

The Worldwide TV-FM DX Association

Serving the VHF-UHF Enthusiast



VHF-UHF DIGEST

E-ZINE VERSION

FEBRUARY 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.

CHECK THIS LIST!

In order to keep your VUD arriving at your home without interruption, look for your name on this list. Your membership ends on the last day of the month shown. Renew *early!*

February

Frank Merrill	John Zeis
Jeff Wolf	Dan Cashin
Steven Cornell	Dan Dankert
Nathaniel Ely	Paul Hansen
Harry Hayes	James Nahirniak
Ray Leko	Clay Autery
Morris Sorensen	

March

Edward Cotton	Aaron Mitterling
Bill Draeb	Gerard Hart
Bill Dvorak	Thomas Leu
Pat Dyer	Jim Pizzi
Carlton Howington	Joseph Smith Jr
Scott Steenhusen	Richard Steinberger
Phil Sullivan	Peter V. Taylor
David Cox	Allan Dunn
Frank Drobny	Dave Nieman
Ryan Grabow	William Hepburn
Paul Crego	Luis Franceschi
Joseph Kureth Jr.	Alex Cruz

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Eastern TV DX - Matt Sittel
Time Tunnel - Tom Bryant
WTFDA On-Line - Saul Chernos
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This month we continue with Mike Hawk's article on E skip, Saul Chernos returns with more on-line goodies, Doug presents his year 2001 E skip analysis and Fred Nordquist delivers his FM Statistics. You'll find this and much more in this issue of the VHF-UHF Digest.

Although we try, we cannot guarantee that every column appearing in the paper VUD will appear in this electronic edition.

WTFDA CONVENTION 2002

JULY 26, 27, 28 in OKLAHOMA CITY, OK

WTFDA's 2002 Convention is coming to the heartland! Make your plans now to attend! Our host motel is the Hampton Inn, located at I-40 and Garth Brooks Blvd in Yukon, OK. The rate is \$55/night (1 King, or 2 Queen sized beds, 1-2 persons). There's free breakfast, chocolate chip cookies and milk at night. Plan a vacation in Oklahoma City around the WTFDA Convention. We have SO much to offer!

If you have internet access check John Zondlo's Convention 2002 webpage at:

<http://members.aol.com/fmdxweb/wtfda2002.html>



The Mailbox

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

FFEBRUARY 2002

Hello! How was your January? I hope you didn't suffer with the flu and bronchitis like I did. It seemed that just about everyone had caught something in January. Speaking of 'catching', I hope you were one of those who caught some of that TV Ch2 F2 back on December 29th and 30th. It was completely unexpected but very welcome even if we didn't get any positive IDs. And E skip even made the rounds once or twice. Evening skip was noted on January 4th (a Friday night) in many locations in the United States. But as of the middle of January rolled along we seemed to be back in the winter doldrums once more.

MEMBERS AND MORE

This time we say hello to some new folks. From Lexington, KY we welcome **Girard Westerberg**. Girard is an engineer for a bunch of C.C. stations in the area and has what must be the only website with a DX webcam available for immediate viewing anywhere on the internet. Next we say welcome back to **Charles Gauthier** from the Montreal area. Some of you may remember that Charles was with us back in the 80s. He's back again and chomping at the bit to ID new NWS weather stations. And finally hi to **Adam Rivers** in Chicopee, MA. Adam is a youngster very interested in radio and Dxing.

Are have two new Associate Members this month. **Humberto Molina** of El Salvador is on our WTFDA list for the year as well as **Glen Hale** in Georgetown, KY. We now have 12 Associate Members on the WTFDA list.

Once again we have a bunch of renewals with dues received from **Lenny Goldberg**(OR), **Ed Norris**(IN), **Melvyn Larson**(MN), **Bruce Hall**(ON), **Tom Yingling**(MD), **Gary Olson**(FL), **Lawrence Marecki**(OH), **Ken Onyschuk**(IL), **John Jefferson**(WA), **Jon Erdner**(PA), **Eldon Geiman**(PA), **Paul Hansen**(MA) and **Steve Chudoff**(PA). Thank you all. We're glad you're here!

THE CYCLE'S NOT OVER YET

The lead paragraph of *The 50mhz DX Bulletin* reads: 'While December's totals aren't quite as impressive as November's, they are impressive. On the west coast of the USA in December and January of previous years the F2 layer DX almost went away. This year we've had almost daily openings to east coast USA. What will the spring bring us? Keep your fingers crossed. This solar cycle's not over yet.' So be prepared for F2 skip on ch2 again. You never know!

ROTORS AND MUCH MORE

Rich Wertman wants to tell you that he has just bought out 3 large west coast warehouses and he has *bargains, bargains and more bargains!* These bargains include antennas and associated electronics. And those of you who had rotors what went kablooy will be interested to know that Rich has found a bunch of CM 9515 RC rotors that are brand new. These include a box that has 99 programmable memories plus remote control. Rich's price is \$139.95 plus shipping. You need to email Rich at rwsvinc@localnet.com or write Rich at 6150 Crosby Road, Lockport, NY 14094.

HE'S GOT BRAGGING RIGHTS

Rick Shaftan has occasionally mentioned how good he thinks his RS STA-2280 is. Ed Hanlon recently found one on eBay and decided to find out how much hot air Rick was full of. Ed wrote Rick 'After a while I decided to ante up the big bucks for a 2280 off of eBay. I gave it to Don (Scott) for mods' anyway the mods are done' and I spent most of yesterday afternoon doing tuner comparisons. The results? The STA-2280 is the best receiver/tuner I've ever seen.' So it appears that Rick has one heck of a tuner and that there was no hot air involved whatsoever.

Have a good February everyone, keep well and we'll see you all next month -Mike

-----ASK WTFDA-----

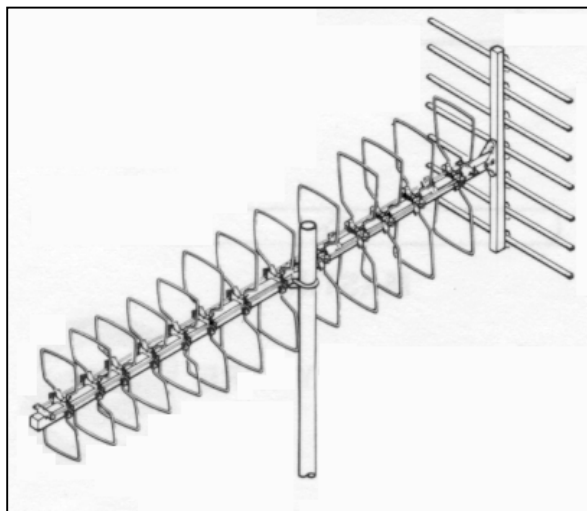
Q. What is a Passive Wave antenna and is one manufactured commercially?

A. This passive wave UHF antenna is really nothing new, though few people have ever heard of it. I want to say right now that this is a product that my company sells and will be prominently displayed on our website. That said...

This loop antenna has no driven elements, or you might say they're all driven elements. The boom is horizontal like a C/R yagi, containing descending size loops above and below the boom. A solid aluminum rod runs down both sides of the boom, coming close to but not touching the ends of each loop.

Unlike C/R yagis, the passive wave antenna has amazing bandwidth. I've installed several of these antennas, and shipped several more to customers, and everyone loves them. This antenna does not have the greatest F/B, it's around 20 dB, and that isn't bad. It's very light, and easy to stack. - Ed Hanlon

Specs and advantages of the U-92: 14 dBd gain, Front-To-Back Ratio: 17 dB, Impedance: 300 Ohms. Patented passive wave design allows more elements to effectively couple than standard designs. Conductive properties are sustained over time - corrosion is not a factor. Compact design allows for easier installation and adequate spacing from VHF antenna. More than one antenna may be stacked efficiently due to horizontal design. Low wind resistance compared to 4-bay, 8-bay and parabolic designs. Gain is maintained across the entire band (no other UHF antenna can make this claim)



The Passive Wave UHF Antenna

Q. What do I need to pick up those 1,000 mi Tropo ducts I read about?

A. A lot has to do with location. Since tropo is weather related, it helps to be in favorable locations ñ those with largely warm water paths are best. And flat land (plains) are also good during humid/stagnant weather. That is not to say it could not happen in your location. As for gear ñ I think you'd almost definitely need a highly directional yagi or parabolic dish to get much beyond 500-700 miles in your area. The reason is there are so many stations that you'd likely need to null out closer interference. And the higher you mount it, the better. Most long range tropo ducts are elevated ducts.



It happened Sunday morning, December 30, 2001, around 9 am. What began as a report of E skip in Kentucky on the WTFDA list began to turn into "the event" of December 30th.

I got out of bed around 8:30 AM and turned on the television looking the Weather Channel. I flipped the channel over to ch2 (WFSB-3) and right away I noticed some odd CCI on WFSB. This could only mean winter E skip. I went downstairs to watch off-air TV and punched in channel 2, which is usually empty unless WCBS is up. What I saw is something I don't see on ch2. Yes, this was skip, but was not the E skip we know so well. I turned on

the nearby computer and went to the Topica website to check the postings for reports of skip. Here is what I read:

At 9:15 AM EST - I'm seeing strong Es on channel 2. Seems to be coming from the south / southeast. Too much CCI to get any IDs. So far nothing higher than channel 2. Girard Westerberg Lexington, KY

0933 Funny you should mention F2 on ch2 Joe because da*n it looks like F2 to me..all smeary and the CCI is NOT like E skip. This is NOT your usual E skip. I noticed it on ch3 on cable a little while ago...very odd CCI and now I have it on my 13" Sanyo...but just ch2. Mike Bugaj - CT

0937I have Spanish(!) audio on ch2 right now. - MB

F2... I agree! There IS a picture there, but I'm not sure it's even NTSC. I've tried several different video modes, and still haven't been able to pull anything meaningful out of the mess yet. - GW

Hi Guys: Spanish on Channel 2 at 0945 EST.....Possible Childrens or Cartoon Show. Audio is Good at times..But Video is all messed up..... F2???? Doesn't look like a US Station to me????? 73...ROB. Robert S. Ross VA3SW

0955 This is intense. I had some video break thru and took some photos. Definitely two people standing...a logo in the lower center of the screen...extremely intense cci sometimes with 10 dark bars running across it. My upstairs tv..hooked to cable...has CCI on ch3 but not this tv. I love this. - MB

I'm not sure what the propagation mode is but 50MHz is WIDE OPEN to the Caribbean. P49MR, Aruba is bombing in on 50.190, WP4LNY Puerto Rico in well, and a

station with a Latin American accent and an allergy to identifying on 50.257. I have the CCI on channel 2 as well. - Doug Smith, TN

Similar here with no audio on the ICOM although my gut is telling me it is a minus offset coming in here in NW NJ. - Rick Shaftan NJ

No audio on the Icom here either but I agree that it seems to be minus offset as something is ripping apart WGBH audio on that offset. - Keith McGinnis, MA

I have Es on 2 right now with Channel 2 being the only channel effected so far. Quite intense CCI for the last half hour or so. Hope this builds up into the other channels! -Aaron Mitterling, IN

10:55 Whatever this event turns out to be, it covers alot of territory. I get CCI from it when I aim at WGBH-2, start swinging back toward the south and it peaks South or just east of south, then finally begins to fade when I get to SW. I've had video, very smeary, ran out of film and found another roll. - MB

I've never seen F2 before, but this is a *weird* looking mess of lines I'm watching. Can't figure out which direction it peaks, as it seems to be strongest to my ENE... -Matt Sittel, NE

Pretty much the same experience here in Kentucky. The signal peaks when I'm aimed southeast (right at 120 degrees), but the peak is fairly broad. I've had pictures break through several times, and it looks like a rapidly changing assortment of signals. Right now I've got a guy singing and a female dancing. Best pix yet. There

is a logo in the lower right hand corner, but I sure can't make it out. -GW

I agree, definately peaks at south very messy. - Bill Nollman, CT

Well, it's 11:10...and it's gone completely. I imagine Jeff K. had his TV on so I'm waiting for some analysis on this one. This opening was IMO mind boggling. - MB

I am copying---and calling without success!---SP9HRD in Poland on 50 MHz!!!! This is one hell of an opening! Harry Helms, CA

At 11:05 AM EST - Whatever it was suddenly vanished. I did capture a couple of frames which I'll post on www.DXFM.com. There isn't much to see, but perhaps someone out there might recognize the video. - GW

...but it stayed in until 1030 CT. The F2 stuff seemed to become regular skip, with ABC on 2 noted and then something almost due north that I couldn't ID, with phone number written at bottom of screen. Then that was completely gone right at 1030, almost like a light switch it was off. -Matt S.

The "funny CCI" mentioned was seen here as well, also only in channel 2. even though channel 3 is pretty much open here) The CCI was intense even with the antenna pointed southeast - right through my local. Es is rarely capable of that. Unfortunately the local guaranteed there would be no chance of identifying the TV signals. A F2-propagated channel 2 carrier was heard on 55.25. (my local is on minus offset, 55.24) -Doug Smith

What a neat event! I caught the weird CCI and strong horizontal bars this AM too. Never got any audio except "noise" but saw some really difficult to make out video...almost underexposed or very dark. Definitely wasn't aurora. I have witnessed F2 on TV only one other time and that was back in early 1981. I think what I saw here today was probably F2 based on its fading, MUF, and non-American CCI and the posts I have been seeing. - Dan Oetting, MD

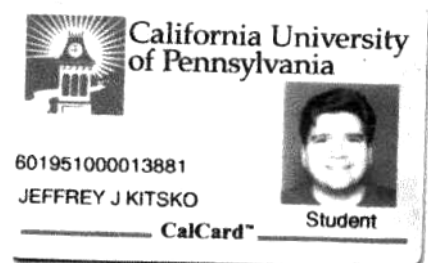
Anyway, had the same CCI here in WNY as everybody else did. It didn't really seem to have a "peak" direction, maybe SW or NW. Seemed to be in all directions. No

picture or audio as the local CH2 is very strong. - Guy Falsetti, NY

Strong F2 today from TI, YV, P49, KP, HK,HP into central Ohio on 6 meters. Strongest I've seen in years. Also, strong Spanish station(briefly) on CH.2 at about 1545Z. No sign of any signals on CH.3. F2 gone by 1715Z. - Joe Perge, OH

Today has been one of those days that make you understand why you're in this crazy hobby! It was fun; the F2 was very localized to certain areas and the path "moved" southward and then to the north. -Harry Helms, CA

All of the web site descriptions I read describe F2 perfectly. If you take the reporter locations and draw two arcs on a map for each at 2,100 and 2,400 miles you should find intersections where different location arcs overlap. I suspect although I have not done this you will quickly see to the SE- for all involved - arcs that intersect from San Juan (channel 2) through Caracas (channel 2). Most would over the period of the event have had two or more ch 2 video stations received. The lack of antenna directivity is explained by two factors: (1) The signals were very strong, and more important, (2) the elevation angle of arrival was quite high ñin vicinity of 15 degrees up. Thus the directors and reflector on your antenna were NOT in line with the dipole/driven element and as you rotate the antenna they are simply "not there" which means it is the dipole alone that is doing the work (the signals were coming in on a plane higher than the director/reflectors so the dipole was "bare"). With so many Dxers participating and so much film being shot, I would expect our super sleuths to sort out which stations in short order! - Bob Cooper, NZ



ARE YOU IN SCHOOL?

If you are, your membership dues are just \$15.00 a year!

