### VHF-UHF DIGEST



### publishers' notes...

### WTFDA HEADQUARTERS, P.O. BOX 163, DEERFIELD, IL 60015 USA

NEW YEAR'S GREETINGS! With this issue, the first of 1973, WTFDA begins its sixth year of operation! Today's  $\underline{\text{VUD}}$  looks quite a bit different than those of five years ago. We like to think that each year will bring us a better  $\underline{\text{VUD}}$  and many more new members. And what a super year we should have in 73, the "year of DX"!

MTFDA CONVENTION ANNOUNCED... Well, now's your chance to start planning early to attend the 1973 WTFDA convention! It will be hosted by Bob Seybold in Dunkirk, New York. Bob also hosted the the 1970 WTFDA gathering and even has experience as an AIPA convention host. We have no exact date to announce this month, but the likely dates are the last weekend in July or the first weekend of August. We hope to have a confirmed date in time for the February issue.

WTFDA CHANGES PRINTERS... This first issue of 1973 is also the first by a new printer. We were most satisfied with the work of our former printer, but increased rates made the change a matter of necessity. Our new printer is using the same equipment as the former printer, and we expect little, if any, change in the mechanical format of the <u>VUD</u>.

TWO "SPECIAL" ISSUES STILL AVAILABLE... A supply of two back issues thought to be sold out has suddenly appeared! The issues are July 1970 and August 1971. Neither is a small issue by any means. A great opportunity for our newer members. While supply lasts,  $75\phi$  each.

FCC TV COLUMN CHANGE... Chuck Dobbins has informed Hq that he will no longer be able to continue as an editor. Chuck has done a fine job with the TV column, as he did with FM before Bruce Elving took over. A replacement editor will be announced shortly.

DX in DECEMBER... DX wise, 1972 went out in style. The month brought several interesting Es openings, meteor scatter, and a UHF duct or two. Speaking of ducts, many members are starting to realize that they occur far more frequently than previously thought. Why not form a telephone "DX network" in your area to alert others of improving conditions. You'll catch many more openings in this way.

DUES CONFUSION... A number of members have been enclosing checks for the wrong amount when they re-up. The dues structure and supply prices are printed on the back cover of each issue. Please refer to your latest issue when making payments.

OUR COVER CARTOON... This month's cover is by member Jim Hayes. Our thanks to Jim for a great cover to start the new year. Cover and cartoon ideas are still needed.

FM REPORT FORMAT... The question of what is the best way to present FM column DX reports still goes unanswered. How would you like to see reports presented? How much information should be included with each logging? Do you favor the elimination of re-logs from printed reports? What information would you like to see that isn't being presented? What information do you consider as wasted space? Please send your comments on these questions to your FM editors.

73 in 73!

Gary and Morrie

### FGG IU NEWS

Bruce F. Elving, Editor 1646 No. Prospect Ave. - Apt. 414 Milwaukee WI 53202

I want to than	k all =h	n cent Che	ictma
New Construction Pe	rmits	O SHITE GIN	J
Montgomery AL	*90.7	10	
Elk Grove CA	*90.1	10	
Danbury CT	*91.7	10	
New Haven CT	*88.7	1700 h, v;	150"
West Haven CT	*68.7	1700 h, v;	150
[Above two confirm	ed by FO	C; it is t	e-
lieved they will s	hare tie	e and poss	ibly
be directionalized			
Handen CT *88.7 10	-watter	.]	
Preston ID K288AG 1	05.5\$ 10	To relay	KSL-
FM Salt Lake City			
Knoxville IA	92.1	3000 h, v;	300
Knoxville-Pella IA			
Above two station	s to sha	are time]	
Gorham ME	*91.1	10	
Picayune MS	106.3	3000 h, v	1771
Butte MT	*91.5	10	
Bellevue OH	92.1	1100;	1251
Findlay OH	*88.3	10	
Bethlehem PA	-91.3	10	
Oak Ridge TN	100.3	100,000 h.	;2000
Teasdale UT K257AC	99.31 10	To rela	4
KALL-FN Salt Lake	City UT	1	
Bayne County (rural	) UT K29	96AC 107.1	10
To relay KALL-FM			
Charlottesville VA	#257AA	99.3\$ 1 w	To
relay WIVE-FM Ashl	and VA		
Virginia Beach VA	94.9	50,000 h,v	4671
Beckley WV	*91.7	10,500 h,v	; 920°

On the Air and DX Ready! Talladega AL WHTB 92.7 250 h.v; 870' Thomasville AL WJDB-FM 95.3 3000 h,v; 300' 1410' \$, Dennis Smith? Rio Vista CA KRVH \*90.9 10 m [Calls, too] materbury CT WIOF["W-104"] 104.1 12,500 Melbourne FL WTAI-FM 107.1 3000; 300' \*90.1 Rexburg ID KRIC 10 97.7\$ 3000 h,v; 190° Brazil IN WUCK-FM [See Andy Bolin's report, last month] Crown Point IN WFLM 103.9\$ 3000 h.v: 300'. MOR format 6 am-Midnight. NUM format o am-mining. Lowell IN NLCL 107.1% 3000 h,v; 300',5:30 (125,000) \*\*Now NCCZ (NHOH-FN)Th Steinberger, Hudson MA.

s cards, and hope all had a fine [and DX filled] holiday season! a.m.-Midnight, modern country format. Thanks to John Zondlo for information on the two preceding. Williamsport MD WYII 95.9 3000 h.v; 300' Gaylord MI WWRM 106.7 or #### 50,000 h, v; 570' KHTS \*90.1 Moberly MO 10 KLSD \*91.1 10 Lubbock TX Petersburg VA WPVA-FM 95.3 3000 h,v; 240°

Licensed with New Facilities (Selected) 99.5 6000 h,v;1170' Chicago IL WEFM Conroe TX KNRO-FM 106.9 100000h,v:240'

Dual-City Identifications Granted Brookline MA WBOS 92.9 to Brookline-Boston Medford MA WWEL 107.9 to Medford-Boston Ridgway PA WKBI-FM 94.3 to Ridgway-Johnsonburg

Deletions Port Huron #1 \*91.9 WFCI -- Confirmed by FCC, although a later item in Broadcasting contradicts this, saying their construction permit has been extended to 5-10-73. Dayton TN 104.9

Changes in New and Existing Stations Salinas CA KRSA-F# 100.7 to 910 h.v: 2420 San Francisco CA KCBS-FM 98.9 4300 h.v:

KSFX 103.7 7000 h.v; 1450' KFOG 134.5 1444' (13500) San Luis Obispo CA KUNA 96.1 to 38000 h,v; h.v: 600'. \$ 7 Washington DC WGTB \*90.1 10,000; 285' Atlanta GA WRFG from \*91.9 to \*89.3 10 Bangor ME WABI-FM 97.1 adds V Boston MA WHOH-FM 94.5 6700 h,v; 1140'\*\*

East Lansing MI WKAR-FN \*90.5 910' NOW NCOZ (NHOM-FM) Thanks, R. Clevelano un Columbus OH 96.3 NTVN-FM (NBUK)

Petoskey &! WMBN-FM 96.7 1000 h,v; 320' Waynesboro MS WABO-FH 105.5 145 (3000h.v) Springfield MO KTTS-FM 94.7 29000 (660')\$ Carson City NV KNIS 94.7 60,000 (2150') Cambridge OH WILE-FM 96.7 adds V Cincinnati OH WKRQ 101.9 23000 h,v; 690' Middletown OH WPBF 105.9 34000 h,v (410') Yellow Springs OH WYSO \*91.5 2400; 390\* Hazleton PA WVCD 97.9 25000 h,v; 660' Pittsburgh PA #JAS-FM 99.7 10500 h,v;930' Williamsport PA WILQ or WILQ"-FM" 105.1 adds V [Calls changed from WLYC-FM] Lebanon TN #COR-FM 107.3 9000 (173') Red Bank TN #SIM 94.3 22' (3000 h.v) Houston TX KRLY 93.7 97000 h,v (790') Appleton #1 WAPL-FM 105.7 48000, 215' h; 3800, 200' v.

Ft. Atkinson WI WFAW-FW 107.3 adds V Kenosha WI WLIP-FN 95.1. Permit cancelled for power increase. Remains 6190; 256'. Oshkosh WI WRST from \*88.1 to \*90.3. 960; 125'. Adds \$. Call Letters Assigned

102.3 WAMI-FM Opp AL 105.7 WTUB Troy AL \*90.5 KHSU (was KHSC) Arcata CA Tulare CA 106.7 KWSM (was KNNU) 92.1 WSGC-FM Elberton GA 107.9 KFMW (was KWWL-FM, Waterloo IA 14501 reports Dennis Moe. \$ rock format continues, he says.) Barbourville KY 93.5 WYWY-FM Grand Rapids MN 96.7 KOZY-FM 101.3 WRAH (was WPBC-FM) Richfield MN Rolla MO 105.3 KZNN \*90.1 WGMC Greece NY Circleville OH 107.1 WNRE-FM (was WNRE) Hilton Head Island SC 106.3 WHHR Morristown TN 95.9 WAZI (was WMTN-FM; goes to rock, according to Broadcasting) Cleveland OH 105.7 WWWM (WKYC-FN/WGAY)

A new, powerful \$ pirate radio station in Syracuse NY operates COMMENTS FROM READERS on \*90.3, Allen Rockford reports, calling itself "WNSR." It supplants now-defunct "WMCG." Which makes me wonder if "KRJB-FM" 107.3 Mankato MN still operates: I have a verification from its young owner.

J. A. Markewicz, Winnipeg, reports KBHB 101.1 Bemidji MN to be monophonic, and his seventh best FM signal. He wonders if KANR 98.9 Great Falls MT is country and western, and if anybody has ever verified the telephone talk station, KLIQ-FM,92.3 Portland OR. Mike Northam, Portland, says KQIV 106.7 is in Lake Oswego (not Milwaukie) OR, quad stereo [K-Q-4], progressive rock albums.

Anybody know of a good, up-to-date listing of SCA-equipped FM stations? Please send the info to this column and I'll pass it along to an Atlas reader having a special interest in the subject. In Maine, an FM Atlas reader has heard the new WGHM-FM [which will be changing its call letters to WTOS] testing in \$ on 105.1 from Skowhegan. An article in the Bangor Daily News reports the station expects to have a 200 mile coverage radius [I estimate 80 miles!], transmitting from Sugarloaf Mt., Kingfield with 25000 h,v; 4237' above sea level. Its automated, "up-tempo, easy listening programming" was to begin in mid-December. Richard Steinberger writes that it will initially operate 6 p.m.-Midnight. And WACY 102.1 Springfield MA is now \$ rock and "sounds automated."

The FCC [not exactly a reader of this column] informs that KIRE \*90.5 Little Rock AR will have 3600 h,v; 265'; WCLA-FM 107.1 Claxton GA will be 3 kw h,v; 195'; WKDU \*91.7 Philadelphia is only 10 watts [shares time with WPWT]. WZAR 101.9 Ponce PR is 11500 h,v; 2580'; WIPR-FM \*91.3 San Juan is 125,000 h,v; 2720' [leaving WJFM still the highest-power FM station licensed by the FCC], and WMID 96.9 Manati PR has a height of 0'.

FREQUENCY MODULATION STATIONS IN SANTO DOMINGO, D. R.

Freq. Por		he stati ht Rad	ter link, with ion's purpose.  Name io HIN io Central	FM broad-	HILR- HIT- HIFA	106.8	,	50' 50' 100'	Radio La Voz	ABC Clarin Visión de las Fuerzas Armadas list are, of course, most
only incide	tal to t er Heig	he stati	Name	FM broad-	HILR- HIT-	105.5	1,000 50	50°	Radio Radio	Clarín Visión
only incide	tal to t	he stati	ion's purpose.	FM broad-	HILR-	105.5	1,000	50	Radio	Clarin
				FM broad-				50	Radio	Clarin
implies a s	udio-AM	transmit	ter link, with	FM broad-	HICA:-	105.0	50	50	Radio	ABC
					111.04	ADE D	F0			
buildings.	The symb	01 [-]	sed by itself a	after call	HIND	104.5	500	50	Radio	Ciudad Primada
					HIBA-	103.5	50	30'	Radio	Reloj de Emisoras Unidas
t stations	ontacted	not kno	wing what the c	aller meant	HIBE-	103.0	100	50'	Radio	<b>K11</b>
s hinterland	Power	and ant	enna heights ar	e estimated.	HILX	102.0	200		Radio	Centro Estéreo [not \$]
nd are not l	sted. as	are not	stations locat	ed in the	HIXZ	99.1\$	100			
tes, are us	na FM fr	equencie	s outside the 8	88-108 mHz	HIL-	98.2	50	15"	La Voz	Del Trópico
					HIAT-	98.0	50	15	Radio	Universal
					HIGO	97.5	190	501	Radio	HIGO
1150. etc.)	This p	erhaps a	accounts for the	great	HIG-	97.0	50	15'	Radio	Difusora HIG
					HIKS-	96.5	100	30'	Radio	Cristal
					HISD-	96.1	500	50'	Radio	Televisión Dominicana
to present	this lis	ting, ba	sed on Mr. Objf	o's own	HIJB	95.9	1,000			
h the kind h	elp of C	ésar F.	Objfo, Santo Do	mingo, we	HIJP-FA	95.1\$	10,000	150'	Radio	Comercial
1	h the kind h to present g and observ ng FM but no 1150, etc.). nory between ormation Ser tes, are usi d are not li s hinterland t stations oc r." Antenna buildings.	h the kind help of Ci to present this list g and observations. In FM but not using 1150, etc.). This p ncy between the follormation Service (Ci- tes, are using FM fm d are not listed, as s hinterland. Power t stations contacted r." Antennae are us buildings. The symb	h the kind help of César F. to present this listing, be g and observations. He note nog FM but not using it (Radi 1150, etc.). This perhaps a ncy between the following ar ormation Service (CIA) list. tes, are using FM frequencie d are not listed, as are not s hinterland. Power and and t stations contacted not known. " Antennae are usually me buildings. The symbol [-] uidings. The symbol [-]	h the kind help of César F. Objío, Santo Do to present this listing, based on Mr. Objío g and observations. He notes that some Sing FM but not using it (Radio Guarachita-65 1150, etc.). This perhaps accounts for the ncy between the following and the U. S. For ormation Service (CIA) list. Other station tes, are using FM frequencies outside the 8 d are not listed, as are not stations local s hinterland. Power and antenna heights ar t stations contacted not knowing what the c "" Antennae are usually modest structures buildings. The symbo [-] used by itself a	h the kind help of César F. Objfo, Santo Domingo, we to present this listing, based on Mr. Objfo's own g and observations. He notes that some stations are nog FM but not using it (Radio Guarachita-590, Onda 1150, etc.). This perhaps accounts for the great ncy between the following and the U. S. Foreign Broad-ormation Service (CIA) list. Other stations, bir. tes, are using FM frequencies outside the 88-108 mHz d are not listed, as are not stations located in the s hinterland. Power and antenna heights are estimated, t stations contacted not knowling what the caller meant r." Antennae are usually modest structures atop 3- or buildings. The symbol [-] used by itself after call	h the kind help of César F. Objfo, Santo Domingo, we to present this listing, based on Mr. Objfo's own g and observations. He notes that some stations are nog FM but not using it (Radio Guarachita-690, Onda 1150, etc.). This perhaps accounts for the great nor between the following and the U. S. Foreign Broad-ormation Service (CIA) list. Other stations, Mir. Les, are using FM frequencies outside the 88-108 mHz d are not listed, as are not stations located in the shinterland. Power and antenna heights are estimated, HIXZ stations contacted not knowling what the caller meant r." Antennae are usually modest structures atop 3- or buildings. The symbol [-] used by itself after call	h the kind help of César F. Objío, Santo Domingo, me to present this listing, based on Mr. Objío's own g and observations. He notes that some stations are nor FM but not using it (Radio Guarachita-690, Onda 1150, etc.). This perhaps accounts for the great ncy between the following and the U. S. Foreign Broad-ormation Service (CIA) list. Other stations, Mr. HIGO 97.5 tes, are using FM frequencies outside the 88-108 mHz d are not listed, as are not stations located in the shinterland. Power and antenna heights are estimated, HILX 99.1% shinterland. Power and antenna heights are estimated, HILX 103.0 ts attains contacted not knowing what the caller means the caller means of the contact of the symbol [-] used by itself after call	h the kind help of César F. Objfo, Santo Domingo, we to present this listing, based on Mr. Objfo's own g and observations. He notes that some stations are nog FM but not using it (Radio Guarachita-690, Onda HIMS— 96.5 100 HIMS— 96	to present this listing, based on Mr. Objio's own g and observations. He notes that some stations are listen but not using it (Radio Guarachita-690, Onda list). This perhaps accounts for the great lice, so the properties of the great lice, and the U. S. Foreign Broad-lice, and	h the kind help of César F. Objfo, Santo Domingo, we to present this listing, based on Mr. Objfo's own g and observations. He notes that some stations are nor FM but not using it (Radio Guarachita—690, Onda 1150, etc.). This perhaps accounts for the great nor between the following and the U. S. Foreign Broad-ormation Service (CIA) list. Other stations, Mr. HIAT—98.0 50 15' Radio ormation Service (CIA) list. Other stations, Mr. HIAT—98.0 50 15' Radio are not listed, as are not stations located in the shinterland. Power and antenna heights are estimated, HILX 102.0 200 Radio ts tations contacted not knowing what the caller meant the r." Antennae are usually modest structures atop 3- or buildings. The symbol [-] used by itself after call

FCC-FM NEWS, Continued The FCC confirms that the following stations are definitely deleted: KCOM 107.1 Benton AR, WWJS 95.3 Falmouth KT, and [see "deletions," previous page] WFCI \*91.9 Port Huron MI. The following, reported silent or not yet on the air, are NOT deleted: WGCT \*90.1 Guilford CT, WKXX-FM 93.3 Paducah KY, KZAK-FM 93.1 Tyler TX. A number of "educational" stations, listed in the Journal of College Radio, the FCC has no knowledge of. These may be confined to CATV distribution or be true pirates. The list includes "KAFA" \*89.7 at the U. S. Air Force Academy CO and "WHOR"\*88.9 Tiffin OH.

