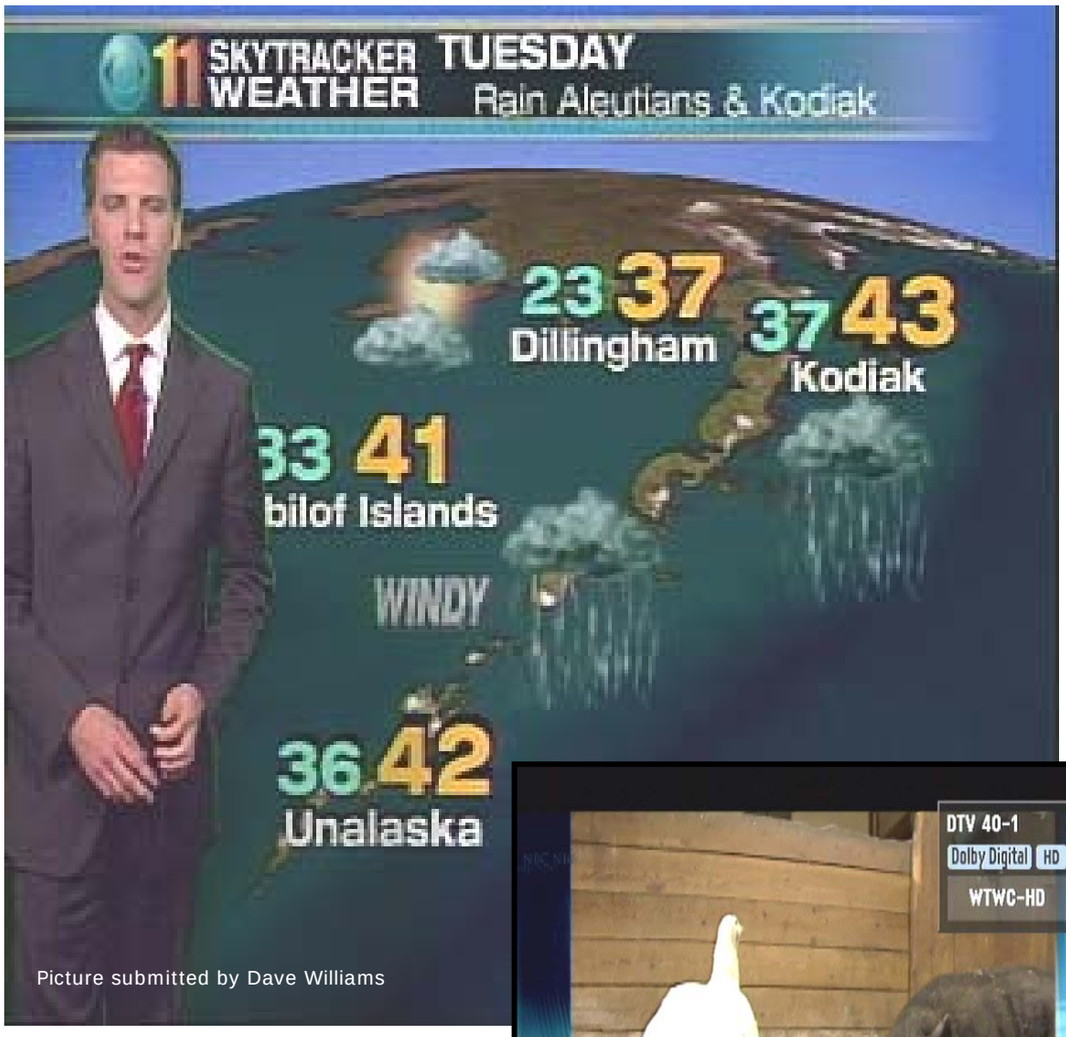
Vhf-Uhf DIGEST

The Official Publication of the Worldwide TV-FM DX Association

MARCH 2008

The Magazine for TV and FM DXers



Picture submitted by Dave Williams

WTWC-DT2 Seen by Jeff Rostron in MA

11 MONTHS
REMAINING UNTIL
ANALOG TV SHUTOFF

All you wanted to know about GREAT LAKE TROPO!
IS IN THIS ISSUE

TV and FM DXing was never so interesting!

THE WORLDWIDE TV-FM DX ASSOCIATION

Serving the UHF-VHF Enthusiast

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. WTFDA IS GOVERNED BY A BOARD OF DIRECTORS: DOUG SMITH, GREG CONIGLIO, BRUCE HALL, KEITH McGINNIS AND MIKE BUGAJ.

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wtfda.info Site Administrator: **Chris Cervantez**
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Our website: **www.wtfda.org;** Our forums: **www.wtfda.info**

MARCH 2008

PayPal

Finally! For those of you online with an email address, we now offer a quick, convenient and secure way to join or renew your membership in the WTFDA from our page at:

http://fmdx.usclargo.com/join.html

Dues are $25 if paid to our Paypal account. But of course you can always renew by check or money order for the usual price of just $24. Either way, it's still a bargain!

eVUD members please send $10 for membership or renewal to mbugaj@snet.net.

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FIND US FAST!

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MORE WINTER E-SKIP!

Winter Es continued through the first half of February. **Randy Zerr** caught Es on the 3rd of February while a few DXers caught it on the 5th covering an area from New England to the southland. **Jeff Rostron** saw WTWC-DT on ch2 (see the photo on the cover) during an evening Es opening on the 9th, and Jeff and some others reported more Es on the 10th during the mid-day.

Jeff's screenshot also appears on the wtfda.org website. If you've never been there, maybe you should take a look. We try to keep it as up-to-date as possible.

SET-TOP BOXES

The new DTV converter boxes began to appear in some stores around the first of February. Walmart was the first with the Magnavox STB and Best Buy followed with their Insignia brand box. Both boxes are suitable for DTV DXing but the the Insignia box has one or two features not available with the Magnavox. Check out the reviews of these boxes here and on wtfda.org.

MEMBERS AND MORE

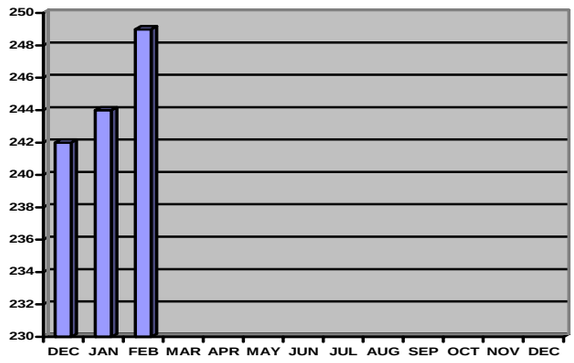
This month we want to welcome Dr. **Tim Noonan** to the WTFDA. Tim is well known midwest DXer and I think this is his first venture into the WTFDA, so welcome Tim!

Also welcome back to **Les Rayburn**! Great to see you back, Les!

Tim is in Wisconsin and Les is down there in Alabama.

During the period from 1/18 to 2/11 we received renewals from **Glen Hale** (IN), **Melvyn Larson** (MN), **Rod Thompson** (CA), **Wally Dickson** (MA), **Scott Hood** (MA), **Robert Steadman** (WI), **Jeff Rostron** (MA), **Barry Shinall** (VA), **John Zeis** (PA), **Charles Burnham** (NY), **William Higgs** (CA), **James Brown** (VA), **Joseph Kureth** (MD), **Paul Hansen** (MA) and **Richard Porter** (IL). Thanks everyone for your support of the club, especially the two of you who joined and renewed for three years! That's called *really* going out on a limb!

Also, for your information, during this period we took in $177 in dues via Paypal and $348 in dues by check or money order. I can see people using Paypal who never have before and I hope even more people use Paypal because it costs you nothing, does the job in seconds and saves you 41¢ in postage. The minute you send it, we get it and post it.



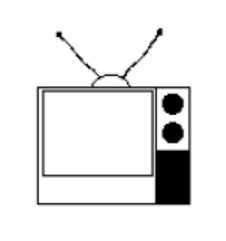
While we're at it, here's a graph of the club's membership for the past three months. Note that these figures were taken on the 1st of the month, so figures around the middle of the month are higher. At least we seem to be heading in the right direction!

MEANWHILE, BACK IN JANUARY

Al Radella asked about coat hanger antennas and mentioned the AFL playoff game in San Diego. **Bryan May** saw it, called me and gave me more information. What Al mentioned was the NFL/AFL World Championship Game at the L.A. Coluseum. The game was not sold out, so it was blacked out in the Los Angeles area. Only 62,000 out of 90,000 tickets were sold and it was broadcast on both CBS and NBC. I hope I wrote all of this down correctly.

DTV DISAPPOINTMENT

Here's a short note received at deadline time from **John Ridge** in Brooklyn NY. John writes "I hope technology will advance to make it easier to receive digital signals. My efforts locally and at a summer place at Sturbridge, MA have been very disappointing. I feel sorry for those dependant on antennas for their future reception post the change-over." (I think everyone is Sturbridge *has* to have cable or they'll receive snowy analog pictures at best. Sturbridge is fringe to every market. –Mike)



TV News

March 2008

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Abbreviations:

AF	**A**pplied **F**or (a new station)	NW	**New** station on the air
Aux	**Aux**iliary (backup) transmitter	PA	**P**roposed **A**mendment
CC	**C**allsign **c**hange	PC	**P**ower (and/or tower height) **c**hange on the air
CL	**C**ity-of-**l**icense change	PG	**P**ower change **g**ranted
DC	**C**onverted to **D**TV	PR	**P**ower change **r**equested
DCC	**D**igital **C**ompanion **C**hannel	RA	**R**eturns to the **a**ir
NS DCC	Granted flash-cut to DTV	QC	Channel (fre**q**uency) **c**hange on the air
DE	License/permit **de**leted	QG	Channel change **g**ranted
DR	**R**equests flash-cut to **D**TV	QR	Channel change **r**equested
FC	Programming (**f**ormat) **c**hange	RE	**Re**instated (previously-dismissed app.)
FTP	**F**ailure **t**o **P**rosecute	ROA	**R**equest **o**f **A**pplicant
GA	**G**ranted **a**mendment (to table of channel allotments)	SI	Off the air (**si**lent)
LC	**L**icense to **C**over	STA	**S**pecial **T**emporary **A**uthority
MX	**M**utually E**x**clusive	XC	Transmitter site **c**hanged
NDA	**N**on-**d**irectional **a**ntenna	XG	Transmitter site change **g**ranted
NS	Permit granted for **n**ew **s**tation	XR	Transmitter site change **r**equested

News:

(full-power analog stations in **bold face**; LPTV and translators in regular type; full-power digital stations in ***bold italics;*** *low-power digital stations in regular italics*)

U.S. Virgin Is.

Christiansted	34	W34DO	PR<7.5kw, 17-45-24/ 64-48-00

USA:

Alabama:

Andalusia	40	W40BE	PR>50kw dismissed
Dothan	***21***	***WDHN-DT***	***PG 1000kw/ 190m***
Fayette	*15*	*WSSF-LD*	*XR 33-40-54/ 87-49-24; CL from Berry; reduce tower height 134m; XG; CL from Berry*

Alaska:

Girdwood	7	KAKM-1	AF 55w, 60-57-12/ 149-06-28, booster for Anchorage station

Arizona:

Flagstaff	17	K54GI	QR from ch. 54
Globe & Miami	14	K57BO	QR from ch. 57
Phoenix	**15**	**KNXV-TV**	**PC<750kw**
Williams-Ashfork	15	K53GM	QR from ch. 53

Arkansas:

Fulton	11	K11VO	FC; sold to Hispanic Christian Community Network

California:

Arroyo Grande	20	KSSY-LP	PC>150kw, 34-54-37/ 120-11-09
Baker	62	NEW-LP	AF dismissed
Banning	*12*	*KMRZ-LD*	*DR 300w, 33-57-42/ 117-16-47*
Barstow	14	NEW-LP	AF dismissed
Likely	*5*	*K05ET-D*	*DR 250w; DG*
Litchfield	26	K13RZ	QR from ch. 13, 570w, 40-07-01/ 120-19-06
Litchfield	48	K48DI	XG 40-07-01/ 120-19-06
Needles	28	NEW-LP	AF dismissed
Sacramento	***35***	***KCRA-DT***	***PR>579m, 38-15-54/ 121-29-24***
Santa Rosa	40	KQRM-LP	PR>11.25kw
Watsonville	**25**	**KQET**	**PG>182kw/ 699m, 36-45-23/ 121-30-05 (tower height & coordinates correction only)**

Colorado:

Cripple Creek	*5*	*K05MD-D*	*DR>300w, 39-23-06/ 105-02-49; DG*
Glenwood Springs	44	K44DF	PC>15kw, 39-32-34/ 107-17-58; CL from Eagle
Trinidad	15	K15GL	PG>730w, 37-14-14/ 104-30-52 (still holds permit to convert to digital on this channel)

Trinidad	*15*	*K15GL-D*	*PG<180w, 37-14-14/ 104-30-52*
Wolcott	13	K13DE	PC>2.84kw, 39-44-23/ 106-48-04
Connecticut:			
Bridgeport	***49***	***WEDW-DT****	***QR from ch 52 41kw/222m***
Hartford	***45***	***WEDH-DT***	***AF 465kw/ 505m***
Norwich	***9***	***WEDN-DT****	***QR from ch. 45, 1.25kw***
Delaware:			
Wilmington	***12***	***WHYY-DT****	***QR from ch 50 9.9kw***
Florida:			
Marathon	21	W65AP	QR from ch. 65, 85kw, 24-46-02/ 80-56-42
Orlando	***27***	***WRDQ-DT****	***QR from ch. 14, 407kw/414m***
Orlando	**35**	**WOFL**	**NS 483kw/ 423m, 28-34-51/ 81-04-32 (aux)**
Orlando	**65**	**WRBW**	**NS 460kw/ 423m, 28-34-51/ 81-04-32 (aux)**
Panama City	30	W30CF	PG>150kw, 30-21-14/ 85-54-27
Panama City	*46*	*WCTU-LP*	*DR 5kw, 30-24-42/ 86-46-02; DG*
Panama City	6, 12	W06CQ, W12DE	FC; sold to Hispanic Christian Community Network
Pompano Beach	21	WDLP-CA	CL changed from Miami
Sarasota	***24***	***WWSB-DT****	***QR from ch 52 90kw/234m***
Tallahassee	***27***	***WTXL-DT****	***QR from ch 22 800kw/518m***
Georgia:			
Cochran	***7***	***WMUM-DT***	***PR 31kw/ 332m***
Savannah	***13***	***WVAN-DT***	***PG<1.6kw/ 388m***
Valdosta	**44**	**WSWG**	**CX, DE, now DTV-only station on ch. 43**
Waycross	**8**	**WXGA-TV**	**PC<286kw/ 308m**
Waycross	***9***	***WXGA-DT***	***PG 16kw/ 308m***
Wrens	***2***	***WCES-DT***	***PG 34kw/ 408m***
Idaho:			
Coolin	*9, 11, 12, 31, 40, 51*	*K09XY, K11UN, K12LF, K31DS, K40DJ, K51EF*	*DG 20w (VHF)/100w (UHF)*
Pocatello	61	K61FO	XR 42-51-58/ 112-30-48; XG; XC
Twin Falls	*51*	*KSAW-LP*	*DR 15kw; DG*
Illinois:			
Chicago	46/4 8	WMEU-LD/CA	CC from WFBT-LD/CA. Was briefly WTUU.
Effingham	*45*	*WEIL-LD*	*DG 15kw, 39-57-03/ 88-52-05*
Quincy	15, 17, 19, 20, 36, 45, 49, 51	W67DR, W65CZ, W69DF, W61CO, W36BS, W45BM, W49BS, W53BP	QC from chs. 67/65/69/61/53 (chs. 36/45/49 not changing); 39-58-19/ 91-19-40 (all chs.)
Indiana:			
Portage	13	WODN-LP	PC>3kw
South Bend	**22**	**WSBT-TV**	**PC<2750kw/ 332m**
Iowa:			
IOWA Keokuk	46	K46IH	FC; sold to Hispanic Christian Community Network
Kansas:			
Topeka	32	K32IM	FC; sold to Hispanic Christian Community Network
Kentucky:			
East Bernstadt	9	WOBZ-LP	OFF due to tower collapse
Jamestown	2, 9	W02CO, W09CQ	FC; sold to Hispanic Christian Community Network
Louisiana:			
Alexandria	2	K02QB	NW 2w, 31-16-04/ 92-26-24
New Orleans	**6**	**WDSU**	**PR<272m; PG**
New Orleans	***15***	***WNOL-DT***	***PR 775kw/ 286m, 29-56-59/ 89-57-28***
New Orleans	***43***	***WDSU-DT***	***PG 1000kw/ 286m***
Maryland:			
Salisbury	11	W11CX	FC; sold to Hispanic Christian Community Network
Massachusetts:			
Worcester	***47***	***WYDN-DT***	***PR<50kw/319, 42-18-37/ 71-14-14***
Michigan:			
Escanaba	5, 11	W05CR, W11CZ	FC; sold to Hispanic Christian Community Network
St. Ignace	26	W26DG	FC; sold to Hispanic Christian Community Network
Minnesota:			
Frost	*29*	*K29IF-D*	*PG 3.1kw, 43-35-09/ 93-55-46*
Little Falls	*49*	*K49JH-D*	*PR<280w*
Mankato	*28*	*KHVM-LD*	*DC 100w*
Wadena	*33*	*K33IU-D*	*PR<240w*
Mississippi			

Bude	**17**	**WMAU-**	**PR<18.6kw**
Laurel	4, 68	W04DE, W68DX	FC; sold to Hispanic Christian Community Network
Meridian	37	WMRQ-LP	QR from ch. 40, 15kw, 32-18-44/ 88-41-33 (don't expect to see this one granted!)
Missouri:			
Jefferson City	5	K05LU	FC; sold to Hispanic Christian Community Network
Kansas City	***34***	***WDAF-DT***	***PR>344m***
Lewiston	9	K09XZ	FC; sold to Hispanic Christian Community Network
Moberly	5	K05LY	FC; sold to Hispanic Christian Community Network
Springfield	***19***	***KSPR-DT***	***PG 363kw/ 590m, 37-10-26/ 92-56-27***
Montana:			
Kalispell	*19, 32, 51*	*K19GD, K32HH, K51HT*	*DG 270w, 48-00-40/ 114-21-48*
Nebraska:			
Hastings	***21***	***KHAS-DT***	***PR<1.39kw/ 83m***
North Platte	***22***	***KNOP-DT***	***PR<1.94kw/ 102m***
Nevada:			
Las Vegas	***13***	***KTNV-DT****	***QR from ch 12 16kw/606m***
Pahrump	53	K53AE	FC; sold to KVVU-5
Tonopah	13	K13YU	XG 38-03-49/ 117-13-26; NW (3kw)
New Jersey:			
Morristown	*17*	*W17DC-D*	*DG from W54CZ, 1kw*
New Mexico:			
Carlsbad	***25***	***KTEL-DT****	***AF 50kw/ 120m***
Hobbs	***29***	***KUPT-DT****	***QR from ch 16 50kw/157m***
New York:			
Buffalo	**7**	**WKBW-TV**	**NW 21.4kw/ 300m (aux)**
Hempstead	32	W29CF	QC from ch. 29, 20kw
Mineola	*26*	*WLIG-LD*	*DC from ch. 54, 1kw*
New York	6	WNYZ-LP	QC from plus offset to minus; FC to dance music "Pulse 87"
New York	26	W26CE	PG<1.5kw, 40-51-18/ 72-46-11
New York	*26*	*W26CE-D*	*DG 1kw, 40-51-18/ 72-46-11*
Plattsburgh	***38***	***WCFE-DT***	***PR<55kw***
Plattsburgh	**57**	**WCFE-TV**	**PR<425kw**
Port Jervis	*9*	*W09CU-D*	*PR>300w*
Port Jervis	*41*	*W30CP-D*	*QR from ch. 30, 1.6kw, 41-00-35/ 74-35-39*
Utica	40	WVVC-LP	QC from ch. 27, 1.5kw, 43-02-15/ 75-11-45
North Carolina:			
Canton	**27**	**WUNW**	**NS 10.63kw/ 474m, 35-34-06/ 82-54-25 (UNC-TV); CC**
Raleigh	***49, 53***	***WRAZ-, WRAL-***	***AF 1000kw/ 467m (aux)***
Ohio:			
Cincinnati	***33***	***WSTR-DT***	***PG 900kw/ 303m***
Columbus	48	WCPX-LP	PC>150kw, 40-01-02/ 83-01-11
Zanesville	***40***	***WHIZ-DT***	***PG 620kw/ 169m***
Oklahoma:			
Tulsa	51	KXAP-LP	CC from KOPE-LP
Oregon:			
Astoria	50	K50JF	FC; sold to KBLN-30
Eugene	36	KXOR-LP	CC from K36FJ
Grants Pass	18	K18AN	XR 42-29-20/ 123-18-21; XG
Grants Pass	44	K44JB-D	NW 750w, 42-27-05/ 123-17-48
Portland	***12***	***KPTV-DT****	***QR from ch 30 21.9kw/529m***
Terrebonne	*45*	*K45KM-D*	*DG 4.4kw, 44-04-40/ 121-19-49 from K60BQ*
Pennsylvania:			
Allentown	***39***	***WLVT-DT***	***PR<44.5kw/ 295m***
Philadelphia	***6***	***WPVI-DT****	***QR from ch 64 7.65kw/332m***
Pittsburgh	***13***	***WQED-DT****	***QR from ch 38 12.6kw/210m***
Pittsburgh	***38***	***WQEX-DT****	***QR from ch. 26, 64.1kw***
Pottsville	28	W61AG	QR from ch. 61, 100w
Reading	**51**	**WTVE**	**FC?, sold to WRNN-DT 48**
South Dakota:			
Rapid City	***7***	***KEVN-DT****	***QR from ch 18 12.3kw/204m***
Sioux Falls	53	K53EG	FC; sold to Daystar
Tennessee:			
Pigeon Forge	46	WDLE-LP	NW 11.43kw, 35-48-43/ 83-40-05
Texas:			
Abilene	31	K31ID	PG<2kw, 32-26-38/ 99-44-04; NW
Abilene	46	K46IG	PG<700w, 32-26-38/ 99-44-04; NW
Beaumont	13	K13ZD	FC; sold to Hispanic Christian Community Network
Corpus Christi	**38**	**KUQI**	**FC to Fox**
Corpus Christi	47	K47DF	FC to independent
Crockett	45	K45HZ	FC; sold to Hispanic Christian Community Network
Dallas	***45***	***KDTX-DT***	***NW 1000kw/***

			494m, 32-32-36/ 96-57-32
Denison	30	K30IS	FC; sold to Hispanic Christian Community Network
Greenville	*51*	*KHFD-LD*	*PR<2kw, 32-58-07/ 96-20-30; CL from Paris; PG*
Lufkin	48	K48IO	NW 28.25kw, 31-24-29/ 94-45-52
Padre Island	46	K46KC	PG 8.25kw, 27-37-31/ 97-18-27; CL from Flour Bluff
Sweetwater	***20***	***KTXS-DT***	***PG>530kw/ 402m***
Texarkana	5	K05LQ	FC; sold to Hispanic Christian Community Network
Wichita Falls	25	K25IL	FC; sold to Hispanic Christian Community Network
Wolfforth	***43***	***KLCW-DT***	***AF 7711kw/ 228m (presumably a typo!)***
Woodville	23	K23HF	NW 1kw, 30-46-45/ 94-24-30; FC, sold to Hispanic Christian Community Network

Utah:

Circleville	*19, 21, 31, 32*	*K19GM-, K21IB-D, K31IY-D, K32HN-D*	*NW 10w, 38-12-41/ 112-14-02 (KUTV, KTVX, KSL, KSTU)*
Emery	*17, 19, 21, 23, 25, 27, 29*	*K17HR-, K19GK-D, K21HZ-, K23IE-D, K25JA-D, K27IS-D, K29HK-D*	*NW 10w (KSTU, KUED, KTVX, ?, KUTV, KUEN, KSL)*
Long Valley Junction	*48*	*K48EK-D*	*DC 10w*
Milford	26	K26EA	PR>300w
Orangeville	*36, 38, 40, 45, 46,4 7, 48, 49, 50*	*K36IF-D, K38KP-D, K40KD- K45JN-D, K46JK-D K47KK-D, K48KK-D, K49JJ-D, K50JS-D*	*NW 10w, 39-12-36/ 111-08-30 (KUTV, KTVX, ?,KUED, KUEN, KBYU, KSTU, KJZZ, ?)*
Price	25, 46, 48	K25IV, K46IC, K48JE	FC; sold to Hispanic Christian Community Network
Rural Iron Co.	28	K28GQ	PR>300w

Vermont:

St. Johnsbury	***18***	***WVTB-DT***	***PC<67kw***

Virginia:

Charlottesville	7	W07DO	FC; sold to Hispanic Christian Community Network
Harrisonburg	8, 13	W08DY, W13DH	FC; sold to Hispanic Christian Community Network
Richmond	45	WZTD-LP	CC from WKYV-LP

Washington:

Pullman	46	KPMT-LP	PR >2.8kw, 46-48-41/ 116-55-03 dismissed. Going for same facilities on channel 14.
Spokane	*9*	*KXMN-LD*	*NW 200w, DCC for ch. 11*
Vancouver	***30***	***KPDX-DT****	***QR from ch 48 741kw/528m, 45-31-19/ 122-44-53***

West Virginia:

Clarksburg	64	W64CZ	NW 2kw, 39-17-53/ 80-17-59 (TBN)
Huntington	14	W14CU	QC from ch. 17, 50kw

Wisconsin:

Chippewa Falls	**48**	**WEUX**	**PG>1550kw/ 223m**
Chippewa Falls	***49***	***WEUX-DT***	***PG 780kw/ 223m***
Coloma	*48*	*W48DB-D*	*PR>4.89kw (for DTV permit); PG*
Fence	*45*	*W45CD-*	*PG>1.18kw*
Grantsburg	*24*	*W24CL-D*	*DG 1.56kw*
Green Bay	***41***	***WGBA-DT***	***PR<297m***
La Crosse	***17***	***WLAX-DT***	***PG>814kw/ 278m***
Milwaukee	***33***	***WITI-DT***	***PR>1000kw/ 305m***
Park Falls	***36***	***WLEF-DT****	***QR from ch 47 50kw/445m***

Wyoming:

Casper	***17***	***KTWO-DT***	***PR<52.9kw/ 560m, 42-44-26/ 106-21-34***
Jackson	*29*	*K29HG-D*	*DR 110w from K59DY; DG*
Lander	***7***	***KGWL-DT***	***PR>26.8kw/ 113m; PG***
Laramie	25	K25IE	NW 10kw, 41-04-53/ 105-29-04
Rawlins	***9***	***KFNR-DT***	***PR 980w/51m; PG***

Thanks to Duncan Shaw, Bob Seaman, and Fritze Prentice for information elsewhere in this column.

Stations marked with a * are applications for permanent DTV facilities. These changes are not likely to be implemented until Transition Day in 2009 or very shortly before then.

The KPDX-DT facility on channel 30 is the same facility currently in use by co-owned KPTV-DT. KPTV-DT will be moving to channel 12 on Transition Day. Similarly, WQEX-DT is taking over DTV channel 38 and the antenna of co-owned WQED-DT. However, in the Pittsburgh case there will be a substantial power reduction from 760kw to 64kw.

