## VHF-UHF DIGEST

The Official Publication of the Worldwide TV-FM DX Association

**OCTOBER 2013** 

#### The Magazine for TV and FM DXers



OK, Lucy, stand perfectly still so Fred and I can watch the game on channel 9 in HD and whatever you do, *don't MOVE an inch* or we'll lose the picture.



700 DTV Stations Logged! and Tropo Hits Parts of the Midwest

#### 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:

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#### The Mailbox



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Mike Bugaj - Enfield, CT mikeb@wtfda.org

OCTOBER 2013

Hello and welcome to the Mailbox for October. This month we have a report from long-time WTFDA member Bill Eckberg. Bill lives near Walton, IL and is one of our all time great TV DXers.

Bill wrote me a few days ago to renew his membership and tell me about something that happened to him back on June 24<sup>th</sup>. Here's what he wrote. "At 4:30pm, June 24, a fifty yard wide tornado destroyed my machine sheds and did \$3,600 damage to my home. The 40 foot tower with the CM 1110 antenna came down. The 50 foot tower with the dish was cranked down and survived. Marv Shults got a picture of the storm maps off the Weather Channel the moment it hit. A fascinating picture to see. Consolidated Grain's three million dollar elevator a quarter of a mile away was destroyed. The tornado hopped for 75 miles from north of Muscatine IA to south of Shaffona, IL. It was only fifty yards wide so I



and the elevator were the only ones with significant damage. I came home at 7pm and the TV stations were waiting, hi. I'm told I or my home was seen in Rockford, Quad cities and Peoria. Buildings will be replaced." The picture on the right shows us what is left of Bill's shed.

It was just a few years ago in June that a tornado formed in Western MA, crossed the Connecticut River and headed east past Brimfield, MA. That tornado caused much damage and came very close, if not right over, the home of WTFDA member Jeff Rostron. Fortunately there was no major damage. If anyone has ever had any encounters of tornados, hurricanes or any other nasty weather events that affected them or their DX equipment, why not write (or email) here and tell us about it.

This month we welcome Larry Fussel N4CBS into the WTFDA. Larry lives in Brewton, AL and does FM and medium wave DXing. Welcome, Larry! And during the period from 8/19 through 9/18 we received renewals from Lewis Kruger (SD), FJ Issard (ON), Roosevelt Crawford (KS), Bob Timmerman (IN), Mark Colombo (VA), Howard Fountain (GA), Glenn Hauser (OK), Glenn Boche (MN), William Hein (TN), Curtis Sadowski (IL), John Tudenham (MO) and Bob Seaman (PA). Thank you all for supporting the WTFDA!

Congratulations goes out to member Ed Phelps for being the first person we know of who has logged 700 DTV stations. As of today he's already surpassed that figure. You can see a photo of Ed's #700 on the WTFDA website (wtfda.org).

The few who still get the paper VUD got them late last month. I sent the pdf to the printer before Labor Day but then there was a multi day delay when the Canon duplicator broke and stayed down for parts. The moral of the story...get the eVUD instead. And with that...see you next month! -Mike



## News

Douglas E. Smith 1389 Old Clarksville Pike Pleasant View, TN 37146-8098

w9wi@w9wi.com

http://www.w9wi.com

#### September 2013

#### Abbreviations:

AF	Applied For (a new station)	NW	New station on the air
Aux	Auxiliary (backup) transmitter	PA	Proposed Amendment
CC	Callsign change	PC	Power (and/or tower height) change on the air
CL	City-of-license change	PG	Power change granted
CX	Canceled	PR	Power change requested
DC	Converted to DTV	RA	Returns to the air
DCC	Digital Companion Channel	QC	Channel (frequency) change on the air
NS DCC	C Granted flash-cut to DTV	QG	Channel change granted
DE	License/permit deleted	QR	Channel change requested
DR	Requests flash-cut to DTV	RE	Reinstated (previously-dismissed app.)
FC	Programming (format) change	ROA	Request of Applicant
FTP	Failure to Prosecute	SI	Off the air (silent)
GA	Granted amendment (to table of channel allotments)	STA	Special Temporary Authority
LC	License to Cover	XC	Transmitter site changed
MX	Mutually Exclusive	XG	Transmitter site change granted
NDA	Non-directional antenna	XR	Transmitter site change requested
NS	Permit granted for <b>n</b> ew <b>s</b> tation	lpdtv	Low Power Digital TV
DG	Granted conversion to DTV	DRT	Digital Replacement Translator

#### News:

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





Ontario

13 CJBN-TV PG>275w/70m Kenora









Quebec

Montreal 35 CFJP-DT PG>17.71kw/ 298m, 45-31-16/73-33-58



Guam

20 KUAM-LP CX Agana



Puerto Rico

Carolina 22 WVDO-LD PG>15kw, 18-16-46/

65-51-12





Alabama Birmingham

27 WBUN-LP DC 15kw

Priceville 15 WYAM-LD QC from 51, 12.2kw



Arizona

Parks 47 K47GQ DG 1kw



California Bakersfield

Los Angeles

14 KXBF-LD NW 1kw, 35-21-03/

118-53-42 (Jilynn M. Ernandes); CC from

K14NN

Fortuna 38 KEET -XR 40-25-02/ 124-07-08; DCC for ch. 11 0825BMR

Eureka

NW 610w, 41-44-03/

21 K21LW Gazelle 122-44-48 (Soda

Mountain

**Broadcasting**) 10 KIIO-LD PG>3kw, 34-13-55/

118-04-18; PC

CC from KCWB-Reedley 13 KVBC-LP San Francisco 39 KCNS NW 500kw/ 357m (aux) Stockton 25 KOVR AF 33

AF 338.6kw/ 435m, 38-14-50/ 121-30-03

(aux)

Vista 26 KVSD-LP

DC 7kw, 33-00-32/

116-58-16



Colorado

Montrose 39 K33IV QR from 33



Florida

Panama City 22 WPFN-CA DR 15kw, 30-10-52/

85-46-43

Vero Beach 47 W47DW PC>8.97kw, 27-16-29/

80-17-11

Wabasso 11 W11DH PR>3kw, 27-13-18/80-

22-07



Georgia

Atlanta 14 WAGC-LD PC>10kw, 33-48-26/

84-20-22; CL from

Athens

Dublin 35 W35BB DR 15kw, 32-34-30/

82-52-02

Gainesville 26 WEMO-LD PC<5kw, 34-19-37/ 83-

47-45; CL from Helen;

CC from WHVC-LD

Helen 26 WEMO-LD CC from WHVC-LD



Hawaii

Hanamaulu 6 KESU-LP CX



Illinois

Chicago 29 WMAQ-TV NW 350kw/ 437m, 41-

53-56/ 87-37-23 (aux)



Indiana

Fort Wayne 40 WFWA PC>152.8kw



lowa

Cedar Rapids 29 KGAN GA from 51; QR from

51



Kentucky Louisville

28 WBKI-LP DC 15kw, 38-21-55/

85-50-24



Louisiana

Crowley

38 K38OF PR>15kw, 30-02-19/

92-22-15



Michigan

Lake City 14 WMNN-LD PR>2.9kw



Minnesota Park Rapids

5 K05IV



Missouri

Branson 25 K25BD DC 1.5kw, 36-43-52/

93-10-02

CX



Montana

Havre 9 K09ZB PR<200w, 48-29-41/ 109-42-42; PG Livingston 20 K20KQ PC<1.4kw

 Plains
 48 K48LG
 PC<1.04kw</th>

 Weeksville
 29 K29ID
 PC>914w



New Mexico

Albuquerque 39 KRTN-LD PR>15kw, 35-12-54/

106-27-02

Albuquerque 47 KTEL-LP DR 15kw, 35-12-54/

106-27-02

Carrizozo 51 K51CN CX Cuba 35 K35GY CX Gallina 48 K48GD CX Lordsburg 27, K27FN, CX 36 K36GA



New York Albany Bridgeport

7 WXXA-TV PC>15kw

50 WWDG-CD AF 15kw, 43-14-46/

75-46-25; DCC for

analog 12

Hempstead 20 W20CQ NW 1.25kw, 40-47-44/

73-27-42 (SDA

Community Health Service of Greater NY)

Hornell 6 W06AR CX

Kinderhook 15 WEPT-CA PC<88kw, 42-25-19/

73-51-15

Oneida 36 WCUL-LD AF 15kw, 43-03-57/

75-40-04; DCC for

analog 13

Sylvan Beach 32 WTKO-LD AF 2.25kw, 43-14-46/

75-46-25; DCC for

analog 15



Oklahoma

Ardmore 36 K36KE NW 15kw, 34-12-10/

97-09-12 (OETA)



**Tennessee** 

Bristol 9 WOPI-CA DR
Bristol 36 WAPK-CA DR 15kw
Knoxville 28 WEZK-LP DR 15kw
Pigeon Forge 11 WJDP-LD PR>2kw; PG
Sevierville 22 WJZC-LP DR 3.5kw



Texas

Centerville 40 K40KX NW 700w, 31-11-20/

95-38-18

Corpus Christi 45 KXCC-CA DR 15kw, 27-47-26/

97-27-02 dismissed

McAllen 32 KRZG-CA

DR from 35, 3kw, 26-16-01/98-19-11

Victoria 45 KVTX-LP

DC 15kw, 28-50-42/

97-07-33



Utah

Kanarraville 33 K33KF

PR<70w, 37-29-16/ 113-12-17; CL from

Parowan



Virginia Danville

Weber Co.

24 WTLU

CC from WEFC-

7 WKIN-CA DR



Washington

Bridgeport 23, K07BC, DC from 7/ 11/ 13, 71w

24, K11AS,

25 K13DL

Ellensburg 23 K23KI XR 46-59-55/ 120-30-

49; XG

Hoquiam 24 K24IT PR>5kw, 46-56-45/

123-47-48

Yakima 14 KAPP PC<287m

Things are a bit slow on the TV front this month. The Commission is pretty busy with FM translator issues – and I suspect LPFM will keep them busy next month.



#### USA tests DVB-T2

Advanced Television By Chris Forrester Sept 25, 2013

A giant 1,223 ft high terrestrial tower, standing on Television Hill in Maryland and which covers the Baltimore-Washington DC region switched to Europe's DVB-T2 (OFDM) digital TV transmission for a few hours in the early hours of March 27. The 800+ kW tower beamed out using an experimental licence issued by the FCC to Sinclair Broadcasting's WNUV-TV station as part of a study to gauge whether DVB-T2 could be the USA's 'next generation' transmission system (the so-called ATSC v3.0).

"Part of that participation may intersect needs to test and evaluate various systems and technologies," Sinclair VP Advanced Technology Mark Aitken wrote to ATSC's president, Mark Richer. "I would like to extend to ATSC that Sinclair will make every reasonable effort to provide support for its ongoing 3.0 activities by providing for the use and access to the WNUV facility to support experimental needs.... We are committed to no specific standard or provider."

The results were excellent, reported Aitken. "The configuration we operated gave us additional data bandwidth yielding 24.92 Mbps [some] 30 per cent more than standard ATSC - with a [carrier-to-noise ratio] of 15.1 dB - same as ATSC - with an [modulation error ratio] of 33.5 dB, and shoulders well within specs at -53dB or better at the output of the system," Aitken said. "We were running and receiving HD programming. For the record, it was received over-the-air with a USB T2 receiver," reported trade magazine TV Technology.



### FM NEWS



#### **BILL HALE**

6124 Roaring Springs Drive, N. Richland Hills, TX 76180 FMnews@wtfda.org

#### **OCTOBER 2012**

#### INDEX OF ABBREVIATIONS

APP: application

APP Mod: Change to an already submitted application

Class: FM license class

CP: construction permit (authority to broadcast with

facilities noted)

CP Mod: change to an already granted CP

DA: directional antenna FF: French language

\$: Stereo

XL: Transmitter Location change to: an increase to [in technical data]: a decrease to [in technical data]

[ ]: Calls in brackets signifies assumed or applied-for

status

Note: antenna heights are HAAT except where noted

#### **CANADA**



#### — CALL LETTER CHANGES —

			Old Call	New Call
AΒ	Banff	107.9	CP	CJXB-FM
BC	Wells	92.5	CP	CFRD-FM
MB	Steinbach	107.7	CP	CJXR-FM

#### FORMAT and SLOGANS —

MB	Brandon	96.1	CKX-FM
NB	Saint John	98.9	CJYC-FM
NS	Amherst	101.7	CKDH-FM
NS	Halifax	96.5	CKUL-FM
	Niagara Falls	105.1	
ON	North Bay	106.3	CFXN-FM
ON	Peterborough	90.5	CJMB-FM
ON	Alliston	92.1	CIMA-FM
ON	Timmins	93.1	CHMT-FM
PΕ	Summerside	102.1	CJRW-FM
		2	

- > Variety Hits: 96.1 Bob FM > Classic Hits: Kool 98
- > Country: Today's Best Country
- > AAA: Radio 965
- > CHR: 2DayFM // CFLZ-FM 101.1 Fort Erie
- > Classic Hits: 93.1 The Moose
- > Sports/Talk
- New station signs on with 'Gold-based' AC
- > Classic Hits: The Moose
- > Hot AC: Spud









#### — TECHNICAL CHANGES —

— CHANGES TO EXISTING STATIONS — CP granted for:

BC Vancouver 95.3 CKZZ-FM ON Hearst 91.9 CBCC-FM

**BC Prince George** 

QC Sainte-Marie-De-Beauce

93.1 CFIS-FM

101.5 CHEQ-FM

> 494 W/< (-) 34.5 m, XL to 53-53-58/122-46-00; (to) Class A; Mono [Upgrade status from a developmental community station]

> 66 kW/> 707 m DA, 49-21-26/122-57-13; Class C; \$

< 8.34 kW/119 m, 49-38-50/83-30-50; (to) Class B1; Mono

> 72 kW/ > 89 m (to) DA, 46-23-24/70-59-03; (to) Class C1; \$; frequency change from 101.3



#### - NEW STATIONS ON THE AIR -

MB Winnipeg 88.1 CKSB-FM 100 kW/223 m, 49-46-15/97-30-37; Class C1; Mono [testing at deadline] ON Alliston 92.1 CIMA-FM 3.75 kW/31 m DA, 44-08-45/79-50-15; Class A;

— GRANTS TO EXISTING STATIONS —

#### CP granted for:

				or granted for:
AB	Calgary 95	.3 CH	HPK-FM	100 kW/ > 273 m DA, XL to 51-04-21/114-15-38; Class C1; \$
		_	- GRANT	S FOR NEW STATIONS —
				CP granted for:
			JXB-FM	550 W/(-) 326 m DA, 51-11-21/115-32-37; Class A; \$; will be AAA [The Banff Centre]
		.9 CK .1 CF	KFT-FM >	20 kW/< 61m DA, XL to 53-43-01/113-15-26; Class B1; \$ 2.8 kW-H/602 m DA, 49-09-56/116-40-39; Class C1; \$; will be Hot AC [Vista Radio]
вс	Wells 92	.5 CF	FRD-FM	2 W/(-) 211 m, 53-06-10/121-34-03; Class VLP; \$; will be a Developmental Community station with an Eclectic-Folk format [Wells Community Radio Association]
		_	HAK-FM1] FYK-FM1]	50 W/61 m, 67-27-26/134-45-58; Class LP; \$ [will replace CBQM-690] 50 W/30 m, 61-18-46/117-35-48; Class LP; Mono [will replace CBQC-
ON	Mount Forest 88	.7 CF	•	1230] 6 kW-H/100 m, 43-59-00/80-43-59; Class A; Mono [will be Community-oriented, operating 18 hours per day; weekly programming will consist of: 120 hours per week would be local; four hours of Christian programming; five hours would be // CBFW-FM 91.3 Hanover; and one hour from the Canadian Press] [Saugeen Community Radio Inc.]
ON	Wellington North 88	.7 CF	•	1.648 kW/73 m, 43-58-45/80-43-55; Class A; \$; [see CP at Mount Forest for programming]
SK	Saskatoon 94	.1 [C	BK-1-FM]	4.1 kW/68 m, 52-05-12/106-40-12; Class A; Mono [programming will be at least 50% Popular Music to Canadian musical content and 20% Special Interest Music to Canadian musical selections]
	— A	PPLICA	ATIONS FRO	OM EXISTING/PROPOSED FACILITIES — Applies for:
вс	Grand Forks 102	.3 AP	PP	1.043 kW/(-) 353m, 40-00-39/118-23-29; Class A; Mono; would be Classic Rock and then relay CKGF-FM1 93.3 Christina Lake and CKGF-FM3 103.7 Rock Creek
NB	Saint John 88	.9 CH	HNI-FM	< 25 kW (adding V)/ > 414 m (to) DA, 45-28-39/66-13- 59; Class C; \$; application also proposes to remove 'Specialty Licence Format' entirely from their authorization
ON	Arnprior 104	.7 CH	HMY-FM	> 1.4 kW/> 142 m (to) DA, XL to 45-19-04/76-19-55; (to) Class A; would move to 97.5 MHz, where (2) prior applications were to move to 107.7 MHz
ON	Bolton 105	.5 CJ	JFB-FM	> 5 kW-H (dropping V)/< 6.1 m, XL to 43-51-10/79-41-33; (to)
QC	Hudson 106	.7 CH	HSV-FM	Class A; \$; move from 102.7 Increase power from 500 to 1,420 watts (2,650 watts Maximim ERP). Raise antenna height and relocate transmitter. Radiation pattern will
QC	Louiseville 103	.1 CF	но-гм	change from non-directional to directional > 4.24 kW-V DA/37 m DA, 46-18-49/72-56-09; Class A; \$
АВ	Hinton 104	 .9 AP		10NS FOR NEW FACILITIES — 480 W-V//1.84 kW-H/345 m, 53-24-35/117-47-20;
AB	Vegreville 106	.5 AP	PP	Class B1; \$; would be Active Rock [Newcap] 13 kW/108 m, 53028-26/111-50-39; Class B1; would
вс	Barrière 93	.1 CF	HLW-FM	be Country [Cab-K Broadcasting] 13.5 W/(-) 145 m, 51-10-54/120-07-28; Class LP; \$; would be a Variety format [North Thompson Radio]
ВС	Grand Forks 102	.3 AP	PP	1.043 kW/(-) 353 m DA, 49-00-39/118-23-29; Class A; \$;
вс	Grand Forks 107	.3 [C	BRJ-FM]	252 W, 49-02-00/118-27-04; Class A; Mono; would
NB	Kedgwick 98	3.1 [C	BAF-FM20]	replace CBRJ 860 kHz 50 W/(-) 14 m, 47-38-45/ 67-21-03; Mono; would replace CBAF-20 990 kHz and continue to relay
NB	St. Stephen 88	.1 AP	PP	CBAF-FM 88.5 Moncton 233 W, 45-11-33/67-15-40; Class A1; Mono; would replace CBAO-990 and continue to relay of CBD-FM 91.3 Saint John
NS	Lower Sackville 88	.7 AP	PP	250 W/25 m, 44-45-26/63-39-24; Class A1; \$; would be a 'Community'
ON	Carleton Place 107	.7 AP	PP	station [Cobequid Radio Society] 675 W/99 m DA, 45-07-51/76-11-00; Class A; \$; would be
QC	Riviere-Au-Renard 106	5.7 CH	HGM-FM1	'Gold Based' AC [My Broadcasting Company] 520 W-V/73 m DA; 48-59-52/64-25-52; Class A; \$; would be FF AC and continue to relay CHGM-FM 99.3 Gaspé
NS	Windsor 99	.3		OTHERNEWS — Application rejected for commercial station by D&K Communications because the applicant did not appear to understand the procedures involved with starting up a new radio station, and also due to the potential financial impact a new station could have on CFAB-1450 in
ON	Arnprior 107	.7 CH	HMY-FM1	Windsor. Call letters would have been CKWI.  Application to rescind license and relocate allotment to Carleton Place,
ON	Dryden 97	.3 CJ	JIV-FM	Ontario [see Applications For New Facilities above]  Due to a lack of support, Way Of Life Broadcasting voluntarily
	-			



#### —— UNITED STATES AND TERRITORIES ——

#### - CALL LETTER CHANGES -

#### **FULL POWER and LPFM STATIONS**

			Old Call	New Call				Old Call	New Call
AZ I	Paulden	93.5	CP	KFMS	NJ	Cape May	102.3	WAIV	WSNQ
AZ (	Quartzsite	105.9	CP	KNCL	NJ	Cape May Court House	105.5	WSNQ	WAIV
CA	Big Sur	95.9	KMZT-FM	KYZZ-FM	NC	Raleigh	93.5	WVDJ-LP	WRLY-LP
CA	Salinas	97.9	KYZZ	KMZT-FM	NC	Thomasville	103.1	WEOM-LP	WTZO-LP
CA	Shafter	97.7	KSMJ	KNZR-FM	ND	Kindred	92.7	KFNL	KZDR
CO	Dotsero	100.9	CP	KKVC	ОН	Englewood	94.5	WLQT	WYDB
FL !	Lake Park	100.3	CP	WLML-FM	ОН	Norwood	100.3	WCFN	WOSL
FL S	Silver Springs Shore	99.7	CP	WGMA	OK	Okeene	101.5	CP	KOCD
GA A	Americus	106.9	CP	WGSW	TN	Oak Ridge	88.7	CP	WWQK
GA I	Homerville	97.1	CP	WVHY	ΤX	Benbrook	107.1	KFZO	KESS
IL A	Altamont	105.5	CP	WJKG	ΤX	Dalhart	100.1	CP	KXIT-FM
LA I	Haynesville	105.5	CP	KIMW	ΤX	Hunt	99.9	KRZS	KLKV
ME I	Bar Harbor	99.1	WLFE	WBFE	ΤX	Ingram	96.5	KSYY	KKGN
ME (	Gardiner	104.3	WABK-FM	WABK	ΤX	Refugio	103.7	KOUL	KXAI
ME	Madison	97.5	WIGY	WQSK	WA	Tacoma	103.7	KMTT	KHTP
MD (	Oakland	92.3	WWHC	WWHQ	WI	Chilton	92.9	WXMM	WKZY
MT I	Fort Benton	95.9	KJCD	KVMO	WI	Nekoosa	105.5	WRCW	WLJY
MT !	Roundup	100.1	KTRO	KZMO	WY	Torrington	89.9	CP	KEUW
MT Y	Whitehall	106.5	CP	KKRK					
NE S	Sargent	92.3	KBRY	KHZZ					

#### TRANSLATOR and BOOSTER STATIONS

			Old Call	New Call				Old Call	New Call
AL	Florence	92.9	W226BL	W225AB	NE	Grand Island	90.3	K220FS	K212GG
AL	Moores Mill	98.5	CP	W253BM	NJ	Trenton	96.9	CP	W245CC
AR	Nashville	98.5	K254AS	K253BO	NM	Farmington	106.7	CP	K294CC
AR	Walnut Ridge	103.1	K275AZ	K276FJ	NM	Gallup	93.3	K227CB	K225BK
CA	Broadmoor	103.3	CP	K277CH	NM	Las Vegas	103.7	K278BQ	K279BW
CA	San Diego	105.3	KIOZ-1	KIOZ-FM1	NY	Coram	93.3	CP	W227CL
CA	Santa Clarita	96.3	APP	KXOL-1	NY	Middletown	99.9	CP	W260CI
CO	Estes Park	104.7	K231BQ	K248BR	NY	Port Jervis	93.3	CP	W227CM
GΑ	Canton	101.9	CP	W270CH	NY	Port Jervis	98.9	CP	W255CM
GΑ	Ellijay	105.1	W289BF	W286BD	NY	Poughkeepsie	99.7	CP	W259BV
IN	Martinsville	100.5	CP	W263CH	NY	Ridge	106.5	W219BA	W293BT
IN	Martinsville	106.9	CP	W295BS	PA	Clarks Green	100.7	CP	W264CP
IA	Ames	89.5	K206AW	K208FV	PA	Milford	105.1	CP	W286CJ
IA	Knoxville	103.7	CP	K279BX	PA	Milford	105.9	CP	W290CK
MI	Athens	92.3	W225BB	W222BS	TN	Nashville	94.9	CP	W235BW
MI	Escanaba	93.7	CP	W229BP	TX	Austin	107.5	CP	K298BP
MS	Byhalia	96.3	W243BB	W242CF	UT	Park City	97.5	KZNS-8	KZNS-FM8
MS	Cedar Hills	93.1	W225BK	W226BS	WA	Tumwater	103.5	CP	K278BW
MT	Bozeman	93.3	CP	K227CC	WI	Bloomer	103.1	CP	W276CP
MT	Missoula	97.9	KDXT-1	KDXT-FM1	WI	Mercer	89.3	W204BY	W207CM

