

# The Worldwide TV-FM DX Association

Serving the VHF-UHF Enthusiast



## VHF-UHF DIGEST

E-ZINE VERSION

**MAY 2002**

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

### WHEN IS YOUR MEMBERSHIP UP?

If your name is here, this is your last issue unless you re-up.

#### **May**

Mike Reid	Dave Sinclair	Roger Gravelle
Greg Coniglio	Jim Wallace	Greg Barker
Jim Gill	Rich Wertman	Les Rayburn
John Griffiths	Rob Ross	Kermit Reid
George Mileon	Michael Parks	Jerry Bond
James Montgomery	Ed Houchins	
Fred Nordquist	Owen Wood	
Rod O'Connor	John Vervoort	
Danny Oglethorpe	Harry Helms	
Timothy Johnson	Duane Donovan	
Bob Langridge	Michael Temme-Soifer	

### ***WTFDA INTERNET CHAT***

Every Tuesday and Friday night at 10PM ET

We are now back at the Delphi Forums where we held chat many months ago. You can find Delphi at <http://forums.delphiforums.com/wtfda>. The chat area is easy to find. Just click on the chat tab and you go right into chat.

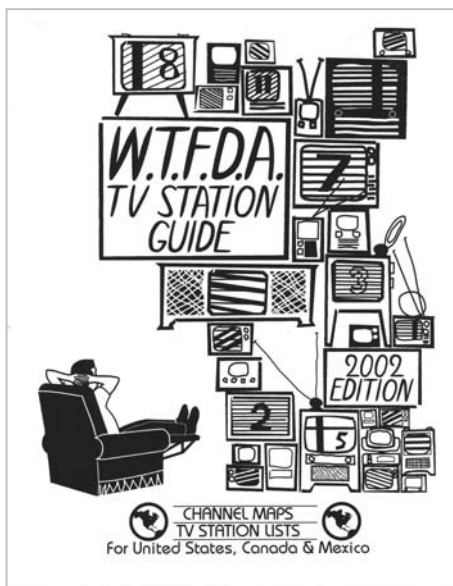
We're confident that Delphi will be a more safe and secure place to chat than our previous location.

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Tropo Ducting Handbook –Bob Cooper  
Meteor Scatter Guide and more  
Sign-up/Renewal Form and addresses

Have we got a good issue for you! In spite of the fact that hardly any DX was reported last month, we are jammed packed with articles just begging to be read. Thanks to Roy Barstow, Bob Cooper and Les Rayburn for submitting articles and ideas!

I imagine we'll have all our regular DX columns back next month when reports begin tricking in. Enjoy this issue!



## **The 2002 WTFDA TV Station Guide COME AND GET IT!**

You just can't get any better than this! Over 400 pages of listings by channels and by plots on channel maps...full power, LPTVs, translators and DTV stations. The WTFDA Station Guide has it all! Make your check or money order for \$23.00 (US funds for those outside the USA) payable to **Dave Janowiak** and mail it to:

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# The Mailbox

P.O. Box 501, Somersville, CT USA 06072  
MIKE BUGAJ MBUGAJ@SNET.NET

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## MAY 2002

Welcome to May! At some point this month, somebody somewhere will be hearing or looking at E-skip. Will it be you and me? I think so. It's been a very long dry spell and we all need to get our DX batteries recharged. I think a three-hour skip opening with MUFs up to 107.9 or higher will do the trick! Let's wait and see. I hope it's a good season with lots of double-hop!

There has been some tropo in the Midwest area during the period of April 11-14. TVDX has been bouncing around from Topeka to Minneapolis and from Illinois to Oklahoma City. Dave Pomeroy, Matt Sittel, Bill Eckberg and Jeff Kadet all got in on this. This tropo, which was originally forecasted to move eastward towards New England, never materialized here.

Some of you may have noticed that the April VUD was a few days late. The printer had an equipment problem that delayed the printing of the VUD for about a week. We finally got it done and mailed out the magazines on April 8<sup>th</sup>. If everything goes well we'll be mailing the May VUD out to you around the first of the month.

## MEMBERS AND MORE

This month we welcome in **Paul** (radiopaul) **Froehlich** of Lodi, Wisconsin and **George Rogers** has shown up in Rising Fawn, GA. Welcome Paul and welcome back George!

Renewals received this month are from **Pete Taylor**(WA), **Bill Dvorak**(WI), **Leonard Nix**(FL), **Joseph Martin**(CA) for three years, **Gerard Hart**(NY) for two years, **Ryan Grabow**(NY), **Edward Cotton**(VA), **Thomas Leu**(OH), **Scott Steenhusen**(KS), **Aaron Mitterling**(IN), **Pat Dyer**(TX), **David Cox**(AL) and **Milton C. Bay**(KY). Thank you to everyone for staying on another year and especially to those who renewed for two and three years. We appreciate your support!

**John Ebeling** reports that as of 4/10 he had about 45 WTFDA TV Station Guides sold. That means that we have plenty left. If you want one, you can get one. Just check out the ad on the opposite page. If you need more info go to the URL listed at the bottom. So far that webpage has had over 200 unique visits to check out our book.

**Bob Seaman** writes: "The listings for the MLB TV flagship stations incorrectly lists Phila. Phillies as cable-only. Their flagship station is WPSG-17 in Philadelphia. Comcast does have the games on their sports station but only about 60%. WPSG has about 40% of the games on TV. They carry most of the Saturday and Sunday games and some during the week. I was a bit surprised to see that WCBS has the Yankee games this year."

**Paul Froehlich** says "It is good to come back to my roots...TV/FM DX." Glad to have you here and on the WTFDA list, Paul. Paul collects quality 1930s all-wave radios and is looking for an Atwater Kent 112 and a Grunow 1241, in case you have one of these in your basement and were wondering whether to junk it or not.

**Rich Wertman** reports "As all of you know, the Stereo Probe 9s have been discontinued for quite sometime. The few that I snatched up are also gone, however the Winegard HD-6065 is still available. If you look at this antenna you can see some similarities with the APS9. In fact I'm pretty sure Ed was having them built by Winegard. The CA 6065/HD6065 has ten elements versus the APS9 having nine elements. If you are looking for a nicely constructed FM antenna with decent specs and you don't want to spend a fortune, let me know. These are still available."



**Doug Smith** send a list of the “Here’s Help Radio Network” that consists of ten stations, five AM and five FM. The FM stations are KAUL-106.7 Ellington, MO, KBPB-91.9 Harrison, MO, KNLG-90.3 New Bloomfield, MO, KNLP-89.7 Potosi, MO and KTCN-100.9 in Eureka Springs, AR. I will constantly be going there as I often need help.

### TV SUPERTOWER EYED FOR TRADE CENTER SITE

From NYPOST.com dated April 6, 2002. Many of you have probably not seen this article regarding planned use for the former World Trade Center site.

*April 6, 2002* – A skyscraping 2,000-foot-tall TV and radio transmission tower is being planned to replace the one lost in the World Trade Center attacks, The Post has learned.

Plans for a \$200 million free-standing tower and a guy-wired “airship” design that would be about half as expensive, will both be unveiled at a convention of broadcasters this weekend in Las Vegas.

Metropolitan Television Alliance chairman William Baker says, in text prepared for delivery at the convention, that the new tower would be 250 feet taller than the one that stood atop the trade center’s north tower.

He goes on to mention several waterfront locations within 3.2 miles of the trade center site, including downtown Manhattan, Brooklyn, Jersey City and Governors Island.

Each site is at least six acres, the real-estate magazine Grid reports on its web site.

The final design could include a skytop restaurant observation deck and retail stores. Grid goes on to report that the working title for the project is NYTTower/NYC 2012, and that it could boost the city’s bid to host the 2012 Summer Olympics.

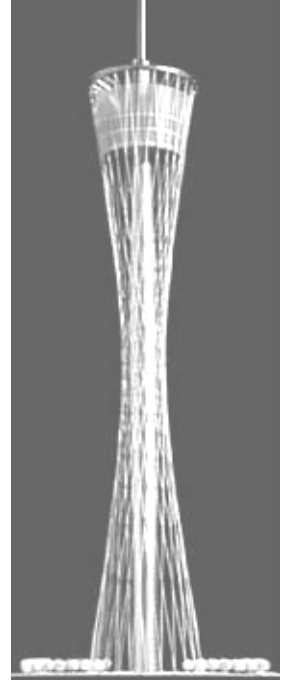
A task force of New York and New Jersey television and radio station owners says the towers are necessary because 20 percent of the area’s TV market doesn’t get cable.

Since the World Trade Center transmitters went off the air, some stations have been using a tower in Alpine, NJ.

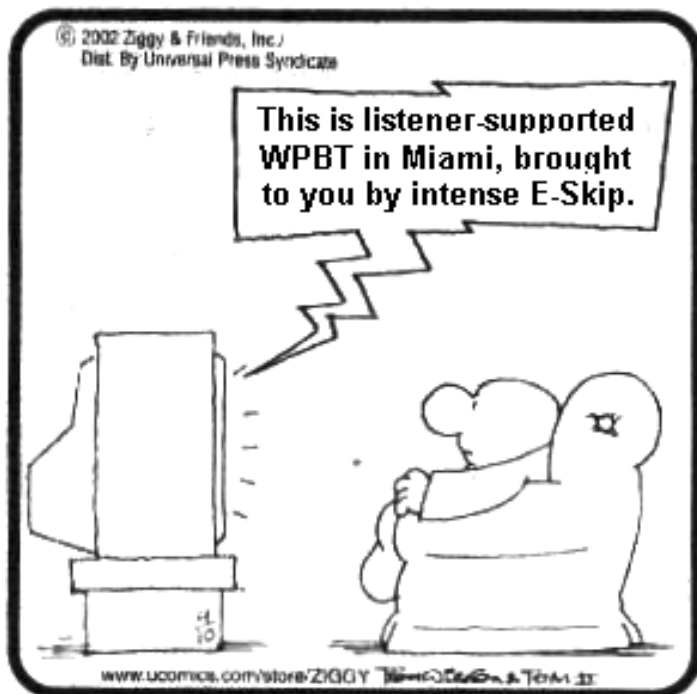
But it’s a mere 400 feet tall and is less than 1,000 feet above sea level – 800 feet shorter than the old WTC antenna, and 300 feet shorter than the one atop the Empire State Building.

Baker, who is also chairman of WNET/Channel 13, says a new tower is necessary to restore the stations’ transmission capabilities.

“Our goal is to get back to full power as quickly as possible, to get back to the business of broadcasting in New York,” he says in his speech.



## ZIGGY



### LAST BUT NOT LEAST

We were informed this week by Chip Kelley that he intends to give up his website at 100000 watts.com due to an increasingly heavy workload associated with the upkeep of that site. This site was a favorite with almost every online Dxer around and it will be missed. Imagine the FM Atlas online. That’s what it was to most of us. Thanks Chip for doing what you did for all of us, on your own time with your own money!


Take care and see you all in June! -Mike

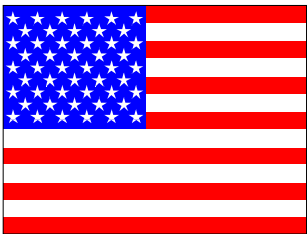


# FM NEWS

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KEY TO ABBREVIATIONS:			
	&: satellite programming	GX: <b>granted replacement</b> of expired permit	<i>Ital. Calls: LPFM station</i>
	AF: New frequency allocation <b>accepted for filing</b> for a new FM license	LC: <b>license to cover</b> filed (means station is ready to come on air)	PG: <b>power change</b> granted (" $>$ " for increase, " $<$ " for decrease, when known)
	AFA: American Family Association	MC: <b>multiple-city</b> legal ID	QC: <b>frequency change</b> occurred
	CC: <b>call letter</b> change	NC: <b>no change</b> yet on a reported change/permit	QG: <b>frequency change</b> granted
	CL: <b>city of license</b> change	ND: <b>non-directional</b> antenna	RA: silent station <b>returns to air</b>
	CX: a <b>construction permit</b> has been <b>canceled</b>	NO: <b>not on the air</b>	RE: station <b>requests extension</b> on permit
	C1,C2,etc: a change in status to that FM license <b>class</b>	NS: <b>new station</b> granted	RX: station <b>requests replacement</b> of expired permit
	DA: <b>directional antenna</b>	NW: <b>new station</b> signs on	SG: <b>slogan change</b> or update
	DE: station has been <b>deleted</b>	OSA: <b>one-step application</b> granted for change	SI: <b>station is silent</b>
	FC: <b>format change</b>	PA: <b>proposed amendment</b> to change FM table of allocation	XA: <b>dismissed amendment</b> to FM allocations
	GA: <b>granted amendment</b> to the table of FM allocations	PC: <b>power change</b> on the air (" $>$ " for increase, " $<$ " for decrease, when known)	XC: <b>transmitter site change</b> occurred
	GE: <b>granted extension</b> of		XG: <b>transmitter site change</b> granted



## ALABAMA:

Birmingham: WHHY 101.9 FC to dance "Y102"  
 Birmingham: WMJJ96.5 PG 73 kW, 1148 ft.  
 Greensboro: WDGM 99.1 PC 3.2 kW, 623 ft.  
 Grove Hill: WBMH 106.1 CC (ex WFOV) "Bama 106"  
 Jackson: WHNB 94.5 CC (ex WHOD) "Kiss 94.5"  
 Reform: WTID 101.7 PC> 22.5 kW, 725', ND

## ALASKA:

Anchorage: KRUA 88.1 inc. to 833', XC: 61-20-11 / 149-30-48

## ARIZONA:

Bagdad: KRCL 103.1 CC (ex KBJU)  
 Grand Canyon: KNAG 90.3 LC  
 Wickenburg: KSWG 96.3 FC to traditional country

## ARKANSAS:

Ashdown: KPGG 103.9 CC (ex KOWS)  
 Barling: KOLX 94.5 RA with country "The Outlaw" (Fort Smith)  
 Bentonville: KSEC 95.7 NW, smooth jazz  
 Blytheville: KHLS 96.3 PG> 100 kW, 433', XG: 35-53-56 / 89-52-48

Colt: KTRQ 102.3 PC< 40 kW  
 Lake Village: KUUZ 95.9 FC to religion

## Arkansas:

Pine Grove: KDAB 94.9 FC to 80's "95 The Max"  
 Rogers: KAMO 94.3 FC to classic country "US94"

## CALIFORNIA:

Barstow: KXXZ 95.9 PC> 8.9 kW, 486 ft, XC: 34-51-22 / 117-3-00  
 Grass Valley: KNCO 94.3 PC> 660w  
 Healdsburg: KRSH 95.9 CC (ex KSXY), "The Crush"  
 Hollister: KCDU 93.5 XC: 35-45-22 / 121-30-6  
 Jackson: KNGT 94.3 PC> 510w  
 Kings Beach: KSRN 107.7 FC to ABC Standards (& "Memories" (Reno))  
 Middleton: KSXY 98.7 CC (ex KRSH), "Hot 98.7"  
 Mtn Pass: KHYZ 99.7 QC from 99.5  
 Orange Grove: KMAK 100.3 FC to ranchera  
 Palm Springs: KPSI 100.5 FC to hot AC "Mix 100.5"  
 San Jose: KMTG 89.3 PC 375w, -561 ft.  
 Santa Clara: KEMR 105.7 CC (ex KARA), FC to regional Mexican "Estereo Sol"  
 Shafter: KCOO 104.3 FC to rock "Real Rock 104.3" (Bakersfield)  
 Thousand Oaks: KCLU 88.3 PC> 3.2 kW, DA, B1

## COLORADO:

Eagle: KTUN 101.5 PG 36 kW, class C, 2211'  
 Grand Jct: KMSA 91.3 PG> 3 kW, 1362', C2, XG: 39-3-56 / 108-44-52

## CONNECTICUT:

Hamden: WKCI 101.3 PC< 11 kW, 965', XC: 41-26-3 / 72-56-48

Hartford: WQTQ 89.9 PC> 115w



## DELAWARE:

Bethany Beach: WJNE 103.5 FC to a/c "Lite Rock"

Fenwick Is: WLBW 92.1 PC 3 kW, 469 ft.

Selbyville: WOCM 98.1 inc. to 469 ft.