The Corpus Christi *Caller-Times* reports new station KUQI-38 on the air since late January, and with the Fox affiliation since February 4th. It's an analog station, but not for long. LPTV

(TV News Continues on Page 40)

FM NEWS

FromWTFDA.info and w9wi.com

BILL HALE, 6124 ROARING SPRINGS DR, N. RICHLAND HILLS TX 76180
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MARCH 2008

INDEX OF ABBREVIATIONS

APP application
APP Mod Change to an already submitted application
AUX auxiliary facilities (backup)
CC call change
CL city of license (change to or from)
Class FM license class
CP construction permit (authority to broadcast with facilities noted)
CP Mod change to an already granted CP
DA directional antenna
FC frequency change (change to or from)
LC License to Cover (station has ended testing and has been given authority to begin operation)
NDA non-directional antenna
PTA Program Test Authority (station has been given authority to begin testing)
STA Special Temporary Authority
ROA (at the) request of applicant
XL Transmitter Location

AS American Samoa
GU Guam
VI Virgin Islands

Note: antenna heights are HAAT except where noted

- - - CANADA - - -

CALL LETTER CHANGES

			Old Call	New Call
NL	Moncton	106.1	NEW	CBAM-FM
NS	Kentville	89.3	NEW	CIJK
ON	Apsley	92.9	NEW	CFSH
ON	Sarnia	103.9	NEW	CHOK-1
SK	Regina	92.7	NEW	CHBD

--FORMAT and SLOGAN CHANGES–

None reported this month except those reported with technical data

– NEW STATIONS ON THE AIR --

AB	Fort McMurray	91.1	CKOS	35 watts with Christian Rock as *KAOS 91.1*
AB	Grande Prairie	96.3	CJGY	100 kw with Christian as *Shine FM*
AB	Medicine Hat	105.3	CKMH	100 kw with Active Rock as *Rock 105.3*
AB	Weberville-Peace River	101.7	CIAM-5	50 watts with Christian as *see I am*
BC	Victoria	107.9	CILS	340 watts with Community as *Radio Victoria*
ON	Bolton	105.5	CJFB	50 watts with Eclectic AC as *The B*
ON	Espanola	99.3	CJJM	794 watts with Classic Hits as *Joco FM*
ON	Goderich	104.9	CHWC	5.33 kw with Hot AC-Classic Hits as *The Beach*
SK	Regina	92.7	CHBD	100 kw with Country

--TECHNICAL CHANGES–

AB	Calgary	99.1	CBR-1	Increases power to 2.8 kw (10 kw E.R.P.) and lowers antenna height
BC	Campbell River	99.7	CFWB	Applies for 6 kw ERP; *The Ride*; FM conversion from 1490 previously approved, but applied frequency of 106.1 was not suitable
AB	Olds	96.5	CKLJ	Increases power to 35 kw and moves from 97.7; *CK-FM*
BC	Whistler	103.1	NEW	CP approved for 240 w-H/ -238 m, 50-04-45/123-01-00; to relay CBUF-FM Vancouver
NB	Plaster Rock	88.3	CIKX-FM-1	FC from 91.7 granted due to QRM from CBAF-FM-21, 25 km away, which is moving from 107.5 to 91.7.
ON	Apsley	92.9	NEW	50 watts
ON	Leamington	92.7	CJSP	960 watts; new; will become *Country 92.7*
ON	Peterborough	99.3	CKPT	Applies for move to 99.7 and reduce power to 3.7 kw (11 kw ERP); a result of interference issues from CBCP 98.7 Peterborough
ON	Sudbury	91.7	CICS	50 kw; New. will become *Kicks Country*
ON	Sudbury	107.1	NEW	Applies for 50 w/53 m; to relay CFRM-FM Little Current
QC	Rouyn-Noranda	88.7	CHIC-FM	CP granted for 300w/35m
QC	Vaudreuil-Dorion	100.1	NEW	Applies for 1 kw/53 m; Station had been approved, but was required to seek a new frequency; they chose 100.1
SK	Saskatoon	92.3	CFWD-cp	Applies for move to 96.3 and reduce power to 96 kw ERP

– PROPOSED NEW STATIONS –

BC	Smithers	95.1	NEW	AF 38 w/198 m; to relay CFNR-FM Terrace
BC	Williams Lake	96.1	NEW	47.8 watts; will simulcast CFNR-92.1 Terrace (Aboriginal)
ON	Kingston	100.5	NEW	50 watts; will simulcast CKJJ-102.3 Belleville (Christian)
ON	Sudbury	100.7	NEW	50 watts; will simulcast CFRM 100.7 Little Current (Country)

– OTHER NEWS–

ON	Cochrane	102.3	NEW	APP denied for 37 watts with Christian; would have simulcasted CHIM 102.3 Timmins; rejected due to CHIM's non-compliance with certain CRTC regulations
ON	Owen Sound	96.1	NEW	APP denied for 5.45 kw

ON	Parry Sound	94.7	NEW	APP denied for 10 kw ERP; CRTC says the market is not large enough to support a second commercial station

- - - UNITED STATES AND TERRITORIES - - -

--CALL LETTER CHANGES--

			Old Call	New Call
AL	Alexander City	89.7	NEW	WJHO
AL	Alexander City	106.9	W293BG	W295BG
AL	Clanton	95.5	W293AP	W238BS
AL	Goodwater	91.1	NEW	WTXN
AK	Kotzebue	89.9	NEW	KINU
AK	Sterling	104.9	KANC	KMVV
AZ	Heber-Overgaard	88.1	K254AT	K201IB
AZ	Kaibito	88.5	NEW	KECU
AZ	Many Farms	91.9	NEW	KKEH
AZ	Mojave Valley	93.7	NEW	KVAL [and then ...]
AZ	Mojave Valley	93.7	KVAL	KVYL
AZ	Winslow	90.5	K267BD	K213ER
AZ	Winslow	91.3	NEW	KAWN
AR	Jonesboro	88.3	NEW	KJSB
CA	Bakersfield	96.5	KBKO-FM	KDFO
CA	Bolinas	89.7	K207DF	K209FF
CA	Calistoga	100.9	KXTS	KSXY
CA	Carmel	92.3	K221EU	K222BN
CA	Cedarville	88.1	NEW	KDUP
CA	Delano	98.5	KDFO-FM	KBKO
CA	Firebaugh	90.5	NEW	KYCI
CA	Geyserville	98.7	KSXY	KXTS
CA	Johnstonville	100.5	K210BC	K263AV
CA	Rancho Bernardo, etc	93.7	NEW	K229BO
CA	Seaside	103.9	KMBY-FM	KKHK
CA	Wasco	92.7	NEW	KWVP-LP
CO	La Junta	89.1	KRLJ	KECC
CO	Rico	95.1	NEW	KICO
CO	Yuma	94.5	NEW	KRGQ
CT	Sharon	91.9	NEW	WHDD-FM
FL	Clewiston	100.9	W266BI	W265BU
FL	Daytona Beach	99.1	NEW	WRWS-LP
FL	Leisure City	106.3	WAMQ	WRAZ-FM
FL	Marianna	88.3	WJNF	WAYP
FL	Trailtown	91.5	NEW	WPDJ
GA	Atlanta	99.7	WNNX	WWWQ
GA	Buford	90.5	W266BH	W213BR
GA	College Park	100.5	WWWQ	WNNX
GA	Colquitt	90.5	NEW	WCOQ
GA	New Elm	105.1	W287AM	W286BO
GA	Tallapoosa	88.7	NEW	WEYY
GA	Toccoa	102.3	W269BN	W272CH
HI	Pahala	91.7	NEW	KAHU
ID	Grangeville	88.3	NEW	KKRH
ID	Pocatello	95.3	NEW	K237FA
ID	Stanley	105.5	NEW	K288GC
IL	Smithboro	89.9	NEW	WTMH
IN	Brookston	95.3	WLFF	WBPE
IN	Middlebury	106.3	W238BM	W292DO
IA	Clarinda	99.3	KKBZ	KMA-FM
IA	Ottumwa	89.1	NEW	KDWI
IA	Pacific Junction	107.7	NEW	KVWF
IA	Perry	91.7	NEW	KDWT
IA	Rockford	92.9	NEW	WRAH
IA	Sac City	104.7	NEW	WJLL
IA	Sibley	104.3	NEW	KIMZ
KS	Cimarron	92.9	NEW	KMML
KS	Augusta	100.5	KIBB	KGGG
KS	Colby	100.3	KQLS	KRDQ
KS	Columbus	105.3	KJML	KMOQ
KS	Columbus	107.1	KMOQ	KJML
KS	Haven	97.1	KGGG	KIBB
KS	Hays	105.7	NEW	KRMR
KS	Liberal	101.5	KSLS	KSMM-FM
KS	Lindsborg	101.7	NEW	KDJM
KS	Norton	91.5	NEW	KSNB
KS	Winfield	107.9	KSJM	KWLS
KY	Warfield	91.3	NEW	WJOY-FM
KY	Winchester	102.5	W276CA	W273BT
LA	Clinton	91.9	NEW	WWRA
LA	New Orleans	89.5	K261DN	K208FC
LA	Vidalia	104.7	KPXS	KWTG
MD	Lexington Park	97.7	WRKZ	WYRX
MA	Springfield	104.9	NEW	WLHZ-LP
MI	Benton Harbor	94.9	WCNF	WSJM-FM
MI	Hartford	98.3	WSJM-FM	WCNF [a week later...]
MI	Hartford	98.3	WCNF	WCXT
MI	Paw Paw	90.1	W262AY	W211CA
MI	Portage	96.5	WFAT	WYZO
MI	Walhalla	98.9	NEW	WRAX
MN	Clara City	88.3	K201HD	K202EB
MN	Minneapolis	104.5	NEW	K283BG
MN	Prinsburg	88.3	K201HD	K202EB
MS	Iuka	104.9	WFXO	WSKK [3 weeks later...]
MS	Iuka	104.9	WSKK	WKZU
MS	Ripley	102.3	WKZU	WSKK
MO	Albany	89.9	NEW	KGTR
MO	Carthage	107.9	NEW	KCAH-LP
MO	Joplin	89.1	K207BT	K206DZ
MO	Kansas City	99.7	KYYS	KBLV
MO	Lake Ozark	97.1	NEW	K246BN
MO	Rockaway Beach	104.5	K282AN	K283BD
MT	Somers	91.3	NEW	KFLF
NE	Callaway	102.7	KDJY-LP	KKCS-LP
NE	Loup City	88.1	NEW	KSRC
NE	North Platte	94.3	K233BV	K232EC
NE	Norfolk	91.3	K219DW	K217FM
NE	Valentine	89.3	NEW	KKNL
NV	Cal-Nev-Ari	104.9	KVYL	KVAL
NV	Logandale	93.5	NEW	KADD-1
NH	Berlin	106.1	W291CB	W294AZ
NH	North Conway	95.3	W238BP	W237BX
NJ	Hopatcong	88.1	NEW	WDNJ
NH	Peterborough	92.9	W227AW	W225BE
NH	Peterborough	102.3	W270AH	W272CJ
NM	Lordsburg	96.5	NEW	K243BH
NM	Portales	91.3	K214DH	K217FA
NM	Tucumcari	89.3	K209FC	K207EL
NY	Beacon	94.5	NEW	W233BM
NY	Black River	92.5	NEW	WBLH
NY	Dannemora	97.9	NEW	WYME
NY	Endwell	101.1	W265BI	W266BK
NY	Geneva	95.7	W241AW	W239BJ
NY	Keuka Park	97.7	W251BB	W249CE
NY	Lindenhurst	89.3	NEW	WRMR
NY	New York	101.9	WQCD	WRXP
NY	Newburgh	90.3	W213AM	W212CC
NY	Saranac Lake	107.1	NEW	WDYC
NY	Webster	102.7	WRCI	WLGZ-FM
NC	Waxhaw	106.1	WNMX-FM	WOLS
ND	St. John	102.9	NEW	K275BG
OK	North Enid	107.1	NEW	KZLS
OK	Rattan	89.7	NEW	KDBQ
OR	Depoe Bay	98.3	NEW	K252EQ
OR	Gold Beach	98.9	K201EQ	K255BW
OR	The Dalles	89.7	NEW	KOTD
PA	Center Moreland	100.1	W260AY	W261BM
PA	Clarks Summit	101.7	W270BV	W269CF
PA	Gap	92.9	WOPR-LP	WLRI-LP
PA	Hustontown	91.7	NEW	WZXF
PA	Nescopeck Pass	95.5	W237DD	W238BR
PA	Wyalusing	104.3	W279BX	W282BK
PR	Fajardo	96.5	WCMA-FM	WRXD
PR	Juana Diaz	96.5	WCMA-FM1	WRXD-FM1
SC	Walterboro	88.5	W257CF	W203BQ
SD	Aberdeen	90.1	NEW	KEEA
SD	Rapid City	91.7	K218DX	K219LD
SD	Box Elder	102.7	NEW	KXMZ
SD	Milbank	89.9	K213DI	K210EG
TN	Crossville	96.9	NEW	W245BJ
TN	Dibrell	88.3	NEW	WRCC
TN	Orme	105.3	W285EC	W287BK
TN	Sewanee	102.5	W219DD	W273BF
TN	Spring City	88.5	NEW	WLNQ
TX	Brownsville	98.9	NEW	K255BX
TX	El Paso	95.9	NEW	K240DT
TX	Holliday	90.9	NEW	KWJD
TX	Lufkin	93.9	NEW	KBOG
TX	Midland	90.9	KLPF	KVDG
TX	Moody	101.3	K214EI	K267AI
TX	Palestine	91.1	NEW	KLTB
TX	Pittsburg	91.7	NEW	KPIT
TX	Van Horn	91.5	NEW	KVHR
TX	Weslaco	96.5	NEW	K243BI

UT	Centerville	105.7	KXRV	KTMY
UT	Moab	102.1	K272AL	K271BG
UT	Price	89.9	NEW	KCEU
UT	Richfield	89.3	NEW	KUSL
UT	Vernal	105.5	KLCY-FM	KLCY
VT	Killington	105.3	WEBK	WJEN
VT	Rutland	94.5	WJEN	WDVT
VA	Waverly	92.3	W223BI	W222BD
VA	Woodlawn	102.7	W277BD	W274AZ
WA	Cashmere	106.7	KZPH	KWWX
WA	East Wenatchee	88.1	KFIO	KLUW
WA	Port Angeles	102.7	K271AZ	K274BV
WA	Shelton	90.1	K209EH	K211FH
WA	Walla Walla	91.7	K272EC	K219LC
WI	Ashland	90.3	W215AE	W212CD
WI	Soldiers Grove	105.9	NEW	WKAH
WI	Wentworth	88.1	NEW	WWEN
WY	Cheyenne	100.3	K261DM	K262BV
WY	Elk Mountain	88.1	NEW	KEZH
WY	Esterbrook	89.3	NEW	KEZG
WY	Evanston	89.3	K209DC	K207EK
WY	Gillette	88.1	NEW	KGLL
WY	Jackson	89.1	KHOL	KJXN
WY	Reliance	98.7	NEW	KWXR
WY	Rock River	106.5	KKHI	KLMI
WY	Wheatland	106.1	NEW	KKHI

--FORMAT and SLOGAN CHANGES--

CA	Calistoga	100.9	KSXY-FM	> AC
CA	Carmel	95.5	KBOQ	> Country
CA	Geyserville	98.7	KXTS	> Spanish
CA	Patterson	93.1	KOSO	> Modern AC
CA	Seaside	103.9	KMBY-FM	> Classical
CO	Bennett	107.1	KSYY-FM	> Rhythmic AC
CO	Fort Collins	107.9	KPAW	> Classic Rock
CO	Strasburg	101.5	KTNI-FM	> Alternative
FL	Tampa	94.9	WWRM	> AC
GA	College Park	100.5	WWWQ	> Rock
ID	Fruitland	99.5	KWEI-FM	> Regional Mexican
IL	Rochelle	102.3	WRHL-FM	> Adult Contemporary
IL	Wilmington	105.5	WYKT	> hot AC as *My 105 point 5*
IA	Anamosa	95.7	KKSY	> Country
IA	Waverly	89.1	KWAR	> AC
KS	Liberal	101.5	KSMM-FM	> Regional Mexican
KS	McPherson	96.7	KBBE	> Oldies
KS	Wichita	99.7	KYYS	> AAA
KY	Crab Orchard	102.9	WPBK	> Variety
MA	Brookline	92.9	WBOS	> Modern Rock
MI	Benton Harbor	94.9	WSJM-FM	> Talk
MI	Hartford	98.3	WCNF	> Hot AC
MI	Holland	96.1	WMAX	> "gold-based alternative rock" as *Radio X 96 point 1*
NE	Hershey	107.3	KNPQ	> Country
NM	Grants	88.1	KIDS	> News/Talk // KANW-89.1
NM	Flora Vista	88.1	KUSW	> News // KSUT-91.3
NY	New York	101.9	WRXP	> Adult Rock
NY	Webster	102.7	WLGZ-FM	> Adult Standards
NC	Waxhaw	106.1	WOLS	> Oldies
ND	Beulah	97.9	KHRU	> religious
ND	Grand Forks	94.7	KNOX-FM	> Classic Rock
OR	Merrill	105.5	KKKJ	> CHR
SC	Briarcliffe Acres	107.1	WQSD	> R & B
TX	Los Ybanez	98.5	KBXJ	> Country
TX	San Angelo	98.7	KELI	> Adult Hits
VT	Killington	105.3	WJEN	> Country
VA	Woodstock	95.7	WCLM-LP	> Religious Teaching
WA	Royal City	93.5	KWDR	> Religious Teaching
WY	Saratoga	99.3	KTGA	> Country

--TECHNICAL CHANGES –

- NOW ON THE AIR -

				<u>New facilities</u>:
AL	Daphne	103.5	W278AP	25 w-V/8 m AGL, 30-36-55/ 87-52-14
AL	New Hope	103.5	WHWT	290 w/449 m, DA, 34-38-11/ 86-30-42
AL	Notasulga	101.1	W266BJ	19 w/32 m AGL, 32-33-42/ 85-40-19; CL from Loachapoka
AL	Selma	89.5	WRNF	6 kw-V/100 m, 32-32-50/ 86-55-33
AK	Grayling	94.3	K232DX	250 w-V/6 m AGL, 62-54-23/ 160-03-47
AK	Quinhagak	94.3	K232DW	250 w-V/6 m AGL, 59-45-10/ 161-53-52
AK	Willow Creek	107.1	K296FP	10 w-V/7 m AGL, 61-43-34/ 149-25-46
AK	Willow Creek	107.9	K300BY	10 w-V,7 m AGL, 61-43-34/ 149-25-46
AZ	Clifton	89.9	K210EF	10 w-V/6 m AGL, 32-53-13/ 109-18-49
AZ	Globe	88.5	KLKA	1.5 kw-V/ 910 m, DA, 33-17-55/110-50-28
AZ	Heber-Overgaard	88.1	K201IB	205 w-V/21 m AGL, 34-25-20/ 110-33-56; FC from 98.7
AZ	Mohave Valley	97.5	K248BJ	22 w-V/6 m AGL, 34-59-19/ 114-35-46 (drops H for V-only)
AZ	Whiteriver	99.3	K257EZ	99 w-V/6 m AGL, 33-50-36/ 109-58-10
AZ	Winslow	90.5	K213ER	250 w-V/16 m AGL, 35-01-30/ 110-41-27; FC from 101.3
AZ	Yuma	90.1	K211DD	30 w-V/21 m AGL, DA, 32-41-41/114-36-51
AR	Sulphur Springs	97.3	KJAT-FM	100 w/20 m, 36-28-35/94-27-17
AR	Waldo	99.1	KVMZ	4.1 kw/122 m, DA, 33-17-59/ 93-14-00
CA	Bolinas	89.7	K209FF	38 w/30 m AGL, 37-54-49/ 122-43-30
CO	Buena Vista	93.1	K226BG	170 w, 55 m AGL, 38-49-07/ 106-09-34
CA	Carmel	92.3	K222BN	10 w-H/5 m AGL, DA, 36-32-19/ 121-45-06; FC from 92.1; CL from Big Sur
CA	Edwards	103.9	KGBB	6 kw/100 m, DA, 34-58-45/ 118-10-02; CL from Johannesburg
CA	El Centro	99.7	K259BJ	15 w-V/6 m AGL, 32-50-39/ 115-33-42
CA	Fairfield	91.5	KASK	75 w-H/198 m, 38-19-09/ 121-59-31
CA	Inverness Park	90.5	KWMR-FM2	4 w-V/3 m AGL, DA, 38-04-18/ 122-48-49
CA	Johnstonville, etc	100.5	K210BC	98 w/5 m AGL, DA, 40-26-49/ 120-21-25; FC from 89.9
CA	Rancho Bernardo, etc	93.7	K229BO	10w-V/26 m AGL, 33-00-32/ 116-58-16
CA	Santa Rosa	107.9	K300AO	10 w-H/53 m AGL/250 w-V/ 31 m AGL, DA, 38-30-31/ 122-39-41 (adds V)
CA	Yuba City	95.5	K238AV	10 w25 m, DA, 39-12-20/ 121-49-10
CO	Denver	106.7	KBPI	100 kw/382 m, 39-43-58/ 105-14-08
CO	La Junta	94.7	KFVR-FM	100 kw/156 m, 37-39-31/ 103-27-55; FC from 106.5
CO	Placerville	90.7	KTEI	250 w-H/449 m, 37-59-30/ 107-58-21; drops V for H-only
CO	Poncha Springs	97.5	KWUZ	29 w/892 m, DA, 38-27-11/ 106-01-02
CO	Pueblo	107.9	KDZA-FM	32 kw/674 m, DA, 38-44-41/ 104-51-46
CO	Rifle	102.1	K271BA	10 w-V/9 m AGL, 39-32-10/ 107-56-56
CO	Steamboat Springs	88.1	K203BQ	225 w/24 m AGL, DA, 40-27-43/ 106- 50-58; FC from 88.5
FL	Dade City	96.1	WTMP-FM	2.8 kw/147 m, 28-28-22/82-17-45
FL	Deltona	97.1	W246BO	55 w/67 m AGL, 28-48-54/ 81-18-18
FL	Deltona	104.7	W284AV	10 w/402 m AGL, 28-55-16/ 81-19-09
FL	Golden Lakes	88.5	W203AY	19 w-V/98 m AGL, 26-45-47/ 80-12-19
FL	Key West	105.5	W288BV	250 w-V/6 m AGL, 24-39-16/ 81-32-23
FL	Perkins	99.5	W258BC	250 w60 m AGL, 30-28-11/ 84-17-16
FL	Ruskin	103.9	W280EA	8 w/9 m AGL, 27-41-43/ 82-24-18; FC from 104.3
GA	Bainbridge	101.9	WBGE	6 kw/100 m, 31-00-33/ 84-25-16
GA	Buford	90.5	W213BR	5 w/91 m AGL, 34-06-20/ 83-55-49; FC from 101.1
GA	Camilla	95.9	W240BZ	10 w/111 m AGL, 31-08-05/ 84-06-16
GA	Camilla	99.9	W260BS	38 w/10 m AGL, 31-02-35/ 84-13-04
GA	Thomasville	103.7	W279BD	16 w/84 m AGL, 30-50-51/

				83-52-56
GA	Willacoochee	99.5	WKAA	73 kw/230 m, 31-10-18/83-21-57
HI	Hilo	92.7	KHWI	7.5kw/-78 m, 19-50-19/155-06-43
IL	Dixon	105.1	W286BM	120 w/15 m AGL, 41-49-50/ 89-29-47
IL	Monee	88.9	WOTW	100 w-V/54 m, 41-24-48/87-46-03; goes from DA to NDA
IL	Springfield	95.9	WWGD-LP/ WFJL-LP	100 w-H/28 m AGL, 39-49-41/ 89-40-31 (stations apparently share time)
IL	Vandalia	107.1	WKRV	6 kw/100 m, 38-59-48/88-55-44
IN	Kokomo	96.3	W242BM	80 w/45 m AGL, 40-27-30/ 86-04-30
IN	Muncie	88.3	WKMV	1 kw-V/ 101 m, DA, 40-03-18/ 85-23-05
IN	Sellersburg	93.9	WQKC	2.65 kw/152 m, 38-15-22/ 85-45-29; CL from Seymour; FC from 93.7
IA	Anamosa	95.7	KKSY	6 kw/100 m, 42-05-56/91-21-28
IA	Iowa Falls	90.7	K214EJ	180 w/9 m AGL, 42-33-17/ 93-15-43
KY	Owingsville	107.7	WKYN	6 kw/100 m, 38-06-08/83-50-12
KY	Providence	101.7	W269CD	38 w/30 m AGL, DA, 37-24-23/ 87-45-46
LA	Breaux Bridge	92.9	KVTZ-LP	74 w/35 m, 30-19-08/91-50-16 [call letter correction from last issue]
LA	Chalmette	97.5	K248BB	10 w/223 m AGL, 29-57-00/ 90-04-16
LA	Greenwood	92.5	K223BI	180 w/63 m AGL, 32-27-03/ 93-56-51
LA	Lacombe	94.7	WYLK	2.9 kw/146 m, DA, 30-23-08/ 89-55-33
ME	North Yarmouth	98.9	WCLZ	48 kw/122 m, 43-55-40/ 69-59-43; CL from Brunswick
MA	Springfield	104.9	WLHZ-LP	7 w-H/112 m, 42-09-00/72-41-16
MI	Lapeer	93.9	W230BI	10 w-V/4 m AGL, 43-03-05/ 83-19-36
MI	Paw Paw	90.1	W211CA	10 w-V/4 m AGL, 42-12-46/ 85-56-34; FC from 89.7
MI	Sturgis	99.3	WMSH-FM	4.4 kw/100 m, 41-46-11/ 85-25-09
MN	Appleton	91.3	KRSU	82 kw/345 m, 45-10-04/ 96-00-02
MN	Bemidji	94.9	K235BP	250 w/23 m AGL, 47-29-22/ 94-53-42
MN	Mankato	105.1	K286AW	10 w-V/4 m AGL, 44-11-04/ 94-00-53
MN	Roseau	102.9	K275BB	250 w/26 m AGL, 48-49-58/ 95-46-32
MO	Carthage	107.9	KCAH-LP	100 w/-H13 m, 37-10-06/ 94-18-34
MO	Gray Summit	95.1	K236AZ	15 w/43 m AGL, 38-29-44/ 90-48-33
MO	Sikeston	107.9	K300BU	18 w/76 m, 36-49-05/89-31-27
MS	Brandon	104.3	WSKM-LP	54 w-H/41 m, 32-17-19/ 90-02-39
MS	Jackson	99.7	WJMI	100 kw/323 m, 32-12-28/ 90-24-50 (tower move)
MT	Eureka	107.1	K296FS	10 w-V/860 m AGL , 48-52-41/ 115-02-26
MT	Wolf Point	106.7	K294BC	90 w-V/60 m AGL, 48-11-09/ 105-40-08
NE	Hershey	107.3	KNPQ	25 kw/69 m, 41-09-14/100-46-22
NV	Logandale	93.5	KADD	93 kw-H/637 m, 36-38-07/ 114-07-18
NE	Norfolk	105.9	K290AT	10 w-V/4 m, AGL, 42-01-45/ 97-24-42
NV	Pahrump	89.3	K204AN	76 w-H/11 m AGL, DA, FC from 88.7
NJ	Pompton Lakes	103.1	W276BX	10 w/143 m AGL, 41-00-41/ 74-18-04
NH	North Conway	95.3	W238BP	250 w/74 m, 43-58-48/71-06-39
NM	Clovis	107.9	K300BR	10 w-V/4 m AGL, 34-24-37/ 103-19-05
NM	Grants	88.1	KIDS	100 w/50 m, 35-07-09/107-54-02
NM	Portales	91.3	K217FA	45 w/60 m AGL, 34-11-52/ 103-19-24; FC from 90.7
NM	Roswell	92.5	K223BH	62 w/95 m, 33-24-58/104-33-59
NY	Gainesville	103.7	W279BO	10 w/53 m AGL, 42-43-35/ 78-06-43; adds H
NY	Newburgh	90.3	W212CC	10 w/8 m AGL, DA, 41-29-19/ 73-56-53; FC from 90.5
NY	Norwich	106.5	W293BE	19 w/33 m AGL, 42-31-39/ 75-31-32
NC	Brevard	91.9	W218AD	10 w-H/19 m AGL/10 w-V/15 m AGL, DA, 35-10-34/82-40-55; FC from 91.9
NC	Swansboro	104.1	WKGV	5.4 kw/105 m, 34-43-26/ 77-14-57; CL from Top Sail Beach; FC from 103.9
ND	Beulah	97.9	KHRU	6 kw/96 m, 47-18-23/101-43-35
OH	Akron	102.5	W273BL	10 w/265 m AGL, 41-03-53/ 81-34-59
OH	Norwood	100.3	WMOJ-FM	3.1 kw/141 m; 39-07-19/ 84-32-52; CL from Connersville; Class B to A
OH	Solon	106.1	W291BV	13 w/52 m AGL, 41-26-11/ 81-31-25
OH	Wadsworth	91.7	W219BT	10 w/193 m, 41-03-53 /81-34-59
OK	Chickasha	90.5	KFXU	10 kw/98 m, DA, 34-54-33/ 97-57-29
OR	Banks	107.5	KVMX	97 kw, 441 m, 45-30-58/ 122-43-59
OR	Eagle Point	94.9	KSKQ-LP	100 w/-72 m, 42-05-34/122-35-33
OR	Eugene	90.7	K214CI	10 w/55 m, 44-11-46/122-59-10
OR	Grants Pass	99.3	K257BP	99 w-H/4 m AGL, DA, 42-24-43/ 123-16-55
OR	Merrill	105.5	KKKJ	18 kw/209 m, 42-13-24/ 121-49-02
OR	Seaside	105.9	K290BK	41 w-V/70 m AGL, 45-57-08/ 123-56-14
OR	West Haven	107.3	K296FT	28 w/47 m AGL, 45-29-20/ 122-41-40
PA	Center Moreland	100.1	W261BM	53 w-H/8 m AGL, DA, 41-27-07/ 76-00-33; FC from 99.9; CL from Wilkes-Barre
PA	Dunmore	96.1	W241AZ	9 w-V/23 m AGL, 41-25-41/ 75-44-50
PA	Hazleton	96.5	W243CJ	4 w-V/45 m AGL, 40-58-09/ 75-57-28
PA	Kane	103.9	WLMI	840 w/223 m, 41-37-03/78-48-13
PA	Middletown	91.1	WMSS	450 w/22 m, 40-12-44/76-44-47
PA	Monroeville	97.5	W248AR	10 w/105 m AGL, 40-26-47/ 79-45-28
PA	Pittsburgh	99.3	W257CD	10 w/113 m AGL, 40-35-25/ 80-00-37
PA	Pittsburgh	105.5	W288BO	10 w/225 m AGL, 40-28-19/ 79-59-40
PA	Scranton	104.3	W282BJ	22 w-V/16 m AGL, DA,41-23-39/ 75-37-58
TN	Martin	106.1	W291BI	250 w/53 m AGL, 36-21-45/ 88-50-57
TN	South Pittsburg	97.7	W249BR	10 w-V/10 m AGL, 34-56-34/ 85-42-28
TX	Borger	104.7	K284AZ	10 w-V/4 m AGL, 35-38-55/ 101-27-31
TX	Brownfield	90.7	KMLU	130 w/84 m, 33-10-30/102-17-20
TX	Comfort	95.1	KCOR-FM	100 kw/201 m, 29-38-03/98-47-58
TX	Odessa	101.7	K269FG	10 w-V/4 m AGL, 31-54-29/ 102-19-08
TX	Plainview	93.3	K227BJ	99 w/91 m AGL, 34-15-47/ 101-40-30
TX	Portland	105.5	KMJR	2.8 kw/104 m, 27-47-48/ 97-23-51
TX	Westlake Hills	95.1	K236AY	50 w/144 m AGL, 30-19-23/ 97-47-58
UT	Green River	102.7	K274BU	250 w-H/16 m AGL, DA, 38-58-53/ 110-10-09
UT	Logan	90.5	KZCL	1 kw/112 m, 41-36-41/111-57-05
UT	Monroe	100.5	KMXD	33 kw/993m, 38-23-08/ 112-19-57
UT	Vernal	105.1	K286BL	10 w/18 m AGL, 40-32-16/ 109-41-57
VT	Bristol	94.9	W235BE	10 w/7 m, 44-08-44/72-57-49; CL from Warren
VT	Burlington	105.9	WOMM-LP	100 w-H/23 m, 44-28-37/ 73-12-41
VA	Woodlawn	102.7	W274AZ	12 w/20 m AGL, 36-44-29/ 80-43-26
VA	Woodstock	95.7	WCLM-LP	54 w-H/41 m, 38-50-39/78-33-59
WA	Bellingham	104.7	K284BL	13 w/30 m AGL, 48-46-57/ 122-22-05
WA	Port Angeles	102.7	K274BV	10 w-V/4 m AGL,48-06-33/