#### - FORMAT AND SLOGAN CHANGES -

- Full Power and LP Facilities -

ΑL	Greensboro	99.1	WDGM	Changes slogan to <i>Tide 99.1 FM</i>
ΑL	Marion	102.9	WNPT-FM	> Classic Country [Dial Global - Classic Country]
ΑL	Tuskegee	95.9	WQSI	> Talk: FM Talk 95.9
AK	Deering	91.9	KDRG	New station signs on with Variety [Kotzebue Broadcasting, Inc.]
ΑK	Fairbanks	92.7	KQHE	New station signs on with Religion [Little Flower Ministries]
ΑK	Kiana	91.9	KIAN	New station signs on with Variety [see above]
ΑK	Kivalina	91.9	KQVK	New station signs on with Variety [see above]
ΑK	Meadow Lakes	104.9	KYKA	> Christian CHR/Rock: Air One [Air One]
ΑK	Noatak	91.9	KUUK	New station signs on with Variety [see above]
ΑK	Noorvik	91.9	KORI	New station signs on with Variety [see above]
ΑK	Red Dog Mine Port	91.9	KZNC	New station signs on with Variety [see above]
ΑK	Selawik	91.9	KIEA	New station signs on with Variety [see above]
ΑZ	Colorado City	106.1	KXFF	Changes slogan to Sports Radio 106.1
ΑZ	Phoenix	101.5	KZON	Changes slogan to Live 101.5
ΑZ	Sun City West	95.1	KVIB	Changes their slogan to 95.1 FM Toda Tu Musica

ΑZ	Wellton	95.9	KUKY	> Regional Mexican: Radio Amigo
AR	Hot Springs Village	92.9	KVRE	Changes network to Dial Global - Standards
AR	Walnut Ridge	88.9	KWCV	New station signs on with Religious Teaching [Bott Radio Network]
CO	Beulah	94.7	KFVR-FM	> Oldies: 94.7 Oldies
CO	Durango	105.3	KXRC	New station signs on with Classic Rock: X Rock 93.1
CO	Olney Springs	104.9	KRYE	Changes slogan to Tigre FM
	Washington	107.3	WRQX	> CHR: The Deuce
	Crystal River	91.9	WHGN	Changes slogan to Where You Turn For Life [Moody]
	Cutler Bay	90.9	WLFE	> Contemporary Christian: 90.9 Life FM
	Hartford	106.9	WCCC-FM	> Classic Rock
FL	Gretna	93.3	WVFT	Changes slogan to Freedom 93 Talk
	High Springs	88.1	WUBA	New station signs on with Variety
	Lakeland	91.1	WKES	Changes slogan to Where You Turn For Life
	Landiana	<b>V</b>	·····LO	[Moody]
FI	Naples	90.9	WSOR	Changes slogan to Where You Turn For Life [Moody]
	Panama City	90.7	WKGC-FM	> BBC News/American Public Media [drops NPR]
	Perry	107.7	WAJP	> Regional Mexican: Radio Amigo
	Sarasota	107.7	WKZM	Changes slogan to Where You Turn For Life [Moody]
	Sunrise		WKPX	
ΓL	Sunrise	88.5	WNFA	Changes slogan to South Florida's Radio
C A	Midway	00.2	WCCO	Alternative
	Midway	98.3	WGCO	> Classic Country: 98.3 Hank FM
_	Savannah	96.5	WJCL-FM	Changes slogan to NASH-FM 96.5
	Waycross	97.7	WWUF	Changes slogan to 97.7 The Wolf
	Wrightsville	107.9	WDBN	> Classic Rock: 107.9 Jamz FM
	Kurtistown	102.7	KTBH-FM	Returns to the air with Adult Alternative: 102.7 The Beach
IL	Decatur	93.1	WYDS	Changes slogan to 93.1 Quickhitz
IL	Elmwood	97.3	WFYR	Changes slogan to NASH-FM 97.3
IL	Galesburg	90.7	WVKC	> News/Talk/Classical: Tri-States Public Radio [NPR]
IL	Gilman	103.7	WYUR	> Country: River Country
IL	Minooka	88.5	WMNK	New station signs on (format not available at deadline)
IL	Pittsfield	97.5	WBBA-FM	Changes slogan to Full Service Radio WBBA
IN	Ligonier	105.9	WNRL-LP	Returns to the air with Spanish Contemporary Christian
IN	New Castle	102.5	WMDH-FM	Changes slogan to NASH-FM 102.5
IA	Knoxville	92.1	KRLS	Changes slogan to Today's News & Local Information
ΙA	Onawa	102.3	KQNU	Changes slogan to Q 102.3
	Belle Plaine	99.7	KHLT-FM	Changes slogan to 99.7 Lite FM
	Burdett	93.5	KKDT	> Country: My Country 93.5
	Concordia	88.3	KVCO	> Rock
	Hays	88.9	KPRD	Adds slogan <i>Praise Radio For Midwest Kansas</i>
	Hammond	103.3	WRQQ	> Classic Hits: Classic Hits 103.3
	Larose	100.3	KLRZ	> Sports: 100-3 ESPN
	New Iberia	99.1	KXKC	Changes slogan to NASH-FM 99.1
	Madison	97.5	WQSK	> Adult Contemporary: Kiss 94.5
	Pittston Farm	88.1	WHPF	> Contemporary Christian: Worship FM [Worship FM]
	Mount Forest	91.9	WSMO	New station signs on (format not available at deadline)
	Forest Lake	95.9	WLKX-FM	> Spanish Religion: La Netta 95.9
	Pilager	95.9	WWWI-FM	> Classic Rock: Wings 95.9
	Superior	107.5	KENR	Changes slogan to 107.5 Zoo FM
	Knob Noster	105.7	KXKX	Changes slogan to Better Country KIX 105
_	Sedalia	92.3	KSDL	Changes slogan to 92.3 Bob FM
	Henderson	95.5	KWNR	Changes slogan to 95.5 The Bull
NJ	Taylortown	90.3	WNEQ	New station signs on with Religious Teaching // WFSO
				88.3 Olivebridge, New York
NM	Carlsbad	90.1	KLRS	New station signs on with Contemporary
				Christian [K-Love]
NY	Cape Vincent	102.7	WLYK	> CHR: Kiss 102.7 announcing Kingston's
				Number 1 Hit Music Station
NY	Wethersfield Township	107.7	WLKK	> Modern Rock: Alternative Buffalo 107.7
				and is no longer // WBEN-930 Buffalo
NC	Belhaven	101.1	WQZL	Changes slogan to Jack FM [Dial Global - Jack FM]
NC	Hatteras	97.1	WYND-FM	> Contemporary Christian: K-Love [K-Love]
NC	Hertford	91.3	WHGO	Signs on with Southern Gospel: Go Mix Radio Network
NC	Jacksonville	92.3	WQSL	> Adult Hits: Jack FM [Dial Global - Jack
				FM] alternative buffalo
ND	Fargo	101.9	KRWK	> Rock: Rock 102
	Hope	104.7	KMJO	> Adult Contemporary: 104.7 Mix FM
	Kindred	92.7	KZDR	Returns to the air with Classic Hits: 92.7
_		-		The Drive
ОН	Bryan	100.9	WBNO	> Classic Rock: B-Rock 100.9
	Holland	102.3	WPOS	> Christian AC: Proclaim FM
_	Kenton	88.5	WKEN	Format is Gospel: Shine FM // WSOH 88.9 Zanesville
	Mustang	99.7	KZLS	> Country: 99.7 Hank FM
	Condon	106.1	KWCQ	> Urban Contemporary [Cumulus - Classic Hip
JIX	Common	. 55.1		Hop/R&B]
PΛ	Carlisle	88.3	WDCV-FM	Changes slogan to 88.3 The Voice Of Dickinson
ı A	Jai IIJIG	00.3	11.00 V-1-1VI	College
90	Darlington	105 5	WDADEM	
30	Darlington	105.5	WDAR-FM	> Contemporary Christian: Positive Hits Sunny 105.5 [Salem - Today's
60	Cooractour	100 5	\A/I EE	Changes alogen to NASH EM 106 5
	Georgetown	106.5	WLFF	Changes slogan to NASH-FM 106.5
30	Williston	99.9	WUCC	New station signs on with Religious Teaching:
<b>T</b>	Callingues and	04.0	\A/B4CC ===	Conquering With Christ WUCC 99.9
	Collinwood	94.9	WMSR-FM	> Hot AC: Shoals Modern Hits
	Middleton	100.3	WYDL	> Classic Rock: Rock 100
	Waynesboro	100.7	WMBZ	Returns to the air with Hot AC
ΓX	Amarillo	87.7	KBEX-LP	> Tejano: Tejano Power 87.7

TX	Blowout	88.9	KXMP	Signs on with a Variety format
ΤX	Encinal	91.7	KQBI	> Spanish Religious: Radio Vida Vision
ΤX	George West	93.5	KGWT	> Regional Mexican: Radio Amigo
ΤX	George West	97.9	KXAF	> Regional Mexican: Radio Amigo
ΤX	Georgetown	107.7	KLJA	Changes slogan to El Sancho 107.7
ΤX	Llano	91.7	KVHL	Signs on with News/Talk: Texas Public Radio [National Public Radio]
TX	Rankin	93.7	KXFS	> Regional Mexican: Radio Amigo
TX	Refugio	100.5	KRIK	Adds slogan <i>Radio Amigo</i>
TX	Reno	98.9	KLOW	> CHR: The Hot FM 98.9
TX	San Diego	102.5	KXAM	New station signs on with Regional Mexican: Radio Amigo
TX	Silsbee	101.7	KAYD-FM	Changes slogan to NASH-FM 101.7
TX	Taylor	104.3	KLQB	Changes slogan to La Jefa 104.3
TX	Zapata	103.9	KJJS	> Regional Mexican: Radio Amigo
UT	Price	100.1	KWSA	> Modern AC: The Buzz
UT	Provo	94.9	KHTB	> Modern Rock: Alt 94.9
VT	Swanton	89.9	WNGF	Adds Contemporary Christian as a second
				format: The Light 91.5
VA	Amherst	107.9	WYYD	> Modern Country: New Country 107.9 WYYD
VA	Berryville	105.5	WXBN	> Country: Big Country 105
	Fort Lee	96.5	WKLR	> Classic Rock: Classic Rock 96.5
VA	Nassawadox	96.9	WFAJ	> Regional Mexican: Radio Amigo
	Richmond	103.7	WURV	Changes slogan to 103.7 Play
	Basin City	97.5	KOLW	> Rhythmic CHR: Hot 97.5
	Opportunity	96.1	KIXZ-FM	Changes slogan to Power 96.1
	Tacoma	103.7	KMTT	> Rhythmic Hot AC: Hot 103.7
	Bethany	88.1	WYZR	Returns to the air with lazz
	Milton	106.3	WAMX	> Classic Rock: 106.3 The Brew
	Chilton	92.9	WXMM	> Hot AC: KZ 104.3 // WKZG 104.3
•••	oton	02.0	***************************************	Seymour 105.5
WI	Nekoosa	105.5	WLJY	> AC: Y 105.5 // WFHR-1320 Wisconsin
				Rapids 0600-0800 [Dial Global-Hot AC]
wı	Platteville	90.5	WSUP	Returns to the air with Adult Alternative
	Cody	97.9	KTAG	> Hot AC [Dial Global - Hot AC]
	Douglas	99.3	KKTS-FM	Changes slogan to Hit Radio 99.3
•••	2 o a g.a o	00.0		onangos siogan to mi maaro soro
				— Translators —
ΔΙ	Montgomery	107.1	W296AI	> Classic Rock: The Vault
	Duluth	90.9	W203AL	Returns to the air here, displaced from 88.5 by WSSU Superior,
	Daratii	00.0	****	Wisconsin) with Religious Teaching [Family Radio]
NY	Coram	93.3	W227CL	Signs on with Soft AC // WLIX-LP 94.7 Ridge
	Middletown	99.9	W260CI	Signs on with Contemporary Christian/Religious Teaching: Sound of Life
	Middletown	55.5	1120001	// WRPJ 88.9 Port Jervis which is // WFGB 89.7 Kingston
NY	Port Jervis	93.3	W227CM	Signs on with Contemporary Christian/Religious Teaching: Sound of Life
	i oit oci vis	55.5	WZZZZOW	// WLJP 89.3 Monroe
NV	Port Jervis	98.9	W255CM	Signs on // WRPJ 88.9 Port Jervis which is // WFGB 89.7 Kingston
	Raleigh	94.3	W232CH	Signs on with Religion [EMF]
	Dayton	101.1	W266BG	> Classic Rock: 95.3 The Eagle // WZLR 95.3 Xenia
	Riverside	98.7	W254BA	> Urban Oldies: <i>The Soul of Dayton</i> // WHKO-HD3 99.1 Dayton
	Portland	102.3	W254BA W272EL	> Alternative: Radio 102.3
_	Milford	102.3	W272EL W286CJ	Signs on // WGWR 88.1 Liberty, NY which is // WFGB 89.7 Kingston,
гA	Willion	103.1	1120003	NY
DΛ	Milford	105.9	W290CK	Signs on with a Varity format // WNYX 88.1 Montgomery, NY
	Nashville	94.9	W290CK W235BW	Signs on with Sports: SportsTalk 830 AM // WQZQ-830 Goodlettsville
1 14	ITASIIVIIIC			•
		10.0		THE EACH







			L J. AM. OIMIJI OAOTO
			and AM SIMULCASTS —
IL Paris	98.5	WIBQ	WBOW-1300 Terre Haute, Indiana
LA Berwick	105.9	KBZE	KFRA-1390 Franklin
MO Piedmont	104.9	KPWB-FM	KPWB-1140 Piedmont
ND Cavalier	105.1	KAOC	KNDK-1080 Langdon; with Country during morning drive, talk during the day, and Sports from Yahoo at night
WI Nekoosa	105.5	WRCW	WFHR-1320 Wisconsin Rapids; with AC: Y 105.5 [Dial Global-Hot AC]; is // from 0600-0800 only
WY Casper	99.3	KKTS-FM	KKTS-1600 Casper with Hot AC: Hit Radio 99.3
			— OTHERNEWS —
AZ Kingman	105.9		Application for a new translator station dismissed at the request of the applicant
AZ Tucson	95.7		Application for a new translator station dismissed
AR Bearden	92.7	CP	License granted for a new Class A station
CA Greenfield	98.7	CP	License granted for a new Class A station
CA Placerville	104.3		Application for a new translator station dismissed at the request of the applicant
CA San Diego	106.9		Application for a new translator station dismissed
CA San Marcos	107.9		Application for a new translator station dismissed at the request of the applicant
CA West San Diego	92.9		Application for a new translator station dismissed
CA Westwood	88.5	KWLK	Is silent
CO Edgemont	105.7	CP	License granted for a new Class C1 station
CO Springfield	91.9	KTTE	Changes frequency from 91.7
CO Weldona	103.1	KFWA	Is silent

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102.9
                                     W275AX
                                                  CP granted to change the City-of-Licence to Bartow
FL Fort Meade
FL
   Glen St. Mary
                              97.5
                                    WFBB-LP
                                                  CP granted for move from 100.3
ID
    Hayden
                             106.1
                                    CP
                                                  License granted for a new Class L1 station
    Altamont
                             105.5
                                                  License granted for a new Class A station
IN
    Rochester
                              88.7
                                    WQKV
                                                  CP granted to change City-of-License to Warsaw
IN
    Speedway
                              94.3
                                                  Application for a new translator station dismissed
                                    W258BA
    Terre Haute
                                                  Changes City-of-License from Marshall, Illinois
IN
                              99.5
   North English
                                    KMYQ
                                                  Is silent
                              97.1
IΑ
                                    WUUU
LA
   Franklinton
                              98.9
                                                  Is silent
LA
   Harrisonburg
                              94.3
                                    CP
                                                  License granted for a new Class C3 station
                             104.9
                                    СР
    Oil City
                                                  License granted for a new Class A station
                                    СР
KS
   Americus
                              95.5
                                                  License granted for a new Class A station
                                                  License granted for a new Class C1 station
KS Atwood
                             106.3
                                    СP
                                                  License granted for a new Class A station
    Haynesville
                             105.5
                                    CP
LA
ME Sanford
                                    W272CG
                                                  Changes City-of-License from Biddeford
                             102.3
MI
   Harrison
                             103.9
                                    CP
                                                  License granted for a new Class A station
МІ
    Harrisville
                              88.1
                                     WSFP
                                                  Changes frequency from 88.5 and City-of License from Rust Township
    Mount Forest
                                     WSMO
                                                  Changes City-of-License from Mt. Forest
                              91.9
MΙ
    Rust Township
                              89.7
                                     WJOJ
                                                  Changes City-of-License from Harrisville
   Speaker Township
                              89.7
                                    WKKM
                                                  Changes City-of-License from Speaker Twp.
MI
MN Grand Portage
                                    CP
                                                  License granted for a new Class C1 station
                              96.9
                                                  Due to a lightning strike on 3 September, KLTA-FM is operating at reduced
                                    KLTA-FM
MN Moorhead
                              98.7
                                                  power (69 kW vs licensed 100 kW) under an STA; they are using a
                                                  temporary antenna and a replacement not be installed until next spring
MS Byhalia
                              96.3
                                    W242CF
                                                  Changes City-of-License from Holly Springs
    Cut Bank
                                                  License granted for a new Class C2 station
MΤ
                             100.9
                                     CP
                                    KJCD
MT Fort Benton
                              95.9
                                                  Is silent
NV Fernley
                              94.1
                                    CP
                                                  License granted for a new Class C3 station
                                    WXGN
NJ Somers Point
                              90.5
                                                  Changes City-of-License from Egg Harbor Township
NM Cloudcroft
                              97.9
                                    CP
                                                  License granted for a new Class C2 station
NM Gallup
                              91.7
                                    KGLP
                                                  Fined $12,000 for Public Inspection File violations
NY Cape Vincent
                                     W230BG
                                                  License cancelled; call deleted
                              93.9
NC Buxton
                                     WHDX
                              99.9
                                                  Is silent
NC Raleigh
                              93.5
                                     WVDJ-LP
                                                  Changes frequency from 107.9
OH Riverside
                                    W254BA
                                                  CP granted to change City-of-License to Dayton
                              98.7
OK Okeene
                             101.5
                                                  License granted for a new Class C2 station
                                    CP
OK Tipton
                              94.5
                                    CP
                                                  License granted for a new Class C3 station
OR Aloha
                              97.9
                                     KXPC
                                                  Changes City-of-License from Eugene
OR Burma
                             104.7
                                                  Application for a new translator station dismissed
OR Goshen
                              95.3
                                                  Application for a new translator station dismissed
OR Ione
                              99.5
                                    CP
                                                  License granted for a new Class C3 station
                                                  License cancelled; call deleted
OR Port Orford
                                     KPOZ
                              88.1
PA New Albany
                                    WPAL
                                                  Changes City-of-License from Laporte
                              91.7
SC
   Columbia
                             106.3
                                                  License granted for a new translator station
                                    WALI
SC
   Walterboro
                              93.7
                                                  Is silent
SD Edgemont
                             105.7
                                                  License granted for a new Class C1 station
SD Pine Ridge
                                    KVKR
                                                  Changes frequency from 88.3
                              88.7
   New Tazewell
                                    WTAZ-LP
                                                  License cancelled; call deleted
TN
                              98.3
ΤX
                                                  License granted for a new Class C3 station
    Bangs
                              97.9
                                    CP
                                    CP
TX
    Comanche
                             103.9
                                                  License granted for a new Class A station
                                    KJNZ
TΧ
   Hereford
                             103.5
                                                  Is silent
ΤX
   Markham
                             104.5
                                    CP
                                                  License granted for a new Class A station
    Mertzon
                             103.5
                                    CP
                                                  License granted for a new Class C2 station
TX
TX Rollingwood
                             100.5
                                                  Application for a new translator station dismissed at the request of the
                                                  applicant
                                                  License granted for a new Class C3 station
TX Santa Ana
                             105.5
                                    CP
   South Padre Island
                             105.1
                                                  Application for a new translator station dismissed
TX
TX Snyder
                              89.9
                                    KTPR
                                                  Is silent
TX
    Yoakum
                              94.3
                                     KYKM
                                                  Changes frequency from 92.5
UT Cedar City
                             106.1
                                                  Application for a new translator station dismissed at the request of the
                                                  applicant
                                                  License granted for a new Class A station
VT Poultney
                              92.5
                                    СР
                                                  Changes frequency from 93.7
                                    KXAA
WA Cle Elum
                             100.3
WA Dishman
                                                  Application for a new translator station dismissed
                             105.7
WA Eaglemount
                             103.1
                                                  Application for a new translator station dismissed
WA Hazel Dell
                             103.5
                                    K278BU
                                                  License cancelled; call deleted
WA Moses Lake
                                     KWIQ-FM
                                                  Changes frequency from 100.3
                             100.5
WV Marlinton
                             106.3
                                     CP
                                                  License granted for a new Class A station
WI Beloit
                                     WXXD-LP
                                                  License cancelled; call deleted
                              92.9
WI Reedsville
                                     WOGB
                                                  Changes City-of-License from Kaukauna
                             103.1
WY Elk Mountain
                                    KGCV
                                                  License cancelled; call deleted
                              88.1
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Thanks to Shawn Axelrod, Tim Noonan, Ralph Strobel, Dan Sys, Radio Insight, Radio World Online and Upper Midwest Broadcasting for news.