In the preceding paragraph and on page 1, you'll note that I am beginning to use quotation marks around certain sets of call letters or portions of call letters. I find it convenient to adopt a Glenn Hauser practice of using the quote marks around what I believe to be a variant use or assigning of call letters, in much the same manner as he does around Canadian stations beginning with "CB..." J. Joel Rosenberg, Downsview, ON, Canada, says to use the LEGAL call as assigned by the FCC or CRTC. "After all, who are we, the DXers, to argue with the decisions/wishes of the government and stations, the people who provide us with the hobby?" I do not agree that DXers have to be all that passive — in fact, we as concerned, alert listeners should work more prominently in apprising stations of the good [and bad] that they do; and, if necessary, participate in petitions to deny station licenses.

Getting back to call letters and quotation marks—I will, for a while at least, indicate the full set of assigned call letters — even for FM stations assigned six call letters when not having a like-call lettered AM or TV affiliate, but the added calls [which may be a mistake or oversight on the part of the FCC, as easily as it may be intentional] will be set off with quote marks. Thus KCRF becomes KCRF"—FM." In last month's VUD, WWRM Gaylord MI should have thus been WWRM"—FM."

Another Canadian reader, Al Ellis, Brantford ON, complains of the poor audic quality feeding WBIV 107.7 Wethersfield NY, and disputes that this station, at least, is \$. He also finds the programming of the Christian Broadcasting Network to leave much to be desired. Al says WYSU \*88.5 Youngstown OH was off the air for almost three months because of antenna work, returning Nov. 26. Oxidation of the antenna and pollution in the air plagued both WYSU and WPHD 103.3 Buffalo NY. Variety reports pollution is forcing WPHD to locate its antenna at the same site as WYSL (AM). New \$ stations are 10-w KAUR \*89.1 Sioux Falls SD, KGOY 104.9 Bethany OK, KLCO-FM 98.3 Potew OK, while KMOD 97.5 Tulsa is reportedly off the air, and awaiting a hearing in its sale bid to one of the owners of WGGR 105.1 Duluth MN. Not heard on a trip in OH in November: WERM 92.1 Wapakoneta and WHBM 103.9 Xenia, both owned by the H. B. Miller family. Anybody heard these stations lately? Also in OH news, Kenyon College, Gambier, plans a 10-watt FM station, as does the Bexley [OH] high school.

Bill Dickerman, Williamsport, says WKOK-FM 94.1 Sunbury PA should increase power to 12500 h,v; 875' by Jan. 1. WIIQ 105.1 Williamsport will be country 6 am-6 pm; rock 6 pm-6 am. Currently, they operate with rock until 2 am. NMPI-FM 99.3 S. Williamsport resumed 24-hour operation, he reports.

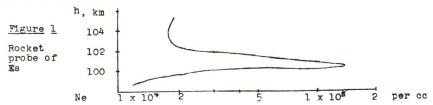
The FCC has proposed a rule to limit the use of the stereo pilot subcarrier during periods when an FM station is broadcasting monaural programs. Although not yet in effect, I've noticed many stations now turning off their stereo pilot during news or during the playing of monophonic records. A much-needed rule, in my opinion. 73,

### Es in Depth

Pat Dyer

Part I of this series dealt with the various means of ground-based radio probing used to measure the condition of the ionosphere, in particular Es.

Rocket shots into Es regions were first made in the late 1940's. What they found was not too unexpected, i.e., a sharp rise in the electron density at the height of the Es patch as shown on the ionogram. Figure 1 is a typical example, though the shape of the peak varies in case to case and often exhibits much 'fine-structure'.



Up to now I've avoided the mention of electron densities. The reason is that there is some disagreement in what rockets find and ionograms imply.

Classical electro-dynamics shows that an electromagnetic wave at a vertical incidence to an ionized region will undergo full reflection when the electron density per cubic centimeter (cc) is: \*

Ne = 
$$1.24 \times 10^4 \cdot f^2$$

with f (frequency) in MHz. For the more inquiring, this is when the refractive index reaches zero. From Snell's Law in optics the solution for oblique incidence (the Secant Law) is found. (See July 1972 VUD VHF Radio, p. 12).

Simple calculations using the table there enable one to see that for a Ch 2 MUF we need Ne's on the order of  $10^6$  (a million free electrons/cc). The big stumble occurs in that the rocket probes are always finding peaks in the range  $10^5$ , a factor of ten too low.

In 1968 it was determined what these rockets were finding agreed very well with what had been labelled as fbEs (the blanketing frequency) on the ionograms, not foEs etc. Thus the preference of calling the highest Es reflection from the ionosonde fEs instead of foEs as it appeared behave like a critical frequency should. Part III on theory will get into this dispute more.

Rocket probes can use two main methods to determine the ambient electron density in flight. One involves what is known as a Langmuir probe where a fixed-voltage is maintained across two points (one often being the rocket body itself) and the current read. The other method requires the use of two harmonically related signals transmitted from the rocket with the accurate recording of the phase differences as received on the ground. The latter system has the difficulty of Es often soaking up (or shielding) the lower frequency signal from the rocket after it is in (or above) the Es region.

$$10^2 = 100$$
  $10^{\frac{3}{2}} = 1000$   $10^{\frac{4}{3}} = 10,000$  etc.

<sup>\*</sup> for those not familiar with scientific notation

	Temp, OK	<pre># particles per cubic cm</pre>
sea level	288	$2.6 \times 10^{19}$
100 km (Es height)	200	7.8 x 10 <sup>12</sup>
400 km (F2 region)	1480	2.8 x 10 <sup>8</sup>

As can be seen in the above table, the particle number density at Es heights is about one ten-millionth of what it is at sea level. The temperature is down (ice melts at 273 Kelvin), though not much.

So even with a million free electrons per cc, that is but only one out of every million particles at Es levels. Compared to F2 densities, that leaves a lot of neutral particles for the electrons to collide with and thus cause signal loss.

The main molecular constituents at the  $\mathbf{E}$ -layer heights are NO (nitric oxide) and O<sub>2</sub> (molecular oxygen). Thru the ultraviolet (mostly the Lyman wavelengths of hydrogen) and x-ray radiation from the sun these are changed as:

$$NO + h\nu \longrightarrow NO^{+} + e^{-}$$

$$O_{2} + h\nu' \longrightarrow O_{2}^{+} + e^{-}$$

(h, Flanck's constant;  $\nu$ , the frequency of the ionizing 'light' the product is the energy required to free the electron

So, now you see how we get our free electrons. Though radio signals can affect the positive ions, the relatively high masses (and thus high inertia;  $NO^+$  is some 60,000 times as 'heavy' as a free electron) limit the results. The electric field of the signal causes the charged particle to undergo a force, F=qE (q, charge; E, electric field intensity). Now, from Newton we have F=ma (m, mass; a, acceleration). Invoking a little algebra, the answer is:

$$a = \frac{qE}{m}$$

In January 1966 a rocket over New Mexico carrying a mass spectrometer (a device using electric and magnetic fields to sort out the positive ions by their masses) found what so far has been one of the most important discoveries in Es research. In a strong Es layer high levels of metallic ions were located, such as sodium, magnesium, iron, etc. The normal NO\* density was curiously found to be depressed within the layer as well. The free electron count was the 'usual' for Es. Similar rocket flights into Es since have upheld this general finding.

The positive metallic ion species (varieties) are long-lived (i.e., they have a very low coefficient of recombination) with lives on the order of days compared to magnitudes shorter for NO $^{\star}$ . So in effect, the regions of positive metallic ions (being so 'reluctant' to recombine) were allowing a high concentration of free electrons to build up, which in turn was actually decreasing the normal (NO $^{\star}$ ) ion species by enhanced recombination.

On some flights rockets are able to make Es measurements on the downleg of the flight. Results there can reveal any layer tilts. Those cases show the majority of layers have tilts well under a degree (see Smith and Mechtly, Rocket Observations of Sporadic-E Layers, March 1972 Radio Sci.)

Often on rocket flights there is a problem of more than one peak in the ionization density. In effect, that is multiple layers. As seen in Figure 2 below this can cause very large errors in tilt calculations if layer identification is not carefully maintained.



For reasons more evident in Part III, there is a great need to be able to sample the Es structure in a horizontal direction within the layer. As Figure 1 showed, the region is extremely thin as ionospheric layers go, usually in the range of a kilometer (0.621 mile).

There have been some satellite observations of Es, using mostly the topside ionospheric sounder (a satellite-borne ionosonde aimed down). However, as the F region has to be penetrated first in these cases, there are complications and limitations in interpreting the ionograms (e.g., Es below foF2 cannot be detected). (see Cathey, Some Midlatitude Sporadic-E Results from the Explorer 20 Satellite, <u>Journal of Geophysical Research</u>, 74 (1969), pp. 2240-2247)

Other satellite measurement methods are possible, such as measuring the deviation angle of arrival of a signal from the line-of-sight path. Faraday rotation (shifting of the signal polarization) is also useful in indicating electron densities. However, none of these has been particularly useful for Es investigations.

There are even more exotic modes that <u>could</u> be used for **E**s probing. Faraday rotation from a moon-reflected radar signal is one. Also, the observation of relatively stable extraterrestrial signal sources (i.e., various cosmic-noise generators) is very useful in noting the passage of ionospheric irregularities. (See NBS Monograph 80,pp. **248**-253).

Next time, Part III with notes on theory mixed with personal opinions.

The March 1972 issue of Radio Science is devoted entirely to some of the papers presented at the Third Seminar on the Cause and Structure of Temperate Latitude Sporadic E, held at Utan State University in September 1971. Though most of the papers are highly mathematical in nature, some make for much easier reading. Issue copies are available for \$ 5 from:

American Geophysical Union Sixth Floor, 1707 L Street, N.W. Washington, D.C. 20036

The February 1966 issue covering the results of the first conference (June 1965 at Estes Park, Colorado) might be available also (originally at \$ 1). The second meeting (June 1968 - Vail, Colorado) had its results printed in a limited number of 'Conference Proceedings', perhaps still available from the Institute for Telecommunication Sciences, Boulder, CO 80302. A similar publication for the 3rd gathering was made and includes several papers (one by Mel Wilson) not used in Radio Science. Best chances for catching these in libraries would be with the science departments of large universities.

JANUARY 1973

Deadlines:

12 January

13 February



NEW FMDX RECORDS, 88-103 MHZ

Editor:

Glenn Hauser

Box 62

Von Ormy TX 78073

Contributors! Cooper, Dyer, Ebeling, Elving, Hauser, LeBlanc, Moe, Ossowski, Remington, Sawatzky, Seybold, Wood, Yingling. Thanks to you all. MHz Prop Call Location \_\_\_\_ Miles DXer, Location 90.3 Au WPIN Nashville TN 685 John Ebeling, E WMKY 500 Fela 685 John Ebeling, Bloomington MN 90.5 Tr WKAR- East Lansing MI

90.7 Au KWMU Saint Louis MO 575 Bruce Elving, Duluth MN 720 Ron LeBlanc, Marrero LA 90.9 Tr WILL- Urbana IL 91.7 Tr WHRS Boynton Beach FL 725 Richard Wood, Baton Rouge LA 93.7 2E WJIT San Juan PR

94.7 MS WPTF- Raleigh NC 97.1 Es KWXI Fort Worth TX

98.5 Es KPAC- Port Arthur TX 98.9 Es KRNY- Kearney NE 100.7 Es WDAE- Tampa FL

Tr WTJS- Jackson TN 100.9 Es XHTO- Ci Juarez Chih 101.3 Tr KWBB- Wichita KS MS KQTY- Wichita KS

101.7 Tr WTGR- Myrtle Beach SC 102.7 Tr KWHG Lincoln NE MS KCYS Richland WA 103.5 MS WBIR- Knoxville TN

930 Richard Wood, Baton Rouge LA WILL 705 Bishop

680 Bruce Elving, Duluth MN

2275 Robert Cooper, Oklahoma City OK KTBC 1475 Nordquist 1060 Glenn Hauser, Enid OK WJMD 925 Elving 1375 Richard Wood, Medicine Hat Alta 98.1 Es KTAL- Texarkana TX (LA) 1455 Richard Wood, Medicine Hat Alta

1635 Richard Wood, Medicine Hat Alta 1350 Shelby Remington, New Haven CT 1410 Bruce Elving, Duluth MN 790 Bruce Elving, Duluth MN now 104.1

1290 Bruce Elving, Duluth MN 685 Bruce Elving, Duluth MN 540 Glenn Hauser, Albuquerque NM was KWBB; now KFDI none 620 Shelby Remington, New Haven CT

890 Robert Seybold, Dunkirk NY 1015 Glenn Hauser, Albuquerque NM 770 Glenn Hauser, Enid OK

KXCV 790 Hauser

KOSU 585 LeBlanc KWIC 1305 Brown KABL 1370 Cooper WROR 1480 Cooper KCBS 1345 Hauser

WDAE 1310 Ebeling WBIZ 715 Cooper XHTO 1170 McCormack now KFDI 645 Brown WYFY 475 Howington

WRVM 810 Cooper now KORDnone KSYM 575 Hauser

104 MHZ FMDX RECORDS

104.1 Es KRBE Houston TX 1320 Fred McCormack, Des Lacs ND Tr WJBM-Jerseyville IL 840 Fred MCCormack, Des Lacs ND MS WLAG-La Grange GA 1025 Bruce Elving, Duluth MN MIKY-Au Evansville IN 560 John Ebeling, Bloomington MN 104.3 WRKT-Bruce Elving, Duluth MN now WKPE 104.1 Richard Wood, Baton Rouge LA Glenn Hauser, Enid CK Es Cocoa Beach FL 1420 Tr KBEY Kansas City MO 630 MS WOMC Detroit MI 885 West Palm Beach FL 104.5 Es WEAT-1880 Fred MCCormack, Des Lacs ND WEAT-Tr West Palm Beach FL 715 Richard Wood, Baton Rouge LA WWST-Wooster OH Au 635 John Ebeling, Bloomington MN 104.7 Es WBOC-Salisbury MD 1450 Glenn Hauser, Von Ormy TX Tr WJLN Birmingham AL 960 Bruce Elving, Duluth MN MS KRES Moberly MO 825 Glenn Hauser, Albuquerque NM 104.9 Es KVOE-Emporia KS 1275 Dennis Smith, Wasco CA WNRE Tr Circleville OH

Contributors: Dorner, Dyer, Ebeling, Elving, Fela, Hauser, Hobday, Howington, Le Blanc, McCormack, Merrill, Sawatzky, Smith, Vogt, Wood. Out of hundreds of members:

### CHANNEL 3 MS TV DX RECORDS

Call\_Location\_ \_\_Miles\_DXer, Location\_\_ WEAR- Pensacola FL (AL) 800 Steve Weinstein, Pittsburgh PA WRBL-Columbus GA (AL) 840 Bill Draeb, Kewaunee WI now in GA KTVK Phoenix AZ 870 Richard Lowry, Temple TX KIEM-Eureka CA 880 Jim Grover, Crossfield Alta KCRA-1215 Sacramento CA Glen Neal, Sayre OK KEYT Santa Barbara CA 775 Ed Hepp, Portland OR WTIC-Hartford CT 990 Jerry Dee/Easter, Waterloo IA WSAV- Savannah GA 1085

Glen Neal, Sayre OK Idaho Falls ID Ken Neal, Hamlin TX 1000 Champaign IL 1020 Ghislain Girard, Arvida PQ WAVE- Louisville KY (IN) 1040 Fred McCormack, Des Lacs ND