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
DE	Station deleted	QC	Channel change on the air
FC	Programming (format) change	QG	Channel change granted
GA	Granted amendment to the table of allocations	QR	Channel change requested
LC	License to cover (for changes or new station)	SI	Off the air ("silent")
NO	Not on the air	XC	Transmitter site change on the air
NS	New station granted permit	XG	Transmitter site change granted
NW	New station on the air	XR	Transmitter

News:

Alaska:

Bethel 25 K25HK NS 0.62kw,
 60-47-33/161-46-22, KYES-5
Fairbanks 24 KUAC-DT NS 69kw/163m
 Homer 7 K07PF PG>3kw,
 59-27-15/151-40-26
Juneau 6 KTOO-DT NS 0.75kw/-324m
 Ketchikan 25 KJMW-LP to go SI after the Super Bowl
 Kodiak 11 K11UQ XG 57-48-04/152-22-55

Alabama:

Birmingham 30 WIAT-DT PR>426m
33-29-04/86-48-25
 Dothan 25 WDOL-LP PR>150kw,
 31-13-40/85-21-06; CC from
 W25CX

Arkansas:

Little Rock 5 KETS-DT QG from ch. 47,
2.1kw/531m
 Little Rock 20 KKYK-LP PG>150kw
Mountain View 13 KEMV-DT QG from ch. 35,
20kw/407m
 Newport 27 K27GU NS 10kw, 35-40-04/91-14-57
 Prescott 19 KBZZ-LP QG from ch. 13, 28kw,
 33-25-45/94-07-11 in
 Texarkana. Transmitter may
 be in Texas.

Arizona:

Douglas 3 KBGF FC to Univision
Flagstaff 13 KDUO FC to Telefutera; CC to
KFPH
 Many Farms 49 K49ET QC from K69AF, 4.07kw
Phoenix 17 KPHO-DT PR>940kw
 Phoenix 39 KONL-LP FC to Telefutera
 Phoenix 43 K43GV QC from K31DI, 13kw
 Phoenix 58 KPHZ-LP PG>23.6kw
 Phoenix 64 KTVP-LP PG>45kw,
 33-19-58/112-03-59
 Tucson 25 KTAZ-LP FC to KBGF-3 (Univision)

California:

Bakersfield 4 KMMB-LP FC to Telefutera
 Bakersfield 52 KSUV-LP FC to Telefutera
 Blythe 31 K31FE LC 0.99kw,
 33-34-12/114-20-56, KPHO-5
 Chico 28 KKPM-CA PR>150kw
Concord 42 KTNC-TV FC to Azteca America
Corona 52 KVEA PR>907m,
34-12-48/118-03-41
 Idalia 24 K24EZ NW (?) 0.57kw,

Joshua Tree 17 K57EV QR from ch. 57, 0.11kw
 Joshua Tree 21 K59BM QR from ch. 21
 Lompoc 10 K10OG FC to Telefutera
 Modesto 27 KEXT-CA FC to Telefutera

California:

Monterey 23 K23EW LC 50kw,
 36-45-23/121-30-05,
 KSMS-67 Univision
 O'Neals 66 KHSC-LP CC from K66CQ
Ontario 46 KFTR FC to Telefutera
 Palm Springs 5 KEVC-LP FC to Telefutera
 Palo Alto 56 K56BR FC - sold to NBC
 Paso Robles 21 K21EX FC to Telefutera
 Reedley 13 KCWB-LP LC for PG>3kw,
 36-44-45/119-16-57
 Sacramento 49 KSAO-LP LC for PG>7.34kw,
 38-33-59/121-28-43
 Sacramento 60 KSTV-LP QG from ch. 53, 43kw
San Diego 10 KGTV LC for PG>229m,
directional antenna
San Diego 15 KPBS LC for PG>3310kw
San Jose 11 KNTV FC - sold to NBC
 San Luis Obispo 16 K16FC QG from ch. 15, 39.9kw
 San Luis Obispo 28 K28FK FC to Telefutera
 Santa Barbara 29 KTSB-LP FC to Telefutera
 Santa Maria 35 K35ER-CA FC to Telefutera
Vallejo 66 KFSF-TV FC to Telefutera; CC from
KPST-TV
 Victorville 49 K49GN QG from ch. 47, 964w

Colorado:

Anton 45 K45FD LC for QG from ch. 24,
 <0.48kw,
 39-51-17/103-20-38
 Anton 47 K47FT LC for QG from ch. 26,
 <0.48kw,
 39-51-17/103-20-38
 Anton 49 K49EX LC for QG from ch. 28,
 <0.48kw,
 39-51-17/103-20-38
 Anton 55 K55IB LC for QG from ch. 30,
 0.48kw, 39-51-17/103-20-38
Denver 35 KCNC-DT NW, 490kw/452m
 Denver 43 KTFD-LP CC from KUVC-LP; FC to
 Telefutera
Durango 20 KRMU CC (new)
 Fort Collins 52 KPXH-LP QG from ch. 17, 25kw
 39-43-50/102-28-56

Idalia	26 K26FP	LC for QG from ch. 52, 0.57kw, 39-43-50/102-28-56	<u>Massachusetts:</u> Marlborough	66 WUTF	CC from WFUB; FC to Telefutera
Idalia	28 K28FX	LC for QG from ch. 54, 0.57kw, 39-43-50/102-28-56			
Peetz	32 K32EX	LC for QG from ch. 60, 0.74kw, 40-53-31/103-13-45	<u>Maryland:</u> Salisbury	49 new-LP	app dismissed
Sterling	44 K44FL	PG<0.45kw; LC			
Sterling	48 K48DQ	PG<0.45kw; LC	<u>Maine:</u>		
Sterling	50 K50EE	PG<0.45kw; LC	Portland	15 WLLB-LP	CC from WLOB-LP
Sterling	52 K52EW	PG<0.45kw; LC	Portland	32 W32CA	PR>25kw, 43-44-38/70-20-05
<u>Colorado:</u>			<u>Michigan:</u>		
Wray	46 K46FF	LC for QG ch. 58, 0.62kw	Bay City	22 WNEM-DT	PR>960kw/275m
Wray	48 K48GA	LC for QG ch. 60, 0.62kw	Crystal	36 W36CW	QG from ch. 51, 539w
Wray	50 K50FJ	LC for QG ch. 62, 0.62kw	Crystal Falls	25 WUPT-CA	QR from ch. 9, 120.7kw
Wray	52 K52FZ	LC for QG ch. 64, 0.62kw	Houghton Lake	22 W24CG	QR from ch. 24, 47.6kw, 42-25-13/84-31-25 between Lansing and Jackson
<u>Connecticut:</u>			Houghton Lake	26 W67DN	QR from ch. 67, 100kw, 43-13-48/86-05-03 near Muskegon
Hartford	47 WUTH-CA	CC from W47AD; FC to Telefutera			
<u>Florida:</u>			Houghton Lake	49 W21BS	QR from ch. 21, 45kw, 42-17-17/85-09-54 near Battle Creek
Bradenton	18 WSVT-LP	PG>50kw, 27-56-48/82-27-26			
Coral Springs	44 WHDT-LP	QG from ch. 55, 15kw, 25-58-15/80-12-32	Lansing	6 WLNS-TV	LC for XG
Flemington	56 new-LP	app dismissed			42-41-19/84-22-35 & drop directional antenna
Gainesville	45 WYPN-CA	PR>50kw, 29-32-05/82-19-12	Lansing	59 WLNS-DT	NW, 1000kw/288m
Hollywood Jacksonville	69 WAMI 19 WTEV-DT	FC to Telefutera PR>291m, 30-16-51/81-34-12	Sault Ste. Marie	48 W48BZ	PR>10kw, 42-16-41/83-44-41 near Ann Arbor
Jacksonville	27 WWRJ-LP	LC for QG fm ch 38, 11.9kw	Traverse City	25 W25CU	LC for QG from ch. 19, 44-45-22/85-40-42
Jacksonville	42 WJXT-DT	PG>294m, directional	Traverse City	54 W54CR	PR>30.45kw
Jupiter	53 W53BS	FC to Telefutera			
Melbourne	43 WFUO	FC to Telefutera	<u>Minnesota:</u>		
Sebring	17 WOCX-CA	QG from ch. 5, 27.5kw	Alexandria	44 K44GH	NS, 0.65kw, 45-52-40/95-22-44, 3Abn
St. Petersburg	33 W33CC	QG from W24BF, 27-50-53/82-45-48			
Tampa	50 WFTT	FC to Telefutera	Bemidji	44 new-LP	app dismissed
W. Palm Beach	55 WPTV-DT	PG>900kw/387m, directional	Brainerd	48 new-LP	app dismissed
Williston	60 new-LP	app dismissed	Brainerd	51 new-LP	app dismissed
			Grand Marais	63 K63BI	PR<0.5kw, 47-46-04/90-20-47
<u>Georgia:</u>			Redwood Falls	46 K15CE	QC from ch. 15, 1.49kw
Athens	34 WUVG	FC to Univision	Redwood Falls	48 K21DJ	QC from ch. 21, 1.48kw
			Redwood Falls	52 K25DN	QC from ch. 25, 1.46kw
<u>Iowa:</u>			Redwood Falls	54 K34DB	QC from ch. 34, 1.46kw
Davenport	26 WBQD-LP	NW, 26kw, 41-28-29/90-26-45. Testing with color bars.	Rochester	58 K58GC	PR<29kw
<u>Idaho:</u>			<u>Missouri:</u>		
Boise	20 K20GS	QG from K10MY, 23.4kw, 43-44-23/116-08-14	Branson	17 K17DL	sold to KYTV-3
Boise	28 KBCI-DT	PR<89kw/858m, 43-45-21/116-05-54	Jefferson City	20 KNLJ-DT	PG<12kw
Coeur d'Alene	38 K20EM	QR from ch. 20, 12kw	Joplin	30 KCLJ-LP	QR from ch. 46, 140.8kw, 37-03-10/94-23-20
Coolin	39 K08JH	QR from ch. 8, 1.13kw	Kansas City	24 KCTV-DT	PR>820kw
Nampa	6 KIVI	LC for PG<51.8kw/858m	Kansas City	31 KCWE-DT	PG<332m
Nampa	24 KIVI-DT	PR>98.7kw	Kansas City	62 KSMO-TV	PG>5000kw
			Marshfield	17 K17FU	QG from ch. 68, 0.743kw, 37-17-51/93-00-26
<u>Illinois:</u>			Springfield	15 K15CZ	sold to KYTV-3
Aurora	60 WXFT	FC to Telefutera	St. Charles	59 K34BR	QC from ch. 34, 14.9kw
Bloomington	51 W51CT	PR<6.9kw	St. Louis	2 KTVINS	46kw/308m (aux. backup)
Moline	38 WQAD-DT	PR>334m; NW	Warrensburg	6 KMOS-TV	LC for PG>602m, 38-37-36/92-52-03
Quincy	18 W18CJ	LC for QG from ch. 40, 21.3kw			
<u>Indiana:</u>			<u>Mississippi:</u>		
Clarksville	45 WKQT-CA	QC from ch. 26; CC from WJYL-CA	Grenada	30 W30BY	QG from W25BA, 5.6kw
Evansville	59 WEHT-DT	NW, 59kw/301m	<u>Montana:</u>		
Indianapolis	6 WRTV	LC for PG<279m	Kalispell	35 KEXI-LP	CC from KMMF-LP
Muncie	26 WMUN-LP	LC for QG from ch. 32	Missoula	7 KPAX-DT	QG from ch. 35, 28kw/623m
<u>Kentucky:</u>			<u>North Carolina:</u>		
Bowling Green	40 WNKY	LC for PG>1640kw	Beaver Dam	8 W08BP	LC for PG>0.1kw, 35-31-39/82-29-44
Elizabethtown	43 WKZT-DT	NW, 61kw/178m	Buxton	11 W11CT	NS 3kw, 35-15-49/75-31-41
			Wanchese	51 new-LP	app dismissed
<u>Louisiana:</u>			<u>North Dakota:</u>		
New Orleans	21 WHNO-DT	QG from ch. 14			
Shreveport	15 KADO-LP	FC to religion			

Dickinson	38 K38HA	NW 8.76kw, 46-55-08/102-43-37, KXND-24 Fox	Elgin	39 K39FD	0.25kw
Williston	38 K38FX	NW 11.9kw, 48-09-18/103-30-01, KXND-24 Fox	Eugene	21 K21FS	LC for QG from ch. 66
<u>New Hampshire:</u>			Eugene	44 KEZI-DT	QC from K68BF, 0.78kw
Hampton Falls	26 W26CM	QG from W23AM, 8.2kw, 42-21-49/71-03-55 in Boston	Klamath Falls	48 K56EW	PG<30kw
<u>New Jersey:</u>			La Grande	16 KBPD	QR from ch. 56, 2.6kw, 42-06-03/121-38-07
Newark	68 WFUT	FC to Telefutera	La Grande	29 K29EL	NW, 60.3kw/773m,
<u>New Mexico:</u>			La Grande	35 K64BB	45-18-35/117-43-57
Albuquerque	25 K35FC	QR from ch. 35	Newberg	51 KOXO-CA	LC for QG fm ch. 60, 0.3kw
Albuquerque	35 KNME-DT	PG>250kw,	Portland	43 KATU-DT	LC for QG fm ch. 64, 0.3kw
		35-12-50/106-27-01 but see below			PR>150kw
Albuquerque	45 KASY-DT	QG from ch. 51, 1287m,	<u>Pennsylvania:</u>		
		35-12-48/106-27-00	Brookville	45 W45BT	LC for QG from ch. 51, 7.2kw
Albuquerque	48 KTFA-CA	FC to Telefutera	<u>Pennsylvania:</u>		
Capitan	30 K30GM	QC from K53BN, 4.1kw	Erie	45 new-LP	2 apps dismissed
Clovis	22 new-LP	app dismissed	Kittanning	44 W25AX	PR>2.87kw
Eagle Nest	20 K20GO	QC from K53ET, 1.38kw, 36-37-39/105-13-41	Pittsburgh	43 WPGH-DT	NS 1000kw/312m,
Farmington	14 K14KN	NS 8.5kw, 36-41-46/108-13-17, TBN	<u>South Carolina:</u>		
Grants	33 K33GA	QC from K67CR, 1.28kw, 35-07-09/107-54-04	Columbia	21 W21CA	PR >9.5kw, 34-03-23/80-58-50
Roy	34 K69CG	LC for QG from ch. 69, 1.14kw, 35-58-04/104-13-51	Columbia	32 WRLK-DT	NW 65kw/314m
Silver City	42 new-LP	app dismissed	Florence	56 WBTW-DT	NW, 1000kw/541m
Wagon Mound	36 K68BO	LC for QG from ch. 68, 0.07kw, 36-00-19/104-42-12	Myrtle Beach	34 W34CQ	QC from W66BJ, 11.8kw
<u>Nevada:</u>			<u>South Dakota:</u>		
Elko	41 new-LP	AF dismissed	Pierre	33 new-LP	app dismissed
Elko	43 new-LP	AF dismissed	Pierre	39 new-LP	app dismissed
Elko	45 new-LP	AF dismissed	Rapid City	15 KCLO-TV	PR<154m, directional
Eureka	15 K60AQ	QR from ch. 60	Rapid City	38 KKRA-LP	QG from ch. 24, 21.6kw, 44-19-42/103-50-05
Eureka	17 K68CS	QR from ch. 68	Rapid City	40 K40GS	QG from K31DK, 21.6kw, 44-19-42/103-50-05
Eureka	21 K63CH	QR from ch. 63	<u>Tennessee:</u>		
Las Vegas	27 KELV-LP	FC to Telefutera	Knoxville	17 WKOP-DT	PR>553m
Tonopah	4 new-LP	app dismissed	35-59-44/83-57-23		
Winnemucca	2 new-LP	app dismissed	<u>Texas:</u>		
<u>New Jersey:</u>			Abilene	42 KIDZ-LP	QG from ch. 54
Vineland	65 WUVP	FC to Univision	Alvin	67 KTFH	FC to Telefutera
<u>New York:</u>			Austin	49 KBVO-CA	FC to Telefutera
Binghamton	7 WBNG-DT	NS 20.4kw/342m	Baytown	57 KAZH	FC to Azteca America
Buffalo	4 WIVB-TV	LC for PG<80kw/396m	Brownsville	20 KZAV-LP	FC to FTN religion
Elmira	21 W21BW	NW, 2.4kw, 42-01-55/76-47-02, 3ABN	Brownsville	23 KVEO	LC for XG
New York	26 W26CE	NW, 3.1kw, 40-53-50/72-54-56 on central Long Island	Bryan	34 KRHD-LP	26-06-02/97-50-20
New York	35 WNYX-LP	LC	Corpus Christi	41 KCRP-LP	adds WB to ABC
Smithtown	67 WFTY	FC to Telefutera	Corpus Christi	45 KXCC-LP	FC to Telefutera
<u>Ohio:</u>			Dallas	39 KXTX-TV	FC to America's Store
Cincinnati	38 WBQC-CA	QG from ch. 25, 140kw	El Paso	65 KKWB	FC to Telemundo
Cleveland	61 WQHS-TV	FC to Univision	Floresville	45 K45EX	FC to Telefutera; CC to KTFN (not yet official)
Dayton	40 WRCX-LP	QR from ch. 51, 29kw	Fort Worth	52 KFWD	FC to Telefutera
Toledo	17 WTOL-DT	PR<735kw/263m	Galveston	47 KTMD-DT	FC to independent (English)
<u>Oklahoma:</u>			Galveston	48 KTMD	PR>430kw/597m,
Oklahoma City	7 KOCO-DT	NS 34kw/430m	Garland	23 KUVN	29-34-15/95-30-37
Oklahoma City	7 KOHC-LP	NW 130w, 35-33-59/97-28-28; "New Value Club" shopping	Georgetown	28 KHPX-LP	PR>5010kw/597m,
<u>Oregon:</u>			Houston	20 KTXH	29-34-15/95-30-37
Elgin	26 K68AH	LC for QG from ch. 68	Killeen	62 KAKW	PR>544m,
Elgin	33 K62BK	LC for QG from ch. 62, app dismissed	Laredo	25 KZLD-LP	32-35-19/96-58-05
Lubbock	4 new-LP	app dismissed	PR<7.4kw, 30-36-04/97-39-34		
Matador	45 K45FE	LC for QG from ch. 64, 33-58-49/100-54-49	San Antonio	47 KFTO-LP	LC for PG>578m,
McAllen	35 KZMC-LP	FC to FTN religion	San Antonio	58 KMOL-DT	29-33-44/95-30-35
Round Rock	15 KHPZ-LP	PR<10.6kw, 30-36-04/97-39-34	San Antonio	67 KDWZ-LP	FC to Univision
San Antonio	7 KJLF-LP	PC>1kw, 29-27-34/98-24-24	Sweetwater	35 KIDB-CA	FC to FTN religion
San Antonio	17 KNIC-CA	FC to Telefutera	Temple	9 KCEN-LP	29-26-30/98-30-23
San Antonio	28 KSAA-LP	QG from ch. 19, 14.5kw,	Texarkana	41 K41EQ	FC to Telefutera
			Victoria	18 KVIT-LP	CC from K35EK
					QG from ch. 50, 25kw/527m
					LC for QG from ch. 52
					QR from ch. 53, 40kw,

