haven't taken that precaution!) Unfortunately it wasn't in long enough to tell for sure what it was carrying, but it did look like the kind of thing KVRR-15 would run. My last information was that K34AF carries KVRR, so at least for now I'm going to assume it still does.

None of the channels were scrambled.

Fred also expressed some surprise at K67HI carrying KSAX. KSAX is strong enough in Alexandria to overload Fred's Icom R-3. He speculates K67HI normally carries something else but its normal primary was off the air.

He also checked some of the Starbuck, Minnesota translators from the parking lot of a Glenwood restaurant. K66BA was carrying KMSP-9; K68BP was with WFTC-29. He didn't see K64BG but the other two signals were weak, so it might actually be on. It does seem reasonable to assume K64BG is no longer carrying WFTC.

Well, the skip season sure is off to a slow start. In the past that's meant an exceptional late season though. Presuming it does break open, note two new low-band VHF DTVs on the air. (WWMT-2 and WHP-4) Will this be the year someone succeeds in logging a DTV via Es? Good luck!

METEOR SHOWER NEWS

Three major meteor showers begin in July.

The Southern Delta Aquarids run from 7/14 to 8/18 peaking on July 28 and 29.
The Alpha Capricornids run from 7/15 to 8/11 peaking on 8/1 and 8/2.
The Southern Iota Aquarids run from 7/1 to 8/18 peaking on 8/6 and 8/7.
About seven other minor showers are in operation at this same time making this one of the best times for meteor shower dxing of the entire year.

DTV Extensions Denied & Canadian DTV policy

D. Smith W9WI - 16 June 2002

Maybe one of the bigger news items this month is the denial by the FCC of several applications for DTV permit extensions. Fifty stations are involved, apparently including all of TBN's full-power stations. Stations requesting an extension had to provide the Commission with justification for their failure to meet the May 1st deadline. Quoting from the request TBN submitted for KAAH-26 Honolulu:

> "Coordination of the transition to digital has been extremely difficult and final equipment orders are just now being evaluated for placement with delivery to follow. Moreover, in an effort to initiate DTV service as soon as possible, focus has been on completing STA facilities based on the Commission's determination that full allocation protection for UHF facilities would be maintained beyond May 1, 2002."

The Commission didn't buy it. Identical statements were filed for the other TBN stations. The FCC offered the opportunity to file an amended Form 337 providing a specific plan for how the extra 90 days would be used to "further the construction of KAAH-DT", and a specific date upon which TBN would expect construction to be complete. Just as TBN's applications for their other stations were identical to KAAH's, the FCC's responses for the other stations were also identical.

TBN's second response didn't fare any better. The Commission wrote "...you have failed to explain why you need an additional six-month extension merely to order such equipment." They also felt TBN's statement that initial construction could be completed "within the next twelve months or so" to be too vague, not providing a reasonable plan or expected date of completion.

So, TBN's extensions were denied, and they were "...admonished for its failure to comply with its DTV construction obligations." Does that mean TBN's DTV permits will be cancelled? That after the transition, there will be no full-power TBNs?

No.. TBN is getting an extension anyway. The timetable:

- **By July 3rd:** a report must be submitted outlining planned construction steps and an approximate date for completion.
- **By September 3rd:** another report is required detailing progress and justifying any delays.
- **By December 1st:** if construction is not complete, another six-month extension may be granted - but monetary fines will also be levied.
- **On May 1st, 2003:** unless good reason can be shown, the DTV permits will be rescinded.

At any point, additional sanctions (presumably fines) can be levied if the reports fail to justify delays or show bad faith.

It sounds like I'm beating up on TBN here. That's only because they're the group owner TV DXers seem to love to hate<grin>. Seriously, they are not by any means the only offenders. LibCo, Inc., a group owner of secular commercial stations, also had several extensions denied. Several other regular commercial owners had one or two permits denied. (It looked like one owner was playing "shell games", bouncing antennas around their various stations!) The same extension process being applied to TBN will also apply to the secular stations.

There remain two wildcards in this first phase of the DTV transition. First, what happens in November as those stations whose extensions were granted reach the end of their six months of extra time? Many stations with extensions are already completing construction, in the early part of the extensions. I think it's reasonable to assume a fair number of stations will not finish by November. How hard will the FCC be on those who ask for another extension?

Second, how are non-commercial stations going to fare when their permits begin to expire in May of 2003? I would presume a similar 6-month extension process will be provided - how many will need it?

We're in the middle of a wild ride. Hold on tight... And on a related subject...

The Canadian Radio-television and Telecommunications Commission (CRTC) has announced its regulatory framework for transition to over-the-air DTV. Some main points:

- There are no fixed deadlines. No station will be required to start DTV operation at any given date, nor will they be required to shut down their analog transmissions any sooner than they voluntarily choose to do so.
- Stations are encouraged (but not required) to build DTV facilities that match their analog coverage. Stations are required to maintain their analog coverage throughout the transition period.
- Existing stations will have first opportunity to apply for DTV licenses. However, if they fail to do so in a "reasonable" amount of time, the CRTC will consider other applicants for their assigned DTV channels.
- DTV stations will be allowed to offer as much as 14 hours a week of programming not carried on the associated analog stations, provided that programming is high-definition, and at least half of it is of Canadian origin.
- Where a high-definition version of a program aired between 6pm and midnight exists, it must be aired. Stations "...should also ensure that, by the end of December 2007, 2/3 of their schedules are available in the high definition format."
- It appears that the CBC will not be attempting to duplicate its analog coverage. They indicated they plan to operate digital transmitters only in the ten largest Canadian cities, covering 70% of the nation's population. The remainder would receive CBC DTV signals via satellite. (It causes one to wonder whether private broadcasters will follow suit, whether there will ever be over-the-air DTV in smaller cities?)

Canada has already adopted the U.S. ATSC format and 8VSB modulation scheme, and Industry Canada has already created a table of DTV allocations. To my knowledge the only DTV stations currently authorized in Canada are experimental demonstration stations on channel 66 in Ottawa and Toronto.

One might now expect to see some applications for DTV operation in Canada. I do not expect them to appear rapidly.

Eastern TV-DX

Matthew C. Sittel
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Bellevue, NE 68123
mcsittel@cox.net

July 2002 August, 2002 column deadline: Jul. 12

Eastern TV-DX is for reporters from the following states: AL, CT, DE, FL, GA, IN, KY, MA, MD, ME, MI, NC, NH, NJ, NY, OH, PA, RI, SC, TN, VA, VT and WV, plus Washington, DC. Also for reporters from the following Canadian provinces: NB, NF, NS, ON, PEI and PQ. Overseas reports are also welcome!

This season has all the makings of a classic dud. The big story is the LACK of skip plaguing us all as I type this. Maybe the atmosphere is saving up all the skip for a July skip-a-thon… but for now, it's been quiet.

John F. Vervoort, 217-79 Street, Brooklyn, NY 11209-3607

Equipment: RCA XL100 13" and Radio Shack indoor antenna. Archer amplifier.

5/17 Es
2058 WREG-3 TN Memphis
First Defense-Doppler 3 radar
2100 unID-2
2103 unIDs-4, 5
2200 unID-3 NBC
2205 unID-3 ABC
5/21 Es
2000 unID-3 ABC
2003 unIDs-2, 4
2016 WLBT-3 MS Jackson
2020 unID-3 ABC
6/1 tr
WMAR-2 MD Baltimore
KYW-3 PA Philadelphia
WRC-4 DC Washington
0803 WTTG-5 DC Washington
WPVI-6 PAPhiladelphia
0803 WJLA-7 DC Washington
WTNH-8 CT New Haven
0801 WUSA-9 DC Washington
WCAU-10 PAPhiladelphia
0801 WBAL-11 MD Baltimore
WHYY-12 DE Wilmington
Pledge drive
0826 WJZ-13 MD Baltimore
WPHL-17 PA Philadelphia
WMPT-22 MD Annapolis
WYOU-22 PA Scranton
WNJS-23 NJ Camden
WUTB-24 MD Baltimore
0741 WBRE-28 PA Wilkes-Barre
"28 NEWS On Your Side"
WTXF-29 PAPhiladelphia
WYBE-35 PA Philadelphia
0834 WLVT-39 PA Allentown
WBDC-50 DC Washington
WNJT-52 NJ Trenton
WPPX-61 DE Wilmington
WMBC-63 NJ Newton
0837 WFMZ-69 PA Allentown

Saul Chernos, 57 Berkeley St., Toronto, ON M5A 2W5 Canada (416) 364-0725
schernos@sympatico.ca

Key to loggings: (BR)-Burnt River

5/21 Es (BR)
1924 KPRC-2 TX Houston, logo
5/22 Es (BR)
2118 WESH-2 FL Daytona Beach
2121 WDIQ-2 AL Dozier, APT
5/28 tr (BR)
0736 WWUP-10 MI Sault Ste. Marie
"9/10" ID

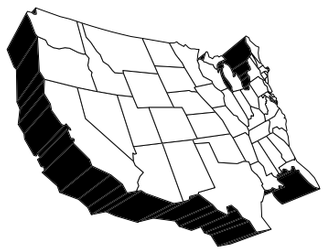
Doug Smith, W9WI, Pleasant View, TN w9wi@w9wi.com http://www.w9wi.com

Date unknown tr
WKMA-DT-42 KY Madisonville 59
5/3 tr
0650 WMC-DT-52t TN Memphis
brief sync lock
0653 WPTY-DT-25 TN Memphis 172
<WPTY 24, Memphis, TN>
5/5 tr
2109 WPXX-DT-51 TN Memphis 173
<WPXX-DT>
W57CG-57 TN Memphis, HSN
WPTY-DT-25 TN Memphis 172
Blank text ID
2120 WREG-DT-28 TN Memphis 175
Blank text ID
2123 WLMT-DT-31 TN Memphis 169
Blank text ID but local
news & ID bug
2224 WAPT-16 MS Jackson 338
WMAV-18 MS Oxford 207
WMAO-23 MS Greenwood 286
2257 WMC-5 TN Memphis 17

Continues after Western TV DX

WESTERN TV DX

VICTOR FRANK
12450 SKYLINE BLVD.
WOODSIDE, CA 94062-4554
frank@horizon.sri.com



Dennis Park Smith, 3605 San Remo Drive, Santa Barbara, CA 93105-2523 (805)687-7803

This report is for May 2002. At Santa Barbara, tropo DX along the southern California coast, to San Diego/Tijuana on TV-FM (250-mi/320km) wasn't much, due either to unsettled conditions or apparent very high layer boundary (the lower elevation the boundary is, the better the tropo for my low elevation). May 31 showed more promise for June to follow.

Apr 24 – May 10: None (starting with tropical rain L..A. – San Diego, and unsettled after that)
May 11: Very poor
May 12: Poor
May 13 – 19: Very poor
May 20 – 21: None (light rain)
May 22 – 23: am: Very poor
May 23 eve – 24 am: Poor
May 24 eve – 28 am: Very poor
May 28 am – 31 aft: Out of town, in Wasco
May 31 aft – eve: Fair (intensifying inversion & Layering with hot temps inland.)

I was in Wasco May 28-31, just in time for developing hot dry weather. Tropo was practically nil except somewhat better on May 31 morning, due to humidity from Pacific Hurricane Alma off Baja California being drawn up north by low pressure in our area.

May 31, morning tr all California			mi/km
KXTV 10	Sacramento	ABC very poor	215/345
KOVR 13	Stockton	CBS very poor	215/345
KMPH-LPt 17	Merced		145/230
(Offset CCI u/KGET Bakersfield 35mi/55km, still new tent. Since 12-26-00)			
KUVS 19	Modesto Uni	Spanish good	175/280
KTXL 40	Sacramento Fox	poor	215/345
KNSO 51	Merced Tele	Spanish vy gud	145/230
K56DZ 56	Fresno TBN	poor	90?/145?
KQCAt 58	Stockton WB		215/345
(Offset CCI u/KBFX-LP Bakersfield 45mi/75km)			

Also May 31, Es chs. 2 & 4, approx 0803 PDT briefly, no Ids.

Best of DX to all, Dennis

Matthew C. Sittel, 15013 Eureux Circle, Bellevue, NE 68123 mcsittel@cox.net
http://members.cox.net/mcsittel/beltvdx.htm

Equipment: Winegard PR-9032 UHF antenna at 35', Winegard AP-4700 UHFpre-amp., Winegard PR-5030 VHF antenna at 32', MFC traps for channels 3, 6, 7 and 26.

January 4, 2002 Es

1832	WUND-2	NC Columbia, nx	1116
1843	WCBD-2	SC Charleston,NBC 2	1056
2000	WESH-2	FL Daytona Beach	1176
2010	unIDs-2, 4 SS		

January 5, 2002 Es

0752	WESH-2	FL Daytona Beach	1176
0756	WUFT-5	FL Gainesville	1094
0756	WPTV-5	FL West Palm Beach	1345
0758	WPBT-2	FL Miami	1380
0818	WFOR-4	FL Miami	1379
1908	unIDs-2 ABC, 4		

February 4 tr

2000	WFTC-29	MN Minneapolis	309
2130	WHWC-28	WI Menomonie	342
2130	KXLT-47	MN Rochester	272

February 7 tr

0639	17/25	MO Jefferson City	240
0644	21/33	MO Springfield	312
0657	KRSC-35	OK Claremore	325
0657	24/33	KS Wichita	244
0659	KOKI-23	OK Tulsa	351
0724	KDNL-30	MO St. Louis	344
0749	KSNF-16	MO Joplin	287

February 22 tr

0635	KXLT-47	MN Rochester	272
0640	KMIZ-17	MO Columbia	240
0645	10/21/33	MO Springfield	312
0729	KDEB-27	MO Springfield	314
0729	KWBM-31	AR Harrison	353

April 12 tr

2255	23/47/53	OK Tulsa	349
2300	KWBT-19	OK Muskogee	369
2302	21/33	MO Springfield	312
2304	KSNF-16	MO Joplin	287
2305	KTPX-44	OK Okmulgee	364
2310	KRSC-35	OK Claremore	325
2315	KTFO-41	OK Tulsa	351
2327	KDOR-17	OK Bartlesville	317

April 13 tr

0002	KOED-11	OK Tulsa	351
0655	KOCB-34	OK Oklahoma City	392
0704	KPOM-24	AR Fort Smith	385
0704	10/47	MN Rochester	248
0704	11/29	MN Minneapolis	309
0706	KDNL-30	MO St. Louis	344
0708	K30AL-30	KS Iola	224
0720	KHBS-40	AR Fort Smith	422
0818	KAKE-10	KS Wichita	244
0831	25/31	IL Peoria	335
0831	KFXB-40	IA Dubuque	291
0833	KSNF-16	MO Joplin	287
0845	WTVP-47	IL Peoria	334
0900	21/27/33	MO Springfield	312
2100	KXLT-47	MN Rochester	272
2252	KMIZ-17	MO Columbia	240

April 15 tr

0637	10/47	MN Rochester	248

0637 KGAN-2 IA Cedar Rapids 224
0639 KFXB-40 IA Dubuque 291
0640 WHLA-31 WI La Crosse 299
0643 WKOW-27 WI Madison 358
0650 WXFT-60 IL Aurora 433
0654 WHBF-4 IL Rock Island 285
0701 KDNL-30 MO St. Louis 344
0957 WDJT-58 WI Milwaukee 432

April 17 tr
0620 KXLT-47 MN Rochester 272

May 1 tr
0621 KFXB-40 IA Dubuque 291
0655 KOZK-21 MO Springfield 312

May 17 Es
2136 unID-2 CBS, to the west

May 21 Es
1848 WESH-2 FL Daytona Beach 1176

May 23 Es
1859 KTVQ-2 MT Billings, Q2 707
1859 unID-2 SS "Family Feud"
1930 CITL-4 AB Lloydminster 1074
1946 CKRN-4 PQ Rouyn-Noranda 964
1947 CHNB-4 ON North Bay 893
1947 CFCL2-2 ON Kearns 939
1953 unIDs-2 NBC, FF, CTV, Global
2039 CICT-2 AB Calgary 1113
2056 CKAL1-2 AB Lethbridge 1014
2145 KFBB-5t MT Great Falls, ABC
2224 KXLY-4 WA Spokane, ID 1142
2234 KREM-2 WA Spokane 1144

May 26 tr
0930 KGEB-53 OK Tulsa 349
1058 KDOR-17 OK Bartlesville 317
Es
1053 unID-2 SS

May 30 Es
1743 unIDs-2/4 ABC
1744 KDKA-2 PA Pittsburgh, wx 833

May 31 tr
0630 WXFT-60 IL Aurora, SS 433
0715 KLJB-18 IA Davenport, Fox18 289
0716 16/22/34 IN South Bend 505
0716 WSJV-28 IN Elkhart, Fox28 506
0717 WQPT-24 IL Moline, calls 289
0719 WWTO-35 IL La Salle, TBN 364
0719 WYIN-56 IN Gary, logo in LR 444

A very quiet period for DX. very little trops and a lack of May skip. I had way too much time to do other tasks around the house! 73s Matt.