KGLO- Mason City IA 1045 John Cody, Middletown CT KARD- Wichita KS 1330 John Cody, Middletown CT



wear-t

now 107.1

KID-

WCIA

STATIS	STICS			JANUARY :	1973
KATC KTBS- WJMN WKZO-	Lafayette LA Shreveport LA Escanaba MI Kalamazoo MI	1180 1085 870 910	Roy Barstow, Teaticket MA	Kote tv	3
KDAL-	Duluth MN	1465	Ed Bourgeois, Norco LA Doris Johnson, Longview WA		_
WLBT	Jackson MS	1250	Fred McCormack, Des Lacs ND		<b>-</b> 1
KTVO	Kirksville MO	695	Fred McCormack, Des Lacs ND	obc [	- <
KYTV	Springfield MO	1115			_ )
KRTV	Creat Falls MT	455	Fred McCormack, Des Lacs ND	KTBS TELEVISION	THREE
KMTV	Omaha NE	1300	Ray Barstow, Teaticket MA		
WSYR-	Syracuse NY	1235			
WBTV	Charlotte NC		Glenn Hauser, Enid OK		
KYW-	Cleveland OH	1100	Carlon Howington, Homestead	FL now W	KYC
KYW-	Philadelphia PA	1130	Les Prus, Manhattan KS	was W	
KDLO-	Garden City SD	1265		HQD	110
KOTA-	Rapid City SD	1175	James Habermehl, Clarington	OH	
WRGP-	Charranooga TN	810	John Cody, Middletown CT	now W	RCB
WREC-	Memphis TN	895	Pat Dyer, Gunbarrel Hill CO		
KBTX-	Bryan TX	1135	Steve Weinstein, Pittsburgh	PA	
KFDX-	Wichita Falls TX	1105	Steve Weinstein, Pittsburgh	PA	
WSVA-	Harrisonburg VA	295	Richard Nieman, Buffalo NY	WSVA.TV	
WTAR-	Norfolk VA	1135	Ed Shorey, Derby KS		
KLEW-	Lewiston ID (WA)	815	Jim Pizzi, Orcutt CA	(3)	
WSAZ-	Huntington WV	1095	Jim Himes, Joes CO		
WISC-	Madison WI	905	Ed Bourgeois, Norco LA	WSAZ(3)TV	
CFRN-	Edmonton Alta	875	Eddie Albright, Medford OR		
CBWFT"	- Those	975	Robert Cooper, Oklahoma City		h 6
	Rimouski PQ	845	James Habermehl, Clarington	OH	
CMH-	Yorkton Sask		Charles Wood, Ashland OR		
XEM-	Santa Clara Cuba	1260	- The state of the		
VEN.I-	Mexicali BCN	1010	Doris Johnson, Longview WA	now X	HBC

Among the many ch 3 stations for which KABC we have no MS DX records are these! ABILENE

Texhoma TX

Others include KTVS, WEDU, WSIL, KYUS, KORK, WWAY, KVDO, WPSX, KIII, "CBHT", CKVR, XEFB, XHP, XHY, WIPM. If you have seen any of these by MS, you owe it to yourself to reveal it.

		CHANNEL 71 TV DX RECORDS	D
K71CG K71BJ K71BK	Lemon Cove CA La Salle IL Ottumwa IA Creat Bend KS Herington KS Willmar MN Mooreland OK Gruver TX Turkey TX	65 Dennis Smith, Wasco CA 605 Robert Cooper, Oklahoma City OK 470 Robert Cooper, Oklahoma City OK 205 Robert Cooper, Oklahoma City OK 215 Robert Cooper, Oklahoma City OK 215 Fred MyCormack, Des Lacs ND 105 Robert Cooper, Oklahoma City OK 220 Robert Cooper, Oklahoma City OK 220 Robert Cooper, Oklahoma City OK	Primary KFSN-30 WMBD-31 KHQA-7 KAKE-10 WGCO-4 WKY-4 KGNC-4
' '	Wellington TX	95 Glen Neal, Sayre OK (received on ch 71:)	KGNC-4
	Rhinelander WI	45 Glen Neal, Sayre OK	KFDA-10
1		125 Bill Draeb, Kewaunee WI now off	WFRV-5
		CHANNEL 72 TV DX RECORDS	
WARANT	CTAT		

W71AC	Rhinelander WI	125	Bill Draeb, Kewaunee WI	NFDA-10
			HANNEL 72 TV DX RECORDS	*
W72AJ	A Montpelier IN Escanaba MI	195 370 95	Bill Draeb, Kewaunee WI	WCAE-50 w off; airborne WLUK-11
W72AA K72DJ	Olivia MN	100 395	Bill Draeb, Kewaunee WI Fred McCormack, Des Lacs ND	WLUC-6, WBAY-2 WTCN-11
W72AQ K72DU	Brownwood TX	100	Mark Lewis & J Joel Rosenberg, Downsview	Ont WNED-17
K72BZ K72CD	Clarendon TX	70 75	Glen Neal, Sayre OK	KSW0-7 KVII-7
K72CB K72BN	Knippa & Uvalde TX	60 65	Glen Neal, Sayre OK Glenn Hauser, Von Ormy TX	KFDA-10 WOAI-4
K72DN K72DW	Leakey TX Mason TX	75 100	Glenn Hauser, Von Ormy TX Glenn Hauser, Von Ormy TX Glenn Hauser, Von Ormy TX	KENS-5 KTBC-7
K72BD K72BB	Miami TX Texhoma TX	60	Glen Neal, Sayre OK	KGNC-4

145 Glen Neal, Sayre OK

KGNC-4



### VAF UTLATY DX

Pat Dyer 5315 Silvertip Drive San Antonio, TX 78228 Deadline: 12th of month

#### JANUARY 1973

```
Hank Holbrook, 7211 Chestnut St., Chevy Chase, MD 20015 QSLed only, GMT.
```

```
near Lancaster, PA (TWA 73; Boeing 727-31;25w) nr Pottstown, PA (TWA 143; Douglas DC-9; 25 w)
  8-3: 1403,
                                     132.5
     1411,
6: 1456, N7643J
                                      132.5
                                      119.7
                                                    12 mi se Friendship Apt, Baltimore, MD (Clip-
                                                     per Flying Club, Inc.; Piper Cherokee; 1500')
                                                    Denton, TX (police, 100 watts)
ov Bay Bridge Apt, MD (Civil Air Patrol, Mary-
land Wing; Piper Cherokee; 1-eng, 4-seat; 2K ft)
ov Sea Isle, NJ (Lufthansa 494; Boeing 7070; 25w)
   7: 0237, KKA 614
10: 0033, N5118G
                                       37.26
                                     119.7
9-<u>17:</u> 1926, D-ABU0
<u>23:</u> 2030, N92428
                                      128.3
                                                    ov Cambridge, MD (Professional Flight Services,
                                     134.5
                                                    Cessna 182; 1-engine, 4-seat; 3,000 ft; 10 w) nr Dulles Apt, Wash., DC (General Electric Co.; Grumman Gulfstream I; 2-eng, 21 seat; 18K ft; 25w)
                                     122.1
   24: 1512, N362G
```

Richard T. Colgan, P.O. Box 18268, Serna Station, San Antonio, TX 78218 Realistic PRO-2; Petersen HL-44; Midland 13-920; A/S MON-8, A/S MON-13, Ground Plane at 40 feet; GMT used.

```
8-7: 0201, KJL 692
0216, KBJ 642
                               42.02
                                          Gray, GA (sheriff)
                                          Collin, MS (police)
                               45.10
    0254, RKY 729
0254, RKY 729
0331, RF0 856
16: 0305, RAG 526
20: 0021, RIL 218
0036, RKD 616
                                39.50
                                          Covington, LA (state police)
                                          Lockport, LA (sheriff)
Valentine, NE (sheriff)
                                39.50
                                39.90
                                37.30
                                         Crawfordville, FL (sheriff)
Livingston, LA (sheriff)
                                39.50
          0041, KKE 860
                               39.50
                                         Lafayette, LA (state police)
                                         Bloomington, IL (sheriff)
St. Augustine, FL (state police)
       : 2358, KSA 938
                               39.50
    22: 0123, KLW 285
                               45.06
          0135,
                                         Oakland, CA (mobile phone)
                               35.46
10-10: 0050, KLF 527
                                         Honolulu, HI (pager, verified, 350 w)
Miami, FL (pager, A2)
Macon, GA (sheriff)
                                35.22
    16: 0014, KIN 645
17: 0000, KFN 721
0018, KIB 484
0104, KIB 593
                                35.22
                               42.02
                               45.06 Melbourne, FL (state police)
42.02 Donalsonville, GA (state police)
39.90 Rushville, NE (sheriff)
          1720, KAF 996
                               37.10 Knoxville, IA (sheriff)
    18: 0224, KAA 984
          0315, KAA 305
                               39.58 Garden City, KS (police)
    0327, KQW 462
21: 2001, KCI 981
                               39.90 Beaver Crossing, NE (local government)
                                33.70
                                         Union, ME (fire)
          2017, KCC 921
2038, KLR 503
2059, KGX 978
                                33.90
                                         Old Lyme, CT (fire)
                                33.08
                                          Boston, MA (hospital)
                               33.70 South Berwick, ME (fire)
```

Now, to my loggings. Allied A-2586 with 30-ft indoor random-wire antenna; all are F2 unless noted; peak daily Latin American F2 MUF noted if 40 MHz or more; 50-MHz Es not given; new underlined; CST used.

```
16: 1029, KCC 482
1034, KCB 217
1236, KCA 695
18: 1319, KLR 503
20: 1240, 43.7 Spanish
11-15: 1220, KLR 503
                                                                                            20: 1414, Portland
           1226, KCC 482
1230, KCD 344
1239, KCB 897
1240, KCB 360
1255, KOA 796
                                                                                                   1424, Roseburg
                                                                                                 1430, <u>Bend</u>
1955, <u>L Beach (Es)</u>
2002, KIN 645 (Es)
                                                          1322, KLF 527
                                                                                                  2003, KME 438 (Es)
                                                         1335, KOG 634
1338, Eugene
1349, KOP 303
1352, KOA 796
1403, KOK 418
            1258, KCB 217
                                                                                          21: 1210, KLL 390
                     KCE 475
                                                                                           1214, KOA 796
           1324, KDD 941
                                                                                                  1216, KOP 303
            1359, KCA 695
                                                                                             1221, Salem
1234, KCB 217
           1400, KBZ 283
```

```
JANUARY 1973

      VHF UTILITY DX
      JANUARY 1973

      21: 1235, KOK 418
      26: 1200, KJE 934
      28: 1501, KDB 386

      22: 1202, KOG 634
      1258, KCC 482
      1539, KOG 634

      1229, KOA 796
      1259, KCE 358
      12-2: 1843, KMA 829 (Es)

      1233, KCC 482
      KCA 695
      1849, KMA 829 (Es)

      1240, KCD 492
      13---, KGC 524
      1904, KME 438 (Es)

      1300, KCC 957
      1449, L Beach (Es)
      1942, KQC 884 (Es)

      1318, KCD 472
      1502, KME 438 (Es)
      1949, KSJ 815 (Es)

      25: 1000, KGL 706
      27: 1158, KLR 503
      1958, KDN 402 (Es)

      25: 0919, KLR 503
      1259, KCA 695
      2036, KSD 326 (Es)

      0924, KCD 586
      KBZ 283
      2115, KSC 645 (Es)

      0924, KCD 586
      KBZ 283
      2232, L Beach (Es)

      1041, KCF 246
      1344, KCD 498
      2: 1200, KGL 718

      1108, KCE 681
      1349, KOG 634
      1914, KIY 508 (Es)

      1136, KCC 482
      1415, KCC 482
      4: 1120, KAI 927 (Es)

      1147, NY City
      28: 1018, KLR 503
      6: 1855, KIN 645 (Es)

      1254, KCD 457
      1528, KIF 651 (Es)
      1528, KIF 651 (Es)

      12905, L Beach (Es)
      1254, KCD 457
      1528, KIR 503)

      1255, KIN 645 (Es)<
     VHF UTILITY DX
```

c-county; f-fire; mp-mobile phone; s-state; t-transit; v-volunteer rest are pagers

A2 tone ID's used by: KAI 927, KDN 402, KLL 390, KMA 829, KME 438, KOA 796 (as of Nov 22), KOK 418, KOP 303, KQC 884, KQD 313, KSC 645, KSD 326, KSJ 815. 

F2 levels did rise well again in November, though not as good as the late October openings had. Solar activity was up thru the first half of Dec but F2 MUF's didn't show it very much.

73, Pat WASIYX

### WESTERN TV DX 200 W. Sacramento Ave., #15 Chico, California 95926

Dennis Park Smith Telephone \_916\_343-3863 Deadlines: 12th of each month

January 1973

In November, there was some long-range tropo on 8 & 9, seen only by Glenn Hauser at Bremond TX, with Florida low-band 1045 mi, high-band 1055 and UHF 960 mi. Other reporters noted a little around the 15th in OK & TX to 500 mi. Early December (1 to 5) saw 600-mi VHF-UHF to Midwest from OK and TX monitoring locations. As noted from OK & TX reporters, Es was seen on many dates from Florida, Arizona, Mexico, El Salvador and Guatemala, always in late afternoon/evening, except 22nd around noon and 26th in early PM as well. November 11 20 22 23 25 26 Dec 2 3 4 5 Es dates: Number of reporters: 1 1 2 1 2 1 MUF at least (channel): 2 2 3 5 3 2 (\*5 Dec MUF was at least 5 3 2 6 88.5 Miz, maybe even 94.5)

Frank E. Aden, Jr. 915 South Curtis, #71, Boise, Idaho 83795 (Jul-Sept)

Equipment: Arvin 9m B&W portable; 23-el. yagi antenna on rotor; preamp.

Jul 25 Es 1706 KNBC 4 Los Angeles CA, fair.

Jul 27 Es 2020 XEJ -5 Ciudad Juares, Chinuahua, weak. (MDT)

(Frank also sent the October IDEX, the bulletin of the Idaho DX Association (IDXA). It includes MW & SW sections as well as separate columns for both TV and FM and excellent drawings of Id slides. Though reproduced by the "ditto" process, it makes use of multi-color techniques and is well copied. Thanks, Frank. dps)

Robert J. Williams, 251 6th Avenue East, Twin Falls, Idaho 83301 (Jul- 11 Sept) (MDT) Equipment: RCA 21" color; RCA 21" B&W "Deluxe"; Airline B&W portable; 10-el.multichannel yagi 30' up with rotor; other ants., boosters, etc.
2033 XEPM- 2 Ciudad Juares Chih N
15 Es 2130 KMID- 2 Midland TX
16 Es 1959 KCKT 2 Great Bend KS
1937 KID - 3 Idaho Falls ID
17 Es 0959 KQTV 2 St. Joseph MO
1500 KMID- 2 Midland TX (exc. A&V)
1029 KETS 2 Little Rock AR J17 Es 2033 XEPM- 2 Ciudad Juarez Chih. N 19 Es 1828 CKCK- 2 Regina Sask 20 Tr 1937 KID - 3 Idaho Falls ID 27 Es 1500 KMID- 2 Midland TX (exc. A&V) 1522 unId 2 ("En Cadena / 8") 1159 KPRC- 2 Houston TX 1630 KTVU 2 Oakland CA (on vertical polar. dipole) 1229 KTBS- 3 Shreveport LA 2057 KROD- 4 El Paso TX 29 Es 1929 KBTX- 3 Bryan TX N 1258 WKY - 4 Oklahoma City OK (Id also at 1358) (Id also at 1958) 31 Es 1730 KTEW 2 Tulsa OK 1259 KCKT 2 Great Bend KS 1420 MDAF- 4 Kansas City MO 29 Es 2125 WKY - 4 Oklahoma City OK 1944 KEY-T 3 Santa Barbara CA A1 Es 2029 KTCA- 2 St. Paul MN S11 Tr 2000 KSL - 5 Salt Lake City UT N 2 Es 1446 WISC- 3 Madison WI 1459 WBAY- 2 Green Bay WI (weak)

Glen R. Neal, 1005 North 5th, Sayre, Oklahoma 73662 (November) After a several-month hiatus from reporting, I hope to resume each month again. During this time, I have gone over the 400 mark in total stations received, now resting at 414. I may worry Bob Cooper yet. Not bad for my modest equipment, but this almost ideal location helps a lot (only 1 TV station within 100 miles, and am on high ground). November wasn't good here for tropo; a little Es was seen. A record amount of snow fell in western Oklahoma this month (6'4") and the cold weather has not helped. Oh well, a good time to work on equipment, prepare logs, etc., and get ready for 1973 (which it will be when you read this, so Happy New Year!). Three new translators are on air in Perryton, Texas, on ch 55 (KFDA-10, on their xltr Id slide), 57 (KGNC-4) and 59 (KVII-7); will be looking for them. 4 more years.