		29-34-16/95-30-38 in the Houston tower farm adds WB to ABC	Green Bay	30 W30BU	PR>14.7kw
Waco	25 KXXV				
Utah:			Wyoming:		
Henrieville	9 K10KA	LC for QG from ch. 10	Gillette	24 K24PP	QG from K22AD, 27.5kw, KNBN-27 NBC
Utah:			Puerto Rico:		
Henrieville	11 K08IT	LC for QG from ch. 8	Mayaguez	23 WNJX-DT	NS 400kw/665m
Henrieville	13 K12KQ	LC for QG from ch. 12			
Henrieville	16 new-LP	NW?			
Henrieville	22 new-LP	NW?	Canada:		
Wayne County	39 K13CY	QC from ch. 13, 0.01kw, 38-30-38/111-47-05	British Columbia:		
Virginia:			Pemberton	25 new	AF 5w 50-19-19/122-47-38, Discovery
Farmville	28 WFMA-LP	QG from ch. 52, 33kw, 37-13-38/77-23-25	Pemberton	28 new	AF 5w 50-19-19/122-47-38, CIVT-32 CTV
Harrisonburg	49 WHSV-DT	NS 88.2kw/646m	Pemberton	30 new	AF 5w 50-19-19/122-47-38, TBS
Keysville	45 WKYV-LP	QG from ch. 61, 50kw, 37-33-51/77-27-28 near Richmond	Pemberton Valley	2 new	AF 10w 50-18-50/122-49-39, Discovery
Manassas	43 WPXW-DT	PR>350kw	Pemberton Valley	10 new	AF 10w 50-18-50/122-49-39, CIVT-32 CTV
Washington:			Pemberton Valley	13 new	AF 10w 50-18-50/122-49-39, TBS
Vancouver	48 KPDX-DT	PG>1000kw	Quebec:		
Wisconsin:			Trois-Rivieres	45 CIVC-TV	PG>1500kw
Bloomington	22 W22CI	QC from ch. 49, 0.64kw			
Grantsburg	24 W24CL	QC from ch. 39, 0.68kw			

Forum & Other Stuff

Thanks to Bill Eckburg, Dennis Smith, Scott Fybush, Pat Dyer, Ed Ellers, Fred McCormack, Eric Bueneman, Fernando Garcia, and John Zondlo for information elsewhere in this month's column.

January was a slow month in Washington. Do note that the long-haul LPTV moves continue, this month especially in Michigan. Don't let one of these catch you by surprise. Note also a few permits for new LPTV stations. These permits have been awarded through spectrum auctions. Expect to see more.

KNME-DT in Albuquerque is reported operating temporarily at very reduced power, just a few hundred watts. With its transmitter atop Sandia Crest it probably still covers the city pretty well.

The new Telefutura network launched in early January. The affiliate lineup still seems to be shaking out. If you notice any of your locals carrying this network, I'd love to know about it.

Eric Bueneman notes K34BR moved to channel 59. Despite the channel change, the listed call letters are still K34BR.. John Zondlo saw KOHC-LP on channel 7 with the "New Value Club" - yet another shopping channel.

Scott Fybush writes to explain where the new WCBS-2 auxiliary site is. It's the Viacom Building at 1515 Broadway. As you may remember, Viacom recently bought CBS. This building is also the auxiliary site for WCBS-FM and WXRK-FM. It's also "...practically next door to Four Times Square (aka the Conde Nast Building), home to the WHTZ/WKTU/WAXQ/WTJM/WLTW (FM) aux site."

I should put in a good word for Scott's website on <http://www.fybush.com>. Excellent information on radio and TV goings-on in the Northeast and adjoining areas of Canada.

My predecessor Fred McCormack noted K38FX on the KXND-24 signoff. The station isn't in the CDBS database, but it probably holds a STA which usually doesn't appear. KQDS-21 in Duluth also has several of these "STA" translators, as does KDLT-46 in South Dakota. The FCC database does list an application for a channel 38 translator - citing the same transmitter location Fred saw mentioned on the KXND signoff - though with a higher power of 18.4kw. K38HA is also a KXND translator - apparently not mentioned in the primary's signoff slide, but present in the FCC database.

Ed Ellers wrote from Louisville with the information about WKQT-CA. They shut down on channel 26 on January 7, and were expected back on their new channel by the 10th. They're being displaced by WLKY-DT. The call change on this station (formerly WJYL-CA) snuck up on me; I don't remember seeing it in the Public Notices.

KJLF-LP is a bigger pest for Pat Dyer now. They've increased power from 120 watts and moved about 9 miles to the north. According to Pat, programming seems to come from a consumer VCR "with well-worn tape!". "AUTO REPLAY", then "PLAY" (in two different font sizes) appeared on the screen before the legal ID...

The network affiliation changes in San Francisco have now taken effect. KRON-4 becomes an independent. KNTV-11 switches from ABC to NBC. (And in a last-minute decision, NBC has purchased the station) There are still complaints of inadequate coverage; KNTV is licensed to San Jose, not San Francisco, and their transmitter is well south of the Mt. Sutro site used by the other major-network stations. For the time being, KNTV's programming is still being simulcast on a second virtual channel of formerly co-owned KBWB-DT 19. (which does transmit from San Francisco) However, this arrangement is unlikely to last much longer - and in any case it doesn't help those who have only analog receivers. NBC is discussing several possible ways of improving the situation, including subsidizing cable subscriptions and establishing STA translators or purchasing existing LPTV stations. KNTV promotes itself as "NBC3", its channel on cable in most Bay Area systems.

Dennis Smith saw a report on the KNTV network switch on KEYT-3 in December. Dennis asks, "what station in the Salinas-Monterey market will now provide ABC which KNTV-11 formerly did?" Good question. It's not at all impossible ABC expects people to watch KGO-7 on cable. On the other hand, I wouldn't be surprised to see another network switch in that area.

Dennis was also looking for the Tournament of Roses parade on cable channel 5, where he would normally find KTLA-5 Los Angeles. It's disappeared from Santa Barbara cable, replaced by "KWCA WB5 Santa Barbara". Dennis speculates it's a new cable-only station, and he's right. He did find KTLA being temporarily carried on the community-access channel 8, but it disappeared when the parade ended.

Oft-seen E-skip target XHHUPN-2 has a website <http://www.gruposiete.com.mx/reynosa.html> which indicates the station has moved from Matamoros to Reynosa. Reporter Howard Fountain near Atlanta has also seen two new stations in his general vicinity. WBIH-29 carries mostly Praise Network religious material, with a continuous ID. Also seen was WBIF-51 Marianna, Florida with "ASN" home shopping and several Reliant Intermedia infomercials. Again, a continuous ID was present. Finally, W24CB Sylacauga, Alabama showed up. They were carrying a SEC college basketball tournament, with local commercials and a local post-game show. The "fake calls" WJXS were shown - I don't know of any station (radio or TV) assigned those calls.

Bill Eckburg, among others, is now seeing WBQD-LP operating on channel 26. This station was bumped from channel 65 - but I don't think it ever operated on 65. As of January 7 it had been running color bars for over two weeks. The tower site plots south of East Moline; I can't find any other broadcast station using that site. Bill has also reported seeing the new WSKY-4 Manteo, NC - becoming the first DXer I'm aware of to do so. New station WKDH-45 has also made it to his location, along with the new calls on WJKT-16. (formerly WMTU)

The F2 has been on hiatus, but we've had a bunch of off-season Es. Here's hoping it continues!

HOW GOOD ARE MULTI-STANDARD TELEVISIONS?

At first, a multi-system TV receiver may seem the ideal choice for TV DX-ing but it does not address the complex reception problems encountered, particularly in VHF Bands I and III where interleaved channel allocations exist.

Multi-system receivers are mainly intended for the traveler or for use in countries where more than one TV system is available. The main drawback with such a receiver for DX-ing is its inherently wide vision I.F. bandwidth, which is necessary for high-definition pictures. Although good results may be obtained with local-quality signals, the shortcomings of such a receiver begin to show if attempting to resolve anything other than a strong solitary signal.

Other drawbacks associated with current TV receiver trends include video channel muting, when the signal level is considered inadequate for domestic viewing, plus complex set-up menus and tuning arrangements. The enthusiast relying on an 'up-converter' device (VHF to UHF frequency converter) for viewing VHF signals via a UHF TV receiver will also experience shortcomings due to the use of the wide vision I.F. bandwidth of the TV. Not to mention the problem of locating the channel in the absence of a signal!

For several years, I have used a Blaupunkt BT 70 -25 VTM, NTSC, SECAM, and PAL 70cm multi-standard color TV. Because of the various reasons, as stated in the previous paragraph, I use this TV with the D100 TV tuner/convertor. -Todd Emslie, Sydney Australia

FM NEWS

EDITOR: GREG CONIGLIO
 90 SLATE CREEK DRIVE APT. #3
 CHEEKTOWAGA, NEW YORK 14227
 E-MAIL: coniglio@adelphia.net
 WEB: <http://www.geocities.com/~wgrc>

Most of the information appearing in this column is courtesy of:
M STREET JOURNAL – P.O. BOX 422 – LITTLETON, NEW HAMPSHIRE 03561
PHONE: (609) 883-3321, FAX: (609) 883-5696, E-MAIL: MstreetTom@aol.com



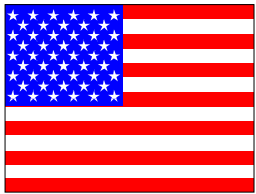
KEY TO

ABBREVIATIONS:

&: satellite programming
 AF: New frequency allocation **accepted for filing** for a new FM license
 AFA: American Family Association
 CC: **call letter** change
 CL: **city of license** change
 CX: a **construction permit** has been **canceled**
 C1,C2,etc: a change in status to that FM license **class**
 DA: **directional antenna**
 DE: station has been **deleted**
 FC: **format change**
 GA: **granted amendment** to the table of FM allocations
 GE: **granted extension** of

construction permit
 GX: **granted replacement** of expired permit
 LC: **license to cover** filed (means station is ready to come on air)
 MC: **multiple-city** legal ID
 NC: **no change** yet on a reported change/permit
 ND: **non-directional** antenna
 NO: **not on the air**
 NS: **new station** granted
 NW: **new station** signs on
 OSA: **one-step application** granted for change
 PA: **proposed amendment** to change FM table of allocation
 PC: **power change** on the air ("**>**" for increase, "**<**" for decrease, when known)
Ital. Calls: LPFM station

PG: **power change** granted ("**>**" for increase, "**<**" for decrease, when known)
 QC: **frequency change** occurred
 QG: **frequency change** granted
 RA: silent station **returns to air**
 RE: station **requests extension** on permit
 RX: station **requests replacement** of expired permit
 SG: **slogan change** or update
 SI: **station is silent**
 XA: **dismissed amendment** to FM allocations
 XC: **transmitter site change** occurred
 XG: **transmitter site change** granted



ALABAMA:

Pine Hill: WKXK 96.7 PG> 30 kW, 636 ft, C2
 Valley: WRLD 95.3 PC> 25 kW, class C3,
 XC: 32-44-3 / 85-7-53

ALASKA:

Anchorage: KRUA88.1 inc. to 833í, XG: 61-20-11 / 149-30-48

ARIZONA:

Arizona City: KKRM 106.5 CC (ex KOMR) ìAmorí
 Clifton: KWRQ102.1 PC> 4.3 kW, 2264í
 Phoenix: KZON 101.5 adds Howard Stern
 Sun City: KOMR106.3 CC (ex KOVA) ìAmorí
 Wickenburg: KHOV 105.3 CC (ex KSSL) ìLa Nueva 105.9 & 105.3í

ARKANSAS:

Des Arc: KBDO 91.7 PG> 75 kW (v), DA
 Huntsville: KREB 99.5 adds OMM reg. Mexican (&
 Monticello: KHBM 93.7 PG> 23 kW, C2, 417í

CALIFORNIA:

Atwater: KBRE 92.5 CC (ex KJMQ), FC to rock

ìThe Bearî (Merced)
 Barstow: KXXZ 95.9 PG> 8.9 kW, 486 ft, XG:
 34-51-22 / 117-3-0

CALIFORNIA:

Carlsbad: KJQY 95.7 CC (ex KMSX) ìKool 95.7í
 Clovis: KZFO 92.1 PC 36.9 kW, 568 ft, class B, XC: 37-7-40 / 119-40-38, CL from Madera
 Columbia: KCVR 98.9 CC (ex KTDZ) ìTri-Colorí
 Lompoc: KRQZ 91.5 PG> 2 kW (v), B1, 1050í, DA, XG: 34-36-13 / 120-29-17
 Ludlow: KHVZ 100.1 inc. 249í, XG: 34-42-34 / 116-9-2
 McFarland: KPSL 102.9 PG 25 kW, 322í, XG: 35-19-16 / 119-42-26
 Morro Bay: KLMM 94.1 PG 890w, 863í
 Randsburg: KGBM 89.7 LC
 San Diego: KMYI 94.1 CC (ex KMSX), FC to hot AC ìMy 80ís, My 90ísí
 San Fran: KISQ 98.1 adds Tom Joyner
 San Fran: KKVV 93.3 FC to rhythmic AC ìThe Waveî CC (ex KYCY)

COLORADO:

Holyhoke: KKYT 92.3 LC

CONNECTICUT:

New London: WNLC 98.7 played Christmas music
 Norfolk: WSGG 89.3 LC

DELAWARE:

WNLC
98.7 FM

Seaford: WGBG 98.5 FC to classic rock

FLORIDA:

Cocoa Beach: WJRR 101.1 FC to modern rock
iReal Rock 101-1i (Orlando)

Dade City: WMGG 96.1 FC to urban // WTMP

Englewood: WSRQ 105.9 CC (ex WYNF)

Fernandina Bch: WXGV 105.3 adds Bob & Sheri

Key West: *NS 88.3 6 kW, 121 ft.

