

TECHNICAL TOPICS

Forty years ago this year, Edwin Armstrong sent a crew to Alabama to listen to his FM signal transmitted from station W2XMN in Alpine, N.J. That crew heard Armstrong's broadcasts clearly, which got a lot of folks in the scientific community interested. When summer rolled around and signals from FM and TV stations began bouncing all over the country causing interference, lots of folks outside the scientific community got interested. Among that group of people was Congress, who asked the FCC to get interested, who in turn moved the FM band from its home at 42-50 MHz up to the present 88-108 MHz. It made this move in order to avoid the frequent, long-range interference (we prefer to call it DX) due to E-skip during years of high sunspot activity. I personally got interested in the whole thing when I heard Colorado Springs loud and clear (KRDO-95.1) on a portable radio in South Mississippi.

The fact that DX mechanisms (and in our context, "DX" implies an anomalous condition: the reception of a signal that shouldn't ordinarily be heard at all) do occur in the FM, TV, and VHF and 2-meter bands gives rise to the hobby, which seems like a bet with nature. Radio signals above 30 MHz or so do not regularly or reliably bend around the earth. But we buy big antennas and nice receivers as a bet that they will bend and bounce, and most of the time that bet pays off with some fascinating entertainment.

Here then is a "brief" summary of the mechanisms of VHF and UHF propagation, which may be more attractively titled, "The Nature of DX." It will run for the next several months and if you bear with me for the entire course, you should, hopefully, have a good sense of how, why, and when DX occurs, even if unable to do anything about it! But while DX is somewhat unpredictable, it is by no means unexplained. Over the years, great amounts of research have been carried out, perhaps not so much to explain the anomalies that come up from time to time (e.g. watching KNAZ-2 from Flagstaff, AZ on my TV in Memphis every summer), but to more efficiently exploit our limited radio spectrum. You wouldn't believe, for example, all the tropo duct studies that have been done over the years, and the forests of paper used to record them. But back to the point, I will try to make this as useful and informative as possible. Bibliographies and references will be supplied for the interested reader who wishes to know more about the subject.

TROPOSPHERIC EFFECTS

"Tropospheric Effects" is a very broad category. Tropospheric bending is the most common style of DX reception, and has the most variety. It can provide enhanced signals just out of normal range (we call that "local enhancement") or extend halfway across a continent (due to "ducting"). Tropo DX is popularly associated with weather fronts, steady high-pressure areas, fog, sunrises, and sunsets. Sometimes the effects of "tropo" are first observed at higher frequencies. It is not unusual to be first made aware of a developing duct by a high-band UHF TV station. And most all of us are familiar with enhancement of signals at night and early morning, and have noticed that this enhancement often follows the sun. In any case, something special must occur to extend the radio horizon.

The "radio horizon" is the line-of-sight range of a radio signal. For this concept, the earth is assumed to be a large, smooth, non-absorptive sphere and the radio wave is assumed to travel in a straight line. By simple geometric reasoning, one can calculate the radio horizon, d , when the antenna height, h , and the radius of the earth, $r=6367$ km or 3956 miles, are known. Thus, $d=\sqrt{2rh}$ tells approximately how far away a signal ought to be received. But in practice, actual line-of-sight radio communications occur reliably over a little greater distance, as will be explained shortly.

The "communications horizon" is the sum of the d 's for both the receiving and transmitting antenna. Figure 1 is a nomograph used for finding radio horizon. If you know both the TX and RX antenna heights, it is very easy to find the d for each and add to get the communications horizon, or range.

These ideas are useful for figuring the expected normal reception of stations in your area or for justifying raising that antenna out back, but you already know that the actual radio horizon will vary from day to

TIM K. McVEY → 9348 CHERRY HILL RD, BOX 705, COLL. PK. MD

20740

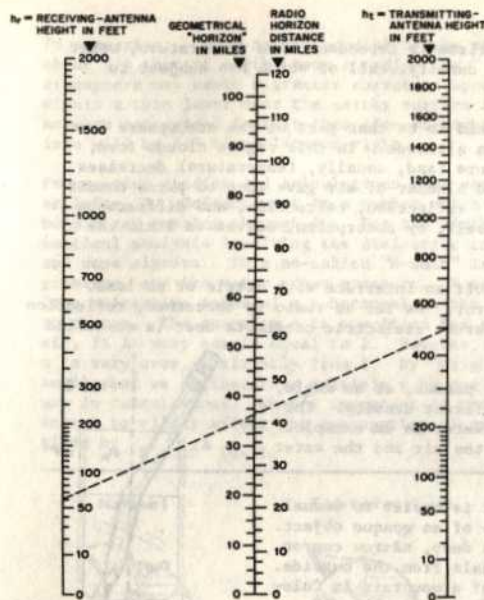


Fig. 1—Nomogram giving radio-horizon distance in miles when h_r and h_t are known. Example shown: Height of receiving antenna 60 feet; height of transmitting antenna 500 feet; maximum radio-path length=41.5 miles. ($K=1.33$)

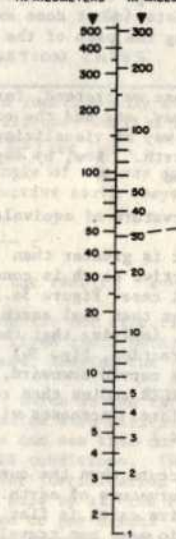
Source of
nomograms:
ITT Radio
Engineer's
Handbook

pp. 28-13, 28-20

(used without
permission)

This figure will
be used in next
month's article.

d = DISTANCE
IN KILOMETERS



$\alpha = 36.6 + 20 \text{ LOG } (f \text{ MHz}) + 20 \text{ LOG } (d \text{ MILES})$ DECIBELS

→ Nomogram for solution of free-space path attenuation α between isotropic antennas. Example shown: distance 30 miles; frequency 5000 megahertz; attenuation=141 decibels.

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Fada Neutrotone advertisement, ca. 1927. Courtesy of Prairie Farmer.



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Chassis \$99.50 + Cabinet \$14.95

day and even hour to hour. The radio horizon is dependent upon temperature, water vapor, gaseous chemical content, and air density...all of which are subject to continuous change in the troposphere.

As a rule of thumb, the troposphere is said to be that part of the atmosphere from the ground up to about 6 miles (10 km) in altitude. In this region clouds form, convective disturbances occur, and pressure (and, usually, temperature) decreases with altitude. Changes in this unsettled blanket of air give rise to three conditions which can extend the radio horizon: reflection, refraction, and diffraction. In addition to those effects, the air itself, by absorption, serves to limit the distance a radio signal can travel.

Reflection is just a bouncing of energy off an interface with little or no loss. This is how one can see oneself in a mirror. As far as radio is concerned, reflection can occur anywhere two media having different dielectric constants meet (a so-called interface").

Refraction is the bending of a ray as it passes, at an angle, from one medium to another medium of different density. The illusion of a bent pencil in a glass of water is an example. The illusion results from the fact that the air and the water have different densities.

Diffraction is the breaking up (maybe it is easier to visualize "fanning out") of a wave at the edge of an opaque object. This is illustrated by a radio down in a deep, narrow canyon that is still able to receive radio signals from the outside. A person living down on the west slope of a mountain in Colorado can still receive the Denver AM radio stations in the daytime, even though line-of-sight is impossible.

A radio wave which we think of as traveling through the atmosphere in an unimpeded straight line out to space seldom actually exists. What does exist is a complex variation of atmospheric refractive index along the path of the ray, which causes it to become curved.

Consider the bending of the ray itself. Suppose we pretend, for convenience' sake, that the radio wave always stays straight anyway, and add the curvature of the ray to the curvature of the earth. This is a useful way of visualizing the earth's surface with respect to the radio wave--"equivalent earth." Now, by saying that

$$\left(\text{where } \frac{1}{a} = \text{the real earth's curvature, and } c = \text{the real ray's curvature} \right) \quad k = \frac{1}{1-ac}$$

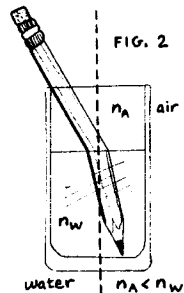
we have a constant, k, which expresses the curvature of equivalent earth. This gives rise to four cases:

1. $k < 0$ Negative k results when c is greater than 1/a, and the implication is that effective earth is concave upward, like a bowl. (The normal case, Figure 3a.)
2. $0 < k < 1$ Effective earth is smaller than real earth. For this condition, c is negative, implying that the wave is curved upward. (Sub-refraction, Fig. 3b)
3. $k > 1$ As k increases the ray is curved downward, and the effective earth has a LARGER radius than real earth. The radio horizon, therefore, increases with k. (Superrefraction, Fig. 3c.)
4. $k \rightarrow \infty$ An infinite value of k occurs when the curvature of the ray exactly equals the curvature of earth. Of course, this implies that effective earth is flat (Columbus take note!), and the radio wave can travel around the planet. (The Ducting case, Fig. 3d.)

The larger the radius of effective earth, the larger k, and the longer a radio wave propagates. There are limitations to this model, but as long as it is applied within reason, it can be useful to gauge enhancement of the radio horizon if we now redefine same by the formula $d = \sqrt{2krh}$.

The point is that k is used as a value which modifies the earth's radius to take into account changes in the troposphere. For all times and places, k averages out to 4/3, so that our globe has an effective radius of 5,275 miles. The radio horizon equation then becomes $d = \sqrt{2h}$ (for d in miles and h in feet).

Again, this appears in the nomograph of Figure 1. If the transmitting antenna height and the receiving antenna height are specified, their effects add, as before.



To summarize: under normal conditions the atmosphere exerts a downward curvature, about 1/4 that of earth, upon a radio "ray." Under abnormal (DX) conditions the atmosphere may exert a greater curvature upon the ray so as to trap the signal within a thin layer near the earth's surface called a duct. This is why the radio horizon can extend farther than line-of-sight. On average, however, the radio horizon will be 4/3 times line-of-sight.

Propagation studies and calculations make use of a quantity called the radio refractivity, N. Refractivity is a number which describes the ability of a medium to bend a ray passing through it. For the earth's atmosphere, N falls out of a mathematical analysis involving the dielectric constant of moist air, radio frequency, and some algebra. This so-called "N-unit" is a function of temperature, barometric pressure, and the water vapor pressure. N serves to tie the physical constant n (the refractive index of a substance) to the properties which cause the refractivity to change. The quantity n is specified for a wide variety of materials, and for air, it is very nearly equal to 1. However, pressure and temperature changes cause n to vary ever so slightly from 1. By "slightly" I mean that variations are so small that we deliberately multiply n by one million so that it is convenient to use in calculations. What's important to note is that that slight variation is enough to wildly affect the propagation of radio waves through air. The N unit is given by $N = 10^6 (n-1)$.

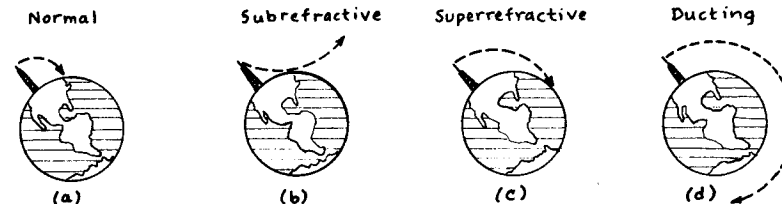


FIG. 3 FOUR PROPAGATION CASES

Now assume that n is a function only of height h above the smooth, spherical earth. Then, the radio ray will obey Snell's law and we can derive its curvature:

$$c = -\left(\frac{1}{n}\right)\left(\frac{dn}{dh}\right) \cos \theta$$

(θ is the elevation angle of the ray approaching the antenna, usually close to zero, horizontal.) The effective earth obeys this equation: $k = \frac{1}{1-ac}$

$$\text{Rewriting, } \frac{1}{ka} = \frac{1}{a} - c$$

$$\text{And, plug in c to get the result: } k = \left[1 + \frac{a}{n} \left(\frac{dn}{dh} \right) \cos \theta \right]^{-1}$$

Now we have an equation for our effective earth model which could be used to describe DX conditions. For a given radio path, θ and a are known, and n could be measured or at least approximated, leaving the dn/dh term as our main variable.