3 Tr 2055 unid 65 (MNW, of KVII-7, not in TVF... (14)(Tr) 1210 KOMC 8 McCook NE Pampa TX?) (hvy CCI to local KFDO-8) 3145 KPNE- 9 No. Platte NE 4544N395 (Doesn't Pampa have VHFxltrs?dps) 2055 unId 64 1300 KHNE-29 Hastings NE 2035 375

K1ØFR 10 FargoOK (KWTV 9) 3040 80 (WNW, vyweak, not Perryton) K12GA 12 Fargo OK (WKY-4) 3040 80 2136 K78AZ 78 MatadorTX (KCHD11) 3243 110 K8ØBD 80 Matador (KVII-7) " " 15 Tr 1124 KDTV 39 Dallas TX K83AC 83 Matador (KLBK-13) " " 25 Es 2000 unid 2 (weakvid, W7 5545 230

) " " <u>25</u> Es 2000 unId 2 (weakvid, WTHS?) 3033 2030 360 <u>26</u> Es 1340 KTVU 2 Cakland CA 4534 14 Tr 1154 KTBC- 7 Austin TX 4534 1255 KVUE 24 Austin TX 2035 360

WESTERN TV-DX January 1973

Bob Cooper, Jr., 4670 Willard Drive, Oklahoma City, Oklahoma 73105 (11 Nov-8Dec) (CST) Not much of a DX period from this observation point. There may have been some interesting tropo and more Es than I noted...but travels outside of Oklahoma City during the month occupied considerable time, and I haven't figured out a way to monitor effectively when I am not at home (yet!).

Nov 11 Tr 0930 tune-in, weak to NE, likely KCBJ 17 Columbia MO (360 mi). Nov 11 Tr 0930 tune-in, weak to NE, likely KCBJ 17 Columbia MO (360 mi).

Nov 15 Tr 0800 t/in to 0830 t/out, heavy N,NNW such as KMNE-7 BassettNE (485).

Nov 20 Es 1810 t/in, ch 2 to apx 1845, no Ids.

Nov 25 Es 1845 t/in, XEW-2 Mexico City, TGBOL-3 Guatemala (double bop F) 1845 t/in, XEW-2 Mexico City, TGBOL-3 Guatemala (double hop  $\underline{E}$ ). No time to watch it closely. Fade at apx 2155. 1235-1245, ch 2, no Ids. 1340 & 1600 t/ins, weak ch 2 in & out. Nov 26 Es 1830, 1905 to 2010, in & out w/ Mexico in at 1910 check (XEW-2). 2100-2115, CKPR-2 Thunder Bay, Ontario. Nov 27 MS 0636, WFMY-2 Greensboro NC. 1635 & 1740 t/in, NE, ch 2, no Ids. Es out at apx 2115. 1820 WMAR-2 Baltimore MD 2000 WWAY-3 Wilmington NC 1858 KYW -3 Philadelphia 2023 XEZ -3 Guanajuato (no sign of XEW-2) 0615 on...heavy CCI ch 4 from one or more KTEW translators in NE Oklahoma, SE Kansas. No way to Id which was which. 1919 t/in, chs 2,3. Es Es 1945 to 2100, in & out. 2000 t/in, in & out. Probably bang-up session until cold front hit. I had less than an hour to reap the crop, and this was just the top surface layer. 0731 KDNL-30 St. Louis MO Mi: 458 (Tr)(0746) WKMA 35 Madisonvil KY KDFT 16 530 0825 WEHT 25 Evansville IN 576 0737 WMAB 565 (...and shut down.) (ch. 2 number 59) (tropo) Es 1630 XEW - 2 MexicoCity(t/in) 0741 KVUE 24 Austin TX 359 1715 WCBD 2 1812 WSAV- 3 Savannah GA 1900 WEDU 3 Tampa FL WESH- 2 Daytona Beach FL KHFI-42 Austin TX 359 (change to 36 apx 1Jun73) WMAU 17 Bude MS 505 WMAA 29 Jackson MS 473 1928 WCIX- 6 Miami FL WMAO 23 Greenwood MS 420 WPBT 2 Miami FL WMAV 18 Oxford MS 2006- XEW - 2 Mexico City 450 0746 WKMU 21 Murray KY 2130+ TGBOL-3 Guatemala 570 WKGB 53 Bowling Green KY 618 (double hop E) Pat Dyer, 5315 Silvertip Drive, San Antonio, Texas 78228 (10 Nov - 10 Dec) (CST) Receiver: 1971 model Penncrest 9-inch black-and-white Antennas: 6-element hi-low VHF Yagi and 8-bay UHF bow-tie at 12 feet 15 Tr 0035 WBAP- 5 Fort Worth TX 22 Es 1220-1230 2 unId (Mex. or El Sal.) 240 (4)(Tr) 2225 KAUZ- 6 Wichita Falls TX 310 2230 KACB- 3 San Angelo TX 180 23 Es 1945-2000 2 un Id (ditto) KMXN 34 Lubbock TX 2305 KSEL-28 Lubbock TX N 350 25 Es 1900-1920 2-4 unIds (again) 350 1950-2200 2-5 unIds (same) 5 Tr 0035 KSW0- 7 Lawton OK 0045 KAUZ- 6 Wichita Falls TX N 340 2215-2300 2 KNXT Los Angeles CA 1190 310 2 Es 1859 XHBC- 3 Mexicali BCN 1015 KDFW 4 Dallas TX 250 2118 KOAI 2 Flagstaff AZ 850 0048 KOCO- 5 Oklahoma City OK N 400 2200 KTVK 3 Phoenix AZ 0100 WKY - 4 Oklahoma City OK 840 400 unIds 2-3 (by MS 1970) 4 Tr 1430 KCTV 8 San Angelo TX 180 0102 WFAA- 8 Dallas TX 250 WFAA- 8 Dallas TX 250 0110 KVII- 7 Amarillo TX N 450 1500 KNCT 46 Belton TX 135 Es 1730 unids 2-6 (MUF 88.5, maybe 94.5) 1700 unIds 33, 39 1900 WSJK- 2 Sneedville TN 1020 2200 KCBD-11 Lubbock TX 350 1930 KTCA- 2 St. Paul MN 1110 This period's trop ducting is about the best in nearly a year to the north, though I wasn't using a rotor in past spring.

A lot of Es has been in, though most of it unIded due to heavy CCI. The Dec 5 evening Es very remindful of last year Dec 14 behavior, even complete with a cold front passage. Les Prus will no doubt note that.

Geminids appear to be getting off to some start with a lot of noticable CCI on

local 4 and 5 in evenings, though I'll probably concentrate on FM again.

With WKY-TV log on trop, it becomes my only TV station on trop and MS (I've several MS-Es loggings). It also seems this is about the best low-band VHF trop I have over an all-land path. 73, WA5IYX.

(7 Nov - 2 Dec) (CST) Glenn Hauser, Box 62, Von Ormy, Texas 78073 Before closing down the CABCO signal survey series, another Gulf tropo opening hit, this time at <u>Bremond TX</u>—and for the third week in a row, I had to dismantle the antennas in the midst of the opening! Nevertheless, some fine signals came from south Florida, many VHF QRM-free because of the time difference! As before, I have underlined those stations which have not been seen yet at Von Ormy, though of course they will not be counted in the same totals. By the way, I learned from a visit to KAMU-15 College Station TX that the station planned to return to the air in early on a new, higher, tower, er, may have to wait on

December afte	r going off last M		antenna is t		igher, tower.
	is to be doubled.				
telco until n					
				(2) (0) PIF	9
- 1	KWTV O			NEW CV CU	
	The NEWS Static	חצ		KTUL- 8 Tulsa OK	
	TV 9 Oklahoma Cit;			KFPW-40 Fort Smi	
	IAW 14 Meridian MS	450		(0026 plug ch11	
	IAH 19 Biloxi MS	460		gets net from KT	
	any other times; 1			checks for WKID-	
	AU 17 Bude MS	345		KARK- 4 Little R	
	AA 29 Jackson MS	380		(3/4CB, CL keyed in	
	700 vy good //23)			KLTV 7 Tyler TX	
	PT 16 Jackson MS	380	8000	KGTO 36 Fayettev	ille AR 36
	&W"CB, keyed Id; Ø CC			(0029 s/off)	Track
	AO 23 Greenwood MS			WW	IVVV
	47 fair in frequent "J		2042	1 mm mr . 0 m . 1 . 1	TUPELO
	OG 44 Saint Peters			WTWV 9 Tupelo M	
	359 Id; 1729 Id; 22		0022	KUHI 16 Joplin M	
	ep Beyond; 0016 Pe			(0030s/off, 3040	
	LT-40 Sarasota FL	910		Lullaby, HighFlig	
	259 BradentonPlymo		0000	Id slide still used	
	30 fair; 2301 Id,		0023	KXII-12 Ardmore	
	03 s/off, Indian Lor		0005	(Idslide; on fortro	
	NO-26 New Orleans		0025	KMTC 27 Springfi	eld MO 46
	T, ØCCI to KVRL: but by		0000	(Prus Id)	
	thhaddrifted to 10 kH		0032	WIBW-13 KS	I B W 54
	paration! same 171			(0037s/off,	
	BH-20 Fort Myers F.			HighFlight,	Color 13
	ocal talk show; 21		0021	Min IF, II/ Topel	ka Kansas
	NK-11 Fort Myers F.			KWTV 9 Oklahoma	
	VT 13 Tampa FL	900		KODE-12 Joplin M	
	ditorial; 1725 Id,		0044	KDFW- 4 Dallas T	X 10
	avy CCI incl Ø-KTR			(Idslide w/arrow	
	OX-13 Biloxi MS	455		design in 4)	54
IOUZ NA	AY-31 Huntsville A	L T	. 0045	KMBC- 9 KC MO	56
				(0057 many, many	
				ads & PSAs,	
	ALA AV		0016	finally s/off	40
	WAAY 🕊		0046	KTEW 2 Tulsa OK	40
				(Id, s/off,	DEW_TW
			0100		CDEM-LA
1820 YU	MA-11 Huoma LA	245	0109	WVUE 8 New Orle	
	OE- 8 Monroe LA	365 280	0100	(10CCI exactly sa	
	IQ 41 Demopolis AL			WFLA- 8 Tampa FL	
	47b&wALpoliticaldi			(TP; 0501 custom	
	46 10CCI w/KWEX; 2258		OIII	WPLG-10 Miami FL	T
	local Id; after SSB				
110	Tocar In' al cel 200	will IL)		7	

T

		(0020 plug chii Latemovie, so	
		gets net from KTHV; frequent	
		checks for WKID-51 fruitless)	
r	0005	KARK- 4 Little Rock AR 345	
		(3/4CB, CL keyed in white o/white)	
	0006	KLTV 7 Tyler TX 115 KGTO 36 Fayetteville AR 365 (0029 s/off)	
	8000	KGTO 36 Fayetteville AR 365	
		(0029 s/off)	
		(OO29 s/off) wTwV	
		TUPELO	
	0010	WTWV 9 Tupelo MS T	
	0022	KUHI 16 Joplin MO 425	
		(0030s/off, 3040/408kW, Brahms	
		Lullaby, HighFlight; same cube-16	
		Id slidestill used since stabegan	
	0023	KXII-12 Ardmore OK 200	
		(Idslide; on fortropo DX?; still O115)	
	0025	KMTC 27 Springfield MO 460	
	002)	(Prus Id)	
	0033	WIBW-13 KS 545	
	مرص	(0037s/off, W I B W	
		Uich Flight	
		HighFlight, TV Color 13 MIH TP, TT) Topeka Kenses	
	0031	KWTV 9 Oklahoma City OK (Id) 310	
	0034	KODE-12 Joplin MO T	
		KDFW- 4 Dalles TX 100	
	0044	(Id slide w/arrow	
		design in 4)	
		KMBC- 9 KC MO	
	0049	(0057 marrymany	
		ads & PSAs,	
	0016	finally s/off	
	0046	KTEW 2 Tulsa OK 405	
		(Id, s/off, CO47 off) KDFW-TV	
	0400		
	0109	WVUE 8 New Orleans LA 405	
	0100	(1ØCCI exactly samedir:WFLA)	
	0109	WFLA- 8 Tampa FL 900	
	044	(TP; 0501 custom TP)	
	0111	WPLG-10 Miami FL T	

1848 WMAV 18 Oxford MS 1854 KTEN 10 Ada OK 1858 WDHN 18 Dothan AL 2115 WBMG 42 Birmingham AL

2202 WPBT 2 Miami FL

MINITED IT				
(9)(Tr) 0451	WTVT 13 Tampa FL 900		Below	QTH: Von Ormy TX
(//(22) 04).	(FL map w/radar sweep	11 Es	1635	WESH- 2 Daytona Beach FL T
	from Tampa · ORM_free!	-		(gone before 1700)
01.55	WFTV 9 Orlando FL 925	22 Es	1137	YSR - 2 SanSal, ElSalvador 1205
04/)	(screenfullof9s, TT; 0500 SSB)	***************************************		(TP&mx 1200vintage penguincar-
0503	WCKT 7 Miami FL 1055			toons; 1206 Popeye w/centered sub-
رەرى	(b&wITV: 0532end			titles; 1237 beautiful Id; 1307
	TI A STEEL S			Id, ads; 1400 TV almost gone)
	O552 only S FL hi		1140	2 Managua Nicaragua? T
	bandVHFstill CRM-			(w/20 CCI to YSR)
	clear, local nx)		1254	TGV - 3 Guat, Guatemala T
0505	WLCY-10 Largo FL T	24: 0	ut of	town.
0,0,	("Television 10" Id)	1 Tr	2330	KLNI-15 New Iberia LA 405
0505	WEAT-12 West PalmBeach FL 1050	)	2334	WAPT 16 Jackson MS 530
0,0,	(Malide, beautiful! likepic-		2336	WGNO-26 New Orleans LA 510
	turedlogo; 0524 PaulHarvey)			(heavy Ø CCI w/KVRL,
				alternately dominating)
			2337	WRBT 33 Baton Rouge LA 455
			2338	WVUE 8 New Orleans LA 515
				WAFB- 9 Baton Rouge LA 455
				KLFY-10 LafayetteLA(auction) 390
	WEATIV		2350	KALB- 5 Alexandria LA T
		2 Es	1859	XHFA 2 Nogales Sonora T
0509	WPTV 5 Palm Beach FL 1045			(W2 logo; 1954 W2 Id,
	(TP: 0510 s/on)			definitely not from S)
0513	WINK-11 Fort Myers FL 955	,		KTVK 3 Phoenix AZ 835
	(MIH TP: 0528 s/on "till		1859	XHBC- 3 Mexicali BCN 1020
	1 am. " Lord's Prayer)			(1901 Id w/knobbed 3; 1932 Id, vy
0515	WBBH-20 Fort Myers FL 960	)		good, ads; in for some time w/car-
	(RTMATP; 0529s/on524kWvis, KPD-			toons, black carrier, west, mixing
	68STL; 0530Id, "Covering South-			Mexican; 2001 breaking up, freq
	west FL like sunshine "Rible read			jumps from offset of about 20 to 5
0520	WWL - 4 New Orleans LA 405	5		w/Mexican; still 2030)
	(TP w/xltrs incl WØ2AJ)		2059	KOAI 2 Flagstaff AZ 845
	WDSU- 6 New Orleans LA 405			(CocaCola of NAZ ad; 2245 fading out)
0540	KNOE- 8 Monroe LA 280	)	2145	KORK- 3 Las Vegas NV 1060
	(c/on, wiping out DX; like KLFY-			(NBC not //KOAI; 2230 still)
	10earlier; 0630 close down		2148	KVVU 5 Henderson NV T
	receiving eqp at Bremond!)			Until the next, 73 de Glenn.

Dennis Smith, 450 Poplar Avenue, Wasco, California 93280 (22-26 Nov) (PST)
Your editor spent the Thanksgiving Holiday 300+ miles south of Chico in Wasco, checking occasionally for DX while there. Apparently I didn't check often enough, according to the reports of Es around that time. A new local Fresno-area station was seen, however: KFTV 21 Hanford (100 mi), xmtr in the mountains NE of Fresno, from where KFSN-30 and KJEO 47 also send their big-area signals. Ch. 21 was former-ly KDAS (65 mi) but was very weak because of valley location. KFTV is all-Spanish, operating presently as a semisatellite of KMEX 34 Los Angeles.

Best of DX to all

Dennis

### EASTERN TVDX

Dave Pomeroy KTWU-Channel 11 Signal Hill Topeka, Kansas 66604

As 1973 commences, Ild like for Eastern TV-DXer's to give some thought to the degree of support they gave the WTFDA in 1972. Additional participation in the Eastern column of the VUD is needed if this column is to be representative of DX conditions in the east. Since June, 29 eastern DXer's have reported to this column from 11 states and 2 provinces. This means that another 11 states and the District of Columbia have had no reporters. Therefore, I would like to invite members in those states especially to submit reports in 1973. (The states not heard from since June or earlier are Tennessee, Kentucky, Maine, Connecticut, Vermont, West Virginia, South Carolina, Georgia, Mississippi, Delaware, and Arkansas. Canadian reports were received from Ontario and Quebec. New York state led in the number of reporters with 6; followed by Pennsylvania with 5; and Maryland and Ontario with 4 each.