Miami: WPYM 93.1 CC (ex WTMI), FC to dance
iParty 93.1i

Murdock: WBCG 98.9 CC (ex WHHD) iBeach
98.9i

Orlando: WWKA 92.3 PC 100 kW, 1490i XC: 28-
34-07 / 81-03-16

Orlando: WHTQ 96.5 dec. 1490i, XC: 28-34-07 /
81-03-16

St. Augustine Bch: WYGV 105.5 adds Bob & Sheri

St.Petersburg: WFJO 101.5 FC to 80is hits iThe
Pointi (Tampa)

Titusville: WPIO 89.3 PC> 8 kW, 335 ft.

GEORGIA:

Albany: WGNP 90.7 PC 5.5 kW, 305i

Cairo: WSLE 102.3 PG> 9 kW, 1145i, C2,
XG: 30-40-6 / 83-58-6

Gray: WYNF 96.5 CC (ex WJZY) iLove 102.5i

Mableton: WAMJ 102.5 FC to R&B oldies

Savannah: WQBT 94.1 PG> 100 kW, C0, 1394i,
XG: 32-2-45 / 81-20-27, CC (ex WSCA), FC to
urban iThe Beat

Savannah: WAEV 97.3 PG> 100 kW< 1394i,
XG: 32-2-45 / 81-20-27

Warner Robins: WELV 102.5 CC (ex WLCG), FC to
smooth jazz iLove 102.5i

Washington: WXKT 100.1 reported SI

Waycross: WASW 91.9 PG> 45 kW, class C2

IDAHO:

Rexburg: KGTM 98.1 inc. to 636 ft.

ILLINOIS:

Anna: WKIB 96.5 FC to CHR iMix 96.5i

Lincolnshire: WAES 88.1 LC

Loves Park: WKMQ 96.7 PG 2.2 kW, 551i, DA,
XG: 42-21-48 / 89-8-6

Robinson: WTYE 101.7 FC to soft AC

Spring Valley: *NS 88.1 4 kW, 328 ft.

Tower Hill: WRAN 98.3 PC 3.7 kW, 420i,
XC: 39-16-48 / 88-58-22

INDIANA:

Columbus: WINN 104.9 CC (ex WWVY) iGood
Time Oldiesi

Crown Point: WXRQ 103.9 FC to classic rock

Earl Park: WIBN 98.1 played Christmas music

Huntington: WEXI 102.9 FC to dance

Ligonier: WGSN 102.7 PC 2 kW, 394i, XC: 41-27-
52 / 85-44-40

Lowell: WZVN 107.1 RA with a/c

Noblesville: WGRL 93.9 FC to 80is hits iRetro 93.9i

N.Vernon: WWVY 106.1 CC (ex WINN) iRockin
Hits Y 106i

Vincennes: WFML 96.7 PG> 2150w, 386i, XG: 38-
39-6 / 87-28-37

IOWA:

Parkersburg: KQCR 98.9 PC 6 kW, 328 ft,
XC: 42-37-46 / 92-53-53

St.Agsnar: KJCY 95.5 PC> 6 kW, 328 ft,
XC: 43-21-52 / 92-51-4

KANSAS:

Kansas City: KFKF 94.1 adds Lia nights

KENTUCKY:

Campbellsville: WAPD 91.7 PC 330w, 217 ft,
XC: 37-17-59 / 85-19-53

Eminence: WTSZ 105.7 CC (ex WYKY) iSporting
Newsi

Georgetown: WXZZ 103.3 PG 2.6 kW, 499 ft.

Hazard: WEKH 90.9 PC> 35 kW, 1066i,
XC: 37-11-35 / 83-11-17

Morganfield: WMSK 95.3 PG 25 kW, C2, 256i

LOUISIANA:

Coushatta: KSBH 94.9 PG> 50 kW, C2, 492i,
XG: 31-48-21 / 93-22-24

Jonesville: KTYX 105.1 XC: 31-36-21 / 91-50-6

Lacombe: WYLA 94.7 FC to rock, talk // WSJZ
iExtreme Radioi (New Orleans)

Natchitoches: KZBL 100.7 inc. to 276i

Natchitoches: KDBH 97.3 dec to 220i, XG: 31-48-
17 / 93-01-27

Oakdale: KKST 98.7 played Christmas mx

Reserve: WSJZ 94.9 FC to rock, talk iExtreme
Radioi (New Orleans)

MAINE:

Augusta: WKCG 101.3 played Christmas mx

Camden: WMEP 90.5 NW, news/classical

Dexter: WGUY 102.1 played Christmas m

Machias: WALZ 95.3 FC to JRN classic hits //
WQDY

Rockland: WMCM 103.3 PC< 16 kW

Windham: WMTW 106.7 FC to news

MASSACHUSETTS:

Newburyport: WNEF 91.7 PC>465w(v), DA,
XG: 42-51-56 / 70-56-17



MICHIGAN:

Holton: WSHN 100.1 PG 2.9 kW, 472i, DA,
XG: 43-18-50 / 86-9-17

Houghton: WOLV 97.7 PC 2.4 kW, XC: 47-8-6 /
88-33-53

Houghton: WHKB 102.3 PG 6 kW, 328i, XG: 47-8-
6 / 88-33-53

Ishpeming: WJPD 92.3 inc. 509i, XG: 46-30-51 /
87-28-58

Lake City: *NS 104.9 4.6 kW, 371 ft.

Lapeer: WRXF 103.1 FC to rock // WWBN iThe
Bananai (Flint)

Marquette: WFXD 103.3 inc. to 938i, XC: 46-36- 14
/ 87-37-15

Negaunee: WKQS 101.9 inc. 1007i, XC: 46-28-42 /
87-37-21

Traverse City: WLJN 88.9 PC> 39 kW (v)

MINNESOTA:

Duluth: WNCB 89.3 PG> 2850w, C3,
XG: 46-47-21 / 92-7-9
Hermantown: WWAX 92.1 PC 5.4 kW, 709í
XC: 46-47-15 / 92-07-21
Lake City: KLCH 94.9 NW, hot AC
Sunburg: KLFN 106.5 PG 6 kW, 328í, XG: 45-22-
13 / 95-8-26
Waseca: KRUE 92.1 RA with country

MISSISSIPPI:

Drew: WRKG 95.3 CC (ex WOHT), iThe
Classic Rock Stationí
Grenada: WOHT 92.3 CC (ex WGRG)
State College: *NS 104.5 25 kW, 328 ft.
Tunica: WYYL 96.1 FC to country iY96.1í, CC
(ex WMPS)
Tupelo: WAFR 88.3 PG> 75 kW (v), 492í, DA

MISSOURI:

Chaffee: KYRX 104.7 FC to soft AC
Jefferson City: KLIK 104.1 CC (ex KJCQ) iClick
104í
Knob Noster: KXXK 105.7 dec. to 371í, XG: 38-45-3
/ 93-27-16
Marble Hill: KREZ 97.3 FC to oldies
Moberly: KBKC 90.1 NW, AFA cont. Christian
Springfield: KSCV 90.1 PC> 9 kW, 492í, XC: 37-17-
41 / 93-09-10
Stockton: KRLK 107.7 PG> 11.7 kW, C3, 479í
XG: 37-31-24 / 93-52-40

MONTANA:

Cascade: KIKF 104.9 LC
Great Falls: KINX 107.3 LC

NEBRASKA:

Beatrice: KTGL 92.9 adds Bob & Tom

NEVADA:

Pahrump: KNYE 95.1 NW, classic hits, talk

NEW HAMPSHIRE:

Conway: WVMJ 104.5 CC (ex WBNC), iValley
104.5í

NEW JERSEY:

S.Orange: WSOU 89.5 FC to modern rock

NEW MEXICO:

Albuquerque: KCHQ 101.3 FC to classic country
iThe Rangeí
Santa Fe: KRQS 105.1 FC to smooth jazz iThe
Horizoní (Albuquerque)

NEW YORK:

Center Moriches: WLVG 96.1 played Christmas mx
Fairport: WBBF 93.3 PC 4.4 kW, 384í, CL
from Avon, NY, XC: 43-10-37 / 77-28-39
Hudson Falls: WFFG 107.1 CL to Corinth, NY
Lake Success: WKTU 103.5 PG> 6 kW, 1362í
XG: 40-44-54 / 74-59-10

NORTH CAROLINA:

Grifton: WXNR 99.5 adds Lex & Terry
Hertford: WFMZ 104.9 played Christmas mx
Hickory: WPIR 88.1 PC 21 kW, 253í, DA, C2
Shallotte: WLTT 103.7 FC to news-talk // WCCA

OHIO:

Delphos: WBIE 91.5 NW, AFA contemp.
Christian (&) (Lima)
Mt.Vernon: WQIO 93.7 FC to soft AC
Zanesville: WHIZ 102.5 XG: 39-55-42 / 81-59-7

OKLAHOMA:

Byng: KYKC 100.1 PC> 50 kW, 492, C2,
XC: 34-51-11 / 96-45-52
Lawton: KJRF 91.1 LC

OREGON:

Bend: KNLR 97.5 played Christmas music
Hood River: KQHR 90.1 LC
Redmond: KWRX 88.5 inc. to 2198í, DA



PENNSYLVANIA:

Laporte: WQZI 103.9 RA with soft AC iCozyí
Mill Hall: WOJZ 98.7 CC (ex WLTS) iSmooth
Jazz 98.7í
Murrysville: WUWJ 88.1 PC> 300 w, 246í, DA
Pen Argyl: WWPJ 89.5 LC
Philadelphia: WXTU 92.5 adds After Midnite
Shamokin: WBLJ 93.3 FC to country // WBYL, CC
(ex WISL), iBill 95í
Sharon: WYFM 102.9 PC 33 kW, 604 ft,
XC: 41-03-26 / 80-38-22
State College: WLTS 94.5 CC (ex WFGL) iLite and
Easy 94.5í

SOUTH CAROLINA:

Florence: *NS 90.5 25 kW, 236í, DA
Ravenel: WMGL 101.7 PG 5.3 kW, 430 ft, XG: 32-
46-46 / 80-9-42

SOUTH DAKOTA:

Rapid City: KZLK 106.3 PC 10 kW, 315í

TENNESSEE:

Atwood: WTKB 93.7 PG> 21 kW, C2, 364í,
XG: 36-0-53 / 88-38-30
Dickson: WQZQ 102.5 inc. 974í, XG: 36-17-36 /
87-18-20
Germantown: WMPS 107.5 FC to alternative //
WMPS iThe Pigí (Memphis), CC (ex WYYL)
Ripley: WAUV 89.7 PG> 5.3 kW

TEXAS:

Amarillo: KRGN 103.1 QG to 102.9, C1, 100 kW,
282 ft, XG: 35-15-39 / 101-52-52
Atwood: WTKB 93.7 PG> 21 kW, C3, 364í,
XG: 36-0-53 / 88-38-30
Beaumont: KRPW 97.5 CC (ex KAYD), FC to urban
iPower 97.5í (Houston)
Brownwood: KPMS 99.3 PG 100 kW, C1, 446í
Caldwell: KLTR 95.1 LC
Edinburg: KBFM 104.1 inc.to 1224í, XC: 26-6-2 /
97-50-21
Haltom City: KKMR 93.3 FC to classic rock iThe
Boneí (Dallas)
Hempstead: KEZB 105.3 FC to country
Highland Village: KWRD 100.7 PG 98 kW, 1988í,
XG: 33-32-8 / 96-49-54

TEXAS:

Howe: KHYI 95.3 PG> 19 kW, C2, 801 ft.
XG: 33-28-12 / 96-47-19
Lamesa: KBKN 91.3 NW, AFA cont. Christian (&)
Monahans: KGEE 99.9 PC< 87 kW
Palacios: KROY 99.7 SI
Pampa: KAXH 90.9 PG> 7 kW, C3
Wichita Falls: KLLT 106.3 played Christmas mx, FC to AC ìMix 106î

UTAH:

Brigham City: KJQN 100.7 NW, modern rock
Ogden: KKAT 101.9 PG 25 kW, 3740í,
XG: 40-39-34 / 112-12-05
Pleasant Grove: KPGR 88.1 PG 1250w, -2835 ft.,

VIRGINIA:

Broadway: WBHB 96.1 FC to oldies ìOldies 96.1î CC (ex WLTK),
Cedar Bluff: WHQX 107.7 class C3, PC> 9.1 kW, 541 ft, XC: 37-8-0 / 81-35-43
Goochland: WZEZ 100.5 played Christmas music
New Market: WLTK 103.3 FC to cont. Christian ìLight 103î (Harrisonburg) CC (ex WBHB) ìLight 103î
Richmond: WTVR 98.1 played Christmas mx
Roanoke: WSLQ 99.1 dec. 1982í
Suffolk: WWSO 92.9 FC to oldies
Virginia Beach: WWHV 102.1 NW, urban ìHot 102.1î
West Point: WWBR 107.9 played Christmas mx

Richmond's Continuous Lite Favorites

98.1 FM

White Stone: WNDJ 104.9 played Christmas mx

WASHINGTON:

Mabton: KLES 98.7 PG 4 kW, 823í
XG: 46-31-20 / 120-19-59
Naches: KZTA 96.9 PG 14 kW, class C2, 935í,
XG: 46-35-59 / 120-52-08
Newport: KMJY 104.9 QG to 104.5, C2, PG 930w, 2867í, XG: 48-19-54 / 116-41-35
Spokane: KEEH 104.7 QG to 104.9, class C1, PG> 10.5 kW, 1549í
Spokane: KYWL 103.9 PG> 39 kW, C1
Sunnyside: KZTB 96.7 PG 1.4 kW, 692í, CL to Benton City, WA, XG: 46-15-33 / 119-21-55

WEST VIRGINIA:

Sutton: WDBS 97.1 PC 22 kW, 751 ft, class B,
XC: 38-28-58 / 80-30-59

WISCONSIN:

Sheboygan Falls: WHBZ 106.5 FC to rock ìThe Buzzî (Sheboygan), CC (ex WJJR)
Wausau: WLBL 91.9 XC: 44-55-14 / 89-41-28

WYOMING:

Laramie: KHAT 96.7 CC (ex KKRR)

PUERTO RICO:

Quebradillas: WIDI 98.3 QG to 99.5, PG> 50 kW, class B, 1525í, XG: 18-14-6 / 66-45-49

- Bruce Elving writes with some clarifications from pervious FM NEWS columns. First, he notes several typos of cities Ö yours truly mis-spelled Spartanburg, SC as ìSpartansburgî, and a mis-spelling of Ithaca, NY in another column. Bruce also clears up some confusion in the North Country of New York State, noting that the WYSI Canton will move from 96.7 to 102.9 to allow WNCQ-FM 96.7 in nearby Morristown, NY to sign on the air. Thanks, Bruce!
- Dennis Park Smith checks in again from Santa Barbara. The oddball low power FM station heís been hearing on 87.7 continues to broadcast, though it was on 87.9 on 12-13-01. He mentions being interested in receiving various mysterious FM stations, dating back to the 1960ís in the Bakersfield area. This indeed sounds interesting, Dennis, and probably would make an excellent *Mailbox* contribution!! Also, Santa Barbaraís KDB 93.7 (which I often can hear myself when ím in the San Diego area) is for sale. UCSB (University of California ñ Santa Barbara) is attempting to raise funds to purchase the station, to retain its classical format. Dennis follows up with another letter on January 9th, regarding the San Diego area changes reported above (on 94.1 & 95.7). He noted calls of KGTB and KOCL, respectively, but the FCC reports the calls as KMYI and KJQY. Weíll see if those change again. Slogans are ìMy 94.1î and ìKool 95.7î

U.S. CHANNEL TWO SEEN IN THE U.K. & NORTHERN IRELAND

F2 skip reached ch A2 on January 17, 2001 as UK Dxr Tim Bucknall and N. Ireland Dxr Paul Logan observed a huge pileup of signals on ch A2 in the early afternoon (about 2:10pm local time). Paul was unable to ID any of his ch2 catches, but Tim was able to ID General Hospital, which was being aired by CKCW-2 at that time. Unfortunately, no ch2 F2 was received in the United States during that period. As we mentioned earlier in this issue, the cycle is NOT over just yet. Some spectacular F2 TV skip could still occur. Be ready. If ch2 is empty in your area, keep a TV set to ch2. You *could* see something really different and unique.