If you hear any changes occur on your FM dial, share the news! 73



#### **FM FACILITIES**

#### OCTOBER 2013

	AF	Applied For (a new station)	PC P	ower (and/	or tower height	) <b>c</b> hange on the air
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Applied For (a new station)
Auxiliary (backup) transmitter
Callsign change
City-of-license change
License/permit deleted
Programming (format) change
Failure to Prosecute Power change granted
Power change requested Aux PG CC CL PR RA

RE

DE FC FTP ROA

SI STA

Returns to the air
Reinstated (previously-dismissed app.)
Request of Applicant
Off the air (silent)
Special Temporary Authority
Transmitter site changed License to Cover
Permit granted for new station LC NS XCTransmitter site change granted
Transmitter site change requested New station on the air Proposed Amendment XG XR NW РΑ

#### Changes:

CITY & STATE/PROVINCE	FREQ	CALLSIGN	CHANGES
AB Calgary	95.3	CHPK-FM	PG>273m, 51-04-21/114-15-38
AB Fort Saskatchewan	107.9	CKFT-FM	PG<61m, 53-43-01/113-15-26
AB Hinton	104.9	NEW	AF 1.1kw/345m, rock
AB Vegreville	106.5	NEW	AF 13kw/108m, country
AK Kodiak	100.1	KMXT	PR<271m
AK Kodiak	90.7	KODK	NW 275w/270m, 57-47-23/152-25-54 (Kodiak Public Broadcasting)
AK Seward	90.7	KSVJ	NW 250w/-436m, 60-10-38/149-23-51 (Blessed Hope Baptist Mission)
AL Demopolis	88.7	WMWI	PR>100kw/88m, 32-22-34/87-47-02
AL Linden	98.5	WINL	PG<247m, 32-07-28/87-44-00
AL Linden	98.5	WINL	PR<247m, 32-07-28/87-44-00
AR Bearden	92.7	NEW	NS 6kw/100m, 33-44-28/92-35-26 (Family Life Broadcasting)
AR Caddo Valley	99.7	KWPS-FM	CC from KHCV
AR Fort Smith	93.7	KISR	PG<89kw/315m, 35-42-36/94-08-15
AR Gassville	92.7	KYMT	PR 3.1kw/142m, 36-20-37/92-25-30
AR Goshen	99.5	KAKS	PC<3.1kw/140m, 36-12-20/94-06-06
AR Harrison	102.9	KHBZ	PG<293m, 36-26-10/93-14-36
AR Lowell	101.9	KMXF	NW 10kw/192m (aux)
AR Searcy	88.7	KLUY	PR<650w/102m, 35-15-52/91-47-07
AR Walnut Ridge	88.9	KWCV	NW 50kw/105m, 35-13-32/91-47-07
AZ Casa Grande	88.7	KLKA	QR from 88.5, 83kw/206m, 33-03-39/111-02-59; CL from Globe dismissed
AZ Casa Grande AZ Chandler	88.7	NEW	NS 100kw/50m, 32-49-51/112-08-02 (Arizona Community Media Foundation)
AZ Chandlei AZ Douglas	95.3	KCDQ	PG>100kw/300m, 32-47-51712-00-02 (A112011a Confinitulity Media Foundation)
AZ Lake of the Woods	104.5	KZXQ	PR>20kw/248m, 34-12-22/109-56-32; CL from Reserve, New Mexico
		KFMS	
AZ Paulden	93.5		CC for NS
AZ Paulden	93.5	NEW	NS 3.9kw/253m, 34-49-32/112-34-09 (FMI Media)
AZ Quartzsite	105.9	KCNL	CC for NS
AZ San Carlos	94.1	KRDE	NW 2.1kw/1027m (aux)
AZ Tanque Verde	101.1	KKYZ	QG from 101.7, 24kw/49m, 32-12-01/111-01-03; CL from Sierra Vista
AZ Tucson	89.3	KAIC	QR from 88.9, 1.8kw/12m dismissed 73.3517(e) (grant contingent on other
A.7 Window Dook	02.2	1/22243/	applications, at least one of which was dismissed)
AZ Window Rock	92.3 102.3	K222AY NEW	PR<41w, 35-33-33/109-06-21
BC Grand Forks	102.3	INEW	AF 1.043kw/-353m, classic rock. CKGF-FM & its existing relayers at Rock Creek & Christina Lake would become relayers of this station.
BC Vancouver	95.3	CKZZ-FM	PG 66kw/707m
CA Alturas	101.7	KQGD	CC for NS
	101.7		NS 51kw/-101m, 41-30-17/120-28-55 (L. Topaz Enterprises)
CA Ambay	101.7	NEW NEW	NS 760w/224m, 34-43-10/115-39-15 (Point 5 LLC)
CA Amboy CA Anderson	98.7	K262AM	QC from 100.3
CA Anderson  CA Berkeley	94.1	KPFA	NS 36kw/340m (aux)
CA Big Sur	95.9	KYZZ	
CA Big Sui CA Ferndale	90.1		CC from KZT-FM
	90.1	KHSF KHSF	PC>165w/542m PR>300w/538m
CA Ferndale			
CA Greenfield	98.7	NEW	NS 1.4kw/178m, 36-27-51/121-17-52 (Lotus Communications Corp.)
CA Porterville	99.7	KIOO	PC>25kw/214m
CA Salinas	97.9	KMZT-FM	CC from KYZZ
CA San Andreas	90.7	KQBM	PG 90w/475m, 38-01-23/120-35-26
CA San Andreas	90.7	KQBM	PG>100w H&V
CA San Andreas	90.7	KQBM	PR<1w-H/90w-V/475m, 38-01-23/120-35-26
CA San Andreas	90.7	KQBM	PR>100w
CA Washing of	99.3	K260BY	QR from 99.9, 240w, 33-06-40/117-12-05
CA Westwood	88.5	KWLK	PG<270w/408m, 40-20-15/120-52-11
CA Yucca Valley	90.5	NEW	PG>3.5kw/75m, 34-09-15/116-11-50
CH Tuxtla Gutierrez	93.1	XHREZ-FM	NS

CO Contential	CO Battlement Mesa	102.9	KJXR	NW 6.1kw/-226m, 39-26-25/107-59-06 (Cochise Media Licenses)
CO Olarbe   1017   NEW		101.9		
CO Robot Creek Park   101.7   KKCL   Pic.2   InstPin 3,843   1,1704 4,311   C.   Irom Westorlife				
CO Selection				
CO Serventance				· · · · · · · · · · · · · · · · · · ·
CO Springfield Fig. 19.1 CO Westcliffe Fig. 19.2 Fig. Co Westcliffe Fig. Co Westcliff Fig.				
CO Westellife				
CO Westciffle 919 K127R P. PC-1000+150n; 38:08-04016-27-41  CY Collina 94.9 XRIDECTR IN Brighton Reservation 91.3 WTR OR From 919, 860v II. Conco 97.3 WLRO JM NS Swindshir, 2614-2800, 5-56 (sux) II. Conco 97.3 WLRO JM NS Swindshir, 2614-2800, 5-56 (sux) III. Conco 97.3 WLRO JM NS Swindshir, 2614-2800, 5-56 (sux) III. Conco 97.3 WLRO JM NS Swindshir, 2614-2800, 5-56 (sux) III. Lindiantoon 103.1 WIRK NS WY 1800-1800, 263-3302-05-26 (balephochoods United for a Better Alachus) III. Lindiantoon 103.1 WIRK NS WY 1800-1800, 264-3302-05-26 (balephochoods United for a Better Alachus) III. Lindiantoon 103.1 WIRK NS W 24 skindloom, 26-47-5980-04-33 (sux) III. Lindiantoon 103.1 WIRK NS W 24 skindloom, 26-47-5980-04-33 (sux) III. Lindiantoon 103.1 WIRK NS W 24 skindloom, 26-47-5980-04-33 (sux) III. Lindiantoon 103.1 WIRK NS W 24 skindloom, 26-47-5980-04-33 (sux) III. Lindiantoon 103.1 WIRK NS W 24 skindloom, 26-47-5980-04-33 (sux) III. Lindiantoon 103.1 WIRK NS W 24 skindloom, 26-47-5980-04-33 (sux) III. Lindiantoon 103.1 WIRK NS W 24 skindloom, 26-47-5980-04-33 (sux) III. Lindiantoon 103.1 WIRK NS W 24 skindloom, 26-47-5980-04-33 (sux) III. Lindiantoon 103.1 WIRK NS W 24 skindloom, 26-47-5980-04-33 (sux) III. Lindiantoon 103.1 WIRK NS W 24 skindloom, 26-47-5980-04-33 (sux) III. Lindiantoon 103.1 WIRK NS WIRK				
CO Westellife				
CY Column				
F. Berghorn Reservation   91.3   WTIR   Cocon   99.3   WILACO-PM   S. SalveMern, 2804-1280-35-56 (aux)   F. Deskin   92.1   WECO   FG 19wart 15m, 3024-3808-37-22   F. Helph Springs   80.1   WUBA   PS-229w275   F. Like Park   100.3   RFW   RS-229w275   F. Like Springs Shore   97.7   WRMF   RS-228w2.75   F. Park Springs Shore   97.7   WRMF   RS-228w2.75   F. Silver Springs Shore   97.7   WUCC   PS-248w2.75   F. Silver Springs Shore   97.7   WUSC   RS-249w275   F. Silver Springs Shore   97.9   WRAT   RS-249w275   F. Silver Springs Shore   97.9   WRAT   RS-249w275   F. West Palm Booch   107.9   WRAT   RS-249w275   F. West Palm Booch   107.0				
F. Coccos				
F. Desidn   92.1   WECO   FG   FW   Tim 30.24-3889-5.732   F. High Springs   88.1   VUIDA   PR-22002/tm   F. Lindentoon   103.1   VIRK   WIS   WIS   Aleva   Wish   F. Lindentoon   103.2   VMINK   WIS   26.64-016-01.26-19-5980-01-33 (pax)   F. Lindentoon   103.3   VMRX   WIS   26.64-016-01.26-19-5980-01-33 (pax)   F. Lindentoon   103.3   WISK   WIS   26.64-016-01.26-19-5980-01-33 (pax)   F. Lindentoon   103.3   WISK   WISK   26.64-016-01.26-19-01-30 (pax)   F. Lindentoon   103.4   WISK   WISK   26.64-016-01.26-19-01-30 (pax)   F. Minton Springs Shore   97.1   WISK   WISK   WISK   WISK   WISK   WISK   WISK   WISK   F. Silver Springs Shore   97.1   WISK   WIS				
File High Springs				
Fi. High Springs   S8.1   WIRKA   PR-220m/21m				
Fl. Indianchom				
FL Jasce Bacch 102.3   WMBX   NW 24 Swi10km, 26-47-5980-04-12 (purple)   FL Miramar   104.3   NEW   NS 4 kwr115m, 26-47-5800-044 (polisions intertaliment)   FL Miramar   104.3   NEW   NS 4 kwr115m, 26-47-5800-044 (polisions functialiment)   FL Palm Bacch 97.9   WRGM   NW 23 7 kwr010m, 26-47-5800 0-13 (pitcardo D. Arroyo)   FL Siker Springs Shore 99.7   NEW   NS 24wr175m, 29-10-5882 0-19 (Ricardo D. Arroyo)   FL Siker Springs Shore 99.7   WGMA   NW 125 7 kwr010m, 26-47-5800 0-13 (pitcardo D. Arroyo)   FL Siker Springs Shore 91.1   WWRM   NW 125 7 kwr010m, 26-47-5800 0-13 (pitcardo D. Arroyo)   FL Siker Springs Shore 91.1   WWRM   NS 100wr38a-12-47-1002-13-13 (put)   FL Taverial Reach 107.9   WRGM   NS 100wr38a-12-47-1002-13-13 (put)   FL Taverial Reach 107.9   WGMA   NS 100wr38a-12-47-1002-13-13 (put)   FL West Palm Bacch 107.9   WGM   NEW   WGM   OR form 104.7 50wr0113m, 28-57-1600-13-15   FL West Palm Bacch 107.9   WGM   NEW   NF 100   OR form 104.7 50wr0113m, 28-57-1600-13-15   FL West Palm Short 107.9   NF 107.5   WGM   NF 107.5   WGM   NF 107.5   FL West Palm Short 107.9   NF 107.5   WGM   NF 107.5   WGM   NF 107.5   FL West Palm Short 107.9   NF 107.5   WGM   NF 107.5   WGM   NF 107.5   FL West Palm Short 107.9   NF 107.5   WGM   NF 107.5   WGM   NF 107.5   WGM   NF 107.5   FL West Palm Short 107.9   NF 107.5   WGM   NF 10				
FL Lake Park				, ,
FL Marmarer FL Palm Beach FL Palm Beach FL Striker Springs Shore FL Striker Springs FL Striker				, ,
FL Palm Brach				
FL. Silver Springs Shore				
FL Stew Springs Shore				
FL ST Marks 91.1 MULC PC-74km/19m, 33-03-58815-17 FL Tampa 94.9 WWRM NS 100km/35m, 274-9108-215-39 (aux) FL Tavernier 88.1 MWKL C C for NS FL West Palm Beach 107.9 WEAT NW 53 3km/10km, 26-47-5980-04-33 (aux) FL West Palm Beach 107.9 WEAT NW 53 3km/10km, 26-47-5980-04-33 (aux) FL West Palm Beach 107.9 WEAT NW 53 3km/10km, 26-47-5980-04-33 (aux) FL West Palm Beach 107.9 WEAT NW 53 3km/10km, 26-47-5980-04-33 (aux) FL West Palm Beach 107.9 WEAT NW 53 3km/10km, 26-47-5980-04-33 (aux) FL West Palm Beach 107.9 WEAT NW 53 3km/10km, 26-47-5980-04-33 (aux) FL West Palm Beach 107.9 WEAT NW 53 3km/10km, 26-47-5980-04-33 (aux) FL West Palm Beach 107.9 WEAT NW 53 3km/10km, 26-47-5980-04-33 (aux) FL West Palm Beach 107.9 WEAT NW 53 3km/10km, 26-47-5980-04-33 (aux) FL West Palm Beach 107.9 WEAT NW 53 3km/10km, 26-47-5980-04-33 (aux) FL West Palm Beach 107.9 WEAT NW 53 3km/10km, 26-47-5980-04-33 (aux) FL West Palm Beach 107.9 WEAT NW 53 3km/10km, 26-47-5980-04-33 (aux) FL West Palm Beach 107.9 WEAT NW 53 3km/10km, 26-47-5980-04-33 (aux) FL West Palm Beach 107.9 WEAT NW 54 3km/10km, 26-48-49-17 (victor M Vickers) FL West Palm Beach 107.1 WHY C C for NS FL West Palm				, , , , , , , , , , , , , , , , , , , ,
FL Tampa	1 0			
FL Tever Palm Beach 107.9 WEAT CR ROA (aux) FL West Palm Beach 107.9 WEAT W 25.3 kw/10 km 2-647-5980-04-33 (aux) FL West Palm Beach 107.9 WEAT W 25.3 kw/10 km 2-647-5980-04-33 (aux) FL West Palm Beach 107.9 WEAT W 25.3 kw/10 km 2-647-5980-04-33 (aux) FL West Palm Beach 107.9 WEAT W 25.3 kw/10 km 2-647-5980-04-33 (aux) FL West Palm Beach 107.9 WEAT W 25.3 kw/10 km 2-647-5980-04-33 (aux) FL West Palm Beach 107.9 WEAT W 25.3 kw/10 km 2-647-5980-04-33 (aux) FL West Palm Beach 107.9 WEAT W 25.3 kw/10 km 2-647-5980-04-33 (aux) FL West Palm Beach 107.9 WEAT W 25.3 kw/10 km 2-647-5980-04-33 (aux) FL West Palm Beach 107.9 WEAT W 25.3 kw/10 km 2-647-5980-04-33 (aux) FL West Palm Beach 107.9 WEAT W 25.3 kw/10 km 2-647-5980-04-35 (aux) FL West Palm Beach 107.9 WEAT W 25.3 kw/10 km 2-647-5980-04-35 (aux) FL West Palm Beach 107.9 WEAT W 25.3 kw/10 km 2-647-5980-04-35 (aux) FL West Palm Beach 107.9 WEAT W 25.3 kw/10 km 2-647-5980-04-35 (aux) FL West Palm Beach 107.9 WEAT W 25.3 kw/10 km 2-647-5980-04-35 (aux) FL West Palm Beach 107.9 WEAT W 25.3 km 2-647-5980-04-35 (aux) FL West Palm Beach 107.9 WEAT W 25.3 km 2-647-35 (aux) FL West Palm Beach 107.9 WEAT W 25.3 km 2-647-35 (aux) FL West Palm Beach 107.9 WEAT W 25.3 km 2-647-35 (aux) FL West Palm Beach 107.9 WEAT W 25.3 km 2-647-35 (aux) FL West Palm Beach 107.9 WEAT W 25.3 km 2-647-35 (aux) FL West Palm Beach 107.9 WEAT W 25.3 km 2-647-35 (aux) FL West Palm Beach 107.9 WEAT W 25.3 km 2-647-35 (aux) FL West Palm Beach 107.9 WEAT W 25.3 km 2-647-35 (aux) FL West Palm Beach 107.9 WEAT W 25.3 km 2-648-35 (aux) FL West Palm Beach 107.9 WEAT W 25.3 km 2-648-35 (aux) FL West Palm Beach 107.9 WEAT W 25.3 km 2-648-35 (aux) FL West Palm Beach 107.9 WEAT W 25.3 km 2-648-35 (aux) FL West Palm Beach 107.9 WEAT W 25.3 km 2-648-35 (aux) FL West Palm Beach 107.9 WEAT W 25.3 km 2-648-35 (aux) FL West Palm Beach 107.9 WEAT W 25.3 km 2-648-35 (aux) FL West Palm Beach 107.9 WEAT W 25.3 km 2-648-35 (aux) FL West Palm Beach 107.9 WEAT W 25.3 km 2-648-35 (aux) FL West Palm Beach 107.9 WEAT W 25.3 k				
F. West Palm Beach 107.9 WEAT CX ROA (aux) F. White City 104.5 WFLM 0N W 25.8 km/lom, 26-47.5980.04-33 (aux) F. White City 104.5 WFLM 0N W 25.8 km/lom, 26-47.5980.04-33 (aux) F. White City 104.5 WFLM 0N W 25.8 km/lom, 26-47.5980.04-33 (aux) G.A Americus 104.9 WFLM 0N S. 5.8 km/lom, 26-47.5980.04-33 (aux) G.A Americus 104.9 WGSW CC for NS G.A Claston 88.9 WLPH CC for NS G.A Claston 105.1 WLPH CC for NS G.A London 105.1 WLPH CC for NS G.A Homerville 97.1 NEW NS 5.6 km/lzm, 316-5282-49-11 (Victor M. Vickers) G.A Homerville 97.1 NEW NS 56 km/lzm, 316-5282-49-11 (Victor M. Vickers) G.A Homerville 97.1 NEW NS 6 km/lzm, 316-5282-49-11 (Victor M. Vickers) G.A Homerville 97.1 NEW NS G.A Hichoston 89.9 NEW PPR-300m/32m, 34-11-2683-26-07 G.A Hichoston 89.9 NEW NST C for NS G.N Gunanjuato 100.7 N. HUJUA-FM NS H. Pahala 91.7 KALU PPR-300m/32m, 39-11-2693-26-47 G.N Gunanjuato 100.7 N. HUJUA-FM NS H. Pahala 91.7 KALU PPR-300m/32m, 39-12-00755-28-54 H. Pahala 91.7 KALU PPR-300m/32m, 39-12-00755-28-54 H. Pahala 91.7 KALU PPR-300m/32m, 39-12-00755-28-54 H. Belt 105.1 NHAW PPR-1980m/15m, 43-55-3709-41-44 H. Dirigas 91.7 KALU PPR-300m/32m, 39-12-00755-28-54 H. Belt 105.1 NHAW NS 900m/32m, 39-12-00755-38-54 H. Belt 105.1 NHAW NS 900m/32m, 39-12-00755-38-54 H. Belt 105.1 NHAW NS 900m/32m, 39-12-007				
F. West Palm Beach				
FL White City				
GA Americus 106.9 NEW SSW CC for NS CA Americus 106.9 WGSW CC for NS CA Americus 106.9 WGSW CC for NS CA Claxton 88.9 WLFH CC for NS CA Claxton 88.9 WLFH CC for NS CA Claxton 105.1 W289BF CC for NS CA Claxton 105.1 W289BF CC for NS CA Delation 105.1 W289BF CC for NS CA Homerville 97.1 NW NS SAW/72m, 310.55.2824.94.1 (Victor M. Vickers) CA Homerville 97.1 WWHY CC for NS CA Homerville 97.1 WWHY CC for NS CA Claxton 89.9 NW NS PR-300m4323.41-2683-26-67. Wickers) CA Nicholson 89.9 NW PS PR-300m4323.41-2683-26-67. WICKERS CA Nicholson 89.9 NW PS PR-300m4323.41-2683-26-67. WICKERS CA Nicholson 89.9 NW NS PR-300m4323.41-36-48-35-37/3-41-44. WICKERS CA NICHOLSON 89.9 NW NS PR-300m4504.45-50-187/16-88-67/40-44-44. WICKERS CA NICHOLSON 89.9 NW NS PR-300m5904.45-50-187/16-88-67/40-44-44-44-44-44-44-44-44-44-44-44-44-4				
GA Americus 106.9 WGSW CC for NS GA Claxton 88.9 WIFH CC for NS GA Dation 105.1 WGSWBF CC for NS GA Homerville 97.1 NEW NS 46kw17zm, 32-18-06/81-49-57 GA Homerville 97.1 NEW NS 6kw17zm, 31-05-52/82-49-11 (Victor M. Vickers) GA Homerville 97.1 NEW NS 6kw17zm, 31-05-52/82-49-11 (Victor M. Vickers) GA Homerville 97.1 NEW NS 6kw17zm, 31-05-52/82-49-11 (Victor M. Vickers) GA Homerville 97.1 NEW PR-300w/43zm, 34-11-26/83-26-07 GA Hicholson 88.9 NEW PR-300w/43zm, 34-11-26/83-26-07 GA Hicholson 88.9 NEW PR-300w/43zm, 34-11-26/83-26-07 GA Hicholson 88.9 NEW PR-300w/43zm, 19-12-00/155-28-54 HI Pahala 97.7 KAHU PR-800w-32zm, 19-12-00/155-28-54 HI Moreila 105.1 WHCC PL SkiwHZM-30 39.11.1986-41-53 HI Leitscap 105.1 WHCC PL SkiwHZM-30 39.				
GA Claston				, ,
GA Bollon				
GA Homerville	GA Claxton	88.9	WLFH	NW 45kw/76m, 32-18-06/81-49-57
GA Homerville	GA Dalton	105.1	W289BF	
GA Nicholson	GA Homerville	97.1	NEW	
GA Nicholson   89 9   WXOT   CC for NS	GA Homerville	97.1	WVHY	CC for NS
Rectanglate   100.7   XHJUA-FM   NS   PR-800w/-32m, 19-12-00/155-28-54	GA Nicholson	89.9	NEW	PR<300w/43m, 34-11-26/83-26-07
HP Pahala	GA Nicholson	89.9	WXOT	CC for NS
IA Britt	GN Guanajuato	100.7	XHJUA-FM	NS
ID Driggs	HI Pahala	91.7	KAHU	PR<800w/-323m, 19-12-00/155-28-54
ID Gooding   100.7   RPDA-FM   PG 70kw/T1 Im, 43-14-49/115-26-08   10 McCall   89.1   KAVY   NW 50bw/Som, 45:00.13116-08-01 (labn Conference of SDA)   10 McCall   95.5   NEW   NS 2.7kw/559m, 44-45-54/116-11-54 (Alexandra Communications)   10 Moscow   90.3   KRFP   PG-42w/300m   10 Moscow   90.3   KRFP   PG-42w/300m   10 Moscow   90.3   KRFP   PR-42w/300m   10 Moscow   10 Mo		103.1	KHAM	PR>19kw/115m, 43-55-37/93-41-44
ID McCall	ID Driggs	91.7	K217ED	QR from 91.3, 250w
ID Moscow				
D Moscow				
ID Mountain Home	ID McCall			, ,
D   Mountain Home				
IL Altamont				
IL Chicago				
IL Chicago				
IL Hamilton				
N Ellettsville				· · · · · · · · · · · · · · · · · · ·
N Ellettsville				
N Richmond				
IN Terre Haute				
IN Warsaw				
JA Autlan de Navarro				
JA Guadalajara   104.3   XHUDG-FM   NS (U. de G.)     JA Puerto Vallarta   104.3   XHUGF-FM   NS (U. de G.)     JA Zapotlan del Grande   94.3   XHGZ-FM   NS (U. de G.)     KS Americus   99.5   NEW   NS 6kw/83m, 38-17-37/96-13-03 (Robert Young)     KS Atwood   106.3   NEW   NS 100kw/156m, 39-28-50/100-54-34 (Joseph J. Vyzourek)     KS Coffeyville   98.9   KQQF   CC from KKRK     KY Henderson   99.5   WKDQ   AF 13kw/157m (aux)     KY Henderson   99.5   WKDQ   NS 13kw/157m (aux)     LA Carencro   103.7   KLWB-FM   PR-10kw; CL from Opelousas     LA Franklinton   98.9   WUUU   PG>25kw/70m, 30-44-09/90-12-02     LA Haynesville   105.5   NEW   NS 6kw/70m, 32-00-12/93-08-19 (SSR Communications)     LA Tallulah   97.5   KTJZ   PG-60m, 32-24-40/91-11-37     MA Adams   98.9   WNNI   PG 2.6kw/124m, 42-41-54/73-03-54     MA East Harwich   98.7   WKFY   NW 3.2kw/47m, 41-41-37/69-58-29 (Codcomm)     MA Edgartown   88.7   WMEX   NW 95w/6m, 41-27-10/70-33-18 (aux)     MA Falmouth   91.9   WFPB-FM   PC<260w-H/5.2kw-V     MA Worcester   91.9   WBPR   PC<270w     MC Valle de Bravo   104.5   XHVAL-FM   NS     ME Gardiner   104.3   WABK   CC from WABK-FM     ME Madison   97.5   WGSK   CC from WIGY     ME Sanford   102.3   W272CG   PC>50w, 43-25-05/70-48-04; CL from Biddeford     MI Morelia   103.3   XHMICH-FM   NS     MI Carrollton   100.5   WSGW-FM   PC<38w				
JA Puerto Vallarta				
JA Zapotlan del Grande         94.3         XHGZ-FM         NS (U. de G.)           KS Americus         99.5         NEW         NS 6kw/83m, 38-17-37/96-13-03 (Robert Young)           KS Atwood         106.3         NEW         NS 100kw/156m, 39-28-50/100-54-34 (Joseph J. Vyzourek)           KS Coffeyville         98.9         KQQF         CC from KKRK           KY Henderson         99.5         WKDQ         AF 13kw/157m (aux)           KY Henderson         99.5         WKDQ         NS 13kw/157m (aux)           LA Carencro         103.7         KLWB-FM         PR-10kw; CL from Opelousas           LA Franklinton         98.9         WUUU         PG>25kw/70m, 30-44-09/90-12-02           LA Haynesville         105.5         NEW         NS 6kw/70m, 33-90-12/93-08-19 (SSR Communications)           LA Tallulah         97.5         KTJZ         PG-60m, 32-24-40/91-11-37           MA Adams         98.9         WNNI         PG 2.6kw/124m, 42-41-54/73-03-54           MA East Harwich         98.7         WKFY         NW 3.2kw/47m, 41-41-37/69-58-29 (Codcomm)           MA Eagratown         88.7         WMEX         NW 95w/6m, 41-27-10/70-33-18 (aux)           MA Falmouth         91.9         WBPR         PC<260w-H/5.2kw-V				
KS Americus         99.5         NEW         NS 6kw/83m, 38-17-37/96-13-03 (Robert Young)           KS Atwood         106.3         NEW         NS 100kw/156m, 39-28-50/100-54-34 (Joseph J. Vyzourek)           KS Coffeyville         98.9         KQOF         CC from KKRK           KY Henderson         99.5         WKDQ         AF 13kw/157m (aux)           KY Henderson         99.5         WKDQ         NS 13kw/157m (aux)           LA Carencro         103.7         KLWB-FM         PR>10kw, CL from Opelousas           LA Franklinton         98.9         WUUU         PG>25kw/70m, 30-44-09/90-12-02           LA Haynesville         105.5         NEW         NS 6kw/70m, 33-00-12/93-08-19 (SSR Communications)           LA Tallulah         97.5         KTJZ         PG<60m, 32-24-40/91-11-37				
KS Atwood         106.3         NEW         NS 100kw/156m, 39-28-50/100-54-34 (Joseph J. Vyzourek)           KS Coffeyville         98.9         KQQF         CC from KKRK           KY Henderson         99.5         WKDQ         AF 13kw/157m (aux)           KY Henderson         99.5         WKDQ         NS 13kw/157m (aux)           LA Carencro         103.7         KLWB-FM         PR>10kw; CL from Opelousas           LA Franklinton         98.9         WUUU         PG>25kw/70m, 30-44-09/90-12-02           LA Haynesville         105.5         NEW         NS 6kw/70m, 33-00-12/93-08-19 (SSR Communications)           LA Tallulah         97.5         KTJZ         PG<60m, 32-24-40/91-11-37				
KS Coffeyville         98.9         KQQF         CC from KKRK           KY Henderson         99.5         WKDQ         AF 13kw/157m (aux)           KY Henderson         99.5         WKDQ         NS 13kw/157m (aux)           LA Carencro         103.7         KLWB-FM         PR>10kw; CL from Opelousas           LA Franklinton         98.9         WUUU         PG>25kw/70m, 30-44-09/90-12-02           LA Haynesville         105.5         NEW         NS 6kw/70m, 33-00-12/93-08-19 (SSR Communications)           LA Tallulah         97.5         KTJZ         PG<60m, 32-24-40/91-11-37				
KY Henderson         99.5         WKDQ         AF 13kw/157m (aux)           KY Henderson         99.5         WKDQ         NS 13kw/157m (aux)           LA Carencro         103.7         KLWB-FM         PR>10kw; CL from Opelousas           LA Franklinton         98.9         WUUU         PG>25kw/70m, 30-44-09/90-12-02           LA Haynesville         105.5         NEW         NS 6kw/70m, 33-00-12/93-08-19 (SSR Communications)           LA Tallulah         97.5         KTJZ         PG<60m, 32-24-40/91-11-37				
KY Henderson         99.5         WKDQ         NS 13kw/157m (aux)           LA Carencro         103.7         KLWB-FM         PR>10kw; CL from Opelousas           LA Franklinton         98.9         WUUU         PG>25kw/70m, 30-44-09/90-12-02           LA Haynesville         105.5         NEW         NS 6kw/70m, 33-00-12/93-08-19 (SSR Communications)           LA Tallulah         97.5         KTJZ         PG<60m, 32-24-40/91-11-37				
LA Carencro         103.7         KLWB-FM         PR>10kw; CL from Opelousas           LA Franklinton         98.9         WUUU         PG>25kw/70m, 30-44-09/90-12-02           LA Haynesville         105.5         NEW         NS 6kw/70m, 33-00-12/93-08-19 (SSR Communications)           LA Tallulah         97.5         KTJZ         PG<60m, 32-24-40/91-11-37				
LA Franklinton         98.9         WUUU         PG>25kw/70m, 30-44-09/90-12-02           LA Haynesville         105.5         NEW         NS 6kw/70m, 33-00-12/93-08-19 (SSR Communications)           LA Tallulah         97.5         KTJZ         PG<60m, 32-24-40/91-11-37				
LA Haynesville         105.5         NEW         NS 6kw/70m, 33-00-12/93-08-19 (SSR Communications)           LA Tallulah         97.5         KTJZ         PG<60m, 32-24-40/91-11-37				
LA Tallulah         97.5         KTJZ         PG<60m, 32-24-40/91-11-37           MA Adams         98.9         WNNI         PG 2.6kw/124m, 42-41-54/73-03-54           MA East Harwich         98.7         WKFY         NW 3.2kw/47m, 41-41-37/69-58-29 (Codcomm)           MA Edgartown         88.7         WMEX         NW 95w/6m, 41-27-10/70-33-18 (aux)           MA Falmouth         91.9         WFPB-FM         PC<260w-H/5.2kw-V				
MA Adams         98.9         WNNI         PG 2.6kw/124m, 42-41-54/73-03-54           MA East Harwich         98.7         WKFY         NW 3.2kw/47m, 41-41-37/69-58-29 (Codcomm)           MA Edgartown         88.7         WMEX         NW 95w/6m, 41-27-10/70-33-18 (aux)           MA Falmouth         91.9         WFPB-FM         PC<260w-H/5.2kw-V				
MA East Harwich         98.7         WKFY         NW 3.2kw/47m, 41-41-37/69-58-29 (Codcomm)           MA Edgartown         88.7         WMEX         NW 95w/6m, 41-27-10/70-33-18 (aux)           MA Falmouth         91.9         WFPB-FM         PC<260w-H/5.2kw-V				
MA Edgartown         88.7         WMEX         NW 95w/6m, 41-27-10/70-33-18 (aux)           MA Falmouth         91.9         WFPB-FM         PC<260w-H/5.2kw-V				
MA Falmouth         91.9         WFPB-FM         PC<260w-H/5.2kw-V           MA Worcester         91.9         WBPR         PC<270w	MA Edgartown		WMEX	
MA Worcester         91.9         WBPR         PC<270w           MC Valle de Bravo         104.5         XHVAL-FM         NS           ME Gardiner         104.3         WABK         CC from WABK-FM           ME Madison         97.5         WQSK         CC from WIGY           ME Sanford         102.3         W272CG         PC>50w, 43-25-05/70-48-04; CL from Biddeford           MH Morelia         103.3         XHMICH-FM         NS           MI Carrollton         100.5         WSGW-FM         PC<3kw			WFPB-FM	
MC Valle de Bravo         104.5         XHVAL-FM         NS           ME Gardiner         104.3         WABK         CC from WABK-FM           ME Madison         97.5         WQSK         CC from WIGY           ME Sanford         102.3         W272CG         PC>50w, 43-25-05/70-48-04; CL from Biddeford           MH Morelia         103.3         XHMICH-FM         NS           MI Carrollton         100.5         WSGW-FM         PC<3kw			WBPR	
ME Madison         97.5         WQSK         CC from WIGY           ME Sanford         102.3         W272CG         PC>50w, 43-25-05/70-48-04; CL from Biddeford           MH Morelia         103.3         XHMICH-FM         NS           MI Carrollton         100.5         WSGW-FM         PC<3kw		104.5		
ME Sanford         102.3         W272CG         PC>50w, 43-25-05/70-48-04; CL from Biddeford           MH Morelia         103.3         XHMICH-FM         NS           MI Carrollton         100.5         WSGW-FM         PC<3kw	ME Gardiner		WABK	CC from WABK-FM
ME Sanford         102.3         W272CG         PC>50w, 43-25-05/70-48-04; CL from Biddeford           MH Morelia         103.3         XHMICH-FM         NS           MI Carrollton         100.5         WSGW-FM         PC<3kw	ME Madison			
MI Carrollton 100.5 WSGW-FM PC<3kw	ME Sanford			
MI Grant Township 89.7 WKKM PR>31kw/27m, 43-04-08/82-28-48; CL from Speaker Township				
	MI Grant Township	89.7	WKKM	PR>31kw/27m, 43-04-08/82-28-48; CL from Speaker Township