Jeff Kruszka, 5024 S. Braxton Ave., Baton Rouge, LA 70817

May 2002 CT

4	tr	0019	XHAB	7	TA	505
		0021	KVEO	23	TX	500
5	tr	0134	KLRT	16	AR	305
			KXAN	36	TX	395
		0136	KWBF	42	AR	300
		0157	KATV	7	AR	300
		2248	KXAM	14	TX	445
			KEYE	42	TX	395
		2249	KNVA	54	TX	395
6	tr	0728	KXTX	39	TX	365
		0759	KERA	13	TX	365
7	tr	2300	KXAN	36	TX	395
8	tr	2355	KXAN	36	TX	395
9	tr	2215	XHAB	7	TA	505
		2312	K58__?	58	LA	

loc. TBN moved from 56 10

15	Es	0915	XEPM	2	CH	floater 910
		0932	unids 3-5 SS			
		1000	KDBC	4	TX	ID 910
		1044	XEJ	5	CH	"en Juarez" 910
21	Es	1800	WBZ	4	MA	1385
		1803	WFSB	3	CT	1235
		1917	CBLTt	5	ON	hockey
		1927	WIVB	4	NY	1095
		1943	CKVR	3	ON	1130
22	Es	0837	XHIT	4	CH	905
		0959	KDBC	4	TX	910
		1019	KUAT	6	AZ	
			calls lower right			1175
		1027	KVOA	4	AZ	1175
		1047	KPHO	5	AZ	1245
		1059	KTVK	3	AZ	1245
23	Es	0939	unid 3-5 SS			
		1100	KTVK	3	AZ	1245
24	Es	1906	unid 3-5 SS			
25	Es	0943	KTVK	3	AZ	1245
31	Es	1401	unid 4 ABC brief			

A pathetic month for E-skip.

Danny Oglethorpe, P.O. Box 17452, Shreveport, LA 71138-0452 Email: doglethorpe@yahoo.com

When multiple channels from one location are listed at the same time, the time is when the first station was received.

APRIL 2002 UTC

1	tr	0735	KVFW-LP38	TX	SS	religion		209
		0815	Atlanta	GA	area 14, 17, 30, 34, 36, 46, 63, 69			500+
			WTJP	60	AL	461		
		0820	WABM 68	AL	"UPN68"	410	WIAT	42
			AL Through local					410
		0835	WJSU	40	AL	"ABC 33/40"		
			Through local					468
			Montgomery	AL	13, 20, 26, 32			436
		0945	Columbus	GA	28, 38, 54			512
		1012	WNGM 64	GA	590			
		1015	WPGA 58	GA	585	1025		WSWS66
	AL	489	1027	Macon	GA	13, 41, 44		590
		1235	WCIQ	7	AL	469		
		1313	WACS	25	GA	GPTV		548
8	Es	2203	WDTN	2	OH	Brief		735
9	Es	0307	WBAY	2	WI	Brief		892
17	Es	0135	XHPDT 2	Sonora	Note # 1			
18	tr	0415	KGNS	8	TX	481		
		0430	KVEO	23	TX	502		
23	tr	0015	Montgomery	20, 26, 32				436
			Columbus	GA	9, 28			512
		0110	WTXL	27	FL	577		
		0440	WSRE	23	FL	400		
28	tr	0815	Valley	7, 9, 23				500+
29	tr	0240	Valley	7, 9, 14, 23, 44, 54				500+
		0615	KGNS	8	TX	481		
30	tr	0215	Valley	7, 9, 11				
		0555	Laredo TX/ Nuevo Laredo TAM	8, 11, 13, 27, 57				481
		2300	Valley	2, 4, 5, 7, 9, 11, 12 (mixed with local), 23, 40 (Floating), 44, 48, 54				500+

NOTE # 1 Calls and location supered upper center over XEW programming.

Mike Cherry, VE7SKA mcherry@saltspring.com

May 2002 UTC

18	Es	0001	KNOP	2	NE	125
19	ms	1458	KTWO	2	WY	130

25 Es	1859	KASA	2	NM	160	
	2058	KREG	3	CO	135	
	2100	KTVX	2	$ UT	135	
	2113	KLNE	3	NE	135	2126
	KCNC		2	CO	130	
28 Es	0159	KCRA	3	CA	180	0230
	KTVU		2	CA	180	

June 2002 UTC

8 Es	0157	KVBC	3	NV	165	
	0230	KSL UT	5		140	
	0232	KTVX	2	$ UT	140	
	0258	KTLA	5	CA	180	
	0300	KCBS	2	$ CA	180	

Frank Aden, N7SOK, 4096 Marcia Place, Boise, ID, 83704

May 2002 MDT

17 Es	1800	KLNE	3	NE	-2100
		KMTV		NE	-2100
		KHASt	5		-2100
31 Es	1130	KSWK	3		
	1203	KSNW	3	KS	
	2400	KTVK	3	AZ	
	2400	XHBC	3	BC	

Eric Bueneman (N0UIH), 631 Coachway Lane, Hazelwood, MO 63042-1347 Phone**:** (314) 839-9751
E-mail: N0UIHEric@aol.com
Web site: http://www.qsl.net/n0uih/

Equipment (home): Alaron 12-inch (30 cm) black and white TV, Radio Shack VU-210XR w/RS Archerotor at 28 feet (8 m) above ground level

Equipment (work): Midland 12-inch (30 cm) black and white TV, Winegard VHF/UHF antenna at 50 feet (15.2 m) above ground level.

All times CST; all distances in miles/km

November 10, 2001 (trop)
From the studios of WSIE (88.7 MHz), Dunham Hall, Southern Illinois University, Edwardsville, IL
0007 KOAM 7 KS Pittsburg 285/459
0009 KODE 12 MO Joplin 275/443
0010 KOLR 10 MO Springfield 210/338

November 10, 2001 (trop) *From home QTH*
0110 WZTV 17 TN Nashville "Fox 17" 270/435
0117 WNPX 28 TN Cookeville 325/523
0120 WCIU 26 IL Chicago 255/410
0121 WXIX 19 KY Newport "Fox 19" 325/523
0122 WKEF 22 OH Dayton 340/547
0125 KMCI 38 KS Lawrence "38 Family Greats" 255/410
0130 WBDT 26 OH Springfield "WB 26" 360/579
0132 WRGT 45 OH Dayton 340/547
0133 WFIE 14 IN Evansville 165/266
0136 WDKA 49 KY Paducah (K49FC nulled) 155/249
0137 WNDY 23 IN Marion "UPN 23" 285/459
0143 KOLR 10 MO Springfield 190/306
0152 KSNF 16 MO Joplin 250/402
0154 WCFT 33 AL Tuscaloosa "ABC 33/40" 415/668
0207 WHMB 40 IN Indianapolis (K40FF nulled) 240/386
0208 WDRB 41 KY Louisville "Fox 41" 250/402
0211 WHTN 39 TN Murfreesboro 300/483
0215 KYTV 3 MO Springfield "KY 3" 190/306
0215 KCWE 29 MO Kansas City 225/362
0216 KSHB 41 MO Kansas City 225/362
0225 WBKI 34 KY Campbellsville 290/467
0303 WTVQ 36 KY Lexington "ABC 36" 330/531
0312 WWHO 53 OH Chillicothe "UPN 53" 400/644
0333 WCLJ 42 IN Bloomington 210/338
0334 WIPB 49 IN Muncie (K49FC nulled) 255/410
0335 WFYI 20 IN Indianapolis 240/386
0340 WTTK 29 IN Kokomo 255/410
0341 WXIN 59 IN Indianapolis "Fox 59" 240/386
0342 WIPX 63 IN Bloomington 210/338
0345 WLFI 18 IN Lafayette (w/K18BT) 225/362
0409 WTHR 13 IN Indianapolis (WPXS nulled) 240/386

November 11, 2001 (trop) *From home QTH*
2322 KDEB 27 MO Springfield 190/306
2325 KSPR 33 MO Springfield (Grade B) 190/306

November 12, 2001 (trop) *From home QTH*
0125 WJKT 16 TN Jackson "Jackson's 16" (ex-WMTU) 235/378
0130 WHNT 19 AL Huntsville 345/555
0131 WNPX 28 TN Cookeville 325/523
0133 WZDX 54 AL Huntsville 345/555
0134 WAFF 48 AL Huntsville 345/555
0139 WBBJ 7 TN Jackson 235/378
0147 WDSI 61 TN Chattanooga 385/620
0214 WCFT 33 AL Tuscaloosa 415/668
0240 WHBQ 13 TN Memphis "Fox 13" (WPXS nulled) 250/402
0257 WFYI 20 IN Indianapolis 240/386
0258 WLKY 32 KY Louisville 250/402
0330 WHTN 39 TN Murfreesboro 300/483
0331 WDRB 41 KY Louisville 250/402
0340 WPTY 24 TN Memphis (through KNLC) 250/402
0412 WEHT 25 IN Evansville 165/266
0432 WFIE 14 IN Evansville 165/266
0438 WEVV 44 IN Evansville 165/266
0440 WBKI 34 KY Campbellsville 290/467
0452 WLOV 27 MS West Point 370/595
0454 WNDY 23 IN Marion (CBTP) 285/459
0457 WHMB 40 IN Indianapolis 240/386

December 7, 2001 (trop) *from home QTH*
1544 WDRB 41 KY Louisville 250/402
1545 WLKY 32 KY Louisville 250/402
1546 WKPC 15 KY Louisville 250/402
1549 WVUT 22 IN Vincennes 135/217
1551 WBKI 34 KY Campbellsville 290/467
1553 WAZE 19 KY Madisonville 190/306
1557 WKYT 27 KY Lexington 330/531
1600 WTVQ 36 KY Lexington 330/531
1610 WBKI-CA 28 KY Louisville ("WB" logo) 250/402

December 10, 2001 (trop) *from home QTH*
2119 WLKY 32 KY Louisville 250/402
2121 WDRB 41 KY Louisville 250/402
2122 WCET 48 OH Cincinnati 320/515
2124 WXIX 19 KY Newport/Cincinnati, OH 325/523
2127 WNDY 23 IN Marion (w/WTHR-13 news) 285/459
2210 WNDU 16 IN South Bend 300/483
2236 WSJV 28 IN Elkhart/South Bend 305/491
2237 WKEF 22 OH Dayton 340/547
2238 WEHS 60 IL Aurora/Chicago (not yet Telefutura at the time) 235/378
2240 WPWR 50 IN Gary/Chicago, IL (w/semi-local W50CH) 250/402
2241 WRGT 45 OH Dayton 340/547
2242 WBDT 26 OH Springfield/Dayton 360/579
2243 WSBT 22 IN South Bend 300/483
2245 WBKI 34 KY Campbellsville 290/467
2246 WKNT 40 Bowling Green (K40FF nulled) 220/354
2248 WPTD 16 OH Dayton 340/547
2250 WKGB 53 KY Bowling Green 220/354

2251 WIPX 63 IN Bloomington (w/WTHR-13 news) 210/338
2254 WKPC 15 KY Louisville 250/402
2305 WJKT 16 TN Jackson 235/378
2327 WFYI 20 IN Indianapolis (WICS nulled) 240/386
2336 WFWA 39 IN Fort Wayne 320/515
2337 WHMB 40 IN Indianapolis (K40FF nulled) 240/386
2338 WXIN 59 IN Indianapolis (Grade B signal) 240/386

December 11, 2001 (trop) *from home QTH*
0004 WNPX 28 TN Cookeville 325/523
0009 WFFT 55 IN Fort Wayne 320/515
0010 WCLJ 42 IN Bloomington (Grade B signal) 210/338
0012 WAZE 19 KY Madisonville 190/306
0013 WZTV 17 TN Nashville "Fox 17" 270/435
0015 Evansville, IN 7, 14, 25, 44 (all Grade B) 165/266
0016 WHTN 39 TN Murfreesboro/Nashville 300/483
0018 WDKA 49 KY Paducah (over K49FC) 155/249
0020 WPGD 50 TN Hendersonville (W50CH nulled) 265/427
0053 WTTK 29 IN Kokomo 255/410
0232 WTVQ 36 KY Lexington 330/531
0233 WKYT 27 KY Lexington 330/531
0345 WGBO 66 IL Joliet/Chicago 225/362
0359 W39CJ 39 KY Elizabethtown (TBN) 260/428
0404 WHAS 11 KY Louisville (under KPLR) 250/402
0408 WANE 15 IN Fort Wayne 320/515
0412 WKGK-LP 48 IN Kokomo 255/410
0416 WBBJ 7 TN Jackson 235/378
0447 WCIU 26 IL Chicago 255/310
0448 KSPR 33 MO Springfield 190/306
December 12, 2001 (trop) *from home QTH*
0125 WJKT 16 TN Jackson 235/378
0128 WCFT 33 AL Tuscaloosa 410/668
0131 WIAT 42 AL Birmingham 410/668

May 28, 2002 (trop) *from home QTH*
2037 Springfield, MO 21 (K21OD nulled), 27 (WTCT/WCCU nulled), 33 (grade B) 190/306
2104 Urbana, IL 12, 27 155/249
2105 Jefferson City, MO 13 (Grade A), 25 100/161
2106 Columbia, MO 8 (w/WSIU), 17 (over WAND) 105/169
2108 KPOB 15 MO Poplar Bluff (WICD nulled) 145/233

Quite an opening on the weekend of November 10-12! Just after wrapping up an airshift at WSIE (88.7 MHz), I checked out the TV band, and noticed that it was wide open to the southwest. Springfield and Jefferson City were in like locals; Joplin/Pittsburg area stations were pulled in on 7 and 12. As I returned to my home QTH, I noted that the opening stretched from Chicago to Tuscaloosa, but concentrated more on the OH/KY/TN/AL area. The opening the following Sunday night/Monday morning was basically into the same area. I managed to pull in a new state on TV (MS) with WLOV 27 broadcasting their weather radar image for the Mid-South. I last saw this one in Georgia in the early 1990s! The openings on December 10-12 also yielded many stations from western Ohio/northern Indiana to southwest Missouri, and from Chicago down to Birmingham. I finally pulled in WHAS-11 under local KPLR; thank God Clear Channel doesn't own this one (it's big spender Belo). The opening wrapped up with two Alabama stations. The short opening on May 28 brought a clear signal from KRCG-13 and a semi-local signal from KSPR-33. I'm now awaiting the surprises this E-skip season will bring.

73, Eric (N0UIH)

EASTERN TV DX CONTINUES

(Doug Smith's Report)

	over local			
2338	WMAW-14	MS	Meridian	315
	WIIQ-41	AL	Demopolis	282
	WIAT-42	AL	Birmingham	202
2343	KNLC-24	MO	St. Louis (rare)	233
2344	WHSL-46	IL	East St. Louis	231
	unID-68		America's Store	
2345	KFVS-DT-57	MO	CapeGirardeau	150
	<KFVS HD>			
2347	KTVI-DT-43	MO	St. Louis	232
	<FOX2-DT>			
5/6 tr				
0008	KSDK-DT-35	MO	St. Louis	232
	WHSL-DT-47t	IL	East St. Louis	
	KDNL-DT-31t	MO	St. Louis	
5/24 GW				
0800	WKRN-DT-27	TN	Nashville	28
	<WKRN-DT>			
5/31 tr				
0900	WMC-DT-52t	TN	Memphis	
	Brief sync lock			
	WKMU-DT-36tKY		Murray	
	Brief sync lock			
	WDYR-LP-33	TN	Dyersburg	132
5/31 Es				
0950	MUF to ch.5 briefly, mostly MUF-3			
1101	KENW-3t	NM	Portales	
	cartoonsinEnglish			

Strings in < > are the text ID strings on DTV stations. KET stations run four virtual channels; only the first has an ID string. WPTY-DT had two virtual channels on the 3rd, but the second didn't work. On the 5th, the second virtual channel was gone-and so was the ID string (maybe they lose the second channel and ID string when they're on the ABC network?)

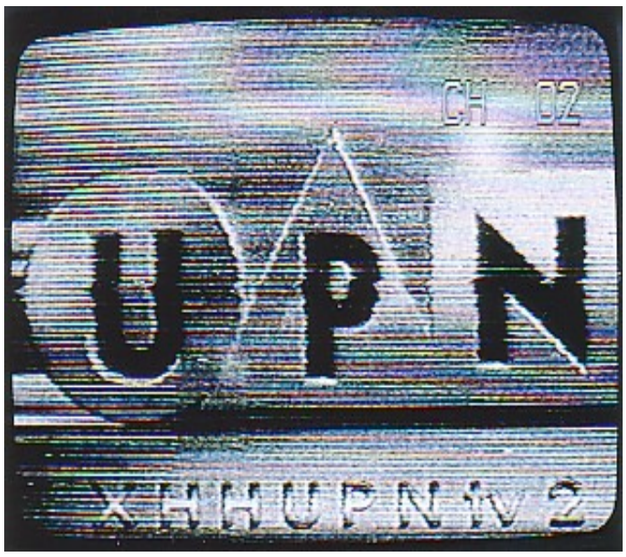
WLMT-DT was the first station to show two different audio options-"ATSC A/53" and "MPEG-2". MPEG-2 didn't work. My current DTV DX record is a tie between KTVI-DT and KSDK-DT at 232 miles.