## FLORIDA:

Clermont: WLAZ 88.7 PC 5.5 kW, C3, 384 ft, DA, XC: 28-38-56 / 81-43-56

High Springs: WXJZ 104.9 XC: 29-49-16 / 82-34-25

Juniper: WJBW 106.3 FC to urban AC "B 106.3"

Marianna: WTYS 94.1 PG> 4.4 kW

Melbourne: WBVD 95.1 FC to dance "The Beat"

Miami: WLRN 91.3 PG 47 kW, 935', DA, XC: 25-58-46 / 80-11-46

Monticello: WVHT 105.7 inc. to 515', XC: 30-31-45 / 84-0-13

Perry: WNFK 92.1 PC> 6 kW, 328', XC: 30-5-17 / 83-29-46

## GEORGIA:

Americus: WBJY 89.3 LC

Folkston: WECC 89.3 dec. to 282 ft, ND, XC: 30-55-54 / 81-42-30

Jesup: WTLD 90.5 inc. to 171', XC: 31-35-49 / 81-56-14

St. Simons Is: WWEZ 94.7 LC

## HAWAII:

Hilo: KKBG 97.9 reported SI

Pukalani: KJMD 98.3 CC (ex KMVI) "Maui's Real Hits"

## IDAHO:

Gooding: KHJR 100.7 CC (ex KIJZ), FC to classic hits

Sun Valley: KYZK 107.5 PG 45 kW, 1909 ft, class C, XC: 43-38-36 / 114-23-49

## ILLINOIS:

Arlington Hts: WCLR 88.3 PG> 2 kW, DA

Charleston: WWGO 92.1 XG: 39-31-40 / 88-21-23

Monticello: WCZQ 105.5 FC to urban "Hot 105.5"

Petersburg: WYVR 97.7 XC: 39-54-35 / 89-43-1

Rantoul: WEVX 95.3 CC (ex WBNB) "93.5, 95.3 The Rock"

Selbyville: WEJT 105.1 inc. to 466', XG: 39-35-38 / 88-50-45

Sullivan: WZNX 106.7 inc. to 466', XG: 39-35-38 / 88-50-45

Taylorville: WMKR 94.3 FC to WW1 country "The Eagle" (&)



## INDIANA:

Churubusco: WHTD 96.3 CC (ex WWWD) "Hits 96"

Evansville: WNIN 88.3 PG 16 kW, 863 ft, XG: 38-59-1 / 87-16-13

Marengo: WBRO 89.9 NW, soft rock (at night)

Noblesville: WGRL 93.9 PC 3250w, 453 ft.

Seelyville: WWSY 95.9 FC to hot AC "Y96"

Warren: WQHC 100.5 NW, hard rock (\$)

## KANSAS:

Arkansas City: KYQQ 106.5 FC to Spanish

Clearwater: KFH 98.7 CC (ex KWSJ) FC to talk // KFH-AM, "Hot Talk"

## Kansas:

Enterprise: KBMP 90.5 LC

Great Bend: KZLS 107.9 dec to 758', XG: 38-35-31 / 98-55-12

Winfield: KSJM 107.9 adds smooth jazz

## KENTUCKY:

Lancaster: WRNZ 105.1 XC: 37-36-6 / 84-34-27

## LOUISIANA:

Columbia: KXRR 92.3 FC to classic rock "X92"

Rayville: KQLQ 103.1 FC to oldies "Q103"

## MAINE:

Lewiston: WTHT 107.5 PG> 100 kW

Rockland: WFRF 93.3 LC

## MARYLAND:

Fruitland: WKHI 107.5 FC to a/c // WJNE "Lite

Rock" (Ocean City / Salisbury) PC 18.5 kW,

XC: 38-11-54 / 75-40-50, CL from Exmore, VA

Ocean City: WEES 107.9 LC

Ocean City: WRFG 99.9 PC 38 kW, 469', XC: 38-25-20 / 75-8-23

Pocomoke City: WXMD 92.5 CC (ex WZJZ) FC to modern AC "Max 92.5" (Ocean City)

Sherwood: WRYR 97.5 LC

## MICHIGAN:

Cadillac: WLXV 96.7 FC to hot AC "Mix 96"

Iron Mountain: WIMK 93.1 FC to classic rock "The Bear" (&)

Marquette: WUPK 94.1 FC to WW1 classic rock "The Bear" (&) // WWMK 93.1

Sandusky: WNFR 90.7 PG> 50 kW, B, 492', DA, XG: 43-10-35

Temperance: WMLZ 107.9 LC

Tuscola: WWBN 101.5 FC to active rock

## MINNESOTA:

Ortonville: KPHR 106.3 PC> 100 kW, C1, 955', XC: 45-6-17 / 96-59-17

## MISSISSIPPI:

Biloxi: WMJY 93.7 XC: 30-29-9 / 88-42-53, PC< 98.3 kW

Jackson: WDBT 95.5 inc. to 1115', XC: 32-14-26 / 90-24-15

Magee: WKXI 107.5 PC< 98 kW, 951 ft.

Pascagoula: WKNN 99.1 PC< 97.3 kW

## MISSOURI:

Ash Grove: KZRQ 104.1 adds Lex & Terry

Winsdor: KWKJ 98.5 PC> 2.3 kW, 535 ft, CL

from Warsaw, MO, XC: 38-35-37 / 93-31-26

## **NEBRASKA:**

Omaha: KVNO 90.7 PG 9 kW, 633 ft.

## **NEW JERSEY:**

Manahawkin: WCHR 105.7 FC to classic hits //  
WNJO "The Hawk" (Monmouth-Ocean)  
Millville: WBSS 97.3 FC to hot AC "Mix 97.3"  
Ocean City: WKOE 106.3 FC to dance "Hot 106.3"  
(Atlantic City)  
Trenton: WNJO 94.5 adds Bob & Tom  
Trenton: WKXW 101.5 FC to talk

## **NEW MEXICO:**

Albuquerque: KLYT 88.3 PG> 4.1 kW, class C,  
4245', XG: 35-12-48 / 106-26-58  
Albuquerque: KTZO 103.3 PG 20 kW, 4242', XG:  
35-12-50 / 106-27-01  
Taos: KXMT 99.9 QG to 99.1, class C, PG>  
59 kW, 2431', XG: 36-51-34 / 106-1-3

## **NEW YORK:**

Chenango Bridge: WWYL 104.1 CC (ex WYOS)  
"Wild 104" (Binghamton)  
Corinth: WHTR 93.5 CL to Scotia, NY, QG to  
93.7, PG 1150w, 735', XG: 42-51-24 / 74-4-3  
Montauk: WMOS104.7 FC to classic hits "The  
Wolf" (Eastern Long Island)  
New York: WWPR 105.1 FC to urban  
"Power 105-1", CC (ex WTJM)

## **NORTH CAROLINA:**

Dunn: WRCQ 103.5 adds John Boy & Billy  
Elon College: WSOE 89.3 QG to 88.1, PG 1 kW,  
76', XG: 36-6-23 / 79-30-21  
Raleigh: WKNC 88.1 PG> 25 kW, C3, DA  
Southern Pines: WKQB 106.9 FC to urban "Power  
107" (Fayetteville)

## **NORTH DAKOTA:**

Dickinson: KZRZ 92.1 FC to classic rock "Z92" (&  
Fargo: KFGO 101.9 FC to classic rock

## **OHIO:**

Belpre: WVVW 98.1 LC  
Chillicothe: WWKJ 93.3 FC to AC "Mix 93.3"  
Chillicothe: WFCB 94.3 FC to country  
Delphos: WBIE 91.5 PC 5.5 kW, 322 ft.  
Galion: WFXN 102.3 CC (ex WGLN), FC to  
classic fox "The Fox"  
Hamilton: WYGY 96.5 XC: 39-21-11 / 84-19-30

## **OKLAHOMA:**

Kingfisher: KLGH 105.3 FC to sports // WWLS "The  
Sports Animal" (OKC)  
Owasso: KQLL 106.1 PG< 72 kW, 1129', DA, C1,  
XG: 36-1-10 / 95-39-24  
Wilburton: KESC 103.7 NW, WW1 classic rock (&  
// KTMC-FM "Rock 105"

## **OREGON:**

Salem: KWBX 90.3 LC

## **PENNSYLVANIA:**

Harrisburg: WNNK 104.1 FC to hot AC  
Palmyra: WWKL 92.1 FC to dance "Hot 92"  
Pittsburgh: WJJJ 104.7 FC to urban AC  
Williamsport: WCRG 90.7 NW, contemp. Christian  
// WGRC

## **SOUTH CAROLINA:**

Bluffton: WWVV 106.9 adds Bob & Sheri  
Honea Path: WRIX 103.1 FC to talk "Talk 103"  
Parris Island: WGZO 103.1 FC to 80's hits "Star  
103.1" (Hilton Head), PC 9.5 kW, 417', XC: 32-  
13-36 / 80-50-53

## **TENNESSEE:**

Clarksville: WAYQ 88.3 NW, cont. Christian //  
WAYM "Way-FM"  
Dresden: WCDZ 95.1 PG> 25 kW, C3, 295'  
Dyer: WLSQ 94.3 FC to CHR // WLSZ "Z  
105.3"

## **Tennessee:**

Humboldt: WLSZ 105.3 FC to CHR "Z 105.3"  
Lawrenceburg: WZXX 88.5 NW, Christian rock  
Oliver Springs: WSMJ 98.7 Fc to dance  
Savannah: WKWX 93.5 PG> 25 kW, DA, C3

## **TEXAS:**

Amarillo: KAVW 90.7 PG> 7 kW  
Beeville: KRXB 97.9 CC (ex KYTX)  
Belton: KOOC 106.3 FC to CHR "Hot 106"  
Brownwood: KXYL 96.9 QG to 104.1, PG 38.8 kW,  
801 ft, XG: 31-44-55 / 99-19-58  
Conroe: KAXF 88.3 PG> 80 kW, DA, C1, XG:  
30-25-55 / 95-30-27  
Crystal Beach: KLTO 105.3 QC from 104.9, PC 6  
kW, 180 ft, CL from Galveston, TX, XC: 29-30-  
07 / 94-31-15  
Denton: KHKS 106.1 inc. to 1667', XC: 32-35-19  
/ 96-58-05  
Hemphill: KTHP 103.9 PC 4.5 kW, 377', XC: 31-  
25-24 / 93-50-30  
Hudson: KLSN 96.3 LC  
Ingleside: KCCG 107.3 FC to rock "Rock 107.3"  
Kerrville: KKER 88.7 PG 100 kW, C1, 381 ft,  
XG:30-6-7 / 99-4-38  
Marble Falls: KXXS 104.9 FC to Spanish soft AC  
"Sol 104.9" (Austin)  
Muleshoe: KMUL 103.1 XG: 34-13-39 / 102-44-10  
Nacogdoches: KJCS 103.3 PC 22.5 kW, C2, 801 ft,  
XC: 31-25-59 / 94-49-3  
Ozona: KYXX 94.3 QG to 104.9, C1, PG> 95  
kW, 436', XG: 30-42-43 / 101-7-29  
Quanah: KIXC 100.9 FC to oldies "Oldies 101"  
Victoria: KAYK 88.5 LC  
Winnie: KLAT 100.7 CC (ex KRTX), FC to  
Spanish talk // KLAT "La Tremenda"

## **UTAH:**

Centerville: KCPX 105.7 PG 25 kW, 3740', XG: 40-  
39-34 / 112-12-5  
Kanab: KHUL 101.1 FC to oldies, CC (ex KEOT)  
Nephi: KMDG 103.9 CC (ex KCSL) "Mad Dog"  
Salt Lake City: KISN 97.1 PG 25 kW, 3740', XG:  
40-39-34 / 112-12-05

Spanish Fork: KOSY 106.5 PG 25 kW, 3740',  
XG: 40-39-34 / 112-12-5

### VIRGINIA:

Berryville: WBPP 105.5 FC coming  
Cape Charles: WROX 96.1 XG: 37-15-45 / 76-0-45  
Strasburg: WAPP 104.9 FC coming  
Woodstock: WAZR 93.7 FC to top 40 "Kiss FM"

### WASHINGTON:

Mabton: KLES 98.7 PG 4 Kw, 823', XG: 46-31-20 / 120-19-59  
Naches: KQSN 99.3 CC (ex KREW), FC to hot AC "Q 99.3" (Yakima)  
Toppenish: KDBL 92.9 CC (ex KQSN), FC to country "The Bull" (Yakima)

### WISCONSIN:

Sauk City: WCJZ 96.3 CC (ex WMLI) FC to smooth jazz (Madison)  
Sturgeon Bay: WLTM 99.7 FC to dance "Wild 99.7"  
Wisconsin Dells: WNNO 106.9 PG > 6 Kw

### ALBERTA:

Edmonton: \*NS 105.9 app for 100 Kw religion station by CJCA 930 (not to replace AM)  
Ft. Vermillion: \*NS 92.3 30w app for Eng. Community station  
Lloydminster: \*NS 98.9 app for new TIS, 50w



### NEWFOUNDLAND:

Grand Falls: CKXG 101.3, app for 40w relay

### NOVA SCOTIA:

Halifax: \*NS 97.9 app for 9.8w TIS

### NUNAVUT:

Iqaluit: \*NS 99.9 537w app for Eng. Commercial stn w/ French / Native also

### ONTARIO:

Barrie: CFJB 95.7 PG < 70 Kw, XG 100m, move to CKMB-FM tower  
Haliburton: \*NS 96.9 app for English community station, 3.4 Kw  
London: \*NS 105.9 app for religious stn, 10 Kw  
Toronto: CFXJ 93.5 wants PG > 1.43 Kw

### SASKATCHEWAN:

Gravelbourg: \*NS 93.1 wants 48w French community station

- Ralph Strobel writes from Muncie with more Indiana news. He hears from Bob Zent that WQHC 100.5 (LP) is on the air in Warren, Ind. With hard rock, in stereo. Ralph heard it in Muncie, at a distance of 50 miles. It was formerly a pirate at 2 watts, on 87.9. He also noted WBRO 89.9 Marengo on the air, with a lite rock satellite feed. Thanks for keeping in touch with us, Ralph!

---

## **Sale!** ADD RDS TO ANY TUNER! **Sale!**

**Yes, add RDS (Radio Data System) to any FM tuner or receiver. Don't wait for audio IDs...see them on your display instead!**

WTFDA member Bill Nollman still has some Conrad RDS Managers left and he wants them out of his house! The units can be spliced into one side of your tuner's audio output lines or can be attached to your multipath out /multiplex out jacks, or if you're technically oriented you can tap into the RDS signal inside your radio. Get one of these before E skip season sets in and you **will** increase your loggings this summer! If you have a computer you can download free RDS software that will let you see the PS/PI codes plus radiotext information right on your computer monitor (requires cable from RDS manager to computer serial port).

Interested? Email Bill at [lsnwnn@attbi.com](mailto:lsnwnn@attbi.com) today for more information, or write Bill at 11 Hidden Oak Drive, Farmington, CT 06032.