				123-29-07; FC from 102.1; drops H for V-only
WA	**Royal City**	**93.5**	**KWDR**	210 w/508 m, 46-48-25/119-33-20
WV	**Romney**	**100.1**	**WDZN**	900 w/251 m, DA, 39-25-20/ 78-47-25
WI	**Beloit**	**92.9**	**WXXD-LP**	100 w-H/-8.9 m, 42-26-36/ 89-02-06
WI	**Richland Center**	**95.3**	**W237CO**	10 w/90 m AGL, 43-18-55/ 90-25-35
WI	**Richland Center**	**100.9**	**WRCO-FM**	8.4 kw/170 m, 43-18-56/ 90-25-35
WY	**Cheyenne**	**100.3**	**K262BV**	250 w/28 m AGL, 41-17-50/ 104-52-33, FC from 100.1; adds V; change from DA to D
WY	**Jackson**	**97.3**	**K247BC**	11 w/3 m AGL, 43-27-45/ 110-45-03
WY	**Saratoga**	**99.3**	**KTGA**	18 kw/324 m, 41-40-46/ 107-14-08
WY	**Superior**	**106.5**	**KKWY**	7 kw/ 482 m, 41-25-28/ 109-07-54

--TECHNICAL CHANGES –

- FCC ACTIONS -

AL	**Alexander City**	**106.9**	**W295BG**	CP Mod granted for 10 w/4 m AGL, 32-56-27/85-55-15; FC from 107.3
AL	**Clanton**	**95.5**	**W238BS**	CP granted for 19 w/56 m AGL, 32-52-31/86-37-30; FC from 106.5
AL	**Madison**	**103.9**	**W278AA**	CP granted for 99 w/180 m AGL, DA, 34-49-06/ 86-44-16; FC from 103.5
AS	**Central District**	**99.1**	**K256BH**	CP granted for 11 w/10 m AGL, **S**14-15-36/W170-41-19
AZ	**Teec Nos Pos**	**95.3**	**KEEC**	CP Mod granted for 6.5 kw-H/ 863 m, 37-13-12/108-48-24; FC to 96.5
AR	**Nashville**	**90.5**	**KNLL**	CP Mod granted for 100 kw-V/ 147 m, 33-30-17/93-34-47
CA	**Barstow**	**93.5**	**K228CO**	CP granted for 10 w/10 m AGL, 34-51-22/117-02-58; adds V; goes from DA to NDA
CA	**Calabasas**	**104.7**	**KCAQ-FM1**	CP Mod granted for 85 w-V/6 m AGL, DA, 34-05-09/118-47-06
CA	**East Porterville**	**100.5**	**KMQA**	CP granted for 2 kw/612 m, DA, 35-45-36/118-45-30; Class B1 to B
CA	**Fort Bragg**	**89.9**	**KJCU**	CP granted for 130 w/106 m, 39-26-35/123-43-58; CL from Laytonville
CA	**Lompoc**	**91.5**	**KRQZ**	CP granted for 4.1 kw/245 m, DA, 34-50-08/ 120-24-06; adds H
CA	**Los Gatos**	**90.3**	**K212AA**	CP granted for 17 w-V/11 m AGL, 37-12-17/ 121-56-56; changes from H to V-only
CA	**Maricopa**	**94.9**	**KXTT**	CP granted for 225 w/55 m, 35-05-39/119-27-40
CA	**Mecca**	**97.7**	**KRCK-FM**	Aux license issued for 135 w/ 170 m, 33-48-04/116-13-28
CA	**Oceano**	**94.1**	**KLMM**	CP granted for 337 w/418 m, 34-53-52/120-35-21; CL from Morro Bay
CA	**Oxnard**	**104.7**	**KCAQ**	CP granted for 4.49 kw/ 464 m, 34-19-49/119-01-24
CA	**San Bernardino**	**94.3**	**KJVA-LP**	CP granted for 100 w-H/-66 m, 34-09-32/117-18-52
CA	**Santa Rosa**	**107.5**	**K298AZ**	CP granted for 4 w/53 m AGL, 38-30-31/122-39-41; drops DA for NDA
CA	**Santa Susana**	**104.7**	**KCAQ-FM2**	CP Mod granted for 95 w/3 m AGL, DA, 34-15-24/118-38-24
CA	**Shasta**	**98.5**	**K253AX**	CP granted for 23 w-H, 23 m AGL, 41-17-43/122-20-37
CA	**Sonoma**	**91.3**	**KSVY**	CP granted for 8 kw/-25 m, DA, 38-15-49/122-30-06; adds H
CA	**Taft**	**106.5**	**KEAL**	CP Mod granted for 225 w/ 55 m, 35-05-39/119-27-40
CA	**San Diego**	**96.5**	**KYXY**	Aux license issued for 26.5 kw/ 209 m, 32-50-17/117-14-57
CA	**Windsor**	**91.1**	**KRCB-FM**	CP granted for 3.4 kw/223 m, DA, 38-44-25/122-50-46; CL from Santa Rosa; A to B1
CO	**Colorado City**	**103.3**	**KJQY**	CP Mod granted for 100 kw/ 116 m, 37-37-39/104-49-17
CO	**Dove Creek**	**102.5**	**KDVC**	CP granted for 3.7 kw-H/ 319 m, 37-56-29/108-54-27
CO	**Frisco**	**90.7**	**KMPB**	CP granted for 5.2 kw/361 m, DA, 39-27-50/105-58-56; FC from 90.3
CO	**Las Animas**	**107.3**	**KRKV**	CP Mod granted for 100 kw/ 108m, 37-56-23/103-26-08
CO	**Manitou Springs**	**102.7**	**KBIQ**	Aux license issued for 12 kw/ 643 m, 38-44-43/104-51-39
CO	**Severance**	**103.9**	**KYEN**	CP Mod granted for 16.5 kw/ 372 m, 40-37-03/105-19-40
CO	**Pueblo**	**100.7**	**KGFT**	Aux license issued for 12 kw/ 643 m, 38-44-43/104-51-39
CO	**Trinidad**	**95.5**	**KZCC**	CP granted for 1.1 kw/83 m, 40-57-39/24-04-07
CO	**Walden**	**94.1**	**KEZZ**	CP Mod granted for 6.5 kw-H/ 10 m, 40-40-03/106-08-38
CO	**Walsenburg**	**89.3**	**KTAW**	CP Mod granted for 200 w-V/ 112 m, 37-28-27/104-46-15; CL from Westcliffe
CT	**Norfolk**	**89.3**	**WSGG**	CP granted for 2.1 kw-V/ -90 m, DA, 42-00-24/73-15-24
DE	**Lewes**	**104.3**	**W282AU**	CP granted for 18 w/77 m AGL, 38-43-17/75-07-20
FL	**Clewiston**	**100.9**	**W265BU**	CP granted for 38 w/75 m AGL, 26-43-46/80-54-49; FC from 101.1
FL	**Daytona Beach**	**99.1**	**WRWS-LP**	CP granted for 100 w-H/29 m, 29-12-20/81-01-52
FL	**Everglades City**	**97.5**	**W248AU**	CP granted for 80 w/48 m AGL, 25-54-35/81-21-50
FL	**Fernandina Beach**	**91.7**	**WJBC-FM**	CP granted for 50 kw/131 m, DA, 30-33-22/81-33-13
FL	**Flagler Beach**	**97.7**	**WFBO-LP**	CP granted for 31 w/53 m, 29-29-45/81-08-07; FC from 93.3
FL	**Harbour Heights**	**107.1**	**W296BU**	CP granted for 80 w/53 m AGL, 26-58-15/82-19-24
FL	**North Miami Beach**	**95.7**	**WXDJ**	CP granted for 19 kw/246 m, 25-45-31/80-11-31
FL	**Pensacola**	**107.3**	**WYCL**	CP granted for 50 kw/488 m, 30-36-40/87-36-27; C to C0
FL	**St. Petersburg**	**99.5**	**WQYK-FM**	CP granted for 100 kw/174 m, 27-55-54/82-24-05
FL	**Tallahassee**	**90.5**	**WANM**	CP granted for 2.5 kw-V/51 m, 30-25-49/84-17-27
FL	**Tampa**	**89.7**	**WUSF**	CP granted for 79 kw/268 m, 27-50-50/82-15-50
FL	**Vero Beach**	**107.9**	**W300BQ**	CP Mod granted for 250 w/ 32 m, 27-36-12/80-23-04
FL	**West Tampa**	**105.9**	**W290BJ**	CP Mod granted for 2 w/6 m AGL, 27-57-48/82-30-33
GA	**Roswell**	**107.5**	**WJZZ-FM**	Aux license issued for 25 kw/ 100 m, 33-55-54/84-20-43
GA	**Thomaston**	**101.1**	**WTGA-FM**	CP granted for 1.27 kw/218 m, 32-59-13/84-21-55; APP for 1.67 kw/191 m dismissed ROA
HI	**Holualoa**	**92.1**	**KHWA**	CP Mod granted for 4.5 kw/ 949 m, 19-43-15/155-55-16
HI	**Honolulu**	**107.3**	**K297AX**	CP Mod granted for 10 w/3 m AGL, 21-19-49/ 157-45-24; FC from 107.1
ID	**Aberdeen**	**99.5**	**KQPI**	CP granted for 2.2 kw/597 m, 42-48-31/112-29-10
ID	**Ashton**	**96.5**	**KRID**	CP granted for 200 w/198 m, DA, 44-10-30/111-25-47
ID	**Burley**	**89.5**	**K262BF**	CP granted for 140 w/17 m AGL, 42-29-02/ 113-54-39; FC from 100.3
ID	**Rathdrum**	**89.9**	**KWJT**	CP granted for 11 kw/595 m, DA, 48-05-38/116-33-12
ID	**Hailey**	**105.5**	**KLCW-LP**	CP granted for 100 w-H/-168 m, 43-31-21/114-19-04; drops V for H-only
ID	**Marsing**	**89.1**	**KAWS**	Aux license issued for 360 w/ 682 m, 43-00-25/116-42-13
ID	**Pocatello**	**95.3**	**K237FA**	CP granted for 41 w/8 m AGL, DA, 42-52-26/112-30-47
ID	**St. Anthony**	**100.1**	**K261DB**	CP granted for 17 w-V/21 m AGL, 43-47-58/111-46-32; drops H for V-only

ID	Stanley	105.5	K288GC	CP granted for 10 w/10 m, 44-20-20/114-58-40
ID	Troy	100.5	KQZB	CP Mod granted for 900 w/ 487 m, 46-48-42/116-54-59
IL	Charleston	88.1	WZGL	CP Mod granted for 2.1 kw/ 70 m, 39-28-38/88-08-25
IL	Gilman	103.7	WFAV	CP Mod granted for 3.2 kw/ 138 m, DA, 40-43-04/87-51-36
IL	Joliet	94.3	W232BL	CP granted for 5 w/130 m AGL, DA, 41-32-26/88-02-08; goes from NDA to DA
IL	Lake Forest	88.9	WMXM	CP granted for 295 w/32 m, 42-14- 59/87-49-44; adds V; goes from DA to NDA
IL	Macomb	100.1	WKAI	CP Mod granted for 12.5 kw/ 117 m, 40-25-03/90-36-51
IL	Monee	88.9	WOTW	CP granted for 100 w/54 m, 41-24-48/87-46-03
IL	Watseka	95.9	WMLF	CP granted for 1 kw/14 m, 40-46-17/87-46-13
IN	Cicero	91.5	WJCY	CP granted for 4.5 kw/62 m, DA, 40-11-53-00/86-07-44; adds H
IN	Granger	100.3	W262AU	CP granted for 90 w/56 m AGL, 41-43-17/86-08-22
IN	Lawrence	93.9	WWFT	CP granted for 6.9 kw/146 m, 39-49-39/85-58-51; CL from Fishers; A to B1
IN	Orleans	102.5	WPHZ	CP granted for 6 kw/86 m, 38-38-16/86-27-11; CL from Mitchell
IN	Plymouth	105.7	WJUK-LP	CP granted for 100 w-H/22 m, 41-20-29/86-18-30
IN	Portage	102.3	W272BZ	CP granted for 27 w/78 m AGL, 41-36-16/87-07-22
IN	Seymour	98.3	W252BY	CP Mod granted for 100 w/ 13 m AGL, 38-57-29/ 85-53-23
IA	Ames	94.1	KJAS-LP	CP granted for 94 w-H/31 m, 42-02-05/ 93-34-25
IA	Davenport	107.7	KTJT-LP	CP granted for 100 w/22 m, 41-24-16/90-37-56; FC from 102.7
IA	Patterson	105.9	KZWF	CP granted for 900 w/12 m, 41-18-50/93-50-15
IA	Pleasantville	96.3	KZWU	CP granted for 500 w/78 m, 41-21-04/93-13-58
KS	Effingham	96.9	NEW	CP Mod granted for 120 w/ 69 m, 39-33-07/95-25-23; Class C2 to A
KS	Hays	105.7	KRMR	CP granted for 20.5 kw/151 m, 38-55-59/99-19-51
KS	Great Bend	88.1	K201DG	CP granted for 220 w-V/46 m, 38-21-46/ 98-45-50; change from DA to NDA; now V-only
KS	Lindsborg	101.7	KDJM	CP Mod granted for 16 kw/ 125 m, 38-40-00/97-41-30
KY	Livermore	91.3	W217BP	CP Mod granted for 27 w/67 m AGL, 37-42-54/87-06-36
KY	North Corbin	101.9	WPNS	CP Mod granted for 6 kw/100 m, 37-02-09/84-05-05; CL from Broadhead
KY	Robards	91.9	W220DV	CP granted for 10 w/237 m AGL, 37-53-17/87-32-37
KY	Shepherdsville	105.1	WLRS	CP Mod granted for 1.9 kw/ 180 m, DA, 38-04-55/85-47-06
KY	Sturgis	101.3	WMSK-FM	CP granted for 5.4 kw/83 m, 37-40-04/87-55-46 (coordinate correction only)
KY	Winchester	102.5	W273BT	CP granted for 55 w-V/27 m AGL 37-59-36/84-10-38; FC from 103.1
LA	Hodge	94.1	KRLQ	CP granted for 47 kw/155 m, 32-24-35/92-53-49
LA	Iota	89.5	KITA	CP granted for 19 kw-V/132 m, 30-11-17/92-37-55
LA	New Orleans	89.5	K208FC	CP granted for 120 w/44 m AGL, 29-56-50/89-57-29; FC from 100.1
LA	Simmesport	105.3	KCJN	CP Mod granted for 190 w/ 62 m, 30-59-32/ 91-50-53
LA	Timberlans	105.7	K289AM	CP granted for 10 w/223 m AGL, 29-57-00/90-04-16; adds H polarization from new location
ME	Gray	96.3	WLOB-FM	CP granted for 40 kw/430 m, DA, 44-15-03/70-25-16; CL from Rumford
ME	Island Falls	93.9	W230BJ	CP granted for 10 w/86 m AGL, 46-01-33/68-15-04
MD	Baltimore	97.9	WIYY	Aux license issued for 6 kw/ 230 m, 39-20-05/76-39-03
MD	Hancock	96.3	W242AR	APP Mod for 19 w/14 m AGL, 39-42-36/78-10-11
MD	Fruitland	107.7	WKHI	CP granted for 6 kw/72 m, 38-23-00/75-24-53; FC from 107.5; Class B1 to A
MD	Ocean City	104.7	WQHQ	Aux license issued for 20 kw/ 81 m, 38-23-12/75-17-27
MD	Ocean Pines	105.1	W286BB	CP granted for 27 w/88 m AGL, 38-25-20/75-08-23
MD	Westminster	100.7	WZBA	CP Mod for 25 kw/210 m, DA, 39-26-50/76-46-48 [change in DA pattern]
MA	Truro	102.3	WGTX	CP granted for 2.13 kw/81 m, 42-01-20/70-04-28
MI	Charlevoix	90.9	WTCK	CP granted for 1 w-H/1.1 kw-V/ 201 m, DA, 45-10-49/85-05-50
MI	Detroit	98.3	W252BX	CP Mod granted for 170 w/28 m AGL, 42-19-37/83-09-11
MI	Grand Rapids	105.7	WOOD-FM	CP granted for 265 kw/177 m, 42-39-17/85-31-38
MI	Ironwood	90.9	W215BR	CP granted for 10 w/28 m AGL, 46-27-28/90-07-42; FC to 91.3
MN	Eveleth	97.9	WEVE-FM	CP granted for 100 kw/158 m, DA, 47-35-53/92-13-26
MN	Prinsburg	88.3	K202EB	CP granted for 250 w/38 m AGL, 44-56-32/95-11-21; FC from 88.1; CL from Clara City
MN	Tower	100.9	W265BT	CP granted for 38 w/67 m, 47-48-16/92-15-12
MN	Turtle River	98.7	K254AW	CP granted for 10 w-H/9 m AGL 47-33-21/94-48-04
MS	Bay St. Louis	107.9	WZKX	CP granted for 100 kw/465 m, 30-45-05/89-03-24
MS	Lumberton	95.3	WZNF	CP granted for 100 kw/435 m, 30-45-05/89-03-24
MO	Aurora	100.5	KSWF	Aux license issued for 1 kw/ 47 m, 37-10-47/93-15-39
MO	Centralia	92.1	KMFC	CP granted for 16 kw/122 m, 39-09-58/92-09-52; A to C3
MO	Concordia	88.7	KYRV	CP granted for 20 kw.131 m, DA, 38-44-47/93-16-30; FC from 88.1; adds V
MO	High Point	89.9	KMCV	CP granted for 50 kw-V/99 m, DA, 38-35-48/92-32-17
MO	Joplin	89.1	K206DZ	CP granted for 250 w-V/76 m AGL, 37-06-11/94-24-11; FC from 89.3
MO	Nixa	105.9	KGBX-FM	Aux license issued for 1 kw/ 47 m, 37-10-47/93-15-39
MO	Springfield	88.3	KWND	CP granted for 4 kw-H/40 kw-V/ 193 m, DA, 37-10-30/93-02-35
MO	Springfield	90.1	KSCV	CP granted for 23.3 kw-V/ 150 m, 37-17-41/93-09-10 (drops H)
MT	Four Corners	106.9	KSCY	CP granted for 4 kw/197 m, 45-38-20/111-15-56
NE	Chadron	94.7	KCNB	CP granted for 100 kw/144 m, 42-39-05/102-41-49
NE	Norfolk	91.3	K217FM	CP granted for 87 w/119 m AGL, 42-01-56/97-22-07; FC from 91.7
NE	North Platte	94.3	K232EC	CP granted for 250 w-V/76 m AGL, 41-06-40/100-49-49; FC from 94.5
NE	Ponca	88.1	KFHC	CP granted for 2.28 kw-H/ 8.8 kw-V/127 m, 42-27-48/ 96-37-02
NV	Cal-Nev-Ari	104.9	KVAL	CP granted for 100 w/723 m, 35-15-08/114-44-58
NV	Las Vegas	92.7	KRRN-FM2	CP Mod granted for 20 kw/ 92 m AGL, DA, 36-20-00/ 115-21-41
NV	Moapa Valley	104.7	KJUL	CP granted for 100 kw/450 m, 36-44-10/114-29-53
NH	Newton	102.9	W275BH	CP granted for 80 w/30 m AGL, 42-53-38/71-02-33
NH	North Conway	95.3	W237BX	CP granted for 250 w/74 m,

				43-58-48/71-06-39; FC from 95.5
NH	Peterborough	92.9	W227AW	CP granted for 165 w/12 m AGL, 42-52-50/71-57-13; FC from 93.3
NH	Peterborough	102.3	W270AH	CP granted for 165 w/12 m AGL, 42-52-50/71-57-13; FC from 101.9
NJ	Atlantic City	96.9	WFPG	Aux license issued for 440 w/ 131 m, 39-21-40/74-25-05
NJ	Atlantic City	107.3	WPUR	Aux license issued for 440 w/ 131 m, 39-21-40/74-25-05
NJ	Margate City	96.1	WTTH	CP granted for 2.9 kw/99 m, 39-22-35/74-27-08
NM	Albuquerque	101.3	KKRG	Aux license issued for 3.7 kw/ 99 m, 35-04-04/106-46-47
NM	Arroyo Seco	90.9	KRRT	CP granted for 6 kw/-200 m, 36-23-51/105-32-34; FC from 91.3
NM	Espanola	91.9	KRAR	CP granted for 5.9 kw/162 m, 36-09-08/106-02-21
NM	Espanola	92.9	KYBR	CP granted for 15.5 kw/127 m, 36-05-50/106-07-18
NM	Gallup	90.9	K215EG	CP granted for 99 w/20 m AGL, 35-32-33/108-44-27
NM	Lordsburg	96.5	K243BH	CP granted for 10 w-H/26 m AGL, DA, 32-34-56/108-25-29
NM	Rio Rancho	101.7	KQBT	Aux license issued for 400 w/ 26 m, 35-04-41/106-35-06
NM	Santa Fe	105.1	KJFA	Aux license issued for 150 w/ 26 m, 35-04-41/106-35-06
NM	Santa Fe	97.3	KKSS	Aux license issued for 240 w/ 26 m, 35-04-41/106-35-06
NM	Taos	99.1	KXMT	Aux license issued for 1.5 kw-H/ -192 m, 36-23-22/ 105-35-09
NM	Tucumcari	89.3	K207EL	CP granted for 115 w-V/15 m AGL, 35-08-23/103-44-35
NY	Alfred	94.3	W232BQ	CP granted for 4 w/5 m AGL, DA, 42-16-46/77-46-12
NY	Amherst	96.5	W243BW	CP granted for 118 w-V/60 m AGL, DA, 43-00-12/78-45-56; CL from Clarence
NY	Beacon	94.5	W233BM	CP granted for 7 w/9 m AGL, DA, 41-29-18/73-56-45
NY	Bowmansville	94.9	W235BC	CP Mod granted for 99 w-V/ 6 m AGL, 42-57-18/78-39-06
NY	Cheektowaga	93.3	W227BW	CP Mod granted for 99 w-V/6 m AGL, 42-52-17/78-46-05; drops H
NY	Delhi	97.5	WTBD-FM	CP Mod granted for 6 kw/ 100 m, 42-14-09/ 74-57-12
NY	Geneva	95.7	W239BJ	CP Mod granted for 5 w/28 m AGL, 42-51-32/77-00-23; FC from 96.1
NY	Keuka Park	97.7	W249CE	CP granted for 2 w/6 m AGL, 42-36-55/77-07-42; CL from Penn Yan; FC from 98.1
NY	Liberty	88.1	WGWR	CP granted for 1 kw/171 m, DA, 41-48-55/74-45-48
NY	Mexico	103.9	WVOA-FM	CP granted for 19 kw/114 m, DA, 43-36-19/75-56-17; A to C
NY	Odessa	95.5	WFLR-FM	CP Mod granted for 850 w/ 265 m, DA, 42-23-13/76-40-11; CL from Dundee; FC from 95.9
NY	Olean	99.3	W257CJ	CP granted for 4 w/23 m AGL, DA, 42-03-04/78-25-11
NC	Atlantic	107.1	WTKF	CP Mod granted for 46 kw/ 190 m, 34-53-01/76-30-22; FC from 107.3
NC	Buies Creek	90.1	WCCE	CP granted for 15 kw-V/92 m, DA, 35-12-39/ 78-50-01; drops H for V-only
NC	Dillsboro	104.1	WRBN	CP Mod granted for 6 kw/ -42 m, 35-21-58/83-13-17; CL from Clayton
NC	Durham	105.1	WDCG	CP granted for 73 kw/339 m, 35-42-50/78-49-04; C0 to C1
NC	Louisburg	98.7	W254AS	CP granted for 250 w/25 m AGL, DA, 36-07-22/78-17-45
NC	Mars Hill	90.5	WYQS	CP Mod granted for 250 w/ 389 m, DA, 35-53-12/82-33-23
NC	New Bern	88.1	WZNB	CP granted for 100 kw/114 m, 35-17-50/76-52-09; FC from 88.5; A to C1
ND	Grand Forks	94.7	KNOX-FM	CP granted for 100 kw/109 m, 47-49-19/96-49-13
ND	St. John	90.9	K275BG	CP granted for 92 w/80 m AGL, 48-56-12/99-56-41
OH	Chillicothe	92.7	W224BR	CP Mod granted for 30 w-V/ 20 m AGL, 39-19-59/82-59-01; drops H for V-only
OK	Broken Arrow	92.1	KTBT	Aux license issued for 15.6 kw/101 m, 36-06-38/ 96-01-57
OR	Gold Beach	98.9	K255BW	CP granted for 50 w-V/24 m AGL, 42-26-25/124-24-58; FC from 88.1; drops H for V-only
OK	Atoka	102.1	KHKC-FM	CP granted for 750 w/137 m, 34-25-08/96-11-24
OK	Lawton	91.1	KJRF	CP granted for 14 kw-H/100 kw-V, DA, 34-41-22/98-07-34
OK	Piedmont	88.5	KZTH	APP Mod granted for 35 kw/ 182 m, 35-31-17/98-09-30
OR	Depoe Bay	98.3	K252EQ	CP granted for 28 w/18 m AGL, 44-45-24/124-02-53
OR	Grants Pass	92.1	K221CP	CP granted for 200 w-V/26 m AGL, 42-29-20/123-18-21; changes to V-only from H-only
OR	Grants Pass	107.1	K296DA	CP granted for 45 w/23 m AGL, DA, 42-29-20/123-18-21; drops H for V-only
OR	Junction City	88.5	KPIJ	CP Mod granted for 625 w/ 704 m, DA, 44-16-48/123-34-57
OR	Millersburg	90.1	KAJC	CP granted for 30 w-H/1.16 kw-V/172 m, 44-41-00/ 122-46-54; CL from Salem
PA	Clarks Summit	101.7	W269CF	CP granted for 79 w-V/12 m AGL, DA, 41-28-01/75-41-12
PA	Greensburg	107.1	WGSM	CP granted for 2.3 kw/163 m, DA, 40-15-54/79-20-24
PA	Nescopeck Pass	95.5	W238BR	CP granted for 6 w-V/48 m AGL, 40-58-09/75-57-28; goes from H-only to V-only, and from DA to NDA from new location
PA	Philadelphia	92.5	WXTU	Aux license issued for 2.89 kw/ 338 m, 40-02-30/75-14-11
PR	Ponce	107.3	WCMN-FM3	CP Mod granted for 10 kw/72 m AGL, 17-58-52/66-36-49
SC	Charleston	100.5	WALC	CP granted for 13.5 kw/137 m, 32-49-00/79-50-10
SC	Irmo	91.7	W219CY	CP granted for 55 w/27 m AGL, 34-03-41/81-13-10 [coordinate correction only]
SC	Spartanburg	97.1	W246BU	CP Mod granted for 120 w/9 m AGL, 35-01-32/81-52-18; FC from 97.5
SC	Walterboro	88.5	W203BQ	CP Mod granted for 30 w/25 m AGL, 32-53-48/80-40-25; FC from 99.3
SD	Hermosa	90.9	KWRC	CP granted for 400 w/387 m, 43-44-40/103-28-52
SD	Milbank	89.9	K210EG	CP granted for 150 w/43 m AGL; 45-13-19/96-37-01; FC from 90.5
SD	Rapid City	91.7	K219LD	CP granted for 34 w-V/32 m AGL, 44-06-52/103-14-36; CL from Box Elder
TN	Crossville	96.9	W245BJ	CP granted for 55 w/19 m AGL, 35-55-37/85-01-22
TN	Decatur	93.9	WAYA	CP granted for 16.5 kw/123 m, 35-21-55/84-45-22; CL from Spring City
TN	Johnson City	97.7	W249AH	CP granted for 40 w/28 m AGL, DA, 36-16-07/82-20-21
TN	Sewanee	102.5	W273BF	CP granted for 100 w/20 m AGL, 35-13-11/85-53-51; FC from 91.7
TN	Sherwood	105.3	W287BK	CP granted for 250 w/12 m AGL, 35-04-35/ 85-55-28; CL from Orme
TX	Beaumont	107.9	KQQK	Aux license issued for 100 kw/ 537 m, 30-01-01/94-32-47 [an oddity here . . . the AUX power is greater than the normal 90 kw; although at a lower height]
TX	Brownsville	98.9	K255BX	CP granted for 30w/73 m AGL, 25-53-40/97-30-28
TX	Canton	95.9	K240DS	CP granted for 250 w/20 m AGL, 32-48-27/96-18-57 (XR

move)