STATISTICS

Featuring FM/TV Scoreboards, All Time Distance Records,
States Stats and Personal Best Statistics of FM/TV DXers.
February 2002

FM SCOREBOARD

Fred Nordquist
7945 Boxford Rd
Clay, NY 13041
nordquis@twcnny.rr.com

<u>DXER</u>	<u>NAME</u>	<u>DXER LOCATION</u>	<u>TOT</u>	<u>88-91</u>	<u>ES</u>	<u>MS</u>	<u>AU</u>	<u>US</u>	<u>DC</u>	<u>CN</u>	<u>MX</u>	<u>FO</u>	<u>TPU</u>	<u>YB</u>	<u>AS OF:</u>	<u>UPD</u>
PAT	DYER	TX SAN ANTONIO	3037	471	2485	78	0	44	1	4	22	6	77	70	06/30/97	98
FRANK	MERRILL	IL MACOMB	2636	450	1181	10	8	48	1	8	8	3	68	85	02/20/96	96
KEITH	PUGH	AL NEW HOPE	2380	382	1324	108	18	47	1	7	14	6	75	83	12/28/95	96
RICHARD	SHAFTAN	NJ SPARTA	2225	415	1236	45	1	38	1	7	0	3	49	78	09/17/01	2001
JOSEPH	FELA	NJ S. PLAINFIELD	2179	455	1250	2	10	38	1	6	0	3	48	68	07/18/01	2001
JOHN	EBELING	MN BLOOMINGTON	2122	375	1167	63	89	48	1	7	5	0	61	52	01/01/02	2002
GREG	CONIGLIO	NY WILLIAMSVILLE	2107	341	1112	18	32	41	1	8	2	5	57	85	02/08/98	98
MIKE	BUGAJ	CT ENFIELD	2063	264	1167	25	26	37	1	6	1	3	48	74	05/14/00	2000
DANNY	BUNTIN	OK STILLWATER	2051	346	1218	4	0	48	1	5	9	2	65	74	04/08/96	96
JOHN	EBELING	MN PROSIT	2000	426	1311	4	7	48	1	9	3	0	61	75	01/01/02	2002
BRUCE	ELVING	MN ESKO-DULUTH	1907	377	1435	9	8	47	1	4	3	0	55	48	07/29/00	2000
FRED	NORDQUIST	NY CLAY	1842	407	930	56	61	42	1	5	0	3	51	69	01/12/02	2002
SAUL	CHERNOS	ON BURNT RIVER	1682	333	980	47	77	40	1	8	0	1	50	77	03/19/01	2001
JOHN	ZONDLO	OK YUKON	1657	315	918	3	0	42	1	5	11	0	58	79	01/01/99	99
MIKE	HAWK	NE OMAHA	1588	312	866	30	0	47	1	6	4	0	58	91	07/30/95	95
DAVID	NIEMAN	NY AKRON	1512	409	467	53	27	43	1	8	0	3	55	59	11/07/93	93
BOB	SEYBOLD	NY DUNKIRK	1508	324	667	0	2	45	0	8	3	3	59	58	08/15/97	97
BOB	SMOLAREK	NJ OLDWICK	1408	209	705	2	4	37	1	4	0	3	44	78	06/21/99	99
FRED	MCCORMACK	ND FARGO	1339	305	990	3	52	48	1	6	3	0	58	74	08/03/90	90
MATT	SITTEL	FL TALLAHASSEE	1156	164	583	2	0	38	1	2	7	4	52	92	05/13/00	2000
GIL	MORGAN	MO LEBANON	1109	199	255	26	0	40	1	5	5	0	51	94	10/06/95	95
DANIEL	OETTING	PA PHOENIXVILLE	1048	258	381	13	2	36	1	7	0	1	45	77	06/12/98	98
DOUG	SMITH	TN PLEASANT VIEW	1007	192	365	1	0	41	0	4	11	2	58	94	09/06/00	2000
JOHN	TUDENHAM	MO JOPLIN	1004	187	349	2	0	45	1	3	2	0	51	91	06/30/01	2001
DAVID	NIEMAN	NY ROCK CITY	995	227	169	15	1	37	1	5	0	0	43	91	06/16/98	98
SAUL	CHERNOS	ON TORONTO	947	179	192	1	0	37	1	3	0	0	41	77	03/13/01	2001
GARY	SIEGEL	OH TOLEDO	833	178	181	0	0	33	1	6	2	1	43	76	02/01/99	99
RICHARD	STEINBERGER	MA HUDSON	828	187	358	13	6	35	1	5	0	0	42	58	03/31/00	2000
ALAN	MICHALEK	MA SPRINGFIELD	812	106	495	0	0	36	1	5	0	0	42	52	10/01/90	90
D.BRUCE	HALL	ON BRANTFORD	800	132	153	106	2	40	1	6	1	3	51	90	07/20/94	94
MATT	SITTEL	TN KINGSFORT	775	98	424	3	0	36	1	6	2	4	46	84	05/13/00	2000
ROBERT	ROSS	ON LONDON	760	214	308	0	0	34	0	7	0	2	43	76	07/27/92	92
GEORGE	GREENE	OH AKRON	706	54	234	0	0	33	1	3	0	0	37	71	03/09/91	91
ERIC	BUENEMAN	MO HAZELWOOD	601	96	167	2	0	42	1	3	4	0	50	92	08/26/00	2000
MATT	SITTEL	NE BELLEVIEW	523	75	170	1	0	37	1	4	5	0	47	99	07/04/01	2001
MATT	SITTEL	NC RALEIGH	456	66	160	0	1	22	1	1	3	0	27	88	05/13/00	2000
JIM	AYERS	TN MURFREESBORO	448	73	18	1	0	27	0	1	1	0	29	81	02/12/94	94
GUS	MANCUSO	MD HYATTS	401	74	82	0	0	27	1	0	0	0	28	72	07/29/00	2000
PETER	GEORGE	MA STOUGHTON	394	94	149	20	2	36	1	5	0	0	42	67	07/05/95	95
RUSS	EDMUNDS	PA BLUE BELL	381	120	41			29	1				30	88	07/01/01	2001
JOHN	JEFFERSON	WA AUBURN	355	79	175	0	0	14	0	1	1	0	16	64	07/15/00	2000
WILLIAM	HEPBURN	ON BRAMPTON	309	183	83	1	6	21	0	2	0	1	24	85	11/10/91	91
PAUL	MOUNT	NJ MONMOUTH	307	48	21	0	0	20	1	0	0	0	21	90	08/24/92	95
MATT	SITTEL	NC ASHVILLE	302	37	68	0	0	22	0	2	2	2	28	94	01/22/96	96
JIM	RENFREW,	NY ROCHESTER	282	70	51	0	0	20	1	2	0	0	23	76	07/10/92	92
JIM	THOMAS	CO FORT COLLINS	261	35	129	8	0	24	0	3	1	0	28	89	02/10/96	96
RUSS	EDMUNDS	ME JONESPORT	219	34	10			13		5			18	93	08/03/01	2001
KEN	ONYSCHUK	IL STEGER	168	36	0	0	0	7	0	0	0	0	7	68	08/20/94	94
SHEL	REMINGTON	HI KEAAU	135	19	0	1	0	2	0	0	1	0	3	89	05/02/94	94

COLUMN DEFINITIONS: are as follows: Total = Total number of FM stations logged from DXer's location (All loggings should be received within 25 mile radius of this location to count.) Freq. changes count as a station, call letter changes DO NOT count. Also count a station only once regardless if logged by different propagation modes. 88-92 = All stations logged from 88.0 to 91.99 Mhz. Es = Total number of stations logged via E-skip. MS = Total by meteors catter. Au = Total via Aurora. USA = Total number of states and the "+" = Washington, DC. CN = Number of Canadian provinces logged. MX = Number of Mexican states logged. FO = Number of foreign countries, but not Canada or Mexico. TPU (Total number of political units) = Sum of USA CN MX and FO. YB = The year you began DXing from this location. Note: Now is the time to update and submit your latest stats to keep on the Scoreboard. Also submit any distance records, states stats and personal best statistics. As you can see...the cutoff date was 1990- many need to update! 73 FRED

Special Report: 2001 TV Es Summary

Top openings:

<u>Date:</u>	<u>Total:</u>	<u>Reporters:</u>	<u>Average:</u>	<u>MUF:</u>	<u>High:</u>
31 May	121	11	11.00	116.8	34
27 June	112	13	8.62	6	21
21 June	108	11	9.82	6	38
1 June	94	11	8.55	106.3	33
28 June	87	10	8.70	6	17
25 June	82	12	6.83	6	11
25 May	62	9	6.89	106.3	21
13 July	61	8	7.63	5	14
9 July	52	12	4.33	6	15
14 July	52	6	8.67	6	18

Total: Total number of IDd Es loggings made from 1 December 2000 through 1 December 2001 and reported to Eastern or Western TV DX.

Reporters: Number of DXers reporting at least one Es signal (including unIDs) on this day.

Average: Average number of loggings per reporter.

MUF: Highest channel or frequency on which Es signals (not necessarily TV, and including unIDs) were reported on this day.

High: Maximum number of IDd TV Es loggings by any one reporter on this day.

Monthly breakdown:

<u>Month:</u>	<u>Es Loggings:</u>	<u>Es Days:</u>	<u>Loggings per day:</u>
January	21	8	2.63
February	14	8	1.75
March	5	3	1.67
April	3	2	1.50
May	439	24	18.29
June	1011	29	34.86
July	490	29	16.90
August	166	18	9.22
September	none		
October	2	1	2.0
November	none		
December (2000)	13	5	2.60

Annual breakdown:

<u>Year:</u>	<u>Es Loggings:</u>	<u>Es Days:</u>	<u>Loggings per day:</u>
2001	2164	127	17.04
2000	2072	122	16.98
1999	1605	96	16.72
1998	1958	139	14.09
1997	1396	136	10.26

1996	2954	178	16.60
1995	3391	160	21.19
1994	2253	118	19.09
1993	1585	102	15.54

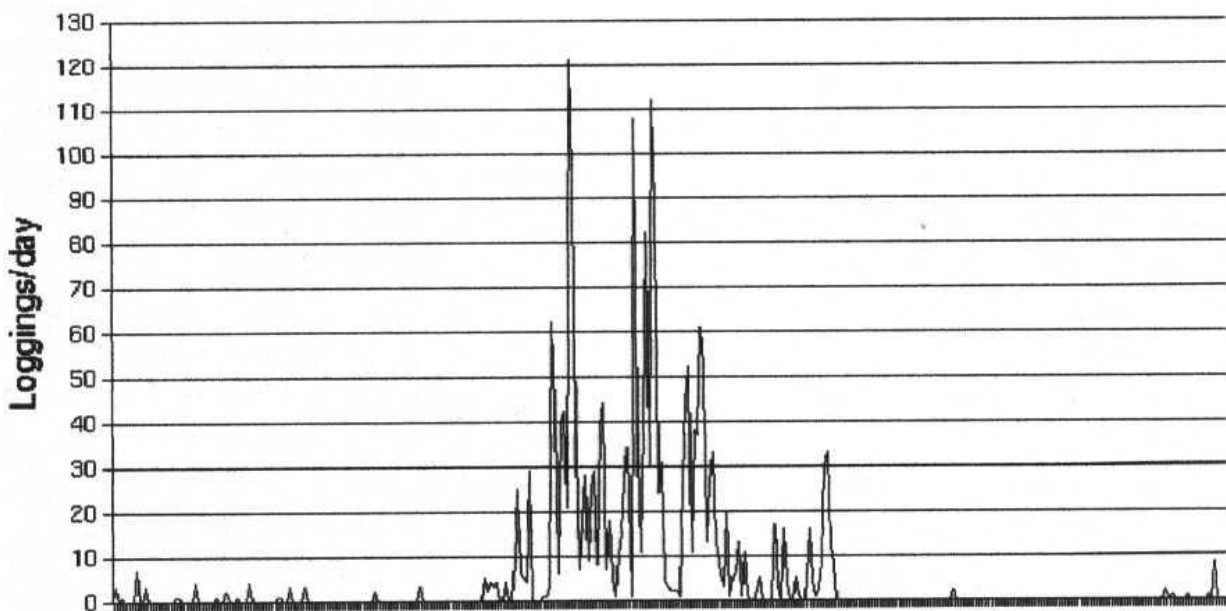
Pests:

<u>Station(s):</u>	<u>Number of loggings:</u>
WPBT-2 FL	87
WESH-2 FL	84
XEFB-2 NL	70
WEDU-3 FL	67
KPRC-2 TX	63
KBEJ-2 TX	62
WBRZ-2 LA	47
KNAZ-2 AZ	38
WDIQ-2 AL & KIII-3 TX	37
KMID-2 TX & XEPM-2 CI	36

Pests by channel:

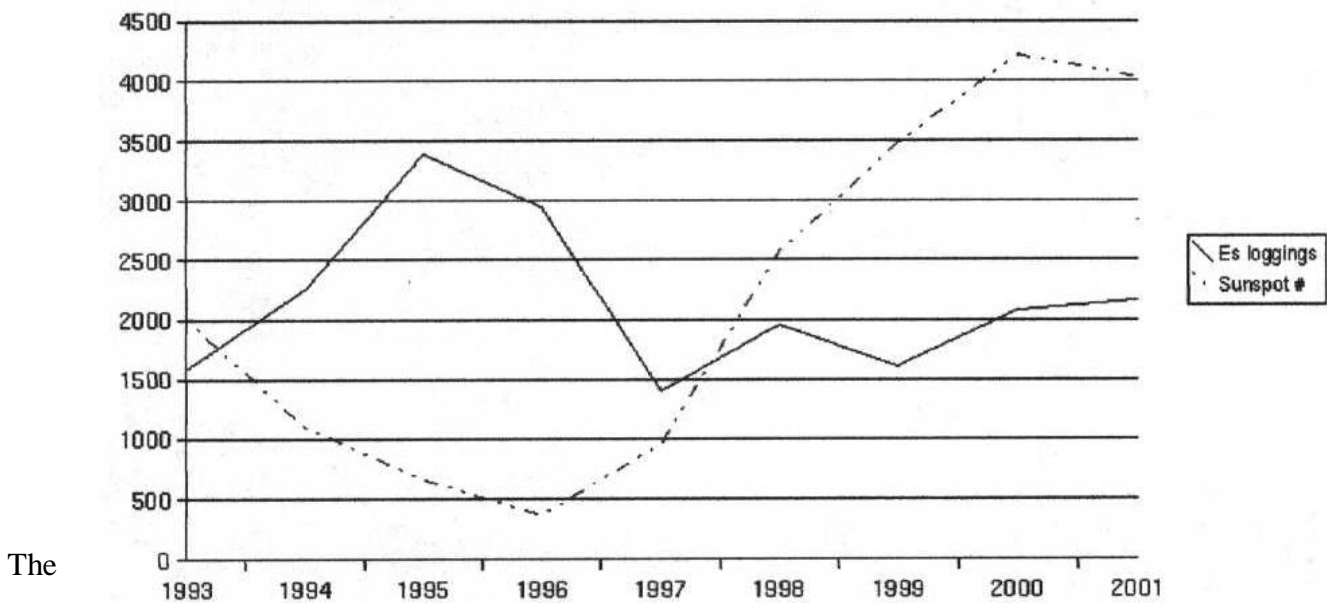
<u>Channel:</u>	<u>Station:</u>	<u>Loggings:</u>
2	WPBT-FL	87
3	WEDU-FL	67
4	WWL-LA	29
5	KRGV-TX	20
6	WDSU-LA & WTVJ-FL	7

2001 Es Summary



The 2001 Es Summary chart shows the total number of loggings made each day, by all DXers.