RDS Manager (no mods) was \$60 **NOW \$25/\$5 Shipping!**  
RDS Manager w/PC Mod was \$95 **NOW \$45/\$5 Shipping!**  
(Windows 95/98/Me only)





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

## Abbreviations:

AF	Applied for (a new station)	PA	Proposed amendment to the table of allocations
CA	Class A status request/grant	PC	Power (or tower height) change on the air
CC	Call change	PG	Power (or tower height) change granted
CL	City-of-license change	PR	Power (or tower height) change requested
DA	Directional Antenna	QC	Channel change on the air
DE	Station deleted	QG	Channel change granted
FC	Programming (format) change	QR	Channel change requested
GA	Granted amendment to the table of allocations	SI	Off the air ("silent")
LC	License to cover (for changes or new station)	XC	Transmitter site change on the air
NO	Not on the air	XG	Transmitter site change granted
NS	New station granted permit	XR	Transmitter site change requested
NW	New station on the air	*	999 watts

## News:

### Alaska:

Nome 6 K06NH NS 3kw, 64-30-07/165-24-26

### Alabama:

**Birmingham** 30 WIAT-DT PG>426m, DA;  
 XG 33-29-04/86-48-25  
 Tuscaloosa 7 WVUA-CA CC from WJRD-LP

### Arkansas:

Batesville 19 K65FN QR from ch. 65; 136.8kw;  
 38-34-24/90-19-30 near St.  
 Louis, MO  
 Prescott 13 KTEV-LP CC from KBZZ-LP  
 Springdale 20 KVAQ-LP CC from K20CT

### Arizona:

**Douglas** 3 KFTU CC from KBGF  
**Flagstaff** 13 KFPH CC from KDUO  
 Hilltop 36 K36AX PC<9kw, 35-06-37/113-52-58  
 Lake Havasu C. 45 KLHU-CA PC>1.4kw,  
 34-36-09/114-22-13  
 Phoenix 18 KFPH-CA CC from KONL-LP  
**Phoenix** 29 KAET-DT PC>1000kw  
 Phoenix 64 KTVP-LP QC from ch. 56, 45kw,  
 33-19-58/112-03-59  
**Tucson** 27 KUAS-TV PR>177.9m  
 Tucson 54 K56ED QC from ch. 54, 940w

### California:

**Avalon** 54 KAZA-TV PG 2290kw/963m,  
 34-13-35/118-03-58; LC for  
 new station  
 Bakersfield 19 KAZB-CA QR from ch. 65, 7.3kw  
 Blythe 24 K24FA QC from ch. 61  
 Blythe 26 K26FS QC from ch. 63  
 Blythe 29 K65CP QC from ch. 65  
 Blythe 33 K33FD QC from ch. 59  
 Cathedral City 58 KPSP-LP FC to CBS  
**Eureka** 29 KBVU PR>67kw/470m,  
 40-43-39/123-58-17  
 Eureka 35 KEAZ-LP CC from K35GM  
 Indio 8 K08MX SI; to be IND  
 Likely 49 K49EZ PR>4.78kw  
 Red Bluff 49 KMCA-LP CC from K49GJ  
**Riverside** 62 KRCA PC 2630kw/895m,  
 34-12-50/118-03-40  
**Sacramento** 21 KMAX-DT PG<565kw

**Salinas** 10 KSBW-DT PG>24.2kw/692m  
**San Bernardino** 38 KPXN-DT NS 162kw/903m,  
 34-12-48/118-03-41  
**Vallejo** 66 KFSF CC from KPST-TV  
**Visalia** 50 KNXT-DT AF 200kw (HAAT unk.)  
 Yreka 51 K51GN NS 2.5kw,  
 41-36-28/122-35-08

### Colorado:

Alamosa 39 K39GD NS 5kw, 37-28-10/105-51-49  
 Bayfield/Ignacio 46 K46FM QC from ch. 65, 1.41kw  
**Denver** 50 KCEC PG<230.9m  
 Romeo 45 K67AK QC from ch. 67, 1kw  
**Sterling** 3 KUPN CC from KTVS  
 Walsenburg 28 K28HN NS 7.4kw,  
 37-37-39/104-49-17

### Delaware:

Dover 8 W27AJ QR from ch. 27, 3kw

### Florida:

**Clermont** 18 WKCF PC>513m,  
 28-35-12/81-04-58  
**Ft. Lauderdale** 52 WSCV-DT PG>500kw/304m,  
 25-59-09/80-11-37  
 Inglis 26 WYKE-LP PG>39.2kw  
**Jacksonville** 4 WJXT FC to IND  
**Jacksonville** 19 WTEV-DT PG>291m,  
 30-16-51/81-34-12  
**Jacksonville** 42 WJXT-DT LC>294m, DA  
 Lake City 11 WJXE-LP QR from ch. 15, 3kw,  
 30-12-50/82-39-00  
 Marathon 34 W24CA PR>150kw,  
 25-58-15/80-12-32  
**Miami** 20 WLRN-DT PG>625kw/301m  
 Miami 21 WVEB-CA CC from W21AX  
 Orlando 63 WVCJ-LP CC from WVEN-LP  
 Orlando 36 WZXX-LP QR from ch. 11, 23kw,  
 28-34-52/81-04-31  
 Panama City 5 W17CG PR>3kw, 30-19-42/85-41-22  
 Panama City 11 W69DH PR>3kw, 30-30-47/86-27-54  
 near Fort Walton Beach  
 Panama City 14 W14CN PR>150kw,  
 30-11-41/85-37-51  
 Panama City 26 W26BV PR>150kw,  
 30-30-47/86-27-54  
**Pensacola** 44 WJTC PR>457m,  
 30-35-16/87-33-13



<b>Pensacola</b>	<b>45 WJTC-DT</b>	<b>PG&lt;457m, 30-35-16/87-33-13 but rescinded</b>	<b>Paducah</b>	<b>41 WKPD-DT</b>	<b>NW, 55.7kw/143m, DA</b>
Tallahassee	35 W35BN	QC from ch. 19, 20kw, 30-29-32/84-17-13	<b>Pikeville</b>	<b>24 WKPI-DT</b>	<b>NW, 50.4kw/423m</b>
<b>Tampa</b>	<b>29 WFTS-DT</b>	<b>NW 500kw/476m</b>	<b>Somerset</b>	<b>14 WKSO-DT</b>	<b>NW, 53.3kw/429m, 37-10-03/84-49-30</b>
<b>Georgia:</b>			<b>Louisiana:</b>		
Columbus	13 W13CY	NS 400w, 32-36-03/84-54-41	Alexandria	36 K36DS	FC to UPN/A1
Dalton	49 WDGA-LP	QC from ch. 47, 10.36kw	Baton Rouge	11 KPBN-LP	CC from KTTE-LP
<b>Monroe</b>	<b>44 WHSG</b>	<b>QR from ch. 63, 5000kw/301m, 33-44-40/84-21-36</b>	Baton Rouge	58 K56DR	PR<3kw, QR from ch. 56
<b>Savannah</b>	<b>15 WTOC-DT</b>	<b>PR 422kw/420m, DA</b>	<b>Shreveport</b>	<b>17 KSLA-DT</b>	<b>PG&lt;175kw/518m, drop DA</b>
			Shreveport	42 K57FQ	QC from ch. 57, 11kw, 32-30-31/93-45-10
<b>Hawaii:</b>			<b>Massachusetts:</b>		
<b>Hilo</b>	<b>22 KHBC-DT</b>	<b>PR&lt;8kw/-170m</b>	<b>Pittsfield</b>	<b>51 NEW</b>	<b>AF 1580kw/305m, 42-30-09/73-18-58</b>
<b>Honolulu</b>	<b>19 KIKU-DT</b>	<b>PR&gt;60.7kw</b>			
<b>Honolulu</b>	<b>31 KWHE-DT</b>	<b>PR&gt;290kw/631m, 21-23-22/158-06-29</b>	<b>Maine:</b>		
<b>Kailua</b>	<b>50 KKA1</b>	<b>CC for new station</b>	Portland	15 WLLB-LP	PG<6.5kw, 43-41-48/70-21-46
<b>Iowa:</b>			<b>Michigan:</b>		
<b>Burlington</b>	<b>41 KGWB-DT</b>	<b>NS 500kw/388m DA, 41-08-08/90-48-30</b>	<b>Bad Axe</b>	<b>15 WDCP-DT</b>	<b>PR&gt;309m, 43-32-33/83-39-37</b>
<b>Davenport</b>	<b>30 NEW</b>	<b>AF 1515kw/87m, 41-28-29/90-26-45 (WQPT tower) reinstated</b>	Petoskey	16 W62CR	QR from ch. 62, 10kw, 41-01-02/83-01-11, CL to Columbus, OH
<b>Davenport</b>	<b>30 NEW</b>	<b>AF 2529kw/243m, 41-19-17/90-22-47 reinstated</b>	Petoskey	25 W64CK	QR from ch. 64, 49.9kw, 39-57-11/83-52-07, CL to Springfield, OH
<b>Davenport</b>	<b>30 NEW</b>	<b>AF 937kw/360m, 41-32-49/90-28-35 (KWQC/WHBF tower) reinstated</b>	Petoskey	34 W34CR	NW, 1kw, 45-19-34/84-52-43
Emmettsburg	45 K45GV	NS 1kw, 43-06-42/94-40-38	Petoskey	34 W57CP	QR from ch. 57, 42.1kw, 40-26-58/86-04-57, CL to Kokomo, IN
<b>Waterloo</b>	<b>55 KWWL-DT</b>	<b>PR&lt;194kw/527m, already granted</b>	Petoskey	38 W55CL	QR from ch. 55, 37.2kw, 39-46-11/86-09-26, CL to Indianapolis, IN
<b>Idaho:</b>			Petoskey	38 W66CY	QR from ch. 66, 150kw, 40-06-43/85-28-32, CL to Muncie, IN
Georgetown	57 K69CL	XR 42-30-07/111-20-31	Petoskey	41 W41CK	NW, 1kw, 45-19-43/84-52-43
Juliaetta	41 K41GW	QC from ch. 36, <5w	Petoskey	44 W53BN	QR from ch. 53, 27.7kw, 41-03-24/80-38-43, CL to Youngstown, OH
Juliaetta	48 K48HB	QC from ch. 13, <5w	Petoskey	45 W39CB	QR from ch. 39, 5.8kw, 40-29-38/80-01-08, CL to Pittsburgh, PA
Malad City	35 K62BD	QR from ch. 62, 1.17kw	Pinconning	51 W69DW	QR from ch. 69 dismissed
McCall	43 K43HF	NS 5kw, 44-54-37/116-05-56	<b>Traverse City</b>	<b>50 WPBN-DT</b>	<b>PR&lt;78kw/230m, DA, 44-46-36/85-41-02</b>
<b>Illinois:</b>			Traverse City	54 W54CR	QC from ch. 40, 9.6kw
<b>Champaign</b>	<b>41 WICD-DT</b>	<b>NS 895kw/396m</b>	<b>Minnesota:</b>		
<b>Champaign</b>	<b>48 WCIA-DT</b>	<b>FC to CBS/UPN (on different virtual channels)</b>	<b>Minneapolis</b>	<b>45 KSTC-TV</b>	<b>PC&gt;430m, drop DA</b>
<b>Chicago</b>	<b>20 WYCC</b>	<b>PR&lt;2kw (aux?)</b>	Willmar	17 K17FA	PC>1kw
Rockford	25 W25CL	QC from ch. 62, 3.5kw	Willmar	20 K20GD	PC>1.1kw
<b>Springfield</b>	<b>49 WCFN</b>	<b>FC from CBS to UPN</b>	Willmar	36 K36FL	PC>1.3kw
<b>Springfield</b>	<b>53 WCFN-DT</b>	<b>FC to UPN/CBS (on different virtual channels)</b>	Willmar	54 K54GG	PC>1.4kw
<b>Indiana:</b>			<b>Missouri:</b>		
<b>Evansville</b>	<b>46 WFIE-DT</b>	<b>PR&gt;310m</b>	<b>C. Girardeau</b>	<b>57 KFVS-DT</b>	<b>PG&lt;246kw/564m</b>
Jeffersonville	5 WVHF-LP	CC from W05BE	Joplin/Carthage	47 KCLG-LP	QC from ch. 44, 25kw, 37-03-10/94-23-20
South Bend	12 WRDY-LP	CC from W12BK	Macon	44 K44GI	NS 1kw, 39-44-52/92-28-08
South Bend	57 WBND-LP	PR>58.2kw, 41-35-58/86-11-07	Springfield	8 K08MA	PG>3kw
South Bend	69 WMWB-LP	XR 41-35-58/86-11-07	<b>St. Louis</b>	<b>26 KPLR-DT</b>	<b>PG&lt;288m, 38-34-24/90-19-30</b>
<b>Kansas:</b>			<b>Mississippi:</b>		
Independence	54 K54GC	QC from ch. 43, 18.9kw	<b>Ackerman</b>	<b>10 WMAB-DT</b>	<b>QR from ch. 38, 4.3kw/349m</b>
<b>Kentucky:</b>			Grenada	30 W25BA	QC from ch. 25, 5.6kw
<b>Ashland</b>	<b>26 WKAS-DT</b>	<b>NW, 61.3kw/137m, DA</b>	<b>Laurel</b>	<b>28 WDAM-DT</b>	<b>PG&lt;79kw, DA</b>
<b>Bowling Green</b>	<b>48 WKGB-DT</b>	<b>NW, 54.8kw/234m</b>	Natchez	24 W24CR	QC from ch. 20, 37.6kw, 31-30-19/91-19-38
<b>Madisonville</b>	<b>42 WKMA-DT</b>	<b>NW, 55.1kw/298m, 37-11-21/87-30-49</b>			
<b>Murray</b>	<b>36 WKMU-DT</b>	<b>NW, 56.9kw/187m</b>			
<b>Owensboro</b>	<b>30 WKOH-DT</b>	<b>NW, 63.3kw/124m</b>			

**Montana:**

Billings 20 K20HB NS 150kw,  
45-45-35/108-27-11  
(KUSM-9, PBS)  
Butte 43 K43DU PR>27.1kw  
Great Falls 8 KFBB-DT NS, 3.39kw/146m  
Miles City 24 K24FR NS 1kw, 46-29-24/105-40-03

**North Carolina:**

Boone 65 W65DT QC from ch. 27, 690w,  
36-14-07/81-42-20  
Burnsville 67 W67DV QC from ch. 27, 790w  
Charlotte 11 WTVI-DT NW, 2.2kw/363m  
Greensboro 43 WLXI-DT PG<105kw/527m,  
35-52-02/79-49-26  
Manteo 51 W51DF NS 10.8kw,  
35-51-52/75-39-01  
Raleigh 13 WBXU-CA PC>1.04kw  
Rocky Mount 57 WHIG-LP CC from WOFF-LP  
Wanchese 35 W35BW NS 1kw, 35-50-48/75-37-19

**North Dakota:**

Bismarck 23 KXMB-DT PR<90kw/392m,  
46-35-23/100-48-02; already  
on air  
Devils Lake 33 K30FU QR from ch. 30, 15.6kw  
Fargo 2 KVNJ-LP PC>1.13kw,  
46-51-39/96-51-17

**Nebraska:**

Cambridge 30 K30FV QC from ch. 25, 10.7kw  
Grand Island 32 KGIN-DT granted DA  
Kearney 36 KHGI-DT PR>865kw/314m  
O'Neill 43 K43FX QC from ch. 34, 5.9kw  
Scottsbluff 16 NEW AF 2559kw/238m,  
41-50-23/103-49-35

**New Hampshire:**

Concord 21 WPXG PR>2300kw  
Concord 33 WPXG-DT PR>100kw/344m, DA

**New Jersey:**

Cherry Hill 68 W68DN PR<1.53kw

**New Mexico:**

Alamogordo 31 K32FC QR from ch. 32  
Albuquerque 16 KRQE-DT PR>75kw/1268m  
Albuquerque 21 KOAT-DT PR<1243m  
Gallup 14 K14KV NS 10kw,  
35-31-59/108-38-10; CC to  
KIAZ-LP?  
Gallup 48 K48GK QC from ch. 69, 1.18kw,  
35-32-08/108-44-28  
Grants 49 K49GQ NS 5kw, 35-07-55/107-53-15  
Hobbs 27 K56GG QC from ch. 56, 10kw,  
32-47-12/103-07-05  
Santa Fe 27 KASA-DT PR<390kw/1278m,  
35-12-50/106-27-01

**Nevada:**

Austin 41 K41HH QG from K58EV  
Henderson 46 K60AN QR from ch. 60, 720w,  
35-59-44/114-51-46  
Las Vegas 11 KLVX-DT NW, 105kw/371m  
Reno 7 KRNVDT QG from ch. 34,  
16.1kw/879m,  
39-18-57/119-53-02  
Reno 20 KAME-DT PG<53kw, DA  
Silver Springs 35 K35FL QC from ch. 67, 1.21kw,  
39-29-05/119-18-07

**New York:**

Albany 23 WXXA-TV PC>3675kw/363m  
Garden City 22 WLIW-DT PR<82kw  
Gloversville 49 WFNY-CA CC from W49BA  
Olean 30 W22AZ QC from ch. 22, 5.9kw  
Utica 29 WKTV-DT PR>708kw, drop DA

**Ohio:**

Cleveland 2 WKYC-DT PC>8kw  
Columbus 36 WTTE-DT NS 1000kw/271m,  
39-56-14/83-01-16  
Lima 65 W65DP NW, 4.86kw,  
40-38-03/84-12-29  
Toledo 49 WNWO-DT PG<59kw/409m, already on  
air