TX	Childress	88.7	K257EU	CP granted for 170 w/64 m AGL, 34-23-26/100-10-55; FC from 99.3
TX	Corpus Christi	93.9	KMXR	Aux license issued for 15.45 kw/235 m, 27-45-07/97-38-17
TX	Corpus Christi	99.1	KRYS-FM	Aux license issued for 15.3 kw/235 m AGL, 27-45-07/ 97-38-17
TX	Dalhart	94.5	K233BY	CP granted for 250 w/60 m AGL, 36-05-41/102-30-35; adds V
TX	El Campo	96.9	KNTE-FM	Aux license issued for 100 kw/ 385 m, 28-48-03/96-07-32
TX	El Paso	95.9	K240DT	CP granted for 10 w/25 m AGL, DA, 31-48-57/106-29-18
TX	El Paso	102.1	KPRR	Aux license issued for 10 kw/ 381 m, 31-47-47/106-28-55
TX	Fort Worth-Dallas	102.1	KDGE	Aux license issued for 91.41 kw/242m, 32-34-39/96-56-20
TX	Harlingen	103.3	NEW-LP	CPs (2) granted for 50 w-H/ 24 m, 26-14-13/97-51-55; two permittees will share time
TX	Hereford	88.7	KWDH	CP Mod granted for 40 kw/ 61 m, 34-52-10/102-34-47
TX	Krum	93.7	KNOR	Aux license issued for 20 kw/ 532 m, 33-29-05/97-24-44
TX	Luling	101.7	K269FD	CP granted for 205 w/82 m AGL, 29-37-40/97-23-58
TX	Moody	101.3	K267AI	CP granted for 340 w/200 m AGL; FC from 90.7
TX	Plainview	93.3	K227BJ	CP Mod granted for 99 w/ 91 m AGL, 34-15-47/ 101-40-30
TX	Port Arthur	98.5	KTJM	Aux license issued for 100 kw/ 537 m, 30-01-01/94-32-47
TX	Robstown	99.9	KSAB	Aux license issued for 15.3 kw/235 m, 27-45-07/97-38-17
TX	San Angelo	90.9	KLTP	CP granted for 5 kw-V/72 m, 31-24-43/100-25-25
TX	Weslaco	96.5	K243BI	CP granted for 50 w/25 m AGL, 26-09-58/97-58-41
TX	Wheeler	90.3	KPDR	CP granted for 20 kw/181 m, 35-31-06/100-32-43; FC from 90.5
UT	Castle Dale	102.1	KEMR	CP Mod granted for 40 w/ 529 m, 39-12-28/111-08-32
UT	Huntington	107.1	KHUN	CP Mod granted for 400 w/ 529 m, 39-12-28/111-08-32
VT	Bolton	94.7	W234BD	CP granted for 10 w/5 m AGL, 44-21-52/72-55-53
VT	Northfield	105.7	W289AW	CP Mod granted for 10 w/7 m AGL, 44-11-33/72-42-53
VI	Frederiksted	92.5	W223BJ	CP granted for 29 w/23 m AGL, 17-45-21/64-47-56
VA	Lexington	95.3	W240BR	CP granted for 10 w/10 m AGL, 37-47-18/79-29-10; FC from 95.9
VA	Waverly	92.3	W223BI	CP granted for 19 w/78 m AGL, 37-03-00/77-12-05; FC from 92.5; adds H (was V-only)
WA	Ocean Shores	93.7	KANY	CP Mod for 14 kw/122 m, 46-56-00/123-43-57
WA	Clarkston	90.5	KNWV	420 w/322 m, 46-27-26/17-06-00
WA	Ellensburg	103.1	KQBE	CP granted for 2 kw/393 m, 46-53-15/120-26-29
WA	Opportunity	96.1	KIXZ-FM	Aux license issued for 1 kw/ 736 m, 47-34-13/117-05-00
WA	Shelton	90.1	K211FH	CP granted for 75 w-V/20 m AGL, DA, 47-11-59/123-05-31; FC from 89.7
WA	Walla Walla	91.7	K272EC	CP granted for 30 w-V/42 m AGL, 46-00-33/118-16-59; FC from 102.3
WA	Walla Walla	106.9	K295AV	CP granted for 65 w-V/41 m AGL, DA, 46-00-33/118-17-00; FC from 96.1; drops H
WA	Westport	101.3	KABW	CP Mod granted for 1.2 kw/ -6 m, 46-53-04/124-00-44
WV	Charleston	99.9	WVAF	Aux license issued for 17.5 kw/ 131 m, 38-19-09/81-32-29
WV	Glenville	107.7	WVRW	CP Mod granted for 1.7 kw/ 190 m, 38-54-29/80-49-48
WI	Ashland	90.3	W212CD	CP granted for 27 w-V/35 m AGL, 46-33-40/90-55-05; FC from 90.9; goes from H-only to V-only
WI	Boscobel	104.7	W284AS	CP granted for 120 w/31 m AGL, 43-04-43/90-48-45
WY	Casper	93.5	KWYX	CP Mod granted for 15 kw/ 530 m, 42-44-28/106-18-31
WY	Cheyenne	100.3	K262BV	CP granted for 250 w/28 m, 41-17-50/104-52-33; FC from 100.1; Adds V
WY	Evanston	89.3	K207EK	CP granted for 10 w-V/9 m AGL, 41-21-09/110-54-26; FC from 89.7
WY	Laramie	90.1	KUWL	CP Mod granted for 110 w/ 295 m, 41-18-36/105-27-17
WY	Laramie	93.9	KRQU	CP Mod granted for 800 w/ -26 m, 41-20-20/105-35-31; FC from 104.5; C2 to A
WY	Pine Haven	99.1	KWAP	CP Mod granted for 28 kw/ 486 m, 44-28-35/104-26-54
WY	Rock Springs	104.9	K285FG	CP granted for 250 w/22 m AGL, 41-29-50/109-20-36
WY	Torrington	89.9	K210AF	CP granted for 250 w/20 m AGL, 42-04-35/ 104-11-28

--TECHNICAL CHANGES --

- GRANTS FOR NEW STATIONS -

				CP granted for:
AK	Kodiak	88.3	NEW	180 w/280 m, 57-47-22/ 152-25-54
AK	Unalaska	89.7	NEW	1 kw/-94 m, 53-52-35/166-32-24
AZ	Pinetop-Lakeside	89.5	NEW	1 kw/343 m, 34-12-22/109-58-34
CA	Susanville	90.1	NEW	6 kw-V/-74 m, 40-19-12/ 120-35-11
CO	Westcliffe	101.7	NEW	6 kw-H/20 m, 38-09- 37/ 105-21-10; FC from 97.7 to accommodate the 97.7 at Blanca
GA	Damascus	89.7	NEW	1.5 kw/63 m, DA, 31-21-25/ 84-48-31
GA	Marietta	96.3	NEW	3.9 kw/125 m, 34-24-33/88-32-24; FC from 97.9
HI	Wailea-Makena	97.3	NEW	1.5 kw/ 696 m, DA, 20-39-36/ 156-21-50
KY	Russellville	91.5	NEW	1.4 kw/47 m, 36-45-51/86-53-37
LA	Many	91.3	NEW	8.5 kw/100 m, 31-32-05/ 93-25-21
MN	Minneapolis	104.5	K283BG	99 w/36 m AGL, 44-58-14/ 93-14-31
MN	Redwood Falls	88.1	NEW	2.1 kw/81 m, 44-32-35/95-07-57
MO	Chillicothe	90.3	NEW	30 kw/105 m, 39-54-35/93-21-42
NV	Gerlach	91.5	NEW	9 kw/28 m AGL, 40-39-17/ 119-21-33
NV	Spring Creek	90.7	NEW	2 kw/292 m, 40-48-42/115-41-58
NY	North Salem	90.1	NEW	100 w-V/ -31 m, 41-19-44/ 73-35-29
OK	Altus	89.3	NEW	15 kw/110 m, DA, 34-39-05/ 99-26-00
OK	Marlow	88.7	NEW	500 w-V/56 m, 34-41-44/ 97-57-15
OK	Rattan	89.7	NEW	2.2 kw/146 m, 34-11-06/ 95-08-21
OR	The Dalles	89.7	KOTD	10 w/589 m, 45-42-43/ 121-06-58
SC	Enoree	88.1	NEW	175 w/177 m, DA, 34-38-06/ 81-58-47
SD	Lake Andes	89.5	NEW	6 kw/132 m, DA, 43-04-59/ 98-28-23
TX	Buffalo	90.7	NEW	9 kw-V/100 m, DA, 31-25-38/ 96-05-28
TX	Mexia	92.1	K221FI	50 w/55 m AGL, 31-39-23/ 96-29-03
TX	Mexia	101.5	K268BQ	50 w/60 m AGL, 31-39-23/ 96-29-03
UT	Price	89.9	KCEU	6 kw/-178 m, 39-32-35/110-25-07
WI	Soldiers Grove	105.9	WKAH	200 w/-65 m, 43-23-51/90-46-22
WY	Reliance	88.5	NEW	4 kw/-90 m, DA, 41-34-51/ 109-12-26
WY	Worland	96.1	KKLX	80 kw/144 m, 44-03-31/ 107-51-12

--TECHNICAL CHANGES –

- APPLICATIONS FROM EXISTING/PROPOSED FACILITIES -

				Applies for:
AL	Clanton	95.5	W293AP	CP Mod for 19 w/56 m AGL, 32-52-31/86-37-30; FC from 106.5
AL	Valley	95.3	WRLD-FM	25 kw/77 m, 32-44-07/ 85-08-55
AK	Kasilof	90.5	KWMD	APP Mod for 456 w-H/102 m, 61-31-58/151-04-52; FC to 90.7; initial APP was for CL to Ridgeway, but denied
AK	Ridgeway	89.5	KABN-FM	APP Mod for 456 w-H/102 m, 61-31-58/151-04-52; FC to 88.9; initial APP was for CL to Kasilof, but denied
AK	Sterling	90.1	KRAW	APP Mod for 456 w-H/102 m, 61-31-58/151-04-52; FC to 89.7; APP for 1.6kw-H/102m denied
AZ	Bullhead City	89.9	KVIR	APP Mod for 8 kw-V/724 m, DA, 35-15-08/114-44-58; Class C to C1
AZ	Holbrook	98.5	KZUA	CP Mod for 100 kw/138 m, 34-34-28/110-05-57; FC from 92.1
AZ	Kingman	97.1	KGPS-LP	100 w/-37.1 m, 35-15-23/ 113-59-38
AZ	Nogales	91.1	KNOG	1 kw-H/50 kw-V/52 m, DA, 31-21-33/110-53-54; FC to 91.7; Class A to C2
AZ	Payson	101.1	KNRJ	APP Mod for 43 kw/836 m, 34-14-03/112-22-01; CL to Cordes Lakes
CA	Barstow	93.5	K228CO	10 w/10 m AGL, 34-51-22/ 117-02-58; would add V & drop DA
CA	Claremont	88.7	KSPC	CP Mod for 3 kw/-86 m, 34-05-51/117-42-35
CA	El Rio	103.7	KMLA	1 kw/245 m, DA, 34-18-10/ 119-13-41
CA	Firebaugh	90.5	KYCI	CP Mod for 395 w/ 332 m, DA, 36-43-32/120-45-49
CA	Gridley	101.5	KMJE	6 kw/54 m, 38-34-45/121-43-58; CL to Woodland
CA	Napa	105.7	K289AS	86 w-H/29 m AGL/6 w-V/52 m AGL, 38-20-54/122-34-36; goes from DA to NDA
CA	Pasadena	89.3	KPCC	860 w/891 m, DA, 34-13-36/ 118-03-58
CA	Redlands	89.1	KUOR-FM	290 w-H/-139 m, 34-03-42/ 117-09-50 (aux)
CA	Yankee Hill	90.5	K213CY	10 w/17 m AGL, DA, 39-39-04/ 121-27-43; CL to 90.7
CO	Berthoud	102.9	K275AH	50 w/30 m AGL, 40-05-29/ 105-07-17, FC from 102.7; would add H, was V-only)
CO	Center	105.3	KPAU	CP Mod for 720 w/543 m, 38-09-49/106-07-58; FC to 107.3; from DA to NDA
CO	Parachute	101.1	KSBP-LP	100 w/17 m, 39-26-31/108-01-15; FC to 103.9
CO	Vail	88.5	KVJZ	CP Mod for 5 kw/-241 m, 39-36-56/106-26-57
CO	Walsenburg	91.3	KTWX	CP Mod for 200 w/198 m, 37-32-34/104-22-31
CO	Widefield	106.3	KKLI	Aux license issued for 970 w/ 661 m, 38-44-41/104-51-46
CT	Guilford	91.5	WGRS	CP Mod for 1.35 kw-H/ 6 kw-V/ 49 m, DA, 41-17-19/72-39-32
DE	Seaford	105.1	W286AS	8 w/53 m AGL, 38-38-06/ 75-37-08
FL	Cross City	88.5	WWLC	CP Mod for 100 kw/ 96 m, DA, 29-32-36/82-45-10; A to C1
FL	Everglades City	97.5	W248AU	80 w/48 m AGL, 25-54-35/ 81-21-50
FL	Inglis	99.3	WFBI	CP Mod for 3.7 kw/128 m, DA, 29-09-19/82-27-01
FL	Okeechobee	100.5	W263BB	27 w/85 m AGL, 27-13-12/ 80-52-22
FL	Quincy	90.1	WFRU	CP Mod for 32 kw-V/100 m, 30-42-22/84-37-39; C3 to C2
FL	Silver Springs	95.5	WNDD	9.8 kw/102 m, 29-16-57/ 82-02-49
GA	Roswell	107.5	WJZZ-FM	25 kw/100 m (aux)
GA	Tallapoosa	89.5	W208BE	10 w/91 m, 33-47-02/85-09-42; FC to 89.7
ID	Orofino	98.5	KZID	CP Mod for 6 kw/80 m, 46-30-46/ 116-43-19; CL to Juliaetta
IL	Centralia	98.7	W254BE	APP Mod for 80 w/30 m AGL, 38-31-28/89-08-03
IL	Decatur	105.1	WQHK-FM	5.7 kw/210 m, DA, 41-06-39/85-11-44; CL to Huntertown
IL	Greenville	101.7	WGEL	6 kw/90 m, DA, 38-48-11/ 89-20-56
IL	Monticello	105.5	WCZQ	6 kw/100 m, 40-02-54/88-34-25
IL	Peoria	105.7	WIXO	39 kw/169 m, 40-43-25/89-29-04
IN	Fort Wayne	92.3	WFWI	1.4 kw/210 m, 41-06-39/85-11-44
IN	Lowell	88.5	WTMK	15 kw/75 m, DA, 41-19-16/ 86-52-58; CL to Wanatah; Class A to B1
IN	Mishawaka	96.5	W243AJ	250 w/60 m, 41-41-53/86-09-25
IN	New Whiteland	88.3	WHZN	CP Mod for 7.8 kw-V/221 m, 39-24-14/86-08-41
IA	Madrid	96.1	KNWM	6 kw/100 m, DA, 41-51-05/ 93-43-29
IA	Rockford	92.9	WRAH	CP Mod for 375 w/10 m, 43-03-12/92-57-15
IA	Sioux City	92.9	KMSC	30 w/56 m, 42-28-28/96-21-34; FC from 88.3
KS	Cimarron	92.9	KMML	CP Mod for 7.1 kw/ 186 m, 37-56-30/100-18-44
LA	Timberlane	105.7	K289AM	10 w/223 m AGL, 29-57-00/ 90-04-16; would add H to V
MI	Ashley	92.5	WJSZ	4 kw/122 m, DA, 43-10-56/ 84-27-03
MI	Muskegon	103.7	WUVS-LP	100 w-H/26 m, 43-14-21/ 86-15-06; drops V for H-only & coordinate correction
MI	Powers	107.3	WXPT	CP Mod for 6.2 kw/25 m, 45-41-34/87-31-38
MI	Sturgis	99.3	WMSH-FM	4.4 kw/100 m, 41-46-11/85-25-09
MN	Madison	100.5	K263AL	250 w-V/59 m AGL, 45-00-30/ 96-11-39
MN	Roseau	102.9	K275BB	250 w/26 m AGL, 48-49-58/ 95-46-32
MS	Benton	93.1	WYAB	6 kw/100 m, DA, 32-36-44/ 90-16-11; CL to Flora
MS	Clarksdale	92.1	WKXY	CP Mod for 6 kw/ 100 m, 33-52-49/90-42-24; CL to Merigold
MS	Indianola	105.5	WNLA-FM	3.2 kw/93 m, 33-28-41/90-38-28
MS	Joplin	89.3	K207BT	CP Mod for 250 w-V/92 m AGL, 37-06-11/94-24-11; FC to 89.1
MS	Lake Ozark	97.1	K246BN	2 w/106 m AGL, 38-09-24/ 92-36-49
MO	Madison	97.3	KCDG	11 kw/152 m, 39-27-04/ 92-10-12
MT	Billings	92.5	KFHW-LP	100 w/3 m AGL, 45-47-03/ 108-33-28; FC to 93.7 & move transmitter location
MT	East Helena	104.1	KHKR-FM	400 w/-83 m, 46-35-13/ 112-02-14 (aux)
MT	Helena	99.5	KBLL-FM	400 w/-83 m, 46-35-13/ 112-02-14 (aux)
MT	Helena	101.1	KZMT	4 kw/-77 m, 46-35-13/ 112-02-14 (aux)
NE	Lincoln	88.5	KLCV	100 kw/247 m, DA, 40-47-10/ 96-23-10; Class A to C1
NE	Scottsbluff	89.1	KDAI	CP Mod for 1.2 kw/ 230 m, 41-50-21/103-49-53 (supercedes app for 2.2 kw/167m on 91.9 with move to Foresthill, California)
NE	Ogallala	94.5	K233BK	170 w/43 m AGL, 41-08-18/101-21-41; FC to 105.1
NE	Sargent	92.1	KHZZ	CP Mod for 110 w/16 m, 41-38-29/99-22-12
NV	Las Vegas	105.1	KQRT	CP Mod for 50 kw/19 m, 36-20-00/115-21-41
NM	Flora Vista	88.1	KUSW	4.1 kw/202 m, 36-40-16/ 108-13-54
NM	Grants	90.3	KLGQ	CP Mod for 20 kw/ 414 m, 35-10-57/107-36-13

NY	**New York**	**89.9**	**WKCR-FM**	CP Mod for 1.35 kw/ 284 m, 40-45-22/ 73-59-12
NY	**Saranac**	**106.3**	**WYZY**	CP Mod for 1.47 kw/706 m, DA, 44-41-43/73-53-00; CL from Saranac Lake
NC	**Sanford**	**105.5**	**WFJA**	2.3 kw/148 m, 35-26-34/ 79-18-41
NC	**Zebulon**	**90.5**	**WAJC**	1.2 kw/64 m, 35-49-19/78-18-36; CL from Wilson
OH	**Upper Sandusky**	**90.1**	**WXML**	6 kw-V/100 m, 40-50-10/ 83-14-11 (aux)
OK	**Broken Arrow**	**90.5**	**KNYD**	44 kw-V/173 m, 35-47-51/ 95-54-02 (aux)
OK	**Lahoma**	**95.7**	**KXLS**	14.1 kw/137 m, 36-32-13/ 98-00-39
OK	**Oklahoma City**	**94.7**	**KHBZ-FM**	100 kw/472 m, 35-35-52/ 97-29-22
OK	**Oklahoma City**	**102.7**	**KJYO**	100 kw/472 m, 35-35-52/ 97-29-22
OR	**The Dalles**	**104.5**	**KMCQ**	CP Mod for 8.1 kw/364 m, 47-32-37/122-06-35; CL to Covington
PR	**Utuado**	**104.1**	**WERR**	50 kw/301 m, 18-17-29/ 66-39-39; CL to Vega Alta
RI	**Providence**	**88.1**	**WELH**	APP Mod for 1.2 kw/78 m, DA, 41-48-28/71-28-22
SC	**Bamberg**	**95.9**	**WWBD**	APP Mod for 50 kw/104 m, 32- 49-28/80- 00-10; CL to Isle of Palms
SC	**Florence**	**95.3**	**W237AS**	110 w/24 m AGL, 34-11-50/ 79-45-51; FC to 95.1
SC	**Forestbrook**	**96.1**	**WAVF**	CP Mod for 8.5 kw/265 m, 33-35-27/79-02-55; CL from Hanahan
SC	**Murrells Inlet**	**88.3**	**WMBJ**	20 kw/90 m, DA, 33-26-35/ 79-08-21
SD	**Milbank**	**90.5**	**K213DI**	150 w/43 m AGL, 45-13-19/ 96-37-01; FC 89.9
TN	**Chattanooga**	**92.7**	**W224AZ**	80w/53 m AGL, 35-00-19/ 85-13-30; CL from Fairview, Georgia
TN	**Newport**	**90.7**	**NEW**	APP Mod for 900 w-V/ 714 m, DA, 35-54-21/83-17-47
TX	**Bay City**	**101.7**	**KXGJ**	54 kw/385 m, 28-48-03/ 96-07-32 (aux)
TX	**Breckenridge**	**89.9**	**NEW**	APP Mod for 17.9 kw/99 m, 32-35-48/98-44-27
TX	**Freeport**	**103.7**	**KJOJ-FM**	APP Mod for 100 kw/596 m, 28-51-04/95-40-36
TX	**Friona**	**94.7**	**KGRW**	47.88 kw/153 m, 34-41-17/ 102-56-53
TX	**Groves**	**92.5**	**KCOL-FM**	1 kw/56 m, 30-05-42/94-07-57 (aux)
TX	**La Joya**	**97.7**	**KLGM-LP**	APP Mod for 100 w/24 m, 26-15-05/98-28-27; ant height & coordinate correction only
TX	**Madisonville**	**96.1**	**KAGG**	CP Mod for 447 w/40 m, 30-39-09/96-20-17 (aux)
TX	**Overland**	**89.9**	**NEW**	APP Mod for 120 w-V/30 m, 33-04-00/95-46-10
TX	**Odessa**	**90.5**	**KFLB-FM**	CP Mod for 86 kw/187 m, 32-05-51/102--17-21
TX	**Pecos**	**97.3**	**KGEE**	300 w/21 m, 31-25-07/103-30-58
TX	**San Angelo**	**90.1**	**KUTX**	6 kw/250 m, 31-35-21/100-31-00
TX	**Weslaco**	**96.5**	**K243BI**	CP Mod for 50 w/36 m AGL, 26-09-52/98-00-59
VT	**Royalton**	**103.1**	**WRJT**	CP Mod for 6 kw/85 m, DA, 43-42-29/72-23-22
VA	**Yorktown**	**91.5**	**WYCS**	CP Mod for 5 w-H/18.5 kw–V/ 115 m, DA, 37-04-41/76- 26-46
WA	**Bellingham**	**104.3**	**KAFE**	60 kw/701 m, DA, 48-40-50/ 122-50-26.; FC to 104.1
WA	**Yakima**	**91.5**	**K218CX**	23 w/7 m AGL, 46-31-58/ 120-29-26
WI	**Appleton**	**91.1**	**WOVM**	370 w/127m, 44-15-37/88-22-00 (aux)
WI	**Monona**	**100.5**	**WTLX**	CP Mod for 6 kw/55 m, 43-08-04/ 89-23-56; CL from Columbus
WI	**Portage**	**95.9**	**WBKY**	2.75 kw/150 m, 42-51-06/ 89-17-02
WY	**Basin**	**103.3**	**KBEN-FM**	Requests CP Mod for 100 kw/ 427 m, 44-34-13/108-49-09; CL to Crowley
WV	**Clarksburg**	**90.1**	**WZWA**	APP Mod for 1.1 kw/ 215 m, 39-19-09/80-23-31
WV	**Mullens**	**92.7**	**WPMW**	6 kw/100 m, 37-31-07/81-22-43
WY	**Laramie**	**88.5**	**KUWY**	CP Mod for 134 w/298 m, 41-18-36/105-27-17
WY	**Marbleton**	**95.7**	**KFMR**	CP Mod for 2.6 kw/553 m, 40-31-15/109-42-25; CL to Ballard, Utah
WY	**Rock Springs**	**104.9**	**K285FG**	250 w/22 m, 41-29-50/109-20-36

--TECHNICAL CHANGES --

- APPLICATIONS FOR NEW STATIONS -

				Applies for:
AK	**Seldovia**	**88.1**	**NEW**	100 w-H/213 m, 59-27-17/ 151-40-18
AK	**Seward**	**91.7**	**NEW**	1 kw/-436 m, 60-09-39/149-23-24
AZ	**Cameron**	**101.5**	**NEW**	61 kw-H/-18 m, 35-51-59/111-24-57
AZ	**Welton**	**91.7**	**NEW**	2.5 kw/78 m, 32-31-25/113-57-22
CA	**Foothill Ranch**	**101.5**	**NEW**	1 w/466 m, 33-39-56/117-36-28
CA	**Kearney**	**90.9**	**NEW**	45 w/269 m, 33-04-10/111-03-13
CA	**Mammoth Lakes**	**89.1**	**NEW**	100 w/-152, 37-39-50/118-54-42
CA	**Rancho Santa Margarita**	**101.5**	**NEW**	100 w/3 m, 33-38-19/117-36-10
CO	**Blanca**	**97.7**	**NEW**	50 kw-H/-31 m, 37-26-35/ 105-26-29; C2
CO	**Burlington**	**88.7**	**NEW**	250 w/72 m, 39-18-24/102-16-39
CO	**Campo**	**91.9**	**NEW**	12 kw-V-V/69 m, 37-04-30/ 102-22-45
CO	**Wiggins**	**90.7**	**NEW**	4.2 kw/274 m, DA, 40-16-24/ 104-06-16
CT	**Pawcatuck**	**89.5**	**NEW**	1.8 kw-V/72 m, DA, 41-23-03/ 71-40-15 [competing APP filed]
DE	**Harrington**	**88.7**	**NEW**	25 kw-V/98 m, 38-53-30/75-34-48
FL	**Cross City**	**90.9**	**NEW**	150 w/63 m, DA, 29-38-28/ 83-09-03
FL	**Melbourne**	**88.1**	**NEW**	440 w-V/42 m, DA, 28-02-28/ 80-35-33
FL	**Palm Coast**	**91.1**	**NEW**	2.1 kw-V/53 m, 29-29-44/81-08-08
FL	**Perry**	**90.1**	**NEW**	25 kw/62 m, DA, 29-50-25/ 83-34-56
GA	**Fargo**	**91.1**	**NEW**	5 kw-V/48 m, 30-40-31/82-40-40
GA	**Kings Bay**	**88.5**	**NEW**	100 w-H/1 kw-V/115 m, 30-50-02/ 81-33-57
GA	**Tallulah Falls**	**91.7**	**NEW**	130 w/314 m, DA, 34-43-46/ 83-29-42
GU	**Dededo**	**96.5**	**NEW**	50 kw/165 m, N13-29-17/ **E**144-49-35; Class C1
IL	**Kankakee**	**88.7**	**NEW**	3 kw/50 m, DA, 41-10-07/87-58-27
IN	**Jonesville**	**88.1**	**NEW**	140 w-V/21 m, DA, 39-08-41/ 85-52-48
IN	**Swayzee**	**90.5**	**NEW**	1 kw/65 m, DA, 40-28-44/85-49-14
KS	**Beloit**	**88.1**	**NEW**	1 kw/7 m, 39-27-54/98-06-28
KS	**Brewster**	**90.1**	**NEW**	90 kw/312 m, 39-14-31/101-21-38
KS	**Chanute**	**90.3**	**NEW**	17 kw/161 m, 37-35-59/95-39-10
KS	**Manhattan**	**89.9**	**NEW**	13 kw/106 m, DA, 39-22-03/ 96-32-18
KS	**Salina**	**88.1**	**NEW**	7.8 kw/68 m, 38-36-53/ 97-37-43
KY	**Campbellsville**	**88.7**	**NEW**	800 w/63 m, DA, 37-20-39/ 85-21-34
KY	**Madisonville**	**90.9**	**NEW**	25 kw/123 m, DA, 37-21-47/ 87-30-56
LA	**Grand Chenier**	**90.7**	**NEW**	6 kw-V/60 m, 29-45-54/92-57-24
ME	**Rangely**	**91.1**	**NEW**	21 w/645 m, 44-56-06/70-30-35
MI	**North Muskegon**	**88.9**	**NEW**	1 kw/48 m, DA, 43-16-47/86-20-28
MO	**Freeman**	**88.9**	**NEW**	1 kw-H/13.522 kw-V/142 m, DA, 38-25-45/94-34-19
MT	**Columbus**	**89.5**	**NEW**	200 w/-121 m, DA, 45-38-08/ 109-14-42
MT	**Havre**	**89.3**	**NEW**	125 w/-66 m, 48-33-14/109-40-36
NE	**Gretna**	**90.1**	**NEW**	10 w-H/100 kw-V/33 m, DA, 41-12-30/96-40-42
NE	**Kimball**	**88.5**	**NEW**	260 w/-20 m, 41-15-42/103-40-06
NE	**Shelton**	**90.5**	**NEW**	4 kw/30 m, DA, 40-44-37/98-53-45
NE	**York**	**90.3**	**NEW**	8 kw/71 m, DA, 40-44-13/97-39-19
NV	**Logandale**	**93.5**	**KADD-1**	278 w/41 m AGL, 36-19-18 114-55-40; proposed booster for KADD, to be located on the northeast side of Las Vegas