PHOTO-NEWS

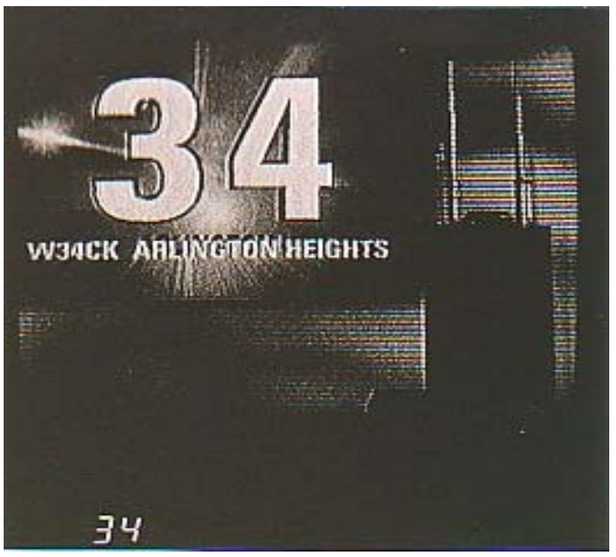
Jeff Kruszka, Editor
5024 S. Braxton Ave.
Baton Rouge, LA 70817
jkruszka@bellsouth.net

July 2002

More this month from Bill Eckberg of Dixon, IL.
Equipment:
VHF: 1997 Orion color TV with CM 1110 @41 ft. 300 ohm leadin with RDX Labs UA-60 balun.
UHF: 1990 Zenith AC-DC 9" color TV with CM screened 7' dish @52 ft. and RDX Labs UA-903 preamp; RG-11 cable.

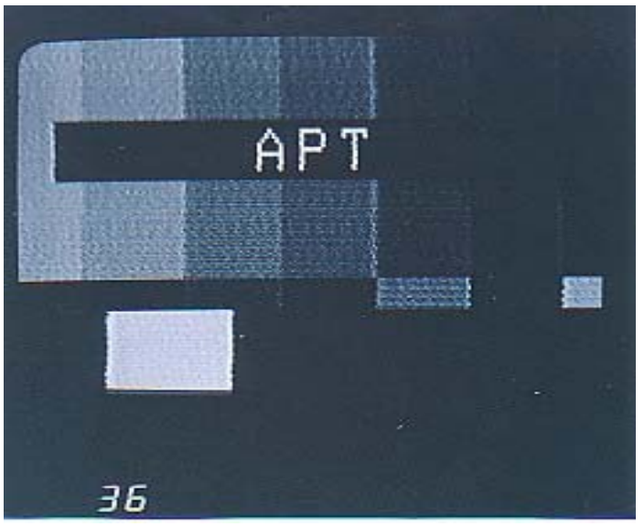


XHHUPN-2 Matamoros, TA
1201 mi Es seen 6/01



W34CK Arlington Hts., IL
72 mi Tr seen summer 2001
"LPTV 0.5 kW"

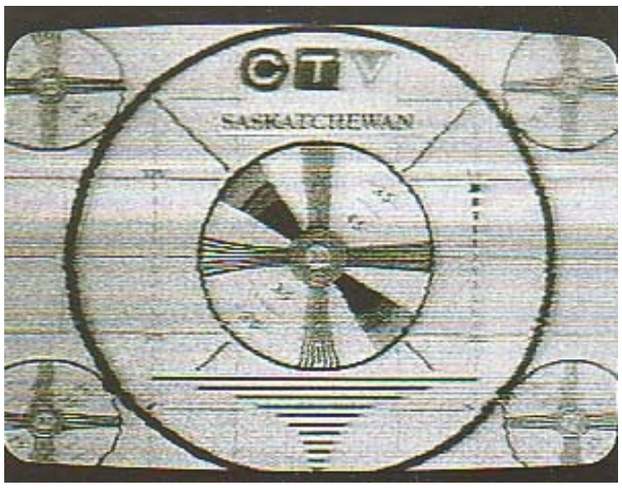
KCWH-12 Hutchinson, KS
512 mi Tr seen 8/27/01
@0400 CDT



WFIQ-36 Florence, AL
483 mi Tr seen 11/12/01
@0300 CST

WJKT-16 Jackson, TN
419 mi Tr seen 11/12/01
@0430 CST

WPXX-50 Memphis, TN 451
mi Tr seen 11/12/01
@0930 CST



CKCK-2 Regina, SK
918 mi Ms seen 11/19/01
@0210 CST
"great meteor shower"

WSKY-4 Manteo, NC
828 mi Es seen 12/27/01
@0400 CST
"new on air"

And now we have one from the one and only Danny Oglethorpe, of Shreveport, Louisiana:

XEFE-2 Nuevo Laredo, TA
483 mi Es seen 5/28/01
@1905 CT

SOUTHERN FM DX

John Zondlo
4009 Driftwood Circle
Yukon, OK 73099
sfm@fmdxweb.com
Deadline: 10th

For DXers in AL, AZ, AR, CA, CO, DE, DC, FL, GA, HI, KS, KY, LA, MD, MS, MO, NV, NM, NC, OK, SC, TN, TX, UT, VA, WV, Cuba & Mexico

July 2002

Fred Laun – K3ZO – 5801 Huntland Road Temple Hills, MD 20748 - EDT
aalaun@attglobal.net

Denon TU-800 tuner, Winegard antenna @35'

6/4 Tr

0554	WKXB	99.9	NC	Wilmington, ID, nulled Frederick's WFRE 322
0908	WTRG	100.7	NC	Raleigh, ID 216
0911	WBBB	96.1	NC	Raleigh, "96 Rock" 237
0918	WJZV	93.1	VA	Richmond, "Smooth Jazz Richmond," nulled Baltimore's WPOC 88
0924	WIKS	101.9	NC	New Bern, "Kiss 102 FM," nulled Baltimore's WLIF 250
0929	WMGV	103.3	NC	New Bern, "V 103.3" 254
0945	WSAY	98.5	NC	Rocky Mount, ID 206
1007	WCBZ	103.7	NC	Morehead City, ad affiliation w/96.3 201

6/13 Es

1057	KNSR	88.9	MN	Collegeville, "MN Public Radio" 1010
1100	WUEC	89.7	WI	Eau Claire, ID 854
1110	KKOK	95.7	MN	Morris, ID, good copy even tho adjacent channel to WPGC 95.5, whose txmtr is 4 miles away 1074
1113	KEEY	102.1	MN	Minneapolis, "K-102" 935
1120	WBJI	98.3	MN	Bemidji, Bemidji ads 1080
1121	KGPZ	96.1	MN	Grand Rapids, ID 1010
1123	KSTP	94.5	MN	Minneapolis, "KS95" 936
1131	WDAY	93.7	ND	Fargo, "Y-94" 1167
1142	KXRA	92.3	MN	Alexandria, Sauk Centre ads 1062
1145	KDAL	95.7	MN	Duluth, "New Magic 95.7" 944
1150	WCQM	98.3	WI	Park Falls, Park Falls ads 844
1155	KQDS	94.9	MN	Duluth, "95-KQDS" 945
1157	KBLB	93.3	MN	Baxter, Baxter ads 1020
1200	KFAI	90.3	MN	Minneapolis, Twin Cities notes 940
1201	KAXE	91.7	MN	Grand Rapids, phone 326-1234, traced back from phone number 1014
1201	KLQP	92.1	MN	Madison, Dawson ads 1076
1202	WSCD	92.9	MN	Duluth, "MN Public Radio" 944
1204	KBRK	93.7	SD	Brookings, "B 93.7" 1110
1207	WRJO	94.5	WI	Eagle River, Land O' Lakes ads 811
1207	KSCR	93.5	MN	Benson, KBMO (AM) ID 1053
1220	KBAJ	105.5	MN	Deer River, "95-QDS" relay 1016
1227	KMFG	102.9	MN	Nashwauk, "K-103," Virginia ads 1000
1230	KCAJ	102.1	MN	Roseau, "KJ-102," phone number 463-3360 1154
1233	KTIS	98.5	MN	St. Paul, "NW College Radio" 935
1234	WWJO	98.1	MN	St. Cloud, St. Cloud ads 996
1234	KDKK	97.5	MN	Park Rapids, Dorset ads 1070
1235	KMFY	96.9	MN	Grand Rapids, ID 1014
1238	KKIN	94.3	MN	Aitkin, "94.3 FM," Aitkin ads 1003
1242	KKWQ	92.5	MN	Warroad, "Lake Country KQ-92" 1147
1244	CKSB7	93.5	ON	Kenora, CBC French, location consistent with skip area of the moment 1148
1253	KFGO	101.9	ND	Fargo, "The Box 101.9 dot com" 1167
1254	KRJM	101.5	MN	Mahnomen, White Earth ads 1118
1300	CJKR	97.5	MB	Winnipeg, "Power 97" 1251
1303	KQHT	96.1	ND	Grand Forks, "The Fox 96.1" 1174
1304	KRVI	95.1	ND	Fargo, "The River" 1116
1307	WELY	94.5	MN	Ely, ID 975
1308	CFOB	93.1	ON	Fort Frances, ID 1075
1322	CBON22	93.7	ON	Geraldton, CBC French, location consistent with skip of the moment 895
1325	KKXL	92.9	ND	Grand Forks, "XL-93" 1186

Kevin Redding – Gilbert & Southern – Mesa,AZ – MST – amfmdx@fastq.com

Modified Hafler 330 tuner & APS-9 antenna @ 35'

5/25 Tr

1840	K203AA	88.5	AZ	Tucson, translator for KFLR 90.3 in Phoenix w/rel programming
1845	KXCI	91.3	AZ	Tucson, playing some nice blues, really nice non-comm
1847	KFMA	92.1	AZ	Tucson, r
1854	KNAA	90.7	AZ	Globe, rel pgm "Answers with Ken Hamm"
1858	KIKO	106.1	AZ	Claypool, "Night Flight" pgm w/Cher song, slogan "Serving hits for 10 years"
1859	KWMX	96.7	AZ	Williams, "Cool Oldies 96.7," Elvis' "Suspicious Minds"
1912	KVRD	105.7	AZ	Cottonwood, ID, k, Oak Ridge Boys song

5/23 Es

0810	XHRED	88.1	DF	MexicoCity, ranchera,"Radio Red"
0812	XHAGT	93.7	AG	Aguascalientes, nx
0815	XHSC	93.9	JA	Guadalajara, a Globo stn w/ID
0822	XHDK	94.7	JA	Guadalajara, political ad
0838	XEJP	93.7	DF	Mexico City, 2 men talking but never got a clear indication of who this was
0841	XHOZ	94.7	QU	Queretaro
0848	XHD	96.5	HD	Ixmilquilpan, Mexican AC
0850	XHLM	96.5	MR	Cuernavaca
0859	unID	93.9	??	??, "Radio Mejor"

6/1 Es

1841	KAEP	105.7	WA	Spokane
1848	CBU	105.7	BC	Vancouver, many mentions of Canada
1849	KMCQ	104.5	WA	The Dalles, "Q-104," mentions of the Gorge andThe Dalles
1850	KXDD	104.1	WA	Yakima, ID, k
1851	KSKI	103.7	ID	Sun Valley, mentions of Hallie & Buhl (towns) and Payday Loans ad
1853	KMTT	103.7	WA	Seattle,"TheMountain," ad for Klein Honda
1857	KINK	101.9	OR	Portland
1859	KTSL	101.9	WA	Medical Lake, "Power 101.9"
1902	KGDN	101.3	WA	Pasco, //KTRW, a Christian station w/mentions of Billings
1903	unID	99.7	??	??, playing dance/rap mx
1906	unID	99.3	??	??, CKUA net?, playing jazz, Ella Fitzgerald's "They Can't Take That Away from Me"
1911	KEYG	98.5	WA	Grand Coulee, classic r
1911	KISC	98.1	WA	Spokane, "Kiss 98.1," touting their Clear Channel ownership, "Super 70's" show
1912	unID	93.9	??	??, k, o/semi-local in Flagstaff
1915	KCRK	92.1	WA	Colville, "Farmers Insurance"ad,Mariners bb vs Baltimore
1918	unID	88.5	??	??, poss KJVH Longview WA with Christian rock
1945	KKCQ	96.7	MN	Bagley, "Q-Country," wx
2019	KNOX	94.7	ND	GrandForks, "Rooster Country"
2107	CHMX	92.1	SK	Regina, "You're listening to Regina's Lite 92 FM"
2111	CFQC	92.9	SK	Saskatoon, k
2115	CIMG	94.1	AB	Swift Current, "The Eagle94.1, you've found southwest Saskatchewan'sstation"
2118	CFMC	94.9	SK	Saskatoon, "C-95," r
2123	KZMY	94.9	WY	Sheridan, ads for Sheridan and Gillette
2128	CJX	96.1	MB	Brandon, "West Man's Best Rock"
2133	unID	97.5	??	??, rel programming
2138	KTHC	95.1	MT	Sidney, "95-dot-1,""Power 95," ad for ND National Guard
2142	KYYZ	96.1	ND	Williston, "Z-96," k

William McGuire – 2412 59th Place – Cheverly, MD 20785-2918 – EDT

DX-398

4/19 Tr

2310	WRTG	100.7	NC	Rocky Mount, "Oldies 100.7"

5/28 Tr

2048	WXCY	103.7	MD	Havre de Grace, local ad
2100	WOLC	102.5	MD	Princess Anne, "Joy 102.5"
2107	WRAR	105.5	VA	Tappahannock, ID
2118	WESM	91.3	MD	Princess Anne, blk Gospel mx
2125	WZBH	93.5	DE	Georgetown, station promo, "93.5 The Beach"
2140	WNVZ	104.5	VA	Norfolk, promo for local event, "Z-104"
2150	WAFX	106.9	VA	Suffolk, local ads, ID, "The Fox"

6/5 Tr

1853	WAFY	103.1	MD	Middletown, ad, station promo, "Key 103.1"

6/10 Tr

2310	WYCR	98.5	PA	York, top 40 mx, "Today's Hit Music, 98-YCR"
2340	WOGL	98.1	PA	Philadelphia, local ads, SID, "Oldies 98.1"
2355	WYSP	94.1	PA	Philadelphia, "The Rock Station"
2359	WSTW	93.7	DE	Wilmington, ID, RDS

6/11 Tr

0005	WRBG	101.7	DE	Ocean View, "The new B-101.7"
0010	WMGK	102.9	PA	Philadelphia, "Philadelphia's Classic Rock Station"
0015	WARM	103.3	PA	York, "Central Pennsylvania's home for soft rock"
0022	WLCE	104.5	PA	Philadelphia, "The new Alice 104.5"
0035	WDAS	105.3	PA	Philadelphia, ID
0039	WLVW	105.5	MD	Salisbury, "The Wave"
0044	WTDK	107.1	MD	Federalsburg, "The Duck"

From The Editor

Good turnout this month! Judging by the posts on the club newsgroup, the August issue ought to be chock full of DX reports. Be sure to send yours along and let everyone know what you've heard. See y'all next month!

WTFDA 2002

It's almost here! Oklahoma City welcomes WTFDA's 2002 convention July 26-28. There's still time to get your registration in. Check out the May and June VUD's for info and a registration form. And be sure to check out the WTFDA 2002 page of fmdxweb.com for more info and our itinerary.

CONVENTION 2002 JULY 26,27,28!!

SATELLITE NEWS

George W. Jensen
4604 Antanna Ave., Baltimore, MD 21206-4220
SCISATMAN@AOL.COM

A short column this month of deletions and additions and other changes..

GALAXY 1 - Addition - 602 - Fine Living - Digicipher

SATCOM C4 - 601 - TV Games - Digicipher

SATCOM C3 - 612 - The Science Channel - name change 616 - Health – Digicipher 622 - now called - Nick Toons 801 - MTV Jams 802 - MTV Spanis 803 - MTV Classic Rock 804 - VH1 Soul 805 - VH1 Country 806 - VH1 Mega Hits 807 - MTV Hits - most of this is simply name changes

TELSTAR T7 - Delete 16 - Vision Channel - Addition - 680 - Vision Channel - Digicipher 681 - Vision Channel ID Card - Digicipher AMC1 - delete - Fox Sports Net K2 - 401 and 402 - American Sports Cable Network – Digicipher 402 - American Spors Cable Network HDTV – Digicipher 750 - NHK Tokyo 751 - TV Asia 752 - unknown Russian – Digicipher AMC 3 - delete 11 - CNN-SI VC2

GALAXY11 - additions 400 - NBA Television – Digicipher 603 - KTVD - Denver, Colorado - Digicipher

GALAXY 3 - delete KPOC
PANAMSAT 9 - a slew of digicipher channels have appeared here – most unidentified
300 - 311 - unID'd 312 - Previews 350 - 359 - InID'd 600 - Color Bars 375 - UnID'd 387 - Preview Channel 388 - UnID'd
450 - UnID'd 455 - Color Bars 458 - color Bars 457 - 460 - UnID'd 700 - 711 - UnID'd 712 - 715 - Venezuela Radio stations 720 - UnID'd 726 - Educable 727 - UnID'd 728 - Color Bars 739 - 744 - UnID'd 746 - 751 - UnID'd 780 - News copy 781 - Financial copy 782 - Sports News Copy 783 - Entertainment News Copy 784 - Life and Arts News Copy 785 - Horoscope 786 - Canales de Musica Digital - list of 787 - Noticias de Hoje 788 - Financial
789 - News Copy 800 - 849 - A DMX/Music Choice type of music cluster.

That's all for this month - Send in any additions, corrections or other changes that you notice. See you in 30, '73's George.

The Dxer's Buddy System

WHEN TIMES GET TOUGH...

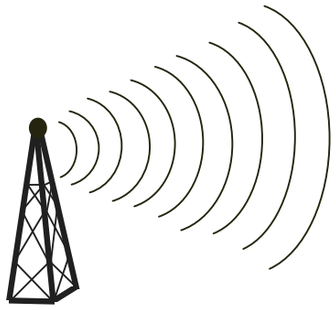
We Want to Help!

Hard times, rough times, tough time. It happens to everybody at least once in their lifetimes. If you find renewal time right around the corner but you don't find the cash in your wallet…don't despair!

If you love Dxing and want to stay with the WTFDA but find yourself low on funds, just email Mike B. at mbugaj@snet.net and we'll do our best to make sure you can stay for another year. We'll keep it confidential. It's the buddy system…and it WORKS!