Annual Es totals, 1993-2001



Annual Es totals chart shows the total number of loggings made each year, by all DXers, for each year from 1993 through 2001. It also shows how the average sunspot number varied from year to year. (but the absolute numbers are not shown)

(Here's hoping this chart turns out!)

Personally, I don't see where this chart either supports or denigrates the theory that sunspots and Es are correlated. Make up your own mind... Consider that other things may affect the number of Es loggings, notably the growth of the Internet which has made it much easier for DXers to know when those elsewhere are seeing skip.

Overall, this year turned out slightly better than last, in pretty much every category. Strangely enough, the two days on which skip was reported in channel 7 didn't make the Top 10. (8 July, which was the 13th most productive day, and 17 August, which was in 43rd place for number of skip loggings) Comparing this year's graph to last years, you see the skip was concentrated earlier in the season as well.

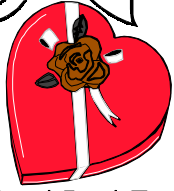
Maybe the biggest news in 2001 arrived at the very end of the year - and had little to do with Es. Phenominal F2 conditions had been appearing on the 50MHz ham band since mid-November. On 30 December, a huge F2 opening occurred with MUF at least 57MHz. At least one DXer had positively identified reception of Venezuela. Others believe they had Trinidad. Trans-Atlantic reception also happened, with a Scandanavian DXer receiving something - he suspects South America - on American channel 2.

Occasional reports of "DTV snow" via Es continued in 2001, but no DXer has yet decoded a digital station via skip. The fact that there was only one operating low-band DTV station (WKYC-DT channel 2 in Cleveland) until the last week of the year didn't help. WBBM-DT is now operating at 50% power on channel 3 in Chicago; it opens a possibility for digital DXers too close to Cleveland or with locals on channel 2.

The F2 is unlikely to repeat in 2001. Hopefully, the Es will more than repeat. Good luck!

Doug Smith, W9WI
1385 Old Clarksville Pike
Pleasant View, TN 37146-8098
<http://www.w9wi.com>

SOUTHERN FM DX



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

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

FEBRUARY 2002

Doug Smith - W9WI
1385 Old Clarksville Pike
Pleasant View, TN 37146-8098
w9wi@w9wi.com / CDT
www.w9wi.com

12/5 Tr

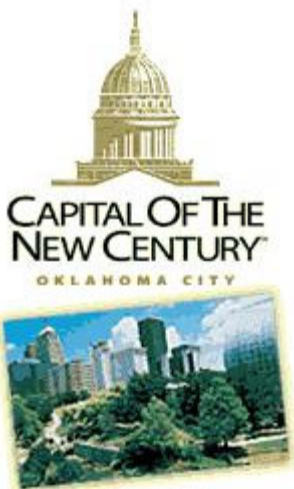
0012 KYNG 105.3 TX Dallas, i105.3 FM Talk, i
PSA for Red Cross Dallas-Fort Worth Chapter 630
0713 KPOC 103.9 AR Pocahontas, local ads 215
0720 unID 100.5 ?? ??, iOldies 100.5 i
0721 KFAV 99.9 MO Warrenton, iOin the
Westplex, i St. Louis ads 273
0724 KCLR 99.3 MO Boonville, iClear 99, i
Columbia/Jefferson City wx 340
0751 KRMS 93.5 MO Osage Beach, call IDs 326
0758 KWFC 89.1 MO Springfield, iGreg Brock,
KWFC news i 347

0802 KTXY 106.9 MO Jefferson City, local ads iY-
107 i 333

12/12 Tr

0115 WLZA 96.1 MS Europa, call ID 226
0127 unID 93.9 ?? ??, iK-Jam 93-9 i
0130 WGNG 106.3 MS Tchula, Belzoni ad 274
0203 WJDQ 101.3 MS Meridian, iQ-101 i 296

Technics ST-G50 tuner, big Radio Shack VHF-TV
antenna at 15 i



Oklahoma City 2002! July 26-28

WTFDA's 2002 Convention is coming to the heartland! Make your plans now to attend!



Our host motel is the Hampton Inn, located at I-40 and Garth Brooks Boulevard in Yukon, Oklahoma. The room rate is \$55/night (1 king or 2 queen size beds, 1-2 persons). They offer a free breakfast in the morning and chocolate chip cookies and milk at night. The registration fee is TBA.



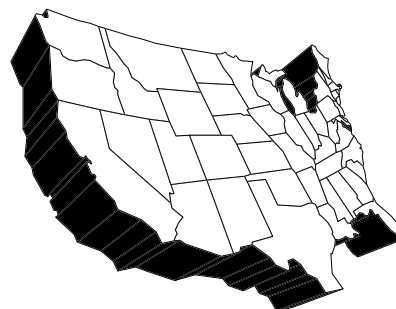
FM DX Web

Your resource for FM DXing

Lots of great activities and tours are on tap! Check the VUD monthly for updates, or go to Fmdxweb.com and click on WTFDA 2002.

WESTERN TV DX

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



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

This report is for December 2001. Tropo conditions along the southern-California coast between Santa Barbara and San Diego/Tijuana as monitored on TV-FM (up to 250mi/320km) were generally nonexistent because of unsettled relatively cold conditions (aprox 60F days, 40F nights), but did manage a bit of slight stability between storms.

Dec 1-12: None (continued from Nov 22-30)
(Dec 2-3 rain)
Dec 13: Poor (slight warming)
Dec 14-16: None (Dec 14 rain)
Dec 17-19: Generally poor
Dec 20-24: None (Dec 20 rain)
Dec 25-28: Very poor
Dec 29-31: None (Dec 29 rain)

Best of DX to all. Dennis

Matthew C. Sittel, 15013 Eureux Circle,
Bellevue, NE 68123 mcsittel@home.com
<http://members.home.net/mcsittel/beltdx.htm>

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

10/23 tr

1955	10/47	MN	Rochester	248
1955	19/25/31	WI	La Crosse	299
1956	WHWC-28	WI	Menomonie	342
2100	20/55	WI	Wausau	411

11/9 tr

2125	KDNL-30	MO	St. Louis	344
2126	30/40/59	IN	Indianapolis	518
2129	WRSP-55	IL	Springfield	352
2131	WYZZ-43	IL	Bloomington	354
2131	WWTO-35	IL	La Salle	364
2133	WQPT-24	IL	Moline	289
2133	25/31/47	IL	Peoria	334
2133	WBUI-23	IL	Decatur	379
2134	WFIE-14	IN	Evansville	500
2138	WKEF-22	OH	Dayton, NBC	621
2142	<u>WEVV-44</u>	IN	Evansville, ID	<u>499</u>
2148	WPXK-54	TN	Jellico, Pax	716

2150	WSTR-64	OH	Cincinnati	616
2157	<u>WKON-52</u>	KY	Owenton,voice ID	<u>616</u>
2203	WAND-17	IL	Decatur , nx	380
2210	WHOI-19	IL	Peoria, HOI nx	333
2210	KLJB-18	IA	Davenport, Fox18	289
2213	WTTK-29	IN	Kokomo, WB	525
2259	WBAK-38	IN	Terre Haute	468
2301	<u>WKMR-38</u>	KY	Morehead	<u>696</u>

calls mentioned during sign-off

11/10 tr

0954	KWCV-33	KS	Wichita, WB33	244
0955	KOOD-9	KS	Hays	217

11/18 Es (MS induced?)

1225	<u>CICI-5</u>	ON	Sudbury,local ad	<u>831</u>
2122	KGBT-4	TX	Harlingen, calls	1039
2130	KRGV-5	TX	Weslaco, loc.nx	1038
2140	KENS-5	TX	San Antonio	828
2144	KBEJ-2	TX	Fredericksburg	773

11/22 tr

0826	10/47	MN	Rochester	248
------	-------	----	-----------	-----

12/6 tr

0615	19/31	WI	La Crosse	299
0615	KXLT-47	MN	Rochester	272

12/13 GW

1921	<u>K46??-46</u>	NE	Falls City	<u>62</u>
------	-----------------	----	------------	-----------

NE ETV xltr, moved from ch. 24

12/26 Es

1948	unIDs-2	SS	4 "Azteca Trece"
1958	unID-4		CBS, probably KGBT

12/30 F2!

0954	unID-2		ghostly video, no audio
------	--------	--	-------------------------

A very quiet fall tropo season, save for November 9. A little off-season skip noted as well, and the surprise F2 reception on December 30 was a treat to see for the first time ever, even if I didn't ID the station. Log total stands at 571. 73s Matt.

Jeff Kadet, K1MOD/9, Box 20, Macomb, IL 61455 (Internet Posting)

Had intense F2 on channel 2 December 30 and 31. The station that was dominant was seen from NJ to IL. We think it was Trinidad and Tobago. Video freq. was 55.2497.

Mike Cherry, VE7SKA, 362 Sky Valley Rd, Salt Spring Island, B.C. CANADA
mcherry@saltspring.com

12/31 Es2 (Times GMT)

1924	KHON 2 TV 240°	HI	BL11
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01/01/2002 F2

1859	un-ID	ch 3 TV 240°	(peaking Hawaii)
------	-------	--------------	------------------

1900 KHON 2 TV 250° HI BL11
 73 & Happy New Year - Mike VE7SKA

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

November 2001 CT
 18 Ms 0416 unid meteor bursts ch. 3 (KATC off)
 Es 1820 unid SS 4, 5
 tr 2140 XHAB 7 TA 505

December 2001
 2 tr 2033 Little Rock 7, 16 305
 2228 KVTH 26 AR 295
 4 tr 0707 KEDT 16 TX 425
 11 tr 1713 KLRT 16 AR Fox 16 305
 2051 WCIQ 7 AL // 41 APT 375
 2052 WBIQ 10 AL // 41 330
 2057 WBIH 29 AL calls l. right 280
 2058 WJSP 28 GA 390
 2110 WTJP 60 AL 390
 2113 WRJM 67AL 320
 2137 WCLP 18GA GPTV 475
 2153 WJSU 40AL ABC 385
 2200 WHNT 19AL ID, news (local off) 400
 2217 WZTV 17TN 615 area code, zero beat 465
 2231 WLDM 23AL ID lower left 285
 2235 unid 58 ABC - WBMA or WPGA? 465
 2304 WTLH 49 GA ID 390
 2318 WXTX 54 GA ID 360
 2340 WHDF 15 AL pgm match 360
 2349 WFIQ 36 AL // 42 360
 14 tr 2116 WJSP 28 GA 390
 2215 WBIH 29 AL 280
 2235 WHOT 34 GA 515
 2237 WHSG 63 GA TBN 490
 2239 WTBS 17 GA Superstation 455
 WPXA 14 GA Pax, 11 alive
 news 435
 2248 WATL 36 GA pgm match 455
 2303 WCLP 18 GA 475
 2340 WUPA 69 GA Change of Heart 455
 2346 WGCL 46 GA floating over local 455
 15 tr 0006 WXIA 11 GA Conan, local ad 455
 0024 WPGA 58 GA 460
 0106 WGNM 64 GA knife shopping show 470
 0133 WSWS 66 AL 370
 0205 WXTX 54 GA 360
 0207 WATCt 57 GA very weak
 0600 WRJM 67AL ID 320
 0605 WBIF 51 FL ID lower left 355
 0622 WJSU 40 AL "33/40" 385
 1152 WTJP 60 AL still in! 390
 1736 KTEJ 19 AR pgm match 370
 1801 KATV 7 AR 305
 1900 WZTV 17 TN Bil Heard

Chevrolet 465
 WCLP18 GA high school
 Il game 475
 strong! 360
 1910 WHDF15 AL 515
 1915 WHOT34 GA 455
 WATL36 GA 265
 1918 WKDH 45MS ABC 400
 1933 WHNT19 AL CBS 510
 1952 WCTE22 TN bug lower right 465
 1959 WNAB 58TN ID 465
 2003 WUXP 30TN Rambo 455
 2020 WUPA 69GA hockey 465
 2030 WNPT 8TN "Npt" ID 465
 2041 WHTN 39TN religious, Nashville ment'd. 460
 18 tr 1921 WCIQ 7 AL 375
 2102 WJSP 28 GA 390
 2105 WATL36 GA Seinfeld 455
 WHOT34 GA "Atlanta" lower right 515
 2149 WFTX36 FL "Fox 4" 620
 2208 WVEA 62FL SS 575
 2211 WFTT 50FL HSN 550
 2215 WGCU30FL Charlie Rose 620
 2220 WFTS28 FL local wx 550
 2223 WUSF16 FL PBS 550
 2239 WXPX66 FL Pax, weak 560
 2244 WINKt11 FL CBS
 WFLAt 8FL NBC zero beat to N.O.
 2321 WTBS17 GA 455
 2323 WHSG63 GA TBN 490
 2327 WPBA30 GA Charlie Rose 455
 26 Es 1853 unid 3-6 SS

I think that's the first time I've logged reception by 3 different modes in one day! The tropo openings to the East finally saved this year from being a total bust for tropo.

October 2001
 3 Es 1903 KDBC 4 TX 910
 XEPM 2 CH zero beat to WBRZ 910
 14 tr 2141 WJSP 28 GA in color 390
 2317 WBIF 51 FL "FL Face to Face" 355
 2356 WFSG56 FL PBS 325
 2359 WAWD58FL Beach TV 260
 15 tr 0656 KENS 5 TX bug 445
 0700 KWEX41 TX 445
 KXAN 36 TX 395
 0701 KVDA 60 TX 445

The lack of loggings shows how pathetic the tropo season has been here. What is going on? Is this a sign of global warming??

William Eckberg, 1032 Sterling Rd., Dixon, IL 61021

December 2001 CST

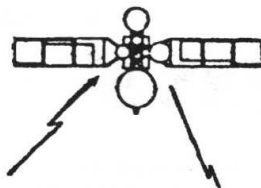
11 tr	0650	WLMT	30	TN	451
	0700	WJKT	16	TN	419
	0900	WPXK	54	TN	451
27 Es	0400	WUND	2	NC	797
		<u>WSKY</u>	<u>4</u>	NC Manteo	<u>828</u>
	0425	<u>KDKA</u>	<u>2</u>	PA Pittsburg	<u>491</u>
	0430	KYW	3	PA	741
	0450	WMAR	2	MD	677
	0500	WCBD	2	SC	797
	0620	KMID	2	TX	967
	0630	XHHUPN	2	TAM	1201
	0640	KPRC	2	TX	893
	0740	WDIQ	2	AL	727
tr	2110	<u>WBQD-LP 26</u>	<u>?</u>		
28 Es	1800	KBEJ	2	TX	992
		KBCI	2	ID	1328
	1820	KIDK	3	ID	1123
	1855	KUTV	2	UT	1139

December 27 saw one of the most unusual Es openings ever. Es began before 0400 and was out by 0800. Rock Island-4 was off and my seeing a big 4 and WSKY-4 were a big surprise. KDKA-2 was seen with news for 20 minutes and was the shortest skip I have seen since Memphis in the mid 50s.