NH	Lisbon	89.7	NEW	400 w-V/63 m, DA, 44-13-11/ 71-52-07
NM	Chama	91.7	NEW	4.5 kw/95 m, DA, 36-53-58/ 106-36-09
NY	Belfast	91.7	NEW	400 w/86 m, 42-25-20/78-06-26
NY	Boonville	91.7	NEW	70 w/107 m, DA, 43-26-53/ 75-20-48; Class A; if granted, and upon commencement of service of the proposed full service station, applicant will request cancellation of FM translator station 219CT, Boonville, NY
NY	Owego	91.9	NEW	990 w/160 m, DA, 41-57-37/ 76-32-56
NY	Rapids	90.5	NEW	250 w/23 m, DA, 43-06-28/ 78-33-56
NY	Riverhead	89.1	NEW	500 w-V/25 m, DA, 40-54-57/ 72-44-36
OH	Greenville	91.9	NEW	6 kw/70 m, DA, 40-08-21/84-37-05
OH	Waynesville	89.3	NEW	175 w-V/23 m, DA, 39-28-52/ 84-04-20
OK	Ada	91.9	NEW	2 kw/71 m, DA, 34-42-31/96-44-24
OK	Guymon	88.9	NEW	25 kw/98 m, 36-40-27/101-28-09
OR	Lees Camp	88.7	NEW	100 w-V/-303 m, DA, 45-35-25/ 123-31-47
OR	Shaniko	90.0	NEW	12.5 kw/73 m, 44-55-57/120-49-03
OR	The Dalles	88.1	NEW	500 w/-225 m, DA, 45-38-11/ 121-10-35
SD	Hoven	88.3	NEW	500 w/9 m, 45-16-32/99-49-42
TX	Estelline	91.3	NEW	1 kw/526 m, 34-31-56/100-25-13
TX	Lisbon	91.7	NEW	1 kw/83 m, 30-21-04/ 103-39-23
TX	Lamesa	88.9	NEW	250 w/30 m, 32-43-19/ 101-56-47
TX	McNary	88.1	NEW	100 w-V/68 m, 31-14-35/ 105-47-01
TX	Menard	90.3	NEW	6 kw/100 m, 31-00-00/99-49-37
VT	Middlebury	90.1	NEW	1.2 kw/96.5 m, DA, 44-01-34/ 73-09-44
VT	St. Albans	90.5	NEW	1.5 kw-V/39 m, DA, 44-48-36/ 73-04-53
VA	Grundy	88.1	NEW	60 w-V/97 m, DA, 37-16-48/ 82-04-31
WA	Forks	90.9	NEW	2 kw/-2 m, 47-56-00/124-23-41
WA	Friday Harbor	91.9	NEW	100 w/8 m, 48-33-25/123-01-34
WI	West Bend	91.5	NEW	290 w/122 m, DA, 43-19-29/ 88-14-07
WY	Laramie	104.5	NEW	3.5 kw/408 m, 41-18-37/ 105-25-10

- REINSTATEMENTS -

AL	Camp Hill	91.5	NEW	APP for new station
AL	Gadsden	91.1	NEW	APP for new station
AL	Jemison	89.3	NEW	APP for new station
AL	Piedmont	89.5	NEW	APP for new station
AL	Talladega	89.7	NEW	APP for new station
AL	Union Springs	91.3	NEW	APP for new station
AZ	Welton	91.3	NEW	APP for new station
CA	Mammoth Lakes	89.7	NEW	APP for new station
GA	Crawfordville	90.3	NEW	APP for new station
GA	Dublin	90.9	NEW	APP for new station
GA	Smithboro	89.1	NEW	APP for new station
GA	Thomson	91.5	NEW	APP for new station
GA	Vidalia	90.3	NEW	APP for new station
GA	Vienna	88.5	NEW	APP for new station
MA	Provincetown	88.1	NEW	APP for new station
NC	Robbins	88.1	NEW	APP for new station
OR	Lowell	88.3	NEW	APP for new station
WA	Sedro-Woolley	91.1	NEW	APP for new station

- REQUESTS FOR RECONSIDERATION -

IL	Sheffield	88.7	NEW	APP for new station
MS	Hollywood	89.7	NEW	APP for new station [state correction from Dismissals last Issue]
MS	Richton	88.9	NEW	APP for new station
NY	Monroe	89.3	WLJP	APP for 1.4 kw/321 m
OH	Columbus	88.1	W201AK	APP for move to 88.3
TX	Casa Piedra	88.1	NEW	APP for new station

- DISMISSALS -

CA	Big Pine	90.3	NEW	APP for new station
CA	Mira Loma	88.9	NEW	APP for new station
CA	Rosamond	90.3	K212DL	APP to move to 89.9
CO	Trinidad	101.1	NEW	APP for new xltr station
DE	Harrington	88.7	NEW	APP for new station
DE	Smyrna	88.7	NEW	APP for new station
FL	Dunnellon	88.7	NEW	APP for new station
FL	Favoretta	91.1	NEW	APP for new station; competing applicant convinced the FCC there is no such community as Favoretta. [see end of column for more from DS]
FL	Lake City	107.7	WMJB-LP	APP to move to 93.3; retains CP for 49 w/43 m on 105.5
GA	Waycross	90.1	WXVS	APP for 77.6 kw-V (remains 79kw-H)/280 m
IN	Frankfort	104.9	W285DQ	APP for 19 w-V/76 m
KS	Enterprise	90.5	KBMP	APP for 100 kw [75.510(a); prohibited coverage overlap]
KS	Hugoton	106.7	KFXX-FM	CP for 50 kw
KS	Independence	91.5	KARF	APP for 100 kw-V/100 m, 37-03-54/95-45-03 [73.510(a); prohibited coverage overlap]
KY	Lexington	107.5	NEW	APP for new station ROA
MA	Mansfield	91.7	NEW	APP for new station
MD	Denton	88.7	NEW	APP for new station
MI	Reed City	91.9	NEW	APP for new station
MO	Cape Girardeau	92.5	K223BA	APP for FC to 103.3
MO	Sunrise Beach	90.3	KCRL	APP for 10 kw/87 m, 38-18-07/92-48-58 [73.510(a); prohibited coverage overlap]
NM	Tucumcari	90.5	NEW	APP for a new station
NY	Lockport	95.7	W239BA	APP for 55 w-V/6 m AGL, 43-09-45/ 78-48-11; CL to Pendleton; wanted to drop H for V-only
NC	Biltmore Forest	96.5	WZRQ	CP for 280 w/326 m
OH	Camden	89.7	NEW	APP for new station
OK	Guymon	91.9	NEW	APP for new station
OR	La Grande	99.9	KWRL	CP Mod for 25 kw/505 m; request was for NDA vs DA
PA	Bradford	95.3	W237CS	APP Mod for 250 w/12 m AGL, 41-50-53/ 78-41-26
PA	Shenandoah	91.5	WCIM	APP for 5.1 kw/225 m; 73.510(a) (prohibited coverage overlap)
PA	Wysox	91.7	NEW	APP for new station
TX	Coleman	90.1	NEW	APP for new station ROA
TX	Freer	91.5	NEW	APP for new station
TX	Galveston	88.9	NEW	APP for new station
TX	Graham	90.7	NEW	APP for new station
TX	Hollywood Park	93.7	K229BJ	APP for 250 w, 30 m AGL
TX	Houston	99.1	KODA	CP for 70 kw
TX	Lackland City	92.1	K221EX	APP for 250 w/48 m AGL
TX	Richland Springs	89.9	NEW	APP for new station
TX	San Marcos	92.5	NEW-LP	APP for new station
VA	Clifton Forge	90.9	NEW	APP for new station
WA	Auburn	104.5	NEW-LP	APP for new station
WA	Federal Way	104.5	NEW-LP	APP for new station
WA	Maple Valley	104.5	NEW-LP	APP for new station
WV	Clay	101.7	WYAP-LP	CP for 8 w, H-only
WV	Summersville	91.3	NEW	APP for new station
WI	Prentice	91.3	NEW	APP for new station
WY	Lovell	107.1	KROW	CP Mod for 100 kw/ 427 m

- OTHER NEWS -

AZ	Lakeside	100.5	KJBE-LP	License cancelled/call letters deleted ROA
AR	Jonesboro	88.3	KJSB	Sold to AFR
CA	Susanville	100.3	NEW	APP for allotment change to 100.7, to allow KHGQ to remain on 100.3 instead of moving to 100.9
CA	Yuba City	95.5	K238AV	Granted STA to rebroadcast KUBA-1600
CO	Palisade	98.5	KAAI	Is silent
FL	Starke	88.3	WTLG	Sold to AFR
ID	Idaho Falls	90.1	K211BD	Sold to KAWZ
IL	Springfield	95.9	WEAH-LP	License cancelled/call letters deleted ROA
IN	Charlestown	104.3	WAYI	Sold to Way FM
IN	West Lafayette	106.7	WGLM	Sold to K-Love
IA	Iowa City	100.1	K261DH	Sold to Way FM
NE	Norfolk	105.9	K290AT	Sold to WJAG-780
NH	Farmington	106.5	WMEX	Sold to K-Love
NC	Stanley	100.5	WVEM-LP	Is Silent
PA	Girardville	107.9	WQDD-LP	Is silent
PA	New Brighton	107.5	W298AE	License cancelled/call letters deleted ROA

SD	**Aberdeen**	**90.1**	**KEEA**	Sold to AFR
SC	**Lake Wylie**	**93.7**	**WYLI-LP**	License cancelled/call letters deleted ROA
UT	**Green River**	**102.9**	**K274BU**	License cancelled/call letters deleted
WA	**Chewelah**	**97.3**	**KCHW-LP**	License cancelled/call letters deleted ROA
WA	**Camas**	**102.3**	**K272EL**	Sold to Way FM
WA	**Deer Park**	**99.3**	**K257EN**	Sold to Way FM
WA	**Medical Lake**	**101.9**	**KTSL**	Sold to K-Love
WA	**Spokane**	**89.1**	**K206CQ**	Sold to Way FM
WI	**Mukwonago**	**105.3**	**WFZH**	Sold to K-Love
WY	**Gillette**	**88.1**	**KGLL**	Sold to AFR

++

Thanks to Shawn Axelrod, Doug Smith, FMedia! and Upper Midwest Broadcasting.com for updates. If you hear any changes occur on your FM dial, let's hear about them!

++

(The Favorita/Favoretta, Florida applications were dismissed as "patently defective" after the FCC ruled Favorita is not a bona-fide community. I might imagine the disagreement as to the proper spelling might have been a clue! "Favorita" does appear in the Rand McNally Road Atlas, on US-1 between Bunnell and Ormond Beach. FCC proceedings indicated all businesses they could find that claimed to be in Favorita had Bunnell postal addresses.- ds)

++

Many Obstacles to Digital TV Reception, Study Says

NYtimes.com 2/11/2008
By ROY FURCHGOTT

Nearly six million people with digital receivers may still lose TV signals when digital-only broadcasts begin next February, a new study says.

The study by Centris, a market research firm in Los Angeles, found gaps in broadcast signals that may leave an estimated 5.9 million TV sets unable to receive as many channels as they did before the changeover. It may affect even those who bought the government-approved converter boxes or a new digital TV. To keep broadcast reception, many viewers may have to buy new outdoor antennas, the study found.

The Centris study predicts greater disruption of service than government agencies like the Federal Communications Commission have acknowledged.

The federal government estimates that 21 million American households have primary TV sets that receive only over-the-air signals. But it says most will continue to get a digital signal by means of a digital-to-analog converter box, which costs about $50 to $70. It is helping to underwrite the cost of a converter box by issuing $40 coupons.

Centris said it looked at a more detailed method for predicting the coverage pattern of TV signals than the government had used.

However, the problems with reception could be far worse, according to engineers who have taken signal measurements. One study of the first HDTV station by Oded Bendov, the consultant hired to replace the broadcast antennas on the Empire State Building, found that digital signals did not travel as far as either model had predicted.

"For the people with rabbit-ear antennas, I would say at least 50 percent won't get the channels they were getting," Dr. Bendov said. "I would say a lot of people are going to be very unhappy."

Digital reception is more affected by hills, trees, buildings and other interference than analog has been. An analog TV picture degrades gradually, getting more snow or ghosting as a signal becomes weaker.

But digital TV is subject to the "cliff effect" — the picture is excellent until the signal gets weak and the picture suddenly drops out.

The number of sets that the Centris study projects will fail varies from city to city, based largely on the landscape. In Las Vegas, which lies in a flat basin, the study estimates that 2.5 percent of over-the-air TVs would lose at lease one of five major networks. In Philadelphia, which has more hills, 5 percent of over-the-air TVs would lose reception, while in St. Louis, 10 percent would lose reception.

Centris says, based on the F.C.C.'s data, a digital signal would travel 60 to 75 miles in those three cities. However, Centris says its own model showed that the signals would degrade at 35 miles.

Whether a TV gets a strong digital signal may depend on seemingly minor impediments, said David Klein, executive vice president of Centris. "Are there big trees in your area? Is there a big retaining wall next your house?" he said. "It's not a matter of, 'is reception good in your neighborhood'; it's a matter of, 'can I get the signal in the bedroom?' "

Centris also estimated that of the 117 million TVs not connected to cable or satellite, up to 80 percent have set-top rabbit-ear antennas that may not be able to pull in an adequate digital signal. Many of those sets will require a better antenna or a cable or satellite connection to do so.

Electronics manufacturers say the quality of the TV's receiver and converter will play a role.

WTFDA 2007 FINANCIAL REPORT

Keith McGinnis, Treasurer

Item	*Payable to*	*Date*	*Amount*	*Balance*
	Starting Balance	1/1/07		3,429.80
Ck # 128	Postmaster for PO BOX	1/16/07	(46.00)	3,383.80
Deposit		1/22/07	1,489.02	4,872.82
Monthly Maint Fee		1/26/07	(12.00)	4,860.82
ATM FEE	ATM FEE Enfield CT	1/29/07	(2.00)	4,858.82
ATM Withdrawal	Enfield CT	1/29/07	(31.95)	4,826.87
ATM Point of Sale Fee	USPS	2/2/07	(0.35)	4,826.52
ATM Point of Sale	USPS	2/2/07	(186.65)	4,639.87
CK # 132	Copyshoppe for the VUD	2/9/07	(318.00)	4,321.87
CK # 237	Tim McVey (Dreamhost 2yrs)	2/9/07	(190.00)	4,131.87
CK # 125	Bob Cooper (sale of Book)	2/27/07	(18.00)	4,113.87
ATM Point of Sale Fee	USPS	2/27/07	(0.35)	4,113.52
ATM Point of Sale	USPS	2/27/07	(135.90)	3,977.62
Monthly Maint Fee		2/27/07	(12.00)	3,965.62
Ck # 133	Copyshoppe for the VUD	3/2/07	(222.60)	3,743.02
CK # 236	John Ebeling for TV Guide Expenses	3/7/07	(8.04)	3,734.98
Deposit		3/12/07	541.52	4,276.50
Monthly Maint Fee		3/26/07	(12.00)	4,264.50
CK # 129	Bob Cooper (sale of Book)	3/30/07	(18.00)	4,246.50
CK # 130	Copyshoppe for the VUD	4/2/07	(159.00)	4,087.50
CK # 134	USPS	4/2/07	(135.90)	3,951.60
CK # 239	Jim Thomas (previous Emisoras sales and expenses)	4/5/07	(63.00)	3,888.60
Monthly Maint Fee		4/25/07	(12.00)	3,876.60
CK # 135	Copyshoppe for the VUD	4/27/07	(212.00)	3,664.60
CK # 136	USPS	4/30/07	(135.90)	3,528.70
Deposit		5/9/07	1,032.38	4,561.08
Monthly Maint Fee		5/24/07	(12.00)	4,549.08
CK # 141	USPS	6/5/07	(131.00)	4,418.08
CK # 140	Copyshoppe for the VUD	6/12/07	(265.00)	4,153.08
Monthly Maint Fee		6/26/07	(12.00)	4,141.08
CK # 137	Copyshoppe for the VUD	6/29/07	(212.00)	3,929.08
CK # 142	USPS	7/2/07	(136.80)	3,792.28
Deposit		7/9/07	557.66	4,349.94
Monthly Maint Fee		7/26/07	(12.00)	4,337.94

CK # 138	Copyshoppe for the VUD	7/27/07	(344.50)	3,993.44
CK # 139	USPS	7/30/07	(171.91)	3,821.53
CK # 241	John Ebeling for TV Guide Expenses	8/1/07	(5.10)	3,816.43
ATM Point of Sale Fee	Staples Enfield CT	8/13/07	(0.35)	3,816.08
ATM Point of Sale	Staples Enfield CT Envelopes	8/13/07	(29.67)	3,786.41
Monthly Maint Fee		8/24/07	(12.00)	3,774.41
CK # 143	Copyshoppe for the VUD	8/31/07	(397.50)	3,376.91
ATM Point of Sale Fee	USPS	8/31/07	(0.35)	3,376.56
ATM Point of Sale	USPS	8/31/07	(174.60)	3,201.96
Deposit		9/24/07	1,493.55	4,695.51
Debit Memo		9/25/07	(1.29)	4,694.22
Ck # 242	Chris Cervantez V Bulletin	9/26/07	(30.00)	4,664.22
Monthly Maint Fee		9/26/07	(12.00)	4,652.22
ATM Point of Sale Fee	USPS	9/27/07	(0.35)	4,651.87
ATM Point of Sale	USPS	9/27/07	(131.00)	4,520.87
CK # 145	Copyshoppe for the VUD	10/4/07	(212.00)	4,308.87
Monthly Maint Fee		10/25/07	(12.00)	4,296.87
ATM Point of Sale Fee	USPS	11/2/07	(0.35)	4,296.52
ATM Point of Sale	USPS	11/2/07	(122.90)	4,173.62
CK # 144	Copyshoppe for the VUD	11/6/07	(185.50)	3,988.12
Monthly Maint Fee		11/28/07	(12.00)	3,976.12
CK # 126	Copyshoppe for the VUD	12/1/07	(212.00)	3,764.12
ATM Point of Sale Fee	USPS	12/4/07	(0.35)	3,763.77
ATM Point of Sale	USPS	12/4/07	(176.30)	3,587.47
CK # 127	Copyshoppe for the VUD	12/22/07	(291.50)	3,295.97
Monthly Maint Fee		12/27/07	(12.00)	3,283.97

WTFDA Bank Balance as of December 31 2007	***3,283.97***
2007 Deposits not entered till Jan 08	***805.82***
Adjusted Balance as of December 31 2007	***4,089.79***

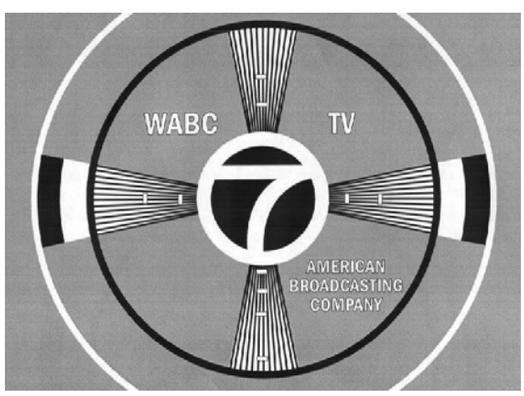


PHOTO NEWS

Jeff Kruszka, Editor
1909 Lost Lake Pl.
Pearland, TX 77581
jkruszka@sbcglobal.net

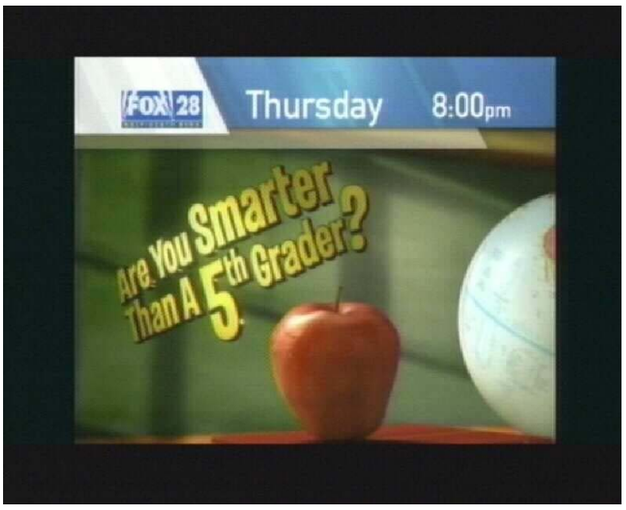
March 2008

EVEN BETTER IN COLOR! CHECK OUT THE eVUD

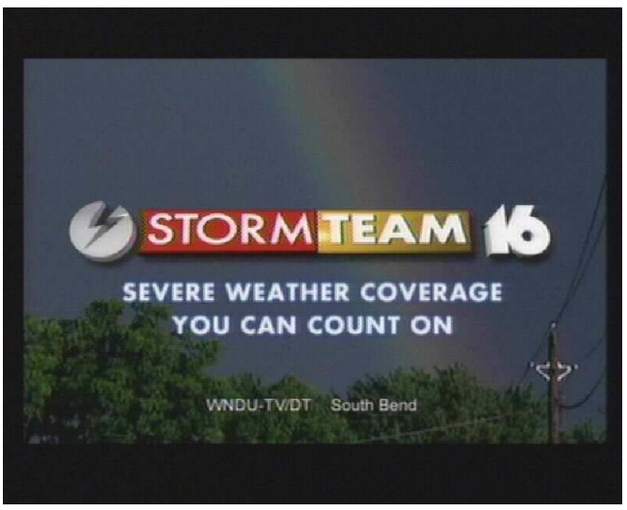
More DTV photos this month from Eric Bueneman of Hazelwood, MO:

WCIA-DT-48-1 Champaign, IL
155 mi Tr seen 7/17/07
@2202 CDT

WCIA-DT-48-2 Champaign, IL
155 mi Tr seen 7/17/07
@2121 CDT



WSJV-DT-58 Elkhart, IN
305 mi Tr seen 9/2/07
@0929 CDT



WNDU-DT-42 South Bend, IN
300 mi Tr seen 9/2/07
@0930 CDT

And one analog photo:

WBUI-23 Decatur, IL
110 mi Tr seen 8/24/07
@1730 CDT

WTFDA DX Contest

Douglas E. Smith
1389 Old Clarksville Pike
Pleasant View, TN
37146-8098
w9wi@w9wi.com
http://www.w9wi.com

February 2008 standings

Analog FM:

DXer	Stations logged	Logging points	Grids	Total Score
Randolph Zerr Fort Walton Beach, Florida	***272***	***944***	***61***	***57,584***
Douglas Smith Pleasant View, Tennessee	***89***	***352***	***17***	***5,984***
Nick Langan Florence, New Jersey	***4***	***9***	***4***	***36***

Analog TV:

DXer	Stations logged	Logging points	Grids	Total Score
Danny Oglethorpe Shreveport, Louisiana	***126***	***302***	***52***	***15,704***
Douglas Smith Pleasant View, Tennessee	***14***	***46***	***11***	***506***
Roy Barstow Teaticket, Massachusetts	***11***	***22***	***10***	***220***

Digital TV:

DXer	Stations logged	Logging points	Grids	Total Score
Danny Oglethorpe Shreveport, Louisiana	***32***	***64***	***11***	***704***
Steve Rich Indianapolis	***5***	***10***	***5***	***50***
Douglas Smith Pleasant View, Tennessee	***12***	***24***	***2***	***48***

Digital FM:
no entries yet

Remember that your locals do count. Get your loggings in for next month – both to me and to your DX column editors. Thanks!

WTFDA EMAIL REFLECTORS

Enhance your DXing experience! Entertaining and informational.

For WTFDFA members! Sign Up Today!

The WTFDA list...send an email to tvfmdx-subscribe@wtfda.info 188 users
The WTFDA AM DX list...send to amdx-subscribe@wtfda.info 90 users
The WTFDA Es Alert List...send to alerts-subscribe@wtfda.info 24 users

Insignia NS-DXA1 Digital-To-Analog Converter Box

Steve Rich

This evening I found the Insignia NS-DXA1 in stock at the Best Buy in Kokomo, IN. I bought one out of curiosity to compare it next to the Magnavox TB100MW9, purchased last week at Wal-Mart (Avon, IN).

Reception-wise, the two seem to be very similar. The Insignia allows you to watch and use the signal meter PRIOR to the station decoding, which is not possible with the Magnavox.

It appears the Insignia was designed by LG, because the menu/signal meter/etc. are almost identical to my older LG LST-3100A. The Insignia allows you, through the MENU button, to bring up the signal meter and then scroll through the true RF channel numbers, one after another.

Some of the additional controls via the remote: TV POWER; SAP; VOL +/-; CH up/down; FAV; MUTE.

Some of the MENU features: TV Aspect Ratio (Set By Program, Letter Box, Cropped, Squeezed); Auto Off (Off, 1 hour, 2 hours, 3 hours, 4 hours); Audio Output (Stereo, Mono)

OSD (on-screen display) pics posted below:

1) DISPLAY button

2) SIGNAL button

3) MENU button > then OPTION

4) MENU button > then SETUP > then MANUAL TUNING

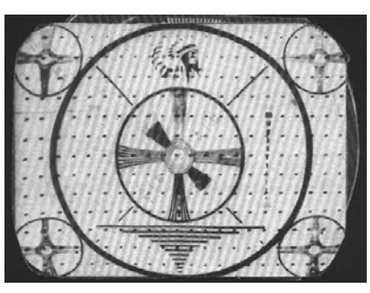
Just after 9 am ET, I tested the Insignia next to the RCA ATSC11 using WLWT-DT-35 (5.1), Cincinnati, OH @ just over 100 miles. The station was just barely decoding from time to time for a few seconds. The Insignia always decoded ahead of the RCA. Sometimes the Insignia decoded a full video screen while nothing decoded via the RCA.

One thing I've now noticed with the Insignia is that after it decodes the station for the first time (going from true RF channel 35 and then remapping to 5.1 for WLWT-DT), it does not store the call letters. With the initial decode, the OSD indicates the calls, but then when the signal fades out, and then when the signal comes back later to decode again, it simply indicates 5.1only, with no call letters. I've found that there has to be video decoding and then when you press the DISPLAY button, it will display the remapped channel number along with the call letters. I've attached some screen shots of this below.

The other thing I've noticed relating to the display of call letters, when you go into MENU and bring up the signal meter so you can scroll through the RF channel numbers one by one, it does display the call letters after a station is decoded, but the readout is so faint you can barely read it. Example of this below with pic (look above the signal meter graph, just above "good"). I believe this is all related to the Channel Editing feature, but haven't had time to investigate that yet.

This box has two features found lacking on the Magnavox STB that are useful for DXing purposes.

1. The Insignia’s meter will show signals that are there but below the threshold of decoding.
2. The Insignia’s meter responds much more quickly than the Magnavox meter, which tends to be sluggish.



MAGNAVOX TB100MW9 vs. Radio ACCURIAN HDTV Receiver

I wish there was the perfect DTV converter box.

I've spent time comparing the Magnavox set top box to the Accurian box I already own. There are similarities but there are some differences.

If the Magnavox converter has a 6th generation chipset (and we're not completely sure it does), I'd expect to see it decode stations I can't decode on my Accurian box, but the Magnavox is as good as the Accurian for decoding stations. But right now, let's jump around and talk about meters for a second and we'll explain.

The Accurian box has a really neat meter that shows you signals that are there, but below the threshold of decoding. This a great feature for DXing because you can "see" a station even though you can't decode it. You know it's there. So, using the Accurian meter, I aimed my CM 4228 at ch36 (WCDC-DT 60 miles N.E.) and ch42 (WSAH roughly the same distance SSW) and saw signals just too weak to decode. The Magnavox would not decode these either. I was a little disappointed.

I wish these boxes had a signal meter that meant something. S units maybe. Comparing the meters of two different boxes is like comparing apples and bananas. The Magnavox meter is a numerical spread from 1 to 100. My strongest locals ch31 (WTIC) and 46 (WUVN) register at 90-92. On the other hand, the weakest station that will decode is ch29 (WUNI) in Worcester, MA about 50 miles to my east and it decodes at 16 and stays locked. If a signal is there but too weak to decode, you'll never know since the Magnavox meter can't tell you.

The Magnavox is an improvement over the Accurian box in the following areas:

1. **Direct entry of channels**. Punch in 33 (WTIC's RF channel) and 33 appears in a little box in the upper right side of the screen. It then changes to 33-x. Then it immediately remaps to 3-1 and displays the call letters on the top of the screen and shows the signal strength. You can then access this information by pressing "display" on the remote and this information will stay there for 5 minutes until it times out. If you need to take a photo of this information with your digital camera, you have plenty of time.

2. **The antenna screen**. You go into the setup menu to find this screen. What you will find is the re-mapped channel number, a large meter showing current signal strength as a number (88, for example) and another small box showing the peak signal number of the session. You also have a live picture under this information. Contrary to the Accurian box, you can change channels with the remote when you are in this box. The only item missing here is the channel's call letters. However, if you have a camera ready and are lucky enough to catch an ID at ID time, you'll have a nice record of the reception.