**Zanesville**

40 WHIZ-DT PR<620kw/169m, drop DA

**Oklahoma:**

Altus 40 K40FL QC from ch. 65, 580w,  
34-38-20/99-21-19  
Altus 45 K45FH QC from ch. 67, 5.86kw,  
34-38-20/99-21-19  
Altus 49 K49FE QC from ch. 69, 5.86kw,  
34-38-20/99-21-19  
McAlester 43 K43HE NS 1kw, 34-58-36/95-42-59  
Norman 46 KOCM PG>2089kw/470m, DA,  
35-35-52/97-29-22  
Oklahoma City 50 KOPX QG from ch. 62,  
2690kw/480m,  
35-35-52/97-29-22  
Shawnee 30 KQOK PR<253m, DA  
Tulsa 10 KTUL-DT PR<6.9kw/542m, DA

**Oregon:**

Arlington 17 K65CH QR from ch. 65, 1kw  
Cottage Grove 14 K44DC QR from ch. 44  
John Day 26 K26FQ QC from ch. 68, 640w  
Richland 8 K08KW PC>40w, 44-51-21/117-09-24

**Pennsylvania:**

Philadelphia 7 WWJT-LP CC from WPTV-LP  
Philadelphia 10 WCAU AF 151kw/164m,  
40-02-31/75-14-12 (aux.  
backup)  
Pittsburgh 38 WQED-DT PR>760kw/213m

**South Carolina:**

Columbia 39 W51BR QC from ch. 51  
Columbia 47 NEW AF 750kw/193m,  
34-02-39/80-59-50  
Sumter 63 WQHB PC>1312kw/374m, DA,  
34-06-58/80-45-51

**South Dakota:**

Mitchell 5 KDLV-TV XG 43-45-33/98-24-44  
Rapid City 26 KBHE-DT PG>191.7m  
Sioux Falls 24 KCSD-DT PG<48.9m,  
43-31-50/96-45-26

**Tennessee:**

Cookeville 36 WNPX-DT PR>434.5m,  
36-16-03/86-47-44  
Farragut 46 W60CF QC from ch. 60, 25kw,  
35-59-20/83-57-45  
Memphis 52 WMC-DT PG<394kw/338m  
Nashville 20 WVIE-LP PR<21kw, 36-16-03/86-47-44  
Nashville 58 WNAB PG>434m,  
36-15-50/86-47-39  
Tazewell 48 WVLR CC for new station

**Texas:**

Amarillo 25 K25GI QC from ch. 20  
El Paso 15 KFOX-DT NS, 1000kw/601m, DA  
El Paso 65 KTFN CC from KKWB  
Fredericksburg 44 KHPF-CA XR 30-15-35/98-53-13  
Harlingen 50 KTIZ-LP QR from ch. 52, 50kw,  
26-14-50/97-46-22  
Kingsville 46 K46DL PR>4.9kw  
Lake Dallas 54 KLDT-DT PR>75kw/494m,  
32-32-36/96-57-32

<b>Lake Dallas</b>	<b>55 KLDT</b>	<b>PR&gt;5000kw/494m, 32-32-36/96-57-32</b>	<b>Virginia Beach</b>	<b>29 WVBT-DT</b>	<b>NW, 1000kw/244m, DA, 36-49-14/76-30-41</b>
Lubbock	30 KGLR-LP	QC from ch. 40			
Mullin	31 K65BC	QR from ch. 65, 5kw, 32-32-36/96-57-33, CL to De Soto, TX	<b>Washington:</b>		
			Tacoma	11 KSTW	PC<232m
Odessa	49 KTLD-LP	CC from K49CD	<b>Wisconsin:</b>		
Odessa	60 KTLE-LP	CC from K60EE	<b>Green Bay</b>	<b>42 WPNE-DT</b>	<b>PR&lt;375m dismissed</b>
Paris	23 K23GD	NS 5kw, 33-38-54/95-36-13	<b>Janesville</b>	<b>57 WHPN</b>	<b>FC to WB</b>
Round Rock	15 KHPZ-CA	QC from ch. 64, 10.6kw, 30-36-04/97-39-34	<b>Madison</b>	<b>21 WHA-TV</b>	<b>AF 1140kw/408m, DA (aux. backup)</b>
San Antonio	7 KJLF-LP	XR 29-26-29/98-30-22	<b>Madison</b>	<b>50 WISC-DT</b>	<b>FC; presumably 2nd virtual channel to drop WB</b>
<b>San Antonio</b>	<b>23 KHCE</b>	<b>PG&gt;2032kw/327m, 29-17-24/98-15-20</b>	<b>Milwaukee</b>	<b>22 WVCY-DT</b>	<b>PR&lt;196kw/297m, 43-05-44/87-54-17</b>
San Antonio	47 KFTO-LP	CC from KDWZ-LP	Milwaukee	63 W63CU	QC from ch. 65, 137kw
<b>San Antonio</b>	<b>48 KSAT-DT</b>	<b>NW, 1000kw/427m</b>			
<b>San Antonio</b>	<b>58 KMOL-DT</b>	<b>NW, 480kw/457m</b>	<b>Wyoming:</b>		
<b>Utah:</b>			<b>Sheridan</b>	<b>7 KBNM</b>	<b>PR&lt;9kw/333m, already granted</b>
Carbon County	29 K29CM	PR<490w, 39-45-23/110-59-22			
Duchesne	23 K26DO	QR from ch. 26, 490w	<b>U.S. Possessions:</b>		
Logan	3 KCVB-CA	PC<290w, 41-45-54/111-50-52	<b>Puerto Rico:</b>		
<b>Ogden</b>	<b>24 KPNZ</b>	<b>PC&lt;1514kw/1229m, 40-39-33/112-12-07</b>	<b>Ponce</b>	<b>19 WKPV-DT</b>	<b>PR&gt;1000kw, drop DA</b>
<b>Salt Lake City</b>	<b>42 KUED-DT</b>	<b>NW, 239kw/1266m, DA, 40-39-33/112-12-07</b>	<b>San Juan</b>	<b>18 WTCV</b>	<b>CC from WAVB-TV</b>
Vernal	33 K33DO	QR from ch. 21, 490w, 40-21-03/109-09-45	<b>San Juan</b>	<b>21 WJPX-DT</b>	<b>PR&gt;1000kw, drop DA</b>
<b>Virginia:</b>			<b>Canada:</b>		
<b>Lynchburg</b>	<b>20 WJPR-DT</b>	<b>NW; WB "WBVA" parallel cable channel</b>	<b>Ontario:</b>		
<b>Norfolk</b>	<b>38 WTVZ-DT</b>	<b>PG&lt;361m</b>	Hamilton	45 NEWNS, 10kw	
Ruckersville	58 W49AV	QR from ch. 49	Toronto	52 NEWNS, 59kw	

## Forum & Other Stuff

The new Ontario stations will be called "Toronto One". Programming will be in English but for ethnic minorities; programming for aboriginal people will also be prominent on this station. The Hamilton station is to be a translator of Toronto. Another new Toronto station was also granted; to be known as "CFMT Too", it will carry ethnic programming in Asian languages. (to complement the European-language programming on co-owned CFMT-47) This station had also requested channel 52; their grant is contingent on finding another channel that's acceptable to the technical folks at Industry Canada. Their application suggested channel 69 might be suitable, especially as they already own the nearest station on that channel. (CFMT-TV-1, London)

There are a few interesting programming changes this month. First, note that CBS is getting a LPTV affiliate in the Palm Springs, California market. In Illinois, WCFN-49 had been operating as a high-powered relay of WCIA-3, a CBS affiliate. This relay is no more; WCFN has become a UPN affiliate. This move does, however, cause a problem. The Champaign/Springfield/Decatur market is pretty big; WCIA doesn't have much of a signal in Springfield. WCIA-DT and WCFN-DT signed on the air at the same time as the network change, and both DTV stations are carrying both networks. Of course, as with KBWB-DT in San Francisco bringing KNTV NBC programs to the North Bay, this scheme doesn't do much for the 99.9% of the audience that doesn't have a digital TV...

In the Lynchburg/Roanoke, Virginia market, WJPR-21 is a satellite of Fox affiliate WFXR-27. The stations have also run a cable-only WB affiliate, known as "WBVA". WJPR-DT is not relaying WJPR's analog signal – they're carrying the "WBVA" cable channel. Similar to what WTVF-DT does with their "Newschannel 5+", except that WTVF uses a second virtual channel so you can still receive a relay of WTVF analog.

In Madison, Wisconsin, a similar situation is coming to an end. WISC-3 had been operating a cable-only WB affiliate known as "TVW". When they signed WISC-DT 50 on the air, they began carrying "TVW" on a second virtual channel. With WHPN-57 in the Madison market switching from UPN to WB, one must assume TVW will no longer be a WB affiliate. CBS and UPN are now co-owned; looking at the situation in central Illinois, it is probably reasonable to believe "TVW" will not disappear, but will switch from WB to UPN.

Finally on the programming front, WJXT-4 Jacksonville, Florida is dropping CBS after a 53-year relationship. They were unable to reach an affiliation agreement with the network. At deadline, there is no word on a new CBS affiliate in the Jacksonville market. WJXT will be an independent.

TBN has joined Pax in attempting to move analog stations to DTV assignments to clear channels 60-69. They've asked to move their WHSG-63 Monroe (Atlanta), Georgia to channel 44. Without any fanfare, one of Pax's applications seems to have been approved. KOPX-62 Oklahoma City is moving to channel 50. Again, the theory is that these stations will at some point instantly switch to DTV operation - there will be no DTV/analog simulcast. Time will tell...

Note applications accepted for two new full-power analog stations, on channel 51 in Pittsfield, Massachusetts and channel 16 in Scottsbluff, Nebraska. Three applications for a new full-power educational analog station on channel 30 in Davenport, Iowa have been reinstated.

I am presuming that WYCC-20's (Chicago) application to reduce power to 2kw is for a backup auxiliary transmitter. Or, alternatively, that it's a typo and should read 2000kw. The listed HAAT of KNXT-DT (Visalia, California) is zero. I think it's reasonable to assume that is a typo as well.

The NYC TV stations have formed a cooperative to build a new transmission tower to replace the World Trade Center. The new tower will be roughly 1,900' (540m) above average terrain - 250' higher than the WTC facilities. No site has been chosen for the tower, but several sites within 5km of the WTC are being considered. These include locations on Manhattan and in Brooklyn; in Jersey City; and on Governor's Island.

Dennis Smith brought up another interesting point about the KNTV network swap in the Bay Area. KSBW-8's transmitter is only 5 miles from KNTV's - and KSBW is also a NBC affiliate. Obviously that situation won't be allowed to last long! One possible result would be for KSBW to switch to ABC, now that KNTV is no longer providing an ABC signal across the South Bay. However, I note something else.. that KSBW has a permit to move its transmitter 26 miles southeast of the current site. The new site will have far less overlap with KNTV than the old. It's still only 31 miles from KNTV's tower, but I'll bet being on the "wrong" side of the mountain means there won't be much contour overlap.

Dennis also noted K61AI having implemented their construction permit to move to channel 26 as K26FT. Kinda. Actually, he noticed the station broadcasting on both channels 26 and 61. This is a KCET-28 translator. I'm somewhat unclear on whether they're actually legally permitted to operate on both channels at once. I presume the channel 61 license will be cancelled when they get their permanent license for channel 26.

Roy Barstow forwarded some information from New England. Firstly, a mystery. Both Roy and Ryan Grabow on Long Island are seeing WPHL-17 Philadelphia on channel 27. I can't explain this one.

Several stations in his area are carrying other stations' news. WHPX-26 New London, Connecticut carries WVIT-30. WPXQ-69 Block Island, Rhode Island carries WJAR-10. WSBK-38 Boston carries WBZ-4, and WLWC-28 New Bedford, Massachusetts has announced they will also be carrying WBZ-4 newscasts. WLWC is keeping a low profile: their program schedule is not in TV Guide or any area newspapers...

Roy also asks a few questions:

- ◆ What's with Es not being seen on DTV? Is it just not enough low-band DTV on yet?

Yes. There are only two low-band DTV stations operating right now: WKYC-DT 2 in Cleveland and WBBM-DT 3 in Chicago. Almost all DTV DXers are too close to these two stations for Es. (I suspect Dave Pomeroy in Topeka, Kansas will see WKYC-DT eventually) I also expect many more DTV stations to sign on the air about the time you read this, so the possibilities for DTV Es will increase. There aren't many DTV assignments on low-band though, so you probably won't see much DTV Es reported until the transition is complete and many stations move their DTV operations to their current low-band analog channels.

- ◆ With all stations on their DTV channels, what's going to happen on all that empty space on low-band?

It's not going to stay empty. Many stations consider their DTV assignments temporary. They will use them until analog is phased out, and then move their digital operations to the channels they're currently using for analog. Many stations will have no choice. In Los Angeles, KCBS-2 drew DTV channel 60. That channel will be removed from TV service after the transition; KCBS will be forced to move their DTV operation to channel 2. Similarly, WTVF-5 here in Nashville drew DTV channel 56, and will have to move back to 5 after the transition. Many other stations which will be allowed to stay on their DTV assignments will choose not to do so. Returning to low-band will result in a huge savings in electricity bills.

- ◆ Will DTV mean the end of meteor-scatter DX?

I doubt it, but it might change the way we DX meteor scatter. DTV DXers are reporting seeing the "PSIP" information from DTV stations even when the video and audio don't decode. In most cases, this information is adequate to ID the station. I suspect this might well decode via meteor scatter. Longer bursts may be enough to actually decode video; my DTV tuner card locks in on a signal in about 2 seconds.

I was hoping the sign-on of WKMA-DT 42 and WKGB-DT 48 would bring me some additional choices in DTV viewing. I did log WKGB-DT briefly during a tropo enhancement, and WKMA-DT frequently provides sync lock (but not EQ lock) on my tuner. But at the rather low powers these stations are using, regular reception is not happening. Well, it's skip season... If the unrestrained vicious dog on Highway 41-A doesn't eat my ankle by the time you see this, I hope to join you in submitting plenty of loggings to Matt and John. Good luck!





# **SATELLITE NEWS**

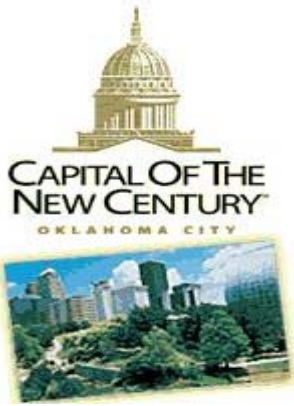
**George W. Jensen**  
**4604 Antanna Ave., Baltimore, MD 21206-4220**  
**SGISATMAN@AOL.COM**

**MAY 2002**

The Ku Band side of Canadian F1 continues this month with its line-up of commercial channels. All of these items are 4DTV digicipher encrypted, but on rare occasions in the clear.