Practically speaking, dn/dh is the rate of change of the refractive index, i.e. the rate at which n varies with altitude. A specific calculation of k implies $\frac{dn}{dh}$. From the equation, one can see that dn/dh must average to a negative value for $k > 1$, and hence, potential DX conditions. (Incidentally, note that as θ increases, k decreases. This is another justification for getting that antenna up high.) dn/dh is the magic number that pops up all the time in propagation literature. But what they never tell you is where to get dn/dh ! Because n varies with height, some device must be employed to take measurements while flying up into the sky.

Normally, n is not measured directly. For some propagation studies and in experiments conducted by hams and at least one WFTDA member (see references), radiosonde readings were used. Radiosondes are weather balloons sent up with instruments and a small transmitter which measure altitude, temperature, pressure, and humidity, and relay that information back to earth. From such data, n can be calculated with a reasonable degree of accuracy. For your information, the formula used is:

$$N = 10^6 (n-1) = \frac{77.6}{T} (P + 4810 \frac{e}{T})$$

where T=temperature in degrees K ($^{\circ}K = ^{\circ}C + 273$), P = pressure in millibars, and e = partial pressure of the water vapor in mbars.

The hobbyist usually does not have access to a radiosonde, but we can still benefit from past experimentation. By looking at the equations, we can tell exactly what conditions are needed for long-distance propagation, and then make the associations between observable weather and actual DX.

1. The greater the change $-dn/dh$, the greater the degree to which a ray is curved toward earth. Remember, as $-dn/dh$ approaches ∞ , the curvature of the ray approaches the earth's curvature.
2. The greater the change in n , the greater the change of N as well.
3. N increases with pressure and humidity, and decreases with temperature.
4. Atmospheric pressure P always decreases with altitude, but temp. and moisture can vary with height, hence demanding our interest.

Therefore, cool, moist air is necessary for high values of N , while warm, dry air results in low values.

Under normal conditions (no tropo enhancement or ducts), temperature and moisture gradually decrease with altitude. Thus, a graph plotting N versus altitude has a plain, continuous, downward slope (Figure 4a). Instead, what we're looking for is a sudden change in dn/dh , remembering that reflection or refraction occurs where there is a sudden change in n .

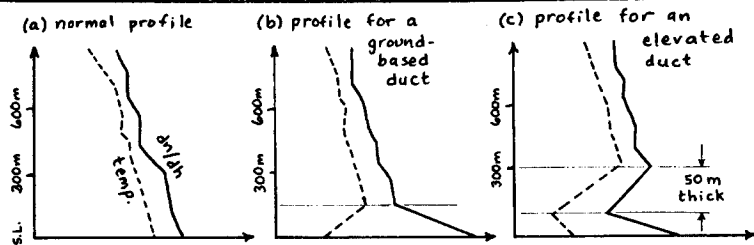


FIG. 4 REFRACTIVITY AND TEMPERATURE PROFILE EXAMPLES

Figure 4b shows a discontinuity in the dn/dh profile about 300 m up, a condition which will bend the radio signal back to earth. The sharpness and altitude of the break in the profile will affect the degree to which the ray is bent, and hence how far away a station can be heard. This is a "ground based duct," as the ground serves as one wall of a pseudo-waveguide. The ground-based duct generally brings us the DX over fairly wide areas up to a few hundred miles out.

The "elevated duct" (actually, these terms are used more to describe conditions at microwave frequencies, but the same ideas apply to VHF/UHF) is formed from two discontinuities in the dn/dh profile. In Figure 4c, these breaks occur at 300 and 350 m in altitude, producing a duct which is described as having a thickness of 50m. The thickness of a duct (generally ranging from 10 to 100 m), otherwise referred to as the "inversion depth," determines the minimum frequency that is superrefracted. The horizontal dimension of a duct may run several dozen kilometers. The elevation and length will help determine propagation distance. It is this kind of situation that brings us the long-distance (over 500 miles) tropo DX we desire. For example, there are documented cases of VHF contacts in the ham bands (144, 220, and 432 MHz) over a 2500 mile transcontinental path! This would indicate the transmission of VHF signals through even a very long duct is very good.

Notice how, in Figure 4, temperature profiles are also plotted (using dotted lines) with altitude. Breaks in the T profile coincide with the breaks in the dn/dh profile. Because, in this situation, the temperature rises with altitude instead of decreasing as it normally should, an "inversion" is said to exist. An inversion is defined as increasing temperature with altitude, a condition which can be easily created by weather fronts and convections.

To summarize: VHF/UHF signals can be propagated through a duct whose walls are located by the "corners" of the dn/dh profile. Often those corners are formed by a temperature inversion. The walls effectively make up a waveguide. Like any waveguide, its dimensions affect the frequencies which are transmitted. The height of the waveguide above ground affects the distance over which signals can travel. As atmospheric changes vary the dimensions of the box, the MUF (Maximum Usable Frequency) changes. Often the duct starts narrow in thickness, so that the shorter wavelengths of UHF TV channels are transmitted first. As the inversion widens, the MUF drops, sometimes into the low-band VHF TV range.

NEXT MONTH: The discussion about Tropo will continue with weather maps and observations, and conclude with tips on when to expect Tr DX.

EASTERN TV-DX

FEBRUARY 1987

John F. Combs
1308 Willow Branch #24
Jacksonville FL 32205
DEADLINE: 1st

Reports continue to come in concerning the great Thanksgiving Tropo Festival of 1986 (don't you wish we could make it an annual event?). Just about anyone in the Northeast who was watching got in on it. Even Matt Sittel's eastern TN QTH seemed to be on the fringes of the opening. Steve West did particularly well in logging Chicago UHF at 640 miles. But our TV-DXer Emeritus, Bob Seybold, comes in with the most astounding loggings: UHF to 1325 miles and VHF to 1105 miles into Texas, as well as several unbelievable translator loggings as far distant as western Iowa!! I'm sure there was a lot of missed sleep among these lucky DXers, but none would doubt that it was well worth it!

Joel Rosenberg, 10 Vanhorn Court, Thornhill, Ontario L3T 5R1 (EDT/EST)

(NOTE: Space considerations forced me to delete Joel's pre-September DX--jfc)

SEPTEMBER 1986				NOVEMBER 1986				NOVEMBER 1986							
1	T	0900	WBGU-27 OH 295	25	T	2330	HGVK-52 MI 325	28	T	1630	WOSU-34 OH 325				
			0900 Ft Wayne 15/33 T			2330	WUPW-36 OH 255			2015	WTLW-44 OH 320				
3	T	0800	WEYI-25 MI 230	26	T	0002	WXMI-17 MI 310			2100	WRGT-45 OH 375				
			0800 WFUM-28 MI 230	27	T	1915	S Bend 16/34 380			2100	unID-16 PBS				
29	G	2100	CITY2-31 ON 80			1930	WBAK-38 IN 510			2100	unID-64				
						2000	WBGU-27 OH 295			2100	WXIN-59 IN 445				
25	T	2200	CIVO-30 (PQ) 215			2000	unID-39 PBS			2200	WBAK-38 IN 510				
						2030	WHME-46 IN 380			2200	WBNX-55 OH 220				
6	T	2100	WENY-36 NY 175			2130	WETG-66 PA 125			2230	WLKY-32 (IN) 510				
23	T	0000	WNUD-16 IN 380			2300	WOSU-34 OH 325			2230	unID-41 Bsktball				
			0000 WUHQ-41 MI 310			2300	WXIN-59 IN 445			2230	unID-43 "Rigs w/				
			0000 unID-34,49,55,66			2300	WNEO-45 OH 210				central IN area code"				
24	T	2300	WNUD-16 IN 380			2300	WICD-15? IL T								
			2300 WKJG-33 IN 350			2300	WPCB-40 PA 235	17	E	1655	unID-2 CBC FF				
			2300 WFFT-55 IN 350	28	T	0745	WKBN-27 OH 210			1701	unID-3 "FF talk				
			2330 WQTE-30 OH 255			0745	WPGH-53 PA 235				show 'Montreal'?				
			2330 WLIO-35 OH 320			0745	WQEX-16? PA T				not CBC"				
25	T	2312	WADP-49 MI 230			0750	WTEE-28 OH 325			1730	"Only CCI left"				

"The skip seen today (12/17) was a shock. No audio, much video fade. The ch. 2 ID looked like a CBC FF regional type ID rather than locally-originated...The Nov. "trops week" was the best seen in years; unfortunately, I did not have the time to take full advantage of it...We have a new TV: a 21" Toshiba stereo. The remote has an RF switch, so I do not have to screw/unscrew inputs for cable and antenna. Electronic tuning is wonderful, but too much ACI. UHF band stops at ch. 69. It takes very minimal signal to turn on \$ indicator light...Best wishes to all for a happy, healthy New Year!!" (Welcome back to EASTERN TV-DX, Joel!--jfc)

Steve West, 432 Kenmore Road, Havertown PA 19083 (215) 449-1472 (EST)

NOVEMBER 1986				NOVEMBER 1986				NOVEMBER 1986							
28	T	0800	WFGH-53 PA 260	28	T	1730	WOSU-34 OH 410	29	T	0640	unID-46				
			0800 WOSU-34 OH 410			2100	WUNP-36 NC 280				"Bullwinkle"				
			0800 WAKR-23 OH 350			2100	WKFT-40 NC 350			0800	WCET-48 OH 500				
			0830 WUPW-36 OH 440			2100	WRDU-28 NC 330			0800	WLKY-32 (IN) 570				
			1100 WUNP-36 NC 280			2200	WUNJ-39 NC 400			0800	WOSU-34 OH 410				
			1100 unID-48 ABC EST			2230	WVPT-51 VA 240			0810	WTVQ-36 KY 500				
			"OH/KY? xltr?"			2230	WCNY-24 NY 240			0810	WDRB-41 (IN) 570				
1500			W48AA WV			2230	W3BE-36 RI 240			0820	WBAK-38 IN 450				
			(Keyser WNPB-24)			2300	WVAH-23 WV 370			0845	Most f/out				
1600			WUPW-36 OH 440	29	T	0600	WFLD-32 IL 640								
1730			WUAB-43 OH 360			0630	WAKR-23 OH 350	12	T	0930	WKFT-40 NC 350				
1730			W3GAB MD			0630	WCFC-38 IL 640			0930	WUNP-36 NC 280				

EQUIPMENT: Finco 7' dish (40' AGL, 400' ASL), Winegard PA-4975 amp. JFD 19-element LPL VHF antenna, CM Probe 9 FM antenna.

"The mileages were calculated by Tom Yingling's computer; they may vary by 20 miles more or less. Some stations are listed several times in one day to show how conditions were still active to those areas for many hours. The conditions on Thanksgiving weekend were incredible--like 10 ducts at one time, always changing strength and direction. Some stations not seen were Youngstown OH and WWFC-38 VA, despite many stations seen near those areas."

Bob Seybold, Bennett Rd., Dunkirk NY

(EST)

"I thought my last report would be the last report of tropo this year, but the best tropo of the season was yet to come: the biggest opening I ever observed not only distance-wise, but in quantity. (Coming from you, Bob, that's saying a mouthful!--jfc) I know many others got in on it; it sure made the season one to remember. I just about cleaned up on Oklahoma U's and got 4 Texas U's plus some Arkansas, Kansas, Missouri, and close to every UHF in IL, IN, KY, and OH, plus IA, WI, TN, AL, WV, MD, PA, MI. KVBO-42 Austin TX the farthest UHF and KLTU-7 Tyler TX the best of VHF. There were stretches of 72+ hours of tropo without a break. One Oklahoma UHF was in for 10 hours...Texas U's about 4 hours. Most channels several deep all the time. 1000+ miles with local-quality strength. Many 800+ mile stations completely wiped out regularly. Had 8 stations on Ch. 16 alone. 19 new in this period giving a total of 1021."

(EDITOR'S NOTE: Bob didn't underline all his new loggings, so I've not underlined any in order to be consistent. Besides many of the incredible xltr loggings, we can safely assume that most or all of the TX/OK loggings were new for Bob--jfc)

Nov. 22: "Tropo started at 1400 but did not observe until 1630 EST...continued until 2400 and into next morning. All Chicago U's strong, WVAH-23, WPBY-33, WTAP-15, WLFI-18; also Ft. Wayne U's, South Bend U's; Indianapolis U's; WKOI-43, WIPB-49, Louisville 32,41,68; Lexington 18,27,36; Michigan U's 14,17,19,20,23, 25,28,31,35,41,47,49,52,66,67; Green Bay U's; Milwaukee U's; Madison U's; Ohio U's 16,17,18,19,22,26,28,34,42,44,52; most of these signals were super strong."