Northern FM DX

Keith McGinnis
387 Shirley Street, Winthrop, MA 02152
longwave@attbi.com 617-846-5760



For Dxers in the following states CT, IA, ID, IL, IN, MA, ME, MI, MN, MT, ND NE, NH, NJ, NY, OH, OR, PA, RI, SD, VT, WA, WI, WY Please submit by the 10th of each month. If possible please submit in the formats shown below.

Adam Rivers- Chicopee MA Email: patriotsrule417@yahoo.com
http://adamskewlsite.freeservers.com

Sherwood S-7250 tuner w/ 110kHz filters RS antenna wire and Conrad RDS manager
All are new except WLDI All times are PM Total: 263 stations.

6/4 Es

5:35	94.3	WQPC	Prarie Du Chien	WI
	local ads			
5:42	95.5	KKZY	Bemidji	MN
	"KZY"			

6/13 Es (with Walkman @ School)

12:39	95.7	KKOK	Morris	MN
	<Note 1>			
12:40	97.3	KMXC	Sioux Falls	SD
12:44	95.9	KDLO	Watertown	SD
12:46	100.1	KOLV	Oliver	MN
12:49	103.5	KYSM	Mankato	MN
12:50	103.1	KJAM	Madison	SD
12:55	102.5	KQIC	Wilmar	MN
12:57	105.3	WGVY	Cambridge	MN
1:00	104.7	KCLD	St. Cloud	MN
1:04	95.1	KRVI	Detroit Lakes	MN
1:13	103.7	KGIM	Redfield	SD
1:17	92.3	WRLS	Hayward	WI
1:31	101.5	KUAL	Crosby	MN

6/14 Es

4:24	95.5	WLDI	Fort Pierce	FL
4:30	93.5	WBGF	Belle Glade	FL
4:40	92.7	WHFX	Saint Simon Island	GA
4:50	95.1	WAPE	Jacksonville	FL
5:58	94.3	KCVW	Kingman	KS
	<Note 2>			
6:00	88.3	KYFW	Wichita	KS
6:02	96.3	KRZZ	Derby	KS
6:10	95.1	KICT	Wichita	KS
6:11	99.7	KYYS	Kansas City	MO
6:11	101.3	KFDI	Wichita	KS
	<Note 3>			
6:14	107.7	KMAJ	Topeka	KS
6:15	106.5	KCIY	Liberty	MO
6:16	105.7	KJRL	Herington	KS
6:17	105.5	KZZY	Moberly	MO
6:17	103.3	KPRS	Kansas City	MO
6:18	106.1	KXKU	Lyons	KS
	<Note 4>			
6:20	104.3	KBEQ	Kansas City	MO
6:22	95.5	KOLS	Dodge City	KS
	<Note 5>			
6:24	94.1	KFKF	Kansas City	KS
6:26	105.1	KFME	Garden City	MO
6:28	93.3	KMXV	Kansas City	MO
	<Note 4>			
6:33	92.3	KMXW	Newton	KS
	<Note 4>			
6:35	94.5	KJCK	Junction City	KS
	<Note 4>			
6:38	100.3	KDVV	Topeka	KS
6:40	96.9	KZBK	Brookfield	MO
	<Note 4>			
6:44	97.3	WIBW	Topeka	KS
6:50	103.9	KNZA	Hiawatha	KS
6:51	102.5	KBLS	North Fort Riley	KS
6:52	101.7	KGOV	Gallatin	MO
6:53	92.3	WZPW	Peoria	IL
6:53	92.1	WQKQ	Carthage	IL
6:53	92.7	KSJQ	Savannah	MO
7:01	101.5	KMKF	Manhattan	KS
	<Note 4>			
7:02	107.9	KLTE	Kirksville	MO
7:11	103.3	KJLS	Hays	KS
7:13	103.5	KQLA	Ogden	KS
	<Note 4>			
7:16	100.1	KKWK	Cameron	MO
7:17	100.7	KHOK	Harington	KS
7:22	93.9	KZRD	Dodge City	KS
	<Note 5>			
7:23	105.5	KKJO	St. Joseph	MO
7:27	104.7	KXBZ	Manhattan	KS
	<Note 4>			
7:38	99.9	KSKQ	Salina	KS
7:41	98.5	KSAJ	Abilene	KS
7:51	93.5	KKMI	Burlington	IA
7:53	92.1	KMZA	Seneca	KS
7:59	89.5	KHCD	Salina	KS
8:06	90.1	KHCC	Hutchinson	KS
	<Note 6>			
8:06	90.9	KHCT	Great Bend	KS
	<Note 6>			
8:15	99.5	KHAZ	Hays	KS
8:16	105.5	KVSV	Beloit	KS
8:23	101.9	KKQX	Hill City	KS
8:46	93.9	KOGS	Wichita	KS
8:53	92.9	KGRC	Hannibal	MO
8:55	91.1	KCFN	Wichita	KS
	<Note 7>			
8:57	92.9	KANS	Osage City	KS
	<Note 8>			
9:02	89.9	KRPS	Pittsburg	KS
9:04	99.5	KRWV	Emporia	KS

9:10	107.9	KSJM	Winfield	KS	9:22	94.1	WZBQ	Carrollton	AL
9:16	95.5	WSM	Nashville	TN	9:29	102.5	WDXB	Jasper	AL
9:19	100.1	KJMO	Jefferson City	MO					

Note #1- Amazed by this opening. In math class rest of class was watching a movie and I decided to turn on my walkman. Looked for WKSS (the station I listen to most) and instead heard country. Had no clue what was going on so I checked all the open frequencies and got those above. I heard many others that I have not been able to ID but was very surprised and pleased. My friend that is interested in DXing was listening with me (Lee) and writing down the catches. Note #2- Was very surprised hearing religious on 94.3. Thought nothing of it at first but listened and heard the ToH ID and discovered there was Es. Note #3- Over semilocal WKCI with "Wichita's Country" Note #4- Was in for most of the opening. Note #5- 1 488 miles. That's my distance record and it amazed me when I found out how far away it was. Note #6- It took me 7 minutes to figure out the 3 "Radio Kansas" stations were all the same.. that shows how bad of a DXer I am! Note #7- RDS catch "KCFN". First Es RDS catch. Note #8- RDS catch "KANSAS".

FRED NORDQUIST - Clay NY (EDT) Equipment: RX: Carver TX-11a w/IF Filter mod. Ant: SP9s at 35'AGL & 12' AGL (vert pol for Es). *=new to log
Conrad RDS Mgr w/PC SW (RDSS0389). FM DX for period 5/31/02 - 6/18/02.

5/31/02 TR

2332 *W286AE105.1 Fairport NY
xltr-WGNC j (WXBB off)

6/12/02 Es

PTA SW. MUF 92.3 No IDs.

6/14/02 Es

Biggie 1848-2317 IL/KS/OK/MO/MUF 108+

1935 *KTRX 92.7 Dickson OK
1945 KFXJ 104.5 Augusta KS
The Fox (1166)
1954 KSCB 107.5 Liberal KS
ID (1378)
2011 KCFN 91.1 Wichita KS
PI=15K7 PS=KCFN (1165)
2026 *KSKU 97.1 Hutchinson KS
ID (1189)
2047 *KRXO 107.7 Ok City OK
ID (1250)
2154 *KMOQ 107.1 Baxter Spgs KS
lcl ad (1067)
2115 *KOMC100.1 Kimberly City MO ID (1017)
2120 *KTTL 105.7 Alva OK
lcl ad (1260)
2237 *KQMX 95.5 Clinton OK
lcl ads Hot Mix 95.5 (1326)
2235 KGND 107.5 Ketchum OK
ID (1100)
2217 KOSU 91.7 Stillwater OK
PI=36EQ PS=KOSU91.7 cl (1217)

Totals now at 1850.

JACOB NORLUND Duluth MN

6/12 Es

A nice skip opening around 1500 local today on FM.

88.1 WPIR Hickory NC
w/ "Joy FM" & area codes for western NC
88.5 WFDD Winstom-Salem NC
w/ calls and "Carolinas...". Very strong
88.7 WNCW Spindale NC
w/ partial calls & mention of local sponsor

6/13 Es

88.3 CHR w/ calls that sounded like WBZR
88.7 "CBC Radio One Montreal" w/ local wx (see editor's note below)
88.7 (or around there) KDAR ID. KDAR is in Oxnard, CA...perhaps a satellite-fed translator?
93.1 WMGX Portland ME
in for a long time w/ IDs and rock music
94.3 WCYY Portland ME
ID as soon as I tuned up to the frequency

(editor's note….Jacob's CBC on 88.7 was more than likely CBME on 88.5. The only two CBC stations on 88.7 that I know of are CBV-4 and CBOF-9 and they are, as far as I know, both part of the French language network.)

6/14 Es

88.1 WPIR Hickory
NC w/ Southern Gospel musci
88.1 WRJA Sumter
SC
88.7 WFOS Chesapeake
VA
92.5 WHLZ Sumter
SC "Wheels 92.5"
92.5 KLZY Cody
WYthis one might sound a little strange but they were playing classic rock I think I heard the ID and they had an advertisement for a local college which from looking at their website appears to be of a solely local nature.
93.3 WVFJ Atlanta GA
"J-93.3"
93.3 WERO Greenvile NC
"www.bob933.com"
93.3 WSYE Houston MS
"Sunny 93.3" I think this one (or another stn on the same frequency) had an advertisement for an (cty name not exac)t "Okitibina County Hospital"

94.1 WQBT Savannah GA
"The Beat" w/ rap music. Very loud
94.1 WRJM Geneva AL
with nice ID
94.5 WYSF Birginham AL
"Y94"
94.7 WDEC Americus GA
"Home of the Braves" and Albany commercials "South Georgia"
106.7 WYAY Atlanta GA
"Eagle Country 106.7"
106.9 WWVV Bluffton SC
"Wave 106.9" This stn sounded more like a nearby tropo catch than skip

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Jim Renfrew, Byron NY Sony auto radio All times EDT

6/13 Es

1111 WRFM 93.5 Remsen NY
"Warm 93.5", unusual. I Often get Utica when Es is in.
1117 KTTS 94.7 Springfield MO
relog
1117 WIL 92.3 St. Louis MO
previously heard as Ms, thimay be my first two
mode reception.
1122 WXUR 92.7 Herkimer NY
also rare
1125 WTSG 90.1 Carlineville IL
new
1139 KMXW 92.3 Newton KS
new with these call letters
1143 KOPN 89.5 Columbia MO
new
1205 KANS 92.9 Osage MO
"Kansas Radio", new.
1208 KJLS 103.3 Hays KS
" The Wave" (Central time)
1211 UNID 93.7
“Lou Jones (dj), on Country Classics"
1211 KHCA 95.3 Wamego KS
"Angel 95", new.
1212 KCLY 100.9 Clay Center KS
new.
1216 kKBZ 99.3 Clarinda IA
new.
1217 KNCY 94.7 Auburn NE
new.
1218 KJCV 89.7 Country Club MO
"Bott Radio Network", not a translator, according to Bruce Elving
1220 KWCC 93.1 Muscatine IA
new.
1224 KEFM 96.1 Omaha NE
mentions "Harvey Oaks" residential neighborhood
(thanks Mike Hawk)
1225 KRNA 94.1 Iowa City IA
new.
1226 KRSS 93.9 Tarkio MO
new.
1231 KEZO 92.3 Omaha NE
"Z-92", new.
1232 KUSO 92.7 Albion NE
"US 92", new.
1227 UNID 100.1
"K-100 FM"
1237 KZEN 100.3 Central City NE
ads for Aurora and Columbus, new.
1241 UNID 101.5
"Back to the Bible, KCGN Ortonville MN or Gregory SD?
1241 WVRQ 102.3 Viroqua WI
new.
1244 WNFM 104.9 Reedsburg WI
"All American Country", new.
1247 KKRO 103.7 Sioux Falls SD
"Real Rock 103.7, the Crow", new.
1248 WLXR 104.9 LaCrosse WI
"Tree House Gift and Home" ad.
1251 KOWZ 100.9 Blooming Prairie MN
"Owatonna Shoes" ad, new.
1253 K220BI 91.9 Grand Marais MN
“WNCB” translator (my firs Es translator)
1300 KCHK 95.5 New Prague MN
"Pryor Lake area"
1301 UNID 92.7 NE
state news mentions Buffalo and Dakota Counties, Kearny Hospital
1303 WOZZ 93.5 New London WI
"OZZ", new.
1306 WDUX 92.7 Waupaca WI
new.
1307 KSCR 93.5 Benson MN
new.
1308 WOFM 94.7 Mosinee WI
"Oldies 94.7 & 99.9", news.
1312 WOSQ 92.3 Spencer WI
new.
1314 WKEB 99.3 Medford WI
new.
1315 WHRM 90.9 Wausau WI
"Wisconsin Public Radio", new.
1316 UNID 93.1 WI
"Southwest Wisconsin ... Against Irrational
Killing of deer"PSA, WJBL? (skip zone)
1319 UNID 94.1
"Kasey Kasem program, WIAL Eau Claire?,
Doug Smith says it is notWJJO.
1322 KSTQ 99.3 Alexandria MN
"Z-99, Alexandria", new."
1326 UNID 88.1 MN
"college station sports news segment," KVSC?
1328 UNID 92.3 WI
state weather, "current wx here on Radio Hill"
1330 KKIN 94.3 Aitkin MN
“on the River”
1331 KFAB 92.7 Kindred ND
"B-93", new with these calls, thanks Bruce Elving
1333 KSKK 94.7 Staples MN
new.
1334 UNID 96.7
Liddy show, can’t get into his web site with crashing netscape
1336 UNID 100.9
Paul Harvey

1336 KQDJ 101.1 Valley City ND
relog.
1337 KRCQ 102.3 Detroit Lakes MN
probably this one with MN news items, relog
1338 KZZY 103.5 Devils Lake ND
relog
1338 UNID 103.7
"103 minutes of hit music"
1341 WSCDt 92.9 Duluth MN
possibly the one with classical
1343 KKZY 95.5 Bemidji MN
"KZY", relog.
1344 KDNWt 97.3 Duluth MN
possibly with a preacher.
1345 KLLZ 99.1 Walker MN
"KZ", new.
1354 UNID 91.3 MN
Public Radio news feature, underwiter promo
1355 CHIQ 94.3 Winnipeg MB
local ads, new.
1356 CITI 92.1 Winnipeg MB
"City", new.
1357 KKDQt 99.3 Thief River Falls MN
"Red River Valley".
1358 WBJIt 98.3 Blackduck MN
"Bemidji".

<u>6/14 Es</u>

2040 KTLI 99.1 El Dorado KS
new.
2043 KDVV 100.3 Topeka KS
new.
2044 UNID 101.5
“Live 105”
2047 KRTQ 102.3 Sand Springs OK
new.
2053 KTPK 106.9 Topeka KS
new.
2053 KHTT 106.9 Muskogee OK
new.
2055 UNID 107.9
religious teaching, possibly KLTE
2056 KTST 101.9 Oklahoma City OK
“The Twister”, new.
2057 KMYZ 104.5 Pryor OK
new.
2059 KMUW 89.1 Wichita KS
new.
2059 KBUZ 90.3 Topeka KS
AFA
2100 KCSC 90.1 Edmond OK
new.
2103 KKBL 95.9 Monnett MO
Cardinals BB Aurora, Mt. Vernon, Cassville mentioned, new.
2105 UNID 97.7
Cards/Royals, Todd Brandenburg suggests KNMO
2105 KFH 98.7 Clearwater KS
KFH 1330, new with these calls.
2112 KRMS 93.5 Osage Beach MO
new.
2114 UNID 100.9
Cards/Royals, KTUI MO the only one listed on either network
2114 KEYN 103.7 Wichita KS
new.
2118 KFAY 98.3 Bentonville AR
“Fletcher’s in Rogers”, new.
2121 KJMO 100.1 Jefferson City MO
new.
2122 KSAR 100.9 Salem AR
“In West Plains” (Southern MO), new.
2123 KBEQ 104.3 Kansas City MO
“Overland Park”, new.
2126 104.7 Cardinals BB, 2 stations, one in MO other in TN
2128 KCBW 94.3 Kingman KS
relog.
2131 KVCY 104.7 Ft. Scott KS
“Crosstalk” call-in, only VCY station on this frequency
2133 KMXW 92.3 Newton KS
“Mix”
2134 KMOD 97.5 Tulsa OK
relog.
2146 KANR 92.7 Belle Plaine KS
“Fly 92”, new.
2146 KRIGt 104.9 Nowata OK
Real Country
2150 KPNC 100.9 Ponca City OK
new.
2155 KYFM 100.1 Bartlesville OK
“Bartlesville Radio”, new.
2158 KBDD 91.9 Winfield KS
AFA, new.
2159 Unid 91.3
AFA
2159 KDGB 93.1 Pratt KS
Wichita weather, new.
2200 KXOO 94.3 Elk City OK
KX Double O, new.
2217 UNID 104.7
“Oldies Radio”
2226 KOASt 92.1 Tulsa OK
“Tulsa” mentioned
2229 KREK 104.9 Bristow OK
Stereo Country 105 Bristow, relog.
2231 KGVE 99.3 Grove OK
Grand Lake Radio, new.
2232 KRSC 91.3 Claremore OK new.
2234 KOLI 94.9 Electra TX new.
2236 KKEN 97.1 Comanche OK
“Kickin’ 97”, new.
2239 KWTO 98.7 Springfield MO
park.edu advertises on Royals net
2240 KBTN 99.7 Neosho MO
Classic Country , Miami country, new.
2241 KYKC 100.1 Byng OK
relog.
2241 KHJM 100.3 Taft OK
“KHJ”, double hop to Los Angeles? Nope!
2242 100.3 2 Royals stations listed
2243 KYYI 104.7 Burkburnett TX
Texhoma’s The Bear, new.
2247 106.3 calls? Wichita Falls TX
Mix 106, new.
2248 KHTT 106.9 Muskogee OK
K-Hits
2251 KRPT 103.5 Anadarko OK
new, previously in 103.7.
2251 Unid 103.7 KES_
2256 KWEN 95.5 Tulsa OK
K 95.5, new.
2300 KGVE 99.3 Grove OK
new

JEFF LEHMANN Hanson MA Equipment: Akai AA-V335 and the Radio Shack Version of the FM 6 antenna. All times are PM unless otherwise noted. XXXX indicates time not recorded.