MI Harrison	103.9	NEW	NS 6kw/95m, 43-59-38/84-50-13 (Max Henry & Associates)
MI Kalamazoo	102.1	WMUK	PG 49kw/151m, 42-25-01/85-31-55
MI LudinGwendolynn Tellezon	97.7	NEW	NS 6kw/93m, 44-03-40/86-25-03 (WGHN Inc.)
MI Marquette	93.3	W227CJ	NW 250w, 46-30-52/87-28-40
MI Mount Forest	91.9	WSMO	NW 6kw/100m, 44-02-11/84-03-18 (Smile FM)
MI Mount Forest	91.9	WSMO	PG 6kw/100m, 44-02-11/84-03-17
MI Mount Pleasant	89.5	WCMU-FM	PG>130m, 43-34-33/84-46-29
MN Alexandria	92.3	KXRA-FM	NW 2kw/27m, 45-52-38/95-22-40 (aux)
MN Alexandria	99.3	KXRZ	NW 2kw/27m, 45-52-38/95-22-40 (aux)
MN Breckenridge	105.1	KQWB-FM	CC from KLTA
MN Grand Portage	96.9	NEW	NS 100kw/273m, 47-58-28/89-45-31 (Resonance Media Group)
MN Marshall	89.9	KRGM	PG>4.25kw
MO Warrensburg	90.9	KTBG	PG>100kw/167m, 38-57-30/94-06-43
MR Cuernavaca	94.1	XHFCSM-FM	NS (cultural)
NB Saint John	88.9	CHNI-FM	PR<25kw/414m
NC Aberdeen	88.3	W202BQ	PC<10w, 35-10-35/79-24-53
NC Cherokee	105.7	W292EJ	QR from 106.3, 10w, 35-29-46/83-20-03; CL from Bryson City
NC Hazelwood	103.7	W237AR	QR from 95.3
NC New Bern	103.9	W280ED	PR>250w, 35-07-59/77-03-56
NC Welcome	91.1	WUNW-FM	PR 180w/54m
ND Bottineau	101.9	KBTO	XC 48-51-06/100-20-04
ND Bottineau	101.9	KBTO	XG 48-51-06/100-20-04
ND Kindred	92.7	KZDR	CC from KFNL
NE Auburn	103.1	KBIE	CC from KNCY-FM
NE Sargent	92.1	KBRY	CC from KHZZ
NE Sargent	92.1	KHZZ	CC from KBRY
NH Exeter	107.1	WERZ	AF 1.2kw/91m, 43-03-11/70-46-04 (aux)
NJ Cape May Court House	105.5	WAIV	CC from WSNQ
NJ Cape May	102.3	WSNQ	CC from WAIV
NJ Somers Point	90.5	WXGN	PG 350w/32m, 39-16-47/74-34-30; CL from Egg Harbor Township
NM Alamogordo	94.3	KYEE	PG>11.5kw/-118m
NM Las Vegas	93.7	KRMK	PR>100kw/253m, 35-22-17/105-21-55
NM Lordsburg	97.9	KPSA-FM	QR from 97.7, 43kw/622m, 32-34-57/108-25-29
NM Newcomb	89.3	KANF	CX; expired
NM Roswell	102.5	NEW	AF 50kw/115m, 33-23-57/104-22-30; amendment from 20kw/1063m at different site on 95.3
NM Socorro	102.1	KYRN	PR>2.5kw/561m
NM Socorro	99.1	KMXQ	QR from 92.9, 6kw/-55m
NS Lower Sackville	88.7	NEW	AF 250w/25m, English community st.
NV Fallon Station	105.3	KZTI	NS 600w/627m, 40-07-05/118-43-36 (aux)
	106.7	WCDW	CC from WRRQ
NY Port Dickinson	_		
NY Westhampton	89.1	WEEW	NW 400w/118m, 40-53-07/72-41-34 (Eastern Tower Corp.)
OH Cleveland	105.7	WMJI	NW 18.6kw/179m (aux)
OH Columbus	97.1	WBNS-FM	NS 26kw/201m, 39-58-13/83-01-27 (aux) (use old main as aux)
OH Englewood	94.5	WYDB	CC from WLQT
OH Hillsboro	107.9	W246CA	QC from 97.1, 55w
OH Norwood	100.3	WOSL	CC from WCFN
OH Worthington	103.9	WJKR	PC 6kw/99m, 39-58-00/83-06-28
OK Beaver	91.9	KLDB	PG>400w/45m, 36-50-23/100-30-40
OK Durant	91.9	KSSU	NW 3.2kw/106m, 34-02-12/96-25-37 (SE Okla. State Univ.)
OK Haileyville	105.9	KQIK-FM	PR>6kw
OK Loyal	89.3	KIEL	PG>75kw/53m
OK Mangum	97.7	KHIM	PG>2.25kw
OK Okeene	101.5	KOCD	CC for NS
OK Okeene	101.5	NEW	NS 46kw/149m, 36-03-38/98-29-41 (FMI Media)
ON Bolton	102.7	CJFB-FM	QR from 105.5, 17.3kw/-19m, 43-51-10/79-41-33
OR Aloha	97.9	KXPC	PR<54kw/387m, 45-29-20/122-41-40
OR Baker City	91.9	KESY	PR 820w/221m, 44-45-57/117-52-49
OR Baker City	93.7	K229AY	XR 44-45-57/117-52-49
OR Diamond Lake	98.1	KBDF	QR from 107.7, 12kw/-190m, 43-19-05/122-11-38; amendment from 6kw/-192m
		1 815144	NS 1.9kw/177m, 45-57-11/123-56-14 (Resonance Media Group)
OR Gearhart	93.3	NEW	113 1:7kW/177111, 43 37 11/123 30 14 (Nessonance Media Group)
OR Gearhart OR Malin		KLKF	CC for NS
OR Malin	93.3 100.7	KLKF	CC for NS
OR Malin OR Siletz	93.3 100.7 91.7	KLKF KYAQ	CC for NS PG<690w/147m, 44-38-40/124-00-50
OR Malin OR Siletz OR Sutherlin	93.3 100.7 91.7 100.9	KLKF KYAQ KSKR-FM	CC for NS PG<690w/147m, 44-38-40/124-00-50 QR from 101.1
OR Malin OR Siletz OR Sutherlin OR Talent	93.3 100.7 91.7 100.9 101.1	KLKF KYAQ KSKR-FM KLMD	CC for NS PG<690w/147m, 44-38-40/124-00-50 QR from 101.1 QG from 92.9, 350w/408m, 42-17-52/122-45-00
OR Malin OR Siletz OR Sutherlin OR Talent OR Warm Springs	93.3 100.7 91.7 100.9 101.1 91.9	KLKF KYAQ KSKR-FM KLMD KWSO	CC for NS PG<690w/147m, 44-38-40/124-00-50 QR from 101.1 QG from 92.9, 350w/408m, 42-17-52/122-45-00 PR>6.6kw/313m
OR Malin OR Siletz OR Sutherlin OR Talent OR Warm Springs PA Glenside	93.3 100.7 91.7 100.9 101.1 91.9 96.9	KLKF KYAQ KSKR-FM KLMD KWSO W245AG	CC for NS PG<690w/147m, 44-38-40/124-00-50 QR from 101.1 QG from 92.9, 350w/408m, 42-17-52/122-45-00 PR>6.6kw/313m PR>26w, 40-05-00/75-10-55; CL from Gladwyne
OR Malin OR Siletz OR Sutherlin OR Talent OR Warm Springs PA Glenside PA Kulpmont	93.3 100.7 91.7 100.9 101.1 91.9 96.9 90.5	KLKF KYAQ KSKR-FM KLMD KWSO W245AG WFBA	CC for NS PG<690w/147m, 44-38-40/124-00-50 QR from 101.1 QG from 92.9, 350w/408m, 42-17-52/122-45-00 PR>6.6kw/313m PR>26w, 40-05-00/75-10-55; CL from Gladwyne CC from WXPA
OR Malin OR Siletz OR Sutherlin OR Talent OR Warm Springs PA Glenside	93.3 100.7 91.7 100.9 101.1 91.9 96.9	KLKF KYAQ KSKR-FM KLMD KWSO W245AG	CC for NS PG<690w/147m, 44-38-40/124-00-50 QR from 101.1 QG from 92.9, 350w/408m, 42-17-52/122-45-00 PR>6.6kw/313m PR>26w, 40-05-00/75-10-55; CL from Gladwyne
OR Malin OR Siletz OR Sutherlin OR Talent OR Warm Springs PA Glenside PA Kulpmont	93.3 100.7 91.7 100.9 101.1 91.9 96.9 90.5	KLKF KYAQ KSKR-FM KLMD KWSO W245AG WFBA	CC for NS PG<690w/147m, 44-38-40/124-00-50 QR from 101.1 QG from 92.9, 350w/408m, 42-17-52/122-45-00 PR>6.6kw/313m PR>26w, 40-05-00/75-10-55; CL from Gladwyne CC from WXPA
OR Malin OR Siletz OR Sutherlin OR Talent OR Warm Springs PA Glenside PA Kulpmont PA Kulpmont PA Philadelphia	93.3 100.7 91.7 100.9 101.1 91.9 96.9 90.5 90.5 88.5	KLKF KYAQ KSKR-FM KLMD KWSO W245AG WFBA WFBA	CC for NS PG<690w/147m, 44-38-40/124-00-50 QR from 101.1 QG from 92.9, 350w/408m, 42-17-52/122-45-00 PR>6.6kw/313m PR>26w, 40-05-00/75-10-55; CL from Gladwyne CC from WXPA PR>1kw/182m PR 2.65kw/365m, 40-02-19/75-14-14
OR Malin OR Siletz OR Sutherlin OR Talent OR Warm Springs PA Glenside PA Kulpmont PA Kulpmont PA Philadelphia PA Pittston	93.3 100.7 91.7 100.9 101.1 91.9 96.9 90.5 90.5 88.5 102.3	KLKF KYAQ KSKR-FM KLMD KWSO W245AG WFBA WFBA WXPN WHBS	CC for NS PG<690w/147m, 44-38-40/124-00-50 QR from 101.1 QG from 92.9, 350w/408m, 42-17-52/122-45-00 PR>6.6kw/313m PR>26w, 40-05-00/75-10-55; CL from Gladwyne CC from WXPA PR>1kw/182m PR 2.65kw/365m, 40-02-19/75-14-14 CC from WDMT
OR Malin OR Siletz OR Sutherlin OR Talent OR Warm Springs PA Glenside PA Kulpmont PA Kulpmont PA Philadelphia PA Pittston PA Susquehanna	93.3 100.7 91.7 100.9 101.1 91.9 96.9 90.5 90.5 88.5 102.3 100.5	KLKF KYAQ KSKR-FM KLMD KWSO W245AG WFBA WFBA WXPN WHBS	CC for NS PG<690w/147m, 44-38-40/124-00-50 QR from 101.1 QG from 92.9, 350w/408m, 42-17-52/122-45-00 PR>6.6kw/313m PR>26w, 40-05-00/75-10-55; CL from Gladwyne CC from WXPA PR>1kw/182m PR 2.65kw/365m, 40-02-19/75-14-14 CC from WDMT CC from WCDW
OR Malin OR Siletz OR Sutherlin OR Talent OR Warm Springs PA Glenside PA Kulpmont PA Kulpmont PA Philadelphia PA Pittston PA Susquehanna PR Arroyo	93.3 100.7 91.7 100.9 101.1 91.9 96.9 90.5 90.5 88.5 102.3 100.5 93.3	KLKF KYAQ KSKR-FM KLMD KWSO W245AG WFBA WFBA WXPN WHBS WDRE W225AY	CC for NS PG<690w/147m, 44-38-40/124-00-50 QR from 101.1 QG from 92.9, 350w/408m, 42-17-52/122-45-00 PR>6.6kw/313m PR>26w, 40-05-00/75-10-55; CL from Gladwyne CC from WXPA PR>1kw/182m PR 2.65kw/365m, 40-02-19/75-14-14 CC from WDMT CC from WCDW QR from 92.9, 10w, 18-06-47/66-03-06
OR Malin OR Siletz OR Sutherlin OR Talent OR Warm Springs PA Glenside PA Kulpmont PA Kulpmont PA Philadelphia PA Pittston PA Susquehanna PR Arroyo PR Levittown	93.3 100.7 91.7 100.9 101.1 91.9 96.9 90.5 90.5 88.5 102.3 100.5 93.3 88.5	KLKF KYAQ KSKR-FM KLMD KWSO W245AG WFBA WFBA WXPN WHBS WDRE W225AY WLUZ	CC for NS PG<690w/147m, 44-38-40/124-00-50  QR from 101.1 QG from 92.9, 350w/408m, 42-17-52/122-45-00 PR>6.6kw/313m PR>26w, 40-05-00/75-10-55; CL from Gladwyne CC from WXPA PR>1kw/182m PR 2.65kw/365m, 40-02-19/75-14-14 CC from WDMT CC from WCDW QR from 92.9, 10w, 18-06-47/66-03-06 PG>380w/167m, 17-18-00/66-15-48
OR Malin OR Siletz OR Sutherlin OR Talent OR Warm Springs PA Glenside PA Kulpmont PA Kulpmont PA Philadelphia PA Pittston PA Susquehanna PR Arroyo PR Levittown PR Levittown	93.3 100.7 91.7 100.9 101.1 91.9 96.9 90.5 90.5 88.5 102.3 100.5 93.3 88.5 88.5	KLKF KYAQ KSKR-FM KLMD KWSO W245AG WFBA WFBA WXPN WHBS WDRE W225AY WLUZ	CC for NS PG<690w/147m, 44-38-40/124-00-50  QR from 101.1 QG from 92.9, 350w/408m, 42-17-52/122-45-00 PR>6.6kw/313m PR>26w, 40-05-00/75-10-55; CL from Gladwyne CC from WXPA PR>1kw/182m PR 2.65kw/365m, 40-02-19/75-14-14 CC from WDMT CC from WCDW QR from 92.9, 10w, 18-06-47/66-03-06 PG>380w/167m, 17-18-00/66-15-48 PR>380w/167m, 18-18-00/66-15-48
OR Malin OR Siletz OR Sutherlin OR Talent OR Warm Springs PA Glenside PA Kulpmont PA Kulpmont PA Philadelphia PA Pittston PA Susquehanna PR Arroyo PR Levittown	93.3 100.7 91.7 100.9 101.1 91.9 96.9 90.5 90.5 88.5 102.3 100.5 93.3 88.5	KLKF KYAQ KSKR-FM KLMD KWSO W245AG WFBA WFBA WXPN WHBS WDRE W225AY WLUZ	CC for NS PG<690w/147m, 44-38-40/124-00-50  QR from 101.1 QG from 92.9, 350w/408m, 42-17-52/122-45-00 PR>6.6kw/313m PR>26w, 40-05-00/75-10-55; CL from Gladwyne CC from WXPA PR>1kw/182m PR 2.65kw/365m, 40-02-19/75-14-14 CC from WDMT CC from WCDW QR from 92.9, 10w, 18-06-47/66-03-06 PG>380w/167m, 17-18-00/66-15-48
OR Malin OR Siletz OR Sutherlin OR Talent OR Warm Springs PA Glenside PA Kulpmont PA Kulpmont PA Philadelphia PA Pittston PA Susquehanna PR Arroyo PR Levittown PR Levittown PR Levittown	93.3 100.7 91.7 100.9 101.1 91.9 96.9 90.5 90.5 88.5 102.3 100.5 93.3 88.5 88.5	KLKF KYAQ KSKR-FM KLMD KWSO W245AG WFBA WFBA WXPN WHBS WDRE W225AY WLUZ	CC for NS PG<690w/147m, 44-38-40/124-00-50  QR from 101.1 QG from 92.9, 350w/408m, 42-17-52/122-45-00 PR>6.6kw/313m PR>26w, 40-05-00/75-10-55; CL from Gladwyne CC from WXPA PR>1kw/182m PR 2.65kw/365m, 40-02-19/75-14-14 CC from WDMT CC from WCDW QR from 92.9, 10w, 18-06-47/66-03-06 PG>380w/167m, 17-18-00/66-15-48 PR>380w/167m, 18-18-00/66-15-48 PR>380w/167m, 18-18-00/66-15-48
OR Malin OR Siletz OR Sutherlin OR Talent OR Warm Springs PA Glenside PA Kulpmont PA Kulpmont PA Philadelphia PA Pittston PA Susquehanna PR Arroyo PR Levittown PR Levittown PR Levittown PR Quebradillas	93.3 100.7 91.7 100.9 101.1 91.9 96.9 90.5 88.5 102.3 100.5 93.3 88.5 88.5 88.5 91.7	KLKF KYAQ KSKR-FM KLMD KWSO W245AG WFBA WFBA WXPN WHBS WDRE W225AY WLUZ WLUZ WZCA	CC for NS PG<690w/147m, 44-38-40/124-00-50  QR from 101.1 QG from 92.9, 350w/408m, 42-17-52/122-45-00 PR>6.6kw/313m PR>26w, 40-05-00/75-10-55; CL from Gladwyne CC from WXPA PR>1kw/182m PR 2.65kw/365m, 40-02-19/75-14-14 CC from WDMT CC from WCDW QR from 92.9, 10w, 18-06-47/66-03-06 PG>380w/167m, 17-18-00/66-15-48 PR>380w/167m, 18-18-00/66-15-48 PR>380w/167m, 18-18-00/66-15-48 PR>380w/167m, 18-18-00/66-15-48 PC>6kw/99m, 18-29-11/66-56-37
OR Malin OR Siletz OR Sutherlin OR Talent OR Warm Springs PA Glenside PA Kulpmont PA Kulpmont PA Philadelphia PA Pittston PA Susquehanna PR Arroyo PR Levittown PR Levittown PR Levittown PR Quebradillas PU Huauchinango	93.3 100.7 91.7 100.9 101.1 91.9 96.9 90.5 88.5 102.3 100.5 93.3 88.5 88.5 88.5 91.7 98.9	KLKF KYAQ KSKR-FM KLMD KWSO W245AG WFBA WFBA WXPN WHBS WDRE W225AY WLUZ WLUZ WLUZ WZCA XHNGO-FM	CC for NS PG<690w/147m, 44-38-40/124-00-50  OR from 101.1  OG from 92.9, 350w/408m, 42-17-52/122-45-00 PR>6.6kw/313m  PR>26w, 40-05-00/75-10-55; CL from Gladwyne  CC from WXPA PR>1kw/182m PR 2.65kw/365m, 40-02-19/75-14-14  CC from WDMT  CC from WCDW  OR from 92.9, 10w, 18-06-47/66-03-06 PG>380w/167m, 17-18-00/66-15-48 PR>380w/167m, 18-18-00/66-15-48 PR>380w/167m, 18-18-00/66-15-48 PR>380w/167m, 18-18-00/66-15-48 PC>6kw/99m, 18-29-11/66-56-37 NS
OR Malin OR Siletz OR Sutherlin OR Talent OR Warm Springs PA Glenside PA Kulpmont PA Kulpmont PA Philadelphia PA Pittston PA Susquehanna PR Arroyo PR Levittown PR Levittown PR Levittown PR Quebradillas PU Huauchinango PU Puebla	93.3 100.7 91.7 100.9 101.1 91.9 96.9 90.5 88.5 102.3 100.5 93.3 88.5 88.5 88.5 91.7 98.9 106.7	KLKF KYAQ KSKR-FM KLMD KWSO W245AG WFBA WFBA WYPN WHBS WDRE W225AY WLUZ WLUZ WLUZ WZCA XHNGO-FM XHPBP-FM	CC for NS PG<690w/147m, 44-38-40/124-00-50  OR from 101.1  OG from 92.9, 350w/408m, 42-17-52/122-45-00 PR>6.6kw/313m  PR>26w, 40-05-00/75-10-55; CL from Gladwyne  CC from WXPA PR>1kw/182m PR 2.65kw/365m, 40-02-19/75-14-14  CC from WDMT  CC from WCDW  OR from 92.9, 10w, 18-06-47/66-03-06 PG>380w/167m, 17-18-00/66-15-48 PR>380w/167m, 18-18-00/66-15-48 PC>6kw/99m, 18-29-11/66-56-37 NS NS (cultural)
OR Malin OR Siletz OR Sutherlin OR Talent OR Warm Springs PA Glenside PA Kulpmont PA Kulpmont PA Philadelphia PA Pittston PA Susquehanna PR Arroyo PR Levittown PR Levittown PR Levittown PR Quebradillas PU Huauchinango PU Puebla PU Santa Isabel Choula	93.3 100.7 91.7 100.9 101.1 91.9 96.9 90.5 90.5 88.5 102.3 100.5 93.3 88.5 88.5 88.5 91.7 98.9 106.7 105.9	KLKF KYAQ KSKR-FM KLMD KWSO W245AG WFBA WFBA WYPN WHBS WDRE W225AY WLUZ WLUZ WLUZ WLUZ WLUZ WLUZ WLUZ WZCA XHNGO-FM XHPBP-FM XHCOM-FM	CC for NS PG<690w/147m, 44-38-40/124-00-50  OR from 101.1  OG from 92.9, 350w/408m, 42-17-52/122-45-00 PR>6.6kw/313m  PR>26w, 40-05-00/75-10-55; CL from Gladwyne  CC from WXPA PR>1kw/182m PR 2.65kw/365m, 40-02-19/75-14-14  CC from WDMT  CC from WCDW  OR from 92.9, 10w, 18-06-47/66-03-06 PG>380w/167m, 17-18-00/66-15-48 PR>380w/167m, 18-18-00/66-15-48 PR>380w/167m, 18-18-00/66-15-48 PR>380w/167m, 18-18-00/66-15-48 PC>6kw/99m, 18-29-11/66-56-37 NS NS (cultural)
OR Malin OR Siletz OR Sutherlin OR Talent OR Warm Springs PA Glenside PA Kulpmont PA Kulpmont PA Philadelphia PA Pittston PA Susquehanna PR Arroyo PR Levittown PR Levittown PR Levittown PR Quebradillas PU Huauchinango PU Puebla PU Santa Isabel Choula QC Levis	93.3 100.7 91.7 100.9 101.1 91.9 96.9 90.5 90.5 88.5 102.3 100.5 93.3 88.5 88.5 88.5 91.7 98.9 106.7 105.9 96.9	KLKF KYAQ KSKR-FM KLMD KWSO W245AG WFBA WFBA WYPN WHBS WDRE W225AY WLUZ WLUZ WLUZ WLUZ WLUZ WLUZ WLUZ WLUZ	CC for NS PG<690w/147m, 44-38-40/124-00-50  OR from 101.1  OG from 92.9, 350w/408m, 42-17-52/122-45-00 PR>6.6kw/313m PR>26w, 40-05-00/75-10-55; CL from Gladwyne CC from WXPA PR>1kw/182m PR 2.65kw/365m, 40-02-19/75-14-14 CC from WDMT CC from WCDW OR from 92.9, 10w, 18-06-47/66-03-06 PG>380w/167m, 17-18-00/66-15-48 PR>380w/167m, 18-18-00/66-15-48 PR>380w/167m, 18-18-00/66-15-48 PR>380w/167m, 18-18-00/66-15-48 PC>6kw/99m, 18-29-11/66-56-37 NS NS (cultural) NS PG 216w/10m, relocate XR
OR Malin OR Siletz OR Sutherlin OR Talent OR Warm Springs PA Glenside PA Kulpmont PA Kulpmont PA Philadelphia PA Pittston PA Susquehanna PR Arroyo PR Levittown PR Levittown PR Levittown PR Quebradillas PU Huauchinango PU Puebla PU Santa Isabel Choula	93.3 100.7 91.7 100.9 101.1 91.9 96.9 90.5 90.5 88.5 102.3 100.5 93.3 88.5 88.5 88.5 91.7 98.9 106.7 105.9	KLKF KYAQ KSKR-FM KLMD KWSO W245AG WFBA WFBA WYPN WHBS WDRE W225AY WLUZ WLUZ WLUZ WLUZ WLUZ WLUZ WLUZ WZCA XHNGO-FM XHPBP-FM XHCOM-FM	CC for NS PG<690w/147m, 44-38-40/124-00-50  OR from 101.1  OG from 92.9, 350w/408m, 42-17-52/122-45-00 PR>6.6kw/313m  PR>26w, 40-05-00/75-10-55; CL from Gladwyne  CC from WXPA PR>1kw/182m PR 2.65kw/365m, 40-02-19/75-14-14  CC from WDMT  CC from WCDW  OR from 92.9, 10w, 18-06-47/66-03-06 PG>380w/167m, 17-18-00/66-15-48 PR>380w/167m, 18-18-00/66-15-48 PR>380w/167m, 18-18-00/66-15-48 PR>380w/167m, 18-18-00/66-15-48 PC>6kw/99m, 18-29-11/66-56-37 NS NS (cultural)
OR Malin OR Siletz OR Sutherlin OR Talent OR Warm Springs PA Glenside PA Kulpmont PA Kulpmont PA Philadelphia PA Pittston PA Susquehanna PR Arroyo PR Levittown PR Levittown PR Levittown PR Quebradillas PU Huauchinango PU Puebla PU Santa Isabel Choula QC Levis	93.3 100.7 91.7 100.9 101.1 91.9 96.9 90.5 90.5 88.5 102.3 100.5 93.3 88.5 88.5 88.5 91.7 98.9 106.7 105.9 96.9	KLKF KYAQ KSKR-FM KLMD KWSO W245AG WFBA WFBA WYPN WHBS WDRE W225AY WLUZ WLUZ WLUZ WLUZ WLUZ WLUZ WLUZ WLUZ	CC for NS PG<690w/147m, 44-38-40/124-00-50  OR from 101.1  OG from 92.9, 350w/408m, 42-17-52/122-45-00 PR>6.6kw/313m PR>26w, 40-05-00/75-10-55; CL from Gladwyne CC from WXPA PR>1kw/182m PR 2.65kw/365m, 40-02-19/75-14-14 CC from WDMT CC from WCDW OR from 92.9, 10w, 18-06-47/66-03-06 PG>380w/167m, 17-18-00/66-15-48 PR>380w/167m, 18-18-00/66-15-48 PR>380w/167m, 18-18-00/66-15-48 PR>380w/167m, 18-18-00/66-15-48 PC>6kw/99m, 18-29-11/66-56-37 NS NS (cultural) NS PG 216w/10m, relocate XR