WBQD-LP-26 has C/B with ID 24 hours a day snowfree. They are 250° WSW of Dixon and list no QTH. Anyone know the city of license?

December 28 saw Boise-2 the strongest ever. Also, an educational 4 took out my local 4.

Satellite News



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

FEBRUARY 2002

HAPPY VALENTINES DAY. This month a continuation of the satellite reviews starting with SATMEX 5 - which has C and KuBand and was placed in service in 1998. Listed below are its services 4-digital/13-digital/16 - MPEG2 4020H-26666 and has the following - some of which are occasionally scrambled ñ Color bars/TVC/Gran Canal Latino/ESPN2/Movie World/Tu Canal/Fox Sports World Espanol/Claravision/17 - MPEG2 - 4051V/3183 - TeleRitmo/ 18 - Digital/ 24 - Digital/ 78- - Edusat/781 - Edusat/ 782 - Edusat/ 783 - Edusat/ 784 - Edusat/ 785 - Edusat/ 786 - Edusat/ 787 - Edusat/ 788 - Edusat - The History Channel/ 789 - Edusat/ 790 ñ Edusat /791 - Edusat/ 792 - edusat/ 805 - XEIMT - Imevision Ch 22 - Mexico City/ 806 - Canal de Congresso/ 807 - Tele Once - Ch 11 XEIPN - Mexico City/ 808 - Government/ 809 - Government/ 810 - Government/ 811 - Government/ 812 ñ Government. On the KuBand side - 19 - MPEG2 - 20090H/13868 - The Following - CTN - Chinese/Tzu Chi TV/ CCTV4 - some of these are occasionally scrambled.

Next Anik F1 - 107.3 West - 38 C Band and 48 KuBand Transponders - 2001 20 and 50 watt powers - The following are on C Band Many transponders are used for occasional feeds - /2 - MPEG2 - the following RDS, The Green Channel and others scrambled/ 9 - Metro Media, Blue Bonnet, RDI, TeleQuebec, CITE Radio and others - mostly scrambled/ 10 - Mostly CTV Feeds - Blue, Green and Red network, Newsworld International, The Weather Network. I will do the KuBand side of this monster in a later issue - There is some flux in its offerings at this time. New of note is the Newborn Channel on SBS 6 4DTV.

Would the person who sent an email to me with a 73 in the address please resend it as I pressed a delete button and lost it. Thanks.

Eastern TV-DX

Matthew C. Sittel
15013 Eureux Circle
Bellevue, NE 68123
mcsittel@home.com

February 2002

March, 2002 column deadline: Feb. 12

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

Doug Smith, Pleasant View, TN

w9wi@w9wi.com
<http://www.w9wi.com>

12/3 tr

0730 WRGT-45 OH Dayton 276
WCET-48 OH Cincinnati 234
WSTR-64 OH Cincinnati 238

12/4 tr

0630 WALA-10 AL Mobile, Fox 10 nx 396
2331 KARD-14 LA West Monroe 415
WLOV-27 MS West Point, bug 212
WKDH-45 MS Houston, ID bug 212
KFWD-52 TX Fort Worth, "T52" 630
KPXD-68tTX Arlington, Pax

12/5 tr

0006 WMPN-29 MS Jackson, //WMAV 344
WMAV-18 MS Oxford, //WMPN-29 207
0019 KTXH-20 TX Houston, UPN 20 677
KRIV-26 TX Houston, Fox 26 676
KETK-56 TX Jacksonville 556
Athens, TX ad, through local DTV
0036 WGNO-26 LA New Orleans 472
0043 WSTR-64 OH Cincinnati 238
0100 KASN-38 AR Pine Bluff, UPN38 318
WICS-20 IL Springfield 267
WHSL-46 IL East St. Louis 231

0653 KSPR-33 MO Springfield 328
0716 KRCG-13 MO Jefferson City 316
"13 KRCG" bug
KYTV-3 MO Springfield, KY3 327
0729 KOLR-10 MO Springfield 328
"KOLR 10 Weather Lab"
0802 WRSP-55 IL Springfield 267

12/6 tr

1100 3/9/12/45/61 TN Chattanooga 130
WELF-23GA Dalton (rare)
138
1142 WYMT-57KY Hazard 223
48/64 OH Cincinnati 230
KSPR-33 MO Springfield 328

12/11 tr

0700 WXIN-59 IN Indianapolis 245
unID-47 w/"Recess"

12/12 tr

0050 unID-22 CBS WHLT?
0100 KAQY-11 LA Columbia, call ID 415
KARD-14 LA West Monroe 415
WMPN-29 MS Jackson, //18,23 344

12/15 tr

2047 WCOV-20 AL Montgomery 284

Various European carriers were heard via F2 on many dates in mid and late December. Even had about a dozen two-way QSOs with European hams on 50 MHz, despite a joke of an antenna and only 10 watts of power. Es noted on two days shortly before Christmas-probably Colorado as West Coast hams were heard (double-hop, presumably) on 50 MHz both days.

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

Equipment: Admiral 13" color TV.

11/22 tr

2310 WCPB-28 MD Salisbury, PBS
2315 WCAU-10 PA Philadelphia, logo

2330 WBOC-16 MD Salisbury, ID
2352 WHYI-12 DE Wilmington, ID

Mike Bugaj – 69 Sherman Road – Enfield, CT 06082 Equipment Sanyo 13" color TV and Winegard Prostar 5030 used.

12/29 Alerted by Girard Westerberg on the WTFDA list around 9am that Es was being seen, checked ch2 to find it wasn't Es, but F2 skip! F2 lasted from tune in at 9:10am EST to about 11:10am when it died out. Signals were exceptionally strong. I managed to get some still pictures on my 35mm camera.

12/30 More F2 around 9:15am, strong signals at times, lasting until around 10:15. This time I was ready and had the VCR running the entire time. I may have caught both RCTV Venezuela and Trinidad because I had more than one station but nothing I can see as a clear ID. I'm not counting anything seen. Ghosting and smearing were terrible but it was great fun. I will treasure that tape! Who knows if I'll ever see F2 again



when KATU came on the air they were an independent; but just a few months later took ABC from KPTV which then became an independent.

When KPTV bought KLOR and moved to channel 12, that was not the end for channel 27. KHTV was on channel 27 for a short period of time as an independent. I would assume they bought KPTV's channel 27 transmitter.

Frank Aden

KPTV is represented here with a classic example of graphic design popular in the 1950s. KPTV was the first commercial UHF TV station in the United States.

PORTLAND (revisited)

(It wasn't your column editor's intent to make a two-part series out of the Portland material, but it became necessary when WTFDA's Pacific Northwest TV historian Frank Aden called my attention to several errors in last month's text. Thanks to Frank's input, including a few logos that appeared in Oregon editions of "TV Guide", I am pleased not only to make the corrections, but to share a few more rare Portland recollections.)



After viewing TV TIME TUNNEL in the "e-VUD", Frank Aden sent me the following e-mail. I repeat it verbatim to be sure that there is no room for error.

Boise, Idaho
January 3, 2002

Wish I had known you were going to do the article on Portland TV. KOIN is the only station there to have had the same network since they came on the air.

KPTV was NBC when it came on and took NBC to channel 12 when it bought KLOR which was ABC. KGW which came on Dec. 15, 1956 must have been an independent but got ABC when KLOR went off the air.

Sometime between 1958 and 1960, KPTV and KGW swapped nets. In 1962



Oregon's Number 1
Television Station



It's rare to see VHF mentioned on promotional material. Because UHF arrived first in Portland, KLOR apparently felt the differentiation was necessary. Is that an ABC logo?



EDITOR'S NOTE: *As of this month, TV Time Tunnel transitions to a semi-regular feature rather than the monthly presentation you've become accustomed to. Please be watching for the next edition in the spring.*

wtfda://online

A Dxing Journey through the internet

Saul Chernos
57 Berkeley Street
Toronto, ON M5A 2W5
CANADA
schernos@sympatico.ca

This month we blast off with a cyberspace look at space.

The Perseid meteor shower of Nov. 18 was truly remarkable. Southern Ontario DXer and astronomer Phil Gebhardt invited me to join him at a rural site north of Oshawa Ontario to watch the meteors and to listen for bursts on FM. Intense tropo quickly filled the band with stations, denying us an empty frequency. We couldn't even score an open VHF channel on my mini TV. So, if I could possibly be disappointed by good tropo, this was the occasion!

Nonetheless, we were treated to excellent viewing ñ before thick fog rolled in close to the peak of the shower. The shining trails were spectacular, and DXers across North America reported great viewing, many lengthy pings and some nice loggings.

This past fall was also remarkable for great auroral displays. Just north of Toronto, the Northern Lights shone an occasional deep, rich red and beautiful pale yellow. The fall auroral activity also coincided fairly closely with some e-skip openings. We can only ponder the possibility of a causal relationship between natural phenomena such as auroral activity and the Leonids, on one hand, and e-skip. Some DXers reported MS pings so close together that they seemed like Es!

Thus, it's entirely appropriate that we explore Space Weather.com for answers:

www.spaceweather.com

This site is chalk full of stuff, including stunning photos of auroral displays and meteor showers, news about current space weather conditions, and forecasts for sunspot activity and geomagnetic storms from sources such as the University of Alaska's Geophysical Institute. Space Weather.com is a must for any serious MS, auroral or E-skip chaser.

Speaking of space, Bill Hepburn and Kaimbridge Goldchild both recommend the Solar Terrestrial Dispatch, which deals extensively with the issue of ionospheric radio propagation. You can find it at:

www.spacew.com

This site offers an array of forecasts, currently active warnings and alerts. There are discussion areas with participants and hosts such as Cary Oler, a scientist at the University of Alberta who is considered one of the top ionospheric propagation experts. This discussion area can sometimes be hard to find, so we recommend using basic Internet search engines and related techniques to find anything specific.

Mike Hawk tells us about an online review he wrote regarding mid_latitude sporadic Es, at:

<http://www.amfmdx.net/propagation/Es.html>

This site links to a gold mine of other DX-related information and contains a review of sporadic_E knowledge both from a DXer's perspective and bridging in observations from academia. The ideas conveyed in the article are theories, hypotheses, and observations, yet Mike reminds us that the catalyst for sporadic E is unknown and its behavior is unpredictable. "When you start to believe that correlations and observations are fact, sporadic E will surprise you with an inexplicable result" he says.

In the last column, we promised to provide tips for solving unIDs. Well, Massachusetts DXer Steve Solomon reported an amazingly lengthy burst in French on 88.7. He heard the letters CFMA, surmised these might be Canadian call letters, and sent me an audio file that contained the following:

«...CFMA chapitre de Lafayette, un organization sans-profite pour la promotion de la culture cajun...»

In translating the tape for Steve, I effectively solved the unID. What he heard was: «...CFMA chapter of Lafayette, a non-profit organization for the promotion of the Cajun culture...»

In other words, CFMA is the acronym for the Cajun French Music Association, and Lafayette (which he did not catch on the tape because the audio quality wasn't great) happens to be in the heart of Cajun country in Louisiana. Ironically, KRVS is a largely French-language station on 88.7 in Lafayette. Yet, before I even listened to the audio file, I strongly suspected Steve's unID was going to be KRVS. I had done a basic web search engine query on CFMA and came up with the association. I even found references to KRVS on the CFMA site.

Out of curiosity, I subjected CFMA to a web site called Acronym Finder:

www.acronymfinder.com

Type in any acronym and you'll get back the full names of various entities that use that acronym. Well, I got the California Furniture Manufacturers Association, the Canadian Fragrance Materials Association, the Central Financial Management Activities, the Central Florida Musicians Association, and the Construction Financial Management Association. However, Acronym finder did not identify the Cajun French Music Association.

Go figure! The lesson here? Don't assume that any particular online search tool knows everything. Keep hunting and think outside the box.

We conclude with one final DX phenomenon, which took place on New Year's Eve ñ F2 reception from north-eastern North America to what is widely believed to be the Caribbean and South America. DXers are fairly certain they saw Venezuela and Trinidad, but there's nothing like a list of stations in that rather large target area to fuel a DXer's desire for something exotic. Neil Kazaross, Jerry Bond and Tom Bryant supplied just that: Two lists that can be downloaded and printed:

For a list of South American VHF TV stations:

www.ukwvtv.de/de/publikationen/tvlist/SAm3.pdf

For a list of Central American VHF TV stations:

www.ukwvtv.de/de/publikationen/tvlist/CAm3.pdf

These sites proved to be a godsend for DXers lucky enough to sort out the wacky mess on channel 2.

Well, that's it for this issue. We'll be back in a future edition of the VUD with more tricks from the web. Remember, this is YOUR column. Contributions needed.

73s, Saul

OUR WEBSITE IS <http://www.anarc.org/wtfda>

Your mission: Memorize this address!

Mid-Latitude Sporadic-E – A Review-Part II

Michael Hawk - November 12, 2001

Remember that simple geometry will not take into account the gradual bending of a wave (the property similar to refraction discussed previously). For the ease of calculations, you can assume reflection occurs instead by taking into account the virtual height of the refraction. Many formulas revolve around the virtual height, which is an altitude higher than where the actual refraction is taking place. See figure 3.

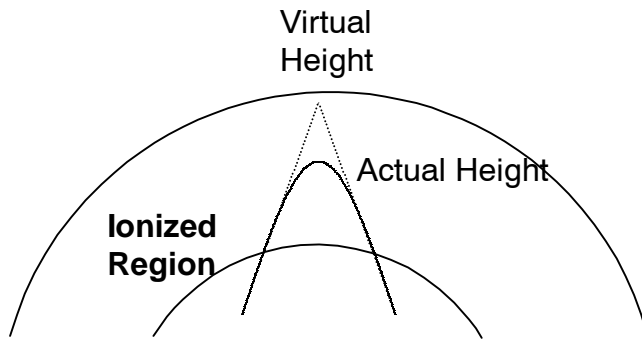


Figure 1 Refraction of a radio wave with Virtual Height

It has been observed frequently that if one patch of ionization forms, others of varying strength likely exist or will form shortly. If this is the case, and two patches exist within the horizon of a midpoint, the theoretical distance propagated by Es can nearly be doubled, so long as the clouds are in line with both the transmitter and receiver. This 'double hop' propagation is fairly common during widespread occurrences of Es, especially below 70 MHz. Similarly, three or more clouds could potentially line up, providing even further distances propagated. Of course, the likelihood that each of the clouds are adequate strength and geometrically lined up is pretty slim, especially if your interest is in higher frequencies.

One other factor as to the maximum distance propagated by Es is the height of the Es cloud. According to ionosonde (devices used to measure reflectivity of the ionosphere) data, Es usually occurs around 90-100 km altitude. This data also reveals that multiple layers of 'clouds' have formed on occasion, usually spaced by about 6 km. Varying heights might allow for longer or shorter distances propagated, but remember that we are constrained to an altitude close to 100 km, so the variances will be small. On a side note, as mentioned earlier, the E region exists between 90 and 160 km. Since Es consistently occurs around 100 km, many scientists refer to a distinct 'Es Layer'.

As electron density of the cloud increases, its critical angle also increases. In other words, at a given frequency, a cloud may have a critical angle of 40° . In an hour, the electron density may have increased enough to raise the critical angle to 45° . This would result in a shorter minimum path length. Refer to figure 4.