To begin 1973, only 3 reporters have submitted reports for the January VUD--a reflection of normally poor winter conditions. However, a skip opening noted here on December 14 and recent meteor showers will hopefully cause an upswing in reports for February. Ron LeBlanc's report on DX in Louisiana since July is truly international with 7 countries

seen during that period.

Again, your report is needed if this column is to be representative of eastern TV-DX. Report often--even if your report is not large. And, thanks to those who have kept reports coming during the last year. The best of DX in '73.

Ken Simon 528 Pilgrim Road West Palm Beach, Florida 33405 11-9 Tr 2200 WSAV-3 Savannah,GA 1444N 11-25 Tr 2300 WFLA-8 Tampa, FL 11-20 2300 WFLA-8 WFTV-9 WTVT-13 WEDU-3 2300 WINK-11 Ft. Myers 2300 WINK-11 Ft. Myers, FL 0740 WSEC-17 Miami"off airplane" 2300 WXLT-40 Sarasota, FL 2000 WFTV-9 Orlando, FL 2000 WBBH-20 Ft. Myers, FL 11-27 0732 WSEC-17 Miami. FL

"No Cubans, no Es, not much activity. On 26th, made 'Dxped' to west coast of Floridano sign of Immokelee repeater (translator). Richard Clark's TV was tempermental so we couldn't check Ft. Myers repeaters. QSL's from WEDU-3, CMQ-6, WDHN-18, CKCO-1, and WJKS-17. Will be checking for scatter from Apollo blast. (Let us know if you saw anything, dp) A note on common courtesy: I have written 5 or so members with explanations about CCI and only Les Prus was courteous enough to drop a line of thanks. I think it is the least you can do when someone helps you. Thoughts from members?"

```
'aul D. Traska 64 Weaver Street Buttato, New 1015

10-26 Tr 2140 WSW0-26 Springfield, 0H 10-26 Tr WLIX-10 Jackson, MI

10-27 0100 UNID-17 "good until ID time" 11-9 0124 WDTV-5 Weston, WV

0205 UNID-19 "TP with big 19 on left" 0213 WCPO-9 Cincinnati, 0H WJAC-0 Johnstown, PA
Paul D. Traska 64 Weaver Street Buffalo, New York 14206 (EST)
 10-26 WFLD-32 Chicago, IL
WSNS-44 Chicago, IL
                                                                                     WHTN-13 Huntington, WV
                     WNDU-16 South Bend, IN
WUHQ-41 Battle Creek, MI
                                                                                WBNS-10 Columbus, OH
                                                                                      WLWI-13 Indianapolis, IN
                     WUCM-19 Bay City, MI
                                                                                      WSTV-9 Steubenville, OH
                     WKBD-50 WTVS-56 WXON-62 Detroit
                     WJRT-12 Flint, MI
                     WOTV-8 WZZM-13 Grand Rapids. MI
```

Ronald J. LeBlanc 2524 Arizona Drive Marrero, Louisiana 11-8 Tr 1705 KHFI-42 Austin, TX 3335R460 11-8 Tr 2053 WBBH-20 Ft.Myers,FL 3225R564 1710 KHTV-39 Houston, TX 3334R321 2100 KATV-7 Little Rock 3342R350 1715 KVUE-24 Austin, TX 3335R460 1720 KDTV-39 Dallas, TX 3344R456 2200 WTVT-13 Tampa, FL 5554R488 2250 KTVE-10 El Dorado, AK3342R285 #273 1800 KETA-13 Oklahoma City N575 1801 KERA-13 Dallas, TX 3322R456 11-9 2400 KTVT-!1 Ft. Worth, TX3433R485 0010 KTRK-13 Houston, TX 4443R321 0015 KBFI-33 Dallas, TX 3325R456 #274 2030 WUSF-16 Tampa, FL 3444N488 2031 WMFE-24 Orlando, FL 3324R510 2035 WXLT-40 Sarasota, FL3335R503 2043 WT0G-44 St.Pete,FL 4555R488 0020 KPRC-2 Houston, TX 3335R321 0030 KTHV-11 Little Rock 3345R350 0040 KSAT-12 San Antonio 4445R510

"Seems these good openings always occur during the middle of the week when I have to get up early for work the next morning. Sure would love to see one start on a Friday evening. 73's Ron."

EDITOR'S NOTE: For a report of some of Ron's earlier DX see following page.

```
Ronald J. LeBlanc 2524 Arizona Drive Marrero, Louisiana
"I finally have acquired another typewriter. I have been without one for three months.
Plus with all the DX and the part time TV repair, I haven't had too much time to send
 in any reports.
                                                                             We have had
 a few good tropo openings in the past few months. On October 25 I received WISN-12
 from Milwaukee, Wisconsin. Plus many others from Missouri and Arkansas. WISN is a new
 record tropo for me at 922 miles."
7-22 Es 1345 CMBF-2
                      Havana, Cuba
                                     3222N0720 10-17 Tr 0020 KLRN-9 Austin, TX 4355R0460
         1405 CMKJ-3
                      Holguin, Cuba 2033N1075
                                                          0031 XHX-10 Monterrey 3344R0690
                                                          0044 KXII-12 Ardmore, OK 3234R0516
         1830 WCBS-2
                      New York City 3122R1174
         1900 WMAR-2
                      Baltimore, MD 3122R1006
                                                          0054 KTVT-11 Ft.Worth, TX3344R0485
                       Cedar Rapids 3232R0841
                                                          0102 KDFW-4 Dallas, TX 3345R0456
         1930 WMT-2
         2000 KDL0-3 Watertown, SD 2123R1112
                                                          0103 KBF1-33 Dallas, TX 3335R0456
7-24
                                     4443R1132
                                                          0112 XEFB-3 MonterreyNL3345R0690
         1800 IYSR-2
                       El Salvador
                                     4432R1000
                                                      Es 0122 KOB-4
                                                                       Albuquerque2325N1034
7-29
         1325 KWGN-2
                       Denver, CO
                       Montreal, PQ 4433R1395
                                                          0130 KSAT-12 San Antonio3344R0510
8-1
         1738 CBFT-2
                       Clearfield, PA 3122R1007
                                                10-19 Tr 2000 WCFT-33 WBMG-42 WMSL-48 AL
         1800 WPSX-3
                                                          2349 WTWV-9 Tupelo, MS 4554N0314
         1930 CKVR-3
                       Barrie, Ont.
                                     3122N1110
                       Pittsburgh, PA 3232R0930
                                                          0020 WBIR-10 KnoxvilleTN3332R0549
         1931 KDKA-2
                                                          0053 WHBQ-13 Memphis, TN 3345R0366
8-2
         1700 YNTC-2
                      Managua, Nicaragua N1270
                      Tegucigalpa, Honduras
                                                          0100 WSM-4
                                                                       Nashville 2245N0442
         1730 HRTG-5
                                     3114N1125
                                                10-42 Tr 1720 KERA-13 Dallas, TX 3324R0456
         1805 YSR-2
                       El Salvador
                                     4432R1132
                                                          2200 KBFI-33 Dallas, TX 3335R0456
         1800 KMID-2
                       Midland, TX
                                     3043R0741 10-25
                                                          1730 KHTV-39 Houston, TX 3345R0321
                                                          1735 KVUE-24 Austin, TX 4455R0460
                       Madison, WI
                                      3234R0920
         1950 WISC-3
                       Wiarton, Ont. 2022R1125
                                                          1740 KHFI-42 AUStin, TX 3335R0460
         1955 CKC0-2
                       Green Bay, WI 4234R1006
                                                          1900 KNCT-46 Killeen, TX 4335R0456
         2120 WFRV-5
                                                          2319 KFPW-40 Ft.Smith, AK3335N0472
0030 KTBC-7 Austin, TX 4555R0460
8-14
         1430 WCBD-2
                       Charleston, SC 5555R0640
                                                          0030 KTBC-7 Austin, TX 4555R0460
0035 WBAP-5 Dallas, TX 3455R0456
         1500 WUND-2
                       Columbia, SC
                                     3132R0900
         1600 WJBK-2
                      Detroit, MI
                                     2132R0945
                                                          0044 KTVT-11 Ft.WorthTX 5555R0485
6-20 "Some of these Spanish stations were ID'ed
                                                          0045 KBF1-33 Dallas, TX 4555R0456
     at the convention with Glenn Hauser's help."
      Tr 2245 XHAB-7 Matamoros, Mex 5555N0562
                                                          0050 KSAT-12 SanAntonio 4554R0510
6-21
         0044 XHFN-9
                      Tampieo, Tamps 3335N0750
                                                          0110 KETC-9 St.Louis
                                                                                   3334N0610
                                                          0115 KPLR-11 St.Louis
         0110 XHD-4
                       Tampico, Tamps 2235N0750
                                                                                   4433R0610
         0130 XHAH-8
                      LasLajas, Ver 2035N0850
                                                          0120 WHBQ-13 Memphis, TN 3345R0366
8-16
      Es 1830 WUND-2
                       Columbia, NC 4333R0900
                                                          0130 WISN-12 Milwaukee 2345N0922
                       Wilmington, NC 3122R0780 10-29
                                                          1045 WBBH-20 Ft.MeyersFL3325R0564
         1930 WWAY-3
8-21
         1718 KHAS-5
                       Hastings, NE 4334N0876
                                                          1130 WXLT-40 Sarasota,FL2225R0503
         1900 KOAA-5
                       Pueblo, CO
                                      5355R1000
                                                          1500 WTOG-44 St.Pete,FL 3225R0488
         1930 KWGN-2
                                                          1830 WDHN-18 Dothan, AL 4554R0305
                       Denver, CO
                                      3122R1000
8-30
                                                          1930 WIIQ-41 Demopolis 3345R0220
         2100 YSR-2
                       El Salvador
                                      3232R1132
9-1
         1900 WMAR-2
                       Baltimore, MD
                                                          1931 WGIQ-43 Louisville 3345R0287
                                     3122R1006
                                                          1950 WMA0-23 GreenwoodMS3334N0259
1955 WH1Q-25 Huntsville 3345R0375
         1901 WCBS-2
                       New York City 1322R1174
9-14
         1745 CMKJ-3
                                     3122R1075
                       Holguin, Cuba
9-15
         1830 WMAR-2
                                      3222R1006
                                                          2230 KTVE-10 ElDoradoAK 3132R0285
                       Baltimore, MD
                                      4233R1000
         1900 KWGN-2 Denver, CO
                                                          2300 WKID-51 Ft.Lauderdale N0676
                                                          2330 W70AU-70 Biloxi, MS 3445R0077
9-23
      Tr 0850 WCFT-33 Tuscaloosa, AL 4554R0263
         0853 WBMG-42 Birmingham, AL 4555R0320 10-30
                                                          1715 WXLT-40 Sarasota,FL3335R0503
         0855 WAAY-31 Huntsville, AL 4555R0375
                                                          1730 WTOG-44 St. Pete, FL 4455R0488
         0858 WMSL-48 Decatur, AL
                                      4555R0375
                                                          1830 WIIQ-41 DemopolisAL4555R0220
         0900 WHNT-19 Huntsville, AL 4555R0375
                                                          1900 WMA0-23 GreenwoodMS4555R0488
         0901 WHIQ-25 Huntsville, AL 3555R0375
                                                          2200 WSRE-23 PensacolaFL5555R0183
         1000 WIIQ-41 Demopolis,AL
                                      3235R0220
                                                          2330 WSFA-12 Montgomery 4553AR289
         2029 KHTV-39 Houston, TX
10-16
                                      3355R0321
                                                          2331 WCFT-33 Tuscaloosa 3222R0263
         2030 KEDT-16 Corpus Christi3335R0485
                                                          2345 WKAB-32 Montgomery 4555R0289
         2200 KVUE-24 Austin, TX
                                      4455R0460
                                                          2346 WCOV-20 Montgomery 4555R0289
         2208 KHFI-42 Austin, TX
                                      3455R0460
                                                          0120 WAPI-13 Birmingham 4554R0320
         2217 KWEX-41 San Antonio
                                      2255R0510
                                                          0132 WHBQ-13 Memphis, TN 5555R0366
         2300 KXIX-19 Victoria, TX
                                      2255R0427
                                                          0140 WBRC-6 Birmingham 4555R0320
         2301 KTRK-13 Houston, TX
                                      5555R0321 11-7
                                                          1730 KTBC-7 Austin, TX 3233R0460
         2302 KBMT-12 Beaumont, TX
                                      4453R0244
                                                          1800 KHTV-39 Houston, TX 3225R0321
         0050 KTBC-7 Austin, TX
                                      5555R0460
                                                          2010 KHFI-42 Austin, TX 3225R0460
2315 KVUE-24 Austin, TX 4555R0460
         0051 XHX-10 Monterrey, NL
                                      5555R0690
      Es 0130 KOAI-2 Flagstaff, AZ
                                      3234R1310
                                                          0030 KBMT-12 BeaumontTX 3345R0244
10-17 Tr 2215 KEDT-16 KHF1-42 KHTV-39 KVUE-24
```

4333R1000

Es 2400 KWGN-2 Denver, CO

### GENTRAL TV

Roger H. Brown 1617 Linden St. E. Lansing, MI 48823

January 1973

Reports due here by the 15th!

For TV-DXers in Wi, II, In, Mi, and Oh.

Please support your column all year!!

As I said last month...don't give up on winter! We've had the usual downturn in tropo across the Great Lakes...but a very promising flurry of Es activity. Hope you've had the gear on because there has been quite a bit to se. Es were noted in East Lansing on 5, 13, 14 and 17 December. A couple of those openings were even springlike! We should be hearing more about them in next month's reports. I hate to say this but I missed most of the mid-December meteor activity. I had a busy week...and early rising wasn't part of the activity. Early riser Don Ruland in Kenosha, , Wi. notes by phone that the Geminids were not particularly productive... not as good as last year. We'll wait for further reports. There is, of course, the chance for winter tropo. Several tropo openings in past years have been really great. Look for high pressure systems...not of the polar variety. Cold polar "domes" often have low pressure above them...and no upper-atmosphere inversions. As a high moves past you, warm, moist Gulf air should move in behind (in the Great Lakes area). If the pressure stays up...that warm air might stabilize...and stagnate. Watch for widespread areas of fog ... when the pressure is high and steady. As I said, we've had some great openings in the past...openings that lasted all day. I've received two reports for this month...and have a few loose ends to tie together so here goes ...

Rod Luoma, 38540 Five Mile Road, Livonia, MI 48154 EST

```
11-16 Tr 0900 WMUL-33 Huntington, WVA(280)
10-31 GW WKAR-23 E. Lansing, MI (55)
11-15 Tr 2230 WBNS-10 Columbus, OH (175)
                                                              WKMR-38 Morehead, KY (290)
                                                              WSVN-47 Norton, VA (375)
WKYT-27 Lexington, KY (310)
              GFPL-10 London, Ont (120)
         2245 WKSO-29 Somerset, KY (375)
                                                              WKPI-22 Pikeville, KY (340)
              WNDU-16, WSBT-22 So Bend (160)
                                                               WKHA-35 Madisonville (#10)
              WUTV-29 Buffalo, NY (225)
                                                               WKON-52 Owenton, KY (275)
              WSEE-35 Erie, PA (160)
                                                         0915 WOSU-34 Columbus, OH (175)
              WRFT-27 Roanoke, VA (390)
         2300 WKPT-19 Kingsport, TN (410)
                                                               WSEE-35 Erie, PA (165)
                                                               WQLN-54 Erie, PA (165)
              WTAP-15 Parkersburg,
                                         (230)
                                                     12-10 GW WXON-20 Detroit, MI (7)
              WHIZ-18 Zanesville, OH (180)
                                                UHF total now 109, VHF at 123. WRFT-27
              CKCO-13 Kitchener, Ont (165)
                                                a big surprise...temp only 30 degrees at
              CHCH-11 Hamilton, Ont (170)
                                                the time. Sig levels pretty good.
              Unid-28 w/ Movie, due East
```

(Please note folks...Rod is in a new location. He erected his array on 10-31 after giving everything a good "Brillo-ing". Notes better chances at DX, especially on channel 3. His gear is all Channel Master, including a 6 foot dish. Rod, your request per telephoning is duly noted. Will keep in touch. RB)

#### Ferdie Dombrowski, 1311 W. Madison #11, Milwaukee, WI 53204 CST

10 17	Ea	1175	WDIQ-2 Dozier, Al	10-29 Tr 2100 KESD-8 Brookings, SD (475)
10-17	ES			
		1325	Unid-2, NBC	11-1 Au 0230to channel 13 until after 0430.
		1600	WCBD-2 Charleston, SC	No IDs.
10-27	Tr	1100	CICA-19 Toronto (440)	Bruce Elving told me of 10-27 openinghe's
		1245	CKNX-8 Wingham, Ont (340)	in apt. overlooking lake and has better re-
				ception with a loop than I have with out-
				door antenna!