SC Saluda	88.7	WKMH-FM	NW 130w-H/51kw-V/120m, 33-57-22/81-54-09 (Spirit Broadcasting)
SC Williston	99.9	WUCC	PG 3.1kw/140m, 33-23-34/81-23-21
SD Edgemont	105.7	NEW	NS 100kw/38m, 43-32-32/104-04-12 (Jackman Holding Co.)
SD Hartford	91.3	KSTJ	PG>100kw/221m
SD Pine Ridge	88.7	KVKR	PC<6kw
SD Wagner	100.9	KXIN	CC for NS
SD Watertown	89.1	KPGT	PR>25.5kw/23m, 44-53-56/97-06-26
CO Dinosaur	100.3	NEW	NS 2.5kw/667m, 40-21-15/109-08-52 (Gary L. Moats II)
TN Alcoa	89.1	WOFM	PR>2.05kw/412m
TN Linden	101.3	WOPC	CC for NS
TN Memphis	104.5	WRVR	PC>22kw/140m (aux)
TN Oak Ridge	88.7	NEW	PG>4.8kw/324m, 36-11-13/84-37-41
TN Oak Ridge	88.7	NEW	PR>4.8kw/324m, 36-11-13/84-37-41
TN Oak Ridge	88.7	WWQK	CC for NS
TN Oak Ridge	88.7	WWQK	granted 2.92kw-V (was H-only)
TN Oak Ridge	88.7	WWQK	PG 4.8kw/324m, 36-11-13/84-37-41
TN Portland	91.5	WBGB	QR from 91.3, 4.66kw/100m, 36-36-54/86-33-59; CL from Scottsville, Kentucky
TX Benbrook	107.1	KESS	CC from KFZO
TX Brackettville	94.7	KVDR	XR 29-30-49/100-22-49
TX Corpus Christi	93.9	KMXR	AF 15.5kw/235m, 27-45-11/97-38-15 (aux)
TX Corpus Christi	99.1	KRYS-FM	AF 15.5kw/235m, 27-45-11/97-38-15 (aux)
TX Dalhart	100.1	KXIT-FM	CC for NS
TX Dalhart	100.1	NEW	NS 50kw/105m, 35-53-46/102-23-03 (Rogco Family I)
TX Ingram	96.5	KKGN	CC from KSYY
TX Lewisville	107.9	KFZO	CC from KESS-FM
TX Llano	01.7	KVHL	PG 1.5kw/153m, 30-40-36/98-33-59
TX Llano	91.7	KVHL	PR<1.5kw/153m
TX Menard	100.9	KXXS	CX ROA
TX Premont	88.1	KLBD	PR>3.5kw/100m dismissed
TX Refugio	103.7	KXAI	CC from KOUL
TX Robstown	99.9	KSAB	AF 15.5kw/235m, 27-45-11/97-38-15 (aux)
TX Santa Anna	105.5	NEW	AF 16.5kw/124m; amendment from 17kw/122m
TX Thorndale	99.3	KOKE-FM	PR>24kw
TX Willis	99.7	KVST	PR>11kw
TX Willis	99.7	KVST	PR>11kw
TX Winters	96.1	KORQ	PR 43.39kw/160m
TX Yoakum	94.3	KYKM	QC from 92.5, 6kw/97m
UT Monticello	88.1	KUHU	PC 225w/1070m
VA Charlottesville	106.9	W294AJ	QC from 106.7, 10w
VA Norfolk	102.9	WOWI	PG>150m, 36-45-19/76-23-07
VC Jalapa	90.5	XHRUV-FM	NS
VT Swanton	89.9	WGLG	CC from WNGF
WA Benton City	90.5	NEW	NS 2.9kw/311m, 46-14-53/119-33-44 (Prosser SDA Church)
WA Bremerton	106.9	KRWM	PR<11.2kw (aux)
WA Clarkston	90.5	KNWV	PR 350w/340m
WA Moses Lake	100.5	KWIQ-FM	QC from 100.3, 50kw/50m
WA Shelton	94.5	KRXY	PG 830w/272m, 47-08-20/123-08-23
WA Yakima	88.5	KYVT	PR>135w/258m, 46-31-57/120-30-43
WI Appleton	91.1	WOVM	PR>42kw/98m, 44-09-46/88-14-37
WI Reedsville	103.1	WOGB	CL granted from Winneconne
WI Tomahawk	100.9	NEW	AF 3kw/149m, 45-21-08/89-39-13 (Results Broadcasting)
WY Kaycee	88.7	KUWK	PG 1.6kw/99m, 43-53-41/106-40-48
WY Kaycee	88.7	KUWK	PR 1.6kw/99m
WY Shoshoni	88.7	KUDA	PG<593m, 43-26-12/107-59-56
WY Shoshoni	88.7	KUDA	PR<593m, 43-26-12/107-59-56
YU Merida	92.1	XHMYL-FM	QG from XEMYL-1000
. o morrad	1 /	731 1001 E 1 101	

#### RadioShack Says HD Antenna Sales Jump Amid CBS Blackout

Time Warner Customers May Be Growing Impatient

Published: August 12, 2013

After two weeks without <u>CBS</u> on Time Warner Cable in certain markets, some Time Warner Cable customers seem to be taking matters into their own hands.

The blackout, which is affecting 3.2 million customers in New York, Los Angeles and Dallas, has created a double-digit spike in high-definition antennas in those markets at RadioShack, a spokeswoman for the electronics retailer said Monday.

CBS was pulled from Time Warner Cable on Aug. 2 after carriage negotiations collapsed. Both sides have urged viewers to use alternate means to get the network, with CBS suggesting that Time Warner Cable subscribers switch to another pay-TV provider and the cable company reminding viewers of alternatives in streaming web video. —Advertising Age



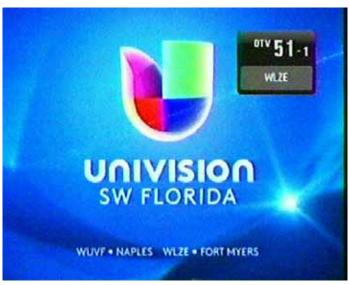
Jeff Kruszka 1909 Lost Lake Place Pearland, TX 77581 jkruszka@sbcglobal.net

October 2013

A mixed bag this month. We start off with Chris Dunne of Pembroke Pines, FL:



WFTX-35 Cape Coral, FL 108 mi Tr seen 4-23-13 "local off"



WLZE-LD-51 Ft. Myers, FL 106 mi Tr seen 4-23-13 "local off"



YNFA306-6 Managua, NIC 1034 mi Es seen 6-8-13 "6 logo upper right"

And a few from Chris Lucas of Poughkeepsie, NY:



KOTA-2.2 Rapid City, SD 1486 mi Es seen 6-1-13



WBRA-3 Roanoke, VA 444 mi Es seen 7-3-13





WMC-5 Memphis, TN 982 mi Es seen 7-3-13

CKPR-2 Thunder Bay, ON 878 mi Es seen 7-26-13

And finally, a batch of recent skip from Mike Perron, of Eunice, LA:



HRCV-3 Tegucigalpa, HND 1179 mi Es seen 5-19-13



XHGV-4 Las Lajas, VER 804 mi Es seen 6-6-13



XHHSS-4 Hermosillo, SON 1117 mi Es seen 6-26-13



XHTAU-2 Tampico, TAM 659 mi Es seen 7-9-13

73's, JEFF



#### Southern FM DX

John Zondlo – 4009 Driftwood Circle – Yukon, OK 73099 <u>southernfmdx@wtfda.org</u> – Deadline: 15<sup>th</sup> October 2013

Mike Hunter – W2MHZ – Box 240 – Neshanic Station, NJ 08853 – DXing from Nags Head, NC – EDT

Grundig G-3 with stock whip antenna barefoot at a few feet above sea level

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1746 WKNS
             90.3
                   NC Kinston, Public Radio East ID, weak signal 115/185
                   VA Roanoke, "Star Country," Taylor Swift at John Paul Jones Arena 278/447
1758 WSLC
             94.9
9/9 Tr
0026 WESR
             103.3 VA Onley, Dennis Smith Funeral Home ad, duck race fundraiser sale for hospice,
                        funeral announcements 157/253
0720 WFXK
             104.3 NC Bunn, "Foxy 104.3," Durham area traffic 157/253
0725 WQHQ 104.7 MD Ocean City, "Q-105," Salisbury location of Chesapeake Coffee, Allen Memorial
                        Baptist Church, Nationwide Insurance Billy Staples agent 208/335
0727 WFMZ 104/9 NC Hertford, RDS ID WFMZ 73/117
<u>9/10 Tr</u>
0712 WGMD 92.7
                   DE Rehoboth Beach, fishing report, Farrell Cooling and Heating 230/370
0714 WLFV
                    VA Ettrick, "The Wolf, Fresh Country" 166/267
             93.1
                   VA Chesapeake, "Bob," Subway ad City Center Newport News 103/166
0717 WNOB 93.7
0718 WNYC
             93.9
                   NY New York, Soterios Johnson with news 379/610
                   NC Cary, "Kiss FM," rock 184/296
0720 WKSL
             93.9
0727 WDSD
             94.7
                   DE Dover, "Delaware traffic on Routes 13 and 24, ad for Fred Drake auto in Townsend/
                        Odessa area 259/417
0735 WKZP
             95.9
                   DE Bethany Beach, 959fm.com, Delmarva weather, Delmarva Power storm
                        preparation, Parties Your Way in Berlin 217/349
                   VA Chinconteague, "The Variety Station," ID 175/282
0739 WCTG
             96.5
0801 WLTW
             106.7 NY New York, TOH ID, BP Driver Rewards ad, NY area traffic 379/610
             107.5 VA Warsaw, "River Country," ad for Handy Stores in Northern Neck 190/306
0806 WNNT
<u>9/11 Tr</u>
0704 WCOS 97.5
                    SC Columbia, "South Carolina's Favorite Country," ID, country 327/526
0713 WDWG 98.5
                   NC Rocky Mount, "The Big Dawg," Southern National Motorsports Park Lucama,
                        discussion of race season 132/212
             100.3 DC Washington, Washington Post ad, local ad locations in Columbia and Beltsville
0747 WBIG
                        256/412
0750 WRDU 100.7 NC Wake Forest, ARS HVAC ars.com, 919 area code, Scotts EC Seed, Jared's
                        Jewelers 172/277
9/12 Tr
1516 WWFG 99.9
                   MD Ocean City, "Froggy 99.9," Maryland Lottery, Ravens tickets promotion 208/335
<u>9/13 Tr</u>
            100.9 NC Southern Shores, "Rejoice 100.9" after sermon 48/77 101.3 VA Hampton, "2WD," 2WD ID on RDS 122/196
0755 WFMI
0756 WWDE
             102.1 VA Virginia Beach, "The Tide," ID 102/164
0808 WXTG
             103.1 NC Robbins, "Life 103.1," Life 103.1 ID, YMCA Family Membership Special,
0820 WLHC
                        252-972-9622, Unipest, cleaning service in Rocky Mount 252 AC, Worrell's
                        Seafood in Wilson 227/365
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Eric Bueneman – N0UIH – 631 Coachway Lane – Hazelwood, MO 63042-1347 – CDT – miles/km