6/13 Es

12:12	KGGO	94.9	Des Moines	IA
12:14	KZEN	100.3	Central City	NE
	KZ100			
12:16	KLQL	101.1	Luverne	MN
	Tri State's K101			
12:19	KLIR	101.1	Columbus	NE
	Clear 101			
12:24	KJAM	103.1	Madison	SD
	Jammin Country Kjam 103			
12:25	KUOO	103.9	Spirit Lake	IA
12:27	KLLT	104.9	Spencer	IA
	Lite 104.9			
12:30	KTLB	105.9	Twin Lakes	IA
	105.9 The Beach			
12:33	KXLP	93.1	New Ulm	MN
12:34	KKYA	93.1	Yankton	SD
	KK93			
12:39	KSOU	93.9	Sioux City	IA
12:42	WOLX	94.9	Baraboo	WI
12:45	KWOA	95.1	Worthington	MN
	KO95			
12:49	KDWB	101.3	Richfield	MN
12:49	KTTB	96.3	Glencoe	MN
	B96			
12:52	WLOL	100.3	Minneapolis	MN
	Classic Hits 100			
12:56	WLXR	104.9	La Crosse	WI
	Magic 105			
12:59	KIKN	100.5	Salem	SD
	Kickin Country			
1:10	KMXK	94.9	Cold Spring	MN
	Mix 94-9			
1:14	KKSR	96.7	Sartell	MN
	Kiss 96			
1:20	KTCZ	97.1	Minneapolis	MN
	Cities 97			
1:22	KZPK	98.9	Paynesville	MN
	Wild Country 98-9			
1:25	KEEY	102.1	St Paul	MN
	K102			
1:28	KRCQ	102.3	Detroit Lakes	MN
	Real Country			
1:29	KTIG	102.7	Pequot Lakes	MN
	Moody			
1:31	KLKS	104.3	Breezy Point	MN
	K Lakes			
1:40	KJJK	96.5	Fergus Falls	MN
	KJ Country 96.5			
1:55	KRVI	95.1	Detroit Lakes	MN
	The River 95.1			
2:00	KKCQ	96.7	Bagley	MN
	Q Country 96.7			
2:04	KSNR	100.3	Thief River Falls	MN
	Kool 100.3			
2:12	KCAJ	102.1	Roseau	MN
	KJ102			
2:24	KBDZ	93.1	Perryville	MO
	B93			
2:26	CJEL	93.5	Winkler	MB
	The Eagle 93-5			
2:35	CITI	92.1	Winnipeg	MB
	92 Citi FM			
2:37	CJKR	97.5	Winnipeg	MB
	Power 97			
2:38	CHIQ	94.3	Winnipeg	MB
	Q94.3			
2:42	CKMM	103.1	Winnipeg	MB
	Hot 103			
XXXX	KKWQ	92.5	Warroad	MN
	KQ92			
XXXX	KTWA	92.7	Ottumwa	IA

6/12 Es

7:48	WAYF	88.1	W Palm Bch	FL
	Way FM			
7:53	WRMB	89.3	Boynton Bch	FL
7:54	WPYM	93.1	Miami	FL
	Party 93.1			
7:56	WPOW	96.5	Miami	FL
	Power 96			
7:58	WZTA	94.9	Miami Beach	FL
	94.9 Zeta			
8:00	WRMF	97.9	Palm Beach	FL
8:02	WRTO	98.3	Goulds	FL
8:05	WLVE	93.9	Miami Beach	FL
	Love 94			
8:10	WXDJ	95.7	N Miami Bch	FL
	El Sol 95			
8:37	WRWA	88.7	Dothan	AL
9:03	WZZR	92.7	Stuart	FL
	Real Radio			

6/10 Tr

8:27	WTSA	96.7	Brattleboro	VT
8:33	WDCD	96.7	Clifton Park	NY
8:48	WKLL	94.9	Frankfort	NY
	Modern Rock K Rock			
9:04	WLNH	98.3	Laconia	NH
9:10	WRSI	93.9	Turners Falls	MA
	93-9 The River			
9:13	WGNA	107.7	Albany	NY
9:30	WQBJ	103.5	Cobleskill	NY
	The Edge			
9:45	WTCC	90.7	Springfield	MA
10:42	WKKF	102.3	Ballston Spgs	NY
	102.3 Kiss FM			
10:55	WPKX	97.9	Enfield	CT
	Kix 97.9			
XXXX	WHYN	93.1	Springfield	MA
	Mix 93.1			

6/9 Tr (all times are AM)

12:12	WIXM	97.3	Millville	NJ
	Mix 97.3			
12:27	WAFX	106.9	Suffolk	VA
	106.9 The Fox			
12:32	WPUR	107.3	Atlantic City	NJ
	Cat Country 107.3			
12:37	WVKL	95.7	Norfolk	VA
	95.7 R&B			
12:38	WSVY	105.3	Norfolk	VA
	Vibe 105.3			
12:49	WLVG	96.1	Ctr Moriches	NY
	Love 96.1			
12:56	WJNE	103.5	Bethany Bch	DE
	Lite Rock 107.5 and 103.5			

1:01	WNVZ Z104	104.5	Norfolk	VA
1:09	WPLR	99.1	New Haven	CT
1:13	WOLC Joy 102.5	102.5	Princess Anne	MD
1:49	WNJO 94.5 The Hawk	94.5	Trenton	NJ
8:30	WFME	94.7	Newark	NJ
XXXX	WCRI	95.9	Block Island	RI
XXXX	WHTZ Z100	100.3	New York	NY
XXXX	WIHS	104.9	Middletown	CT
XXXX	WILI I-98	98.3	Wilimantic	CT
XXXX	WKCI KC101	101.3	Hden	CT
XXXX	WKNL Kool 101	100.9	New London	CT
XXXX	WPHX FNX	92.1	Sanford	ME
XXXX	WQCD CD 101.9	101.9	New York	NY
XXXX	WRKI I95	95.1	Brookfield	CT

June 8 Tr

8:17	WMSJ	89.3	Freeport	ME
9:40	WPBX	88.3	Southampton	NY
10:03	WKSS Kiss 95.7	95.7	Hartford	CT
10:08	WEMG Mega 104.9	104.9	Egg Hrbr City	NJ
10:09	WSNJ	107.7	Bridgeton	NJ
10:30	WNHW	97.1	Hatteras	NC
10:30	WSKQ Mega 97.9	97.9	New York	NY
10:43	WALK	97.5	Patchogue	NY
10:50	WWOC	94.5	Hatteras	NC
10:55	WPTE 94.9 The Point	94.9	Virginia Bch	VA
10:58	WKDN	106.9	Camden	NJ
11:00	WWXY Runba 107	107.1	Hampton Bays	NY
11:03	WQHQ Q105	104.7	Ocean City	MD
11:06	WXJN Cat Country 97.5 and 105.9	105.9	Lewes	DE
11:13	WCMS	100.5	Norfolk	VA
11:17	WLNG	92.1	Sag Harbor	NY
11:18	WNYC	93.9	New York	NY
11:18	WPAT Amor 93.1	93.1	Patterson	NJ
11:24	WANJ 92.3 and 101.1 The Beat	101.1	Belhaven	NC
11:43	WZBH 93.5 The Beach	93.5	Georgetown	DE
XXXX	WAXQ Q104.3	104.3	New York	NY
XXXX	WBZO B103	103.1	Bay Shore	NY
XXXX	WCBS	101.1	New York	NY
XXXX	WCLZ 98.9 The Point	98.9	Brunswick	ME
XXXX	WEZN Star 99.9	99.9	Bridgeport	CT
XXXX	WKTU	103.5	Lake Success	NY
XXXX	WMOS 104.7 The Wolf	104.7	Montauk	NY
XXXX	WNLC	98.7	East Lyme	CT
XXXX	WQCB Q106.5	106.5	Brewer	ME

6/4 Tr

9:21	WAYV	95.1	Atlantic City	NJ
10:50	WUSL Power 99	98.9	Philadelphia	PA

5/30 Tr (All times AM)

3:18	WQHT Hot 97	97.1	New York	NY
7:24	WQXR	96.3	New York	NY

5/29 Tr

11:20	WBAB	102.3	Babylon	NY

5/27 Tr

9:38	WMJC Island 94.3	94.3	Smithtown	NY
10:05	WSPK K104	104.7	Poughkeepsie	NY

5/24 Tr

10:23	WSUF	89.9	Noyack	NY

5/22 Es

9:38	WEAS E93	93.1	Savannah	GA
9:49	WKRO US93	93.1	Edgewater	FL
9:52	WWRM Magic 94.9	94.9	Tampa	FL

5/9 Tr

3:03	WMEA	90.1	Portland	ME
6:52	WMGX	93.1	Portland	ME
6:55	WJBQ Q97.9	97.9	Portland	ME
6:55	WLOB	96.3	Rumford	ME
7:21	WRCN	103.9	Riverhead	NY
XXXX	WBEA Beach Radio	101.7	Southold	NY

5/7 Tr

8:09	WFUV Fordham U.	90.7	New York	NY

5/6 Tr

5:59	WKCG Star 101	101.3	Augusta	ME
6:06	CIOK K100	100.5	Saint John	NB
8:52	WKJY K-Joy 98.3	98.3	Hampstead	NY
10:50	WZMX Hot 93.7	93.7	Hartford	CT

5/27 Tr

9:00	WHFM WBAB	95.3	Southhampton	NY

3/13 Tr

3:24	WYNZ	100.9	Westbrook	ME
	Oldies 100.9			
XXXX	WOTX	102.3	Concord	NH
	Outlaw 102.3			

2/25 Tr

6:41	WJLK	94.3	Asbury Park	NJ
	94-3 The Point			
8:02	WNEW	102.7	New York	NY
9:25	WJRZ	100.1	Manahawkin	NJ
	Oldies 100			
10:13	WOCQ	103.9	Berlin	MD
	OC-104			

1/25 Tr

8:16	WPKN	89.5	Brideport	CT

Jan 4 Es

4:19	WTDR	92.7	Talladega	AL
	Thunder 92.7			
7:26	WOKK	97.1	Meridian	MS
	97 OKK			
7:39	WONA	95.1	Winona	MS
7:56	WKHL	96.7	Stamford	CT
	Kool 96.7			
8:15	WMJJ	96.5	Birmingham	AL
	Magic 96.5			
XXXX	WWMS	97.5	Oxford	MS
	Miss 98			

JERRY BOND Rochester NY DXing in 1992 Chevy Van All times are EDT

6/14 Es

1828	KZLE	93.1	Batesville	AR
1830	KNTU	88.1	Denton	TX
	ID into news			
2130	KBEZ	92.9	Tulsa	OK
	ID			
2132	KOKF	90.9	Okla City	OK
	Christian stn, 10 min dance music blocks			
2133	KQSR	94.7	Okla City	OK
	Variety 94.7 KQSR and KOKF stayed in until 2320-last ones to fade out			
2136	UNID	107.9		
	ad for house for sale at 1032 N.Pinecrest folo by ABC News update			
2138	KTTL	105.7	Alva	OK
2143	UNID	95.5		
	Hot Mix 95.5 with mentions of White Water Bay and S.W. Sate Univ.			
2148	UNID	95.9		
	Best Country slogan 1-800-457-6647			
2152	UNID	95.7		
	sounded like "95.7-KXLN" but don't see that call in the FM Atlas			
2213	KOLI	94.9	Electra	TX
	"Great Country"			
2215	UNID	96.9		
	Unforgettable favorites-Memories 96.9			
2220	KOBC	90.7	Joplin	MO
	KOBC jingle			
2223	KIZS	92.1	Broken Arrow	OK
	Club Center, Tulsa mentions			
2229	KMSI	88.1	Moore	OK
	Oasis network			
2230	KVOO	98.5	Tulsa	OK
	"Today's Best Country-KVOO" jingle			
2238	KKBL	95.9	Monett	MO
	Monett spots			
2240	UNID	89.1		
	jazz			
2243	KWEN	95.5	Tulsa	OK
	Continuous Country			
2247	UNID	97.1		
	"Today's Home for Hot New Country-Kickin' 97.1			
2254	KREK	104.9	Bristow Crk	OK
	ID, country			
2257	UNID	107.3		
	Spanish			
2259	UNID	95.3		
	Storage R Us spot			
2300	KOLI	94.9	Electra	TX
	in again w/Wichita Falls mentions			

JOHN VERVOORT 217 – 79 St Brooklyn NY 11209-3607

Equipment: Optimus Extended Range with Radio Shack Amplifier and Grundig Yacht Boy 400PE

All times are EDT. Underlined are new.

6/14 Es

1945	KTGL	92.9	Beatrice	NE	“The Eagle”
2025	KEFM	96.1	Omaha	NE	
2028	KGBI	100.7	Omaha	NE	
2044	KQCH	94.1	Omaha	NE	
2049	KRNY	102.3	Kearney	NE	“Y 102”

KEITH MCGINNIS Winthrop MA

Equipment: Yamaha T-85 Tuner (Modified) with an APS 9 antenna 15ft AGL
All times are PM except where noted

6/8 Tr

9:09	WNHW	97.1	Hatteras	NC
	JRN netwk….NASCAR auto racing			
9:47	WCMS	100.5	Norfolk	VA
9:39	WOWI	102.9	Norfolk	VA
	103 Jamz			
11:14	WTWV	101.1	Mashpee	MA

6/9 Tr (all times for this date are AM)

12:24	WGMD	92.7	Rehoboth Bch	DE
12:15	WLVG	96.1	Westhampton	NY
	Love 96.1			
6:15	WSFL	106.5	New Bern	NC
	106.5 WSFL			

6/12 Es

7:46	WKEY	93.5	Key West	FL
	Key 93.5 Delilah			
8:00	WXDJ	95.7	Homestead	FL
7:50	WPOW	96.5	Miami	FL
8:28	WRMF	97.9	Palm Beach	FL
7:58	WRTO	98.3	Goulds	FL
8:10	WMGE	103.5	Ft Lauderdale	FL
	Mega 103.5			

6/14 Es

7:02	WIHN	96.7	Normal	IL
	local ads ID			
7:04	KCIY	106.5	Liberty	MO
	The City			
7:06	KZZT	105.5	Moberly	MO
	ID			
7:07	KRES	104.7	Moberly	MO
7:07	KBEQ	104.3	Kansas City	MO
	Q104 KC mentions			
7:10	KQLA	103.5	Ogden	KS
	Best Hits/Best Variet Q103.5			
7:12	KQRC	98.9	Kansas City	KS
	KC's Gun's and Roses Station Rock 98.9			
7:14	KYYS	99.7	Kansas City	MO
	bad PI Code but 99.7KY in station box			
7:16	KSKG	99.9	Salina	KS
	Eagle Country 99.9			
7:20	KIRK	99.9	Macon	MO
	plenty of local mentions			
7:25	KCMO	94.9	Kansas City	MO
	Oldies 95			
7:32	KBFC (t)	93.5	Forrest City	AR
	tentative			
7:40	KILS	92.7	Minneapolis	KS
	The Zoo local mentions			
7:50	KLXQ	96.7	Hot Springs	AR
	Q96			
8:04	KCVS (t)	91.7	Salina	KS
	no ID but prgrm matched web site…verystrong			
8:13	KHCD	89.5	Salina	KS
	// to 90.1			
8:14	KHCC	90.1	Hutchinson	KS
	// to 89.5			
8:15	KOTE	93.5	Eureka	KS
	RDS ID			
8:17	KDGS	93.9	Andover	KS
	Power 93			
8:22	KVGB	104.3	Great Bend	KS
	B 104 The Point			
8:27	KSKU	97.1	Hutchinson	KS
	plenty of local mentions ID and local wx			
8:29	KRZZ	96.3	Derby	KS
	local ads Wichita's Classic Rock KRZZ			
8:50	KFH	98.7	Clearwater	KS
	Phil Hendrie Show…strong signal			
8:58	KCLR	99.3	Boonville	MO
	Clear 99.3			
9:00	KVCY	104.7	Fort Scott	KS
	VCY America presents Crosstalk			
9:02	KYQQ	106.5	Ark City	KS
	ID			
9:07	KQUL	102.7	Lake Ozark	MO
	Cool 102.7			
9:10	KWXD	103.5	Asbury	MO
	Oldies 103.5			
9:11	KRBB	97.9	Witchita	KS
	B 98 FM			
9:25	WIMZ	103.5	Knoxville	TN
	ID			
9:30	WLSM	107.1	Louisville	MS
	Star 107			

SAUL CHERNOS Toronto & Burnt River Ontario

Equipment: Sangean ATS909 FM portable with RDS readout and a whip, and also the radio inside my Toyota Corolla. TO = Toronto BR = Burnt River