Nov. 23: "Rain...lots of trop-scatter signals weak and spotty."

Nov. 24-25: "Very large tropo opening starting 2000 EST and improving all night. Tropo super next day all day until after Midnight. WPTO-14, KMEG-14 (865 mi.),

WMCU-14, WANE-15, WTAP-15, WLYH-15, WMTV-15 (515 mi.), WICD-15, WNDU-16, WPTD-16, WUSI-16 (real rare, 525 mi.), WQEX-16, WNPI-16, WDLI-17, Grand Rapids U's; WAND-17 (525 mi.), WTVQ-17 (505 mi.), Nashville 17,30 (595 mi.); WHIZ-18, WETM-18, WVTU-18, WLFI-18, WLEX-18, WUCM-19, WFAT-19, WXIX-19, WDOI-19 (545 mi.) WFIE-14 (535 mi.), WICS-20 (560 mi.), Indy U's; Chicago U's; WUTR-20, WPTA-21, WHA-21 (520 mi.), WKEF-22, WSBT-22, WDAU-22, WFHL-23 (525 mi.), WIFR-23 (505 mi.), WVAH-23, WKAR-23, WCNV-24, WEYI-25, WEEK-25 (545 mi.), Green Bay 26,32,38; WJTC-26, WBGU-27, WKOW-27 (515 mi.), WKYT-27, WBRE-28, WFUM-28, WSJV-28, WTTT-28, WTAF-29, KDNL-30 (635 mi.), WMKW-30 (760 mi.), Milwaukee 30,36; WMBD-31 (545 mi.), WLKY-32, WKJG-33, WPBY-33, WNIT-34, WDSU-34, WMGC-34, WLIO-35, KTVQ-36, WBAK-38, WQRF-39 (500 mi.), W39AA, KDUB-40 (575 mi.), WUHQ-41, WDRB-41, WETO-39, WPBD-42, WYZZ-43 (525 mi.), WKOI-43; WV xltrs W41AA and W57AG; WTLW-44, CBLFT-44, WVIA-44, WDLF-38, WRGT-45, WMHE-46, WLJY-46, WSYM-47, WTVF-47, WBSN-47, Madison 47, Altoona 47, WCET-48, W48AA (Keyser WV, WNPB-24), WIPB-49, WAOP-49, KDLH-49 (900 mi.), KYFC-50 (835 mi.), WGSF-51, (TVO)-51 Ontario, WGVK-52, W??-51 (KY), WGGN-52, WKON-52, WPGH-53, Belleville ON-53, WNVV-53, Muskegon 54, WFFT-55, WRSP-55 (560 mi.), Barrie 55, WDKY-56, WYMT-57, W58AM (Youngstown OH, WNEE-45), W58AG (Georgetown OH, WCET-48), WTSP-61, WXIN-59, W68?? (Ft. Wayne IN religious LPTV), KZKC-62 (825 mi.), WBTI-64, WOAC-67, W69AN (Leeland MI, WCML-6) Ohio xltrs W65AH and W69AD; WTCT-27 (615 mi.), W55AS (Milwaukee, WCIU-26), W57AD (Robinson IL, WDLI-17); K74CU (Iowa City IA, KGAN-2, 620 mi.) and K60AK (Clarinda IA, KETV-7, 850 miles)...most distant translators ever observed."

Nov. 27: "Beginning of super tropo opening peaking in early PM and holding peak for 48 hours--started to wind down on Nov. 30. Top loggings: Kansas City U's 19,41,50,62 (825-835 miles) with 41 and 50 super for about 18 hours; KDLH-49 Topeka (900 miles) in several hours; Springfield MO U's 21,27,33 (810 miles) with 33 in for several hours; Oklahoma U's 14,23,25,34,41,43,47 (980-1085 miles) in from evening of 27th into morning of 28th; KLRT-16 (885 mi.) and KTVP-29 (905 mi.) Arkansas; St. Louis U's 24 and 30 (635-655 mi.); KSNF-16 Joplin MO (890 miles) with super signal for 2 days; KLTU-7 Tyler TX (1105 miles) in on morning of 29th; KCRG-13 MO (720 mi.) on open terminals (no antenna attached) (!!!!--jfc) 0900 on 28th; KMIZ-17 Columbia (740 mi.) at 5/off on 28th; WTCT-27 IL (615 mi.) in for two days, at times local strength; WJPT-14 (595 mi.); W68AA Danville IL xltr very strong; WBNA-21 (new Kentucky, A/N relig., asking for funds); WLJC-65 KY (rare); Evansville U's 14,25,44 (rare, strong, 535 mi.); KTXA-21 Ft. Worth TX (1180 miles) and KLMG-51 Longview TX (1110 miles) in for 3 hours--talked to c.e. of both of these and also KGCT-41 Tulsa, all verifying my reception; also KXTX-39 Dallas TX (1180 miles) and KBVO-42 Austin TX (1325 miles) logged morning of 29th (0300 EDT and later)...these are my best loggings ever on UHF. Other loggings included: WICD-15, WAND-17, WTJR-16 (rare), WUSI-16 (rare), WFHL-23 (in much of the time), Rockford U's; KDUB-40; all Peoria U's super, even 47; WICS-20 super, WYZZ-43 super, all Chicago U's; WBAK-38..... MORE TO COME (if you can believe it...) ON THE NEXT PAGE....."

Seybold (cont.)

Nov. 27-30 (cont.): "WKOI-43 in very strong the entire opening; WIPB-49, all Ft. Wayne U's; all South Bend U's; WLFI-18, all Indianapolis, Cincinnati, Dayton, Columbus U's super; Ohio U's 14,18,20,26,42,44(2),52; Lexington U's 18,27,36; Louisville U's 15,32,41,68; other Kentucky U's 22,29,35,38,52,53,56,57; West VA U's 15,23,33; WTSF-61, Muskegon 54, Madison U's, Milwaukee U's, Green Bay U's; WXIX-19 (2 nights in a row); WFAT-19, WCAY-30, WETO-39, WBMG-42 (745 mi.), WDWL-15 (710 mi.); Baltimore 24,45; Philly U's, DC U's 20,50; many PA U's too numerous to list; Parkersburg xltrs, WLJY-46, WBSN-47; Many Michigan U's; Ohio U's 27,35; WRSP-55. Several V's in MO, IL, IN, KS all previously logged at one time or another but never in the same opening. Mystery on ch. 54 in several hours with Tulsa ads (can't find any ch. 54 in Tulsa)...can this be OK xltr/LPTV?? Had movies A/N (AM hours) on Nov. 28. Saw several U's with same auction type show as KGMC-34 Oklahoma City, even a ch. 60. Many xltrs observed (IN, OH, IL). In conclusion, many of stns seen, especially central and south IL and IN, never really went away in entire opening, much of the time being of local strength. Mike Lapinski in Jamestown logged many of the stations I saw. A great November after a rotten September and October!"

A POEM:

Some Southerners in the Fall
sought tropo one and all.
But their screens, you know,
yielded only snow
'cause the Northerners hogged it all!!

--composed by M. Stutterheim

Jeff Kruska, 1900 Stevens Dr. #224, Richland WA 99352 (EST)

Loggings from Elyria OH:		NOVEMBER 1986		NOVEMBER 1986	
NOVEMBER 1986		NOVEMBER 1986		NOVEMBER 1986	
25 T 0130	WKRC-12 OH 195	25 T 0145	WCFC-38? IL	T 25 T 0230	unID-51
0142	WTVQ-36 KY 260	0210	WOWK-13 WV 205		"religious pgm"
	"sign-off"	0215	WRGT-45 OH 150	25 T 0130	WAND-17? IL T
		0230	WHME-46? IN	T	0235 WTHR-13 IN 250

"Though I do not usually report to this column, I thought I should since my DX was from Ohio. I was visiting my folks for the holidays and managed to get some late-night DXing in after everyone went to bed (when I could get the living room TV--the one hooked up to the roof antenna!). One night during the news, the WJW-B weatherman mentioned that a caller in the Cleveland area reported viewing WBAK-38 (Terre Haute IN--jfc). Unfortunately, I didn't see it--it would have been a new logging for me. Northeastern Ohio can be a goldmine for tropo reception when the conditions are right. One night I had 60+ channels coming in at the same time. With that many, who needs cable?"

Tom Yingling, Jr., 221 Pinewood Rd., Baltimore MD 21222-2345 (EST assumed)

NOVEMBER 1986		NOVEMBER 1986		NOVEMBER 1986	
25 T 1644	WTXX-20 CT 239	25 T 2313	WNBC-4 NY 163	29 T 0045	WSNL-67 NY 215
1644	WLIW-21 NY 189		"over WRC-4 DC!"	0045	WTWS-26 CT 275
1644	W35AB PA 89	2313	WABC-7 NY 163	0138	WTBY-54 NY 215
1644	WLIG-55 NY 217		"over WJLA-7 DC!"	0138	WSTG-64 (MA) 324
1644	WCVX-58 MA 360	28 T 2258	WOSU-34 OH 358	0138	WFAT-19 PA 167
2200	WEDW-49 CT 221	2328	WEAO-49 OH 311	0200	WFMJ-21 OH 264
2200	WTZA-62 NY 250	2338	WUNP-36 NC 240	0205	WBJA-34 NY 202
2313	WVIT-30 CT 254		Roanoke Rapids	0205	WBNG-12 NY 202

"I was visiting Steve West on 11-28 to about 2030 and went home to get some DX of my own. That AM, Steve did better to the west than I did, but when I got home the westernly tropo came down to me. I didn't know how good the tropo was until I got to Steve's place. I watched his VCR tape of WUPW-36 in Toledo OH and others. We were both surprised at how long the conditions held up. Even during the afternoon we watched WOSU-34 from Columbus OH. I left to go home about 2030 and got home around 2200. I gave Bill Fabher a call to tell him about the tropo. (Bill has not yet seen OH on UHF.) As I was talking to him, WOSU-34 faded in for a good ID for my video tape collection."

Keith Pugh, 227 Martin St., New Hope AL 35760 (CDT)

NOVEMBER 1986		NOVEMBER 1986		NOVEMBER 1986	
4 E 2026	KTVS-3 CD 1000	4 E 2035	KWGN-2 CD 1080	6 E 2136	XEFB-2 NL

"Not too much to report here this time. Had unIDs 2-6 from Canada on Nov. 5 and MUF into FM for a very brief time."