Kenwood AR-304 AM/FM/FM Stereo receiver with filter modifications by Bruce Elving, Harman-Kardon TU-920 AM/FM tuner, Antenna Performance Specialties APS-9B at 28' AGL. NOAA Weather Radio DX: Radio Shack PRO-2052 scanner with RS discone at 32' AGL

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8/12 Tr
0025 WKDQ 99.5 KY Henderson, local ads, wx, calls, country music 170/274
0029 WWTN 99.7 TN Hendersonville, "Super Talk 99-7 WTN," local ads, Red Eye Radio 265/426
0137 WIBC 93.1 IN Indianapolis, Coast to Coast AM 240/386
8/26 Tr
2024 WJLT 105.3 IN Evansville, local ads, jingle ID, classic hits 165/266
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2028 WKDQ 99.5 KY Henderson, call letters, Taste of Country Nights 170/274
              103.7 IN
                         Bloomington, classical mx, local underwriting, w/WDBR 210/338
2055 WFIU
2136 WQXQ 101.9 KY Central City, "Today's Hits, Q-102," local ads, CHR, thru WQQL 200/322
8/27 Tr
1122 WSKL
                         Veedersburg, "Kool 92.9," classic hits, IN #50 190/306
             92.9
                    IN
8/28 Tr
0215 WDDJ
              96.9
                    ΚY
                         Paducah, "Electric 96.9, Today's Hottest Music," CHR 155/249
0958 WWYN 106.9 TN McKenzie, "Win 106-9," local ads, country 210/338
                         Centerville, "lowa's Country," country mx 225/362
2118 KMGO
              98.7
                    IΑ
                         Ottumwa, calls, AC 185/298
2139 KTWA
              92.7
                    IΑ
                         Cedar Rapids, "Z-102.9," CHR, over KMMO 230/370
2144 KZIA
              102.9 IA
8/29 Tr
2316 KRNA
              94.1
                    IΑ
                         Iowa City, "Real Rock 94.1 KRNA," rock, through WGFA 225/362
                         Waterloo, "Life 101.9," CCM 280/451
2333 KNWS
              101.9 IA
2337 WLLR
              103.7 IA
                         Davenport, "#1 Country, WLLR," wx, country 190/306
                         Mount Sterling, "The Oldies Superstation," local ads, oldies 90/145 Keokuk, "95.3 KOKX-FM, Cool Oldies," oldies, $ 125/201
2339 WPWQ 106.7 IL
2346 KOKX
             95.3 IA
8/30 Tr
0022 KBEA
              99.7
                    IΑ
                         Muscatine, "B-100," CHR 180/290
              106.1 IA
                         Washington, AC/oldies, calls, community calendar, promo, wx 190/306
0033 KCII
0049 KZIA
              102.9 IA
                         Cedar Rapids, "Z-102.9," request line mention, CDT time check, CHR 230/370
0057 WXN85 162.4 IA
                         Fairfield, wx conditions, legal ID, warnings and wx summary 185/298
                         Cedar Falls, "K98-5," local ads, promo, Kickin' It with Kix Brooks 325/523 New Hampton, "95-1 The Bull," country, local ads 315/507
0112 KOEL
              98.5
                    IΑ
0135 KCZE
              95.1
                    IΑ
0148 KRQN
              107.1 IA
                         Vinton, "I-107.1," CHR 230/370
                         Colchester, "Good News Radio," wx, promo, legal ID, CCM 115/184
0158 <u>WGNX</u>
              96.7
                    ΙL
0213 KDAT
              104.5 IA
                         Cedar Rapids, calls, hot AC, jingle ID 230/370
              99.5
                         Chicago, "US 99.5," country, local ads, over WZIM 255/410
0232 WUSN
                    ΙL
0929 WXL64
              162.4 IA
                         Dubuque, wx almanac for Dubuque, legal ID, warnings 280/451
              92.9
                         Dubuque, "92-9 Kat FM," hot AC 280/451
0932 KATF
                    IΑ
8/31 Tr
0105 WWTN
             99.7
                    TN Hendersonville, "Super Talk 99-7 WTN," local ads, thru WXAJ 265/426
              101.7 MO Lamar, country, legal ID 230/370
0150 KHST
0907 KNWI
              107.1 IA Osceola, "Life 107.1," CCM 225/362
0922 Peoria IL 93.3, 106.9 140/225
                    IA Des Moines, "Iowa's Greatest Hits," local ads, oldies 255/410
0929 KIOA
              93.3
                    KY Hopkinsville, "Light 98.7," AC 205/330
0941 WHOP
             98.7
0942 WMC
                    TN Memphis, "FM 100," promo, local ads, w/WXAJ, WWTN 250/402
              105.3 IN Evansville, local ads, legal ID, classic hits 165/266
0959 WJLT
1004 WQXQ 101.9 KY Central City, "Today's Hits, Q-102," CHR 200/322
9/1 Tr
0000 KZZ66
                        Galesburg, wx summary, legal ID 155/249
0010 WXL61
              162.475 IA Cedar Rapids, Burlington record dry months, legal ID 230/370
0013 KSJN
                    MN Minneapolis, "Classical MPR," classical music, promos, weather 450/724
              99.5
                    MY Minneapolis, "Uplifting and Encouraging 98.5 KTIS," CCM 450/724
0031 KTIS
              98.5
                    WI LaCrosse, "Z-93," CHR, legal ID 350/563
0048 WIZM
              93.3
0057 KUNI
              90.9
                    IΑ
                         Cedar Falls, "Iowa Public Radio 3," jazz, legal ID 325/523
0105 KNXR
              97.5
                    MN Rochester, CBS nx, ads, wx forecast, sign off, national anthem 380/612
              104.7 IL
                         Bushnell, "Hit Country 104.7," country 125/201
0111 WLMD
              100.5 MO Memphis, country, PSA, wx forecast 150/240
0125 KMEM
0212 KROC
              106.9 MN Rochester, "Today's best music," CHR 380/612
                    IA Council Bluffs, "Q-98.5," modern AC 325/523

NE Nebraska City, "Radio Lobo," local ads, Ranchera mx in SS 315/507

WI Eau Claire, "Wax 104.5," local ad, country 420/676
              98.5
0232 KQKQ
0238 KBBX
              97.7
0247 WAXX
              104.5 WI
              106.1 MO Ravenwood, Catholic history notes, legal ID 255/410
0259 KEXS
              100.1 MO Cameron, "Regional Radio Quick," local ads, promo for AM, classic hits 220/362
0319 KKWK
0323 KZBK
              96.9
                    MO Brookfield, "KZBK, The Z," hot AC 155/249
                    MO Macon, "The Captain of Radio," classic hits, KFAV nulled 130/209
0325 KIRK
              99.9
0350 KIWR
              89.7
                    IΑ
                         Council Bluffs, "89-7 The River," calls, promo 325/523
0351 KBEA
              99.7
                    IΑ
                         Muscatine, "B-100," calls, CHR 180/298
0356 KSOI
                         Murray, classic hits, calls, IA #65 245/394
              91.9
                    IΑ
              162.4 IL
0421 KXI58
                         Plano, wx conditions, legal ID, fog advisory 220/362
              162.475 IL Rockford, wx conditions for IL/WI, forecast for Rockford 250/402
0432 KZZ57
0438 KZZ38
              162.5 MO Trenton, forecast for Chillicothe, MO/IA/NE conditions 195/314
0442 WWWY 106.1 IN North Vernon, "106-1 The River," classic hits 265/426
9/5 Tr
             101.9 KY Central City, "Q-102," CHR, WQQL nulled 200/322
0101 WQXQ
                    TN Trenton, "JJ 97.7," PSA, urban AC 265/426
0148 WYJJ
              97.7
              98.5 TN Cookeville, "98.5 Kiss FM," legal ID, CHR, over KTJJ 325/523 104.5 TN Gallatin, "104-5 The Zone," baseball scores, Fox Sports talk 270/435
0201 WKSW
             98.5
0206 WGFX
                    TN Hendersonville, "Super Talk 99-7 WTN," local ads, promo, Red Eye Radio
0219 WWTN 99.7
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265/426

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0230 WTJJ
              94.3
                    TN Dyer, "The TJ Network," local ads, mixing with WMKR, WKYX 200/322
0750 WKPB
              89.5
                     ΚY
                         Henderson, "WKU Public Radio," weather, promos 170/274
0800 WLLE
              102.1 KY
                         Mayfield, "Willie 102," classic country, wx forecast, local nx 170/274
                         Golconda, "News/Talk 94.3 FM, 570 AM," wx, traffic report 160/258
              94.3
0805 WKYX
                    ΙL
                         Centerville, "Iowa's Country," country, weather forecast 225/362
              98.7
1642 KMGO
                    IΑ
                         Monmouth, "Sunny 97.7," The John Tesh Show 145/233
1905 WMOI
              97.7
              162.4 AL Huntsville, weather conditions, forecast, hazardous wx outlook 345/555
2134 KIH20
2224 WXK49 162.475 TN Memphis, wx conditions for TN/AR/MS/AL/MO, legal ID 250/402
                     AR Little Rock, "B 98.5," The John Tesh Show 300/483 MO Seligman, "Eagle 93.3," northwest Arkansas ads 250/402
2338 KURB
              98.5
2348 KIGL
              93.3
              103.7 AR Little Rock, "103-7 The Buzz," NFL postgame show, ads, legal ID 300/483
2355 KABZ
9/6 Tr
0012 WXK62 162.4 TN Waverly, middle TN and mid-South wx conditions, legal ID 235/378
              107.1 MO Birch Tree, "Positive and Encouraging K-Love," promos, CCM 125/201
0020 KBMV
              94.1 AR Little Rock, "The Point 94-1," classic hits 300/483
97.5 AR Hot Springs, "97.5 US-97," country 330/531
102.9 AR Little Rock, "102.9 The Z," local ads 230/370
0032 KKPT
0043 KQUS
0049 KHOZ
0105 WWF33 162.5 AL Henagar, weather conditions for AL/TN, forecast, hazardous wx outlook 385/620
0118 WJXA
              92.9
                     TN Nashville, "Mix 92-9," local ads, wx forecast, The John Tesh
Show 270/435
0122 <u>WWFF</u>
                     AL New Market, "Journey 93-3," classic hits 345/555
             93.3
0303 WUSY
              100.7
                     TN Cleveland, "US-101," legal ID, After Midnite 395/636
                     TN Livingston, "Light Rock 95.9," AC, over WOLG/WDQN 320/515
0314 WLQK
              95.9
                     TN Lawrenceburg, "Power 97," country 295/475
0320 WLLX
              97.5
                         Harrisburg, "Z-100," wx forecast, country, KFAV nulled 130/209
0333 WOOZ
              99.9
                     IL
              107.1 GA Aragon, "South 107," legal ID, local ads 440/708
0358 WTSH
0856 KAMS
              95.1
                     AR Mammoth Spring, "K-Country 95," local ads, country, legal ID, nx 175/282
                     AL Holly Pond, "Light 96.9," AC, jingle ID, local ads, through WDDJ 380/612
0919 WRSA
              96.9
                         Fort Madison, "101-7 The Bull," local ads, promo, country 125/201
              101.7 IA
0934 KBKB
                     KY Paris, Delilah, through KUPH, confirmed by Web search 335/539
2126 WGKS
              96.9
                     MO Mountain View, "96-9 The Fox," local ads, high school football 145/233
2136 KUPH
              96.9
9/7 Tr
              102.9 MO Marshall, "Your Radio KMMO," local ads, CDT time check, country 155/249
0136 KMMO
0141 WFGS
              103.7 KY Murray, "Froggy 103.7," country 190/306
0239 KOKS
              89.5
                     MO Poplar Bluff, ID in promo, southern Gospel music, through KOPN 145/233
<u>9/8 Tr</u>
                    KY Hardinsburg, "Real Country 96-9," local ads, wx, country 220/3541
1835 <u>WKLO</u> 96.9
1842 WWG72 162.5 IN Georgia, wx for Bloomington and Bedford, faded to KXI46 205/330
              104.7 IN Jasper, call letters, oldies, through digital ACI from KBWX 104.9 190/306
1846 WITZ
1858 KIH43
              162.475 KY Louisville, 8 to 14 day weather outlook, forecast conditions for IN/KY 250/402
1950 WWG83 162.425 IN Edwardsport, weather forecast, hazardous wx outlook, over KXI79 170/274
2002 WWG73 162.525 IN Seymour, IN wx conditions, temp at Bloomington, over WXM90 240/386
2020 WXL47 162.4 MO Bloomfield, weather conditions for Poplar Bluff 135/217
2100 WXJ91 162.525 KY Madisonville, legal ID // KXI26 162.45, weather outlook 190/306
2200 Springfield IL 91.9, 98.7$, 101.9$, 103.7$, 104.5$ 80/128
2300 Decatur IL 95.1$, 102.9$ 110/177
2331 I ID // KXI26 162.45, weather outlook 190/306
2200 Springfield IL 91.9, 98.7$, 101.9$, 103.7$, 104.5$ 80/128 2300 Decatur IL 95.1$, 102.9$ 110/177
2331 WZIM
             99.5 IL Lexington, "99.5 The Ticket," talk on NFL week 1, promos, local ads 145/233
9/10 Tr
0733 KTGR
              100.5 MO Fulton, ESPN Sports Center, Mike and Mike in the Morning 100/161
0735 KSSZ
              93.9
                     MO Fayette, "93-9 The Eagle," local news, ads, sports 125/201
                     MO Centralia, "K-Love," CCM, talk on prayer, legal ID 90/145 MO Madison, "Glory 97.3," promo, CCM 110/177
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This year's E-skip season has been pretty lackluster, to say the least...only 11 new FM stations have been logged via E-skip; three times that many new FM stations have been logged via tropo since the beginning of May. The E-skip opening of July 15 had the year's highest MUF of 101.7 (by contrast, the highest MUF last season was 162.475 MHz) by pulling in KWGF 101.7. The company that owns the station, Star Radio, also owns WCOY 99.5 in Quincy, IL. The tropo opening of July 24 brought me one Illinois FM station closer to the 200 mark when I pulled WIUW 89.5 through WARW. The Illinois FM total as I write this stands at 196. A few tropo openings also had surprise extensions...the July 25 opening, dominated by stations from Illinois, Indiana, Kentucky and Tennessee, had an extension into Atlanta when WZGC 92.9 took out WSEI. The opening on July 31, dominated by stations from Illinois and Iowa, extended into southwestern Kansas with the log of WNG535 on 162.525 (normally dominated by either WWF75 Bourbon, MO or WXM90 Jacksonville, IL). The previous day's opening brought a new FM translator in K259BB 99.7 Sikeston, MO (relaying local KSIV 91.5 St. Louis). It's the second new FM translator logged this season, and my 170th Missouri FM. For a moment, I thought I had WMFS 92.9 with ESPN Radio (I've logged the AM on 680 kHz), but was pleasantly surprised to hear a dual ID for KLSC Malden, MO and AM sister KMAL 1470 kHz. The wee hours of

0742 KMFC

0814 KTCM

92.1 97.3 August 1 brought stations from Illinois and Kentucky, but a tropo opening in the evening hours extended to the Wichita area. The late night hours of August 4 and the wee hours of August 5 brought DX in from Tennessee, Mississippi and Alabama. WZLQ 98.5 made it through KTJJ for my eighth FM from the Magnolia State, while two more Memphis FMs, WQOX 88.5 and WRVR 104.5, made it through before midnight. After midnight, I noted the city of license change from WRSA 96.9, which I previously logged while it was in Decatur, AL. Holly Pond is a small town on U.S. 278 east of Cullman. Another such change was KWNW 101.9, which I had previously noted as KIYS when it was in Jonesboro, AR. Crawfordsville is along U.S. 64 west of Memphis. I also noted my first non-commercial FM from Mississippi when I noted WMAE 89.5 carrying BBC World Service on the Mississippi Public Radio network. The opening of August 8 also went into western Missouri and eastern Kansas, getting as far west as Hutchinson and Wichita going into the wee hours of August 9. The morning hours brought an opening into northwest Indiana and east central Illinois. The August 11 and 12 openings brought stations from Indiana, Kentucky and Tennessee. The FM total as of August 12 now stands at 1,222. 73.

Fred Nordquist - 147 Travis Hill Road - Moncks Corner, SC 29461 - all new

HDT-1X receiver, APS-13 antenna - 33.21756N 79.95798W - KJ4BUG - Grid FM03AF

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4/11 Tr
1042 WOSF 105.3 SC Gaffney, RDS PI: 7B79, PS: Now Playing Song/Artist R&B 167
4/17 Tr
1000 W282AR 104.3 GA Savannah, r-WSEG 1490 ESPN sports 105
<u>5/2 Es</u>
1535 KBXE
             90.5 MN Bagley, RDS PI: 14FE PS: KA-BXE Public 1260
5/4 Es
1015 CJWL
                   ON Ottawa, "Jewel 98-5" 972
             98.5
5/<u>11 Es</u>
1028 KNYD
             90.5
                   OK Broken Arrow, RDS PI: 34C7 PS: Religious Music 917
             89.9
                   KS Pittsburg, RDS PI: 3E7C, HD 883
1050 KRPS
             89.9
                   MO High Point, rel 795
1059 KMGV
1106 KCHZ
             95.7
                   KS Ottawa, RDS PI: 1617 PS: KCHZ, adult hits 929
                   MO Kansas City, RDS PI: 3D17 PS: KRBZ, rock 913
1107 KRBZ
             96.5
             96.7
                   MO Columbia, RDS PI: 2FF4 PS: KMCQ, classic rock 776
1128 KCMQ
5/23 Es
1140 KTRL
             90.5
                   TX Stephenville, Carlton Public Radio 1050
<u>5/26 Es</u>
                   MI Interlochen, RDS PI: 69C8 824
1941 WIAA
             88.7
<u>5/27 Es</u>
1800 KUSD
             89.7
                   SD Vermillion, SD Public Radio 1135
5/28 Es
                                                                       WINNIPEG'S BEST MUSIC MIX
1249 KGVV
             90.5
                   OK Goltry, rel, "My Praise FM" 1047
<u>5/29 Es</u>
                   MB Steinbach, RDS PI: ---- - 'WPG' PS: Mix 96 Mix 96 - Soft Rock 1427
1914 CILT
             96.7
             102.3 MB Winnipeg, "102.3 Clear FM" 1439
1918 CKY
             103.1 MB Winnipeg, RDS PI: ---- - 'WSB' PS: Virgin Radio Winnipeg's #1 Hi Music...,
1918 CKMM
                       top 40 1439
1937 KBHP
             101.1 MN Bemidji, "KB101" 1249
             103.7 MN Bemidji, local weather 1256
1940 KKBJ
1958 KQHT
             96.1
                   MN Crookston, RDS PI 3B09 1337
2029 KRVX
             103.1 ND Wimbleton, RDS PI: ---- - 'WSN' PS: Raven, classic rock 1279
             103.9 ND Arthur, 1321
2043 KVMI
2043 KBOT
             104.1 MN Pelican Rapids, RDS PI: 1423 1251
2046 KARP
             106.9 MN Dassell, Twins BB 1127
5/31 Es
             92.9
                   SD Watertown, RDS PI: 3FE7 PS: ...SOUTHA..., country 1225
1525 KSDR
                   SD Millbank, RDS PI: 4DE0 PS: on KXLG, classic rock 1217
1530 KXLG
             99.1
             100.1 MN Olivia, RDS PI 362B, PS: country 1150
1531 KOLV
1715 KJLT
             94.9
                   NE North Platte, RDS PI: 28F5 PS: kjlt.org + 532-5515, rel mx 1267
                   LA Moreaville, RDS PI: 2DE7 PS: KLIL 719
1800 KLIL
             92.1
6/1 Es
1823 KLYV
             105.3 IA
                       Dubuque, local ad 867
1830 KARL
             105.1 MN Karl, local ad 1146
2000 KTXG
             90.5
                   TX Greenville, ID 949
<u>6/23 Es</u>
1200 CMBE
             94.7
                   CU Havana, RDS PI: ---- 'WWMO' PS: RCiudad R Ciudad de la Habana - Top 40 712
1325 KXPN
             95.5
                   TX Scotland, RDS PI: 5397, sports 1056
1420 KKYS
             96.5
                   IΑ
                       Cedar Rapids, RDS PI: ---- - 'WDG' PS: song/artist, country 881
                   IL
1427 WABZ
             93.9
                       Sherman, RDS 706
                   CO Wray, "Cat Country 98.3" 1361
1715 KATR
             98.3
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107.5 KS Liberal, local ad 1220
1747 KSCB
                  LA Blanchard, local ad 816
1823 KFLO
            89.1
1847 KGNC
            97.9
                  TX Amarillo, ID 1255
6/24 Es
2033 WZAR
            101.9 PR Ponce, RDS PI: 96BD PS: SS-Adult Hits 1330
7/3 Es
1910 WTPL
            107.7 NH Hillsboro 816
1910 WEBE
            107.9 CT Westport, RDS PI: 5F56 663
            106.7 NY New York, RDS PI:13B8 - 'KBKQ' PS: Soft 616
1912 WLTW
1925 WORK
            107.1 VT
                       Barre, RDS PI: 7B64 PS: #1 FOR CLASSIC....107-1 Frank-FM Oldies - Frank -FM
                       855
1943 WBCL
            90.3
                  IN Fort Wayne, RDS PI: 578B 616
2028 WVTK
            92.1
                  NY Port Henry, partial ID, John Tesh Show 823
7/5 Es
1713 CBCR
            90.3
                  ON Kirkland Lake, local weather 681
                   MI Hillman, "NE MI Hits FM" 842
1810 WKJZ
            94.9
1817 WMTU
            91.9
                  MI Houghton, RDS PI: 765A 1061
            98.7
                  ND Bismarck, Cool987.com 1431
1928 KACL
1940 KYBB
            102.7 SD Canton, RDS PI 4F7B PS: Classic Rock 1146
            101.5 SD Gregory, local ad 605 a/c 1254
2000 KVCX
            101.5 NE Hastings, RDS PI: 3E61 PS: Oldies 1160
2044 KROR
7/6 Es
                   OK Lawton, RDS PI: 523B PS: Z94, rock 1068
1100 KZCD
            94.1
1101 KWKQ 94.7
                   TX Graham, ID 1076
1125 KWME 92.7
                  KS Wellington, RDS PI:---, oldies 1025
1202 KKDT
            93.5
                  KS Burdett, local ad 1162
1204 KVOB
            95.5
                  KS Lindsborg, local ad 1058
7/9 Tr
2335 WBXY
            99.5
                  FL LaCrosse, "The Party Station" 279
7/10 Tr
0023 WQHL
            98.1
                  FL Live Oak, "The Big 98" 269
            102.7 FL Madison, "Hot 102.7" 271
0753 WXHT
<u>7/10 Es</u>
1825 KZEP
            104.5 TX San Antonio, HD 1127
            90.9 TX San Antonio, BBN, rel 1103
1830 KFYS
<u>7/11 Es</u>
0912 WOLX
            94.9
                  WI Baraboo, RDS PI: 7AD5 878
                  WI Cross Plains, RDS I:1458 - 'KBQX' PS: Star Country 865
0913 WMAD
            96.3
                  OH Fremont, "The Eagle" 588
0915 WFRO
            99.1
0917 WBIZ
            100.7 WI Eau Claire, RDS PI: 5835 1017
                       DeKalb, local ads 775
0923 WOKB 94.9 IL
<u>7/13 Es</u>
1039 KLCH
            94.9
                  MN Lake City, RDS PI: ---- 1018
1100 KOGC
            88.3
                  TX Wheeler, multistation ID 1182
7/14 Es
1900 KREP
            92.1
                  KS Belleville, "KR 92-K the best in country" 1076
7/15 Tr
0900 WRAE 88.7
                   NC Raeford, rel, ID 127
<u>7/16 Tr</u>
0844 W235BM 94.9 SC Mauldin, SS 182
1005 WKRI
            91.9
                  SC Cokesbury, oldies, SID 149
7/25 Tr
1337 WWRQ 107.9 GA Valdosta, "Rock 108" 243
1400 WDBN 107.9 GA Wrightsville, r&b, "107.9 Jams" 168
<u>7/29 Tr</u>
2009 WUCC 99.9 SC Williston, rel, The Voice of Truth 98
7/31 Tr
0122 WEDB
            98.1
                   GA East Dublin, "Magic 98.1" 163
<u>8/1 Es</u>
1011 HISK
            103.1 DR Santiago, SS - Super 1092
8/11 Tr
1800 W272CT 102.3 FL Palm Coast, dual station ID WFOY-AM 271
2213 WHKQ 103.1 FL Windemere, SS // web 335
2248 WWRZ 98.3 FL Fort Meade, RDS PI: ---- - 'WED' PS: MAX 98.3, adult hits 387
8/12 Tr
0213 WZJZ
            100.1 FL Port Charlotte, "Y100" 473
0228 WRXK 96.1 FL Bonita Springs, "96 K-Rock," HD 480
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Local Notes: WXLY-102.5/WEZL-103.5/WRFQ-104.5 IBOC all turned off for months. WSCM-LP 100.1 SC Moncks Corner still on open carrier since June 2012. WALI-93.7 noted on briefly with ID/country music, also WXJY-93.9 // WJXY-93.7 both noted back on with ID, "News Talk that matters." FM Log totals now at 2481.