300 - CBHT Ch 3 - Halifax, Nova Scotia CBC  
301 - CBMT Ch6 - Montreal Quebec - CBC  
302 - CBLT Ch 5 - Toronto, Ontario - CBC  
305 - CBKT Ch 9 - Regina, Saskatchewan - CBC  
306 - CBRT Ch 9 - Calgary, Alberta CBC  
307 - CBXT Ch 5 - Edmonton, Alberta CBC  
308 -- CBC West  
310 - CJON Ch 6 - St. Johns, Newfoundland NTV - CTV  
311 - CJOH Ch 13 - Ottawa, Ontario CTV  
312 - CFCF - Ch 12 - Montreal, Quebec CTV  
313 - CFTO - Ch 9 - Toronto, Ontario CTV  
315 - CKCK Ch2 - Regina, Saskatchewan CTV  
316 - CKY Ch 7 - Winnepeg, Manitoba CTV  
317 - CFCN Ch 4 - Calgary, Alberta CTV  
318 - CFRN Ch 3 - Edmonton, Alberta CTV  
321 - Vancouver, British Columbia - BCTV/CTV  
330 - CIHF Ch 8 - St. Johns, Newfoundland Global  
331 - CIII Ch 6 - Toronto, Ontario - Global  
335 - CKND Ch9 - Winnipeg, Manitoba Global  
336 - CKVU Ch 10 - Vancouver, British Columbia - Global  
338 - Calgary, Alberta - Global  
339 - Edmonton, Alberta - Global  
340 - Atlantic Satellite Network - Halifax, Nova Scotia  
341 - CJCH Ch 5 - ATV - Halifax, Nova Scotia  
342 - CHRO - Ch5 - Pembroke, Ontario  
343 - CFMT Ch 47 - Toronto, Ontario  
344 - CITY Ch 57 - Toronto, Ontario  
345 - CHCH Ch11 - ONTV - Hamilton, Ontario  
346 - CKVR Ch 3 - Barrie, Ontario  
347 - CJAL Ch 9 - A-Channel - Edmonton, Alberta  
348 - CHEX Ch12 - Peterborough, Ontario  
349 - CFPL Ch 10 - London, Ontario  
350 - APTN - Aboriginal Peoples Television Network  
351 - Access Alberta  
352 - Saskatchewan Commercial Network  
353 - CICA Ch 6 - Toronto, Ontario - TV Ontario  
354 - Knowledge TV  
355 - C T S  
357 - Miracle Channel

358 - CHCH Ch 10 - Vancouver Island, British Columbia  
359 - CKVU Ch ? - Vancouver, British Columbia  
360 - WDIV Ch 4 - Detroit, Michigan NBC  
361 - WXYZ Ch 7 - Detroit, Michigan ABC  
362 - WWJ Ch 62 - Detroit, Michigan CBS  
363 - WUHF Ch 31 - Detroit, Michigan Fox  
364 - WTVS Ch 56 - Detroit, Michigan PBS  
370 - KHQ Ch 6 - Spokane, Washington NBC  
371 - KXLY Ch 4 - Spokane, Washington ABC  
372 - KREM Ch 2 - Spokane, Washington CBS  
373 - KATU Ch 28 - Spokane, Washington Fox  
374 - KSPS Ch 7 - Spokane, Washington PBS  
379 - KING Ch 5 - Seattle, Washington NBC  
380 - KOMO Ch 4 - Seattle, Washington ABC  
381 - KIRO Ch 7 - Seattle, Washington CBS  
382 - Seattle, Washington Fox  
383 - LCTS Ch 9 - Seattle, Washington PBS  
385 - WGRZ Ch 2 - Buffalo, New York NBC  
386 - WKBW Ch 7 - Buffalo, New York ABC  
387 - WIVB Ch 4 - Buffalo, New York CBS  
388 - WHEQ Ch 23 - Buffalo, New York PBS  
390 - CBC Newsworld 391 - CTV Newsnet  
392 - The Shopping Channel 393 - British Columbia Legislature  
394 - Vision TV 396 - C-Pac 397 - Ontario Legislature  
398 - The Weather Network 400 - The Sports Network (TSN)  
401 - The Sports Network Alternative 403 - Headline Sports  
406 - Speed Vision 409 - The Golf Channel  
416 - Rogers Sportsnet East  
417 - Rogers Sportsnet Ontario  
418 - Rogers Sportsnet West  
419 - Rogers Sportsnet Pacific  
457 - Outdoor Life Network 460 - WSN - Womens Sports Network  
461 - Fox Sportsworld Canada 462 - X-Treme Sports  
463 - Raptors NBA TV 464 - ESPN Classic Sports  
465 - NHL Network 466 - Leafs TV  
That's all for this month - next their superstations or whatever they're called. See you in 30 and have great DX - George.



# WTFDA 2002

Oklahoma City

July 26-28

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

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

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

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

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

John Zondlo, WTFDA 2002 Convention Host

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## WTFDA 2002 Convention Registration Form

Name: \_\_\_\_\_

Address: \_\_\_\_\_

City, State/Province, Zip/PC: \_\_\_\_\_

E-mail: \_\_\_\_\_ Phone: \_\_\_\_\_

Arrival date/time & mode of transportation: \_\_\_\_\_

Seminar topics I'd like to see covered: \_\_\_\_\_

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

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

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

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



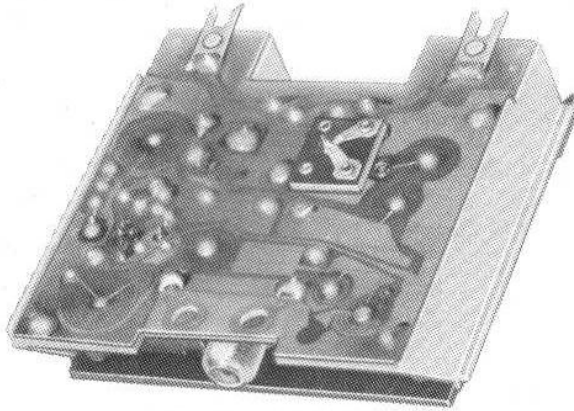
# WINEGARD

## engineering specifications

### CHROMSTAR PREAMPLIFIER CARTRIDGE

### mod. AC-4990, AC-9130, AC-9820

TYPICAL  
CARTRIDGE



### SPECIFICATIONS

		AC-4990	AC-9130	AC-9820
Gain	VHF	0.7dB	24dB	24dB
	UHF	17.5dB	-1.6dB avg.	13.5dB
Bandpass	VHF	54 to 216MHz	54 to 216MHz	54 to 216MHz
	UHF	470 to 890MHz	470 to 890MHz	470 to 806MHz
Noise Figure	VHF	NA	3.0dB	3.0dB
	UHF	2.2dB	NA	8.5dB
Max. Total Input	VHF	NA	75,000uv	75,000uv
	UHF	0.13 volts	NA	0.2 volts
Max. Total Output	VHF	NA	1.2 volts	1.2 volts
	UHF	0.9 volts	NA	0.9 volts
VSWR Output	VHF	1.3:1 avg.	1.3:1 avg.	1.3:1 avg.
	UHF	1.7:1 avg.	1.7:1 avg.	1.7:1 avg.
Response	±0.1dB per 6MHz			
Output Impedance	75 ohm			
Operating Temp.	-25° F. to 140° F.			
Output Connector	F type			
Mounting Type	Chromstar Cartridge Housing or Model AH-Housing			
Accessories Furnished	Power Supply/Mounting Bracket, 3 F-59 Connectors			

**SEE REVERSE SIDE FOR DESCRIPTION**

Form No. SA-2.3

WINEGARD COMPANY  
MAY, 1977  
**16**  
COMMUNICATION SYSTEMS  
television equipment



## OKLAHOMA CITY JULY 26, 27, 28

## WTFDA CONVENTION 2002

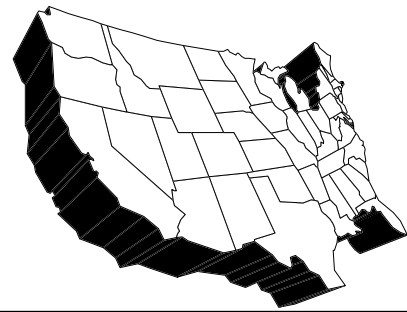
## Y'ALL COME SEE US!





# WESTERN TV DX

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



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

## February 2002

20 tr	0705	XHMTA	11 TA	500
	0708	XHAB	7 TA	505
		XHOR	14 TA	505
	0710	KVEO	23 TX	500
21 tr	0657	XHAB	7 TA	505
24 tr	2106	XHAB	7 TA	505
	2107	KVEO	23 TX	500
	2111	KXAN	36 TX	395
		KNVA	54 TX	395
	2241	KXAM	14 TX	445

## March 2002

13 tr	2105	XHAB	7 TA	505
	2117	XHREY	12 TA	535
	2217	KXAN	36 TX	395
	2220	KEDT	16 TX	425
	2314	KNVA	54 TX	395
14 tr	0556	KVDA	60 TX TMD	445
	0607	KVUE	24 TX	395
		KEYE	42 TX	395
	0617	KGBS-LP	65TX weak	395
	0623	KAKW	62 TX SS	390
	0633	KHCE	23 TX TBN	445
	0634	DTV snow ch. 31, 35 (Houston)		
	0652	KVEO	23 TX	500
17 tr	2204	XHAB	7 TA	505
	2246	WJSP	28 GA	390
	2301	WSWS	66 AL	370
	2316	WLTZ	38 GA	390
	2329	WETU-LPt	39 AL ACN	
24 tr	2041	XHAB	7 TA	505
	2312	WJSP	28 GA	390
		WLTZ	38 GA	390
26 tr	2208	WJSP	28 GA	390
30 tr	0016	XHAB	7 TA	505
	0145	KRRT	35 TX "WB 35"	475
	0147	KPXLt	26 TX "etc TV"	
	0200	KXAN	36 TX	395

A poor month of tropo. The good news is that my local LPTV 19 is off the air, but unfortunately, there's been no DX on that channel!

Danny Oglethorpe, P.O. Box 17452, Shreveport, LA 71138-0452

Email: doglethorpe@yahoo.com

Tropo: No relogs under 400 miles; no LPTV relogs under 200 miles.

Antennas: Winegard Chromstar CA-5254 VHF at 18 feet agl, Belden RG-6; Antennacraft Y10-2-6 ten element low-band yagi at 14 feet agl, Belden RG-

11; Finco Y10-2 ten element channel 2 yagi at 11 feet agl, RS RG-6. Antennacraft P-5 chicken-wired dish with Winegard AP-4700 preamp at 23 feet agl to feedpoint, Belden RG-11. All antennas on CM 9510 rotors, except Finco channel 2 yagi, which is on a new Chinese-built model 1245 RS rotor.

## February 2002 UTC

2	Es	0145	Cuba	4
		0220	XHQRO 2 QROO	
			Big animated ID 891	
15	Es	2210	WJBK 2 MI 904	
		2216	WDTN 2 OH 735	
19	Es	1717	WDTN 2 OH	
20 tr		0510	K34FH 34 AR Note # 1	183 25
	tr	0355	Valley 7, 9, 23	500+
		0515	KGNS 8 TX 481	

## March 2002 UTC

1	MS?	2210	KTVI 2 MO475	
3	MS	0207	WTWO 2 IN	604
8	tr	0810	K36DS 36 LA "A1"	108
13	tr	0115	Valley 4, 5, 7, 9, 17, 23, 44, 54	500+
		0340	Houston area LPTVs 28, 30, 53	200+
		0405	Laredo TX 8, 13481	
14	tr	0650	KVFW-LP 65 TX	
			"America's Store"	209
		1455	WFTS 28 FL	743
		1500	KBSI 23 MO416	
15	tr	0140	Valley returns	
25	tr	0510	Valley 7, 9 weak	
27	tr	1400	WMBB 13 FL Note # 2	502
			WTXL 27 FL	577
			Columbus GA 28, 38	512
			Montgomery AL 20, 32	436
			WFXL 31 GA Big calls	565
			WCIQ 7 AL "APT"	469
		1430	WPGX 28 FL Mixed	
			w/Columbus	502
		1432	WJCL 22 GA Big "ABC22"	
			promos, local ads	726
		1455	WUVG 34 GA Univision;	
			assumed as no ID seen	610
29	tr	1330	KVEO 23 TX	502

Note # 1 TBN moved from channel 33.

Note # 2 Panama City "ABC13" in for over an hour. At first, I thought it was Biloxi with a new logo and coming in from the wrong direction (farther north than usual).

March 2002 was NOT a great month for tropo, but it was the best March for tropo here in the last few years.



**Jeff Kadet, K1MOD**, Box 20, Macomb, IL  
61455 309-833-1809 jkadet@macomb.com

11/1/01 Central Time  
1324 Te Aroha, New Zealand 100kw (NEW)  
Getting video from the 45.240!  
Extremely ghostly but the vert. int. bar is obvious.

11/9/01 CST  
2325 WKRC-DT-31 Cincinnati, OH text id 341 mi  
Program 1 (WKRC-DT)  
2330 WHIO-DT-41 Dayton, OH text id 344 mi  
Program 1 (WHIO-DT)  
2355 WXIX-DT-29 Cincinnati, OH text id 338 mi  
Program 1 (WXIX-DT)

12/11/01  
2053 WKON-DT-44 340 mi

3/13/02  
WKQT-CA 45 Clarksville, IN ex-ch.26 295  
eve WQAD-DT38 DTV 62 mi

3/15  
2100 W18CJ 18 3abn Quincy, IL ex-ch.40 49 mi

3/16  
0830 WBQD-LP 26 Davenport tp w/id 75  
0830 K59GP 59 St.Charles, MO ex-ch.34 117  
mi

3/29  
1310 W08DP 8 Springfield, IL ex-ch.65 72 mi

4/6  
0400 WCFN-DT53 DTV Text ID : 73 mi  
Program 1 (ch 53)

4/10  
0110 WTTW-DT 47 text ID 188 mi  
Program 1 (WTTWDT1)

0227 WCIA-DT 48 Text ID: 120 mi  
Program 1 (Ch 48)

Program 2 (--empty--) with ANC programming

0308 WEHT-DT59 Text ID 244 mi  
Program 1 (WEHT-D1)  
Program 2 (WEHT-DT)

0550 WKMA-DT42 Program 1 (KET) 283 mi

all DTV scans can be seen at  
<http://www.oldtvguides.com/DXPhotos>

F2 was great here on 6m in Nov, Dec, and  
Jan. until I left for Vietnam on Jan.14. I  
worked a lot of Eastern Europe. 6M DXCC  
is at 93/91 now. 5R8EE & TI9M are still out.

73, Jeff

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

This report is for March 2002. With weather  
as unsettled as it was, it is perhaps  
interesting that there was any tropo at all.

Feb 28 eve: Poor  
Mar 1 am: None (not sure why...)  
Mar 2 eve: Poor  
Mar 2-3 am: None (windy)  
Mar 3 eve-6: Variably poor  
Mar 7-9 am: None (some rain)  
Mar 9 eve-12: Variably poor, VHF fair  
Mar 11 eve (some warming)  
Mar 13-19 am: None (windy, cooling)

Mar 22 eve-23: None (rain 22 eve-23, cooling)  
Mar 24: Variably very poor  
Mar 25: Variably poor  
Mar 26-27: Variably very poor, deteriorating  
Mar 28-29: None (weather front, unsettled)  
Mar 30-31: Very poor

A new station was seen in Santa Barbara,  
apparently a new local, on channel 26,  
perhaps only testing, as it was on only Mar  
26-28, during this time acting as a  
translator for KCET-28 (PBS) Los Angeles.

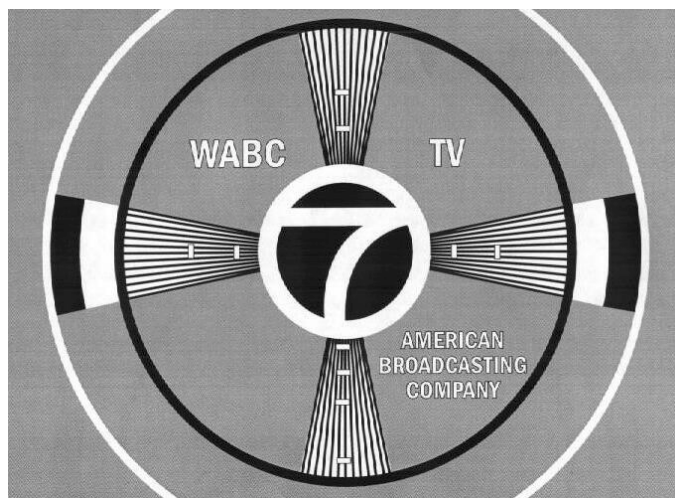
Best of DX to all. Dennis

**Victor Frank, K6FV**, 12450 Skyline Blvd.  
Woodside, CA 94062

Frequently observed on the west coast  
of North America are New Zealand  
channel 1 video carriers near 45.25  
MHz and FM audio near 50.75 MHz.  
As there are 15 stations there,  
identification is problematic.

Australian channel 0 video carriers near  
46.172 and 46.250 MHz are also frequently  
observed. On the 31<sup>st</sup> of March from about  
2300Z until after 2400Z, I heard the FM  
audio of a station near 51.672 MHz (46.172  
+ 5.5 MHz) believed to be RTQ-0 in  
Toowoomba, Queensland, about 11450 km  
distant. No voice ID, but the program was  
in English. This is the only station using this  
offset and I was communicating with VK2s  
and VK4s around 50.110 MHz at the time.  
The audio was intelligible (in the wide  
bandwidth FM position on my R-7100  
receiver), but was distorted frequently,  
presumably due to the dispersion due to  
the ionospheric F2-layer propagation  
involved.

Despite my admonition (to John Ebeling,  
last issue) to tape some audio, I must admit  
that I was not set up to record audio either.