Mar 18 MS (BR)

1000	WJZX	99.7	Port Royal	SC
	WJ...Smooth Jazz			

Mar 18 Au (BR)

2150	WVCX	98.9	Tomah	WI
	Christian talk, local references			
2152	WRHN	100.1	Rhinelander	WI
	Area references, sports promos			
2253	CHJM	99.7	St. Georges	PQ
	FF pop, rock, rap			

Mar 24 Tr-GW (TO)

0845	CKIE	105.1	Toronto	ON
	FF pop, R'phonique de TO, 416-599-2666			
1120	LP	100.3	North York	ON
	Resdce on Avondale, 100.3 FM, 416-			

222-8281
(Yonge & Avondale)
1133 LP 104.9 Markham? ON
Tridel R, Avignon on Bayview, 416-661-7071
(Bayview & Steeles)
1137 LP 106.3 Vaughan ON
106.3 Rav-FM, Vaughan SS (Bayv & Steeles)

Apr 1 Tr-GW (TO - Aurora)

1630 OC 102.7 ON ?????
OC $ (Georgina Isld stn or pirate?)

Apr 10 Tr (TO - Bluffs)

2240 WFXJ 107.5 N. Kingsville OH
107.5 FM The Fox, r
2249 WBGJ 100.3 Sylvan Beach NY
Radio Disney

Apr 19 Tr-GW (TO - Snowball)

0006 CB 102.5 Shelburne ON
CBC Radio 99.1 in Toronto (new-to-air)

Apr 29 Tr-GW (BR)

0750 CB 102.5 Shelburne ON
// 99.1 CBC Radio 1 (new-to-air)

May 4 Tr (TO - Bluffs/Guildwood)

0715 WUBJ 88.1 Jamestown NY
//88.7 WBFO
0744 WBJA 102.1 Albion NY
Yr listg 2 songs v wshp & prais 102.1 WBJA

May 8 Tr (TO - Bluffs/Guildwood/East)

0707 WRDR 104.9 Egg Hbr City NJ
SS (Bluffs) Atop WNGZ-NY & W...-OH
0801 WSKG 89.3 Binghamton NY
ID for all network stations
0810 W... 96.5 Fredonia NY
Local ad
0815 W207DB 89.3 Medina NY
g //WCOU 88.3 & WCID 89.1
0840 WJJZ 106.1 Philadelphia PA
Smooth Jazz WJJZ SID (Guildwood)
0901 WBEB 101.1 Philadelphia PA
B-101 WBEB Philadelphia, Walnut St Thtr
0927 WMDE 94.3 Saegertown PA
Local references

May 13 MS (Selwyn ON)

1235 WGSQ 94.7 Cookeville TN
94-7 The Country Giant

May 13 MS (BR - Bobcaygeon)

1235 WOFM 94.7 Mosinee WI
Wisconsin Rapids in ad

May 14 Au (BR)

0410 CJFP 103.7 Riv de Loup PQ
FF talk
0440 WJMC 96.1 Rice Lake WI
Today's hot new country & home of yr all-time
favourites...96.1 WJMC
0449 WOZZ 93.5 New London WI
ID and area QTH
0500 WPHN 90.5 Gaylord MI
g, Full network list ID

May 14 MS (BR)

0557 WKDQ 99.5 Henderson KY
ID

May 16 Tr-GW (BR)

1850 CFBG 99.5 Bracebridge ON
Ex-100.9, r, Muskoka's R Stn Moose FM
1851 CB.. 100.9 Wingham ON
CBC Radio One //99.1 (CFBG to 99.5)

May 17 Tr-GW (TO - Aurora)

1740 CFBG 99.5 Bracebridge ON
Ex-100.9 Moose FM r

May 21 Es (BR)

1857 WJIS 88.1 Bradenton FL
Joy FM, g, 6469 Parkland Dr Sarasota
1859 WSMR 89.1 Sarasota FL
Life FM, ID, FL news
1900 WBVM 90.5 Tampa FL
The Catholic Factor, Dual ID w/WLSM
1934 WOGK 93.7 Ocala FL
QTH
1957 WNFK 92.1 Perry FL
Power Country, k, ad: North Jefferson

May 23 Tr (BR)

1126 WRKT 100.9 North East PA
Rocket 101, r
1134 WRKL 100.9 No Syracuse NY
K-Rock, pr

May 27 Tr (BR)

0004 CIOI 101.5 Hamilton ON
BN News, C-101.5, hip-hop
0007 CFBU 103.7 St Catharines ON
Local event PSA
0027 CHIN1 101.3 Etobicoke ON
SS //1540, local ad
0030 CFLZ 105.1 Niagara Falls ON
TIS w/ ON-NY border info

May 28 Tr (BR)

0630 CBEC 90.3 Elliot Lake ON
CBC North //99.9 & 96.1
0640 CBON5 101.7 Elliot Lake ON
CBC FF //98.1 very strong, also 94.1 CKNR
0650 CJQM 104.3 Slt Ste Marie ON
Today's country Q-104, local ads
0705 WSUE 101.3 Slt Ste Marie MI
Soo & N'ern ON nx, local PSA

(continues next page)

GOT THEM DTV SET-TOP BOX BLUES

It seems those of us wishing to DX DTV are in for some rude surprises. I purchased a Hughes HIRD-E86, which is a combo DirecTV/over-the-air receiver yesterday. This unit will decode DTV and NTSC broadcasts, as well as DirecTV.

From a DXers standpoint, this box has numerous problems. From a standard consumersstandpoint, it has many problems too. First...from the DXers standpoint. The box will not show a picture on any channel if the signal is weak, no matter if it is a DTV or standard TV signal. It just shows a black screen. Secondly, the channels you do get seem to be tied to your zip code. As an example, with a standard TV I can receive analog channels 9 and 12 from Cincinnati. Before I gave the box my zip code (for programming guide information), it would display both channels (but with a much poorer signal than just hooked to the TV directly). After I gave it my zip code, only signals from my local market were seen. Channels from outside the market, like 9 and 12, were gone (just the black screen seen). Also, with a weak signal, it takes a VERY long time to lock-up on anything whether it's in your market or not.

From a consumer's perspective...one major problem. My local NBC affiliate on channel 18 analog, which is the strongest TV signal received here, will NOT display at all on the box. I have powered off/powered on the box. I have done channel re-scans--nothing but a black screen on channel 18. The box is also extremely difficult to program and get set up at all. A standard consumer would likely give up in frustration.

I work at a TV station. We'll start DTV broadcasts in the middle of July. The consumer products on the market (at least this one) have a LONG way to go to achieve the acceptance of anyone but pure techies. I also have a WinTV-D card for the computer. It's reception capabilities are not real good, but at least it's somewhat useable.

I am returning the Hughes box today. I can't even receive all the local signals with it, let alone get anything out of market without jumping through ridiculous hoops. -Glen Hale

We have a RCA DTC-100 at work. It's no ultra DX tool, but it does work and doesn't seem to force you through hoops the way the Hughes does. It's reasonably straightforward to program and receives analog signals at least as well as the WinTV-D. (which again isn't necessarily saying much but at least it works. And in RCA's defense I've not been able to try it on a DX-able antenna; our only rooftop antenna system at work is specifically designed for strong reception of the locals.) -Doug Smith

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NORTHERN FM DX CONTINUES FROM PREVIOUS PAGE

(Saul Chernos's report)

0712 WYZN 94.5 Mackinaw City MI
The Zone, N'ern MI's modern rock

0759 CBON7 94.9 Espanola ON
CBC FF //98.1

0803 WIHC 97.9 Newberry MI
N'ern MI weather on the Bear

0804 WCMZ 98.3 Slt Ste Marie MI
NPR //91.7

0847 CBCY 102.3 Haileybury ON
CBC-R-1, //99.9 (not 98.7) (at East Hill)

<u>May 30 Tr (TO - Aurora)</u>

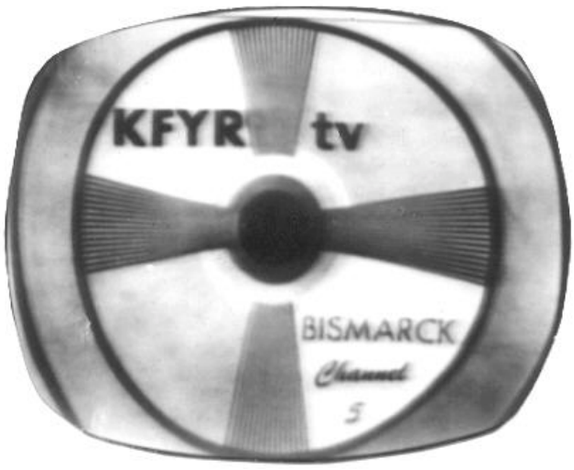
1200 C... 102.7 ON 70s rock, drumming at noon, native mx

Editor's note. This month, in addtion to the reports that members send me, I tried to Include as many logs as I could that were posted on WTFDA list for the big E skip opening of 6/14. Next month I will try to include more of those postings

Prepared by Tom Bryant
849 Todd Preis Drive
Nashville, TN 37221-2607
tjbdx@comcast.net

The TV of My Youth

(TV signals were rather sparse out on the plains of North Dakota in the early and mid 1950s , but that didn't diminish the thrill of tv's arrival…and made E-skip



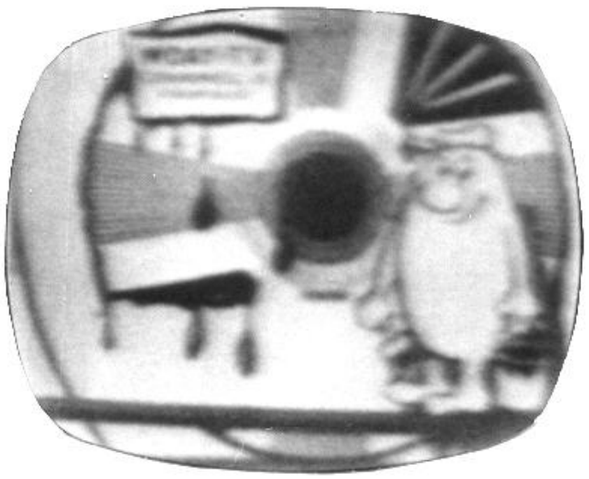
reception a lot easier!)

Here's the first "local" picture ever seen in my hometown, Napoleon, ND. This photo was taken after the transmitter had been moved to the radio site at Menoken, where tower height and power were increased.

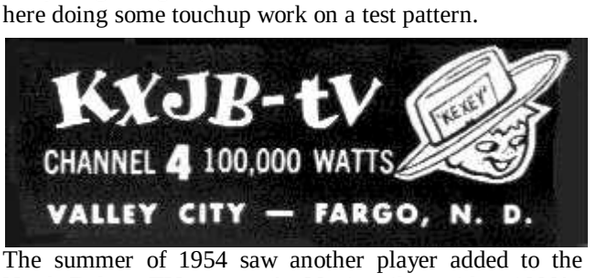
This ID slide was used almost exclusively for about the first 10 years of operation. A staff member shot the attractive view of the state capitol building, and the TV program director added the cut-and-paste graphics. To my eye it's one of the classiest b&w IDs ever aired

About a year and a half before local signals were available from Bismarck, WDAY-TV in Fargo started up. At 166 air miles, with a short tower and less than full power, reception was predictably unpredictable.

WDAY-TV's IDs usually featured a combination of geometric patterns; evidenced by the shot above.

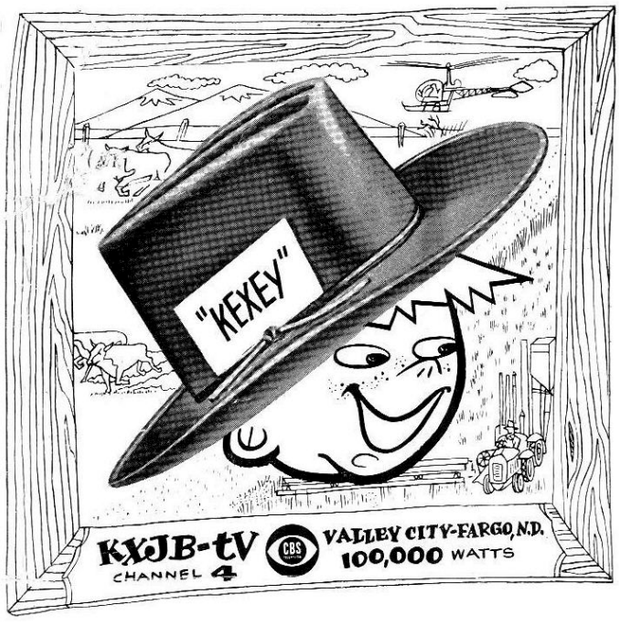


WDAY-TV artist Norm Selberg created "the bottle man"…a cartoon character who painted the call letters on everything in sight (from outhouses to cows), and is shown here doing some touchup work on a test pattern.



The summer of 1954 saw another player added to the North Dakota TV scene. At 90 air miles, with a 1000'+ tower and full power, KXJB-TV became a semi-local. "KX" had one major problem…a lousy signal in Fargo!

KXJB-TV was the first ND station with local color capability. This colorful slide depicted a clown, a tiger, and a giraffe. Note also that Valley City is the only city named. Permission was eventually granted for the station to identify as Valley City/Fargo.



"Kexey" was channel 4's mascot. "Kacey", his twin, served the same purpose for KCJB-TV (13) in Minot, which began operation on Easter Sunday of 1953 as the state's first television station.

Bismarck's second station made its debut in late 1955. The KBMB-TV call letters didn't last much more than a year. This station and KCJB-TV were co-owned, and both had very close ties with KXJB-TV.

KBMB-TV became KXMB-TV, and in addition to sharing CBS primary affiliation with its sister stations, also carried some ABC shows; as did KFYR-TV.

These two frames of 16mm film (that's the audio track on the right..the sprocket holes are on the left) were seen during the December 19, 1953 inaugural telecast. The station had only one studio camera thus the need for the film segment to allow news anchor Bob MacLeod to give a demonstration. It was MacLeod who shot the photo of the capitol building used on KFYR-TV's ID.

This version of the ID was never aired. It was adapted for print use only and appeared in several promotional pieces, but was most prominently used on the station's letterhead.

TV DX in the Early Years –Part II

Bob Cooper

Anderson had the same thought process as John Winegard. Only he had it first (he recalls 1957). "Why build an antenna, and then build a booster, if you could build both as one unit?" He built several hundred and sold them in the South Dakota, Wyoming, Montana region - primarily to customers of his Mid America Relay Systems (MARS) business. Anderson was the largest manufacturer of totally illegal, totally non-FCC approved re-radiation devices in America by 1960. And the FCC was by 1960 considering making VHF translators a legal device. Anderson needed some bucks - big bucks – to enlarge his operation to be ready for the expected in rush of orders. He thought about his combination antenna + amplifier and piled a system into a beat-up pickup truck. And drove to Burlington where he showed off his product to John Winegard.

Perhaps a mistake. John was already down the road on his own similar design but he had not solved the amplifier broad banding problem. Keith had. On the other hand, to be fair to John, he had the antenna portion pretty much completed whereas Keith's antenna was not nearly as refined. Keith was something less than a cagey business person - John was much his superior. In the end John Winegard brought out the Powertron and Keith received a "rather modest cash" infusion and went back to building translators.

Although UHF wide band amplifiers (for antenna mounting or indoor distribution) are common today, in 1960 this was not the case. First, we are pre-transistor technology (in 1961, at VHF, the very first solid state amplifiers were just beginning to appear at cable TV trade shows). The first Powertron wide band amplifiers for VHF used an Amperex (Philips, Holland) developed "frame grid" low noise triode tube; the 6922/ECC88 later known as the 6DJ8. These "10,000 hour life expectancy" tubes could be turned on and left running for 400+ days before they typically became useless. This was an item of some importance when the Powertron was 70 feet + in the air. Shortly
after the 6922 versions came out, a semi-solid state device called a "Nuvistor" became available from RCA and the 6CW4 version replaced the 6922 in most everyone's copycat version of the Powertron. The Powertron's big-daddy version (SP-44X) used a 16 foot boom and 30 elements plus the 6DJ8 to create 23 - 26 dB of "antenna system" gain - the emphasis on "system".

But there were signs that all of this would get better, soon, when VHF transistors were refined. Nuvistors still had a limited life, and more over they were prone to signal overload (strong local signals did nasty things to the 6CW4 amplifier creating an undesirable condition known as "inner-mod", because the 6CW4 was not very "robust" - it only drew 8 mA of current at 70 volts; the Powertron could handle 100,000 microvolts before overloading while the 6CW4 versions began to have overload problems at 10,000 microvolts). Winegard continued to offer the 6922 version option for sometime as an answer to the "overload problem" - it could handle far more signal but of course every 13 months or so you had to "drop" the big array to the ground to change the 6DJ8!

The problem in creating UHF mast mounted or indoor amplifiers was a lack of a suitable tube. The 6922 went flat above 300 mc/s, the Nuvistor could be "coached" into working at the low end of UHF (to 500 mc/s) but with significant derating (it did not work very well there). There were 1950 style tubes created by Western Electric for UHF amplification purposes (such as the WE417A) that had reasonable noise figures (under 5 dB) even at 800 MHz, but they were expensive (upwards of $20 a tube) and you needed more than one to get wide band gain even at UHF.