#### 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 10<sup>th</sup> of each month.

#### EDITOR'S NOTE PLEASE SUBMIT ALL REPORTS IN THE FORMAT SHOWN BELOW.

#### Time(tab)Calls(tab)Freq(tab)City(tab)State(tab)details

Formats can either be plain text, Word or Excel as long as format is adhered to. Any submissions in other formats may not be used at editor's discretion.

All Submissions must be in to me by the 10<sup>th</sup> of each month.

Dave Nieman, Bradford, PA FN01qx Sangean HDT-1, Channel Master 4408 @ 21' AGL 1500' ASL, -350' HAAT All New to log, All Times Are: EDT, Distance in Miles

		<b>.</b>	·		
<u>Augu</u>	st 1 Ms				
0936	KJLU	88.9	Jefferson City	МО	RDS PI: 28F6 PTY: Jazz 755
<u>Augu</u>	st 8 Ms				
0637	KSD	93.7	St. Louis	МО	RDS PI: 1994 = bogus KDQI, Country 658
<u>Augu</u>	st 10 Ms				
1523	WGFX	104.5	Gallatin	TN	RDS PI: 6519 PTY: Sports 588
_					
<u>Augu</u>	<u>st 11 Ms</u>				
1024	WMEZ	94.1	Pensacola	FL	RDS PI: 74D9 PTY: Classic Rock 929 Local 94.1 off, tropo relogs Canton OH, Sunbury PA, Brighton NY, Toronto ON &
					Keyser WV
Augu	st 12 Ms				
0824	WRZE	94.1	Kingstree	SC	RDS PI: 841A PS: WRZE PTY: Adult Hits 574
0851	WZBQ	94.1	Carrollton	AL	
1214	KATI	94.3	California	МО	
<u>Augu</u>	<u>st 16 Ms</u>				
0936	WCIC	91.5	Pekin	IL	calls heard, Contemp. Christian 575
<u>Augu</u>	st 21 Ms 8	k GW			
0758	KTLB	105.9	Twin Lakes	IA	local off, RDS PI: 434B PTY: Oldies 819
2000	W285E	5 104.9	Smethport	PA	new Ici // WCID FLN, RDS PI: FFFF (KWI) 17

#### August 30 Tr

Summer skip season has ended but as we know....skip can occur 12 months a year. 73 dave

#### Randy Miltier, W6NT - Phoenix, OR 97535 Sony XDR-F1HD, Winegard HD-6055P antenna

**Times Pacific** 

#### July 20 2013 Es

1227	KNGM	88.9	Guymon	OK	ad, ID
2030	XTASIS	88.9	Hermosillo	MX	RDS

#### July 21 2013 Es

104 <i>1</i>	KILF	89.9	Colo Sprgs	CO	טו
1055	KNGM	88.9	Guymon	OK	Radio For Life, ID
1101	<b>KBJF</b>	90.5	Nephi	UT	CSN Radio, address

#### July 26 2013 Es

1110	KUAT	90.5	Tucson	AZ	Website match
1120	KJZZ	91.5	Phoenix	AZ	ID
1122	<b>XTASIS</b>	88.9	Hermosillo	MX	RDS

#### **August 14 2013 Es**

Data

1800	KCGY	95.1	Laramie	WY	Y-95 Country.com
1802	KSID	98.7	Sidney	NE	The Blast
1804	<b>K231AA</b>	(t)94.1	Boulder	CO	Hip Hop (KPTT) 205w

Note: K231AA 94.1 translator for KPTT only match..tried all hip hop stations. Tried to verify with song title but couldn't get anyone to answer the phone.

#### Mike Bugaj – 69 Sherman Road – Enfield, CT 06082 NAD 4155, Probe9, Bolin Phase Box, 7 element log-yagi phase antenna. Ray Dees RDS Decoder.

Date						
Time	Calls	Freq	City	ST	PI	Pgm
5/11 Es						
1150	WZEW	92.1	Fairhope	AL		The New Zoo 92
1933	WEPR	90/1	Greenville	SC	A6CF	Pty: Public
1936	WDJR	96.9	Enterprise	AL		The New Mix 96.9
1938	WECQ	92.1	Destin	FL	5F7C	
2006	WDNX	89.1	Olive Hill	TN	5DFD	Pty: Rel Music, www.wdcx.org. Lifetalk
2010	WTCD	96.9	Indianola	MS	870B	Pty: Talk, PS=Supertalk Miss.
2014	<b>WQXB</b>	100.1	Grenada	MS	813F	B100, country
2029	KHKN	94.9	Maumelle	AR	138d	PS=TOM-FM, Pty: Rock
2051	WTYS	94.1	Marianna	FL	8956	R/T=WTYS 94.1 REAL Gospel
			Panama City			
2054	WVVE	100.1	Beach	FL	8E42	Pty: Adult Hits
2145	KCCK	88.3	Cedar Rapids	IA	1586	Pty: Jazz
2154	KMGO	98.7	Centerville	IA	A35A	Pty: Country

2200	KWME	92.7	Wellington	KS	4B54	Pty: Oldies
	WMIX-		•			
2203	FM	94.1	Mt. Vernon	IL	753F	Pty: Country
2211	KTJJ	98.5	Farmington	MO	431F	Pty: Country
2214	LOMC	100.1	Kimberling City	MO	3632	Pty: Adult Hits, MY-100
2219	KKDY	102.5	West Plains	MO		KDY 24/7 Weather
2233 2300	<u>KLRC</u> KKID	90.9 92.9	Tahlequah Rolla	OK MO		90.9FM KLRC ID
2300	KKID	92.9	Nolla	IVIO		U
5/17 ES						
1121	KUAR	89.1	Little Rock	AR	0000	PS=KUAR89.1
5/19 Es						
2132	KFPW	94.5	Barling	AR	1ED0	PS=KFPW
-/						
5/26 Es	I/DL O	04.4	Hadaa		2004	BDC
1957	KPLQ	94.1	Hodge	LA	38CA	RDS
5/27 Es						
1830	WIGH	88.7	Lexington	TN	6A6B	Pty: Religious Music
			9			
5/29 Es						
2014	WIBW	94.5	Topeka	KS		94.5 Country
2024	KRXL	94.5	Kirksville	МО		94.5 the X
0/4 <b>=</b>						
6/1 Es 1623	KQXL	106.5	New Roads	ΙΛ	3CA1	Dtu Coff D 9 D
1712	WABR	91.1	Tifton	LA GA	54D3	Pty: Soft R&B, Pty: Classical
1726	WBZY	105.3	Bowdon	GA	19EE	Pty: Adult Hits
1804	WPAE	89.7	Centreville	MS	7C48	PS=WPAE89.7
1833	WEMX	94.1	Kentwood	LA	6087	PS=MAX94.1, Pty: Rhythm and Blues
1835	WBBN	95.9	Taylorsville	MS	5773	Pty:Country, B95
1902	KQKQ	98.5	Council Bluffs	IA	3B54	Pty: Top 40
1908	<u>KTSB</u>	88.3	Rapid City	SD		list of station underwriters, one in Rapid City NEW!
1912	KNCK	94.9	Concordia	KS		"Shooters" in Concordia adv.
6/23 Es						
1315	WZEW	92.1	Fairhope	AL	972A	Pty: Rock, R/T" THE SOUND OF MOBILE
1319	WHOD	94.5	Jackson	AL	0.2.	Dixie 94.5
1325	WTUG	92.9	Tuscaloosa	AL	882E	Pty:R&B, PS=92.9WTUG, Old School R&B
1330	WATP	90.9	Laurel	MS	56A5	pty: Religious Talk, R/T=AMERICAN FAMILY RADIO
1332	WUAL	91.5	Tuscaloosa	AL	0000	Pty: Jazz, PS=WUAL-FM,
1334	<u>WFFN</u>	95.3	Coaling	AL	626B	Pty: country, PS=953BEAR, NEW!
1336	WOKK	97.1	Merician	MS	7AAE	PS=97OKK, Pty: Country,
1345	WMPR	90.9	Jackson	MS	75EF	Pty: R&B, www.wmpr.com
7/3/ Es						
1845	WUFT	89.1	Gainsville	FL	8A0D	talk, Pty: News
1848	<b>KLRC</b>	90.9	Tahlequah	OK	2EC8	Pty: Religious Music, ID
1854	WLLD	94.1	Lakeland	FL	72D5	Wild 94.1, Pty: Rhythm and Blues
1856	WWRM	94.9	Tampa	FL	9086	Magic 949
1859	WEJZ	96.1	Jacksonville	FL -	95E1	Pty: Top 40,
1901	WJGL	96.9	Jacksonville	FL	6D13	Classic Rock
1904 1908	WSUN WGCO	97.1 98.3	Holiday Midway	FL GA	F000	97X Georgia's Big 98.3
1910	WKTK	98.5	Crystal River	FL	7108	Pty:Adult Hits, Best Variety of 80s, 90s and Now
1913	WYKZ	98.7	Beaufort	SC	7 100	98.7 the River and Delilah
1914	WQYK	99.5	St. Petersburg	FL	8162	Country
1918	<b>WXLY</b>	102.5	N. Charleston	SC	129A	RDS only
1920	WRUF	103.7	Gainsville	FL		Country 103.7 the Gator
1920	WEZL	103.5	Charleston	SC	11CD	Country
1920	WKUB	105.1	Blackshear	GA	FFFF	Pty: none, the Cub
1923	WOKV	194.5	Altlantic Beach	FL	7AB9	news
1928 1936	WAVH KJBX	106.5 106.3	Daphne Cash	AL AR	56D1 27F5	Pty: talk Pty: Adult Hits PS=Mix106.3 title and artist
1936	WSTI	106.3	Quitman	GA	27F5 8626	Pty said classical, R/T= www.mystar1053.com
2000	WFSU	91.5	Tallahassee	FL	63C0	Pty: classical
2002	WBHC	92.1	Hampton	SC	5500	calls, one great hit after another
2004	WAKU	94.1	Crawfordsville	FL	55C0	Pty: Religious Music
2006	WTNT		Tallahassee		1839	•

2011 2017 2024 2035 2035 2037 2041	WAAC WXVS WFLF KJCK KTWA KIOA KISO	92.9 90.1 94.5 97.5 92.7 93.3 96.1	Valdosta Waycross Parker Junction City Ottumwa Des Moines Omaha	GA GA FL KS IA IA NE	9298 620D 2802 F 258C	C93 Valdosta's only country leader Pty: classical, PS=GA Public Radio WXVS 90.1 News Pty: Top40, R/T=KJCK-FM97.5 Ottumwa weather Pty: Oldies 961kissonline.com
7/5 Es 1722 1726 1727 1729 1734 1735 1737 1740 1741 1743 1746 1750 1755 1756 1800 1812 1814 1818 1838 1839 1840 1841	WMFS WHPY WLVU KOMC WRBO WRVR WJLT WAID KBVA WDDD KIGL KTJJ KWTO KCLR KIXQ KWKZ KOMS WZBQ KHKN KERX KZMZ KOEA	92.9 94.5 97.1 100.1 103.5 104.5 106.5 107.3 93.3 98.5 98.7 99.3 102.5 106.1 107.3 94.1 94.9 95.3 96.9 97.5	Bartlett Bellevue Belle Meade Kimberling City Como Memphis Evansville Clarksdale Bella Vista Johnson City Seligman Farmington Springfield Boonville Jpolin Charleston Poteau Carrolton Maumelle Paris Alexandria Doniphan	TN TN MO MS TN IN MS AR IL MO MO MO AL AR AR LA MO	74EC  3632 81B4 83BF 6D9D 557B 14C6  15C7 431F  2786 4B35  96D6 138D 1C61 6666 3560	Pty: Sports Nashville Traffic report K-Love Pty: Adult Hits PS=My100.1 Pty: Rhythm and Blues Pty: Soft Rock Pty: Adult Hits PS=My100.1 Quick Cash Stores  3D country Pty: Classic Rock Pty: Country Jock 98.7, Sports www.moorefamilyeyecare.com Pty: country, PS= KIX102.5 Pty: country Big Country 107.3 rap Tom FM Pty: Rock Pty: Classic Rock
7/7 Es 2002 2005 2007 2009 2012 2013 2014 2018 2022 2043 2046 2051 2058 2100 2103 2108 2120	WIZM KIAI WJJO KCHA WERN KNSZ KNSH KKHQ KCZE KCVM KKEZ KSMA WNIJ KCCK WMBI KMLV KGGO	97.5 93.3 93.9 94.1 95.9 88.7 `89.1 89.1 92.3 95.1 93.5 94.5 98.7 89.1 88.3 90.1 88.1 94.9	Lacrosse Mason City Watertown Charles City Medison Ottumwa Ft. Dodge Waterloo New Hampton Hudson Ft. Dodge oOsage DeKalb Cedar Rapids Chicago Ralston Des Moines	WI IA WI IA IA IA IA IL IA IL NE IA	6C5E 2528 6064 15FE 60FF 342F 17D6 1776 2AE9 40C0 1586 747A A3E3 FFFF	top 40 Pty: country PS: title & artist on JJO  Pty: classical lowa Public Radio Pty: College q923.net PS: country, PS= the Bull Pty: Adult Hits, R/T= 93.5 the Max Pty: Top 40, PS- T&A only Mix 94.5 Today's Best Var. Pty: country Calls Pty: jazz Pty: Religious Talk K-Love 95-KGGO
7/8 Es 1032	WPAS	89.1	Pascagoula	MS	7C56	Pty: Religious Music R/T= WPAS 89.1
7/11 Es 0923 0926 0927 0929 0930 1013 1019 1025 1026 1039 1047 1049 1116 1118	WSMR WLTQ WLLD waro WWRM WPOZ WKES WCTQ WJSJ WJGM WQGA WYNR WYUM WBZE	89.1 92.1 94.1 94.5 94.9 88.3 91.1 106.5 105.3 105.7 103.3 102.5 101.7 98.9	Sarasota Venice Lakeland Naples Tampa Union Park Lakeland Sarasota Fernandina Beach Baldwin Waycross Waycross Mt. Vernon Tallahassee	FL FL FL FL FL GA GA FL	F000 13B2 72D5 5670 9086 7DC9 6F8A 1BEE	classical Pty: Adult Hits, 92-1 the Coast Wild, Pty of R&B classic rock Magic 94-9 Z 88.3, Positive Hits RT=XLTR oh 99.7 Ptty: religious talk PS=106.5CTQ, Pty= country EE/SS dance music 105.7 the Gospel 103Q 102.5 YNR, country real country all the time - onion country Pty: Adult Hits, Star 98.9

1120	WEDV	04.5	Dorkor	ы	6200	
1120 1122	WFBX WFSU	94.5 91.5	Parker Tallahassee	FL FL	620D 63C0	
1122	WAKU	94.1	Crawfordsville	FL	55C0	Wave 94 Pty= religious music
1120	Willo	J-1.1	Orawioradvine		0000	wave 541 ty = religious music
7/12 Es						
0918	WSMR	89.1	Sarasota	FL		
7/13 Es						
1400	KRNA	94.1	Iowa City	IA		ID, KRNA Iowa City, a Cumulus station
7/26 Es						D
1044	WQPR	88.7	Muscle Shoals	AL	A87F	Pty: public, PS=apr.org
1053 1057	WYNU KHLR	92.3 106.7	Milan Benton	TN AR	956E 23AB	Pty =classic rock  PS_KULP FM Pty P & Plyon Hearthant 106 7
1057	KFEB	100.7	Campbell	NO	1D9D	PS=KHLR-FM, Pty R & Blues, Heartbeat 106.7 pty: CHR, 107.5 the Pulse
1100	KJBX	106.3	Cash	AR	27F5	Pty: Adult Hits
1103	KWKZ	106.1	Charleston	МО	4B35	Pty: country
1105	WFGS	103.7	Murray	KY	628A	Pty: Country
1107	KKDY	102.5	West Plains	MO	2ACE	PS:1025KDY, RT=Today's hot new country 102.5 KDY
1121	<b>WQRL</b>	106.3	Benton	IL	A8AD	Pty: oldies
1123	<u>KRZK</u>	106.3	Branson	MO	431C	Pty: Country
1126	<u>KOMT</u>	107.5	Mountain Home	AR		Star 107.5
1136	KOSU	107.5	Altus	OK	0444	
1143	KGRS	107.3	Burlington	IA	21A4	Oversity
1152	WDAF	106.5	Liberty	MO	5C99	Country Pty name 107.3 the Brown
1204 1208	KTHR KEYN	107.3 103.7	Wichita Wichita	KS KS	42F3 1D0D	Pty: none, 107.3 the Brew Pty: oldies
1200	KQLA	103.7	Ogden	KS	3B5E	Christmas Carols Pty: soft rock, RT: KQLA103.5
1203	KNCK	94.9	Concordia	KS	JDJL	Agmark in Concordia
1223	KJCK	97.5	Junction City	KS	2802	Pty: Top 40
1235	KUSO	92.7	Albiob	NE	46B2	Pty: country
						•
8/3 Es						
1136	WECQ	92.1	Destin	FL	5F7C	Pty: Top 40
1147	KQXY	94.1	Beaumont	TX		Beaumont Civic Center mentioned
1200	<u>KTSR</u>	92.1	De Quincy	LA	4411	Pty: Top 40
0/42 Tr						
8/13 Tr 1812	WPEN	97.5	Burlington	NJ	1812	sports
1012	VVFLIN	31.5	Dumington	110	1012	зрото -
9/7/13 Tr						
0906	W248BG	97.5	Durham	NY		Rip 97.9 after weather, relays WRIP Windham, NY
0920	WZAD	97.3	Wurtsboro	NY		Country Countdown
9/9 Tr						
1930	WNKI	196.1	Corning	NY		Wink 106
2014	WZZO	95.1	Bethlehem	PA		The Valley's Best Rock
2250	WODE	99.9	Easton	PA		00 nine the Hawk, classic rock
9/19 Tr						
0859	WWSK	94.3	Smithtown	NY		The SharkEverything that Rocks
		00				The Grant Land Street Cooks
9/20 Tr						
0818	WTOP	103.5	Washington	DC		News and callsign
0835	Unid	105.1	SSW			Religious teaching, probably WAVA VA
2021	WJLK	94.3	Ashbury Park	NJ	6D94	PTY: Rock, all alone, 94 three the point
2136	WJSE	106.3	N. Cape May	NJ	6E44	PS=The Rock alternative
2158	WJKI	103.5	Bethany Beach	DE		Classic Rock 98.5
0/24 T-						
9/21 Tr 0829	WQCB	106.5	Brewer	ME		Q106.5 Country
0830	WLKZ	104.9	Laconia	NH	72D1	PTY: Classic Rock,
0839	WMCM	104.9	Rockport	ME	, 201	97 One the Bear
0906	WJJB	96.3	Gray	ME		sports, Big Jab
0914	CHSJ	94.1	St. John	NB		94 Country
0916	WARX	93.9	Lewiston	ME		Air One



#### Coast to Coast TV DX

Featuring reports from the entire United States and all of Canada.

Send reports by the 15<sup>th</sup> of each month to: Nick Langan 1040 Riverview Drive Florence, NJ 08518

E-mail: nickl@wtfda.org

#### The Editor's Note

Across the north, and particularly in and around the Great Lakes, September produced some respectable tropo. An opening in the Midwest on the 4<sup>th</sup> brought some DTV DX across the Appalachians from IN to VA and IL to NC. Jay Novello in NC reported a decode of WAPT-21 Jackson MS on the 23<sup>rd</sup>, a distance of over 700 miles. And solid tropo took place between the northern mid-Atlantic and New England on the 21<sup>st</sup>. Any tropo that happened, however, seemed very much confined to areas east of the Mississippi, and there was nothing of note reported in the deep south. One would expect that to change as we head into October.

During some of the aforementioned tropo this month, Ed Phelps in KY notched his 700<sup>th</sup> DTV log, with a decode from WVNS-8 Lewisburg WV on the 5<sup>th</sup>. Ed is the first DXer to reach this most impressive milestone, in spite of the seemingly constant threats of thunderstorm activity in the Bluegrass State. Congrats, Ed!

#### **Danny Oglethorpe**

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E-mail: oglethorpedxer@gmail.com

TV DX Photographs: http://www.TVDXExpo.com

Mexico/Latin America TV DX ID Tips: <a href="http://www.TVDXTips.com">http://www.TVDXTips.com</a>

Time used is Central Time.

Only the first logging of each station per report period is listed. No DTVs under 400 miles via tropo reported unless LP, new, or unusual. No unlDs are listed unless unique.

Mexico relayer text IDs are generally displayed about five seconds. Time listed for log entry is the time text ID was supered.