EASTERN TV-DX				FEBRUARY 1987			
Matt Sittel, 220 Brookfield Drive, Kingsport TN 37663 (EST)							
NOVEMBER 1986		NOVEMBER 1986		NOVEMBER 1986			
4 E 1156	WPBT-2 FL 747	24 T 2258	WSA2-3 WV 142	29 T 1200	unID-7 ABC		
1158	WTVJ-4 FL 747	2259	WCMH-4 OH 256	1200	WCNH-4 OH 256		
1201	WEDU-3 FL 590	2300	WBNS-10 OH 256	1800	WAVE-3 (IN) 220		
1203	TVC-3 CUBA 1111	29 T 1136	unID-2 ABC	DECEMBER 1986			
1458	KATC-3 LA 702	1159	WRTV-6 IN 303	13 M 0700	unID-2		
1500	KPRC-2 TX 878	1159	WISH-8 IN 303	"Bullwinkle"			
		1200	unID-13	19 T 1230	WTVC-9 TN 186		

"Well, DX is not much in the way of TV. I sure hope that by the time you're reading this that we've all seen some of that off-season E-skip! I saw a Cuban TP and s/on at 1200 on 11/4 (see -->) --could it be Santa Clara? (Ya never know--jfc)...How rare are double-hops? I've seen a few this year. I thought they were difficult to see, or was 1986 just a great year for them? (2-hops are probably more frequent than we think--it's just that all the single-hop stuff usually covers up any double-hops, with their inherently weaker signals. I've seen more 2-hop loggings this year than usual, so maybe it was a good year in that respect--jfc)...Also, I am interested in buying a mini-TV, such as the Sony Watchman. Does anybody have a good one they could recommend? I hope to get one before the '87 Es season. (Myself, I've always liked to have at least a 5" screen to use for portable/mobile Dxing. Some of those little 1- and 2-inchers [especially the LCDs] are hard enough on the eyes just watching locals, let alone E-skip! Fellow DXers, please share your good or bad reviews of models you've tried with Matt--jfc)



Frank Wheeler, 6589 Wattsburg Road, Erie PA 16509 (EDT)							
AUGUST 1986		NOVEMBER 1986		NOVEMBER 1986			
5 E 1830	WTVY-4 (FL) 805	25 T 0800	WANE-15 IN 261	25 T 2030	WJAN-17 OH 118		
2230	KJRH-2 OK 943	0825	WNDU-16 IN 318	"Also most of Detroit U's"			
2300	WBRZ-2 LA 1159	0828	WSBT-22 IN 318				
11 E 0930	KARD-3 KS 953	1030	WXMI-17 MI 291	TOTALS: 294 received with			
-	1000 KFDX-3 TX 1144	"Sent a verie nice verie"		218 veries			
SEPTEMBER 1986				EQUIPMENT: 1985 Sylvania			
12 G 1900	WETG-66 PA 6	(Hey! Bad puns are my		19" color, Archer VU-160			
29 T 2245	CITY2-31 ON 100	department!--jfc)		with Servo-Rotor			

"I even hesitate to send in my report as it is so small, but I was rather surprised to receive these stns on tropes--stns I haven't received for a couple of years. Bob Seybold receives them quite a bit, but I'm not as elevated as he is at the farm house only being 1320' ASL, and I don't have the equipment he has. I was glad to get what I did, especially the new ones."

John F. Combs, 1308 Willow Branch #24, Jacksonville FL 32205 (EDT/EST)							
(Last dregs of DX from my Herschel St. dungeon--worst DX QTH I've ever had!!)							
AUGUST 1986		OCTOBER 1986		OCTOBER 1986			
20 E 0939	unIDs-6 (mobile)	3 T 0700	Tampa 22/28/44	15 T 1530	SC 10/14/19		
24 T 0830	Tampa 10/28/44	5 T 0825	Tampa 8/13/28/4	NOVEMBER 1986			
SEPTEMBER 1986				6 T 2250 Tampa 8/10/22/			
11 T 2300	WLTX-19 SC 262	0830	WTVX-34 FL 234	28/44			
2300	WRJA-27 SC 261	0835	WFTX-36 FL 243	23 T 0236	WJHG-7 FL T		
2300	WTVX-34 FL 234	0836	WXL-40 FL 194	DECEMBER 1986			
2300	WAYK-56 FL 182	0838	WBBH-20 FL 241	9 T 0645	Tpa. 10/22/28/44		
2300	WCSC-5 SC 216	0838	WFSP-30 FL 240	16 T 2330	WTVX-34 FL 234		
2310	WPDE-15 SC 313	0838	WUSF-16 FL 173	2330	WTOG-44 FL 174		
2340	WIS-10 SC 270	0850	WXEL-42 FL 272	2330	WAYK-56 FL 182		
17 T 0545	Tampa 10/44 175	0850	WFLX-29 FL 272	21 T 0810	WPLG-10 FL 313		
25 T 2345	Tampa 10/44	0852 Had to leave...		0810	WLTU-23 FL 314		
2347	SC 10/19	8 E 2040	unIDs-2,3 ABC	0810	WBFS-33 FL 313		
		13 T 2230	WEBA-14 SC 200	0825	WHFT-45 FL 312		
TOTALS: Still 196 stations		2230	WLTX-19 SC 262	0825	WSCV-51 FL 312		

Nothing great seen here in the last few months. Still, I thought I'd get myself caught up. What tropo was seen was mostly quite weak. Nevertheless, it was nice to see Miami again. On 10/8 Larry Van Horn called me about some Es up to ch. 6, but I was in the middle of a long DX DISTANCE printout, and the computer QRM made me miss the best part of the Es. Oh, well...

NOTE: THERE MAY OR MAY NOT BE A MARCH COLUMN DUE TO MY WORK SCHEDULE. If not, forgive me--it would be the first I've missed. It's been real.....JOHN

TV STATIONS

Bob Seybold
Bennett Rd.
Dunkirk, NY 14048

February 1987

DXer	Location	Total	UHF	XLTR	ES	AU	MS	YB
Bob Seybold	NY Dunkirk	1021	515	116	197	6	30	50
Bill Draeb	WI Kewaunee	915	386	106	193	1	113	53
Jeff Kadet	IL Macomb	750	414	99	163	0	1	93
Bill Eckberg	IL Dixon	543	262	39	123	1	18	55
Don Ruland	WI Kenoska	539	272	39	93	0	31	71
Paul Gaines	MI Detroit	527	249	23	81	0	28	73
Jim Pizzi	NM Lovington	523	239	150	189	0	19	81
Marvin Shults	IL Toulon	493	203	27	123	0	26	??
Tom Yingling	MD Baltimore	485	216	26	157	0	13	70
Mike Lapinski	NY Jamestown	424	292	56	47	0	1	78
Fred McCormick	ND Fargo	394	81	105	113	2	1	74
" "	ND Des Lacs	373	28	31	213	0	45	64
Robert Kramer	IL Chicago	388	160	10	90	0	30	??
Dave Nieman	NY Akron	372	277	45	38	0	3	84
Mike Hollis	AL Enterprise	371	175	11	75	0	13	80
Roy Barstow	MA Teaticket	350	188	32	84	1	5	71
Nate Ely	WI Madison	315	180	33	35	0	2	??
Frank Wheeler	PA Erie	290	62	1	228	2	5	55
Fred Norquist	NY Clay	285	147	21	71	0	3	69
Richard Reese	PA Jersey Shore	262	45	0	152	0	28	79
W. R. Hepburn	ON Niagara Falls	242	84	6	84	0	0	76
" "	NWT Coral Harbour	10	0	0	9	0	0	84
" "	NWT Hall Beach	1	0	0	0	0	0	84
Robert Ross	ON London	242	118	6	69	0	0	76
Allan Michalek	MA Springfield	216	64	6	101	0	0	??
Mike Cunningham	WV Harrisville	195	102	3	43	0	0	83
Ron Purdue	MN Byron	193	97	34	69	0	0	81
John Combs	FL Jacksonville	166	93	9	31	0	0	??
Saul Chernos	ON Toronto	161	6	0	94	0	0	76
" "	ON Brunt River	60	23	0	12	0	0	79
Bob Schweitzer	NJ S. Brunswick	156	104	14	4	0	0	76
Steven Sprachman	NY Seaford	154	84	0	0	0	0	77
John Jefferson	CA Pleasanton	142	54	18	64	0	1	76
Eric Bueneman	MO Hazelwood	83	28	1	25	0	0	81

Some personal best listed below:

Eric Bueneman	Hazelwood, Missouri	
Longest tropo:		
VHF low band	WTVF-5 Nashville, TN	270 miles
VHF high band	WCPO-9 Cincinnati, OH	320 miles
UHF	WLEX-18 Lexington, KY	350 miles
	WTVQ-36 "	" miles

Longest E-skip: CBC-3 Bridgeton, Barbados 2800 miles

Shortest E-skip: KFDX-3 Wichita Falls, TX 555 miles

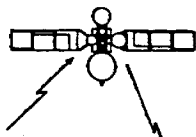
Tom Yingling, Baltimore, MD; lists 374 stations QSLed, 154 on UHF, 26 XLTR 110 E-skip, 11 on meteor scatter.

His top channels:	Seen	QSLed
2	38	29
3	46	40
4	38	27
5	30	19
6	38	32
7	10	7
8	11	6
25	10	8

Lets have some updates.
Need reports.
Have a good 1987...
73,

Bob

SATELLITE NEWS



George W. Jensen
1604 Anntana Avenue
Baltimore, Maryland
21206-1220

Picking up where I left off in the last issue - more may need to be said concerning The Denver stations on Satcom I as well as other network feeds found on Satcom II. It has been debated for a while that the 3 networks were going to encode all of their feeds to their affiliates. People in areas not served by cable and in areas of poor VHF and UHF reception have gone the route of a dish to receive such programs in the past. Several groups have opted to provide some type of service to the audiences. One group will be offering on Satcom II at 72°W -

W B B M - Chicago W X I A - Atlanta W A B C - New York

Atlanta and New York are already being carried. The menu of Denver stations on Satcom I may be for a similar purpose. The subscription for the group on Satcom I will be about \$50 per year. It will be Ma/Com encoded. There is no information on subscription or encryption on the Denver group.

I have received several reports from Ed Kowalski in Philadelphia which I have answered for him and will get to his most recent note shortly. Ed has been viewing the ANIK C3 Ku bird at 117.5°W. Unlike ANIK I on C-Band, this bird is heavily footprinted into Canada and utilized many tight spot-beams. The further S you go from Canada the more unlikely you are to receive anything from this. I have recently installed a dual center feed for both C and K band which will give greater K band gain and eliminated the Drake receiver pushing everything now into the DX k/c receiver. The improvement in gain/signal strength is quite good on K-Band. But in downconverting the K to C channels problems are encountered in that the channels do match those of the K-Bird. Also each K-Bird uses in many instances a different frequency spread for each transponder. For that reason I have been reluctant to give too much info on K services. We'll give it a whirl this time around with ANIK C-3 mentioned above. The figure in parenthesis is the channel I receive the station on.

TRANSponder	SERVICE	SUBCARRIERS
8 (?)	Knowledge Network (West)	
9 (13)	Alberta Access (West)	
12 (?)	TV Ontario (French) (East) *N*E*W*	
18 (3)	Super-Channel/First Choice (West)	
19 (5)	Atlantic Satellite Network (East)	
21 (8)	Super Beran (East) FRENCH	
23 (11)	Radio Quebec - FRENCH	
24 (12)	MusiquePlus - French version of MuchMusic (English)	
26 (15)	La Sotte - TVFC99 - relay of French networks with Radio France International - live - as subcarrier	
28 (18)	TV Ontario (English)	
30 (21)	somewhere around here was Life which has died! Ontario Parliament coverage TCS - translated into Television Four Seasons - a relay of a UHF station in Quebec - In French and is relatively new	
31 (23)	First-Choice (East) - Movies in English - may be encoded in future	
32 (24)	Unknown - someone testing here with color patterns as of 1-4-87.	

Reception of Horizont remains very snowy with audio non-existent or super weak. I believe I have received Horizont at 11°W. Probably have received 3 Intelsats with super weak signals. One however, I have been able to tentatively ID. XPDR 9 (5H) as Venezolana de Television - Ch 5 in Caracas. Reception of this is fairly consistent but very snowy with little or no audio. See illustration of ID logo:

Finealy a comment on the great move from Galaxy I and Satcom 3. Nothing has happened yet. On Telstar 3 - KTV now only on KPDR 20 and Country Music TV on 13 only. Telstar Pay-Per-View and SelectTV have both permanently moved to Spacenet I. That's all for now folks - '73's.