Enter the 6AJ4. This was a glass envelope tube specifically for UHF. It was difficult to make work properly, unlike the 6922 at VHF, but that did not stop a tiny handful of manufacturers from trying (Industrial Television IT-124A 2-stage (6AJ4 x 2) "UHF Auto Booster"; Tele-Matic UH 14-83 single channel UHF booster with adjustable 5 - 12 mc bandwidth). There was little question that UHF very badly needed gain at or shortly after the antenna, and a much better "noise figure".

As bad as the (6AK5 family) pentode tubes had been in the 1950s at high band, the UHF TV receivers (whether done through a tuner in the TV set., through channel strips added to a VHF tuner - by Zenith and others, or through the more common set-top UHF to VHF converter) were miserably insensitive. First, like the 1938 counterparts, there was no RF (radio frequency) amplifier stage. A reasonable quality UHF display required between 200 and 500 microvolts to the TV tuner or set-top converter at a time where VHF was doing the same with 50 microvolts or less. Add to that the antenna and down lead challenge. Normal 300 ohm flatline at UHF had high attenuation (loss per foot of distance travelled) when dry (3.5 dB per 100') - when wet (20 dB! per 100') the losses quadrupled or worse. To make that problem better, flat line was replaced with "tubular 300 ohm line" which substituted an oval shape for the flat shape, and stuck air or foam inside of the enclosed oval shape. By keeping the area between the two parallel wires from getting wet (the air or foam remaining dry - in theory) the losses when it rained were - well, better (3 dB dry, 7 dB wet).

So when Industrial Television announced (the first) UHF signal booster, there were expectations of a better UHF world. Unfortunately, it was not to be. First, the tube life was short (after 1,000 hours - 41 days - the tube was only 70% as effective as when brand new and it was all down hill from there). Next, the UHF tuners/converters required far more gain than the UHF boosters supplied to really make a dent in the "noise wall" created by the 10-13 dB noise figure (noise factor) of UHF receiver front-ends (the tuners). A UHF booster gain of 12-15 dB was simply too little to have a positive impact on the height of the receiver noise wall (something nearer 24 dB gain would later be worked out as minimum for improving a 12 dB noise figure tuner/front end).

The answer would ultimately prove to be a new TV set tuner that would when introduced do for UHF what the original Cascode had done for high band VHF. But that was at least a decade away.

The tinkerers

People who thought they (like Keith Anderson) could do better gravitated to DXing Horizons (later Television Horizons) magazine. The TV DX alternate-month reporting column in Radio Electronics came to a close in 1959 (with the last annual report appearing in January and February 1960), and DXing Horizons was born in a "spare" bedroom in Modesto, California.

The April 1960 issue featured a construction article by Stanley Hosken of North Bay, Ontario. Hosken had erected one of the largest TV reception antennas in the world to try to trap WBEN-4 from Buffalo as early as 1955; a giant 272 element array consisting of very long (30 foot) boom 17 element custom designed and built (by Hosken) yagi antennas. 16 yagis stacked 8 yagis wide by 2 yagis high. He was after that 4 microvolt "scatter level" signal. His (Western Electric) WE417A amplifier used a pair of tubes per channel, the 417A was followed by a 6AN4. The same issue had a single 417A amplifier designed by Jack Wright of Edmonds, Washington. Both found they could lower the noise wall to under 2 dB on any VHF channel they wished (the channel being selected by the component values). Wrght built a 300 ohm input and output unit, Hosken was coaxial 75 ohms in and out. Hosken discovered he could go from "75% signal lock at 290 miles on channels 4, 7 and 9 (Toronto - 60 miles closer but still 230 miles) to 90% lock" with the addition of his two-tube super-low noise booster. With the giant antenna array and WE417A front ends, he maintained 500 microvolts of signal or better 80% of the time in the dreaded winter months, more than 95% of the time in the warmer (summer) months.. But his design did not lend itself to mounting directly at the antenna(s).

Other tubes appeared in the marketplace, each promising to be a possible solution to the UHF "noise fence" problem. General Electric had announced (1955) a "wonder ceramic tube", the 6BY4 which delivered 15 dB of gain (over a TV channel) with a noise figure of 8 dB. Unfortunately, GE shortly after announcing the tube advised it would "only be available to US military systems". Amperex brought out (1960) the 6CM4 which they described as a "UHF frame grid triode". The secret to good tube performance was (then and now) something called transconductance, measured in micromhos (don't ask). The more the better, within reason. The WE417A had 25,000 of the little fellas, the 6BY4 18,000 and the 6CM4 14,000. Lower noise figure, better gain was the result of lots of micromhos. The champion of all in that era was the gold plated WE416B, a round doorknob shaped tube that seldom traded hands for less than $100. It has 50,000 micromhos and some who would build with it would be so amazed at the reception (especially on high band where atmospheric noise was low) that they "kept quiet" out of fear their amplifiers would disappear on a dark night!

Hosken and others such as Grant Ross in Marathon, Ontario were rewriting the distance books in the late 50s and early 60s. Ross was "town manager" for "The Marathon Company" (a division of American Can at the time) and in 1953 he decided that town's 2,500 residents (all of whom worked or were families of workers for American Can) needed TV. After a series of tests with all band antennas and boosters, he decided on WBAY-2 at 305 miles. A six wavelength rhombic, 45 feet above ground, on a 300 foot hill directly overlooking Lake Superior to the south was the antenna. Ross was a devoted enthusiast - in the first 18 months he cribbed more than 50,000 words of "reception notes" correlating his reception versus weather and other forms of interference. It all came to an end in October 1955 when CFPA-2 came on the air at Port Arthur.

In fact Ross could have benefited by some new antenna technology first employed in 1959 at Muscle Shoals, Alabama by the pioneering cable system there. Riddled with co-channel interference, Jerrold engineers designed a massive (70 foot long, 25 feet high) "horn antenna system" for off-air VHF reception. The antenna was mounted 90 feet above ground on telephone / utility poles. The feed or dipole portion was inside of the horn, "buried" behind thousands of square feet of metal screening which acted as a shield to prevent off-beam co-channel signals from interrupting the desired station reception (DXing Horizons, May 1960).

The interest in scatter reception (ala Ross in Marathon and Hosken in North Bay) was contagious. DXing Horizons, using a 6 foot Channel Master (model 425) dish, reported that a magazine designed 6CM4 "trough line amplifier" tuned selectively to UHF channel 17 was producing +/- 20 microvolts 99.9% of the time on a 217 mile scatter path to KLYD-17 Bakersfield (California). Tech Editor Bob Grimm gave complete 6CM4 construction details (DXH, June 1960) and the best part - the tube was a modest $2.75.

There was another scatter project underway at DXH in that era. Meteor scatter. The magazine went to Taco and talked them out of a slew of ten element channel 2 ruggedised yagi antennas built for CATV purposes. Technical editor Bob Grimm assembled a very high gain (50 dB), low noise (0.5 dB) hand wrought WE416B amplifier system and then tore into a Mattison Silver Rocket chassis with abandon. He narrowed the IF bandwidth to 1.5 Mc (normal 4.5), and rebuilt the AGC circuit to have a very fast attack time (responding in microseconds to the sudden enhancement of signal level by a meteor burst). The object? To find a channel 2 at meteor scatter distance which could be locked onto and "watched" (a relative word) 24 hours a day. CHCT-2 in Calgary was the first shot and it failed because KTVU-2 Oakland had come on the air and the antenna heading for Calgary from DXH's office in Modesto, California could not null KTVU adequately. Back to the drawing boards and then KMID-2 . The distance (1150 miles) was a tad long for optimum "residual scatter levels" and after nearly a year of trial and errors, the scatter test ended up using KBOI-2 at a much shorter 550 miles. By then KTVU-2 was on the air more than 18 hours daily so the ability to measure and record variations as a function of time of day were lost. But that was one mean antenna - not of the Hosken class certainly but coupled with the low noise amplifier and Grimm/Gould modified receiver, well - pretty spectacular (you could in fact "copy" 30-40% of what KBOI was transmitting over the path - pretty spectacular for 550 miles). Gould? Stay tuned.

The "ultimate" TV sets

A "real" DXer was not going to buy a TV set from his local RCA dealer. No-sireee. He was going to pop for one of the "super sets" built in small quantities by virtually unknown companies. The Mattison "Silver Rocket" had 30 tubes at a time (1958-1961) when RCA and Zenith had dropped the number to under 20. DXer Bill Eckberg (then of Walnut, Illinois) wrote about his first hand experience with a 1959 model in DXH. The 30 tube used the then brand new 6BN4 in a "Neutrode Turret Tuner", four 6CB6 IF (intermediate amplifier) stages and got away with a full 4.5 mc bandwidth (many "fringe" sets narrowed the IF to under 4 mc to gain a slight advantage for weak signals). Eckberg was especially pleased with the AGC (automatic gain control) circuits which were both keyed and delayed to compensate for fast fading signals. Anyone who read his analysis had to leave anxious to acquire this "DXing set" for their own. Eckberg also advised any "serious DXer" to check every tube in the receiver on a "quality tube tester" once each year – check for emission and if it was falling off, replace the tube with a new one which had been checked prior to going into service. That was those "micromhos" again. DXH found the Mattison AGC system not adequate for KBOI scatter reception and reported why - tech editor Grimm modified it to make the KBOI scatter signal "play" on weak, residual scatter propagation; but that was a special situation not planned for by the original Mattison engineers.

Another person also found the Mattison AGC inadequate for tropo scatter reception. It was certainly the very best of the best in commercial receivers, but how many commercial receiver designers were after 300 mile tropo scatter signals? Enter James Gould of Kokomo, Indiana. Jim worked for Delco in the car radio factory in Kokomo. He was a fanatic about TV DX - especially the equipment required to stretch further and further his favourite sport - "scatter reception". DXing Horizons (July 1960) began a two-part series in which Gould described taking a 1955 era RCA set, "gutting it" and starting over. He did things like rip out and rebuild the video IF stages replacing the original tubes with 6EH7 frame gridders. Of course he replaced the original cascode tuner with a 6922 as well, ran amuck in a Delco development lab and located some extremely efficient crystal mixer devices to make his tuner function better. Then he tackled the set's sync system using as his benchmark "creating completely stable sync at levels of just 15 microvolts - no rolling, no tearing." He described the changes, explained how others could do the same thing with other chassis and ended up explaining how with a sizeable antenna on his 90 foot tower he was now getting 99.9% reception from stations up to 290 miles distant "under normal conditions".

Actually, most DXers did purchase sets locally from brand name manufacturers (most were hobbyists, not of the Grimm, Hosken, Wright or Gould class for technical innovation). A survey of 82 active TV DXers in 1960 (DXH, December 1960) found 35% were using Zenith brand, 15% using

(continues after Still Making Waves)

STILL MAKING WAVES:
The Towers on West Peak Go Way Back

Meriden, CT Record-Journal June 9, 2002
By Martin J. Waters, Record-Journal staff

WHEN RICK TERRILL LOOKS at the battery of radio towers perched atop Meriden's West Peak, he sees an eyesore, a scar on the beautiful skyline formed by central Connecticut's most prominent traprock ridge.

"We would like to see that whole area protected naturally. Leave it just the way God created it," said Terrill, chairman of the Meriden Conservation Commission. He is a longtime activist for local and state regulations to protect the state's ridgetops from further encroachment by new communications towers and other structures.

Veteran radio engineer Rick Walsh sees it very differently. Working on the 1,024-foot peak since 1979 as chief engineer of WHCN-FM (105.9), Walsh is caretaker of the original West Peak tower. Built in 1939 for experiments and demonstrations of the then-brand-new frequency modulation method of sending radio signals - FM radio - it holds an important place in broadcasting history.

"We need a plaque here," Walsh said as he walked to the round concrete base that holds a rusty, 90-foot monopole tower.

One of the world's first experimental FM radio stations broadcast from this tower, beginning on Oct. 2, 1939. Several of the other earliest stations shut down long ago, but some experts credit today's WHUR in Washington, D.C., as senior to WHCN by about five months.

Such conflicting opinions - arising from competing claims, contradictory documents and lost government files - are among the reasons that historians of technology usually shy away from declaring superlatives. Nevertheless, Michael Collins, the historian for the Connecticut Broadcasters Association, said of the West Peak station, "It may be the oldest FM in the world."

The highest point along central Connecticut's traprock ridges, West Peak, also called Meriden Mountain, always has been highly coveted as an FM antenna location. FM broadcasting, like television, requires antennas that soar far above a region's average ground level to transmit signals that successfully cover a medium or large metropolitan region.

That West Peak experimental station, first designated W1XPW, took part in FM inventor Edwin H. Armstrong's much-publicized 1940 demonstrations of relaying radio signals via FM from New York City to northern New England.

On Jan. 1, 1941, W1XPW began commercial broadcasting, staking a strong claim to at least a tie for that first-place honor. That was the first day on which the Federal Communications Commission had authorized commercial operations.

Studded with climbing spikes like a utility pole, the old tower now stands unused next to the original transmitter building. Built in 1936, it houses WHCN's transmitter, plugged into a modern antenna on one of the five main radio towers on the ridge. Each is about 200 feet high.

The two-story building has hardwood floors, a bricked-over fireplace and a decrepit kitchen - in contrast to the smaller, strictly utility-style buildings housing the other radio transmitters on the peak. It was constructed by Yale University engineering professor Franklin M. Doolittle, founder and longtime owner of WDRC-AM in Hartford. Connecticut's oldest radio station, it went on the air in 1922.

Even before FM, Doolittle had begun experimenting on West Peak. Starting in 1936, he worked on developing high-fidelity broadcasting using amplitude modulation - the AM type of transmission that then was the only one in use. But the experimental program, called Apex broadcasting, operated on far higher frequencies than the standard AM band - around 40 to 50 megahertz, which later became the original radio band assigned for FM.

In 1945, FM broadcasting was moved up to its current band, 88 to 108 megahertz. These frequencies are vastly higher on the overall radio spectrum than the AM frequencies of 540 to 1700 kilohertz - which are equivalent to 0.54 to 1.7 megahertz.

The experimental Apex operations contributed to conflicting assertions about which station was first on FM - as several stations have claimed their earlier AM-Apex starting dates rather than the date they switched to FM.

Almost immediately after Armstrong perfected FM in 1939, the Apex experiment was abandoned. Armstrong had built the world's first FM stations in Yonkers, N.Y., and in nearby Alpine, N.J., on the high palisades along the Hudson River just north of New York City.

In Connecticut, Doolittle turned to FM, and his West Peak installation became part of Armstrong's campaign to demonstrate FM's far superior sound quality and resistance to static from thunderstorms and other noise interference that plague AM radio.

The two radio engineers worked together closely. At least once, Armstrong visited West Peak, according to Stan Peer of Middletown, who then was a radio engineer with WDRC. Armstrong and Doolittle were joined in their project by John Shepard, the innovative owner of WNAC-AM radio in Boston and the New England-wide Yankee Network. In January 1940, a signal was sent from Alpine to West Peak, and relayed from there to Shepard's stations on a hilltop near Worcester, Mass., and Mount Washington in New Hampshire.

Later, the Meriden history became muddled when FM failed to gain popularity with listeners. In 1956, WDRC sold its FM station. After further ownership changes and call-letter changes, that station became WHCN - inheriting the bragging rights along with the old tower and transmitter building. In 1959, WDRC obtained a license for a new FM station. It continues to operate today, with an antenna on West Peak, as WDRC-FM (102.9), often promoting itself on the air as "America's first FM."

Today, about 85 percent of the radio audience listens to FM stations, the culmination of a trend away from AM radio that finally gained strength starting around 1970. Six of the Hartford area's nine full-power commercial FM stations and WPKT (90.5), the Connecticut Public Radio station, broadcast from West Peak. The commercial FM stations on West Peak are: WWYZ (92.5), WZMX (93.7), WKSS (95.7), WDRC (102.9), WMRQ (104.1) and WHCN (105.9). Most have operated from there since the 1960s or earlier.

The remaining Hartford-based FMs, using towers farther north - WCCC (106.9) in West Hartford, WTIC-FM (96.5) in Avon and WRCH (100.5) in Farmington - suffer from much weaker signals in the New Haven-Bridgeport area.

West Peak also is the location of a National Weather Service radio station and a variety of antennas that serve two-way radio systems, amateur radio operators, mobile telephones and other radio services.

The ridgetop's collection of ramshackle structures also includes a disused building that once housed the studios and transmitter of WATR-TV, channel 53. In 1963, the station, licensed to Waterbury and known today as WTXX-TV, relocated its tower to Prospect and switched to channel 20.

Another contribution to West Peak radio lore, according to Walsh, was WHCN's use of a cramped studio in the transmitter building in the late 1960s and early 1970s to avoid paying studio rent in Hartford. That's when the station switched from classical to rock music as a pioneer station in the era of "progressive" FM radio that developed from the'60s' psychedelic youth culture. A scrapbook contains photos of shaggy-haired disc jockeys and samples of company letterhead using the peace sign as the station's symbol.

Broadcasters go to locations such as West Peak because FM radio and television signals do not curve along the earth, as does AM radio. These line-of-sight signals are blocked by hills, unlike AM. To, in effect, push the horizon farther away and avoid dead spots, stations try to place antennas high above a region's average ground level.

"A high spot like West Peak becomes the desirable place to put these," said Scott Fybush, a broadcasting industry consultant and avid photographer of broadcast antenna sites. "Then you can use a relatively short tower, which reduces the technical difficulties and the expense."

He sees the tower farm on West Peak as both an important site in the history of radio and as a fundamental necessity in a society where an estimated 95 percent of the population listens to radio at least once a week.