Figure 2 critical angle (ϕ) and frequency relation

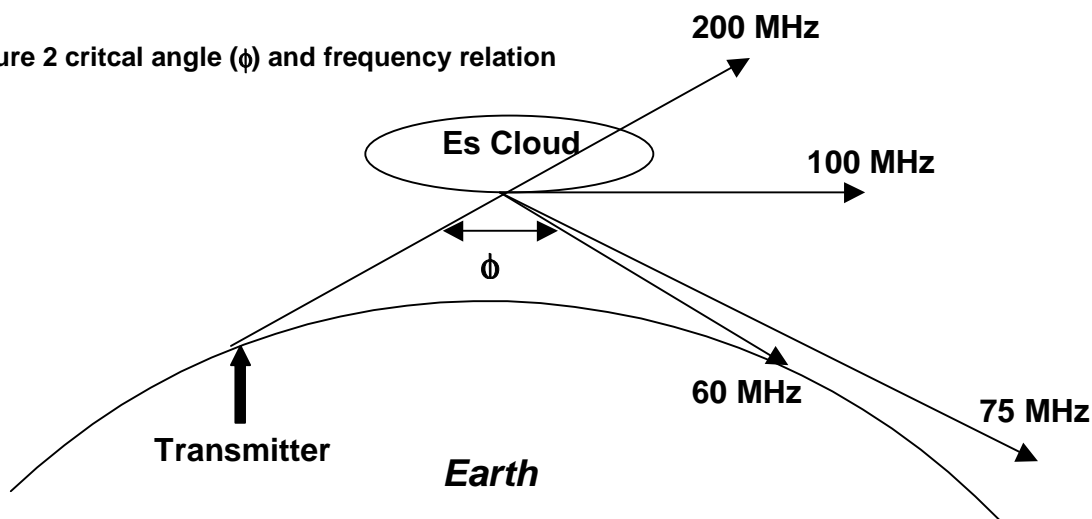


Figure 4 is meant to demonstrate that a region of ionization will refract signals of varying frequencies differently. A higher frequency may be unaffected, while lower frequencies are more and more impacted. In the example, the 60 MHz frequency is the highest frequency (MUF) that is getting refracted back to the Earth. The critical angle for a 60 MHz signal is represented by ϕ . A lower frequency, say, 30 MHz, would be refracted at an even smaller angle, resulting in a smaller critical angle than the 60 MHz signal.

At even lower frequencies, the critical angle might be 90°, meaning a signal sent straight up is reflected back down. The highest frequency at which a vertically incident wave is reflected back to the transmission point is known as the critical frequency (f_o). Formally defined, critical frequency is the frequency capable of penetration just to the layer of maximum ionization with a vertically incident wave. Radio waves of lower frequencies are refracted back to the ground, and those at higher frequencies pass through.

Since both critical frequency and critical angle are functions of ionization density, relations can be modeled mathematically. If you know what the MUF is, you can calculate what the critical angle or critical frequency is. Similarly, if you know either the critical angle or critical frequency, you can calculate the MUF.

It is important to note that the models for calculating MUF and critical frequency are more reliable for other types of propagation than Es. Generally, the secant law is used to make these calculations, but under some conditions can underestimate or overestimate MUF for Es.

For a moment, if we assume that the model holds true, we can plot the relation between critical frequency and MUF. This is demonstrated in Figure 5.

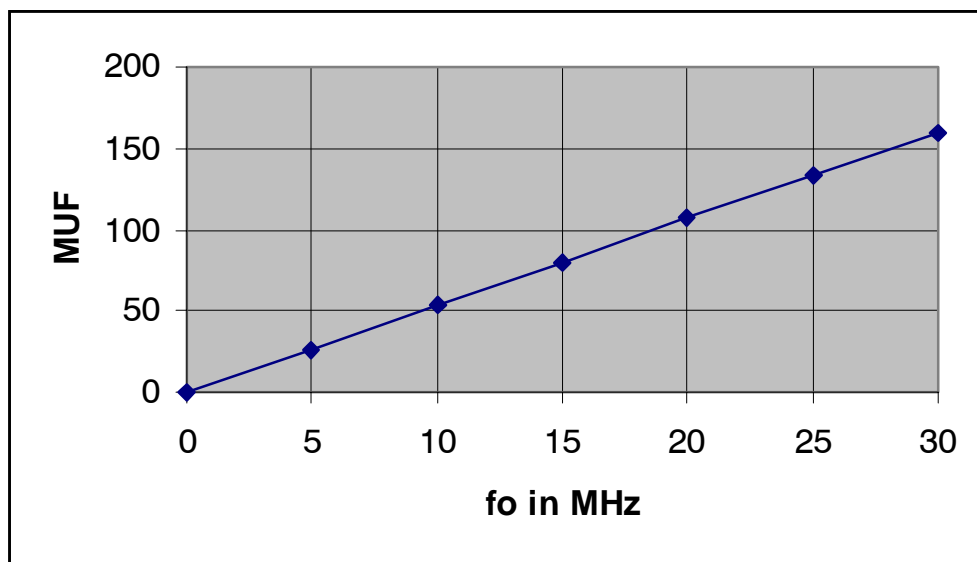


Figure 3 Critical Frequency and MUF

Figure 5 shows a linear relation between MUF and f_o . This is derived from two common formulas:

$$MUF = 48\sqrt{N}$$

$$f_o = 9\sqrt{N}$$

N represents the electron density in e/m^3 . Observations have shown that Es does NOT have a totally linear relation as the above formulas would indicate. Despite this, this discussion is important to understand the principles involved.

Why is any of this useful, anyway? Critical frequency measurements are recorded by ionosondes \tilde{n} devices that transmit a spectrum of waves straight up, and determine the height and strength of the reflection, and determine the critical frequency. Many observatories and research centers continuously monitor the ionosphere, and some even post the results near real-time on the internet.

2.3 Cloud Movement

Within the ionosphere at the E region and below, strong currents exist. After the formation of an ionized cloud, these currents move the cloud, usually to the west or northwest. Just as weather patterns generally move in one direction (west to east) localized events can and do cause weather to occasionally stagnate or even move in the opposite direction. Similarly, sporadic-E clouds can move in any direction on occasion \tilde{n} especially north and south (and less likely to the east).

The velocity of these clouds has been measured in a variety of ways. These include the use of Doppler shifts and VHF oblique propagation. The result varies between 20-130 m/s (110+ mph). Higher velocities are also thought to exist.

Calculation of the velocity of clouds through the use of VHF oblique propagation is slightly less scientific, but a process that anyone observing an Es opening can use. The process revolves around plotting the location of the cloud by identifying the transmitting and receiving locations. A line is drawn between the two points, and the midpoint identified. The midpoint is the approximate location of the ionized area. Several data points are necessary, and a long period of

time required to make this approximation. Possible caveats to this method include irregular shaped clouds and the existence of multiple clouds of ionization confusing the location.

Measuring Doppler shifts requires the use of highly technical (and expensive) equipment. In spite of this, errors in this method exist as well. The part of the cloud reflecting the wave may have a different velocity than the cloud as a whole. A strong analogy is that of a balloon. A balloon may be moving in one direction, but the molecules inside are moving in random directions.

2.4 Daily Variation

It has long been known that Es doesn't simply occur during the day. It is known that ionization levels throughout the ionosphere tend to have two peaks, centered on either side of noon. Es occurrence seems to follow a similar trend.

Figure 6 is a graph of the occurrence of Es during summer months. As can be seen, the summer peak is in the morning (0700-1200) and a secondary peak occurs 2000-2200. This graph comes from White Sands, NM over a 7 year period. It is important to note that the White Sands data seemed more skewed towards the morning peak than similar measurements taken in other mid-latitude locations. However, all indicated a slightly stronger likelihood of Es in the morning than in the afternoon/evening.

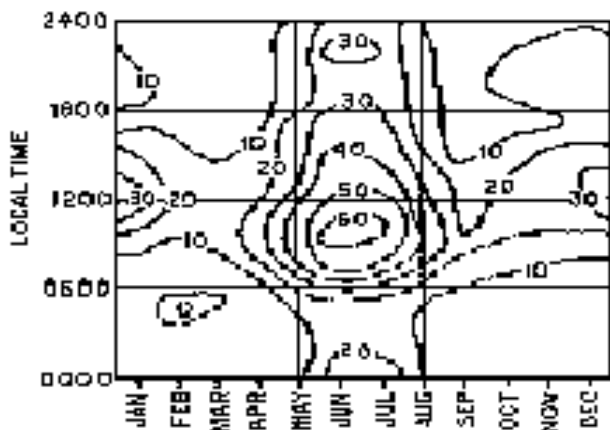


Figure 4 Percentage of time Es exceeds FoEs of 5 MHz, from White Sands, NM 1948-1954

Figure 6 was obtained from *A survey of the present knowledge of sporadic-E ionization*, JA Thomas and EK Smith, *Journal of Atmospheric and Terrestrial Physics* Vol 13.

Remember that despite the apparent greater likelihood of Es in the morning hours, this data was collected over a period of years. This diurnal characteristic is much less noticeable in the day to day casual observation of DXers. And don't turn the radio off after dark! Many still remember an opening that occurred after midnight on June 19, 1992, resulting in MUFs of 144 MHz+.

Additionally, during the winter peak (discussed in the next section), Es is most common *just after sunset*.

2.5 Monthly Variation

In observing Es on a larger time scale, it is well documented that Es occurs most often in the summer, with a secondary peak in the winter. These peaks are centered very close to the solstices. The summer peak can be characterized by probability of occurrence being 5 to 8 times that of winter. The use of the descriptors 'summer' and 'winter' is intentional, as the peak in the Southern Hemisphere is in its summer months, which is the Northern Hemisphere's winter.

Similar to the diurnal characteristics discussed in the previous sections, year to year observations will not always demonstrate the 'normal' behavior. Some years have occurrences common in 'off peak' months, such as October and February. Other years peak early or late.

2.6 Annual Comparison

Patrick Dyer, WA5IYX and Emil Pocock, W3EP, have shown that there seems to be a pattern to the quantity of Es observed each year.¹ These observations come from use of his records over the 11 year period in which Dyer consistently monitored the FM band. He noted a potential 4 to 6 years cycle.

(continued next month)

¹ See P.J. Dyer and E. Pocock, "Eleven Years of Sporadic E", QST, March 1992, pp 23-28

WHAT ABOUT OFFSETS?

Q. Would someone explain to me the so-called frequency offset (z-, 0, z+) that I see listed in some VUD entries? What is the purpose of being offset from the nominal frequency?

A. Many TV stations operate 10KHz either side of where they "should be". For example, most documents you see will show that the video carrier frequency for channel 2 is 55.25MHz. But KDKA-TV channel 2 in Pittsburgh actually broadcasts on 55.24MHz; WJBK-TV channel 2 in Detroit is on 55.26MHz. These stations are considered to be on "minus" and "plus" offsets respectively. WDTN channel 2 in Dayton actually does broadcast on 55.25MHz, and is considered to have "zero offset".

If two or more stations come in at the same time on the same channel, they interfere with each other. If the interfering station is relatively weak, you may only see some horizontal bars on the screen. (similar to interference on the AM radio band, where a weak adjacent-channel interfering signal may show only a tone (heterodyne) and no program audio)

The number of interference bars depends (up to a limit) on the difference in frequencies of the two stations. (again, just like AM radio where the pitch of the interference tone depends on the difference in frequencies of the stations) Since the screen is only so large, if there are more interference bars, they must be smaller. RCA/NBC tests in the late 1940s/early 1950s found that the appearance of the bars was least objectionable (when considering the frequency tolerance of the transmitters) for a frequency difference of 10KHz.

(it should be mentioned that it was much harder to keep a TV transmitter on the right frequency in 1950 than it is today. Stations were - and still are - required to be within 2KHz of the right frequency; today, the vast majority are much, much closer. Some are within 0.002KHz.)

So, the FCC assigned nearby stations on the same channel (such as the three mentioned in the first paragraph) to different frequency offsets. When the U.S. sat down with Canada and Mexico and negotiated channel assignment agreements along our borders, offsets for Canadian and Mexican stations were written into the agreement as well.

In Europe, there are more than three offsets. (indeed, I've heard some Europeans refer to American stations as being on "8M" or "8P" offset) Someone from there is going to have to explain them.

For some LPTV stations, you may see a "N" (No) offset. Originally, *all* translators/LPTVs were assigned no offset. This was a recognition of their lower power, and their frequent installation in harsh environments where frequent maintenance would be impossible. (Western mountaintops) The frequency tolerance was much looser than that required of a full-license station.

At some later point, the FCC agreed to allow some translators/LPTVs to run more power, provided they observed the same frequency tolerance regulations that applied to full-license stations. These more-powerful stations had to be assigned offsets as well.

Doug Smith

METEOR SHOWER GUIDE

Meteors are always around, but not so much in February. Here is a list of showers we can look forward to in the near future. Happy MS Dxing!

SHOWER	RUNNING DATES	PEAK
Beta Centaurids	Feb. 2-25	Feb. 8-9
Delta Leonids	Feb. 5 – Mar. 19	Feb. 22-34
Sigma Leonids	Feb. 9- Mar. 13	Feb. 25-26
Rho Leonids	Feb. 14 – Mar. 13	March 1-4
Pi Virginids	Feb. 13 – April 8	March 3-9

2001 HIGH MUFs

Q. What were the highest MUFs of the 2001 E skip season?

A. I've been putting together some stats for the 2001 Es season as observed from Boulder, and recalculated the "top" theoretical MUF's based on my receptions.

The results indicate 2 potential 222 MHz MUF's occurred, in addition to what John and Doug report.

When considering the few hams on 222 MHz looking for Es, and the very small footprints involved in any potential 222MHz opening, maybe it is possible that these theoretical MUF's are accurate.

Results are calculated using the Secant law derivation. Note that the secant law is thought by some to be too conservative, and thought by many others to be too generous when applied to Es.

The MUF's noted would only be observed at the optimal geographical location with respect to the Es ionization.

- 5/26 (195 MHz)
- 6/21 (224 MHz) ñ 483 mile reception to AZ at 88.7
- 6/27 (197 MHz)
- 6/28 (187 MHz)
- 6/30 (183 MHz)
- 7/7 (207 MHz) ñ 585 mile reception to AZ at 95.5
- 7/11 (176 MHz)
- 7/12 (230 MHz) ñ 585 mile reception to OK at 106.1
- 7/13 (189 MHz)
- 7/18 (199 MHz)

Here's the formula. Sorry for the odd nomenclature ñ it's hard to display with ascii.

$$F_m = 2239f \cdot \sqrt{420^2 + d^2}$$

F_m = MUF

f = observed frequency

d = distance in km at the observed frequency

sqrt = square root

-Mike Hawk



NO DOUBT ABOUT IT!

KENWOOD made some Great tuners for FM Dxing!

Check out Mike Hawk's Tuner Reviews at <http://www.amfmdx.net/fmdx/tuners.html>

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THE MAILBOX and all general club correspondence:

Mike Bugaj at WTFDA, PO Box 501, Somersville, CT 06072

mbugaj@snet.net

SATELLITE NEWS

George Jensen, 4604 Antana Ave., Baltimore, MD 20206-4220

scisatman@aol.com

TV NEWS

Doug Smith, 1385 Old Clarksville Pike, Pleasant View, TN 37146-8098

w9wi@w9wi.com

FM NEWS

Greg Coniglio, 90 Slate Creek Dr., Apt#3, Cheektowaga, NY 14227

coniglio@adelphia.net

PHOTO NEWS

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

jkruszka@bellsouth.net

TV TIME TUNNEL

Tom Bryant, 849 Todd Preis Dr., Nashville, TN 37221-2607

tjbdx@home.com

EASTERN TV DX

Matt Sittel, 15013 Eureux Circle, Bellevue, NE 68123

mcsittel@home.com

WESTERN TV DX

Victor Frank, 12450 Skyline Blvd., Woodside, CA 94062-4554

frank@horizon.sri.com

SOUTHERN FM

John Zondlo, 4889 Driftwood Cir., Yukon, OK 73099

jpzondlo@aol.com

NORTHERN FM

Keith McGinnis, 387 Shirley Street, Winthrop, MA 02152

longwave@mediaone.net

WTFDA://ONLINE

Saul Chernos, 57 Berkeley St., Toronto, ON M5A 2W5

schernos@sympatico.ca

VERIFICATIONS AND QSL SIGNERS

Tom Yingling, 221 Pinewood Road, Baltimore, MD 21222-2345

ka3tcc@erols.com

TV and FM STATISTICS

Fred Nordquist, 7945 Boxford Road, Clay, NY 13041

nordquis@twcnny.rr.com

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