WAIT! A last minute addition awaits on the next page. 73s Rog

#### January 1972

### Morrie Goldman, 5815 North Christiana Avenue, Chicago, Illinois 60659

10-26 Tr 0012 KUHI-16 Joplin, Mo 10-27 Tr 0003 KCBJ-17 s/off WAPT-16 Jackson, Ms 0458 CFTO-9 Toronto, s/on WCWB-41 Macon, Ga (first 0505 WSPD-13 Toledo, Oh noted at 2230 on 10-25) 0507 WNBF-12 Binghamton, NY N2233 0700 KTSB-27, KUHI-16 w/wedge tp 1930 UnID-16 To south. Educ. 0532 CKCO-13 Kitchener, Ont 2145 WFIE-14 Evansville, In 0720 WSEE-35 Erie, Pa WMAW-14 Meridian, Ms(T) 12-23 Tr 1800 WKPT-19 Kingsport, TN 2150 WBRE-28 Wilkes-Barre, PA 1830 WMAW-14 Meridian, Ms WSEE-35 Erie, PA 2000 WDXR-29 Paduchah, Ky WAKR-23 Akron, Oh WMUB-14 Oxford, Oh "Es noted on at least four occasions, but 2230 WUTV-29 Buffalo, NY 2255 KMTC-27 Springfield, Mo no positive IDs. MS results were not encouraging at all. Half the time my alarm 2258 WUAB-43 Lorain, Oh clock failed (too much throwing it against 2305 KUHI-16, KCBJ-17, KDNL-30 the wall perhaps? RB) and the other half, 2325 KOMU-8 Columbia, Mo N3333 little was seen. Total at 295 logged.



Commission

Canadienne

J. JOEL ROSENBERG & MARK L. LEWIS Canadian Radio-Television Conseil de la Radio-Télévision 47 PANNAHILL RD 224 HONITON ST DOWNSVIEW, ONTARIO 633-1769 -416-635-0086

NORTH OF THE BORDER:

FOR NEWS IN CANADIAN BROADCASTING

TV APPROVALS

KENO HILL, YT ch. 13 .248/.0248 kw dir .. to receive CBC ENG via ANIK COMSAT MELFORT, SASK ch. 2 11.5 kw dir Sat of CFQC- Saskatoon CTV & CKBI- Pr Albert CBC

TV APPLICATIONS CHAPEAU, PQ ch. 11 .55/.06 kw dir Sat CBOFT Ottawa (CBC FR) RAPIDES DES JOACHIMS, PQ ch. 8 .161/.0161 kw dir Sat ch. 11 Chapeau HIGH LEVEL, ALTA ch. 8 .468 kw dir Sat CBXAT-3 Manning (CBC ENG) FORT VERMILLION, ALTA ch. 11 .277 kw dir Sat ch. 8 High Level FORT AU PORT, NFLD ch. 13 .504/.101 kw dir OBC FR via ANIK ST MARY'S, NFLD ch. 10- .67/.13 kw dir Sat CBNT St John's (CBC ENG)

TIDBITS ###ANIK-1, Canada's new communications satellite, was successfully launched from Cape Kennedy on Now 9. It will bring first LIVE, COLOUR TV to remote areas, especially in the far north (as well as extend phone service) and should become operational at beginning of Jan/73. Programs will be relayed from major southern centres. OBC will build northern production centres during the summer. ###CKBL-TV ch. 9 Matane PQ now CBGAT. ### DXers GUIDE to CDN TV-FM Stns is available for \$2.10-MONEY ORDER payable te JJ ROSENBERG-enly (cheques will be returned) from above address.

Mail moves the country – ZIP CODE moves the mail! advertising contributed for the public good

## NORTHERN FM DX

Editor: Roger W. Winsor 718 N. Fremont Road Valparaiso, Indiana 46383

Deadline 10th of the month

Fred Nordquist 302 Sandra Lane N. Syracuse, New York 13212

Not much FM DX to report this month. However, a most unusual Es opening into South Dakota was noted on 11/26. WROC 97.9 now has MPX. The reason why WRUR 88.5 Rochester has not been heard is due to potential QRM with their research labs. A new 50kw XR is sitting there in mothballs, and not being able to broadcast! Es noted on 11/26 90.1 and 102.3 unIDs (102.3 probably KVRF Vermillion Fred. RWW) KWRY 93.7 (KWYR FM I assume hi. RWW) o/WBLK L&C for 20 minutes w/Mutual nx and Dakota Christian Hour in MPX 1537 to 1545 fadeout; riding on an Artic Cold air mass that pm. 12/2 new WONT 103.1 Oneonta NY noted w/MoR @0040. I hope to catch some of the Geminids MS DX this year on Dec. 14. Hope all had a nice holiday and 1972 will probably go down in the record books as the most outstanding Es season of all time, for FM, that is. 73. (Tnx for the nice comments with your report Fred, and keep in touch when DX starts uphill again. KWW)

John Ebeling 9209 Vincent Ave. So. Bloomington MN 55431

My latest report...you might find it useful for the January column, since DX will, in all probability, be rare. Had some rare end of November skip here on 11/26. Was watching Viking's football game on ch. 4 and noticed what appeared to be CCI. Then, for some reason, I switched to normally dead ch. 2 (local off until 5PM on Sunday) at about 1405 CST and was rewarded with a completely snow free color ID of WMAR 2 Baltimore w/antenna north, 90 degrees from the east. So much for TV, ran to the FM gear and found the band really active up to 98.3 logging WBJC 91.5 @1415 Baltimore w/beautiful \$ and having a rock request program in progress. Maryland is a new state for me. At 1420 WEDA FM 95.1 Grove City PA was becoming in for an ID and prome for Grove City High School Christmas album. Could not get any other IDs, not because the stations weren't there, but because they would not ID. About 1430 the FM band pretty well died out, TV Es remained weaker until 1500 or so. During the opening, had strong signals on 88.1, 88.9, 92.1, 93.3, 94.1, 94.3, 94.7, 94.9 and 98.3 as well as other frequencies, but could not snag any IDs, and tape recorder wasn't set up properly. Outside of the Es, reception has been normal for the winter. As I write this it is 5 below zero, so I guess fall has gone and winter is here. Hope I can smag some good aurora in the next few months. That's it from the frozen north.

Roger W. Winsor 718 N. Fremont Road Valparaiso, Indiana 46383

That's about it from the frozen north, to say the least. Only one new static n logged, WVLJ 105.5 Monticello IL on 11/23 @2245 w/ID "Stereo 10 55 with Randy Russell". Other than that, just the news that WFLM 103.9 Crown Point is now on from 0600 to 0000 daily, same sked for WLCL 107.1 Lowell IN, also new on the air. WFLM very effectively covers a dynamite progressive rock station WRBR, but WLCL is just another country music station on top of cw WSJM. WFLM is slushy MOR sweet talking DJ, etc, just what Chicago really needs. Hi hi. 73 and let's hope for green grass this coming summer. Oh yes, just noticed in the paper today that WEFFM 99.5 has been sold to another company, and plans to change to soft rock, a real bomber format in rock/roll saturated Chicago what with WDAI/WIDJ/MMAQ/WSDM all playing top 40 stuff. WIOE 103.5 has not begun, nor have I heard anything, but it would be nice if they would change January 1 with the new year. 73 again.

Time to renew? A change to 1st class will bring your VUD faster!

### WESTERN FM DX

Editor: Mike Dorner, Jr. 1409 Hymelia Ave. Metairie, La. 70003

#### DX FROM THE LAND OF BEGINNING AGAIN

Glenn 1 10/28 11/1	S	2310		Tr	KTRU	Texas 78073 Houston TX Tyler TX	QTH: Franklin TX 100 undeground, offering prg sked. 10 w. 115 "Kay-Zak," "back on air." apologizin from AM daytime rules; sked FM 0530- 2200
11/8	W	1722 1243 1247		Tr	WUSF WPCS WWNO-	Tampa FL Pensacola Fi. New Orleans	880 cl mx; 1728 USF female status call-i 540 religious 400 NFR stn; heavy tropo from S Florida but too tied up with TV!!
11/16	X	0700 1117		Ms Ms	WDYN	Chattanooga	QTH: Von Ormy TX 875 ID job opening anmt; ant E

#### Pat Dyer, 5315 Silvertip Drive, San Antonio, TX 78228

The Leonid Meteor Shower: (95.1 - 95.3 range)

Nov 15: 0000-0030, a few 5 and 10 sec bursts

Nov 15: 0920-1005, numerous 1 sec or less bursts; best at 0920:25 ran 15-20 secs

Nov 16: 0045-0100; a few 2-3 sec bursts, best at 0056:20 only 5 sec; 0100-0200: again, many 1-2 sec; 15 sec at 0119:25, 0125:20, 0129:20; 0133:20, the latter being an audio test tone apx 1 khz. 0915-0940: sev 1 sec, largest 3 sec.

Nov 17: 0115-0205: nothing much over 1 sec. A pretty fruitless effort - perhaps others were more lucky. I'm beginning to think there are only three showers worth it a year for me (i.e., Geminids, Quadrantids, Perseids).

Nov 25: 2010-2130. Es MUF to Wexico hit Ch 5 several times but repeated searches for FM skip found nothing making it.

Dec 4: wy good evening trop on TV and spent most of effort on it; 2232 KLBK-FM 94.5 Lubbock TX (350 mi) with weather and ID.

Dec 5: though TV trop still good, FM not all that spectacular; 0155, KBUY-FM 93.9 Fort
Worth TX (240 mi) with news. 1730, Es into FM band at tune-in. 1750, some 8892 mhz Es; 1800, apx 88.3 station mentioning WOSU net so likely Ohio. 1830,
MJF maybe touching 94.5, but trops still up some, so confusing the mode determination. 1840, likely last of FM band Es. This sudden FM opening match like
the one we had last year on Dec 14 (even to the extent of a strong cold front
passage as well. Les Prus, take note.

Dec 7: 2055-2225, early Geminid shower effects (95.1-95.3) 63 'events,' 16 of which type-of-music programming (music, etc.) was evident, longest being apx 2 sec.

Dec 8: 0000-0030, 31 and 5.

Dec 9: 2129-2230, 57 and 23, longest up to 10 sec.

Dec 10: 0035-0130, 51 and 10, longest to 5 sec.

Hovefully, by next reporting time the Geminid and Quadrantids will have provided me with a little more meaningful meteor scatter results (e.g., 20-30 sec bursts) with a few IDs.

By the way, a report to WBIV in New York c/o the address you gave in the November

By the way, a report to WBIV in New York c/o the address you gave in the November column was returned marked "refused"...so, it's one thing when stations don't answer reports but when they don't even accept mail ... 73.

Ed. Note: Thanks to Frank E. Aden Jr., WDX7DX, Boise, ID, for sending a copy of the Idaho DX Club's August monthly "IDXA." The club covers all the bands, not just TV-FM.

Copies of my Fourth Progress Report on FM construction are available for 24¢ in postage at my address above. They list vacant FM channels in the Northeast, contain a U.S.

map showing the locations of vacant channels, detail station construction and channel availability by region, class and community size. It runs six pages, and is published every six months. Your interest is appreciated. Best of DXing in 1973.

<sup>\*\*</sup> One out of every two FM stations under construction is located west of the Mississippi.

### SOUTHERN FM DX



Editor: Richard E. Wood 820 Arlington Ave. Baton Rouge LA 70806 Tel. (504) 343-7771 Deadline: 13th. of month

FEATURING FM FROM LOUISIANA TO MARYLAND

### Hank Holbrook, 7211 Chestnut St., Chevy Chase MD 20015

FM DXing from our cottage at Fair Haven MD, overlooking the Herring and Cheaapeake Bays, 15 mi. below Annapolis MD. Time in EST & EDT (LST).

Not a lot to report since I last wrote in but am happy w/ my Sept. catches.

9/17 0630-57 89.7 WAUH Allentown PA (140) 7 watts Canned popular mx. Surprisingly good signal.

verified)

(Underlined have Ltr states in pt: "WMUH is amazed and pleased to confirm yr reception of us... The info provided us corresponds to our BC logs and the mx selections on the auto tape played ...Our normal ERP is 14 w. Remarkably, you were listen-ing to us when we were operating under the worst transmission cx possible. Only 1 bay of the entenna was operational, and our ERP at the time was abt 7 watts...antenna is in need of replacement...and badly corroding." (Nice).

9/24 0125-0233 91.1 WMUA Amherst MA

(310) 1 kW

Mostly RR. New. Fair-gd.

9/24 0301-0405

91.7 WMPH Wilmington DE (75) 6.52w.

On 80-hr. marathon to raise funds to keep them going. RR.

Letter states in pt: "This ltr is to confirm your recep. of ... WMPH-Fm .. We are all vy excited upon hring of yr recep. of our sig as it is the farthest yet rcd... Effective radiated power 6.52 watts...Our stn is a student-op'd non-comm. FM stn located in the Mt. Pleasant High School 4 mi. N. of the center of Wilmington ... . " (Nice again, REW)

11/26 0517-42 104.1 WIOF Waterbury CN (270)

ex-WWCO. New call stands for 104 (10-4). C&W. "Ctry. Giant". Freq. hrd on the Bay despite distance, crowded channel. BX-WRVA-. "WRVQ \$ RR 94." "Super Q rolls on". Local at the Bay.

11/26 1049- 94.5 WRVQ Richmond VA (100) 1115

Some other veries in since last rpt - WWRJ NY 95.3 2.4 kW; WBLS NY 107.5 2 kW; WYSU Youngstown OH 88.5 22.5 kW and WUNH Durham NH 91.3 1.75 kW. All letters. Ltr from WUNH says "You have set the distant record for roving us - old records were from New Bedford MA (abt 100 mi.) and from an oil tanker - somewhere out in the Atlantic." (Tnx, Hank, please send verie info to Dennis Moe's column).

Verifications on FM at 631 from 31 states, Ont., P.Q. and Man., and also from Bermuda, Cuba and P.R. Doubt if we'll have much to rpt before spring as we're going to close the cottage in late Dec.

HO HO HO - I almost forgot - Merry Christmas and a Happy New Year to All. 73. (Thanks for supporting the column during '72, Hank. Perhaps you got some December Es before closing the cottage. Keep reporting in '73. REW)

January 1973

#### Ronald J. LeBlanc, 2524 Arizona Dr., Marrero LA 70072

This seems to be one of the worst trop months I have seen in some time (but one of your trop logs is very significant, REW). Will be starting work on my amp next week. I have finally acquired all the parts necessary for construction.

11/11 Tr 2207 WJCT 89.9 Jacksonville FL \$ CL (503), 2218 WGOV 92.9 Valdosta GA \$ C&W s/off ID on taps (430), 2223 WFAM 91.1 Jacksonville FL RR \$ (503) (unheard here, REW), 2240 WJIZ 96.3 Albany GA Soul (380), 2320 WJAX 95.1 Jacksonville \$ wx (503).

11/12 Tr 0150 WZGC 92.9 Atlanta GA (406), 0203 WAJM 103.3 Montgomery AL \$ (365)

MoR (289), 0748 WDWD 92.1 Dawson GA very weak, caught ID only (365).
1033 WKNO 91.1 Memphis TN CL \$ (366).
11/20 Tr 2325 WSHE 103.5 Ft. Lauderdale FL \$ RR (676), 2329 WDBO 92.3 Or-

- lando FL \$ (510), 2330 MCCF 92.7 Punta Gorda FL \$ wx (538), 2335 WEAT 104.5 W. Palm Beach FL \$ EL (666), 2345 WIRK 107.9 W. Palm Beach \$ 01d Gold (666).
- 11/21 Tr 0000 WAXY 105.9 ft. Lauderdale FL \$ MoR (676), 0007 WFTL 106.7 ft. Lauderdale FL \$ nx (676), 0015 WMJR 100.7 ft. Lauderdale \$ EL (676), 0100 W0RJ 107.7 Mt. Dora FL RR (527), 0103 WAIA 97.3 Miami FL \$ MoR (686), 0104 WJNO 97.9 Palm Beach FL \$ EL (666). Those FL stns were some good catches but they were all reruns.

Tampa & Clearwater stns were in pretty strong plus some Dallas & 12/1 Tr San Antonio stns.

12/4 Tr Many Dallas/ft. Worth stns in like local quality. 2355 KSEL 93.7 Lubbock TX s/off, right through WVMI in Biloxi MS (741). (You can't say trop was bad this month, then, Ron; that is a very important logging; I have yet to hear a trop W. of San Antonio, and my map of TX is blank between El Paso (Es) and San Antone (Tr). Your excellent catch shows what can be done on Tr, even in those dry lands of C. and W. Texas. REW)

12/5 Tr Many Dallas-Ft. Worth stns hrd. Then at 1700 the skip broke on TV.

by 1725 it was up into the FM band.