FM NEWS

Bruce F. Elving, Ph.D.,
Editor
241 Anderson Road
Esko MN 55733-9413

New Station, Translator Grants

CA Victorville K20881 *89.5 (KILA 90.5 Las Vegas NV translator)
CO Winter Park K292DV 106.3 (KSKE 106.3 Kramling; input via K280DU 105.5 Grant)
FL Crestview *90.1 5000 h.v.; 80 m, Okaloosa Public Radio
FL Fort Myers WAYJ *88.7 50000 h.v.; 120'; SW FL Community Radio, fate of W20*AD *88.9 there unknown
FL Kissimmee *89.5 200 h.v.; 150'
FL Lakeland *91.9 3000 h.v.; 48 m, Haines City Public Radio
HI Lahaina K272CT 102.3 (KHUI 99.9-Kahului)
IL Alton W288AW *105.5 (VIBI 91.1 Carlinville) [Action Team
KS Emporia *91.9 3000 h.v.; 81 m, g, Christian/KS Hutchins *91.5 100000 h.v.; 102 m, Family Stations, \$, g [KY U.
KY Henderson *88.5 23000 h.v.; 385', W./
MD Paramont (Hagerstown suburb) W228AB 93.5 (WFSI 107.9 Annapolis)
MA Boston WVB-F 1105.7 (WVBF Framingham 50-watt on channel booster)
MI Tuscola (Flint rim-shooter) WGMZ 101.7 3000 h.v.; 100 m, transmitter Millington MI
MN Hibbing W252AN 98.3 (WEVE-FM 97.9 Eveleth) [96.5 Fergus Falls)
MN New York Mills K272CR 102.3 (KJJK-FM/MN Perham K280DV 105.5 (KJJK-FM)
NH Tracy 105.1 3000 h.v.; 100 m [v; 300'
MS Marion (suburb of Meridian) 103.1 3000 h.v./
MT Glasgow K280DW 105.5 (KXEI 95.1 Havre)
NV Carlin K212AM *90.3 (KCIR 90.7 Twin Falls ID)
NV Elko K216BB *91.1 (KCIR)
NJ Newark 105.9 10000 h.v.; 119 m, Las Americas, reversal of previous initial decision; WNNK is only an interim licensee
NM Albuquerque K240BL 95.9, "construction permit to replace expired permit," but will probably get a primary other than K15Z-FM 97.9 Cortez CO
NY Hurley (Kingston suburb, but not serving Kingston, SE of West Hurley) W219AQ *91.7 (WFME 94.7 Newark NJ)
NC Williams Village (East Fayetteville) W292CH 106.3 (WYFL 92.5 Henderson)
OR Klamath Falls K285DG 104.9 (KRWQ 100.3 Gold Hill)
OR Roseburg K265CM *90.9 (KRWQ)
SC Bluffton 107.1 3000 h.v.; 310'
SC Cheraw W219AW *91.7 (WMHK 89.7 Columbia)
SC Conway W219AD *91.7 (WMHK)
SC Florence W219AN *91.7 (WMHK)
SC Hamingway W204AH *88.7 (WMHK)
SC Lake City W219AP *91.7 (WMHK)
SC Myrtle Beach W204AJ *88.7 (WMHK)
TN Nashville W269AX 101.7 (WOKN-FM 102.3 Dickson)
UT Rural Sevier-Plute Counties (transmitter 8 mi SSE Monroe) K252CO 98.3 (KKWZ 93.7 Richfield) [90.5 Las Vegas NV)
UT Springdale-Rockville K216BC *91.1 (KILA/VA Ferrum *88.1 1000 h (no vertical); 2 m, Ferrum College [97.7 Grundy)
VA Richlands W257AP 99.3 (WMJ/D/WA Gig Harbor *89.9 1500 h.v.; 58 m, Schools
WI Wausau *89.5 3000 h.v.; 100 m, Christian Life, displacing W208AC (see "Deletions")
WY Wilson-Jackson K272CS 102.3 (KFTZ 103.3 Idaho Falls)
AT Banff *104.3 CKUA-FM-84 watts

BC Quesnel 94.9 720 h.v.; k format
PO Saguenay 96.9 92500 h.v
PO St-Felicien 92.1 CHVD- 50 w (affiliate of CHVD 1230 AM Dolbeau PQ)

Facilities Changes Granted

AL Athens WZYP 104.3 1050' (100000 h.v.)
AK Anchor Point K257DB 99.3 (from K2448U 92.7) [K296AW 107.1
AK Clover Passage (not Clover Pass!/
AZ Camp Verde K280DB 103.9 (from K272BV 102.3) [Payson, not KQST 100.1 Sedona
AZ Prescott K285CW 104.9 carries KKKJ 103.9/
AR Dardanelle KWKK 102.3 200 h.v.; 1230'
AR Stuttgart KFNC 105.5 325' (3000 h.v.)
CA Carmelien Bay KHTZ 103.7 6700 h.v (2870')
CA Los Angeles KNX-FM 93.1 28500 h.v.; 1066 m, reduces coverage
CA Mariposa KUBB 96.3 644 m (2000 h.v.)
CA Rohnert Park KRPO 104.9 340 h.v.; 915'
CO Alamosa KAEB *90.1 44 m (3000 h.v.)
CO Evergreen 96.5 99000 h.v, directional; 466 m, reversal of previous initial decision
FL Cocoa WEZY-FM 99.3 1200 h.v.; 500'
FL Coral Gables WHQT 105.1 307 m (100000 h.v), directional. Also directional:
FL Miami WPOW 96.5 (to move to, from 96.3) 307 m (100000 h.v) (100000 h.v)
FL West Palm Beach WEAT-FM 104.3 1250'/
GA Kingsland WKBX 106.3 100 m (3000 h.v.)
GA Savannah WIXV 95.5 261 m (100000 h.v.)
KS Kansas City KFKE-FM *94.1 995' (100000 h.v.)
KY Allen WMDJ-FM 100.1 1320 h.v (495')
MD Princess Anne WEsM *91.3 45000 h.v (300') [115 meters
MI Lansing WILS-FM 101.7 2100 h.v.; 234 m
MO Point Lookout KSOZ *91.7 7000h.v.; 234 m
NE Kearney KKPR 98.9 adds vertical, 100000 h.v.; 191 m [Webster NC
NC Sylva-Dillsboro W218AB *91.5 adds/
OH Marietta WEYQ 102.1 (from 94.3); this will enable WRRR 101.7 St. Marys WV to move to 93.9 and increase power as a Class B1 station [h.v.; 55 m
OH Willerforce WCSU *88.9 adds v, 1000/
OR Bend K285DH 104.9 (from K269D1 101.7)
OR Coos Bay KYNG-FM 106.5 4000 h.v.; 166 m, reduces coverage
PA Bedford WRAX 100.9 100 m (3000 h.v.)
PA Grove City WSAJ-FM *91.1 (from 89.5) 200 h.v.; 38 m [h.v.; 655'
SC Mount Pleasant WD XZ 104.5 28000 /
SD Brookings KESD *88.3 625' (50000 h.v.)
TN Chattanooga W249AF 97.7 has WCPH-FM 103.1 Etowah on it, not WALV 95.3 Cleveland TN [347 m
TN Manchester WMSR-FM 99.7 100000 h.v./
TX Burger KDXR 104.3 100000 h.v.; 334 m
TX Jacksonville K001 106.5 355 m (100000 h.v.)
TX Kilgore KKT X 95.9 1250 h.v (510')
WV Martinsburg WKMC 97.5 12500 h.v.; 307 m

Formats

AL Huntsville WAHR 99.1 mk, "who informed the k [only] for WAHR? WAHR plays soft rock, middle of the road and country all mixed into one format. Slogan: 'Radio 99 with a greater variety of your favorite music.'
CA Tahoe City KRZQ 96.5 rp
GA Nashville WJYF 95.3 b, "Joy FM," \$, "Sometimes say 'serving Tifton-Moultrie and Valdosta"

IL Edwardsville WSIE *88.7 jp (jazz days, new wave nights) [cont., CHR mix)
IL Godfrey WLCA *89.9 r (adult/
IL Granite City KWK 1065. rp, "a lot of new wave; no soul music"
IL Pekin WGLQ 95.3 rm
LA Angola KLSP *91.7 rk, programs from a prison; not known if Stereo
MS McComb WVLT 94.1 r, "with live djs," XL-94 ["K-She-95"
MO Crestwood KSHE 94.7 rp, still!
MO St. Louis KADI 96.3 r, "mostly top 40"

KHTR 103.3 rs ("rock and soul music, no music harder than Bryan Adams")
ND Grand Forks KNOX-FM 94.7 rp
TN Etowah WCPH-FM 103.1 rm
TN Fayetteville WYTM 105.5 kr (country days, rock nites)
TN Murfreesboro WMOT *89.5 jn (jazz and news) [affects 1 xtr
TX San Antonio KZEP 104.5 r (oldies!/
TX Edmonton CKRA 96.3 rm; CKXM 100.3 b

Deletions

CO Grand Lake K296DK 107.1, apparently replaced by K288CM 105.5
WI Wausau W208AC *89.5, replaced by new station (see "New Stations...")

OFF THE AIR (or not yet on)

AK Anchorage K0EJ 97.3, (BKLB 103.1
AK Wasilla KGD0 *90.3, "not mentioned in the newspaper"
ID Emmett KKIC (AM); property where tower stood reported sold; why does this affect FM? Well, if AM deletes, calls for the FM on 101.7 will change from KKIC-FM to KKIC-FM!
IL Elshah WTPC *95.5, "not heard since Oct. '86"
ID Nampa KFML 96.9, "bankrupt." FM Atlas frequencies not correct, p. 78, for Nampa. Change 94.9 to KFUD, 96.9 to KFML.

LA Thibodaux KNSU *91.3
YT Jake's Corner CFAT-1 99.9, "It is no longer in operation; 1000 watts of AM at 570 kHz seems to cover quite nicely in times of tight budgets. The Yukon lost over 20% of its population after a mine closure two or three years ago, and things are just starting to move again"

ON AIR (Selected)

IL Granite City W211AD *90.1 (relays WBI 91.1 Carlinville)
IL Elgin WEPS *88.9 740 h.v.; 340'; no longer sharing time with WDCB on *90.9
MA Oakland WRRS *88.3 105 h.v.; 140'

Call Letters Granted

AL Phenix City 100.1 WGSY (WEI2"-FM"; affects 1 translator)
AK Anchorage 98.9 KYGL
AK Soldotna 101.7 KPEN-FM (KPEN); k(country) format, affects 6 translators
AZ Flagstaff 92.9 KAFF-FM (KAFF); affects 3 translators
AZ Phoenix 101.5 KAMJ (KAMJ-FM); nr (Format 41); affects 3 translators
AR Sheridan 102.3 KAUL (KAUL-FM)
CA Fort Bragg *91.5 WSWF
CA Lancaster 106.3 KKZZ-FM" (KKZZ-FM; AM has new call); affects 1 translator)
CO Longmont 104.3 KQKS (KLMO-FM)
FL Jupiter 98.7 WKSJ (WKSJ-FM)

FCC-FM

FL Merathon 107.3 WAVK (WPLC)
 FL Naples '90.9 WLSF
 FL Panama City 98.5 WFSY (WGNE"-FM")
 FL Venice 92.1 WCTQ (WRAV)
 GA Marietta 101.5 WKHV"-FM" (WKHX)
 GA Rossville 105.5 WLMX (WOWE)
 GA Winder '91.7 WBPS
 ID Idaho Falls KEZF (KID-FM); m music;
 effects 1 translator (soul) music
 IL Alton 100.3 KATZ-FM (WZEN); still/
 IL Quincy '88.5 WGCA"-FM"
 KY Erlanger 100.9 WIZF (WSAI)
 KY Fort Campbell 107.9 WCVQ (WABD-FM)
 KY Pikeville '90.1 WJSO (Power 96.9")
 LA Alexandria 96.9 KZMZ (KTIZ), r/
 ME Gardiner 104.3 WABK"-FM" (WABK-FM-AM has new calls)
 ME Madawaska 102.3 WCVX
 ME Waterville 98.5 WTVL-FM (WOBX)
 MI Pinconning (town misspelled p. 105 FM Atlas) 100.9 WBUK (WHRM)
 MI Whitehall 95.3 WKBS-FM (WRNF), "silent pending sale"
 MS Vicksburg 98.7 WCKO (WQMV), k
 MO Marshfield 104.9 KTOZ-FM (KTOZ); AM Is in Springfield MO
 MO Montgomery City 103.9 KMCR (KOMC)
 NJ Wildwood 100.7 WZXL (WNBR), r/
 NM Alamogordo 94.3 KKOE (KKEE)
 NC Hendersonville 102.5 "MYI (WKIT); off air briefly being back on
 NC New Bern 106.5 WJFL-FM (WSFL"-FM")
 NC Shelby 96.1 WGIC (WMGF)
 OH Georgetown 97.7 WAXZ (WURD); affects 1 translator
 OK Pryor 104.5 KMYZ-FM (KMYZ)
 TN Harriman 92.7 WEGZ (WHBT)
 TN Huntingdon 100.9 WHZZ"-FM" (WPBE)
 TX El Paso 92.3 KOFX (KIFM); "K-Fox"
 TX Fort Worth 94.1 KSSA (KESA)
 TX Gilmer 95.3 KAEZ (KNIF), b, "Easy 95," see Jan. VUD, p. 34, Fala
 TX Lubbock 97.7 K249CD (not K249BQ)
 TX Luling 94.7 KCWR (IKHC"-FM")
 TX Round Rock '88.1 KNLE"-FM"
 TX Killeen 93.3 KBTS"-FM" (KIXS-FM)
 TX San Antonio 96.1 KJSL-FM (KSAQ)
 VA Altavista 105.5 WKHV (WKDE-FM)
 VA Newport News 97.3 WGH-FM (WNSR), back to classical like it was before when its calls were WGH-FM?
 VA Suffolk 106.9 WSKX (WTID)
 WA Long Beach 94.3 KKEE (KLBP)
 WA Naches 96.9 KRKN
 WA Seattle 96.5 KRQN (KQKT), r/
 WA Walla Walla 100.9 KHSS
 WI Racine 92.1 WHKQ (WFNY)
 WI Kaukauna 104.9 WKFX (WKAU), "W-Fox"
 WI Merrill 93.5 WMZK (WJMT-FM), still using "WJMT" in most on-air mentions, as simulcasts the AM