You can do a channel scan with the Magnavox but you may not need to do it. You can access everything you want by direct entry. But if you do want to do a channel scan, the process is easy and only takes a minute. And if you want to DELETE the channel scan you can do it quickly and easily with the Add/Delete channel function in the setup menu. Press add/delete, then delete. A menu opens up with all your scanned channels and you just delete each one. You'll see them disappear and the process just takes a few seconds.

The Magnavox has a picture "freeze" feature called **still**. The freeze will not time out as it does on the Accurian box. If you freeze the picture before it dies you will have plenty of time to get a camera and make some coffee before you take the picture.

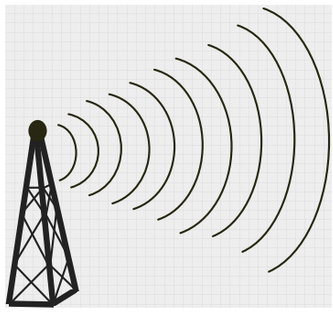
Let's go back to direct entry again. You can enter 33 on the remote, or you can enter 331 or 332 to view 33-1 or 33-2 (these will show up re-mapped). You do not need to scan the channels to view the sub-channels.

This converter can be used with the television set to either ch 3 or ch4. Or the A/V cables can be used.

(This review continues on page 32)

Northern FM DX

Keith McGinnis
18 Newbridge St., Hingham, MA 02043
longwave@comcast.net 781-875-1944



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 and all of Canada. Please submit by the 10th of each month. If possible please submit in the formats shown Below.

EDITORS NOTE: PLEASE NOTE THAT ANY TYPEWRITTEN OR HANDWRITTEN REPORTS MIGHT BE DELAYED TILL A LATER ISSUE AS TIME PERMITS. ALSO PLEASE KEEP REPORTS AS RECENT AS POSSIBLE (THE LAST 3 MONTHS SHOULD WORK FINE). THANK YOU.

John Ebeling Bloomington, MN - Pioneer TX-9500 FM Tuners with modified IF's Stereo Probe 9 antennas: one with rotor. One vertically mounted FM dipole Conrad RDS decoders. Various tape recorders

January 8, 2008 Es

1400	WIKX	92.9	Charlotte Harbor	FL	
1408	WJNF	88.3	Marianna	FL	'way fm'
1425	WAKU	94.1	Crawfordville	FL	'wave 94'
1429	WQZX	94.3	Greenville	AL	
1431	WKSJ	94.9	Mobile	AL	'95ksj'
1433	unid	94.9	sounded like WCTB no record found		
1445	WTNT	94.9	Tallahassee	FL	
1450	WHBX	96.1	Tallahassee	FL	'96.1 jamz'
1459	WKGC	90.7	Panama City	FL	
1500	WJTF	89.9	Panama City	FL	
1515	WOLR	91.3	Lake City	FL	
1516	WIZB	94.3	Abbeville	AL	
1524	WQBT	94.1	Savannah	GA	
1527	WYYX	97.7	Bonifay	FL	RDS: 97X
1528	WBAM	98.9	Montgomery	AL	

The opening was very erratic, with signal levels varying greately.

Sheryl Paszkiewicz - Manitowoc WI - Eton E1 & Eavesdropper ant

January 16 (tropo)

1000	WJIM	97.5	Lansing	MI	talk, hits, Now FM slogans. NEW. This battling it out with WKLT, WZOK and WEFG

Nick Langan
1040 Riverview Drive Florence, NJ 08518
Yamaha TX-900, Sangean HDT-1, APS-13 Antenna

Jan 19 Ms

0943	KGRC	92.9	Hannibal	MO	"Real 92-9"	879

Jan 22 Ms

1101	WGTZ	92.9	Eaton	OH	"Fly 92-9"	509

Jan 27 Ms

0400	WJXA	92.9	Nashville	TN	Legal ID	716

Jan 28 Ms

1004	WAAC	92.9	Valdosta	GA	"92-9 Country"	803

SOUTHERN FM DX

John Zondlo
4009 Driftwood Circle
Yukon, OK 73099
southernfmdx@wtfda.org
Deadline: 15th

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

March 2008

JOHN TUDENHAM – JOPLIN, MO

Onkyo 4087 tuner, 6 element Radio Shack antenna @ 25'

1/8 Es

1432	WRVQ	94.5	VA	Richmond
1437	WCEI	96.7	MD	Easton
1437	WESR	103.3	VA	Onley
1438	WBCB	101.5	VA	Fredericksburg
1455	WOKE	98.3	KY	Garrison, "Joy 98.3"
1517	WLVQ	96.3	OH	Columbus

A few more were received with no positive ID. Very short Es to eastern KY and Columbus OH. This was the first good Es of the winter season. It was Gil Morgan's day off and he called me or I might have missed it. 73

FRED NORDQUIST – 147 TRAVIS HILL ROAD – MONCKS CORNER, SC – ELT – ALL NEW

Denon TU1500RD receiver with RDS chip tapped for direct connection to the PC serial port, RDSDec v3 SW, APS-13 antenna 23' AGL with Radio Shack rotor

7/29 Es (SS ID help from Randy & Humberto)

1248	XHNQ	90.1	HG	Tulancujo, RDS PI 9101, SS, "La Voz de Hidalgo" 1449
1258	XHTEZ	90.9	PU	Teziutlan, SS, "Sicom Radio Teziutlan" 1414
1413	KGBT	98.5	TX	McAllen, SS 1176
1420	KKPS	99.5	TX	Brownsville, SS, "Que Pasa 99.5 1178
1424	XHAVO	101.5	TA	Rio Bravo, SS, "Digital 101.5" 1194
1436	XHFMTU	103.7	NL	Monterrey, SS, RDS PI 1037, SS, "FM Tu" 1329
1508	XHITS	106.1	NL	Monterrey, SS, "Stereo Hits 106.1" 1327
1820	KEJS	106.5	TX	Lubbock, SS, "Power 106" 1262
1856	KOYE	96.7	TX	Frankston, SS, "La Invasora" 901

7/30 Es

1221	XHCDU	92.9	CI	Ciudad Acuna, SS, "Super Estelar" 1264

8/20 Tr

1513	WNKS	95.1	NC	Charlotte, RDS PI 7812, PS "KISS95.1," Top 40 153

8/23 Gw

1123	W286AY	105.1	SC	Charleston, "His Radio," rel WMBJ 29

8/31 Gw

2300	W240AY	105.9	SC	Sumter, WDXY 1240 translator 49

8/31 Tr

1333	WRNS	95.1	NC	Kinston, RDS PI F000, "WRNS-K – YOUR CTRY 95.1 WRNS" 194

9/14 Tr

2355	WQIL	101.3	GA	Chauncey, "Quill FM" 192

10/20 Tr

0917	WWGN	91.9	FL	Crystal River, RDS PI 67CD, rel 338

10/22 Tr

0010	WTMT	105.9	NC	Weaverville, "105.9 The Mountain" 220

11/8 Ms

0111	WRRN	92.3	PA	Warren, RDS PI 8353 595
0544	WPWX	92.3	IN	Hammond, RDS PI 7E97 713

11/13 Gw

2100	WNKT	107.5	SC	Eastover, ex-St. George SC, "107.5 The Game," sports/ talk (HD) 62

11/13 Tr

2130	WTIF	107.5	GA	Omega, RDS PI 87A9, "107 Country" 243

11/14 Tr

0415	WKZL	107.5	NC	Winston-Salem, "107.5 KZL," r 200

11/15 Tr

1230	WDBN	107.5	GA	Wrightsville, "107.5 The Buzz" 168

12/14 Ms

0533	WBDK	96.7	WI	Algoma, "Classics WBDK" 887
0556	WCOE	96.7	IN	LaPorte, "COE-FM" 690
0706	WMJT	96.7	MI	McMillan, "Eagle 96.7," 966

12/25 Gw

2352 WMGL 107.3 SC Charleston, “Magic 107.3,” r&b, ex-101.7 22

12/28 Tr
1625 WTHO 101.7 GA Thomson, “Better Country,” k 149
1638 WYUM 101.7 GA Mount Vernon, “Sweet Onion Country,” k 160

12/31 Tr
0027 WTJT 90.1 FL Baker, rel 428
0050 WHHY 101.9 AL Montgomery, “Y-102” 366
0117 WFFM 105.7 GA Asburn, “Hawk FM, your positive alternative” 239
0149 WILN 105.9 FL Panama City, RDS PI 6AF3, talk 401
0207 WDYF 90.3 AL Dothan, rel, MBN 354
0217 WFSW 89.1 FL Panama City, RDS PI 63C6, “WFSW 89.1 FM” 402
0231 WJWV 90.9 GA Fort Gaines, GPB 316
0303 WWLD 102.3 GA Cairo, “Blazin’ 102.3,” hip-hop 316
0308 WXHT 102.7 FL Madison, RDS PI 922D, “-102.7 HOT,” hip-hop 271

1/8 Es
0551 WKSU 89.7 OH Kent, RDS PI A7F8, “WKSU-NPR” 551
0558 WJCU 88.7 OH University Heights, RDS PI 6CB4 578
0927 WIZD 99.9 WI Rudolph 927
1256 KBRB 92.7 NE Ainsworth 1256
1339 KQDJ 101.1 ND Valley City 1339
1455 KOUT 98.7 SD Rapid City, RDS PI 3713, “HILLS COUNTRY” 1455

1/11 Tr
2342 WCMC 99.9 NC Creedmoor, “Sports Talk, The Fan” 214

1/11 Ms
1003 KXGJ 101.7 TX Bay City, RDS PI 4D61 1003

2/3 Tr
2052 WTKX 101.5 FL Pensacola, RDS PI 87EF, r, “TK101” 469

2/4 Tr
0047 WHLJ 97.5 GA Statesville 244
0115 WPBH 99.3 FL Panama City, “99.3 The Beat,” r&b 386

Total FM = 1271+

DOUG SMITH – PLEASANT VIEW, TN

1/28 Tr

0807 KEGI 100.5 AR Jonesboro, Jonesboro talk 203
0856 WKOR 94.9 MS Columbus, legal ID 212
1047 WWKZ 103.9 MS Okolona, “Lee Country Agricenter” 176

2/5 Tr
0800 WFHU 91.5 TN Henderson, “West Tennessee’s Variety Station, The Lion 91-5” 110
0800 WUAL 91.5 AL Tuscaloosa, “WUOA Tuscaloosa, a service of the University of Alabama,” I swear they said “WUOA,” not “WUAL” 184

2/15 Tr
1712 W257AR 99.3 TN Donelson, two IDs for WAMB-1160 AM 28

EMAIL TO THE WTFDA WEBSITE

Subject: Official WTFDA Club Website: WZRO-LP heard on DX
Date: Fri, 8 Feb 2008 16:50:58 -0800
From: James P. Brooks jpb@xxxxxxxxxx.com

This is an enquiry e-mail via http://www.wtfda.org from:
James P. Brooks <jpb@cybersouth.com>

Mike: My name is James P. Brooks and I am the manager of a low power radio station WZRO-LP, 93.1 located at the Mouth of the famous Suwannee River where it empties into the Gulf of Mexico in Suwannee, Florida. I just noticed on a Google search where Russ Edmunds heard our station on July 26 in either 06 or 07. And, of course this was most interesting that opur 100 watts got to Pennsylvania. Of course, I do understand about skip as I am a ham radio operator, but to beat other full power stations out to be heard up there is a major feat. Anyway, I would like to send Russ, or anyone interested a brochure about the station and maybe some pictures. And it would be great to receive a DX card or note from him saying that he did receive the station. I have downloaded the audio and that was me interviewing the water-sewer manager about improvements and then an ID that says-- Where the Land, water and sky meet, WZRO-LP 93.1, Suwannee, Florida. We are a small fishing village of about 900 residents and the station is in its 4th year of operation. I would sure like to have a picture of his antenna that received us and what kind of rig he has....Thanks, James Brooks and looking forward to hearing from you.....

Eastern U.S. TV DX

Featuring reports from AL, CT, DC, DE, FL, GA, IN, KY, MA, MD, ME, MI, NC, NH, NJ, NY, OH, PA, RI, SC, TN, VA, VT, and WV, along with the Canadian Provinces of NB, NF, NS, ON, PEI, and PQ.

Send reports by the 15th of each month to:
Nick Langan
1040 Riverview Drive
Florence, NJ 08518
E-mail: nickl@wtfda.org

The Editor's Note

Remember to send over any reports to be entered into the 2008 WTFDA DX contest. No matter how short or far, we'll print them in the column. February lived up to expectations with very little DX around the country to speak of. The good news is Spring is nearing upon us…hopefully an active trop and e-skip period is too!

Fred Nordquist
147 Travis Hill Rd - Moncks Corner SC 29461

TV DX Equipment:
ATVs: Panasonic 11" Color (CT-1120B).
DTV: RCA 19" Color (X100) - RS Accurian STB - feed to VCR.
Antennas - UHF: Roof/tripod mounted CM screened 7' Dish (25'AGL) - guyed.
w/CDR Rotor & Winegard AC-6990 Preamp.
VHF/UHF/FM: RS VU-90XR w/RS Rotor(16' AGL in Attic).
All times ELT - Distance in (miles).

7/5/07 Es
1943 KYTV 3 MO Springfield NBC(781 mi.)

7/6/07 Tr
2300 W22CJ 22 NC Jacksonville TBN(180)

7/10/07 Es
1703 WOWT-TV 6 NE Omaha NBC(1042)

7/11/07 GW
0010 WZRB 47 SC Columbia CW(83)

7/19/07 GW
2315 WUNK-TV 25 NC Greenville UNC(210)

8/22/07 Tr
2200 WTVX 34 FL Fort Pierce CW(422)
2226 WPBF 25 FL Tequesta ABC(422)
2305 WVEN-DT 49 FL Daytona Beach SS-UNIVISION(286)

10/27/07 Tr
0050 WXII-DT 31 NC Winston Salem NBC(219)
0130 WMYA-DT 14 SC Anderson MYTV(165)

12/13/07 Tr
0216 WJXE-LP 15 FL Jacksonville TEST PATTERN-FRESH TV(216)

12/31/07 Tr
0077 WKTC-DT 39 SC Sumter MYTV(77)

All above are new loggings.
TV Totals = 335 (including 98 DTV)

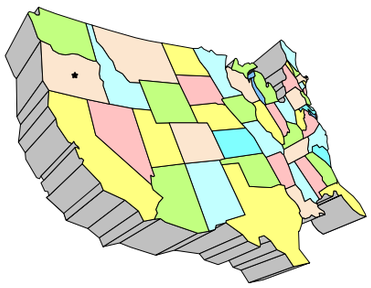
Steve Rich
Indianapolis, IN

Equipment:
RCA ATSC11 & Insignia NS-DXA1 Receivers
2-Triax Unix 100 UHF ant. horizontally stacked @ 30 ft. AGL
CM 7775 preamp

1/28 Tr
0922 WTVG-DT-19, Toledo, OH @ 186m. EN81 2pt.
0932 WCMH-DT-14, Columbus, OH @ 164m. EM89 2
0934 WOSU-DT-38, Columbus, OH @ 170m. EN80 2
1005 WKMR-DT-15, Morehead, KY @ 190m. EM88 2

2/14 Tr
0911 WLFG-DT-49, Grundy, VA @ 307m. EM86 2

WESTERN TV DX



DAVE WILLIAMS
3525 SW Timber Ave
REDMOND, OR 97756
beansdad@bendcable.com (541) 420-4704

Keep those contest reports coming! No Es here; just lots of unid'able Ms pings on channel 2. Thinking of grabbing a UHF antenna to try for some DTV tropo – the FM6 just doesn't cut it ☺.

Note to new submitters and all of our readers: no matter how you indicate a new logging, I standardize on **bold underline**. In addition, due to space constraints I remove headers from lists of loggings – hopefully it's clear to all that grid squares and points appearing at the end of loggings indicate the station's grid and the points being claimed by the contest submitter.

I am hoping to have some time this Summer to really DX. My shack is currently half-dismantled. But since this is the last year for analog, I better make some time!

73- Dave

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

This report is for January, 2008. Not much to report this time due to cold temps and unsettled conditions for the so-called Southern California coastal tropo between Santa Barbara and San Diego/Tijuana, up to 200 mi/320 km), except for one high point.

Jan 1-2	None (cold)
Jan 3	Variably poor (cold wx front approach) DTV Tropo! See below.
Jan 4-11	None (rain Jan 4-6)
Jan 12-16morn	Variably poor
Jan 16aft – 31	None (unsettled Jan 16-17 windy in region, Jan 22-28 rainy)

I noted tropo being variably poor at my place on January 3 with my indoor antennas. I have not so far seen DTV at my Santa Barbara place. However, DXer Don Voegele is in town, as he was before about a year ago. He has a Finco 5-Foot dish antenna at his Santa Barbara place. Last year, neither of us had the time or proper connecting wires to do much DX exploring, but this year is somewhat more favorable. On this date, we hooked up my DTV box (Radio Shack Accurian HTS-6000) to his TV and big antenna on this introductory evening and got these six stations (apx 2000 PST). All are new loggings:

KPMR-DT	21	Santa Barbara	Univision	15 mi
KEYT-DT	27	Santa Barbara	ABC	15 mi
KUSI-DT	18	San Diego	(CW?)	185 mi
KSWB-DT	19	San Diego	My	185 mi
KPBS-DT	30	San Diego	PBS	185 mi
KNSD-DT	40	San Diego	NBC	185 mi

This was our first DTV seen in Santa Barbara, and was our first taste of DTV tropo DX. Just in time, the tropo conditions deteriorated shortly after scanning, with the signals then seen for only about a minute, but usable data remained in the box's memory for good note-taking.

We didn't take time to change the antenna direction (no rotor); it was aimed NW at the DB transmitters, opposite that of San Diego (!), so we did well to get these. We will try again as Don plans to be here for about 2 months.

There was some Es Jan 27, chs 2-3, 1840-1915 PT, no IDs.

Re: Robert Grant, Temperance, MI (ETVDX Jan VUD) with his strong ch-55 digital snow looking stuff, possibly MediaFLO from Detroit, I also have the same strong ch-55 stuff in Santa Barbara, constant since at least November 2007. Doug Smith tells me that MediaFLO is DTV to cell phones, not the same as ATSC DTV, on freq of ch-55 over most of the USA.

Best of DX to all, Dennis

Dave Pomeroy
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Topeka, Kansas 66605-3505
davepomeroy@sbcglobal.net

December 17, 2007 Es

1600	WEDU-3	Tampa, FL	
1620	**CITO-3**	Timmins, ON	CTV
1630	**CBLT-7 6***	Timmins, ON	CBC

December 20, 2007 Tr

0600	KMTV-DT 45	Omaha, NE
	KETV-DT 20	Omaha, NE
0730	KMEG-14	Sioux City, IA
	KXVO-15	Omaha, NE
	KXVO-DT 38	Omaha, NE
	WOWT-DT 22	Omaha, NE
	KYNE-DT 17	Omaha, NE
	KHIN-DT 35	Red Oak, IA
0800	KDSM-DT 16	Des Moines, IA over KTAJ-16

December 28, 2007 Es

1300	WCBD-2	Charleston, SC
	WWAY-3	Wilmington, NC
1400	WBTV-3	Charlotte, NC
	WUNC-2	Columbia, NC
	WJBF-6	Wilmington, NC
1510	**WBRA--DT 3**	Roanoke, VA

January 26, 2008 Tr

0915	KSNF-16	Joplin-Pittsburg
	KFJX-14	Joplin-Pittsburg
	KHOG-29	Fayetteville, AR
	KHOG-DT 15	Fayetteville, AR
	KJRH-DT 56	Tulsa, OK
	KWHB-47	Tulsa, OK

January 27, 2008 Tr

0400	KHBS-40	Ft. Smith, AR

	KWOG-57	Springdale, AR
0700	KCEB-53	Tulsa, OK
	KJRH-DT 56	Tulsa, OK
	UNID-20	Spanish
0730	**KUTU-CA 25**	Tulsa, OK Spanish
	UNID-39	HSN
0830	KTPX-44	Okmulgee, OK
	(over WIBW-DT 44 which is 25 miles west)	
0900	UNID-52	ID looked like KFWB
	KRSU-35	Claremore, OK
	KHBS-40	Ft. Smith, AR
	KOED-DT 38	Tulsa, OK

The reception of WBRA-DT was very brief--probably five seconds at the most. I was monitoring channel 2 analog when audio came from the set hooked up to the RCA ATSC-11. I turned and saw video of an orchestra conductor. I then checked the PSIP which read out 15.1 WBRA-HD. It is DTV skip #2--the other being KVBC-DT 2.

KUTU-CA 25 was a surprise as I didn't even know it existed. There was local Oklahoma programming so I assumed channel 25 from Oklahoma City. However, I later saw a big "25" with Tulsa mentioned. Programming is in Spanish.

Danny Oglethorpe
P.O. Box 8025, Shreveport, LA 71148-8025
Grid Square EM32
E-mail: doglethorpe@yahoo.com

Analog TV DX Logs

January 2008 Central Time

26 Es

1510	XHLGT-2	Leon GTO	DL91 2
1525	XHAGU-2	Aguascalientes AGS	DL81 2
1530	XEWO-2	Guadalajara JAL	DL80 2
1940	WPBT-2	Miami FL	EL95 2

26 tr

1610	KPLC-7	Lake Charles LA	EM30 2
	KLFY-10	Lafayette LA	EM30 2
1845	KTEN-10	Ada OK	EM14 2

27 tr

0420	KHOU-11	Houston TX	EL29 2
1500	KLTL-18	Lake Charles LA	EM30 2
	KVHP-29	Lake Charles LA	EM30 2
1540	KLWB-50	New Iberia LA	EM40 2
1550	KVTH-26	Hot Springs AR	EM34 2
1555	KLRT-16	Little Rock AR	EM34 2
1620	WLMT-30	Memphis TN	EM55 2
1650	KASN-38	Pine Bluff AR	EM34 2
1745	KETH-14	Houston TX	EL29 2
	KTXH-20	Houston TX	EL29 2
	KLTJ-22	Galveston TX	EL29 2
	KRIV-26	Houston TX	EL29 2
	KCVH-LP-30	Houston TX	EL29 10
	KHCW-39	Houston TX	EL29 2
	KXLN-45	Rosenberg TX	EL29 2
	KTMD-47	Galveston TX	EL29 2
	KPXB-49	Conroe TX	EM20 2
	KNWS-51	Katy TX	EL29 2
	KTBU-55	Conroe TX	EM20 2
	KAZH-57	Baytown TX	EL29 2
	KZJL-61	Houston TX	EL29 2
	KFTH-67	Alvin TX	EL29 2
1930	KVEO-23	Brownsville TX	EL16 2
2100	KUVN-23	Garland TX	EM12 2
	KDFI-27	Dallas TX	EM12 2
	KXTX-39	Dallas TX	EM12 2
	KFWD-52	Ft Worth TX	EM12 2
	KDTX-58	Dallas TX	EM12 2
	KPXD-68	Arlington TX	EM12 2
2358	KMPX-29	Decatur TX	EM12 2

27 Es

1029	XEWO-2	Guadalajara JAL	DL80 2
1033	XHG-4	Guadalajara JAL	DL80 2

28 tr

0020	KPXL-26	Uvalde TX	EL09 2
0025	WMAV-18	Oxford MS	EM54 2
0035	WMAH-19	Biloxi MS	EM50 2
0038	WGBC-30	Meridian MS	EM52 2
0100	WMAW-14	Meridian MS	EM52 2
0115	KSTR-49	Irving TX	EM12 2
	KNAV-LP-22	DeSota TX	EM12 10
0800	KEMV-6	Mountainview AR	EM35 2
0810	WPXL-49	New Orleans LA	EL49 2
	WLPB-27	Baton Rouge LA	EM40 2
0930	KQCW-19	Muskogee OK	EM25 2
0940	KJRH-2	Tulsa OK	EM26 2
	KTUL-8	Tulsa OK	EM25 2
	KOED-11	Tulsa OK	EM26 2
0945	KOKI-23	Tulsa OK	EM26 2

February 2008 Central Time

1 Es

1840	XEWO-2	Guadalajara JAL

9 Es

1350	YSR-2	San Salvador ES
1400	XEWO-2	Guadalajara JAL
1910	KNAZ-2	Flagstaff AZ

Digital TV DX Logs

January 2008 Central Time

27 tr

1435	KPLC-DT-8	Lake Charles LA	EM30 2
1520	KTEN-DT-26	Ada OK	EM14 2
	KXII-DT-20	Sherman TX	EM14 2
1650	KLRT-DT-30	Little Rock AR	EM34 2
	KARK-DT-32	Little Rock AR	EM34 2
1745	KTXH-DT-19	Houston TX	EL29 2
	KRIV-DT-27	Houston TX	EL29 2
	KHOU-DT-31	Houston TX	EL29 2
	KPRC-DT-35	Houston TX	EL29 2
	KFTH-DT-36	Alvin TX	EL29 2
	KHCW-DT-38	Houston TX	EL29 2
	KAZH-DT-41	Baytown TX	EL29 2
	KTMD-DT-48	Galveston TX	EL29 2

28 tr

0135	KERA-DT-14	Dallas TX	EM12 2
	KTVT-DT-19	Ft Worth TX	EM12 2
	KMPX-DT-30	Decatur TX	EM12 2
	KDFW-DT-35	Dallas TX	EM12 2
	KXAS-DT-41	Ft Worth TX	EM12 2

Fritze H. Prentice, Jr.
3275 State Highway 114W
Star City, AR 71667
kc5kbv@yahoo.com

Equipment: WinTVGo NTSC Capture Card/DScaler v. 4.15 with Windows PC, RCA Colortrak 20" analog tv (circa 1989) Panasonic VCR, Panasonic DVD-R (DMR ES-10), Hisense ("US Digital") DB2010 HDTV/DTV Rcvr-STB.

Channel Master CM 4228 (UHF), 4 element VHF Log-periodic @ 25ft AGL using CM7777 preamp.

All times CST

January 8, 2008 Es

(Note on January 8, KETS-2 was off the air due to a power outage caused by a storm, *not* due to tower collapse later that week Jan11)

1411	**WJBK-2**	Detroit MI	EN82 2
1436	**WBBM-2**	Chicago IL	EN61 2*
1439	**CJOH-6**	Deseronto ON	FN14 2
1539	**WBAY-2**	Green Bay WI	EN54 2
1652	**CKPR-2**	Thunder Bay ON	EN58 2

*: WBBM-2 was mistakenly logged as "WCBS" that day but based upon propagation at that time and reviewing the Logo gallery, and Titan TV data for WBBM and the fact that WBAY was fighting amongst WBBM an hour later with "Dr Phil" I consider WBBM-2 the station logged that afternoon with "Judge Judy" in the 1500hr timeslot.

Unids:

1239	unid-2	NBC Days of Our Lives

(had to disconnect for storm for one hour and resumed logging after storm passed area)

1449	unid-6	CBS Guiding Light (?)
1454	unid-2	CTV (either CHBX or CKCO)

January 10, 2008 (tropo)

0100	KOLR-10	Springfield MO	EM37 2
	(over gradeB-local KTVE-10)		
	KSPR-33	Springfield MO	EM37 2
0101	KWBM-31	Harrison AR	EM36 2
0118	KSFX-37	Springfield MO	EM37 2
	(over gradeB-local DTV KTVE-DT 27)		
0120	KOLR-DT 52	Springfield MO	EM37 2
	KSFX-DT 28	Springfield MO	EM37 2
	KYTV-DT 44	Springfield MO	EM37 2

(over weak, but closer Little Rock DTV KWBF-DT 44)

0125	KEMV-6	Mountain View AR	EM36 2
	(strong, near local quality)		
0130	KFSM-DT 18	Fort Smith AR	EM25 2
0135	KAFT-13	Fayetteville AR	EM25 2
	(strong, local quality)		
0138	KAFT-DT 9	Fayetteville AR	EM25 2

January 11, 2008 (tropo scatter and local listings)

0620	KARD-14	West Monroe LA	EM32 2
0628	KATV-DT 22	Little Rock AR	EM34 2#
	(last known viewing of local KATV-DT pre-tower collapse)		
0630	**KARD-DT 36**	West Monroe LA	EM32 2
0631	KNOE-8	Monroe LA	EM32 2
0636	KATV-7	Little Rock AR	EM34 2#

(last known viewing of local KATV pre-tower collapse)

0637	KETS-2	Little Rock AR	EM34 2#

(last known viewing of local KETS-2 pre-tower collapse)

#1245 KATV tower collapses--takes out KETS-2, KATV-7, and KATV-DT 22---KATV-7 restored on Jan21 on low power @ Shinall Mtn in Little Rock

January 12, 2008 (tropo scatter)

0602	**WMAB-2**	MS State (Starkville)	EM53 2
0614	WLBT-3	Jackson MS	EM42 2
0616	WUFX-35	Vicksburg MS	EM42 2

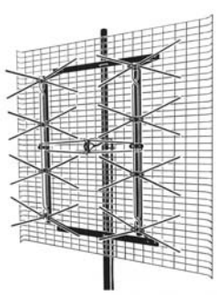
Magnavox Set Top Review Continues from Page 25

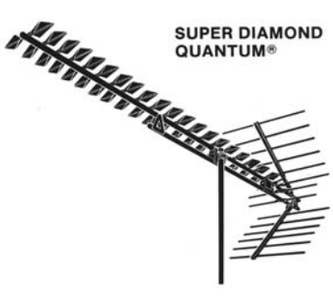
I found one channel that would not remap (ch46).