1748 CJOM 88.7 Windsor, Ont. \$ (945) (a relog for you, but unhrd here, REW), 1800 KDKA 92.9 Pittsburgh PA (930), 1815 WHKW 89.3 Green Bay WI \$ ed wx. (1006). Skip faded at this time. About 45 Es mins. on FM. Also had about 10 unid. stns., just not enough info to ID. (Contrast my Es that day, which began in El Paso TX and ended in Honduras. REW)

Well that's about it for this month. Seems to be too many low pressure systems moving in for any tropo cx. 73s. Totals now stand at 376 sta., 27 states, 6 countries, 2 proys.

Or. Richard E. Wood, 820 Arlington Ave., Baton Rouge LA 70806. CST.

A fine though patchy month w/ excellent bursts of all 3 propagation modes usually observed here in the South. Mid-winter Es began Dec. 5; Dec. 14, first anniversary of my first-ever Es in my FM DX-ing experience, was a good day. Noteworthy were two days when areas covered in Es here were partly or totally different from those noted by Ron, 80 miles away.

Particularly fine was the MS from Geminids, which brought me my shortest yet MS (479 mi.) and my first MS from N and NW (all previously hrd was from the NE). Tropo was good at times, notably a rather duct-like opening to GA/extreme SE TN Dec. 7. Its narrowness was useful, as the Gulf Coast w/ its many stns was not enhanced; many new Class A channel loggings were made, in some cases m/ GA stns covering closer AL or MS stns in roughly the same direction. Totals increased to 542 stns. hrd., states to 32 hrd., DC was also added, and best of all a new country, Honduras, #5, reflecting the recent coup d'état there w/ stns. seemingly running in a nation-wide chain (hence no local ID). Stns in the 88-92 range stand at 64 (well over the 10% recommended by Bruce Elving in his article on educ. stne). In the varification picture, Guatemala verified in highly professional, technical form, for 88.1 and 88.8. FM is certainly progressing in Latin America.

A wall-map has been installed, with different colored pins reflecting

different propagation modes from different locations, in my DX den.

```
Richard E. Wood (Cont.)
0737-0800 Tr 93.1 WTMI Miami FL
                                             779 Fine CL mx, "BC'ing from Sail-
                                                  boat Bay w/ World's Finest mx"
Dec 1 Tr unid's noted on 95.3 and 100.1; McAllen, Corpus Christi excellent
at the time, strongly suspect Tampico, but not a word heard spoken; beam &
mx styles seemed right, however. Interesting, because Glenn Hauser, who passed thru Tampico last Oct., observed no FM's active (Morning, local
time). However, this reception was between 2200-2400. Will continue checks.
Dac 3
0050
           MS 91.9 WGTS Takoma Park MD 995 religious; confirmed by letter
Dec 4
0025-0035 Tr/GW 100.7 WQXY- Baton Rouge LA 7 on exciter only, less than 5
                                                  watts; confirmed phone/letter
0035-0100
                                                7 power amplifier filaments turned
                                                  off, less than 2 watts; QSL'ed
                     (Engineer was amazed to hear stn was getting out; seems
Dec 5 he had mx running only for his own entertainment) 0530-0545 Tr 102.7 KAFG Oklahoma City OK 504 auto Solid Gold synd.
0600-0603 Tr 95.1 KAMS Mammoth Spring AR 415 SSB s/on for KAMS & KALM (AM)
                                                  Thayer MO, into wx; 0603 WQNZ on
1729-1740 Es 88.5
                    KTEP El Paso TX
                                             907 nx, wx.; unn.; began opening
1730-1736 Es 94.7
                    KSET- El Paso TX
                                             907 home-produced auto EL
1745-1755 Es 97.3
                    WHP- Harrisburg PA
                                            1050 "Island of Beaut. mx." auto EL
1750-1756 Es 105.9 WCHD Detroit MI
                                             933 nx, tel. interview, Black
1758-1802 Es 107.3 WMAL- Washington DC
                                             989 Georgetown spot, C&W; my 1st.DC
1800-1810 Es 106.5 WRFK Richmond VA
                                             922 $, then ann next prog not in $,
                                                 non-comm., film critics, promos
1807
           Es 97.3
                    WHCU- Ithaca NY
                                             unn. German mx., CL
           Es 88.7 HR.. ..., Honduras steady sig., revolutionary calls, "Si al progreso"; mono.
Es 104.7 unid. auto EL, PTA: Great Lakes, PA; spot for "bonded"
1820-1832 Es 88.7
1753
                     roofing applicator" for homes; which states license such?
Dec 8
1800
           Tr 88.7
                    KUHF Houston TX
                                             254 noted on air again after a long
                     absence, perhaps for power increase from 12 to 20 kW erp.
Dec 7
0635-0650 Tr 106.7 WDUN- Gainesville GA
                                             507 funeral notices, remote wx.
0655-0705 Tr 92.7 WXLI- Dublin GA
                                             500 state nx, 0700 into UPI audio nx
0707-0720 Tr 92.1 WDWD- Dawson GA 395 extensive lost dog
0720-0740 Tr 99.1 WMAZ- Macon GA 471 "$ 99", Solid Gold
0741-0755 Tr 103.9 WCEH- Hawkinsville GA 480 wx remote, Contemp.
                                             395 extensive lost dog info, nx, $
                                             471 "$ 99", Solid Gold auto synd.
0757-0810 Tr 104.1 WLAG- LaGrange GA
                                             385 // AM, MBS nx., commentary
0500-0520 Tr 97.7 WKEU- Griffin GA
                                             460 well over WEZZ AL; MBS nx, sport
0518-0530 Tr 100.9 WCJM West Point GA
                                             375 Ctry Gospel live, local spots
0527-0540 Tr 100.7 WCLE- Cleveland TN
                                             495 C&W, much DJ talk, farm rpt
0546-0600 Tr 105.7 MAUG- Augusta GA
                                             560 comic mx, live, C&W
Dec 11
2230-2300 Tr 96.5 WJCL- Savannah GA
                                             603 $ auto standards EL/MoR
Dec 12 Geminids
2241-2245 MS 91.9
                    WHRM Wausau WI
                                            1005 mx, s/off; earlier hrd by Es
2258-2300 MS 92.9
                    wwTv- Cadillac MI
                                            1002 s/off, SSB vocal; again hrd.
                                                 Dec. 13 0722 request line #
2330
                                             808 ID, MoR in EE (previously had
          MS 93.1 WXRT
                           Chicago IL
                                                 for. lang. this time)
Dec 13
                                                 (both above earlier hrd. by Es)
1720-1730 Es 93.9
                    XHMO Morelia, Mich.
                                             971 request Mex. mx live mono
1725-1730 Es 91.3
                    unid. probably XERSM México D.F. MoR auto EL
Unn. KTEP 88.5 TX and Fabuestéreo Guat. 88.1 also noted; muf. 98.6 Guat. 1730
          MS 93.1
2100
                    KNUJ- New Ulm MN
                                             970 Oil Co. spot, $
          MS 92.9
2130
                   KAKC- Tulsa OK
                                             479 RR, ID; prev. by Tr (my first
                                                 such, and my shortest MS)
2159
          MS 92.9
                    KVOR- Colorado Springs CO 964 FM only ID
0000
          MS 92.9
                   unid. Great Lakes area? s/off "to return 6:25", off 0001
Dec 14
1700-1730 Es 89.3 WHKW Green Bay WI
                                            979 NPR // most other w.S.B.S.
```

#### FM SOUTH

¥

Richard E. Wood (Cont.) Dec 14 895 Bruce's stn 1700-1730 Es 89.7 WILLIAM Milwaukee WI 892 none of these rptd as no 1700-1730 Es 90.7 WHAD Delafield WI local material hrd 1005 // other w.S.B.S. 1005 tx: Rib Mountain, hence call 1700-1730 Es 91.5 WHMD Suring WI WHRM Wausau WI 1700-1730 Es 91.9 WGGL Houghton MI 1155 Book Bulletin, give tel. # 1705-1730 Es 91.1 808 live rel./CL mx., wx 895 \$ Milw.; pickles, wine spots 1712-1725 Es 90.1 WMBI - Chicago IL 1719-1727 Es 97.3 WISN- Milwaukee WI

Please support the column; there's plenty of DX around. Next deadline Jan.13.

# C.C.I. FM

Bruce Rummel R.D. 1, Box 385 Fleetwood PA 19522 Deadline: 10th of month

#### JANUARY 1973

Many FM DXers were probably pleasantly surprised at the December 5th skip opening...with more Es hopefully following throughout the winter. The December 5th opening was a typical mid-winter opening...even producing some CCI!

### Mr. Pat Dyer, 5315 Silvertip Drive, San Antonio TX 78228 CST

Thu Nov 16 Ms 95.1+1 0133 CST - Test tone on burst, about 1 kHz.

Tue Dec 5 Es 88.5? 1800 CST - Station mentioning WOSU and OH state ed. network (Probably WYSU Youngstown) (WYSU shows dinner concert, maybe plug) 88.3? 1802 CST - William Buckley program (Poss. WIAA) 88.3? 1840 CST - Featuring works of Brahms (WHWC, WIAA in probable target area)

### Dr. Richard E. Wood, Department of Foreign Languages, LSU, Baton Rouge LA 70803

Tue Dec 5 Es 104.7 1853 EST - Automated easy-listening, spot for "Bonded Roofing Applicator" for homes.

PTA: WYDD Pittsburgh and WCWA Toledo OH.

(WRMI-FM Morris IL matches beautifully with Dyer's probable WYSU but is only 775 miles..at 104.7. All 3 are EL)

#### Mr. Leslie J. Prus, 1615 Pierre, Manhattan KS 66502

Thu Nov 23 Tr 98.1 2100 CST - - Under open carrier of KUDL, following heard: "You're listening to the quiet sound of KUBI" (Not KABI as wrong format. A real stumper)

Note on item 1 on Pat Dyer's report above. The +1 denotes the station may have been 1 channel higher as well (in this case, 95.1 or 95.3 MHz.)

IDENTIFICATIONS
Thanks to Robert H. Baker of Humboldt IA, Fred Nordquist's 90.1 MHz. un-ID on 7/15/72 has been solved as WOI-FM. I originally refrained from saying WOI- was it as indeed several 10-watters (class D) were in the PTA. Has anyone ID'ed a 10-watt FM via Es? (It is possible, as a 10-watter can produce as much as 100 microvolts off a dipole antenna at 1000 miles, during an efficient Es opening. This from NBS Monograph 80 by Davies, mentioned in Pat Dyer's article on Es last month. Winter offers the best chance for this, as most 10 watt FM stations are off the air all summer.) Pat Dyer's 21 Aug Es with test tone the afternoon on 90.1 definite WEPR; 22 Aug Es 88.5 at 1550 CST probably WRAS. Thanks to DX column pgm. notes for these.

(Continued on page 28)

### FM QSL CORNER

Dennis Moe 8140 Storms Hall ISU Ames. IA 50010 Deadline: Jan. 13

ALABAMA: WARI-FM, Abbeville 94.3. Spec. ltr frm Bob Walker, GM. Enc CM & returned rpt. WERC-FM Birmingham 106.7. Ltr written with broad-brimmed marking pen frm David (RW) Gleason, PD. Says old WBRC- was once most powerful FM in the country-500kW. (RW) WFMC-FM Monroeville 99.3. Spec ltr frm Harold Harris, Manager.(RW)

WTUN Selma 100.1. Pleasant, spec ltr frm James E. Lumpkin, CE. Enc CM(with old callletters WHBB-FM). Says my rpt is most dx. Previous farthest was Gadsden, AL. (RW) WJDB-FM Thomasville 95.3. Spec ltr for first day reception Nov. 2, 1972 frm Cecil

Goodreau, P. Mine most dx rpt so far. (RW)

ARKANSAS: KBRI-FM Brinkley 100.3(? DMM). Pleasant ltr frm Gus Elledge, M. My rpt most dx. Very specific, sent copy of log for period heard. Enc sticker(not frm station), calling card, and football sked. (RW)

COLORADO: KUNC Greeley 91.5. Very spec, pleasant ltr frm James T. Lang, Asst. News Director(whose voice I heard on air). My rpt is 2nd most dx after North Carolina. Enc very useful list/map of all NPR stations(KUNC is only one in CO), sked, and brochure. (RW)

FLORIDA: WYOR Coral Gables 105.1. Spec ltr frm Earl L. Miller, Dir. Eng. Most dx rpt. WSOR Fort Meyers 95.3. Spec ltr frm Mrs. Ann S. Collier, GM. Enc two monthly program skeds. (RW)

WVFM Lakeland 94.1. Spec 1tr frm Mrs. Teresa Burkey. Enc CM. My rpt is most dx. (RW) WTHS Miami 91.3. Spec ltr frm Roger R. Kobzina, PD. Describes stn as "one-man operation" (himself). Enc copy of FCC log for period of my reception, plus sked.(RW)

WEZX Tampa 104.7. Spec ltr frm Frederic T. C. Brewer, P.(RW)
WHFL Winter Haven 97.5. Ltr frm Randall E. Jeffrey, VP. Enc folder, calling card, CM. My rpt is most distant. (RW)

ILLINOIS: WSIU Carbondale 91.9. Ltr and sked frm Jerry Querciagrossa, PD. (RW) IOWA: KDMI Des Moines 97.3. Spec 1tr after f/up frm Buddy Tucker, P-GM.(RW) LOUISIANA: KJKL Shreveport 101.1. Spec ltr; enc folder of materials inc CM. Frm Hal Evans, M. (RW)

WQXY-FM Baton Rouge. 100.7. Spec 1tr for reception at a power of less than 5 watts with the power amp and drivers off, but the filaments on; and at less watts without the filaments on; frm Terry D. Langston, CE. Only 7 miles, but my lowest-powered veries in my entire DX career (15 years)(RW)

MICHIGAN: WKAR-FM East Lansing 90.5. Spec ltr frm Bill Winters, CE. Enc lavish booklet. WOOD-FM Grand Rapids 105.7. Enc CM and spec ltr. (verie signer? DMM) (RW) WRIF Detroit 101.1. Spec make-shift QSL card and ltr frm Lee Abrams, PM, at tx site:

20777 W. Ten Mile Rd., Southfield MI 48029, after 1tr to Broadcast House, Detroit MI 48219 went unanswered. (RW)

MINNESOTA: KLFD-FM Litchfield 95.3. Pleasant, spec ltr after f/up frm Darryl Hensley,

KTCR-FM Minneapolis 97.1. Ltr, spec, after f/up frm Johnny Edwards, Ops. Mgr.(RW)

MISSOURI: KEIA Columbia 91.3. Ltr. frm Roger Karwoski, CE. Enc sked(RW). Ltr frm Roger Karwoski, CE. ERP 100kW H, 97kW V.(RE) KSHE Crestwood 94.7. Ltr frm Rick Lee, Stn. M. Enc bumper sticker. 100kW H, V. (RE)

KSYN Joplin 92.5. Ltr, brief but detailed, frm Wm. B. Neal, CM(RW).

KRES Moberly 104.7. Pleasant, detailed ltr frm Dick Womack, CE. States FM DX is rising in popularity; 5 times as many FM rpts are received as Am. Anc postcard snowing stn building (AM KWIX alone IDed on it) and FM-only CM. (RW) KCLC St. Charles 89.1. Ltr frm Mrs. Marty Ackmann. Enc bumper sticker. Lindenwood

College; ERP 1500 W. (RE)

KADI St. Louis 96.3. QSL card and CM frm James Mitchell, Tech Dir. 100kW H,V.(RE)
KMWU St. Louis 90.7. Spec ltr frm Robert W. Thomas, CM. Says he is amazed to be heard
at this distance. Enclosed sked.(RW) Ltr and sked in 10d frm Robt. W. Thomas.
WIL-FM St. Louis 92.3. QSL card frm Tom L. Perryman, Pres. and CM. 97kWH,V.(CL)

KWTO-FM Springfield 98.7. Card, all details, with name of CE, Richard (RE)

Bowman, printed on it; copy of FM log for period I heard; and two booklets including CM. rate card. etc. (RW)

KTXR Springfield 101.5. Ltr and CM frm Pete Likens, Administrative Ass't. Senior Staff Announcer. (RE)

KWPM West Plains 93.9. Brief but spec ltr frm Laurel R. Thompson, Stn Mgr.(unsigned)

January, 1973

#### FM-QSL

NEW MEXICO: KMTY Clovis 99.1. Ltr in 3 months, 5d signed Gerald F. Fisher, CE.