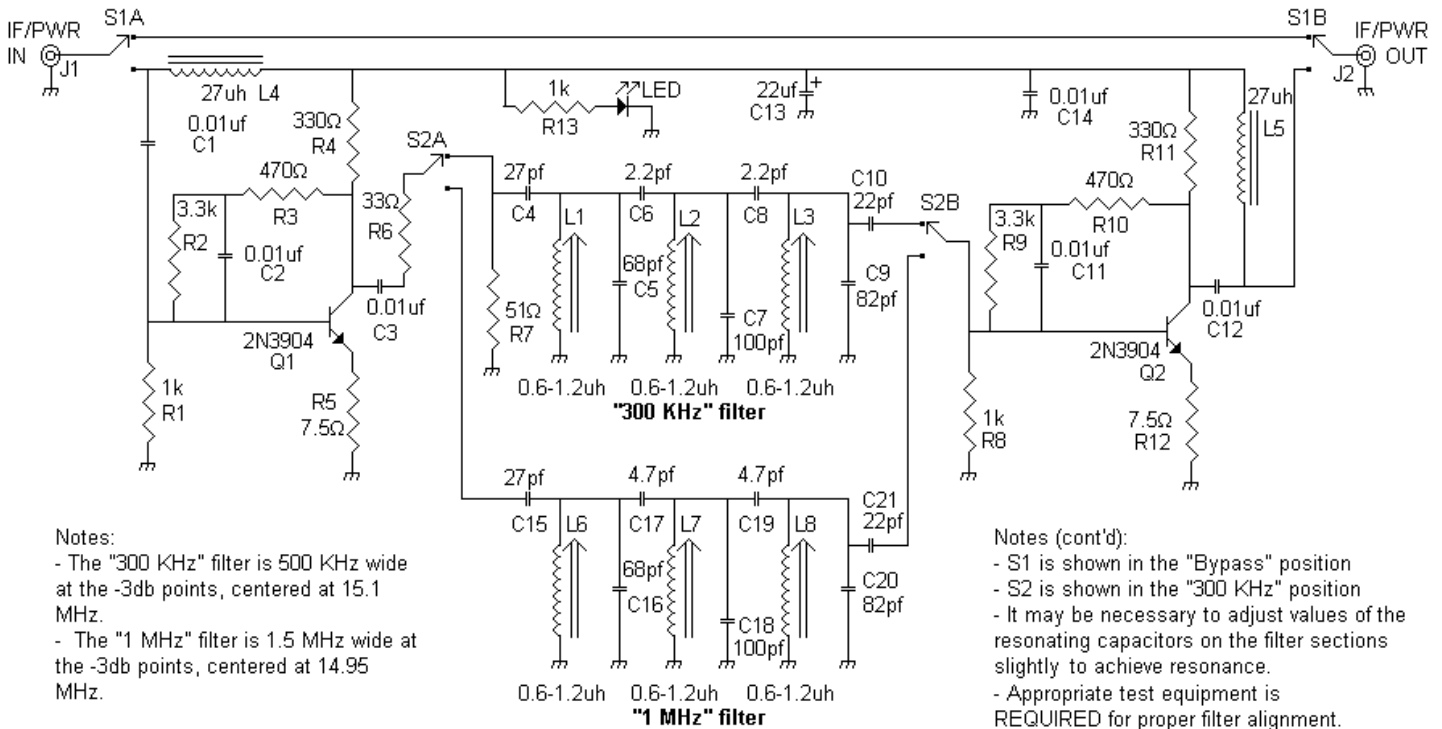


# ICOM R-7000 Two Stage IF Filter Mod

Well, we've done filter mods for almost every tuner made, so why not come up with one for the Icom R-7000. Actually this mod was designed and built by a gentleman by the name of Clint Turner and is presented here thanks to WTFDA member Les Rayburn, who worked with Clint to get the info to you. We give you both the single stage and the two stage filter mod here. The two-stage mod is first.

Narrow position is 300khz, which allows for maximum signal recovery but loses a lot of fine detail in the picture. Wide Position is 1Mhz which offers greatly improved performance vs. the normal 6mhz bandwidth and still retains more fine detail. On color bars and large ID cards, the 300khz filter usually produces the best results. If trying to read "bugs" or other small text, the 1mhz filter is suggested.

## Video IF Bandpass filter for Icom R-7000 w/TV demod

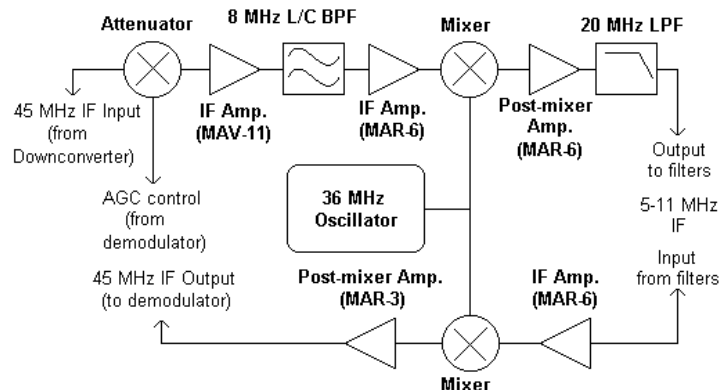


### Parts notes:

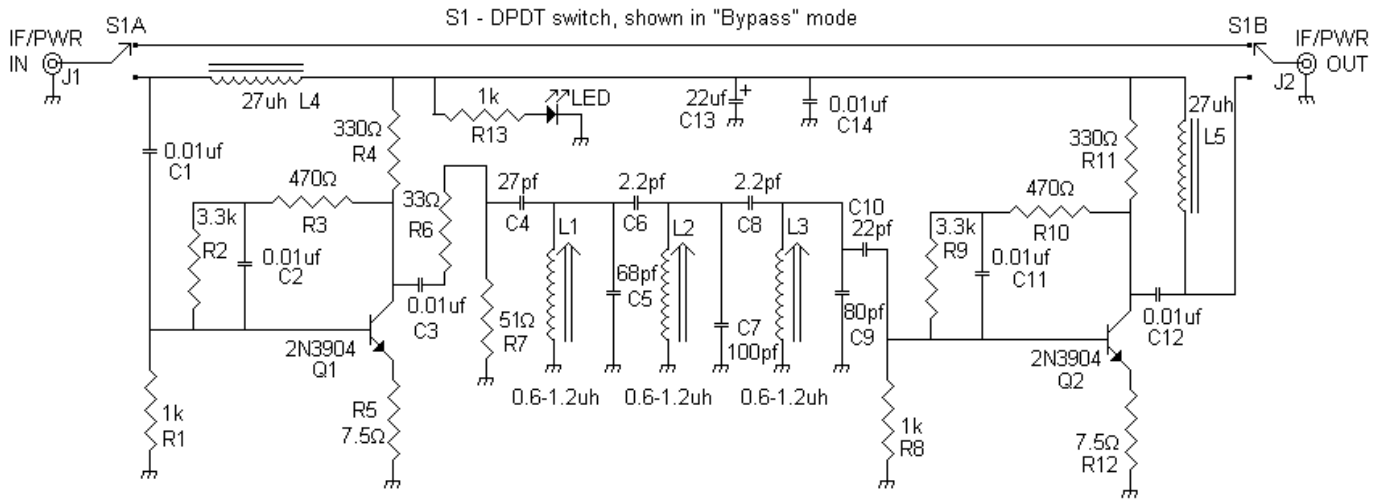
- L1-L3, L6-L8: 1 uH (nominal) variable inductor, shielded: Toko BTKXNS-T1050Z or BKAN-K5552AXX. (Digi-Key P/Ns TK1411-ND and TK1420-ND, respectively.)
- L4, L5: General-purpose inductors. Values from 4.7 uH to 100 uH are fine: 27 uH inductors happened to be on-hand. Example parts include (but are not limited to) J.W. Miller nos. 78F330J, 8230-48, and 8230-56. (Digi-Key P/N's M7831-ND, M8027-ND and M8031-ND, respectively.)
- J1, J2: Connectors - your choice. RCA-type were used on the prototype.
- S1, S2: DPDT switch.
- Q1, Q2: 2N3904 or practically any small-signal NPN silicon transistor.
- LED: Pick any color of LED that you like.

Rev. 1.1 20020410 KA7OEI

## Filter Module Down/Up Converter



## Here is the single stage version of the filter circuit:



## Video IF Bandpass filter for Icom R-7000 w/TV demod Center frequency: 15.20 MHz

Notes: On the Icom R-7000, the video carrier frequency is centered on 15.20 MHz. The IF output port of the R-7000 supplies not only IF, but power as well.

Adjust the three inductors for the desired bandpass characteristics.

The signal gain of this filter is 10-20db, depending on components and filter tuning.

The inductors should be individually shielded and the entire filter assembly should be enclosed in a shielded enclosure.

20011014 KA7OEI

Les Rayburn says "All I can say about the circuit is that it works! Yes, the pictures are reduced to grainy black and white but they also seem to "jump" out of the noise. I can safely say that the filter has allowed me to add perhaps a dozen loggings that would not have been possible otherwise."

### Circuit description:

S1, a DPDT switch, routes the IF/Power from the R-7000 transparently past the filter, or through the filter itself. An LED is provided to indicate the powered-up state of the filter. Chokes L4 and L5 decouple the RF and DC on the IF/Power line through the filter.

In amplifier/buffer consisting of Q1 and associated components provides consistent load/source impedance to the filter network and overcomes associated losses.

A three-stage bandpass filter consisting of C4-C10 and L1-L3 provides bandpass filtering around 15.2 MHz, the video carrier frequency in the R-7000's IF. Another amplifier consisting of Q2 and associated components provide a termination impedance for the filter network as well as additional amplification.

L1-L3 should be shielded coils. They may be tuned to provide a variety of bandpass responses, ranging from fairly narrow (about 500 KHz at the -3db points) to somewhat broader (1.2 MHz at the -3db points.) The design is optimized for operation toward the narrower end of the range.

More detailed info is available at: [http://www.ussc.com/~uarc/utah\\_atv/if\\_filt.html](http://www.ussc.com/~uarc/utah_atv/if_filt.html)

May 2002

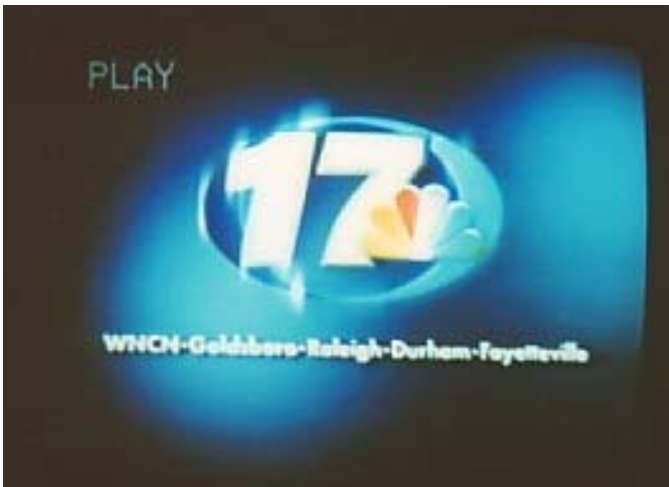
More photos from Roy Barstow, of Teaticket, MA, with some great MS and Tropo shots:



WNNE-31 Hartford, VT  
170 mi Tr seen 8/21/01  
@2100 ET  
*"back on after 1 year"*



W57AQ-57 Calais, ME  
300 mi Tr seen 8/25/01  
@2110 ET  
*"xltr of WLBZ-2 Bangor"*



WNCN-17 Goldsboro, NC  
585 mi Tr seen 8/26/01  
@0147 ET  
*"crystal clear!" - jtk*



WXGA-8 Waycross, GA  
975 mi Ms seen 1/14/02  
@0215 CT  
*"fantastic!" - jtk*

WTVG-13 Toledo, OH  
660 mi Ms seen 1/16/02  
@0533 ET  
*"highband!" - jtk*





# *TV Meteor Scatter..lo band and hi band*

**Roy Barstow**

Meteor scatter DX changed since the advent of the VCR. Previously, you would sit and watch for the meteor scatter to reveal a station on the TV and try in that short time to ID the station. With the VCR you can simply review the tape; no more getting up early to try for meteor scatter. Now you can set up the tape, record and review it at any convenient time. Back in the so-called "old days" there were many stations that were not on all night and many would run test patterns. Now there are more stations on all night. Even now many PBS stations are on 24 hours and this makes IDing a station more difficult. The early morning hours are the most productive. The best times are from 4 - 7 am Monday through Friday, as during this time stations are either testing or signing on early with their local news, and many IDs or logos are caught at this time.

With meteor scatter one can fill the gaps in your loggings. E skip covers roughly 500-1200 miles. Meteor scatter can get you down to 60 miles or less. Any station one can phase out can be a target. At this location WGBH-2 Boston has been picked up at 59 miles. Most stations in the 300-800 mile range are seen by meteor scatter. We are talking about low-band meteor scatter. We will discuss high-band meteor scatter later.

With low band meteor scatter one can use any television antenna. Meteor scatter is basically short term e-skip and mostly weak in nature. One's location will determine what equipment to use. Those who live in the vicinity of television transmitters will have better results with lower antennas. DXers who are well away from transmitters can crank them up high. Each location has its own problems, so unless you live close to television transmitters, meteor scatter DXing will help you pick up those elusive stations that e-skip and tropo won't let you see.

Sometimes while running tape for MS DX you may find results that you didn't expect. For instance, while reviewing a videotape of MS DX on channel 5, I discovered that e-skip was occurring at the same time and channel 5 in South Carolina was being seen. This station was a new logging for me. Also stations may show up by tropo. You will soon know what your semi-locals carry late at night and early in the mornings.

Most of us would expect that in order to DX the meteors most effectively one would aim the antenna in such a way that the TV screen would contain nothing but snow but in reality receiving meteor scatter DX is easier if you have a bit of signal from another station also. Maybe you have observed during tropo that a station will come in stronger when it rides on top of another station, so to speak. So if the channel already has a weak station on it, that condition will enhance the signal strength of the meteor scatter station, where if the MS station was all alone on that channel it would need more signal strength to stand out.

A weak, stable station is best. I have received MS stations when the other station on the channel was in color, but this is very rare. A worse-case scenario is when the station on the channel fades in and out during the entire tape, because it's time consuming to stop and check only to find it was a semi-local and not meteor scatter at all.

Any VCR will do as long as the blue screen (BSOD) can be defeated. The tape is viewed at high speed and you have to be alert to notice the quick MS hits. I used the best Radio Shack tape and could not notice any quality differences from other tape. After a while you will be able to determine what you see is MS and what is not. Sometimes tropo and E skip on the lower channels will make this determination difficult. E-skip can start and end quickly. It has been said that lightning could be a factor in the start of e-skip. "Sprites" have been observed by astronauts rising upward from thunderclouds. Perhaps these sprites could produce short-term e-skip on occasion.

A tape takes anywhere from 30 minutes and longer, depending on how much tropo appears on the tape. With a weak signal on the channel, with the tape at high speed, the screen will be blackish with perhaps light lines through it. When a signal (MS burst) occurs, the effect is as a light bulb turning on. Sometimes with a black screen (presence of a signal), a station will show and the screen will go to white snow. You should go back to this transition point in the tape because many times you'll find that a MS station hit has occurred and overridden the weaker station. When this increased signal strength drops, the weak station

goes with it. The weak station cannot stand alone. Many of my best MS loggings have happened during this transitional period.

One can use the VCR receiver or not. The VCR receiver will most likely increase the signal strength.

Now with more than one antenna and more than one VCR you have many more options. In addition to making a copy of a tape to send to a friend, you can tape two different channels and increase your totals faster. You can tape the same channel to find out if one antenna system is better than the other, or if one antenna is better for weak signals than another. You can see if a cut-to-channel antenna outperforms a lowband antenna. A DXer using two antennas aimed in the same direction will find out if a channel 2 MS station shows sooner than a channel 5 MS station. With both antennas aimed in the same direction, a DXer seeing and IDing a channel 2 MS station can also assume the channel 5 station being from the same area. A DXer can also determine if a ch2 burst last longer than a ch5 burst.