Corrections to previous report:

XHBC-3 was not new; rather the station was running "news."

XHCGA-6's logo was upper left, not upper right.

\*\*\*\*\*\*\*\*\*\*\*

Regarding Glenn Hauser's report in the September VUD:

"1616 on 2, ad for Comfort Plus in Waterloo. That town next to Kitchener is west of Toronto, not directly served by any of the ch 2 stations, probably just on the Toronto feed to all of them"

CKCO-2 Wiarton relays CKCO Kitchener, ads and all.

July 30, 2013 Tropo

0540 XEFB-2 Monterrey, NL Color bars; sign-on later 0542 XHWX-4 Monterrey, NL Text ID upper left

"Can't assume it's XEFB in Monterrey since ch 34 in Monterrey is relayed on ch 2 in Saltillo (and even ch 2 in Tampico takes some programming from Monterrey, altho only in mornings, I think.)"

Tampico (XHTAU) also relays Monterrey on Saturday afternoons.

#### July 15, 2013 Es

0820 XHLGT-2 Leon, GTO "cdc" upper right 0855 XHG-4 Guadalajara, JAL GDL on nx 0855 XHP-3 Puebla, PUE "TV3" upper right 1415 CIII-2 Bancroft, ON Global

#### July 16, 2013 Es

1005 XHBC-3 Mexicali, BCN "Televisa Mexicali" upper left 1010 XHQ-2 Guamuchil, SIN XHQ-3 logo upper right

#### July 21, 2013 Es

1200 Cuba 3 Nx logo upper right 1200 Cuba 2 Soccer 1208 Cuba 4 // 3 Nx 1220 Cuba 5 Soccer // 2

#### July 26, 2013 Es

0945 CHBX-2 Sault Ste Marie, ON "CTV TIP5" 0945 CTV Timmins or Elliot Lake, ON //2 0955 CICI-5 Sudbury, ON //2 1105 CKYB-4 Brandon, MB 1105 CKND-2 Minnedosa, MB "Global Winnipeg" lower right 1705 KOTA-DT-2 Rapid City, SD 0643 XHOR-14 Matamoros, TAM Text ID upper right

0643 XHX-10 Monterrey, NL (Assumed) XEW 0709 XET-6 Monterrey, NL Text ID upper left

#### July 31, 2013 Tropo

0500 XHPN-3 Piedras Negras, COAH Egg logo on news later

0500 XHPNG-6 Piedras Negras, COAH Text ID later

0611 KFXL-DT-29 Lufkin, TX NEW

0650 XEFE-2 Nuevo Laredo, TAM Logo upper right

#### August 4, 2013 Es

2015 XEPM-2 Cd Juarez, CHIH "tucanal" upper right

August 7, 2013 Tropo

0745 XERV-9 Reynosa, TAM Promo w/calls

#### August 7, 2013 Es

1420 XEWO-2 Guadalajara, JAL "TV Masvision"

#### August 8, 2013 Tropo

0612 XHCJ-4 Nueva Rosita, COAH Text ID upper right NEW

0902 KZTV-DT-10 Corpus Christi, TX 400 miles

#### September 1, 2013 Es

2015 XHP-3 Puebla, PUE "TV3" logo upper right

Pretty good tropo in late July and early August brought one new log from Mexico (XHCJ-4). I focused on low-band VHF as I needed better ID photos from XEFB-2 and others via tropo.

#### FM Receving Antennas

H.W. Secor Radio-Craft 1948

Best reception on FM is possible only with an outside antenna. The indoor antenna is more liable to pick up interference from power lines and electrical apparatus, and generally delivers a weaker signal to input terminals of the receiver.

The higher the FM antenna can be erected, the stronger are the signals, in most cases. If the antenna is low, it may be impossible to receive all the stations in the area. FM signals follow the line-of-sight to a great extent, and the receiving antenna should therefore be as high as possible. There is some bending of the signal due to refraction. This accounts for satisfactory reception of FM programs at distant locations, even when the receiving antenna is not as high as theory might demand.

The receiving antenna should be tried in several different locations. Sometimes moving it from one end of a roof to the opposite end spells the difference between poor and good reception. Flexible indoor antennas, when used, can be tested in a number of different positions – under the carpet, on the wall hidden behind a picture, etc. Keep all FM antennas away from metal masses, metal pipes and electric wires.

#### SIMPLEST FM ANTENNA

The simplest FM antenna is the dipole. It is usually cut to resonate at 98mhz, the center of the FM Band. The length of the whole dipole is one-half wave length at 98mhz, or 56.7 inches. Each leg of the dipole is one-half this, or 28.3 inches.

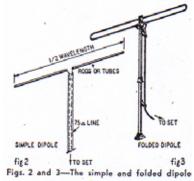
For general purposes, the half-wave length in feet is found from the formula

$$\dot{L} = \frac{492 - 6\%}{f},$$

Where f is the frequency in mhz. The 6% corrects for effects due to the capacitance added by the insulators at the ends of the dipole. For a more accurate calculation, use a correction factor of 7.5% for 98mhz and 3/8-inch diameter tubes or rods for the dipole.

The factor varies with the frequency and the diameter of the antenna elements.

The ordinary simple dipole does not have an even response of the 88-108 mhz FM band. A *broad-band* antenna is needed for tuning over the wide frequency range. The folded dipole, illustrated below, has been widely adopted for FM because of its broad frequency response.



The frequency response of a simple dipole can be broadened simply by overlapping the inner ends of the two elements. The dipole elements are made slightly longer than ½ wavelength. This extra length makes the antenna inductive. The inductance is compensated for by introducing a capacitance, created by overlapping the inner ends of the tubes.

The average simple dipole has approximately 75 ohms of impedance at the center, at its resonant frequency. The impedance of a folded dipole is about 300 ohms.

(to be continued)

#### KNIFE EDGE REFRACTION

"Something for Nothing at VHF/UHF" By Robert B. Cooper ZL4AAA

Break-In December 1993

In the June 1935 edition of QST Australian Amateur Ross A. Hull working in America for ARRL, reported on his experiments in the 5metre band. Hull had found, contrary to all observed data to that time, that VHF signals did not cease to exist at their radio horizon. Hull found 5 metre signals out to distances of 300 km were dependable at amateur power levels. His observations continued to be referenced in IRE (IEEE) publications well into the 1950s as a turning point in scientific thinking about VHF wave propagation.

In 1950 another amateur operator newly relocated to the small, remote town of Tanana, Alaska, found FM broadcast band (100MHz) reception coming to his home from a transmitter at Anchorage: 420km away. While such reception is hardly unique for short periods of time, the Tanana reception was consistent: stable signals that upon investigation never varied more than -3dB.

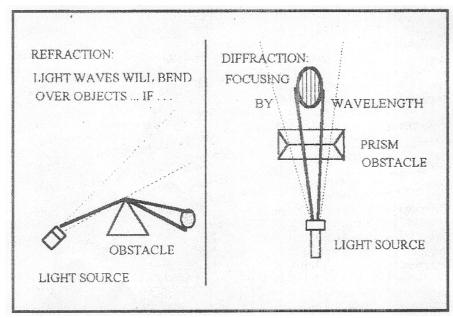
Through the 1950s scientific curiosity about the Alaskan path produced a blizzard of scientific literature including papers sprinkled in the Proceedings of the IRE. One study in particular ("Obstacle Gain Measurements Over Pikes Peak at 60 to 1,046 Mhz., Proceedings of the IRE, October 1955, page 1467) carefully defined how much "gain" could be anticipated when a tall mountain peak appears on the path between a (VHF, UHF, SHF) transmitter and receiver.

New Zealand has some of the most spectacular and irregular terrain in the world. Our terrain complicates line of sight coverage for commercial and private VHF (UHF) transmitters and lends itself quite ideally to the propagation of such signals over distances not dissimilar to the Alaskan observations.

#### What is Knife Edge?

VHF/UHF signals follow optical laws of physics closely enough that early propagation studies for planned VHF transmitters relied solely upon well understood optical rules. Optical rules state that a ray path will exist between any two points that have unobstructed visual sighting ability.

Following the studies of Hull and others, the line of sight" optical rules were modified to include a new element. The term radio line of sight (RLOS) was adopted to describe the observed conditions where propagation differed from visual (beam of light) propagation. Hull found that while rays of propagated light would cease to propagate around or through solid obstacles (ie, a hill, tall building, or "over" the visual horizon). VHF (UHF) radio waves continued past these obstacles. although reduced at amplitudes (ie, signal levels). Further study reasoned that the lower atmosphere has a dielectric constant which at 50, or 500MHz, alters the straight-ahead flight path of a signal. In other words, if a VHF signal was to be



transmitted through a perfect vacuum, it would indeed travel in a perfectly straight line. But in a medium such as our atmosphere, the moisture content of the atmosphere (ie, the refractive index) alters the pathway of the signal causing it to bend ever so slightly as it travels forward. It is this "bending process" which carries the signal over or around a hill and past the visual horizon; although with a reduction in signal level.

In the process of better understanding the true propagating features at VHF (UHF) another phenomenon was observed. It remained for the quite spectacular report of Anchorage FM band reception at a distance of 420km to focus scientific attention to the scattered reports of "gain over an obstacle".

Following optical laws of physics, a beam of light when directed into an obstacle stops. But there are situations where a beam of light directed at a sharply defined object appears to spill over the edge of the object. What eluded scientists was the frequency difference between light and VHF radio waves. To create a situation where light waves refract (deflect from the original ray path) or diffract (break up into a series of spectrum or wavelength defined bands of light) requires a quite perfect vacuum (for the transmission of light) and very carefully controlled object (obstacle) design inside of the vacuum to interrupt the ray path of the light beam. In other words, given the laboratory, equipment and conditions, a light beam can be made to refract (bend over something) or diffract (break up into its individual wavelength components). It was assumed the same sort of precision would be required for radio waves to refract.

The theorists were wrong in their postulating: they had not properly considered the difference in wavelength between light and VHF (UHF); nor had they considered that as the wavelengths became longer, the laboratory precision at the obstacle point in the path also relaxes.

Knife edge refraction is a natural occurrence in our environment. As the IRE report appearing in October 1955 related, a properly placed, properly proportioned mountain in between a transmitter and a receiver can enhance the received signal level by 25dB or more; that's 25 dB more than one might expect on the same path (length) minus only the obstacle.

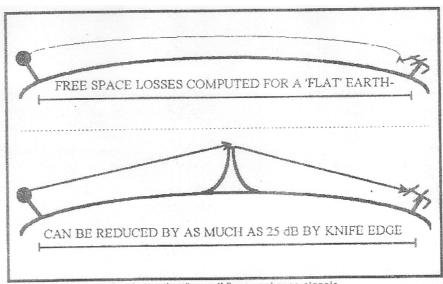
Putting this into practical amateur terms:

- 1. Gaining 25dB on a path of 200km length is the same as raising the transmitter power by 25dB; ie, raising from 100W to 42,670W, or,
- 2. If you were using a dipole antenna for receiving, enlarging the antenna to an array of 64 10-element Yagis.

Obviously a well placed peak or mountain top "on path" can be a very effective amplifier between two points. And best of all, the peak costs nothing to maintain (well, almost nothing), uses no electrical power, and does not clutter up your yard with several hundred linear metres of aluminium tubing!

#### Mechanics of knife edge

Driving in my car, equipped with the usual amateur appointments (a 144/440 dual band mobile rig) and



An obstruction "on-path" may enhance signals.

the usual creature comforts (including an FM car radio) equips me to observe the effects of knife edge while in motion. Unless you happen to live in "just the right spot", it is likely to be far more observable (and useful) away from home than at home. Let's see why.

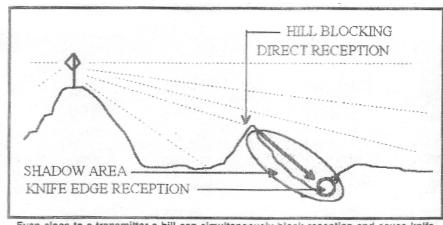
Knife edge is a focusing effect form of propagation. Recall that in the diffraction of light waves, the individual frequency elements are broken into their component parts and displayed separately; not unlike the rainbow you see in the sky. The parallel effect at VHF/UHF is the highly defined "focused spot" where a ridge or mountain top along the path "illuminates" a patch of ground with signal(s) at a distant point. In searching for knife edge "focused spots" you find areas as small as a few metres in width or square, where the distant signal(s) suddenly appear, and disappear. The physical shape of the refracting peak, its location along the path between transmitter and receiver, and the frequency of the refracted wave(s) all interact to determine the size and shape of the patch of ground where the "focused signal(s)" reappear.

A clear understanding of knife edge requires a reasonable grounding in the basics of VHF/UHF wave propagation.

VHF/UHF transmitting antennas are typically placed on elevated sites to gain maximum line-of-sight (visual) coverage. TV and FM broadcast antennas, commercial two-way radio antennas (including cellular telephone) are examples of this

philosophy. The path loss (ie, the number of decibels of signal not found at the receiving site but measured at the transmitting site) is the "loss" on a path. Path loss begins within the first metre of distance from the radiating element in a transmitting antenna, losses in excess of 40dB at 100MHz within the first 50 wavelengths at the operating frequency are expected.

Transmission losses between the transmitting antenna and the visual horizon can be accurately computed for any VHFI UHF frequency. TV and FM broadcasters routinely compute these losses in forecasting their coverage areas. If you know, for example, your radiated power is 325,000kW (some major centre band III TV transmitters), and you also know that from a transmitting antenna height of 440 metres above sea level you will have a visual line of sight to 86.5km, you can them compute how much signal level will be measurable at that point (86.5 km "out") on a dipole receiving antenna say 10m above ground.



Even close to a transmitter a hill can simultaneously block reception and cause knife edge "hot spots".

A 146 or 438MHz repeater operator could, if he wished, make the same corn. putations to determine the relative "field intensity" of his signal at his own visual horizon. The important factor to know and understand is not how this is done (although it is not a complicated computation but rather to understand that once you know the frequency, and distance to the visual horizon, you can quickly determine how may decibels of path loss will occur. If you start out with 325kW, and the path loss is 50dB for a particular distance, your received signal will be 50dB below 325 kW. If you use the same frequency and the same distance and start out with 50W, your received power level will be 50dB below SOW. It is all about dBs.

At the visual horizon, where, prior to amateur experimenter Ross Hull, scientists believed VHF (and UHF as well although the term UHF was not as of then invented), new factors came into the equation. As Hull proved, VHF (UHF) signals do not cease at the visual horizon; they travel beyond. Ultimately, when scientists understood the effects of the air on signal propagation, and calculated its effects, a new term was born. They called it the radio horizon.

The visual horizon is an exact spot: the last point you can see (with or without the aid of visual magnification) before the curvature of the earth causes you to lose "sight of" what lies beyond that point. At the visual horizon, where VHF (UHF) signals launch into a slightly bent forward path, the signal levels are computable. Beyond the visual horizon to the edge of the new area (the radio horizon) signal levels are also computable. But not with the accuracy of visual line of sight.

Between the visual horizon and the radio horizon, the signals depend upon the dielectric constant of the air for transmission efficiency. Air is notoriously homogenized; that is, its moisture content and

E LAYER

SCATTER REGION

6 km
2 km

LOS RLOS SCATTER

Line of Sight (LOS) is a definite point; RLOS is not.

temperature is constantly mixed by (a) seasons, (b) passing weather fronts, and (c) time of day (warmer in the daytime, cooler at night). In any measured spot, the air's temperature and moisture content is also modified by the earth's surface immediately below the air; over a lake or over the ocean there is far more water content in the air (for example) than over a desert.

So if we depend on the dielectric constant of the air to determine the "efficiency" of the transmission medium, and that "efficiency" changes daily (hourly), one might suspect that the point which we call the radio horizon also changes; daily or hourly. Under "more efficient" air, the radio horizon is further "out" than under "less efficient" air.

Radio horizon path lengths are computed based upon "average dielectric constants". On a scale of 1 to 10, 5 is "average" but during certain seasons "3" is more normal than "5" while at other times of the year "8" is more normal than "5". In other words, any radio system beyond visual line of sight and into the "radio line of sight" region must expect reasonable variations in received signal levels as efficiency of the air transmission medium wanders about either side of what is considered "average" (normal) for that geographic region.

Now let's place some numbers on all of this. We'll start with commercial television sites for reasons to become more clear further on in this analysis.

- 1. Waiatarua is the primary transmission site for IV (1, 2, 3 SKY and TAB) in Auckland plus virtually all Auckland region FM broadcasters. The Waiatarua tower has two antennas spaced along its 100 m height with an average height of transmitting antennas 440 m above sea level (mASL). The computed RLOS is 86.51km; this assumes from a height of 440 m the surrounding terrain is fiat and at sea level.
- 2. Visual line of sight (LOS) from the same point is approximately 65km. This establishes a region between 65km "out" and 86+ km "out" where the signal levels present depend upon the efficiency of the lower atmosphere as a transmission medium.
- 3. Beyond RLOS is the infinite region termed scatter. Here the signal levels are almost totally dependent upon the homogenized mix of the lower atmosphere (up to a height above ground of 6km).

There is a rule of thumb concerning knife edge:

Ideally, the knife edge refraction point (ie, the peak or mountain) must have LOS to both the transmitter and the intended receiver point(s).

Given this condition, the signal levels propagated by knife edge will exhibit amazing stability; very long term fading is limited to ±3dB.

Lacking LOS from the knife edge point to either end, RLOS is a second (less desirable) choice. When there is RLOS rather than LOS the signal stability suffers; long term fades vary within a  $\pm$  10dB range. You can visualize why this would be true; if at either end of the circuit the path covers a region where the ever changing lower atmosphere dielectric constant is a factor, the signal levels will vary as the constant varies.

Practical knife edge

Robert McQuarrie ZL31Y lives in Greymouth, elevation approximately 100 mASL. Some 356 km south of ZL3TY is the ZL4NQ(—1) Paciket Digipeater at 2286 mASL. Bob reports the digipeater signal to be "virtually constant with very little fading." A quick analysis reveals 3764mASL Mt Cook virtually straddles the path at a point 201km north of ZL4NQ(—1) and 155km south of ZL3TY.

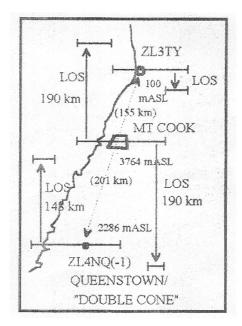
A diagram here illustrates the three elements to the path:

- 1. Line of sight from the ZL3TY 2m antenna is 31km to the south.
- 2. Line of sight from Mt Cook is 190km in all directions, but only if the horizon is not cluttered by other peaks (ic, irregular terrain).
- 3. Line of sight from ZL4NQ(—1) at its 2286 mASL height on Double Cone is

148km; again, subject to clutter on the horizon from other surrounding peaks.

The sum of these three LOS ranges is 369km, slightly more than 10km outside of the actual distance.

In an Ideal situation, both ZL3TY and ZL4NQ(-1) could visually "see" Mt Cook, the suspected knife edge point. And if Mt Cook were positioned at the midway point along the 355 km path (ie, 177.5 km from both), this would be the case. However, with Mt Cook closer to the ZL3TY end of the circuit than the ZL4NQ(-1) end of the circuit, the greater distance falls to the southern portion of the path. This happens to work out OK because the ZL4NA(-1) transmitter site itself has substantial elevation (2286 mASL) and this added height more than makes up for the greater distance to Mt Cook from ZL4NQ(-1).



So the ZL3TY to ZL4NQ(-1) path meets all of the criteria for high quality, dependable knife edge VHF communications: LOS from the knife edge point to both ends of the circuit.

Curious about the possibilities for knife edge in the Far North, the writer set out to criss-cross virtually all of the North Island beyond Whangarei to pinpoint locations where Auckland area VHF (and UHF) signals were consistently available via knife edge. Here's the process.

Department of Survey and Land "topo-rnaps" are available in several scale series. The 1:250,000 series maps require three separate maps (Nos 262-1, 262-2 and 262-3) to display everything north of an east-west line that has Huntly and Te Aroha on the southern boundary. Strapping the three maps together, you have a contiguous visual display of the top 300km of New Zealand.

This makes it possible to pinpoint and mark both ends of a path (example: Port Waikato Auckland repeater site and Coopers Beach on Doubtless Bay, where I live). The Department of Survey & Land will deliver the maps with a plastic coating for a few dollars more per map; very handy since you may now draw, and then rub off, various point-to-point connecting lines with coloured grease marking pens.

The distance from Port Waikato to Coopers Beach is 225 km. The height of the Port Waikato repeaters (146.625, 439.000 National Link) is a few metres over 400 mASL. Other Auckland VHFUHF repeaters include 146.900 on Mt Puketutu, 146.900 on Ruaotewhenua and 438.500 (Mt Eden).

Like all potential knife edge paths, there are three individual LOS/RLOS calculations to make: the (R)LOS .coverage from the receiving end (Coopers

Beach), the same from the transmit end (Waikato as an example) and, of course, the knife edge point along the path.

- 1. Waikato: 400 mASL is an RLOS of 82.5km; LOS of 62km.
- 2. Coopers Beach: 100 mASL is an RLOS of 41km and an LOS of 31 km.

The RLOS sum is 82.5+41 =123.5km. The LOS sum is 62+31=93km. The path length is

225 km so we need a peak on-path and close enough to both ends to cover as a minimum RLOS of 225—123.5 (101.5km), or, an LOS 'of 225—93= 132 km.

In the case of RLOS, the peak would need to be not less than 610 mASL if it happens to be in the exact middle of the path and no taller peaks fall on the path which shadows (blocks) the peak's RLOS view of either end of the circuit.

In the case of LOS, the peak would need to be 130 mASL and also fall in the exact middle of the path, with no intervening peaks on the path to block LOS from the peak to either end.

Unfortunately neither condition is met. The tallest peak along the path is called Maungaru 419 mASL) and is located well south of the midpoint. Additionally, a 300—350m ridge just south of Coopers Beach blocks my path. Am I out of luck?

Perhaps not for a spot has been found where 142.625 is available from my mobile just 2km from my home. We'll continue next month in Break-In.

#### **Cuba Performs Digital TV Test With Good Results**

Glenda Pardo Prensa Latino August 12, 2013



(Prensa Latina) A team of Cuban specialists in this capital performs transmission tests to eight channels of digital television and six radio stations with satisfactory results.

The Cuban Institute of Radio and Television (ICRT) digitally produced four of these channels: musical, informative, juvenile and Multivision (nationwide).

In statements to Prensa Latina, Eusebio Garnier, technical director of that institution, said that Havana has five transmitters which work with the Chinese standard to carry out the experiment.

Some families and institutions in the capital had access to 45 000 set-top boxes that enable to test reception levels, he said.

Juan Carlos Gonzalez, technical chief fot the implementation of digital television, said that among the advantages of this technology are the added values that receivers can access.

"The public will have an interactive menu that will offer news, weather, programming guides and access to a selection of documents from the Cuban collaborative encyclopedia Ecured" he said.

Specialists believe that this experiment may encompass other parts of the country by the end of the year.

Therefore, the provinces of Artemisa, Mayabeque, Villa Clara and Cienfuegos, and the special municipality of Isla de la Juventud began to change the infrastructure of the TV centres.

To assess the quality of the signal, and the impact on the population of the capital, the people who received the decoders signed a contract in which they commit to provide information about the product until 30 August.

Cuban companies Radio Cuba and Copextel are responsible for placing the transmitters in different parts of the island and provide technical support for set-top boxes.

According to experts, the experiment has good results, but until December they will not offer a conclusive assessment of the testing phase that began last April.

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