This box is small. It's roughly 6" by 10" and perhaps 1.5" tall. It's just a tad larger than a copy of the VHF-UHF Digest, the official WTFDA club publication.

I also give this box a thumb up. You cannot go wrong with the price of $49.87 at Walmart. I can only fault it in two areas. The many advantages outweigh the few disadvantages. The Magnavox holds the signal much better than the Accurian and local channels don't drop out as the antenna is rotated. The unit is very user-friendly.

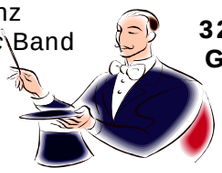
My equipment used is a Channel Master 8 bay at 25 feet. I also use a Kitazamp for UHF with RG6 cable.





6 Meter/2 Meter Amateur DX

50 Mhz
The *Magic* Band



Peter Baskind, N4LI
3225 Forest Hill-Irene Rd
Germantown, TN 38138
N4LI@ARRL.net

"Getting on 6 meters on the Cheap"

or

"Building a 6 Meter Station Without Making the Wife Mad"

We are getting closer to Sporadic-E season. In a year, or so, analog TV will be gone, making Summer E a bit boring. So, I thought, some may be thinking about how they might be able to get a starter 6 meter station on the air, to give themselves something to do when KNOP and WESH are gone.

Certainly, getting a Technician Class license isn't hard. It's something most any member of this Club can tackle with little effort. So, the big question for the putative VHF ham is buying and installing an RF plant. But, station building can be difficult. There are countless options to consider, and money might be tight. So, this article will be about getting on the air, *without breaking the bank*, or really ticking off the spouse.

A typical ham station – really for any band – requires a few basic elements: a power supply, a radio, feedline, and an antenna. Everything is simply a variant on this same theme. So, let's consider each part in turn, with an eye on household budgets:

Power Supplies.

Practically all amateur radios require 13.8 Volts DC. That's the same as in your car, when the alternator is powering the vehicle. There are numerous ways to manufacture DC for your station – including using a car battery (which does raise some safety concerns). But, most hams opt for a desktop power supply.

Switching power supplies are now quite affordable, as well as being light and easy to work with. The size you would need is a function of the radio you operate. The typical 100 Watt radio requires at least a 25 amp supply. I strongly recommend getting a good, robust supply -- one with headroom. Even if your radio requires less, I still recommend at least a 25 amp supply; it allows the power supply to loaf, and will still be useful if you upgrade to a bigger radio later. My experience is that power supplies are power supplies; they either work, or they don't. Even the MFJ brand boxes seem fine. A 25 amp supply from the Mississippi-based manufacturer will run $150, or so. But, power supplies are available and often affordable on the used market. Expect to pay $100, or so, for a good used supply, if you go that route. Oddly, you'll find the supply may be the toughest part to do on the cheap.

My recommendations notwithstanding, there are lower-capacity, cheaper power supplies are out there. I once bought a 4 amp supply on sale at Radio

Shack. I didn't need it, but thought it might come in handy for running my low-power radios. I think I paid ~$30, or so. I also have a 10 amp Astron I bought to power a 50 Watt 2 meter radio. It was about $80 new, and worked great. So, look around.

Radios.

The choices here are almost endless. There are single-band, multi-band, and multi-mode issues to consider. But, again, the focus of this offering is getting on the air affordably. So, I will explore the entry-level choices. The sky is the limit if money is not an option.

Good Choice – the MFJ 9406.

Perhaps the most basic radio for 6 meter ham work is the MFJ 9406, a 50 MHz-only, upper sideband transceiver. The 9406 has an output power of 10 Watts – which actually works quite well – and is good 'ole fashioned analog from end to end. Absent are the swanky digital displays of higher-end radios, and complex signal processing. The 9406 has very basic controls: a power on button, a broad tuning knob, a finer tuning knob, a volume control, and a transmit button on the microphone. The 9406 does not cover the entire 6 meter band, just the popular single sideband portion. That's fine; the lower part of 6 meters is where the real action is.

I find the simplicity of this radio refreshing. It is super-easy to use, is small and very light, and only draws a few amps of DC power, allowing a multitude of powering options. But, for such a small package, it works well. I have gotten great audio reports from mine; the 10 Watts has made it Coast-to-Coast, and the speaker is loud and easy to hear. It's a fine radio – surprisingly.

9406s are available on the used market. The sticker price of a new unit is high, but, one can find them lightly used for $100, or so. And, they are worth every penny. It's an excellent starting point.

Better Choice – the Ranger 5054.

At 25 Watts, and all modes, the Ranger 5054 is a step up from the MFJ radio. While the 5054 has sort-of a cheap look and feel (to my hand, anyway), it is a competent transceiver for the 6 meter newbie.

This radio is more modern than the 9406. It has digital tuning, so it doesn't drift, it has presets, and some other mode-advanced features. Being all-mode, it allows access to 6 meter FM, which can be fun when the band is really hopping.

I have my complaints with this radio. The tuning has an odd feel, the "roger-beep" option is just cheesy, and I would rather have one tuning knob than a course and fine knob. But, the radio is adequate and makes a good entry-level option.

Prices may be slightly higher for the 5054 than the MFJ 9406. Expect to find one used for $125, and up. New, they are far more expensive than they are worth. Buy one that has been "pre-loved."

Best Choice – a multi-band radio

There are several fine multi-band, multi-mode radios out there. And, they are easy to find on the used market.

For those watching pennies, radios like the Icom 706 Mk IIG are an excellent choice. It's the full 100 Watts on 6m, all mode, and has access to all HF bands, including 10 meters (which is accessible to Technician Class hams). The 706 even can also operate all-mode on 2 meters, and 70 cm (UHF) at 50 and 20 Watts, respectively. Prices can vary for this radio on eBay, QRZ, and similar sites. If you can find one for $400, jump on it.

Beyond the 706, similar choices might include the now-discontinued Yaesu FT100D (not my favorite radio, but they are available for good prices), the Yaesu 857/897, or even the Icom 703+, a 10-watt version of the 706 (though, interestingly, the 703s tend to run more on the used market than the 706). Look around; you may find something very nice, affordably.

Feedline

Obviously, you need to connect your radio to an antenna. That is done with coaxial cable. Coax is not something you will buy used; always buy new. For 6 meters, I wouldn't recommend anything lesser than RG213, a thick, beefy coax. Despite needing new cabling here, this shouldn't break your bank. Good RG213, with connectors installed on both ends (which saves time, if you don't want to install them yourself) will run about $50 for a 50' run. If you install the connectors yourself, you can save a few bucks. You might be able to slide with cheaper coax, like RG8X, but, feedline is not really the place to cut costs.

Coax is available from several on-line retailers. Start there. Above all – *do not* buy coax at Radio Shack. Just don't. Trust me on this.

Antennas

The best radio in the world is useless without an antenna. More is better. Always. But, again, this is about piecing together a starter station with few bucks. So, here are the beginner's choices.

Good Choice – the Dipole.

The dipole is the simplest antenna. It is just two poles (hence, the name) connected to feedline. They are simple to make, and almost free. Materials will run just a few dollars.

A dipole cut to 50.125 MHz, the 6 meter call frequency, would be ~ 9.34 feet (112 inches) long; that's 56 inches for each leg. You can measure carefully, make the dipole, and probably get it right. But, on VHF, these measurements tend to be critical. I find it easier to use an antenna analyzer (you can borrow one), make it a bit long, and trim to resonance.

Materials are few, and easy to find. I use #12 standed, insulated. An SO239 connector is handy, as you can connect the coax connector directly to it. Such a connector is just a few dollars (and can be found at Radio Shack). For VHF dipoles, I tend to strap to PVC pipe – it keeps everything rigid, takes strain off the SO239, and makes installation easy in multiple venues. The picture above is of a 2 meter version I made; it works great and cost about $5 to make including the optional PVC.

Dipoles tend to be a bit directional, favoring the two directions broadside to the antenna. They can be mounted vertically, but, at nearly 10 feet long, it's cumbersome, especially since the feedline must come off the antenna at a 90 degree angle.

Better Choice – a Halo.

A halo (also sometimes called a “squalo”) is essentially a dipole turned into a nearly square shape. They don’t have more gain than a dipole, but they are omnidirectional, take up little space, can be hidden from neighbors, and are just easy to work with.

Many people make projects out of making halos, and plans are all over the Internet. But, they require a bit more skill than knocking out a simple dipole. Some rudimentary knowledge of working with copper pipe comes in handy, and, again, measurements are critical. I bought one, which I keep as a back-up, crudely installed on a piece of PVC in my attic.

There are a handful of suppliers for halos. Among them are California-based M-Squared (M2). Surely, it’s a fine antenna, but it’s not cheap. Another great supplier is KU4AB, a ham in Tennessee who has made quite the cottage industry out of churning out hundreds of these things. I know Phil, KU4AB, and can tell you his antennas are well-made, and spec out well. The 6m halo is $71 from Phil – cheaper if you can catch him at one of the many hamfests he attends. You may also consider picking up the 2 meter version, if you have a radio that will handle 2m SSB. Being much smaller, KU4AB only changes $32 for that antenna.

Best Choice – a Small Beam.

A three-element beam for 6m is a huge step forward from an omni. As well as cleaning out some interference, a beam give you a good 6 dB gain – a big plus if you’re running lower power.

A three-element by Cushcraft, or even M2, can usually be found on eBay, or similar sites. Depending upon condition, they should be available for well under $100 (I have one that was given to me). And, since they are small – rarely more than 6 feet long – they are easy to work with, and fit most anywhere. Plus, they can easily be rotated with a cheap TV-type rotator.

Using just 5 Watts and my soon-to-be-replaced 3-element Cushcraft, I have worked all over the USA, and several countries in North America. With more power, I have worked the world. Such an antenna is a great start.

As the old saying goes, there is more than one way to skin a cat (though, I suspect the cats hate all of ‘em). You may find more and better ways to get on the air. But, that what it’s all about – *getting on the air*. Any signal is better than no signal. Give it a try. Certainly for a few hundred dollars, an adequate station can be built. Then, the fun can begin.

Bring on the sporadic-E!

* * *

The silence continues to deafen. There have been a few scattered sporadic-E openings, including one during our Super Tuesday bout of tornados here in Memphis, but pickings sure have been slim. Such is life on the VHF bands, of course.

Here in the middle of the Country, there was a brief tropo opening into Texas January 28th. While I worked nothing new – in terms of grids or geographic divisions – it was a fun opening. After seeing analog TV from Houston – just shy of 500 miles – I flipped on 2 meter SSB, and found numerous signals. Stations were loud from as far away as Austin, TX (a little short of 600 miles). The opening died quickly after breakfast, but it did remind one that the band still will open from time to time.

A few random notes:

I am planning a trip to London for Spring Break with the kids. Despite my wife's protests, I intend to take a handheld radio, or something, with me. In double-checking licensure requirements for operation there, I did learn that there have been some minor changes that are worth mentioning.

The United States, and almost all European countries (extending to their Caribbean islands possessions like Martinique, Bonaire, etc.), are signatories to CEPT, a treaty regime that allows amateur operators to use radios in participating countries, simply by adding the local prefix to the operator's call (*i.e.*, I would be G3/N4LI in London). Until recently, almost all US operators could transmit abroad with wide privileges. Now, that has changed, as General and Technician Class hams get only very limited access under the changed plan. Only Amateur Extra and Advanced Class hams get full privileges in European CEPT countries. This gives Techs and Generals new incentive to upgrade, particularly if they plan to travel.

Several months ago, I mentioned a drafting error in the new Amateur Service rules. Prior to the new Rules, Technician Class hams were allowed full legal limit (1500 W) on all bands from 6 meters up, but were limited to 200W on HF. When the new Rules were published, that's not how power limits read. The FCC unfortunately limited Technician Class operators to 200 Watts on *all bands*. *See* 47 CFR §97.313(c)(2). Obviously, they had intended to limit power on HF (below 30 MHz) to 200 W, and allow full legal limit above 50 MHz, but, someone was sloppy. 'Word was to expect a quick change to return the Rules to as they had been intended. As I type, however, 97.313 is unchanged. So, as we head into the Summer sporadic-E season, Technician Class operators will need to keep the amplifier loafing, or upgrade to General or Extra. Again, another incentive to take Element 3.

The radio aboard the International Space Station ("ISS") is active again, after a long absence. The crew has its Kenwood D-700 in crossband mode, which can be a lot of fun. You can hear the ISS output on 145.800 FM when it makes a pass. Input, if you would like to try to get in, is 437.800 MHz. Remember, those frequencies may be Doppler shifted, with the UHF frequency being the more critical.

ISS tends to be pretty popular in crossband, so there will likely be a crowd. But, it's fun to try, and even more fun to hear yourself being repeated through ISS. A few local hams here in Memphis have been successful in making contacts over the past couple of weeks.

Looking ahead to the Summer sporadic-E season, we already have word of two useful DXpeditions that are planned. Sable Island, a windswept, forgotten spot off Nova Scotia, is expected to be active June 25-July 5, right at the height of the season. Sable is a DXCC entity, and is very rare, indeed. The group, operating under special calls, CYØX and CYØRA, will be made up of some excellent operators, and will be well-equipped. 6 meter enthusiast, K7BV, is planning a trip to San Andres (HKØ, a Caribbean island and DXCC entity near Colombia. Also near Summer peak, that station should be active June 19-July 6. I need both of these entities, so I am very much looking forward.

Loggings

Eric Bueneman (NØUIH), 631 Coachway Lane, Hazelwood, MO 63042-1347 EM48

The six-meter band was wide open during the month of June; it was especially so on June 25-28. I also took part in the June VHF Sweepstakes on June 9-11 (local time), operating on both 2 and 6 meters. All are in SSB mode except where indicated. All times UTC.

June 10, 2007 (2 m trop)

1942 ABØRX EM47
2249 K9NS EN52

June 10, 2007 (6 m trop)

1943 ABØRX EM47
2250 K9NS EN52

June 10, 2007 (6 m E-skip)

1847 NØEO EN37
1849 KBØQS EN47
1951 W2SZ FN32

June 11, 2007 (6 m E-skip)

0133 KO4MA EL88
0143 K4SN EL96
0145 W4HY EL88
0148 K4EPS EL86
0152 W2BZY EL98
0158 K3IPM EL96
0204 AH8M/4 EL95
0211 N5BO EM60
0220 WD4MGB EL87
0257 WJØF DM45

June 16, 2007 (6 m E-skip)

1725 N4BP EL96
2148 W4PBU EL88
2332 K3FM EM50
2335 W4SO EL96
2345 W2GGI EL96
2352 KG4RWO EL96
2353 KG4FET EM90

June 17, 2007 (6 m E-skip)

0002 N3LL EL96
0015 WA4GCH EL87
0018 K4ADR EL96
0023 W6BXQ EL96
0028 V26HS FK97
0038 W4EMB EL95
0055 KE2GD EL89
0056 NSØI EL96
0147 K7ICW DM62
0150 WA7NB DM42
0204 K5HCT DM80

June 18, 2007 (6 m E-skip)

0049 WB2FKO DM65
0058 W5WVO DM65

June 22, 2007 (6 m E-skip)

1918 K1AF FM03

June 25, 2007 (6 m E-skip)

0202 NQ7R DM42
0206 WB6ZEJ DM54
0217 N7CW DM34
0244 W5ZF DM65
2356 W1OW FN42

June 26, 2007 (6 m E-skip)

0005 KB2AHZ FM06
0019 VY2SS FN76

0022 VO1NO/VE3 FN24
0034 KI4KEN FM06
0035 K3KYR/2 FN24
0038 W4TLM FM07
0041 K4AZV FM07
0055 W1AIM FN34
0108 AI1C FN34
0115 AA1YB FN54
0116 W4DR FM17
0119 VE3TYQ FN03
0120 VE3OIL EN93
0122 VE3OYU FN03
0125 KB1JDT FN34
0127 VO1TJM GN08
0138 VE2CPD FN45
0142 W4TAA/VE3 FN15
0225 KW1AM FN41
0233 K1DG FN42
0245 K2DBK FN21
0335 KA3VFW FN00
0354 KB1NXJ FN42
0355 K3HPA FN10
0356 KC2OUV FM29
0357 N3CHX FN20
0400 WB3FTQ FM19
0401 KC2JZK FN12
0402 KE4LBQ FN21
0403 KA1R FN42
0404 K8BL EN91
0405 W8RCY EN91
0405 W1ATV FN31
0417 WA2IIE FN20
2218 K6AER DM79
2248 WØTUP DN98
2252 KF6T CM98
2327 WX7M DM08
2337 N6RZR CN80
2338 N6JV CM98
2343 K6EU CM86
2344 N6ORB CM87
2349 KW6N DM06
2352 K6ALE CM99

June 27, 2007 (6 m E-skip)

0053 K7YO CN85
0054 KCØGKF DN84
0057 WØRIC DM79
0139 K7WIA CN87
0230 NT6K CN91

June 28, 2007 (6 m E-skip)

0017 6I2YWB DL82
0019 XE2WWW EL06
0231 KØDU DM58

June 29, 2007 (6 m E-skip)

0045 VE2PIJ FN35

June 30, 2007 (6 m E-skip)

0035 WØJLC EL94
0050 N4RFN EL87
0111 K5WBX EM41
1932 NQ7G DM35
1939 W7MHW DM34
1941 VE7DAN CO70
1945 W6TJU DM79
1948 WØRPX DM69
2242 K2LZQ FN20
2316 KC2R FN23
2321 KI2L FN32
2327 K3KYR FN24 (AM)
2336 N1FOJ FN43
2343 N1RR FN41
2344 W1TR FN31
2346 K1OQ FN41
2347 VE9OM FN65
2348 K1JEK FN43
2352 VA2RIO FN46

July 1, 2007 (6 m E-skip)

0018 VA2RC FN47
0032 W3HHN FN33
0037 K1GUN FN53
0041 KA2LIM FN12
0047 KB3WL FN02
0106 W2VDI FN32 (AM)
0108 W1ZB FN42 (AM)
0110 W1TNT FN43 (AM)
0113 K1BF FN43 (AM)
0125 WA2VQW FN31
0127 N2GDU FN02
0140 WZ1V FN31
0143 VA3TO FN03
0145 VE3RKS EN93
0147 VE3WWR FN03
0149 VA3RMW FN03

July 13, 2007 (6 m E-skip)

2305 N4CP FM16
2307 K2EK/4 EL88
2307 N3MIR FM19
2310 NG4C FM16

July 21, 2007 (6 m E-skip)

2343 KA1LMR FN43
2344 K1EM FN31
2346 KA2CYN FN31
2347 KT1J FN34
2352 W1XX FN41
2353 KB1JCL FN43

July 22, 2007 (6 m E-skip)

0220 K1TOL FN44
0232 K1WHS FN43
0236 KB7EEG DN41
0242 K5ZD FN42

July 29, 2007 (6 m E-skip)

1738 WA7YAZ DN40
2111 KF4DRU EL84

August 9, 2007 (6 m E-skip)

0150 N4PJ EL98
0151 N4WO EL88

September 8, 2007 (6 m trop)
September VHF QSO Party

1810 NØURW EN41
2104 KB8PXV EM48
2105 WD5FXM EM48

September 8, 2007 (6 m E-skip)
September VHF QSO Party

2029 KA5WZY EL18
2045 W5LCC DM93
2049 AB5GU EL29
2116 K5GZR EM20
2141 WA5KBH EM30
2156 W5PR EL29

September 9, 2007 (6 m E-skip)
September VHF QSO Party

0033 KC5NOA EL08
0037 K5LLL EM10

September 9, 2007 (6 m trop)
September VHF QSO Party

1515 AA9MY EN50
2345 W6P EM48

September 9, 2007 (2 m trop)
September VHF QSO Party

1514 AA9MY EN50
2300 AG4V EM55
2346 W6P EM48

September 10, 2007 (2 m trop)
September VHF QSO Party

0247 K9CT EN50

November 25, 2007 (2 m trop)

0059 K4QH EM66

December 16, 2007 (6 m E-skip)

0045 N3JPU FM19
0119 W4RKR FM07
0122 K4TRT EM97

While the E-skip season was rather lackluster on FM and TV, it was a great season on 6 meters for my first summer on the band. I was able to work over 100 grid squares during the summer; not bad for being at the bottom of the sunspot cycle! I also won another contest award; I was the top 6 Meter operator in the Single Operator Low Power category for the Missouri Section of the ARRL in the January VHF Sweepstakes. This was helped by a brief E-skip opening into Texas. This is my second award in as many years from the January VHF Sweepstakes; I was the top 2 Meter operator in the Single Operator High Power category for the Missouri section in the 2006 contest. I hope 2008 will bring more contacts on 6 meters and 2 meters.

TV News Continues From Page 7

station K47DF has lost the Fox affiliation.

WSWG-44 in Georgia has been off since January 30, 2007 due to an expensive failure at their analog transmitter. (DTV channel 43 remains in operation) The station told the FCC it would cost $180,000 to repair the problem, and they felt it just wouldn't be worth the effort with only a year to go before the analog shutdown.

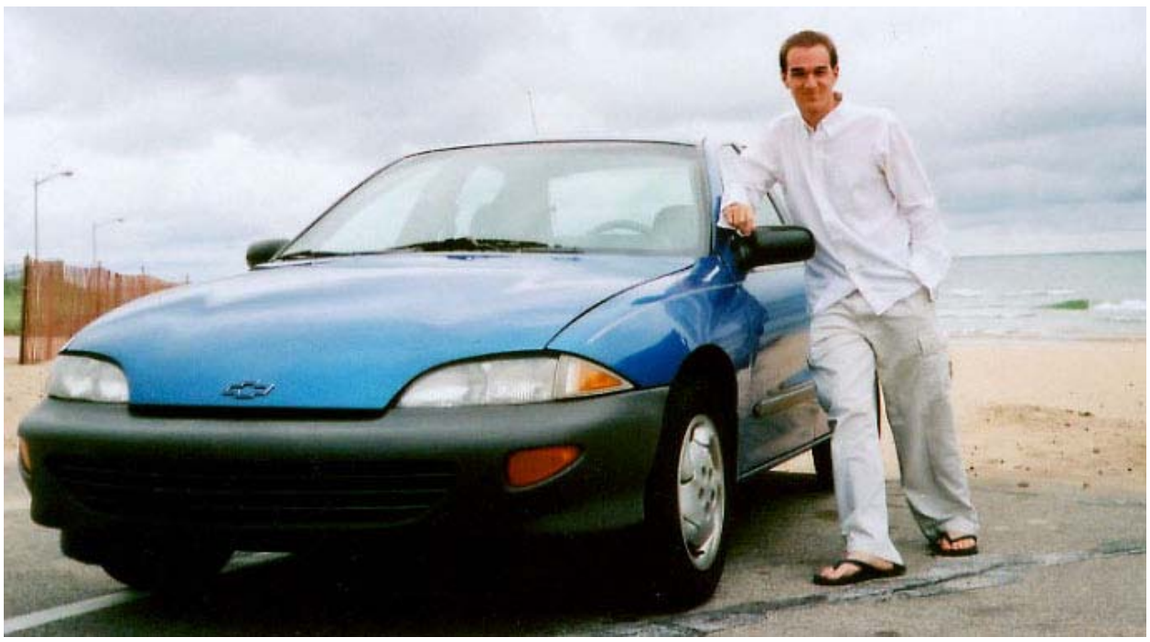
They also told the Commission WSWG is essentially a satellite of WCTV-6 Thomasville – and that the entire WSWG coverage area is encompassed by the WCTV coverage area. All the analog OTA viewers who've lost CBS service from WSWG can still receive it from WCTV.
The FCC has granted the station permission to leave its analog signal off the air, surrendering the analog license for cancellation.

In Chicago, WWME-LP's successful “Me TV” classic TV format is expanding to a second channel. Weigel's WFBT-LP 48 is dropping the ethnic programs for more classic TV as “Me 2”, WMEU-CA. The station was very briefly WTUU-CA.

Well, we're now under a year until the analog shutdow

Studies of cross-lake tropo reception in varying conditions

Chris Kadlec, WTFDA member, August 2007



Chris Kadlec stands beside his car at Pere Marquette Beach in Muskegon, Michigan in the summer of 2005. The car, a 1995 Chevy Cavalier, is the backbone of his lake inversion studies and home to his one and only radio, a factory-installed Delco, which has logged stations while travelling across the country for more than six years.

Chris Kadlec began studying the effects of tropospheric lake inversion on FM radio reception in West Michigan in 2002 after noticing some peculiar and abnormal patterns. Over the months and years, the locations changed and the FM dial has changed – formats, call letters, and even tower locations – but the patterns always remained peculiar. Following in the footsteps of Sheldon Remington, who is known for receiving mainland stations from the sides of Hawaiian volcanoes via tropospheric ducts, Kadlec asks the question "how?" – how do these stations end up where they do?

Unlike many DXers – hobbyists who attempt to "catch" distant communication signals through atmospheric abnormalities – Kadlec has kept complete logs of all non-local stations received. Many in the hobby have little use for such a log. As stations over the years are received on a number of days, the thrill of the hobby becomes greatly diminished by logging the same stations over and over each day. Instead, many will log a station once when it is first received. Loggings after that count as "relogs," the term given to a station already received and thus no longer needed in the log.

DXing is a hobby. Studying reception patterns of stations via tropospheric conditions is a science. As many meteorologists and communication engineers would say, a rather impossible science. Signals cannot be traced with the eye. A distant signal that arrives at one point may have been affected by three different atmospheric abnormalities along its path. Which ones and where they occurred are often impossible to determine. So why bother? Kadlec, 25, has continued logging the same stations each and every day in search of an answer. Receiving the stations is not the thrill. Determining how they reach their final destination is the target and the quest to understand the patterns is the thrill.

The study area

The lake inversion study was conducted in West Michigan's central coastal region consisting of the cities of Grand Haven, Muskegon, Fremont, and Hart. Logs were compiled over four years in multiple locations spanning from 25 miles inland to the sand dunes that line the Lake Michigan shore. The main study location of the summer of 2006 was Grand Haven, a beachside tourist town of about 13,000 directly across the lake from Milwaukee. Locations included in the Grand Haven study ranged from parallel parking beside the beach bordered by a tall residentially-developed forested bluff to the top of a bluff used to monitor duct elevations and heights. Northern stations were logged at the Silver Lake sand dunes near Mears and at Little Sable Point, across from Sheboygan, Wisconsin. The study area was split into four different regions to assist in understanding reception patterns.

Lake Michigan, the world's fifth largest lake and the only one of the five Great Lakes entirely in the United States, was the focus of the study. Lake Michigan is 118 miles (190 kilometers) wide at its widest point and 307 miles (494 kilometers) long. The lake off the coast near Frankfort, Michigan is 923 feet deep, its deepest point, and averages 279 feet deep. Its height above sea level is currently 577 feet, the same as neighbouring Lake Huron, and fluctuates over time. Fremont, although inland, is exactly halfway between the bottom tip of the lake and the northern tip of the Door Peninsula, the extent of most

reception originating from major markets. The 127 miles of water in each direction provides an ideal ground for measuring the strength of signals from the north and south at any given time, often between the Chicago and Green Bay markets. This is a valuable indicator of lake conditions. The northern and southern beach sites, 44 miles apart, are both an equal 107 miles from the markets they target – Grand Haven for the study of Chicago signals and Silver Lake for the study of Green Bay signals. Both these beach locations are an equal 32 miles from the home site of Fremont.

Patterns in reception and lake-level ducts

Over a period of four years, one would hopefully be able to notice patterns in reception. A set of distant stations may appear suddenly over a hill and be heard like locals for the next fifty miles. Another set of stations may come in only on rainy days. Maybe only on a clear sunny day, but that's not to be unexpected. All these stations have one thing in common: Lake Michigan. Conditions over the lake on any given day can assist stations in travelling over 200 miles. On days with long-haul tropospheric ducting (Iowa, Minnesota, and western Wisconsin are most common in this area), any station that reaches the western edge of Lake Michigan via this mode can effectively travel the additional 90 miles across the lake by travelling through a lake-level duct that is so often existing just atop the water's surface. The stations can be received often along the beach with little loss of quality. Stronger openings may produce ducts at different levels that can be received on the beach and atop the dunes or only at a higher level.

In short, there is no easy way to predict conditions. On the clearest sunny summer day, you may turn on your radio and realize things are just rather silent. More often than not though, you will hear something if you know where to look and what to listen for. The best conditions for any activity are <u>always</u> high pressure systems. You may get a spectacular opening during any other given time, but if you're searching for some good catches, wait for a high pressure system with clear skies. It has been noticed during long-haul tropo events that the expected cross-lake stations often disappear from the dial as stations from more distant locales begin to be heard. The dial becomes eerily silent at a time when dozens of stations would typically be heard loud and clear from Wisconsin and Illinois. The phenomenon appears to be an effect of the upper-level ducts that force lake inversion ducts closer to the lake surface, thus squashing the expected stations. When entering such a duct from a higher or lower elevation, lake inversion reception gradually fades out, the dial becomes silent aside from local stations, and slowly long-distance tropo stations appear.

Know the terrain around you. The most dominant factor in reception in West Michigan is always going to be terrain. A select area of this region surrounding the Muskegon River and Grand River (and everything between) includes a terrain ideal for distant reception assisted by the lake. In this area, there is an absence of the rolling hills – called moraines – so typical to the Midwest glacial environment. Although they may be small, moraines can easily wipe out cross-lake signals. Most signals from Wisconsin, Illinois, and the Upper Peninsula of Michigan are certainly distant. They will hover close to the ground until they hit unfavourable terrain that the signals will then bounce off of back into space. With the absence of moraines in this area, stations that ride the lake ducts at different elevations can easily cross the water and bump into land as it rises where they are then heard by a listener.