If you are using multiple VCRs, the VCRS must be synchronized first. A professional photographer will use the same batch number on all rolls of film for a photo shoot. The color balance can change from one roll to the next. It is best to use the same brand VCR and identical videotape. Videotape will stretch and VCR clocks can vary as much as four minutes using a six-hour tape and different VCRs. Even with the same tape and the same VCRs, the times may vary up to 25-30 seconds. By the end of a six-hour tape the time difference with weak MS is too great. You need to synchronize again by aiming both antennas in the same direction, taping the same channel and starting both VCRs at the same time. You should find the bursts at the same places on both tapes. In the beginning of the tapes, bursts will line up timewise on both tapes, but after four hours they could be ten seconds apart. By synchronizing the VCRs you should be able to find them again within five seconds.

Other techniques can help the MS DXer. You can stop the tape and take a photo. However, detail changes from frame to frame and a 3 on one frame may look like a 2 on the next frame, or a letter that looked like a G was really an O on the next frame.

You can simply take the picture while the VCR is running. The picture will be sharper and stronger. This method will work if the burst is a second or longer on the tape and if you are quick! I have done this many times with good results. Now, if the burst is less than a second but more than half a second long you can still do something with it. You can tape this half second burst over and over to your second VCR until it lasts 3-4 seconds. You then can take a picture with the VCR running and get a decent image. I have used this technique to advantage.

I was told that raising the front of the antennas will help in meteor scatter DXing. Now I had two antennas for lowband in the garden and had the front of the antennas up about fifteen degrees mainly because of a fence in front of the antennas. Both antennas were about five feet high. I took one of the antennas up to ten feet, leveled it and taped for a week without noticing any difference. Then I lowered it and raised the front end and taped one more week. One thing was different. With the antenna level, I saw Quebec-2 once. With the antenna raised in the front, Quebec-2 was on six of the next seven tapes. Why?

For lowband you'll find many pings on channel2 and an average length longer on channels 3-6. Things are a little different on highband. On highband, distances received seem to run from 500-1000 miles. One nice thing about highband is that almost every station seen will be a new catch.

On highband the signal will average less than a half second to a second in length. The signal still may be strong and might even break into color. You really have to watch the tape very carefully as you might miss one of these elusive signals by blinking your eye! Cut-to-channel antennas with amplifiers will give better results. Picking up highband MS with a low antenna is rare unless you happen to live on a hilltop. Use good equipment and have plenty of antenna height.

There are differences between highband and lowband MS DXing. On lowband almost all of the transmitters use non-directional antennas (with the exception of Canada). On highband, about half the transmitting antennas are directional. You can think of these directional antennas as "beams of light". When the meteor intercepts that beam of light, and if your antenna is aimed at that point, you will see a signal from that station. Sounds good! Now one could just aim his antenna and pick up MS without any knowledge of to where a station's antenna is directional. If you have the proper maps, you can plot exactly where the transmitter is located. If the transmitter is located west of the city, for example, and using a directional antenna, you could assume that the station is directional eastward toward the city. Or if the

beam is pointing north, you'd have a better chance of seeing the station if you aimed your antenna north of the transmitter, assuming you have no QRM from other stations in that direction. So aim your antenna just a bit to the front of the beam.

Another tool you can use to help with meteor scatter DXing is a receiver with offsets combined with a tape recorder. I have been using a Viking twelve hour recorder. This recorder uses standard tapes but at a slower speed. It records six hours on one side. It works great for voice recording after synchronizing it with WWV the length of the tape. I have made a chart that lets me find any point on the videotape that coincides with the same spot on the tape recorder.

CBVT-2 and CBFT-2 are in Quebec. They have the same network and the same MCTV slide. So when I see that slide, what station do I have? Well, one station is minus offset and the other is plus offset. With the receiver set to either minus or plus offset combined with a VCR and tape recorder, I can make a positive ID.

Take another situation where you see an MS station that happens to be NBC and you find that four stations in that target area are NBC. Your tape recorder says it's + offset. After checking you find that there are 2 stations in that target area that are + offset. You check the picture and find it an infomercial for the ABB Machine. Then you call the two stations and find out which one ran that infomercial.

Meteor scatter happens twenty-four hours a day...day and night. Meteor scatter will enhance your totals but your real results will come from a systematic taping of MS every day from Monday through Friday and by being persistent. -Roy Barstow

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## **MORE Q & A...STUFF YOU ALWAYS WONDERED ABOUT**

Q. Has anyone ever tried Dxing with a Bose Wave Radio?

A. Ever since I read a favorable review in the Wall Street Journal of the heavily advertised Bose Wave Radio (Rush Limbaugh, Paul Harvey, etc) I wanted to have one. A few months ago my wife talked me into taking her to a new outlet mall up in Hagerstown which a neighbor had been raving about, and they happened to have a Bose outlet store, so I bought me one.

Originally the idea was to have it in my study so that I could have background music on while I work on my main computer, either from the radio itself or by using its auxiliary audio input to play audio from my computer, since the Bose has considerably better audio than the cheap pair of JUSTer speakers I use with my PC.

I found that in attempting to receive FM signals over the air with it, my PC's monitor generates so much RFI that with the Bose Wave Radio as is (which uses the radio's AC power cord as its FM antenna) I couldn't listen comfortably even to many of the locals. So since the Bose has an auxiliary antenna input for FM, I went by Radio Shack and picked up a simple indoor FM antenna, RS catalog number 15-1843. That solved the problem.

My bedside Sony 2010 fell off the table and broke its whip antenna in half so I substituted the Bose at bedside and have been enjoying the enhanced audio quality for a few weeks. Tuesday night I happened to notice that York's "WARM 103" (103.3) was coming in very well even though adjacent channel "Classical 103-5" (WGMS 103.5) is only about 10 miles from my home in almost the same direction. This had never been observed with the Sony 2010. Wednesday morning dawned hot and humid, ideal tropo weather, so I decided to see how the Bose with its simple RS indoor antenna would handle a tropo opening. Manipulating the RS antenna in my hands I was able to receive several Philadelphia stations on adjacent channels to locals by nulling the locals down somewhat, and even managed to null out local WTOP (107.7) to bring in co-channel WSNJ Bridgeton NJ. Later on the opening shifted to the DELMARVA shore and stations like WSTW 93.7, WDSD 92.9, WZBH 93.5 and WESR 103.3 were interference-free and full quieting.

While I don't imagine this set-up will rival my Denon-Winegard main receiving set-up, it may give me better early-warning on openings and allow me to DX without bothering my wife when she is watching TV, as the Denon sits next to the family TV set. Also I am intrigued by the easy nulling capability provided by simply manipulating the RS antenna in my hands. Under certain circumstances I can see where I might have better luck nulling with this set-up than with the regular one. It will be interesting to see how it works when the Sporadic E season fires up full blast. I am impressed with the Bose's front end and adjacent channel selectivity. -Fred Laun

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**FROM QUESTIONS POSTED ON THE WTFDA LIST.**



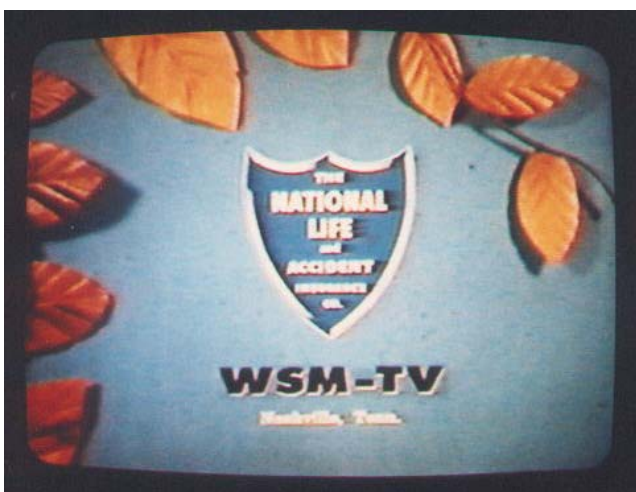


## Vintage Nashville

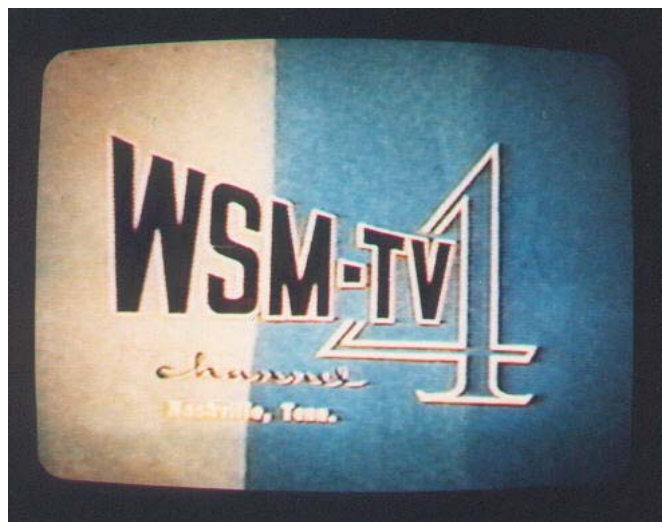
*(This month marks the beginning of the 14<sup>th</sup> year for the “TV TIME TUNNEL” column. Only once since inception has anything about Nashville television been featured here, so I have chosen this anniversary issue as a showcase for some circa 1960 - 1965 slides.)*



*This WSM-TV ID slide featured the “compass” logo; one of the earliest used by Nashville’s first TV station. Channel 4 began operation on September 30, 1950.*



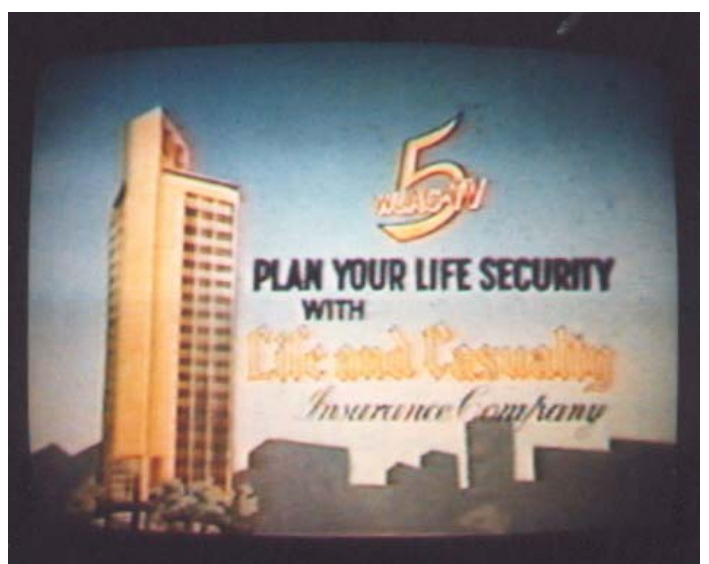
*Both WSM-AM and TV were owned by the National Life and Accident Insurance Company; whose “shield” logo was prominently displayed wherever possible.*



*There’s an interesting twist to the story of this ID. It was one of the very first COLOR slides ever created by the station, and hit the air in black and white long before a color film chain had even been ordered. The huge call letters are a Dixer’s dream. Not so for the city and state.*



*The Nashville stations had a bad habit of omitting information on ID slides. This one, for the city’s third TV outlet, didn’t list the city and state. While WSIX-TV (originally on channel 8) was Nashville’s second TV station, it wasn’t as heavily funded as channels 4 and 5. That, combined with its affiliation with the fledgling ABC network, dropped it to third place in the market. Sorry, but I couldn’t locate any old channel 8 visuals that would print up well enough to be worthwhile.*



*This was among the first color IDs aired at WLAC-TV (now WTVF). It bears a similarity to the channel 4 IDs insofar as it also plugs its parent insurance firm, Life and Casualty Insurance Company of Tennessee.*



# Tropo & Long Haul Ducting Notebook

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BOB COOPER

Experience with ducting tropo has taught us many things including the relative thinness of a "duct" whether it is over water or over land. Practical reports from Fernando Garcia and others in our hobby, and hundreds or thousands of ham/amateur operators using over water paths such as the Gulf of Mexico (Fernando), over the Pacific (Hawaii to western coast line of North America at frequencies between 50 MHz and 10 GHz) have clearly focused on the very physical constraints of ducting. The duct extending between two points may be as narrow vertically as tens of feet, more often hundreds of feet and rarely approaches a thousand feet in vertical height. Picture a duct as a "river of air" in the lower atmosphere. It has length (from near the transmitter to the distant receiver), it has width (like a real river) and it has height (depth in the case of a river).

It is a pipeline - something very physical with invisible sides. As soon as your antenna is placed within the boundaries of the duct, there are signals whereas just a few feet/meters higher or lower than the duct's invisible upper or lower sides there are no signals. Anecdotal evidence supporting this "image" of a duct is everywhere - Fernando gets into his car during a ducting opening across the Gulf, turns on the FM radio and drives up and down from his 1800' MSL location. In both directions after relatively small changes in elevation the ducting signals are gone. Hams south-west of Los Angeles in the Palos Verde Hills (elevations to 1,000') get into their cars, turn on their mobile rigs and immediately upon reaching Crest Road (the name says it all) in Rancho Palos Verdes immediately hear strong signals from Hawaii in the 144 and 420 MHz amateur bands. Reducing their elevation by a few tens of feet loses the signals entirely. Planes leaving San Francisco's International Airport as far back as the 50s found that as they came to around 1000 feet altitude, the Honolulu 120 MHz air traffic control frequencies came through loud and clear while they were still over the coast and the Golden Gate Bridge. As they turned and headed towards Hawaii, by 2,000 to 3,000 feet the signals disappeared and were not heard again until they were within more "normal" range of Honolulu.

There are two "rules" that govern long haul ducting DX: (1) There has to be a duct, and, (2) Both ends of the circuit must be INSIDE the duct. The transmit end is harder to quantify because (FM) radio and TV transmitters have varying amounts of radiated output at different angles with respect to their horizon. At the transmit end, broadcasters (as different from hams) have considerable power and as often as not, their height AAT (above average-local-terrain) may approach 2,000 feet. The transmit end signal can couple into the duct by (1) having the antenna within the physical vertical confines of the duct, or as happens more often, (2) by "radiating" some of their considerable power at an angle that intercepts the duct. When the latter occurs, the signal becomes "trapped" in the duct (invisible pipe) and is transported to some distant point. Even antennas close to the ground (such as LPTVs) with suitable low angle radiation patterns to their horizon can "couple" into a duct.

The receive end is far more dependent upon being inside the duct. Signal does not "couple out" as it can under some circumstances "couple in". But it might (this is a theoretical "might") be "bumped out". Consider the reported reception of channel 6 audio (87.75 MHz) from the eastern USA in the UK. When a signal is trapped by a duct and transported to a distant point, under normal circumstances the only way to "get it out" of the duct is to stick your antenna into the duct. However, the duct is routinely penetrated by large mechanical contrivances with hundreds of square yards of solid metal reflecting surfaces; the air plane. Air planes descending or ascending through the ducting layer would encounter the distant signals just as the planes leaving San Francisco do routinely. This large, moving, metal reflector becomes a re-aiming device for a few seconds when its path aligns between an on-ground observer and the duct confined signal. Think of it as a billiard shot off a side cushion. The signal after traveling a couple of thousand miles at ducting altitude is momentarily interrupted by a flying reflector which redirects the signal downward to a waiting listener/watcher on the ground. The angle of the plane's ascent or descent must match the incoming angle of the duct signal (duct to reflection point) as well as the reflection angle must be correct for the return that carries the signal from the reflector to the ground observer. The plane if it were higher would NOT receive the signal if higher meant it was out of the duct; the plane must penetrate the duct and momentarily "catch" the signal for the reflection to ground

to occur. The odds of all of this happening at a time when the ground observer just happens to be listening on a suitable frequency (87.75 MHz in the British case) are someplace up there with winning lotto – but still possible.

The nexus here is #2 - "the receive antenna must be inside of the duct" - setting aside the airplane reflection scenario. If we "believe" the duct height is more often than not in the region of 1,200 to 2,000 feet AAT then if one wished to test for the frequency of ducting reception over a particular path, one would place the receive antenna somewhere within these two easily confirmed heights.

AAT. Above average terrain is a somewhat sloppy measurement because "average" terrain is a mathematical equation used by broadcasters to justify their requested tower height. What we are after is more simplistic than that - we want to know how high above ground at OUR house the duct is located. The answer is the height varies. If we wait around long enough, for a very small percentage of the total elapsed time of duct formation above us, that height will come down and find us - it will drop to ground or almost ground level. Anecdotal evidence suggests this happens more often when the entire (as in every mile of) the path is over suitable water (such as the Gulf of Mexico). Ducting elevation (AAT which just happens to be water level across the Gulf) goes up and it goes down, a function of the particular weather conditions at the time of duct formation. But for any given path (such as Nova Scotia to south-western Ireland) it has a "mean" or "average" height AAT.