SLOGANS, which are NonIDs
 AK Anchorage KKGR 100.5 Gourmet-100, "Gourmet rock"
 KPXR 102.1 Power-102
 KWHL 106.5 K-Whale (not "Well")
 KKLV 104.1 Musicradio 104 (from "K-Love")
 AR Osceola KWLN 98.1 The Lion
 CA San Diego KCBQ-FM 105.3 Eagle-105, r
 IL Jerseyville WKXX-FM 104.1 "our calls are easy to remember: K-I-X-I-D," and "so fourty ID heard" giving the WKXX-FM call letters, suggesting that the ID is given at a time other than the top of the hour, and "no silent period"
 IA Spencer KJGG 104.9 KJ-105
 LA Markville KWLB 97.7 B-97, r
 MS Fayette WTYJ 97.7 98-Rock, r, ID with Natchez
 SA Regina CFMG 92.1 Q FM

F Mistakes, VUD

AL Florence WQLT 107.3 no nonID (not "FM-107" any more), m; "Some songs they play are close to k, but mostly soft rock... Bob Smolerak (Oct. VUD, p. 28) caught WQLT with a k-ish selection"; ID with Muscle Shoals
 FL Orlando WBJW-FM (not WBGW-FM) 105.1, p. 19, Dec.

See January VUD For:

PA Wilkes-Barre WCLH '90.7 125 watt power still in use; p. 34 Fala. Station has had a c-p for 2000 watts for several years. It would be nice if somebody in the area would call them and ask why the delay in going to 2 kw!
 TX Slaton KJAK note now on 92.9, moving from 92.7, Pizzi, p. 37
 MEXICO Guadalajara XEHL-FM 102.7, noted in Spanish, apparently dropping English, Pizzi, p. 37 (as is the next contribution)
 Mexico DF XHST 104.9 Spanish, not English; oh, where or where are the Mexican FM stations broadcasting an English language format?

Readers' Reports and FM News

KSHE 94.7, soon to broadcast from a cemetery, announced on air that the new coverage will extend west from Columbia MO, east to Mt. Vernon IL north to Quincy IL and south to Cape Girardeau MO, causing our reporter to wonder if this might be exaggeration. Another writer suggested I only list mono stations, leaving the reader to assume a station has stereo unless listed otherwise. I hate to do that, as stations coming on the air, when I don't know their stereo status, will be branded as mono from the outset. But I do plan to omit the "H" listings, and show only "H" for stations lacking the h, or only a v for the few stations lacking the h component. Dave Browne put a nice mention in the ANARC newsletter about my FMedia! publication. This column has an early deadline as it is coordinated with the Jan. FMedia! The information you read here is a condensed version of what was in last month's eight-page FMedia! (You can still subscribe and get all 1987 issues at the \$15 rate, to our Box 24 Adelphi MD 20701 address.)
 John Ebeling sent copies of articles in "Audio" magazine. One concerned rental cars in Europe getting FM, but the programming being dull and changing when you drive around mountains, and the Jan. issue having a story by Ivan Berger on nine FM stations sharing a common tower and antenna in Miami.
 WNEZ Aiken SC will be moving to 99.5 and going to 50000 watts, and the station says it's installing a new control format. Roger Giannini writes and mentions that WKY-FM 104.1 Evansville IN carries Chuck Cecil's "Living in Years" 8 to 12 midnight.
 Saul Chemos tunes in CHRW '94.7 London, and knows people who DJ there, and he too may make it to the WFTDA convention here in Eako MN this summer. He sent an article on the role of the CRTC in deciding applications by CHUM

Stereo, or to go Stereo

GA Savannah WYFS '89.5, "formerly one of my few clear channels... Where You Find the Saviour"
 MA Chatham WFCG"-FM" 107.5
 NH Conway WMMV 93.5
 NC Claremont WPAR '88.1, "is really just 10,000 watts? I get WXRC 95.7 (Hickory NC) half as strong as this!"
 OR Portland KB00 '90.7
 WI Algoma WOMA 96.5

No Stereo-Remove \$ Listing

MA Boston WUMB '91.9, "lightning hit and destroyed their stereo generator in 1983, and they decided against restoring stereo, claiming coverage better without it"
 MA Cambridge WMBR '88.1, "never had stereo, which is strange since the station is owned by Massachusetts Institute of Technology"
 MN Faribault KDHL-FM 95.9 Cont. from last column: Hope AL; Saul Chemos, Paris ON; Don Wilkerson, Santa Clara CA.

Ltd. of Toronto for a TV application in Ottawa, including an application for an all-news TV operation, and its continued applications for an FM license in Vancouver, as a companion to its AM station there. CHUM has been turned down three times, but keeps trying. The station made \$10.4 million after taxes in the year ended Aug. 31 on sales of \$135.6 million. This compared to \$11.0 million profit on sales of \$117.5 million in 1986.
 Waldo Bishop claims WTLG '88.3 Starke FL has increased power, but I think they were on the air initially at sub-authorized power and are now what they should be. His Kenwood KT917 has a spurious response and image rejection of 125 db. "That has pretty well cleaned up my cross-modulation problems. I thought the Dynalab FT101 was the best-sounding tuner I ever heard, until the KT 917 came along. Weakest point of KT917 is adjacent channel selectivity. I have been told that 'multipath det. out' jack on back of tuner is easy quick convenient way to connect an SCA decoder? If this is true and you can still sell them, will appreciate some info." That is true, and info is true. My FT-101 does give excellent selectivity, and I have to agree with Waldo that other tuners probably do better with image rejection. He says WMIT 106.9 Black Mountain NC gives a dual-ID with WFGW and says "Sound that Brings Family Together."
 Eric Bueman says 40% of AM listening in St. Louis is still to AM, and he predicts in the next 5 years "10-20% of FM listeners will eventually go back to AM." My new FMedia! premiere issue contains a graph plotting FM vs AM listening, and projects zero AM listening in the 1990s—that is, if present trends continue. This is a story that the decade alone will help unravel. Eric says KXOK AM 630 bought KLTH 97.1 Florissant MO, which in turn was sold to the owners of KPRLR-TV, channel 11 there.
 Ken Onyschuk heard WLRT 92.7 Kanakake, now on the air, automated pop and k music, but ID said "WLRT Kanakake Live Rock 93"; AM is WKAN. His reception was impaired by WBSX 99.7 Arlington Heights coming in, so it is not known if WLRT is stereo. He's on the fringe of WXLG Waukegan and WTAS Crete, getting both 102.3 stations.
 "Your new publication is very interesting, but I think I'll pass it up for now," writes W. R. McIntosh, who's trying to cut down on his reading—"My eyesight is giving me problems." He sent an article on a locally-produced radio quiz show at KCSN '88.5 Northridge CA, called "The Man Says Yes" and carried every other Sunday at 11:30 p.m.
 WQSB 105.1 Albertville wrote Keith Pugh: "We did have trouble with our transmitter. I had to replace the exciter until I could repair the original and reinstall it on our transmitter." They hope to be on their new tower early in 1987, with all new control board, processing equipment, microwave equipment, transmitter and antenna system, at a site about 10 miles SE of Albertville. WQSB'd like to hear from DXers who notice an improvement in the signal at PO Box 190, Albertville AL 35950-0190.

Contributors

Frank Aden, Jr., Boise ID; Richard E. Berg-Anderson, Woodside NY (who began FM listening in 1964 "at the tender age of eight when my grandfather gave me a 'cheap-o' AM-FM portable. I remember tuning was difficult and that often I couldn't get FM stations from New York even though I only lived across the bay on Staten Island. I was especially intrigued with being able to hear an AM program simulcast on FM minus assorted noise and static." His radio got smashed in a move to NJ around 1966, and he was FM-less for four years. Next month I'll try to find room to print a history he sent of FM stations in the big city, 1950, 1960, 1970, 1980 and now). Also: Wal do Bishop, Tallahassee FL; David B. Browne, Pasadena CA; Eric Bueman, Florissant MO; John Ebeling, Bloomington MN; Mika Galloway, Detroit MI; Walter R. Garrett, Augusta GA; Roger Giannini, Belleville IL; Major Ron Hammar, Roseville CA; W. R. McIntosh, Granada Hills CA; Pete Nolan, Houston TX; Ken Onyschuk, Oak Lawn IL; Keith D. Pugh, New



FM SCOREBOARD

UPDATED 1/7/87

RANK	NAME	LOCATION	TOTAL	88-92	ES	MS	AU	USA	CN	MX	FD	TPU	YB	AS OF:
SORT BY TOTAL														
1	PAT DYER	TX SAN ANTONIO	1930	382	1558	41	0	43+	3	19	4	70	70	04/30/86
2	DANNY BUNTIN	OK STILLWATER	1620	251	924	4	0	46+	5	9	2	65	74	01/02/86
3	BRUCE ELVING	MN DULUTH	1496	213	1231	8	7	44+	3	1	0	49	48	03/03/85
4	JOHN EBELING	MN BLOOMINGTON	1461	234	816	40	79	47+	4	5	0	57	52	01/03/86
5	RALPH STROBEL	IN MUNCIE	1340	369	281	58	4	41+	6	2	0	50	72	03/05/86
6	PIZZI	IN LAMINGTON	1313	185	1044	27	0	38	5	20	3	66	81	03/04/85
7	MIKE BUGAJ	CT DANFIELD	1302	177	696	14	23	37+	3	0	1	42	74	12/15/86
8	FRED NORDQUIST	NY CLAY	1268	222	600	35	27	39+	5	0	2	47	69	01/07/87
9	DAVID NIEMAN	NY AKRON	1166	300	336	41	21	42+	8	0	3	54	59	12/31/86
10	JOSEPH FELA	NJ S. PLAINFIELD	1157	245	575	2	9	37+	5	0	3	46	68	08/05/86
11	FRED MCCORMACK	ND DES LACS	1098	141	801	25	87	44+	6	4	0	55	65	12/12/85
12	BOB SEYBOLD	NY DUNKIRK	1087	167	532	0	0	41	6	2	0	48	50	10/12/85
13	FRED MCCORMACK	ND FARGO	941	125	619	3	49	47+	5	2	0	54	74	12/12/85
14	JOHN JEFFERSON	CA PLEASANTON	857	181	456	140	0	24	4	4	0	32	57	09/14/86
15	HANK HOLBROOK	MD CHEVY CHASE *	819	203	216	16	0	35+	5	0	3	44	59	06/28/85
16	JOHN EBELING	MN PROSIT	758	143	440	3	5	44+	0	1	0	54	75	01/03/86
17	KEITH PUGH	AL NEW HOPE	728	139	367	15	0	42	6	5	1	54	83	09/20/86
18	ALAN MICHALEK	MA SPRINGFIELD	562	67	301	0	0	36	5	0	0	41	52	09/05/86
19	KEN SIMON	FL LAKE WORTH	545	148	437	0	0	34+	2	4	0	49	56	07/05/85
20	BOB SINGLAREK	NJ OLDWICK	481	83	31	0	0	21+	2	0	0	24	78	03/06/86
21	THOMAS YINGLING	MD BALTIMORE *	360	54	144	1	0	33+	4	0	1	39	71	12/26/86
22	BOB SCHWEITZER	NJ E. BRUNSWICK	252	76	7	0	0	11+	0	0	0	12	77	01/17/86
23	PAUL MOUNT	NJ TERRECK	226	29	38	0	0	24+	1	0	0	23	79	05/15/86
24	ROBERT ROSS	ON LONDON	221	56	26	0	0	16	1	0	0	17	76	08/01/85
25	BILL NOLLMAN	CT NORWICH	204	31	31	0	0	23	0	0	0	23	81	03/12/85
26	BUS MANDUSO	MD CHEVERLY	168	26	2	0	0	11+	0	0	0	12	70	12/01/86
27	FRANK WHEELER	PA ERIE	159	28	4	0	0	8	1	0	0	9	64	11/25/86
28	ERIC BUENEMAN	MD HAZLEWOOD	146	19	68	0	0	25	4	6	0	35	81	08/07/86
29	BOB SCHWEITZER	NJ OLD BRIDGE	138	35	0	0	0	9+	0	0	0	10	82	01/17/86
30	LARRY VAN HORN	FL ORANGE PARK	98	15	0	0	0	4	0	0	0	4	85	09/22/85
31	WILLIAM HEPBURN	ON THUNDER BAY	87	16	0	1	0	4	1	0	0	5	86	11/25/86
32	WILLIAM HEPBURN	NT CORAL HARBOUR	58	5	57	0	0	5	0	0	0	13	84	03/23/86