Rising elevation and its effect on stations

As with any gradually-rising terrain beside a large body of water, ducts forming over water at select elevations can make reception areas impossible to judge. Lake Michigan's surface generally sits at an elevation of approximately 580 feet above sea level. From the beach, which in some locations is lined with tall sand dunes of up to 150 or more feet thus blocking reception inland, land elevation gradually increases to around 850-900 feet without significant moraines. A duct 250 feet over Lake Michigan, whatever its vertical reach may be from top to bottom, will likely produce an ideal opening around 750 feet on land. In many cases, this is approximately 20-25 miles inland depending on surrounding terrain such as a river valley or lake. As is normal, due to the curvature of the Earth, distant signals gradually extend into space until they collide with atmospheric conditions that send them back toward Earth. The Earth's curvature can help extend signals on occasion given the proper conditions. A duct 250 feet above the lake surface will not be heard as effectively at 830 feet as you might imagine (that is, 250 feet above the level of the lake on land). Signals that lose no elevation over water while they are trapped in a duct will almost surely lose elevation, often faster than normal, once over land. The velocity of signal loss over land depends ultimately on the original strength of the signal both over water and at the beach.

The varying height and elevation of ducts over water

Meteorological conditions are often predictable. The possible presence of tropospheric ducts is almost equally predictable, most commonly predicted for DX hobbyists by William Hepburn, a Southern Ontario meteorologist who developed the widely-used Hepburn Tropo Index. The Hepburn Index cannot predict the exact locations of a duct. It cannot predict accurately if there will indeed be a duct at any given time. It simply predicts the locations of atmospheric conditions that are <u>ideal</u> for the production of tropospheric bending. Despite the often accurate nature of the produced maps, since conditions vary greatly over water as compared to land, the Hepburn Index is not so accurate for forecasting conditions over the Great Lakes during the warmer months of the year. Hepburn agrees, stating that "the Tropo Index was

primarily designed to catch the longest distance ducts involving higher level inversions and won't catch these shallow lake inversions very well, if at all." The index does not take into account the constantly-varying water temperatures of Lake Michigan which can assist in producing ducts.

The difference in water temperature and air temperature can produce fog banks that refract signals or trap signals and send them shooting out unpredictably. The temperature difference can also create ducts themselves, either multiple ducts or one large duct that may span a height of several hundred feet over the water. The vertical height of ducts over the water will often determine how far inland stations will be heard. Understanding the height and locations of ducts is essential to coastal DXing.

A duct with a vertical height of 50 feet will, in most cases, produce signals only within a few miles of Lake Michigan barring any unforeseen coastal conditions such as fog. A signal – whether radio, television, or even cellphone – does not typically travel straight across the lake in a duct. Since signals by nature refract off surfaces either toward the ground or into space, a signal caught in a duct will in most cases bounce between the top and the bottom of the duct endlessly until there is an opening in the duct. An opening may exist in the middle of the lake if conditions change and the signal will drop from the duct and hover across the water at a straight 90-degree angle, an exception to the general rule. Whether stations indeed travel a straight line parallel to the water in this fashion or get caught in a commonly-existing low-level duct with a short vertical height atop the lake surface is unknown. In either case, the signal often falls onto and remains within 50 feet of the surface of the lake. This phenomenon can easily be referred to as the "net effect".

On many summer days, Lake Michigan produces large ducts several hundred feet high and sometimes in excess of a hundred miles wide. Such a duct that spans the lake and is several hundred feet from the lake surface to the top of the duct creates spectacular DX conditions. Stations from cross-lake markets such as Chicago, Milwaukee, Green Bay, and Madison will reach the shores of Michigan with the quality of a local station. Stations from specific distances will bounce between the top and bottom of the duct in such a fashion that they refract off the top of the duct hundreds of feet in the air and can be heard with local quality up to 40 miles inland with their only assistance being Lake Michigan. Ducts that are stable during the afternoon and evening hours and do not change in height nor form can assist certain stations in travelling the exact same route throughout the day. DXers will hear these stations far inland but not on the beach.

The net effect

The net effect is best experienced during long-haul tropo, that is, when conditions over land and not just over water cause stations to exceed their normal coverage area sometimes by several hundred miles. An opening between Des Moines and Milwaukee, not too uncommon, can easily be extended to Muskegon and Grand Haven (but rarely further). Stations that hit the ground in Milwaukee or Chicago ride the lake's surface unaffected an additional 60-150+ miles across the water to be received on the beach. Whether a similar effect can be used to extend E-Skip, which originates from upper-atmosphere conditions several hundred miles further away, remains unknown.

The net effect can also be seen along coastal locations on the Atlantic Ocean. Cape Cod, Cape May, the Outer Banks, and the south shore of Nova Scotia are ideal places to experience this effect. Reception on both the FM and TV bands is commonly reported by Cape Cod DXer Roy Barstow as originating from Nova Scotia, Maryland, Virginia, and often the Outer Banks of North Carolina, nearly 500 miles away. Florida stations over a thousand miles away have even been reported here during tropospheric ducting over the ocean. On Cape May on the southern tip of New Jersey, DXer Michael Temme-Soifer reports receiving television stations from western North Carolina with only rabbit ears during otherwise dead conditions. The same applied for the FM band during otherwise dead conditions. The coastal area, which regularly pulls in stations in excess of 200 miles away, experiences intense 650 to 700-mile long-range ducts from Nova Scotia producing stations with local-like quality. In addition to ordinary FM stations, lower-powered (195 to 215-watt) Canadian marine weather frequencies can sometimes be heard, yet with few stations between the two locations being heard with similar strength. Such openings are straight-line water paths with very little or no land interrupting their long voyages. This is much the case on Lake Michigan where one side of the lake has multiple major markets and the opposite is far less populated with fewer interfering locals.

The science of intense cross-lake openings

About ten to twenty times per warm season – typically from late March to mid-October along Lake Michigan – a large, long-lasting, and intensely strong opening will be recorded. Sometimes the opening is in one specific direction. Stations from Milwaukee and Green Bay may be received while Chicago is completely absent from the dial. During other times, multiple markets may come in with local quality. Green Bay, Milwaukee, Chicago and everything in between them can be heard loudly with perfect signals. Stations from Madison, on average 160-170 miles away, often are heard strongly during such openings as these stations often reach Lake Michigan at Milwaukee. Rockford, Oshkosh, and the more distant Wausau and Wisconsin Rapids (200+ miles to the northwest) also will be heard on many of these days if the frequency isn't occupied by a closer station between the two points. Wisconsin Rapids and Wausau are heard more frequently due to their high elevations. For example, stations such as WGLX on 103.3

operate at 100,000 watts at more than 1,200 feet above sea level and the signal falls to Earth over Lake Michigan due to no interfering terrain. The station can reach well inland given the absence of any other stations.

During any cross-lake opening, especially intense ones, effective radiated power makes little difference. A 3,000-watt station 130 miles away will be heard as loudly as a 100,000-watt station 100 miles away. Low-powered stations (LPs) also can be heard at distances of over 100 miles easily at local-quality. The quality of the signal is often determined by what the station strength is at the moment it reaches the water. If a 50-watt station broadcasts from a tower at the beach, it very well could be heard 100-200 miles away if there are no other stations occupying its frequency being received from elsewhere.

Such a blockbuster event occurred on July 14, 2005. Assisting in the study of a duct covering a large majority of the lower half of Lake Michigan was John Rieger in South Milwaukee, Wisconsin. Chris Kadlec was stationed across the lake at Kruse Park in Muskegon, where 107 stations were logged on a full dial. Fog that afternoon was thick and accumulating to heights of 50 or more feet along the shore. It is possible that the fog, created by an extreme temperature difference, covered a large portion of Lake Michigan that afternoon and assisted in creating a duct that would essentially make a regional local listening area. Low-powered stations over 150 miles away were received and with a high degree of accuracy, Rieger and Kadlec both logged the same stations despite being 85 miles apart. The difference in air and water temperature on the Michigan side was between 35 and 40 degrees at any given time that day. While air temperatures were in the low 90s, water temperatures hovered in the upper 50s, a rare condition for the middle of July caused by upwelling of water from below the lake surface and a nearby awkward weather pattern created by Tropical Depression Dennis. The dewpoint was in the mid-60s and as determined by the dense fog over the lake, air temperatures over the lake's surface were also in the mid-60s, a near 30-degree difference from a few hundred feet inland and a few hundred feet above the lake's surface where radio-friendly conditions quickly deteriorated.

Intense openings in the Great Lakes aren't limited only to Lake Michigan. Other large lakes such as Lake Ontario and Lake Erie, both longer lakes that more commonly receive east-west tropo, also participate in long distance catches. On Lake Ontario, the easternmost of the five lakes, long-distance catches can be an almost daily event. The 175-mile stretch between Hamilton and Kingston, Ontario is often easily traversed given the absence of any interference. The Buffalo market is commonly heard in the Kingston area and Rochester is heard even more often in Ontario. Ontario DXer Saul Chernos, who is known to tune in stations at the Scarborough Bluffs east of Toronto and at his home 45 miles inland, says that conditions over Lake Ontario can vary greatly during any given period of time. "Syracuse can be strong one minute, and then it can be Watertown, Utica, Rochester, or Buffalo," he says. "It can shift around. Watertown can get really strong and Rochester can drop out substantially, or Rochester can get really strong and come in along with, or perhaps without, Watertown." Syracuse isn't all that uncommon on the shores of Ontario and Ottawa can be readily heard on many days in Rochester, 185 miles to the southwest.

Michael Procop, 10 miles inland from Lake Erie near Cleveland, reports lake conditions are to blame for the constant reception of Detroit stations 110 miles to the northwest, both on FM and on TV. Grand Rapids, Michigan, in excess of 200 miles, can also be heard and seen interfering with nearby stations on an occasional basis. Although London and Chatham, Ontario to the north of Cleveland are very common, Buffalo, 175 miles to the northeast, and its adjoining Toronto and Hamilton markets are rarely heard, if ever. Detroit, 200 miles due west of Dunkirk, New York, on Lake Erie's southeast shore, can be heard often while driving along the New York Thruway. Assisted by higher elevation to the north in Ontario, Cleveland and Erie stations are rather commonly heard in London and Brantford, Ontario and as far west as Port Huron, Michigan.

Despite the parallel nature of Lake Erie and Lake Ontario, cross-lake reception between the two is a very rare occurrence. The Niagara Escarpment, the most prominent topographical feature in Southern Ontario, separates the two watersheds preventing any low-lying lake tropo to escape either lake. In addition, there is a 325-foot elevation difference between the two water bodies that only upper-level long-haul tropospheric ducts could easily pass over. Although Lake Huron and Lake Superior are also known to produce cross-lake signals, both lakes are larger and far less densely populated with stations.

The sun's effect on cross-lake ducts is especially apparent during the strongest of the lake openings. It is widely known that the sun affects both E-Skip and tropospheric reception, but the sun paired with its reflection off a large body of water is even more important. As noticed during afternoon and evening DX sessions along Grand Haven City Beach throughout the summer of 2006, the position of the sun in the sky can, but not always, determine the direction from which the strongest reception originates. It was often noted that while the strongest stations originated from Green Bay, Milwaukee, and Chicago as the sun was at its highest points throughout the day, reception after dusk turned largely south toward the South Bend market in a higher elevation parallel to the lake's shore. This was noticed on many evenings as the sun set around 9:30. It can be assumed that if the shore of the lake north of Grand Haven, which extends toward the northwest, had not been blocking straight-line water paths for signals, this phenomenon would have repeated to the north as well with stations from Escanaba and Marquette. However, these locations do not have nearly as many stations and any instance of that would largely have gone unnoticed. On some nights though, July 23rd, 2006 being a great example, one half of the FM

dial was heard from one location while the other half was from a different location specifically at sunset. On this specific day, most signals before the sunset were from the south end of the lake near Chicago. Stations after sunset were from the north end of the lake near Green Bay. As the sun set into the lake, the bottom half of the dial came in from Green Bay while the top half of the dial came in from Chicago. Minute by minute after sunset stations could be heard changing from the bottom to the top of the dial, the most common fashion in which the dial changes from one locale to an opposing locale on an opposite end of the lake. This is almost similar to the maximum usable frequency (MUF) experienced as E-Skip reception climbs up the dial through VHF and into the FM band.

Lake breezes and their effect on ducts and reception

If it seems like radio stations are being blown onto land by the breezes along the beach, you might not be imagining it. The lake breeze can be a very important aspect to a lake inversion and can drastically change reception patterns as the breeze starts up or dies down. Since 2003, a noticeable lake breeze from the northwest was noted on about eighty percent of days that had an intense cross-lake radio opening. On some of those days, more than 100 different stations were received, while on a select few days, in excess of 150 stations were recorded. These lake breezes on numerous days clear skies as far as 35 miles inland, just east of Fremont, extending cross-lake signals within the affected area. Just as the lake breeze gradually thins out and becomes weaker as it reaches further inland, the quality of station reception also becomes weaker as one travels inland away from the lake.

Due to the temperature differences fueled by the often cooler water beside warmer land, lake breezes can form during the daytime in the spring and summer seasons along the lakeshore. The higher pressure (the cooler air) over the cooler water is forced inland toward the lower pressure (the warmer air) as the atmosphere seeks to equalize pressure, thus creating the breeze. With stable air masses, especially on a clear day, this difference in air pressure can set up a constant lake breeze that essentially becomes a tropospheric duct in itself, which as a dome of cool air, provides a duct of lower attenuation of signals where signals are bent down instead of up toward the sky and are thus travelling parallel to the lake surface. The most common scenario is southeast or northeast winds that abruptly shift to northwest winds sometimes in a matter of mere minutes, most often – but not always – in the mid to late-morning hours, shifting back to a land breeze soon after sunset. The ducts exist in part because of the wind, yet it appears, given the radio data in comparison with the weather data, that the ducts open shortly before the lake breeze starts up and on days of weaker lake breezes may close immediately as the lake breeze moves into a land breeze, while on days of intense openings may take several hours to close.

When conditions change as the sun sets, the lake breeze collapses as the land becomes cooler and the water becomes warmer and the lake breeze becomes a land breeze – although weaker, a breeze blowing from land toward the water. With this event, the ducts that had been open all day due to the onshore breeze suddenly diminish as the breeze blowing from the land onto the water blocks or weakens any ducts formerly open. It is believed possible that this is the main cause for Chicago reception changing quickly into South Bend reception after sunset. In addition, the formation of a land breeze is likely to create a region of free-flowing reception over the water close to the shore – technically, a land air mass with a western boundary over the lake. The one market that is best equipped to utilize such an open area of reception is South Bend. With a straight-line path that meets Lake Michigan, South Bend signals, more often blocked during a cross-lake opening, freely travel over open water near the shoreline before running aground in Grand Haven as the shoreline gradually juts into the lake. Increased reception of Green Bay signals have also been noted during land breezes. The aforementioned event of Chicago stations turning to Green Bay stations at sunset is a likely example of this, as Green Bay stations can often be heard well in the Ludington area, which easily places them in a land breeze duct.

Collapsing lake breezes can have other effects as well. Storms that come in over the lake and quickly cool the air over land can create downdrafts as they advance eastward. These downdrafts are capable of pushing lake breezes further inland and extending any lake inversion ducts that currently exist over Lake Michigan. Poor weather conditions are no reason to sit in the house thinking the dial is quiet. It has been noted during numerous occasions that Green Bay stations are often present in Fremont during heavy rainstorms, usually an oddity in most locations where storms greatly hamper station reception. Most commonly heard during rainstorms is Green Bay's 96-kilowatt powerhouse 101.1 WIXX-FM, which is otherwise heard slightly less during the average clear summer day. WIXX is 121 miles to the northwest and broadcasts from a tower 929 feet above sea level from a transmitter at 1,829 feet, among the higher stations in close proximity to the lake. On a clear day, WIXX's signal likely goes right over Fremont. Fremont, 25 miles inland, is the furthest point inland before moraines start to dot the landscape and is the highest non-moraine elevation which is most often the furthest inland extent of a lake breeze.

Lake breezes can be physically noted on many days by the presence of clear skies over the water with partly cloudy skies over land. It is not uncommon to see a line of cumulus clouds separating the boundary between a lake breeze and land. The cumulus clouds often develop in lines near the shore along the distinct boundary, called the lake breeze front.

In the winter, long after the lake inversion season has ended, lake-effect snow squalls affect the area that the summer lake breeze previously affected. Where a lake breeze extends only to Holton, 15 miles inland, winter snow squalls will follow this same pattern thus extending only to Holton unless otherwise

affected by stronger than average winds. In the summer, many radio stations begin their cross-lake coverage area at this same location. Many Green Bay stations studied between the summers of 2002 and 2004 were noticed to start coming in around Holton, abruptly falling from the sky just as abruptly as clear inland skies turn to lake-effect snow squalls in the winter.

Determining land-based vs. water-based tropo

Determining which mode of tropospheric ducting you are hearing can be almost as difficult as trying to identify an NPR station via E-Skip at the bottom of the dial. This is especially true when DXing many miles inland away from the lake where you cannot compare between signals on the beach and signals further inland. Sometimes it isn't even worth the effort to determine which you are receiving. Instead, just enjoy the fact that you are indeed receiving something. But when studying the very idea of cross-lake tropo as compared to general tropo, it's worth looking at indicating factors.

In the absence of a lake breeze, nighttime openings are often general tropo or enhancement, that is, tropo that is not solely produced by Lake Michigan. This isn't always the case as there are many summer nights where conditions over the lake continue and sometimes increase reception along the beach yet are non-existent a half-mile inland. On many nights, there is constant reception, although often not as strong as in the day and more often than not, from Green Bay or South Bend as opposed to Milwaukee and Chicago. During the day, determining which mode you are receiving can be slightly more complex. Is the water temperature abnormally cold as compared to an abnormally high air temperature (or the reverse during the off-season)? Is there a northwest wind off the lake? More than likely you're listening to signals that are assisted only by lake conditions. Are the skies clear with atmospheric high pressure overhead? It could very well be longer-range tropo well beyond the effects of the lake. On a day when conditions are stable throughout, tropo ducts may easily stretch from Iowa straight to Michigan without interference. More often than not though, conditions over the cooler water break any existing over-land ducts as they hit the lake. Stations may even fall into another lower-level duct and effectively cross Lake Michigan unhampered.

The unexplained distant locals

A set of cross-lake stations nearby to the western shores of Lake Michigan was the focus of a 2004 study. These few stations, three in Wisconsin and one in Indiana, would often come in on summer days with local-like quality and on many occasions could be heard on neighbouring frequencies as well almost as if they were 10 or 20 miles away. In fact, three of the stations – 95.1 WIIL-FM near Kenosha, 100.7 WKKV-FM near Racine, and 99.1 WMYX-FM near Milwaukee – were sometimes even stronger than local stations. All three originate at towers broadcasting about 7 miles inland at an approximate equal distance from the lake. The study, which aimed to determine why these distant stations carried such a pattern, found that two of the three – WMYX and WKKV – broadcasted from towers 801 feet above sea level, despite being about 20 miles apart. WMYX transmitted from 1,238 feet above sea level at a distance of 105 miles from Fremont while WKKV transmitted from 1,267 feet above sea level at a distance of 107 miles from Fremont. The strongest of the three, often being heard when conditions are dead on both sides of the lake, is WIIL-FM. The station, even common in the winter and loud and clear on many nights when enhancement originates solely from inland Michigan, was found to increase significantly in strength at 755 feet and higher, a few miles west of the city of Fremont. On days during which the station cannot be heard near the lake, the station rises from the static near this location. It was found that WIIL-FM, unlike the other two dominant stations, originates from a tower at 686 feet and transmits from 1,070 feet above sea level 115 miles southwest of Fremont. All three stations broadcast at an ERP of 50 kilowatts. The three stations were also found to abruptly appear over the final moraine on state highway M-37 between Sparta and Kent City, about 25 miles inland. Glenn Hauser, editor of the "DX Listening Digest" and host of the "World of Radio" program, says in response to the distant locals that "probably because of prevailing tropospheric conditions, ducts habitually form at a certain elevation or range of elevations."

Two other studied stations of interest originated at the north and south ends of Lake Michigan. Power 92 WPWX-FM, an urban station serving the Chicago market and licensed to Hammond, Indiana, where its tower stands along the state line, can be heard up to 150 miles on either side of the lake and on select days much further. Its partner in long-distance broadcasting, 46-kilowatt 99.7 The Bay WZBY-FM (formerly urban station Wild 99.7 WLYD-FM), has been heard virtually on all sides of Lake Michigan from Milwaukee and Chicago to Grand Rapids and as far south and inland as Kalamazoo. Listeners in South Bend, 225 miles from the station's tower near Sturgeon Bay, Wisconsin, have reported occasional reception and the southern shore of Lake Michigan in towns like Portage, home of Indiana DXer Roger Winsor, have also reported hearing the station at a much higher frequency. Because the Door Peninsula, home to Sturgeon Bay, extends 40 miles out into Lake Michigan as compared to the average western coastline of the lake, the station can extend in all directions as well as east toward the Mackinac Bridge, territory less common to widespread lake inversion openings due to less straight-line access to distant stations.

Communication interference via lake inversion

As anyone who often comes to the beach with their cellphone or their radio knows, the beach can be a pretty hostile environment for those used to a clear signal. On days of strong lake inversion openings, an opening can also mean a closing. Stations from Wisconsin, Illinois, and Indiana that arrive on the beach with power equal to what one would hear five or ten miles from the originating radio tower simply blow away any local stations more than ten miles from the beach. On numerous days, even local station 100.1 WVIB-FM less than 20 miles to the north will vanish under booming Port Washington, Wisconsin religious station, WPJP-FM Relevant Radio, 95 miles to the northwest. Most if not all Grand Rapids stations often disappear, replaced with Chicago and Green Bay area stations, some as weak as a few thousand watts. On rare days, all locals will disappear into oblivion. Milwaukee's [former] classical station WFMR-FM 106.9 on some days was able to completely take out WMUS-FM in Muskegon, a strong local station just 14 miles to the northeast. Grand Rapids' local 300-kilowatt powerhouse 93.7 WBCT has been held hostage more than once by WEKZ-FM of Monroe, Wisconsin, 181 miles to the west. Although this was likely accompanied by land-based tropo, the power of the lake inversion and lake breeze that assisted it was intense enough to wipe one of the nation's most powerful stations clear off the dial on the beach.

Cellular phones are greatly affected by any lake inversion opening. It is locally known that if you visit the beach carrying a phone with a certain service provider, most often Verizon and Sprint, you can almost always watch your phone switch to Central Time Zone (observed on the opposite side of the lake) as you near the beach. On occasion, your entire local service may be interrupted and all outgoing calls will be sent from towers 80-150 miles away on the other side of the lake. This gives a new definition to "roaming" when you're being charged extra to use a distant tower when your local tower is just a mere one mile inland. Chicagoland tourists who spend the weekend in Grand Haven often complain to the workers at the Bil-Mar Restaurant, a popular local beachside eatery at the foot of a gradually-sloping 160-foot bluff, that their cellular service does not work. Instances of complaints predictably rose drastically on days of strong lake inversion events that included Chicago stations especially. Instead of receiving service from across the lake, all service was denied. Although cellphone reception patterns cannot be officially determined as phones do not specify the exact tower they have connected with as does a radio station, it is believed that signals from Milwaukee towers at a distance of about 85 miles are close enough to easily cross the lake.

Interference via intense lake inversion events can be compared to a strong wind blowing off the lake on a hot summer day. The strongest effects of a lake breeze can be experienced within about a half-mile of the shore, sometimes further if the signals travel up the river, which they are known to do. The breeze can easily extend 35 miles inland where communications will likely face interference, less inland as compared to the shore. Beyond that, east of the lake breeze front, all is often calm and normal. The effects of lake inversion especially in Grand Haven are captured by the close proximity of the bluff and the road, Harbor Drive, which runs between the beach and bluff, a rarity in many West Michigan beach towns. Travelling up the western side of the bluff to Five Mile Hill in Grand Haven, 160 feet above the water, one can easily hear different stations coming in and out, sometimes switching back and forth between stations at a rapid pace, a result of different ducts at different elevations and stations reflecting off the duct walls. Upon reaching the top of the bluff, local inland stations can often be heard as they normally would be. Any remaining cross-lake signals that are included in higher-level surface ducts can be heard as well.

Conclusion

After a few years of flipping through the dial, a lot has been learned. Months of endless curiosity led to years of never-ending questioning. Hours spent by the beach sitting in a hot car logging stations have been good times, good music, and some pretty good and exciting tropo catches. In the end, the natural tropospheric duct we call Lake Michigan is better understood yet still ever so unpredictable. Over the course of a single summer, over 7,000 entries were added to the logs. The summer log consisted of 67 individual days spanning just over three months. The average entry rate was 100 per day and over 100 individual stations were recorded on some days. The data and the associated report took a full year to organize. The concluding summer of the study in Grand Haven, Michigan was without any doubt an overwhelming success.

To learn more about lake inversion tropo: **http://www.beaglebass.com/dx/**

Features of this site include the 400+ page report full of graphics and maps, the complete FM radio log, as well as the TV tropo and Es log of 2006. Also included are memorable lake inversion events from the past, logos of over 160 radio stations around Lake Michigan, comparable weather graphs, links of related materials, and photos of the DX sites used in the study.

Thanks for the assistance: DXers Roy Barstow, Saul Chernos, Glenn Hauser, Michael Procop, John Rieger, Michael Temme-Soifer, Roger Winsor; and meteorologists Linda Paige, Will Beaton, Dr. David Sills, and DXing meteorologist William Hepburn.

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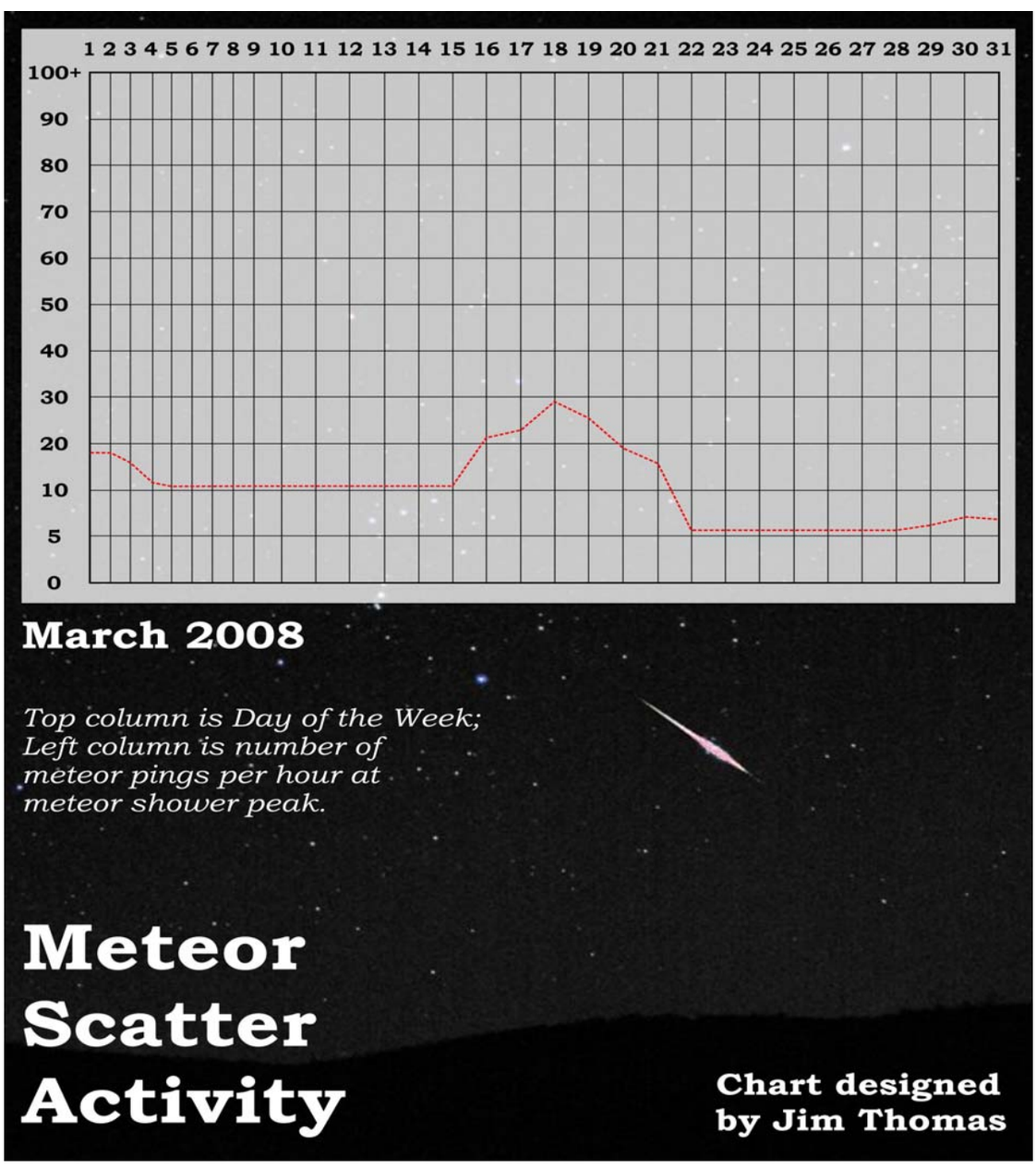

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