Think of the height AAT as a percentage of the time it "rests" between two boundaries: One of these is ground (water) level, and that is fixed. The other is relatively unlimited - it might go as high as 30,000 feet although 10,000 is more realistic. For some percentage of the time while a duct exists it will have a mean height AAT someplace between 1,000 and 2,000 feet. For a much (much) smaller percentage of the time it will have a AAT below 1,000 feet. Enter Bob Seybold's "DXing site" in the foothills south of Dunkirk near Fredonia, New York. There are elevations between Bob's Dunkirk home and Jamestown which reach above 1,000 feet (ASL - above sea level). At home, Dunkirk is 600 feet ASL. There are ridges between Dunkirk and Jamestown that approach 1,700 feet. Twenty, thirty years back Bob discovered that when "tropo was up" he could "head for the hills" and encounter an entirely new set of much longer reception distances. He was putting his antenna "and himself" inside the lower boundary of the duct. His at-the-time record breaking reception of Texas VHF and UHF channels was his reward for getting into the duct. Being at two AAT/ASL elevations and receiving two entirely different sets of DX signals is often reported but seldom clearly understood by the observer. When Doug Smith and Tom Bryant (both Nashville) are into a tropo ducting exercise, it is not unusual for one of the two to have a totally different set of signals than the other. They have (for Nashville) significant elevation (AAT) differences, which simply means one is in one duct layer while the other is in another (different) duct layer - simultaneously.

Returning to the British reception of a few fleeting seconds of 87.75 MHz audio from the USA, suppose you wanted to make a real effort to break across the Atlantic on VHF (or UHF - as often as not the UHF signals will be stronger than the VHF - a function of the "resonance or natural properties of a particular duct). What would be your best shot at this?

First, pick your time to coincide with rule number one - "There has to be a duct". That suggests sometime between mid-June and mid-October but the real proof will be after it is first verified. Here having the assistance of meteorologist Bill Hepburn would be essential. Second, pick a spot where your natural AAT is likely to be within a duct. Third, make very-very sure that location is as close to water (the Atlantic) facing North America as possible because any land mass between your chosen location and the water will create land and sea breezes which have the potential to break up the duct just a few miles short of your selected receiving location.

Past attempts to "land" North American signals in the UK or Ireland have been done at or very close to seaside (0 feet AAT reference the water). That's the wrong location unless you are fortunate enough to catch a duct that has "settled" down to sea level (which in ducting terms occurs about as often as sporadic E goes as high as American channel 13). Remember rule 2 - "The receive antenna MUST be inside the duct". You could well be at the right place and at the right time - and be missing the duct by a few tens of feet. Bugger (a New Zealand colloquialism that roughly translates - "damn!").

Spend some time with maps that define topographical features. Compare elevations (as great as 1041 meters or 3417 feet ASL) in the south-western corner of Ireland between Bantry and Tralee; in south-west England (Cornwall) there is 429m/1408 feet near Launceston ("Brown Willy"), 519m/1704 feet ("Dunkery Beacon") near Minehead - where by the way Arthur C. Clarke was born. Pick a site that is as close to the Atlantic as possible (Dunkery Beacon fails that test looking towards North America), that you can get to. Preferably - this is ideal and probably not realistic - you can drive from 0' ASL to the top with your FM car radio tuned to an appropriate frequency and actually find the best height ASL for that particular duct at that particular point in time. Be warned - ducts move up and down (ASL) constantly, sometimes quite rapidly (over tens of minutes in time). The spot you find best one hour may be dead the next because the duct has gone up or down on you. Signals that "pump" (have rapid fading/QSB) at the beginning of an opening are a good sign, signals that have slow rolling fades during an opening are a good sign, signals that "pump" late in an opening foretell the end of the duct or a significant change in the duct path to a new region on the opposite or your end.

The hams have established a yet to be awarded trophy for the first stations to "cross" the Atlantic on 144 MHz (2 meter band). There have been reports of detecting very briefly a ham beacon (continuously transmitting CW station) from northeastern Canada in the UK. "Very briefly" is often explained as "double hop" meteor scatter - something that would fall into the same percentage of occurrence as sporadic E at UHF TV band (never reported). More likely, the same mechanism that produced a few seconds of 87.75 MHz reception in the London area from the eastern USA was responsible - a duct re-enforced by an ascending or descending reflector surface (air plane). A serious amateur effort would place suitable 144 MHz equipment at "duct elevation" at BOTH ends of the circuit - say one of the ridges in south western Ireland already mentioned in the UK and perhaps "White Hill" in Nova Scotia (elevation 1747 feet) on the western end. And then wait for the duct to form!

(There is a tendency for atmospheric air currents to run SW-NE because of the constant rotation of the earth. This strongly suggests that ducting "streams" within the atmosphere will over considerable distances follow the same SW - NE pathway. While there might well be a stable high pressure region laying across the Atlantic between Nova Scotia and Ireland/UK to make ducting occur, my intuition is the best shot and most frequently occurring path will be not from Nova Scotia but rather much further down the coast - say North Carolina to New England on the western end. We'll obviously see whether my intuition is correct after we have the first few true examples of transatlantic ducting.)

Closer to home, while most of the attention has focused on over water paths - those that are most likely to create ducts a reasonable percentage of the time - there are plenty of DXing opportunities ala Bob Seybold's adventures in his foothills. I will identify a few locations where a "DXpedition" would be very productive if conducted at the most appropriate time(s).

1) Western Arkansas: Along old highway 71 in vicinity of Mountainburg - to 2450' ASL on a ridge that looks west, SW and NW - should be suitable for ducts across the plains to the Rockies as well as down to the Gulf. Not suitable to the east except during a major tropo opening because of irregular terrain in that direction.

2) Central Arkansas: Magazine Mountain (2753') near Havana (Ark) and Caulksville. Road to the top - I've been there. From this site, ducting to SE, S and SW would be excellent because AAT falls very rapidly in those directions. This is the spot to be when Fernando is reporting ducting from his end into the mid south and southeastern USA.

Those attending this year's annual conclave in Yukon, Oklahoma might consider some side trips to one or more of the two just mentioned locations, or number 3 to follow.

What you want is not a tall peak surrounded by other almost-as-tall peaks. A tall peak surrounded by other lesser peaks creates updrafts and turbulence in the lower atmosphere. Turbulence breaks up (kills) ducts, which is why general tropo is always better when under the influence of a high pressure area you have dead calm winds just after sunset or just before and during sunrise. "Morning" or "evening" tropo during the warm weather months is related to ducting except for much shorter distances.

3) In southeastern Oklahoma, between Mena, Arkansas and Poteau, Oklahoma, several peaks to 2400' plus including something called "Alimena Scenic Drive" which some maps show as "Highway 1". The bad aspect of this one is there are numerous peaks over 2,000 feet close together and the lower atmospheric turbulence would have to be balanced against the peak chosen and the direction you wanted to concentrate upon.

4) South-eastern Missouri- many up to 1772' (Taum Sauk Mountain off highway 27 north of Glover). This one might be productive to the west, north and north-east - assuming you can get up there!

You are trying to get "into the ducting layer" which typically is at least 1,000 feet above average terrain. The total height ASL may not be great- it may not have to be if you can select a spot where the height is sufficient to reach into the duct, and, you have a clean and clear shot in the desired direction(s) with no terrain that protrudes into the ducting elevation(s) in that direction or directions.

5) Alabama - Cheaha Mountain, 2405', north-east of Talledaga. Unfortunately when you have a distinctive geographic feature (such as Cheaha Mountain), the chances are pretty good that (1) Somebody has put one, a dozen, ten dozen medium to high power transmitters at or near the top, and/or, (2) it is inside of a park or reserve area and the only way to reach the top is to hike - not conducive to hauling along large antennas.

Being "high" is not usually the best choice for "ducting". Getting "above" the layer is one aspect - but even more important is the turbulence effects of lesser peaks that surround a tall point. For example, the Appalachians in Virginia have many accessible peaks in the 3,000 to 4,000' ASL range; Skyline Drive-Ridge Parkway allows access. But nothing really "sticks out" all by itself. Think of being in Iowa and having a 2000 foot tower (as some TV stations do) with a track on the side which would run the receive antennas up and down the side of the tower to locate the height of the duct. The tower is 2,000 feet AAT, and someplace between 0' AAT and 2,000' AAT there is a duct. Now put that same tower in a valley with 1700 foot ridges all around. The top is now 300 feet higher than the surrounding ridges, and more important, the ridges create updrafts that send air upward into the lower atmosphere to bust up the formation of ducting. Out in our mythical Iowa location, there is nothing surrounding the tower to bust up the ducts with updrafts.

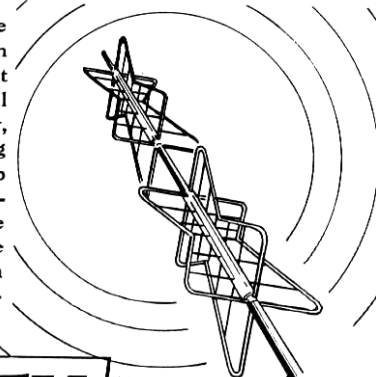
The highest point in Mexico is 18,406' in a sharply rising peak almost on the coast between Vera Cruz and Puebla. Straight down hill east past nearby Vera Cruz is the Gulf. Seemingly this would be one heck of a location to go east - almost for ever. Setting aside the problem of getting up there (and the secondary problem of frost bite!), such a location violates the "second rule" of ducting DXing - "stay inside the duct". Fernando has a 10,000 footer with a drive-to-top he wants to explore. My prediction is he will (1) find it laden with high power transmitters, and, (2) he will be above virtually all ducting.

Finally, this note. DXing is a sport of being at the right place at the right time. Chances are your home is only in the right place a very small percentage of the time. It is location, location, location as they say in the real estate biz. Look around you within a comfortable drive time - there could be one or more really fabulous spots for this aspect of DXing just waiting to be put to use!

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*On or Before October Third*  
**WMAL-TV**

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**From the Televisor Courtesy of Bob Cooper**



## METEOR SHOWER GUIDE

Here's a list of the meteor shower activity during the month of May. This time we find only one shower that peaks in May, and this is at the end of the month. Good luck!

<u>SHOWER</u>	<u>RUNNING DATES</u>	<u>PEAK DATES</u>	<u>TYPE</u>
Chi Scorpiids	May 6 – July 2	May 28 – June 5	Minor
Omega Scorpiids	May 19 – July 11	June 3-6	Minor
Arietids	May 22 – July 2	June 7-8	Minor
Tau Herculids	May 19 – June 19	June 9-10	Minor
Theta Ophiuchids	May 21 – June 16	June 10-11	Minor
Zeta Perseids	May 20 – July 5	June 13-14	Minor
Ophiuchids	May 19 – July 2	June 20-21	Minor

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## **MORE Q & A** STUFF YOU ALWAYS WONDERED ABOUT

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Q. What's the difference between uv(microvolts) and dbf sensitivity measurements?

This is the best definition of dBf I have on hand:

dBf = referenced to 1 femtowatt or .2739  $\mu$ volts into a 75 ohm load (lower  $\mu$ V for a 300 ohm load). Most stand-alone tuner specs are based on 300 ohm loads. What about car radios? Many seem to have almost unbelievable sensitivity ratings.

The "unbelievable" car stereo specs are probably 75-ohm. Double them for the 300-ohm equivalent.

For the relevant range of usable sensitivity, 1.5uV is 8.7 or 8.8dBf. 1.6uV is 9.3, 1.7 is 9.8, 1.8 is 10.2 or 10.3, 1.9 is 10.8, 2.0 is 11.2 or 11.3.

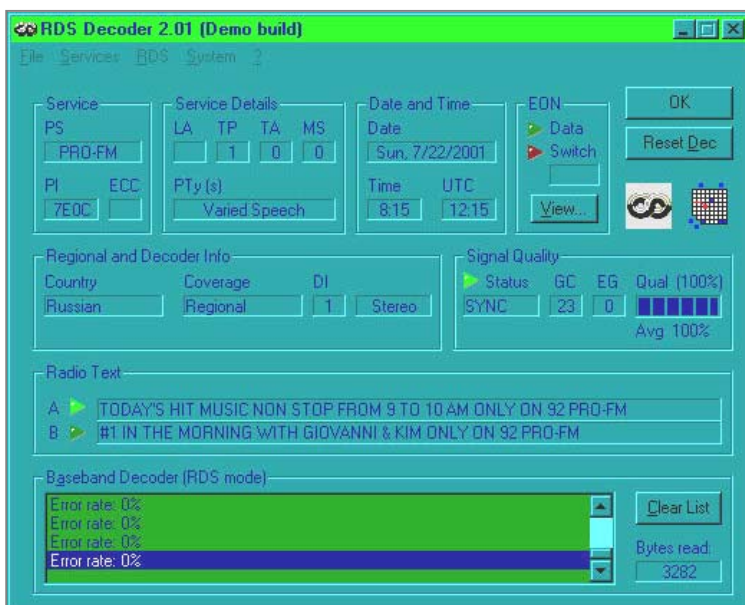
Get a Yahoo login if you don't have one, and use this chart:

<http://groups.yahoo.com/group/FMtuners/database?method=reportRows&tbl=1>

It's a database with specs of most top tuners and some receivers. You can probably extrapolate from the numbers in the chart to calculate others.

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## **RDS SCREEN CAPTURES**



The Conrad RDS Manager has optional computer software available to enable you to see stats you couldn't see on your RDS Manager LCD display. The graphic on the left was taken by Keith McGinnis and shows a screen shot of WPRO-92.3 in Providence, RI. Under "service" we see the PS code (PRO-FM) and PI code (7EOC). The date and time is also shown as well as RDS strength. The screen also shows two lines of radiotext broadcast by WPRO-FM. Program type is shown, but is not completely accurate with this European software. Other features are available but not used in the United States.

# The Last Page



Our first photo this month was submitted, in a round about way, by Bill Nollman. Actually this photo and others were posted on Bill's website for friends and relatives to view. I took this shot to post here.

This is Bill's daughter Emma. Emma was born in March at Hartford Hospital and is the main reason Bill was hanging around the WTFDA list so much and not on the road like he has been much of 2001.

My wife Evelyn got to hold Emma, and when I looked at my wife I knew exactly what she was thinking.

Congratulations to Bill and Lisa and Emma! She's a beautiful girl!

Here we have an antenna that I find familiar. It's an APS-13 located at the home of Mitsuhiro Hukunaga in Japan! Mitu is a long-time WTFDA member and eVUD reader. I found this photo one day while browsing Mitu's website.

I'm going to tell Ed Hanlon about this photo when I talk to him again. This picture will really warm his heart.



Here's a photo sent by Mike Hawk. Look at all those towers! Does this look familiar, Kevin?

This is Telegraph Pass just outside of Phoenix, Arizona.

If time allows we'll show you more next month. If you have anything interesting, send it to me. If you have any comments or suggestions for this space, let me know. I'm open to ideas!

Hope you've enjoyed the eVUD. If you have, tell your friends about it. See you in June!

## Sign Up/Renewal form

Name \_\_\_\_\_

Address \_\_\_\_\_ Apt # \_\_\_\_\_

City \_\_\_\_\_ State/Prov \_\_\_\_\_ Zip \_\_\_\_\_

Country \_\_\_\_\_ Interests: TV ( ) FM ( ) 30-50( ) Weather( )

email address \_\_\_\_\_

Sign me up/renew me for: 1 year ( ) 2 years ( ) More ( )

Yearly dues \$24 to US addresses, \$26 to Canada and Mexico  
\$38 to the rest of the world (payable in U.S. Funds)

**Mail your dues to: WTFDA, P.O. Box 501, Somersville, CT USA 06072**

**Make your checks/money orders payable to: DAVE JANOWIAK**

**And *thanks* for your support of the WTFDA!**

Return this form with your dues or make a copy of it and return that.

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*Send your reports and station info to these folks.*

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**Please Remember To Make Your Renewal Checks Payable to Dave Janowiak**  
**Checks made payable to WTFDA may be returned and your renewal may be delayed.**