Unless satellite broadcasting or another technology makes traditional radio broadcasting obsolete - unlikely anytime soon - antenna installations like those on West Peak will remain part of the landscape, Fybush said.

To replace the radio facilities on West Peak, Fybush said, would require one or more massive towers, at least 1,000 to 1,200 feet tall if built on land at 200 feet above sea level, a typical ground-level elevation in the populated areas of Meriden and Southington. Each tower could require more than 20 acres of land and would be much more expensive to maintain than the relatively modest towers on West Peak.

The combined weight of the many antennas on West Peak might make it impractical to build a single tower of adequate strength, according to Fybush, who is based in Rochester, N.Y. Business considerations also sometimes lead to multiple towers, as broadcast companies may want to hold full control of their vital facilities and avoid paying tower rent to a competitor.

The five tallest West Peak towers, for FM radio stations, each are about 200 feet tall, but the height of the ridge places the antennas at about 1,200 feet above sea level - which would have to be approximately duplicated by any new tower for the stations to maintain their present signal strengths.

"It's easily up into the millions of dollars for the tower alone, without the cost of land," Fybush said, to construct a tower of 1,000 feet or more. Because fierce community opposition to such a proposal is certain, "In a populated part of New England, the chances are close to nil," he said.

Terrill noted that Meriden's current regulations would not allow towers to be built today on West Peak. Nationwide, most local government zoning and planning agencies have wide authority to regulate new towers for broadcasting - although a federal law severely limits local ability to restrict or prohibit cellular telephone antennas.

Despite his ardency on the West Peak issue, Terrill reluctantly agrees that sweeping the ridgescape clean of the existing radio towers is unlikely.

"Unfortunately, I don't think there's anything we can do about it, unless technology changes so you don't need towers anymore," he said.

"People are going to use their cell phones or they're going to turn their radios on. If you want to turn on your radio, there's got to be something on the other end."

Note: WTFDA members Michael Collins and Scott Fybush contributed to this article.

TV DX IN THE EARLY DAYS CONTINUES

RCA and under 10% had Philco or Admiral receivers. Mattison weighed in at 5%. Antennas? Winegard led with 41% brand name users, the then-almost-current CL4 was the most popular single model.

The Winegard WBC-4 "amplified splitter" (one input, 4 outputs, 6 dB gain - or 12 dB gain if used as a single set booster) turned out to be a very interesting DXer gadget during tests reported in DXH for January 1961. In the single-set hook-up configuration, the (wide band) gain was 12 dB - not a great deal by booster standards. But - the important factor – the noise figure was as low as 2 dB on the best channels. When used ahead of even the best receivers (such as the Mattison Silver Rocket) it resulted in cleaner pictures - less snow, stronger blacks, whiter whites. It was a lesson in noise figure improvement and Winegard never intended the WBC-4 to perform in that service. They sold like hot cakes in fringe areas, largely because DXH tests showed what it was really capable of doing.

DXing Horizons for November 1960 featured a gadget everyone wanted – an analog meter build into a grey hammertone box which if constructed (two hours time, $20 cost) as outlined could be connected to the TV receiver to produce a "signal level" reading ("S meter") of TV signals.

Another "gadget" was the Jerrold "Trap Ease", a tuneable (two large knobs on opposite ends of the tubular shaped device) that allowed you to "trap" (attenuate) very specific frequencies. DXH (February 1961) showed how the Trap Ease totally (as in totally) cleaned up strong adjacent channel signals from DXing channels. The 300 ohm input-output device inserted into the line just ahead of the TV set's 300 ohm input. There were separate models for low band and high band. They worked really great and virtually every DXer had a set (some had two per band for super trapping). With two, you could sit on channel 2 or 4 with a 100,000 microvolt local channel 3 (visual) signal level and do MS DXing on both 2 and 4 without channel 3 slop-over.

And such were the "golden days" of TV DXing.

(work in progress - last updated February 2002; Bob Cooper)

MOONBOUNCE

U.S. UHF CARRIERS NOTED IN AUSTRALIA VIA E.M.E

It seems Australian TV DXer Tony Mann has detected carriers from three U.S. UHF TV stations via signals reflected off the moon's surface. Read Tony's email dated June 2, 2002.

I am pretty sure I have detected UHF TV carriers from the USA via moonbounce here in Australia.

With my Yagi pointed at the moon, weak carriers with frequency drift (~ -1.5 Hz/minute) were noted on 26,27 & 28 May:

date	time (UTC)	freq (MHz)*	freq drift (Hz/min)	predicted Doppler (Hz/min)
26th	1021-1028	483.250537	-2.5	-0.9
26th	1115-1122	501.248339	-1.5	-1.4
27th	1147-1206	501.248312	-1.4	-1.4
28th	1235-1258	501.248292	-1.26	-1.28

* at fade-out

The timing is in excellent agreement with a moon scheduling program (such as GM4JJJ's) for moonset at the US TV tx sites of:

501.25 KWBT-19 Muskogee, OK 35.75N, 95.8W

483.25 WNDU-16 South Bend, IN 41.6N, 86.2W

Both of these txs radiate 5000 kW erp hor. pol., with an omni-directional pattern and have no vertical beam tilt. (Info on these stations may be found at the FCC TV database http://www.fcc.gov/mb/video/tvq.html#START)

On all 3 days the frequency drift of the 501.25 signal is in excellent agreement with the predicted rate of Doppler shift. The -2Hz/minute drift of the 483.25 tx is about 1.6 Hz/min faster than prediction. Maybe the transmitting frequency itself is drifting, which is why I didn't find it after the first night.

The signal-to-noise ratio was several dB, as can be seen from spectrum analyzer scans, at http://www.physics.uwa.edu.au/~agm/eme1.JPG These scans were done every 40 seconds and the bandwidth (spectrum analyzer bin width) is about 2 Hz. One could watch progress of signal in near real time: the signal on 501.25 on 27 & 28 May fluctuated by at least 7 dB (in/out) several times and was strongest a few minutes before fade-out.

The antenna is a 22 director Yagi (in Australia, Jaycar's "91" element fringe antenna, model LT3182) with nominal 15dB gain at 500 MHz. It was mounted (on a camera tripod) at 1.5 above ground level, with manual adjustment of the elevation and azimuth to track the moon. It was mostly elevated at about 22 degrees (optimum for 501.25, KWBT).

The (1st) preamp is a 2 dB noise figure GaAs FET unit, with 20 dB gain, mounted at the antenna. It is a JIM model M-75, made in Japan (once sold in Australia by Dick Smith Electronics). Its bandwidth is 225-1500 MHz.

The rx is an Icom R7000, in usb mode, plus PC (Mac) based audio spectrum analyzer sampling the receiver's audio through the sound card.

To measure frequency accurately I use harmonics (weak at UHF) of a frequency divider chain which provides combs every 10 kHz from a very stable 5 MHz crystal oscillator. The 5 MHz reference is a high performance Vectron ovenised quartz crystal (ca 1989 vintage), with a frequency
drift of better than 0.001 ppm/day.

A simple calculation of the signal-to-noise ratio [= PG/LkTB, where P = tx erp,G = rx ant gain, L = path loss (264 dB at 500 MHz), k = 1.4x10E-23, T = noise temp., B = bandwidth (Hz)] gives about 15 dB for a 3 Hz bandwidth and 300 K noise temp., which is in the right ballpark.

There are many more UHF txs to investigate via eme. Here in Australia the task is made easier by the lack of TV allocations below 526 MHz.

EME update

Below is a summary of reception so far:

date	time (UTC)	tx	freq (MHz)*	freq drift (Hz/min)
26 May	1021-1028	1 ?	483.250488	-2.5 #
26 May	1115-1122	2	501.248437	-1.5
27 May	1147-1206	2	501.248423	-1.4
28 May	1235-1258	2	501.248418	-1.3
29 May	1340-1352	2	501.248420	-1.3
30 May	1437-1444	3	483.251031	-1.1
31 May	1533-1540	3	483.251050	-1.3

* as measured at tx (i.e. rx corrected for Doppler)
# Doppler for tx 1 is only -0.9 Hz/min

1. WNDU-16 South Bend, IN	41.6N, 86.2W	5000 kW Z H
2. KWBT-19 Muskogee, OK	35.8N, 95.8W	5000 kW Z H
3. WAPT-16 Jackson, MS	32.3N, 90.3W	4790 kW ZdH

KWBT-19 did not show on the 30th or 31st, but WAPT-16 came in. WAPT-16 is my first reception from a directional tx. It has about 80% of full power at the bearing of the setting moon (240-244 degrees). Except for tx 1 all receptions have exhibited frequency drift in excellent agreement with prediction of the Doppler shift (by GM4JJJ's program).

This experiment is now on hold, while I waterproof the preamp (winter is here) and wait for moonrise at a more convenient time.

73s

Tony Mann,

Perth, Australia

COMMENT FROM DOUG SMITH

I believe Tony is right - that he has in fact heard USA UHF TV carriers.

I have long felt something like this was possible, but didn't think anyone was trying. I'm glad to be proven wrong.

Amateurs have been bouncing UHF signals off the moon since 1964. A typical amateur moonbounce (aka EME, "Earth-Moon-Earth") station uses the USA maximum legal power of 1.5kw transmitter output and an antenna gain on the order of 23dB for an effective radiated power of about 300kw.

This is about 13dB below the ERP of KWBT. However, the amateur station concentrates its power in a bandwidth of a few dozen Hertz. (most amateur EME communications uses Morse Code. A few larger stations have used single-sideband AM, a bandwidth of about 2KHz.) KWBT spreads its 5000kw through a bandwidth of about 4200KHz. Admittedly, much of that power is concentrated in areas near the carrier, which is also the frequency Tony was checking.

Tony's antenna is on the lower end of what amateurs would use for EME communications. However, amateurs *have* succeeded in working off the moon with single Yagis.

(incidentially, I'm told that if you carry a 3-watt hand-held radio to the focal point of the Arecibo radio-telescope, and tap the push-to-talk button, when you let go you can hear the reflection of your signal after it bounces off the moon... I'll bet a TV w/rabbit ears placed at that focal point might actually deliver a picture...)

I don't know anything about the correlation of Doppler shift to transmitter location - the figures certainly do seem to point towards the channel 19 station being KWBT. A frequency drift of 1.6Hz/minute at WSBT certainly seems within the realm of possibility. (in fact I'm somewhat concerned that the KWBT signal seems to have little or no transmitter drift - though having no idea what kind of equipment the station is using for frequency control it may not be unreasonable.)

I suppose the only way to be sure of what stations Tony had would be for someone here in the States, within the local coverage area of the transmitter, to take running precise frequency measurements while Tony is doing the same with the moon-reflected signal. If any locally-measured drift, added to the predictable Doppler shift from the movement of Earth and Moon, matches Tony's measurements then you could reasonably claim a specific station.

I suppose increasing antenna gain would allow use of a wider bandwidth, which in turn would increase the time over which the drift could be monitored. If some method could be devised for tuning the receiver in synchronization with the Doppler shift, while still measuring the exact frequency, any transmitter drift could be measured over an even longer period.

A check of TV channel frequency tables indicates the two frequencies Tony monitored are not used for TV carriers in Australia, China, New Zealand, Indonesia, Malaysia, Singapore, or anywhere else in the immediate vicinity. (not that any other country is really *close* to Perth!) The frequencies
are valid channels in South Korea, Japan, the Phillippines, and the various U.S. possessions in the Pacific. I am however not aware of any stations of significant power on channels 16 or 19 in any of the U.S. possessions. That leaves the questions to be:

1. Are channels 16 and 19 used in Korea, Japan, or the Phillippines by stations of modest or high power?

2. Is there any reasonable way to explain propagation from any of these countries?

I suspect the physics would prove there is no answer to question #2. I strongly suspect Mr. Mann has in fact received American TV signals.

If you count a 48.250 video carrier as DX based on exact frequency and fadein/fadeout times, then you definitely need to count this as DX. I don't think there's enough information to definitely claim it as loggings of WNDU and KWBT, but those more familiar with the physics

than myself may well disagree. If you don't count it, you still have to consider it's a VERY interesting - and VERY valuable - scientific experiment. I think congratulations are in order. -- Doug Smith W9WI

COMMENT BY TODD EMSLIE

DX is an old telegraph expression for long distance transmission. EME ham DXers swap QSL cards when they can hear a faint CW signal. Since 50, 144, 432 MHz ham EME is generally accepted as DX, weak TV video carriers should also be classed as DX.

I think this is may be the first serious attempt at USA UHF TV via EME. This is indeed extreme long path DX, the round trip being ~ 480,000 miles!

Tony has proved that EME TVDX is possible for most DXers who can use a typical wideband fringe type UHF TV yagi, low noise UHF GaAsfet pre-amp, SSB receiver, and PC with audio spectrum analyser program.

The main reasons Tony has obtained excellent results, considering his relatively 'basic' receiver set up, is because of the high power 5 million watt video carrier, and very narrow (2Hz) bandwidth obtained by using a audio spectrum analyser. As all weak signal tropospheric and EME hams are well aware; reducing the receiver bandwidth also increases the signal to noise ratio of weak signals.

As myself and Tony recently discussed on the phone, audible heterodoynes may be possible with a 20 Hz audio bandpass filter. The sky and terrestrial noise level would need to be low enough. The other obvious technical 'tweaks' are reducing the UHF pre-amp noise figure to 1dB, and higher antenna gain. Perhaps after Tony has scanned the entire UHF US TV band for relative signal strengths, and found the strongest tx, a dedicated single channel high gain yagi (1 MHz bandwidth) could be built. It would be interesting to see the maximum s/n ratio obtained.

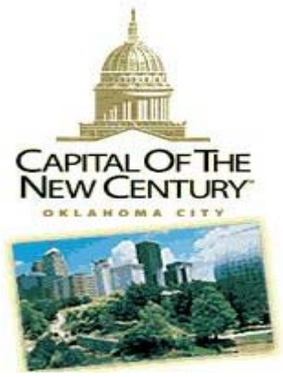
When I get a chance, I will upload a archive 1984 TELEVISION magazine article on the difficulties of receiving DXTV via EME. In those days, 18-22 dBd stacked arrays were suggested for detection of TV via EME. They were doing it tough, considering audio spectrum analyser (PC) based programs were not yet available.

For most DXers, EME reception is probably behind their technical abilities. It is no coincidence that most EME and VHF weak signal DXers or hams have experience in electronics or science. In Tony's case, he is a research physicist, and hence is working with test equipment on a regular basis.

Tony suggest that other DXers should also try for UHF EME DX. Why UHF? Because antenna gain is easier to obtain above 500 MHz, and terrestrial and sky noise is much lower at UHF. Also, there are several UHF TV transmitters with powers between 1-5 million watts.

Many Thanks to Doug Smith for his TV database web page. Tony used Doug's page for searching all US UHF TV, with tx powers above 1 million watts. Regards, Todd Emslie, Sydney, Australia.

It’s Convention Time in Oklahoma City
July 26-27-28 Make your reservations now!



WTFDA 2002

Oklahoma City

July 26,27 and 28, 2002

Last chance! Make your reservations NOW!

Time to make your reservation for this year's convention at the Hampton Inn, I-40/Garth Brooks in Yukon, OK. Our special rate is $55/night for 1 or 2 adults (kids stay free). You will need to call the Hampton Inn direct at (405) 350-6400 to make your reservation. Be sure to mention that you'll be there for the WTFDA convention. Hurry! The reservation deadline is June 26 for this special rate! During your stay at the Hampton Inn you'll enjoy a free, hot breakfast each morning and cookies and milk at night. The Hampton has an indoor pool and a weight room.

Getting to Oklahoma City is easy! The city is at the crossroads of three major interstates (I-40, I-44 and I-35). Will Rogers World Airport is served by several major airlines, including Southwest, American, United and Delta (check out the airport website at flyokc.com for more info).

What's on tap for the convention? Thursday night there's an early-bird get-together in the Bricktown entertainment district. Friday the meeting room opens at 10AM so you can pick up your registration packet. The room will be open all day for you to get together with other DXers. Pig out that evening with pizza and hot wings in the meeting room. We may also have a special tour or visit radio stations that day. Saturday morning starts off with station tours and seminars and concludes with the banquet and business meeting at the nearby Interurban Grill. The meeting room will be open all day Sunday for everyone to spend some more time chatting and saying goodbyes. Throughout the convention we'll also have a room set aside for those who want to DX, so bring your gear!

Do you have a seminar topic you would like to see covered, or would you like to present a seminar? Please note it on the registration form below. Saturday evening we'll have an auction to benefit the club. If you have items you'd like to donate for the auction, also note that on the form.

For more info on the convention, check out the club website or FMDXWeb.com, e-mail me at Jpzondlo@aol.com, send snail mail to 4009 Driftwood Circle, Yukon, OK 73099, or call me at (405) 354-1530. To register, copy or clip the form below, fill it out and send it in. See you there!

John Zondlo, WTFDA 2002 Convention Host

WTFDA 2002 Convention Registration Form

Name:_____

Address:_____

City, State/Province, Zip/PC:_____

E-mail:_____ Phone:_____

Arrival date/time & mode of transportation:_____

Seminar topics I'd like to see covered:_____

_____ Registration Fee ($15) enclosed (not required at this time)

_____ I will attend the early bird get-together Thursday, June 25

_____ I will bring items to donate for the auction (if so, please include a list of items).

Remember, you must make your motel reservation yourself. Make checks payable to John Zondlo. Banquet not included in registration as you'll be able to order from the menu. Send this registration to John Zondlo, 4009 Driftwood Circle, Yukon, OK 73099.