**VERIFIED

COLUMN DEFINITIONS are as follows: Total=Total number of FM stations logged. (Freq. changes count as a station, call letter changes DO NOT count. Also count a station only once regardless if logged by different propagation modes.) 88-92=All stations logged from 88.0 to 91.99 Mhz. ES=Total number of stations logged via E-skip. MS=Total by meteor scatter. AU=Total via Aurora USA=Total number of states and the 'A' = Washington, DC. CN=Number of Canadian provinces logged. MX=Number of Mexican states logged. FD=Number of foreign countries, but not Canada or Mexico. TPU=total number of political units=sum of USA CN MX and FD. YB=The year you began DXing

STATES STATS

STATE	#-DXER	#-DXER	STATE	#-DXER	#-DXER	STATE	#-DXER	#-DXER	STATE	#-DXER	#-DXER	STATE	#-DXER	#-DXER
AL	54-TM	46-JEB	HI	0-None	0-None	MA	89-RSt2	77-Mbu	NY	40-JJe2	33-JPi	SD	28-FMc2	28-Fdy
AK	11-JJe3	0-None	ID	22-DBu	21-Pdy	MI	139-FMc	121-RSt	NC	168-FNo	145-DNi	TN	93-Jay	82-TMc
AZ	37-Pdy	29-FMc	IL	156-RSt	115-BE12	MN	145-JEB	127-JEB2	ND	67-Pdy	66-BE12	TX	244-Pdy	211-RSa
AR	65-Dd	61-VeA	IN	157-RSt	112-DBr	MS	64-TMc	39-FNo	ND	24-FMc2	23-FMc	UT	22-Pdy	20-RSa
CA	381-JJe2	187-Pdy	IA	92-JEB	69-BE12	MO	73-DBu	48-JFe	OH	186-RSt	177-FMc	VA	12-RSt2	12-Mbu
CO	56-JJe2	49-Pdy	KS	77-DBu	43-FNo	MT	25-JPi	16-DBu	OK	95-DBu	40-FNo	WA	46-DBu	42-JFe
CT	49-Mbu	41-Am:	KY	72-RSt:	45-Pdy	NE	41-JJe2	28-Pdy	OR	31-JPi	20-JJe2	VA	30-FMc2	26-JJe2
DE	11-Swe	10-DDe	LA	72-RSa	45-BE12	WV	17-DBu	15-FMc	PA	137-DNi	184-DDe	WV	33-FMc	30-RSt
FL	125-DBu	187-Pdy	ME	38-RSt2	14-JEB	NJ	22-RSt2	15-Mbu	RI	11-RSt2	10-Mbu	WI	123-BE12	117-JEB
GA	63-JPi	61-Pdy	MD	48-SMa	45-JFe	NH	64-JFe	55-RSt	SC	38-DBu	38-Pdy	WY	22-Pdy	15-JJe2
												DC	13-Swe	13-DNi

CANADA*****CANADA MEXICO*****MEXICO FOREIGN*****FOREIGN

PROV	#-DXER	#-DXER	STATE	#-DXER	#-DXER	STATE	#-DXER	#-DXER	STATE	#-DXER	#-DXER	CNTRY	#-DXER	#-DXER
AB	24-JEb2	19-JJe2	AGU	1-JP1	0-None	GTG	9-JP1	2-TMc	PLU	4-JP1	4-TMc	CUBA	3-JFe	2-MBu
BC	19-JJe2	7-JEb2	BDN	11-PDy	10-FMc2	HGO	1-JP1	0-None	SIN	2-JJe2	0-None	BELIZ	2-PDy	1-JP1
MB	15-FMc	10-MHe2	BCS	1-PDy	0-None	JAL	12-TMc	10-PDy	SLP	2-TMc	0-None	BERMU	2-FNo	2-DN1
NB	3-FMc	3-RSt	CRN	1-JP1	0-None	MEX	1-JP1	1-PDy	SON	3-JJe2	1-DBu	EL. SA	1-PDy	1-KS1
NF	9-FNo	0-DN1	DHI	6-JP1	5-FMc	KIC	3-JP1	1-PDy	TAB	2-TMc	1-JP1	GUATE	5-PDy	4-KS1
NS	8-SCb	8-JFe	CDR	5-JP11	4-PDy	MOR	4-PDy	3-JP1	TAM	6-PDy	2-JEb	HONDU	2-KS1	1-PDy
ON	32-DN1	68-SCb	DF	21-TMc	21-JP1	XL	14-PDy	4-JE0	VCI	9-JP1	5-TMc	JAWAI	3-JP1	1-TMc
PE	2-JFe	2-RSt	DUR	1-PDy	0-None	DAX	1-JP1	1-PDy	VLC	2-JP1	2-PDy	PUERT	4-KS1	1-DN1
PQ	22-MHe1	21-DN1	GRD	5-PDy	1-JP1							D. REP	1-KS1	0-NONE
SK	8-FMc	7-MHe2												
NWT	1-MHe2	1-JEb2												

Jay Jim Ayers TN Murfreesboro
 DBr Dave Brumfield IN Muncie
 MBu Mike Bugaj CT Enfield
 DBu Danny Buntin OK Stillwater
 SCb Saul Chernos ON Burnt River
 JEb2 John Ebeling MN Prossit
 JEb John Ebeling MN Bloomington
 BE12 Bruce Elving MN Duluth
 JFe Joseph Feia NJ S.Plainfield
 MHe1 Me Hepburn ON Cornwall
 MHe2 Me Hepburn NT Corai Harbor

KEY TO DXER INITIALS/LOCATION

JJe2 John Jefferson CA Pleasanton
 JJe3 John Jefferson AK Anchorage
 FMc2 Fred McCormack ND Fargo
 FMc Fred McCormack ND Des Lacs
 TMc Tim McVey TN Bolivar
 FMc Frank Merrill MI Milan
 DN1 David Nieman NY Akron
 FNo Fred Norquist NY Clay
 DD David O'Dell AR Little Rock
 DDe Daniel Otting PA Broomall

JP1 Jim Pizzi NM Lovington
 JP11 Jim Pizzi CA Orcutt
 RSe Rick Sanford TX Burnett
 RSc Bob Schweitzer NJ E.Brinswick
 RS12 R. Steinberger MA Hudson
 RSt Ralph Strobel IN Muncie
 SMe Steve West PA Havertown
 PDy Pat Dyer TX San Antonio
 VEa Vernon Eaton AR Benton
 GMa Gus Mancuso MD Cheverly
 AMI Alan Michalek MA Springfield

Thanks for those of you who submitted updates. Several need to update totals from 1985 before I delete them. They are: Bruce Elving, Jim Pizzi, Fred McCormack, Bob Seybold, Hank Holbrook, Ken Simon, Robert Ross, Bill Nollman, and Larry Van Horn. Sorry for the condensed spacing in the Aug 86 column, making it almost unreadable after photoreduction. I will stick to normal printer spacing. I'm updating the All-time FM Distance Records that last appeared in the Apr 85 issue. If you have record breakers, please send them to me by Mar 5th. 73 - Fred

**THIS SUMMER:
 COME TO THE WTFDA
 CONVENTION
 IN THE HOME TOWN OF
 THE **RAY** ATLAS!
 MINNESOTA
 1987**

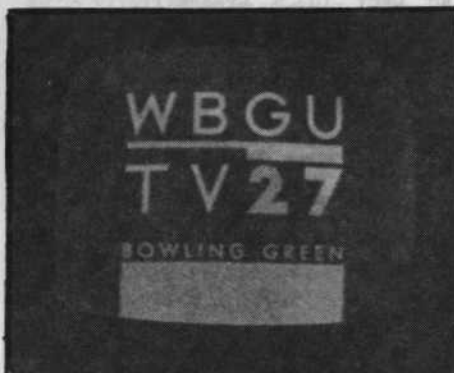
PHOTO-NEWS

David J. Nieman
 12284 Nice Road
 Akron, NY 14001-9529

FEBRUARY 1987

Photos this month are from your column editor; check upper right hand corner for name and address, note address change.

DX equipment: RCA 9" B&W TV w/Teknika 6510 tuner, CM Crossfire 3617-B at 16' AG (above ground) 806' ASL (above sea level). B-T CMA-Up pre-amp on CM 7' dish at 40' AG, 830' ASL. RG-11 75 ohm lead-in.



WBGU-27
 Bowling Green, OH
 291 mile tropo
 seen August 5, 1986
 at 0830 EDT



CFGS-49
 Hull/Ottawa, PQ
 218 mile tropo
 seen September 24, 1986
 at 2109 EDT



WTUV-33
 Utica/Rome, NY
 165 mile tropo
 seen testing Sept. 24, 1986
 at 0810 EDT



WETG-66
 Erie, PA
 102 mile tropo
 seen September 29, 1986
 at 1700 EDT



QSL CORNER

THOMAS J. YINGLING, JR.
221 PINWOOD ROAD, BALTIMORE, MD 21222-2345
PHONE # 1-301-282-5649

FM QSL's

IA KCTN 100.1 Garnaville, * KADR, Rt. 1, Box 86, Elkader, IA 52042. Letter from Dan Voss, CE send nice letter & bumper sticker. Mentioned being heard near St. Louis, MO & no longer use their sca. "By the way, the sales manager was thrilled to see your letter, & he made copies for all the sales staff." Note: Bruce send me a update on this qsl item. KCTN send 2 letters of verification. The 1st letter came from the station headquarters in Elkader, IA & the 2nd came from the owner who runs Design Homes in Prairie du Chien, WI; who also called me. He says he running the radio station more of as a hobby, & has so many satellite dishes, he decided to send me one (!) He send the Ku Band dish via UPS somewhat after the 2 letters. I may sell it as I have no other satellite equipment. (Elving) (this has to be the best gift a radio or tv has ever send for a qsl report, editor)

ND KFGO 101.9 Fargo, P. O. Box 2966, zip 58108-2966. Letter from d. M. Haworth, CE who says "To date your report is fact the most distant we have received." (Elving)

WI WJTY 88.1 Lancaster, 341 S. Washington, zip 53813. Letter from Lowell M. Bush, General Manager who says "We went on the air in March 83'. At that time we had a letter from someone in New Jersey (Joe Fela ?) Also send bumper sticker. (Elving)

OH WRDL 88.9 Ashland, Ashland College, zip 44805. Letter from Bill Cunger, CE in 2 months. (Ross)

CO KSPZ 92.9 Colorado Springs, 615 Brookside, zip 80906. Letter & bumper sticker from Terri Gurka (?) on KVOR-AM 1300khz. stationery. (Sittel)

MO KEZS 102.9 Cape Girardeau, P. O. Box 1610, zip 63701. Letter from David Kaempfer, Operations Manager said "...our music is the Bonneville East Listening format, with 200 hours of music, & 50+ hours of special occasion & holiday music." (Sittel)

NC WNCT 107.9 Greenville, Box 7167, zip 27834. Send back my prepared card after follow-up report from Joe ????? (unreadable last name), General Manger. (Holbrook)

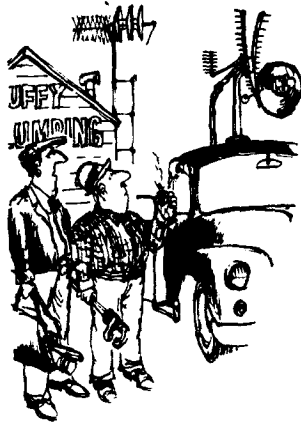
NC WRVS 90.7 Elizabeth City, Elizabeth City State University, zip 27009. Letter from David C. Linton, General Manager. (Holbrook)

FL WSWN 93.5 Belle Glade, Box 786, zip 33476. Prepared card back after follow-up report signby Carrol C. Juvue, J.R.S.E. (Holbrook)

NJ WHTZ 100.3 Secaucus, Haraon Tower South, 333 Meadowland Parkway, zip 07094. Letter & bumper sticker from Steve Pepe, Asst.C.E. who says their antenna is on the Empire State Bldg in NYC. (Holbrook)

NY WBFQ 88.7 Buffalo, University of Buffalo, 3435 Main St., zip 14214. Prepared card after follow-up report signed by David Denders, Program Director. (Holbrook)

Reporters this time are: Bruce Elving, Robert Ross, Matt Sittel, & Hank Holbrook.