Stationery used was somewhat confusing as the letterhead used was for KFDA-TV in Amarillo and satellite stns, and the address on the envelope was Llano Electronics in Clovis. Mr. Fisher stated that he was CE for a number of AM, FM & TV stns in the area, and appreciated the dx of the rpt because he enjoys VHF Amateur work. (PS)

KBIM Roswell 94.9. Although this was my most dx E-skip, only a brief uninformative ltr signed by John King , VP Operations, was sent. (PS)

NEW YORK: WRLX Auburn 106.9. Short itr sent in hid signed by Herbert J. House, CE. (PS) WBFO Buffalo 88.7. Itr in 8d signed Fred W. Winters, CE. He complained like I do abt interference frm CJOM 88.7 Windsor. WBFO's pwr of 70 watts is obliterated everywhere except a few miles around Buffalo by CJOM's 160kW.(PS)

WBNY Buffalo 96.1. Vague ltr after f/up frm Joyce M. Emke, seemingly a secretary.(RW) WBLK Depew(Buffalo) 93.7. Mimeographed form ltr signed George B. Murray, CE, giving

transmitter and antenna details.

- WCMF Rochester 96.5. Ltr in 7d signed Jacob Z. Schanker, Director of Engineering, and 2 windshield stickers. He expressed surprise at reception at 150 miles with rabbit-ears. (PS)
- WROC Rochester 97.9. Sent large card used by AM, FM, and TV with FM indicated.(PS)
  WMHR Syracuse 102.9. Ltr in 3d signed Clayton R. Roberts, CE, who says he attended
  a propagation conference here at the U of Waterloo.Enc religious booklet.(PS)
- WNCQ Watertown 97.5. Sent card(handmade) signed Robert S. Murchara(?), CE. No details. OHIO: WAKR Akron 97.5. Card used by AM, FM, &TV with FM verie indicated. Signed (PS)

by Irv Knopp(?), Chief Operator.(PS)

- WBOE Cleveland 90.3. Ltr in 20d signed William V. Nelson, CE. Card with tech details also enclosed. WBOE is run by Cleveland Public Schools(Board of Education)(PS).
- WCLV Cleveland 95.5. Mimeo ltr with considerable tech detail. In a pers note at the end, Stephen P. Bellamy, E, states that they are always interested in receiving rpts as they are using a prototype antenna, the world's first directional ant with dual polarization. He also states that WCTF-TV, Ch 19 is not yet on.

WGCL Cleveland 98.5. Ltr with details signed by Sam Garfield, Cd.(PS) (PS)

- WNCR Cleveland 99.5. Ltr in 10d signed Jerrett L. Earle, CE. He also makes an apology for not having QSL card because "as you know FM stations get very few requests for QSL's".(PS)
- WZAK Cleveland 93.1. Ltr stating appreciation at hearing from Canadian listeners.

  They also enc a ballboint pen and a sked and invited me to visit the stn if in Cleveland. A QSL card was not enc although the ltr stated it was.(PS)
- WCOL Columbus 92.3 sent card with personal note and signed by Tip(?) Carpenter, VP. WOSU Columbus 39.7. FL with xmtr details signed by A.J. Boggioni, CE(PS) (PS)

  Ltr in 7d signed Allen B. Hundley, producer; sked. Ohio State University. (AO)
- WQOD Youngstown 93.3. FL and lengthy pers ltr in 33d, both signed Michael G. Orto, Eng Dept. Tech details and state that most dx rpt from Bruce Elving. Ltr also states that call letter change frm WBBW-FM was made when they switched to 4-ch broadcasting, but the incompatability of systems has propted them to set 4-ch aside until a standard system is picked by the FCC. (PS)
- OKLAHOMA:KTEN Ada 93.3. Ltr and CM for KTEN and KEOR. Signed James Wm. Lollar, Eng Supervisor. Numerous tech details and states that mine is most dx rpt.(PS)
- KINB Poteau 107.3. Pleasant detailed ltr, apologizing for 11 month's delay in answering. Included CM. V. F. Nowlin, Mgr.(RW)
- KOSU Stillwater 91.7. Spec ltr frm Ed Paulin, SM. Enc calling card, sked.(RW)
- KRAV Tulsa 96.5. Spec ltr after f/up; returned postage, unusel. Cliff Allen, Ope Mgr. PENNSYLVANIA: WVEN Franklin 99.3. Ltr in 28d on WFRA stationery signed Robert H(RW)

  Sauber, CM. He states that the only other dx reception rpt came frm Baton Rouge

on June 2. (Probably Richard Wood.)(PS)

- WGRP Greenville 107.1. Card used for AM, FM, & TV with FM indicated. Detailed tech ltr written on back and signed Ken Anderson, CE, W3JEB.(PS)
- WITF Hershey 89.5. Ltr in 3d frm Walter P. Sheppard, Station Manager. (AO)
- KDKA Pittsburgh 92.9 sent "Golden Jubilee" card used for AM, FM, & TV with FM indicated. Two months.(PS)
- WWSW Pittsburgh 94.5. Card used for AM, FM, with FM indicated. (PS)
- WPIC Sharon 102.9. Card used by AM, FM, & TV with FM indicated and signed William G. King, CE.
- CONTRIBUTORS: Peter Sawatzky, Waterloo ONT; Adela Ossowski, Erie PA; and Richard Wood, Baton Rouge, LA; and Richard Eddie, St. Louis MO. 73 de Dennis.





### WSAUAH TY/WMTYTY/WKAUAH/KCAUTY/WTRF-FM-TY

MIUSAU, MADISO

els lowa

### KDHL

5000 Watts

920 Kilocycles

This Card Will Verify Your Reception Report on the Following Date and at the Following Time. DATE: June 2, 1, 72 town TIE: 6112 - 6120 CTT

Yours is the most distant reception
From report on WHL FW. We are

displaying your report in our lobby.

### WROK

5000 WATTS 50,000 WATTS

June 12, 1972

Dr. Richard E. Wood 820 Arlington Avenue Baton Rouge, La. 70806

Dear Doctor Wood:

We were delighted to receive your letter. I have enclosed a confirmation card of your reception of WROK-FM on June 2. Time is not indicated on the card, but according to the audio somple you noted, you did pick us up at 5:59 - 6:05 FM C.D.T.

According to our Chief Engineer, David Peacock, your reception of our FM is the most distant point he has on record. As for our AM, we did receive a letter from San Diego reporting clear pick-up.

The enclosed coverage map is not the best, and it will be changing. Currently our FM has a horizontal antennasystem, but we are in process of filing with the FCC for permission to change to Circular Polarization. I will send you a new copy once we have gome to this system.

Our FM is automated and broadcasts 19 hours a day seven days a week (from 5 AM til 12 Midite)\* Our engineers also wanted me to mention that we are on the Dolby system We are presently using a Collins 830-F 10 KW final with a 1 KW driver. We now have a 6 Bay antenna located 231 feet atop of our AM tower, total height 238 feet.

Also enclosed is a station profile. I hope we have answered your questions. If you're ever in this area, do stop in. We believe our facilities are the finest in Northern Illinois and Southern Wisconsin.

encl.

Pozum Jelie Roanna Petrie, FM Programming

WROK, INC. 1100 TAMARACK LANE FOCKFORD, ILLINOIS 61105 B15, 399-2233

FM CCI (continued from page 25)

Shelby Remington, who has recently moved to a quiet location in West Haven CT sends a listing of Holiday Inn music stations. The HI program is aired 0000-0500 local time, so it may be worthwhile checking for Ms from these:

WHRL 103.1 Albany NY WITA 99.7 Atlanta GA WSM 95.5 Nashville WGIL 94.9 Calesburg IL WJFM 93.7 Grand Rapids MI WOCN 94.9 Miami KNOTE 106.3 Lancaster CA KNOB 97.9 Los Angeles CA WPAY 104.1 Portsm'h

Thanks to Ken Simon, Les Prus, Albert Ellis (by way of Les Prus), and Robert H. Baker for their help with FM program schedule needs. In the next several months, I will be trying to build up program schedule information on educational (88-92) stations which will help ID, hopefully, alot of low-band Es.

Effective with this edition of FM CCI is the workbook approach started by Les Prus in his column, November 1972 issue. If you live within reception range of any of the probable stations for the un-ID, check them out on the same day of the week at the time shown. When reading the column, put an x (thus -x-) by the un-ID you might be able to solve. 73. Bruce.

# C.C.I. TV

JANUARY 1973

Leslie J. Prus 1615 Pierre Street Manhattan, Kansas 66502

Unidentified TV DX deadline: 10th of month

First, I'd like to wish everyone a Happy New Year! '73... How could it be anything but a good year for DXers?

For approximately the next five months, this column will be essentially a catch-up operation, with an earnest effort being made to conquer the accumulated backlog of several hundred 1972 unIDed TV loggings. I will continue to accept unIDs, but for the duration, low-priority 1973 reports will be delayed. Those loggings which reporters indicate by an asterisk as high-priority unIDs (loggings likely to result in new stations for the DXer) will be processed in time for the current TV-CCI column if received prior to the loth of month deadline.

Another problem continues to be the low rate of identification of the loggings in both CCI columns. I'm grateful to the few regular contributors of IDs, but this makes only a small dent in the total number of loggings appearing on these pages. I can see no other major reason for this extremely low ID rate but apathy among the general readership. If one considers the size of WFFDA, the apparent indifference of our "silent majority" is at quite a high level. I would request that all VUD readers (This means YOUI) check these loggings and help in the effort to solve the mysteries. At least 90% of the work has already been done for your geographical PTAs (Probable Target Areas) and call letters of suspect stations are listed, timezone conversion has already been done. All that you are being asked to do is check a back-issue of TV GUIDE or tune the station in for a few minutes. If you do identify a station, send a post-card to either this editor or to the DXer who made the logging. Your effort will be appreciated. (It's also a good idea for the DXer to show his appreciation by sending the IDer a thank-you note, otherwise he may not feel it worthwhile to go to the trouble again in the future.) So, if any of the above is applicable, please add it to your list of New Year's Resolutions. Being a member of WIFDA should be slightly more than just subscribing to the VHF-UHF Digest.

While we're on the subject of resolutions, the following ID was received:

Paul Luchter: Your 7/2 video trouble slide (drawing, Aug CCI, p. 53) is definitely WPBT-2 Miami. (Tnx to Ken Simon)

Also received were these non-IDs and related material:

Ken Simon: Your 8/1 ch 2 is not CKPR (Tnx to John Ebeling)

Pat Dyer: Your 7/19 "TV 3" is not WTAR (Tnx to Glenn Hauser) which narrows it down to a possible WAVE-3. Your ch 2 on 7/19 (IHTP) is not KTCA (Tnx to John Ebeling). KTLA-5 schedule (refer to Aug 22) is as follows, PDT: 0900 "Gallery" community affairs, 0930 "Hermanos Coraje" novella, 1030 local movie begins. KTLA-5 Los Angeles ID slide style at left.

Many thanks to Dave Pomeroy for making available to TV-CCI another full set of TV GUIDES. As soon as these October TVGs are indexed and cross-referenced with this editor's TV lists and maps, and all information is updated, the listing of unIDs in this column will continue. Hopefully the revisions will be completed by the time you read this. Thanks also to DXers Roger Brown, John Ebeling, Al Ellis, and Bill Heusmann for sending needed schedules for Ontario and South Dakota TV stations.

Still needed are TV schedules for the following areas: Alaska, Puerto Rico, Northeastern Quebec, Newfoundland, New Brunswick, and Nova Scotia.

This year it will be necessary to reduce the number of unIDed loggings sent to this editor, and one way of bringing the input down to a more manageable level is to enable the DXer to identify a greater number of his own loggings. The more stations you can figure out yourself, the easier it will be for all concerned.

There are four basic references used in identifying unknown television stations, and all members of WTFDA will have relatively easy access to them: (1) TV Station List (2) Single-channel TV Station Maps (3) the telephone company service of "directory assistance" (4) TV GUIDE. An accurate TV station list and companion maps are essential in determining the probable target area and the possible stations that may have been received. A revised WTFDA station list and maps will be published in the near future, and I recommend it wholeheartedly to TV DXers. Once the preliminary work of reducing the number of possibilities is completed, the program content will often reveal the identity of the station, but it takes a little effort. "Directory assistance" enables anyone to check, at no charge, the city in which any local advertising may have taken place, given the name of the business or its telephone number. Full details regarding the use of directory assistance can be found in the September 1972 CCI column. Probably the best reference for television programming is TV GUIDE magazine, which currently publishes 83 regional editions.

Until recently, availability of TV GUIDE to DXers has been rather limited, but it appears that by this spring it will be possible for any WTFDAer to easily obtain any edition of TV GUIDE he wishes. I d suggest that DXers get those editions which cover areas frequently received by tropo and Es.

One way to do it is by trading with other TV DXers on a one for one basis; (See the TV Guide Coverage Map in the September VUD) though I do not want to discourage trading in this way, there are potential problems associated with it. To avoid duplication, it is probably best to order the TVG edition from the WTFDA member by enclosing 16 cents in coin and a stamped, self—addressed return envelope with your requests. I feel that under these conditions, any WTFDA member would be willing to fill the request for a TV GUIDE. A WTFDA membership list should be available soon.

Another way to obtain the TV GUIDES is to order them direct from the regional production office. At this time, several TVG offices are willing to make recent off-sale editions of TV GUIDE available to WTFDAers at no charge provided that a self-addressed, stamped TVG sized envelope is included with the request. This is being done as a special favor to DXers, and depends on the number of spare copies of TVG available at these offices. I hope no one will abuse this privilege and cause the TVG offices to cancel their kind offer. Guidelines to follow: use 6" x 9" envelopes or slightly larger (holds 3 TV GUIDES maximum) and write "2nd Class - TV GUIDE" on it. Second class postage rates, which can be used by DXers mailing TVGs to each other as well as the TVG office, are as follows: "Six cents for first two ounces, one cent for each additional ounce or fraction thereof." This rate is considerably less expensive than first class, but delivery is almost as rapid. DXers exchanging TVGs may want to remove the cover and glossy pages, and retain only the program section, as this cuts the total weight by 50%, and allows you to stuff more TVGs into the envelope. The return postage for one TVG in envelope is 9 cents (5 oz.), 2 TVGs in one envelope is 12 cents (8 oz.), and for 3 TVGs in one envelope it's 15 cents (12 oz.).

At this time, only six offices have agreed to send TVGs to DXers; these are CINCINNATI, MINNEAPOLIS, KANSAS CITY, SALT LAKE CITY, SEATTLE, and TORONTO. A complete list and addresses of the production offices and the TVGs available from each was on p. 43 of the December VUD. Please do not order from the remaining offices until I ve notified you that they are willing to make the TVGs available. Also remember that the Toronto and Vancouver offices require return postage in CANADIAN stamps - perhaps in a couple of months WTFDA might have a stamp swap service available to take care of this eventuality.

Correction to TVG list: please delete the Southern Ohio edition from the Radnor, Pa. office and add it to the Cincinnati office.

Until next month, 73.

30











Top: WTHS-TV, ch.2, Mami. 1155 mile Es on 5/15/72 Bot: WSJK, ch. 2, Sneedville, TN. 1010 mile Es on 5/10/72. Both from Glenn Hauser, Von Ormy, Texas.

SERVING THE VHF-UHF DX ENTHUSIAST



BOX 163

DEERFIELD, ILLINOIS 60015

ber club in the Association of North American Radio Clubs. TV-FM DX Association. WTFDA is a nonprofit organization and a mem-The VHF-UHF DIGEST is the monthly publication of the Worldwide

per year. Dues: US and Canada: \$7 third class mail and \$9 first class, Overseas: \$8 per year.

October, November, December. All back issues are 75¢ each, by special 4th class or 1st class. VUD Back Issues Available: (1972) May, July, August, September,

of this page. Full size is 1 1/2".) FM Atlas and Station Directory: \$2.50 3rd class, \$3 1st class. WIFDA Emblem Rubber Stamp: \$2 (Design is as shown at top

Ideal for, all your correspondence. 45 sheets: and probably the most accurate FM listing available. Offset printed. By Dr. Bruce F. Elving, WIFDA FCC FM column editor. Very detailed, Stationery: Features official WIFDA emblem printed in blue.

ganized. Punched for a three ring binder. Pad of 100: \$2 Log Sheets: Perfect for keeping your running log neat and or-

DIGEST neat and protected. Very attractive and a bargain at \$1.25! VUD Boxers: A great way to keep your copies of the VHF-UHF

DX Column Report Forms: For reporting to columns. Free w/ SACE Station Report Forms: For requesting QSL's. 45 sheets: \$1

all other revenue cover printing, postage and other expenses. board members do so without any monetary compensation. Dues and Association, including editors, writers, artists, reporters and ALL persons contributing their efforts for the Worldwide TV-FM.

The MTFDA is governed by a five man board of directors. Board members are Dave Janovi Bruce Elving, Ferdinand Dombrowski, Gary Olson and Morrie Goldman. VUD Editor: Morrie Goldman: Publishers: Gary Olson & Morrie Goldman; Comptroller: Gary Olson; Bookkeeper: Eruce Elving; Sample & Supply Processing: Dave Janoviak Board members are Dave Janowiak, VUD Editor: Morrie

# エスロ CLASS