"... Sure the old man got a bargain, but 28,000 megacycles!"

LOGO'S RUN

THOMAS J. YINGLING, JR.
221 PINWOOD ROAD, BALTIMORE, MD 21222-2345
PHONE # 1-301-282-5649



WBNG-TV 12

38 KWBB-TV



WCVX-TV 58



MONTEREY/SALINAS/SANTA CRUZ

KSBW-TV 8



wipb tv



WFBN 66



KIKU TELEVISION



12 TV PORTLAND

KCTSeattle 9



TUSCALOOSA/BIRMINGHAM



HUNTSVILLE DECATUR

This month I don't have much time to work on the column, so there is only 1 page of logos. I'm looking for tv logo's for as many stations as possible. I need more skip channel station logos. I also need some from Canada & Mexico. Other logos I like to have is for public broadcast stations, as they usually have one id for the whole network, and never use individual station id logos. Now to this month logo list.

KICU-36 San Jose, CA; KOFY-20 San Francisco, CA; KQED-9 San Francisco, CA; KBHK-44 San Francisco, CA; WBNG-12 Binghamton, NY; KTVU-2 San Francisco, CA; WNHT-21 Concord, NH; KNTV-11 San Jose, CA; WCVX-58 Vineyard Haven, MA; KRON-4 San Fransico, CA; KTEH-54 San Jose, CA; KMST-46 Monterey, CA; KSBW-8 Salinas, CA; WIPB-49 Muncie, IN; WFBN-66 Joliet, IL; WQWT-6 Omaha, NE; KIKU-13 Honolulu, HI; KFTY-50 Santa Rosa, CA; WAAY-31 Huntsville, AL; KPTV-12 Portland, OR; KCTS-9 Seattle, WA; WTGI-61 Wilmington, DE; WHNT-19 Huntsville, AL; WDBB-17 Tuscaloosa, AL; & last logo is WAFF-48 Huntsville, AL.

This month logos came from Randy Milter, San Jose, CA; John Adams, Seaside, OR; Keith Pugh, New Hope, AL; & me. Remember keep on sending in your qsls & logos.

SOUTHERN FM DX

Danny Buntin
1312 N. Skyline
Stillwater, Ok 74075

DEADLINE: 10th

THE SOUTHEAST HAULS IN 500+ MI. DEC. TR & JAN. ES

MORE REPORTS FROM LAST SEASON CONTINUE
(Translator heard via Es!)

Correction for last month: The Magnum tuner was actually reviewed in *Stereophile*.

Keith D. Pugh, 227 Martin St., New Hope, AL 35760

Equip: JCPenney #3921, 18 db amp, Archer 6 element at 30 ft.

10/22 ms

0024 CHEQ 101.1 ON Smith Falls, ads
11/5 Es

1008 CBF-8t88.1 Pa Trois Rivers, FF
1011 CFCQt 93.9 Pa Trois Rivers, FF
(think I have CBF ID on tape)

tr

1041 WJDJ 93.9 NY Burnside, calls
11/6 tr

1001 WAJY 101.9 LA New Orleans, ID 388
1008 WQUET 93.3 LA New Orleans
1020 WLTS 105.3 LA Slidell, Live-105 360
1121 WRNO 99.5 LA New Orleans, ID
1159 WRBH 88.3 LA New Orleans, talk, ID

1216 tr
2013 WKWX 93.5 TN Savannah, r, ID 118

12/26 tr

1039 WNFI 99.9 FL Palatka, ads, I-100 435
1047 WHVE 102.5 FL Sarasota, r.wave-102
1052 WKRL 97.9 FL Clearwater, r, ID 500
1053 WRBQ 104.7 FL Tampa, r,q-105 515
1056 WQYK 99.5 FL St. Petersburg, k, ID 518
1059 WKEST 101.5 FL St. Petersburg, k, ID
1101 WYNF 94.9 FL Tampa, r, ID
1105 WMFE 90.7 FL Orlando, c, ID 510
1111 WSVH 91.1 GA Savannah, c, ID 349
1155 WKKA 92.3 FL Orlando, k, "k-92-FM"
1212 WSTF 101.0 FL Cocoa Beach, Star 101FM

12/26 tr

1229 WTKY 98.5 FL Crystal River, ID 465
1237 WLVU 106.3 FL Holiday, ID, Love 106
1242 WDIJ 100.3 FL Orlando, rp, ID
1249 WMMZ 93.7 FL Ocala, ID Z-93 448
1302 WCIE 91.1 FL Lakeland, g, ID 518
1322 WPGY 97.5 FL Winter Park, ID 527
1330 WAAC 92.9 GA Valdosta, k, ID 314
1333 WKTZ 90.9 FL Jacksonville, b, ID 400
1340 WLCS 96.1 FL Jacksonville, class 400
1346 WFLY 104.5 FL Atlantic Beach, Rock-105
1356 WACL 103.3 GA Waycross, rp, ID 327
1358 WOCL 105.9 FL Deland, ID, class-FM 485
1401 WJYO 107.7 FL Mount Dora, ID, Joy-108
1405 had to leave

1/3 Es

1914 WBGO 88.3 NJ Newark, Jazz-88
1918 MUF is 103.3
1925 WFCR 88.5 MA Amherst, j, ID
1929 WBEZ 99.9 CT Bridgeport, wx, ID
1930 WHJY 94.1 RI Providence, ads
1931 unID 91.5 or 7 ment. Bronx 212/365-8050
1945 WLVT 93.7 CT Hartford, L, SS
2004 WHCF 88.5 ME Bangor, ID
2015 WFUV 90.7 NY NYC, oldies, "25 in NYC"
2016 WRKS 98.7 NY NYC, s
2017 WMAS 94.7 MA Springfield, r, ads
2021 WYSP 94.1 PA Philadelphia, ID

Finally some trop. The first log on Dec. 26 of WNFI was made by accident using the whip antenna. So I turned the 6 element toward FL to find the best trop since Feb. '86. Probably due to fog. But I believe I tuned in too late and missed the strongest part of the opening as signals seemed to be weakening the whole time. Nice to have some off season Es into FM. At times this opening was solid. Other times the MUF would drop below FM for a minute or so through the span of the opening. 1986 was a thrill for E-skip. Let's hope for the same in '87! 73's

Matt Sittel, 220 Brookfield Dr., Kingsport, TN 37663-9777

Equipment: Sony STR-AV 340 Receiver, Channel Master 1160 Quantum antenna at 34', 1453' MSL GE 7-4875A clock radio.

12/10 tr

1531 WSKZ 106.5 TN Chattanooga, ID 186

12/11 tr

2030 Chattanooga 92.3, 96.5, 106.5 186
Cleveland, TN 100.7 168
2043 Lexington, KY 92.9, 94.5, 98.1 162
WKQQ is new
2050 WZYP 104.3 AL Huntsville, ID 256
2052 WBBQ 104.3 GA Augusta, promo 205
2120 WKTC 104.3 NC Tarboro, promo 270
2130 WTQR 104.1 NC Greensboro 130

12/12 tr

2200 Chattanooga 92.3, 96.5, 100.7, 106.5

12/13 ms

0000 many unIDs-excellent bursts up to 35 sec.

12/15 tr

2200 ditto 12/12

12/16 tr

1600 WEEZ 92.9 TN Nashville, nx 246

12/19 tr

1200 same as 12/12

12/25 tr

1300 ditto 12/12 + WSSL 100.5 SC 128

12/26 tr

0900 12/12 repeat

0919 WEBN 102.7 OH Cincinnati 222

Howdy! 1986 was great overall for FM Es, but it ended terribly since December wasn't too good for FM. 11/29 has been the best thing lately. After the 12/11 trop, I found cont..

SOUTHERN FM DX

Sittel, cont.

FEBRUARY 1987

that the 3 104.3 stations and WTQR are regulars! They fade in and out often, WBBQ in most often, WZYP in occasionally but much stronger than WBBQ but very quickly, WKTC in briefly and weak. WTQR is strong enough to ruin 104.3 frequently due to local WXIS 103.9, which pushes WTQR to 104.2. 12/12 MS strong, heard a whole ad of a station, thought I'd get my first ID on MS, but tech. problems--no sound! Maybe quadrants will be good. Thanks to all requesting my "The ID Tape". It's just \$3.50 (checks preferred) and you can trade my ID tape for a similar tape from you. It's 90 minutes, but I'll trade for a 60 or 90 minute ID tape, or a tape of your local radio aircheck scene. The Bumper Sticker Trading Post has new life, thanks to many of you who helped me out! (Oh, yes, I'm sure there were many DB) But I still need just a few more before I'll accept any money. Help from anybody is appreciated. A good set could be enough to start it going! 73's

Pat Dyer, 5315 Silvertip Dr., San Antonio, TX 78223-2744 CST

Realistic TM-1001 tuner into Allied 426, Archer 6-e. beam at 20' with rotor (apx 850' ASL)

5/16 Es (cont. from last month)

1140 unIDs 88-89
1159 WJCT 89.9 FL Jacksonville, c, ID 1015
1200 WNCM 88.1 FL Jacksonville, ID
1340 unIDs to 98.5
1359 WRMB 89.3 FL Boynton Beach, ID, g1150
1401 WKPX 88.5 FL Sunrise, ID 1145
1403 WINK 96.9 FL Fort Myers, ID 1040
1433 WMCU 89.7 FL Miami, g, ID 1150
1434 WDNA 88.9 FL Miami, j, area ID 1150
1438 WFYnt 92.5 FL Key West, r 1090
1455 f/outs

5/17 Es

1658 XHRED 88.1 DF Micico City, area ID 690
1706 KLZY 92.5 WY Powell, ID 1190
1710 KZBqt 93.7 ID Pocatello, k 1195
1717 KTAG 97.9 WY Cody, "Tag-98" 1185
1729 XHMT 88.9 DF Mexico City
four more t from Mexico City
1735 XHNPt 89.3 FUE Pubela 735
1814 KRPX 92.5 MT Havre, "QX-92" 1435
1829 KBHET 89.3 SD Rapid City 1040
1831 KQSK 97.5 NE Chadron, Q-98 955
KRCSt 93.1 SD Sturgis 1065
1836 KRSQ 95.1 SD Deadwood, area ad 1065
1846 unID 107.9 (MUF)

tr

1847 X--- 107.9 COA Piedras Negras, ad 125
Es

1848 WARK 106.9 MD Hagerston 1365
1850 Notice local 106.7 is off!
1851 WRKZ 106.7 PA Hershey, Z-107, ads 1435
1855 WNNK 104.1 PA Harrisburg, ads 1425
1858 WQXA 105.7 PA York
1902 WELA 104.3 OH E. Liverpool, ads 1265
1904 WFDX 104.9 WV Clarksburg, ID 1235
1905 WKKW 106.5 WV Clarksburg, ID
1920 WAJI 95.1 IN Ft. Wayne, Magic 95.1
1923 WNAS 106.7 PA Beaver Falls, ks-106
1928 WQED 89.3 PA Pittsburgh, pledge 1280

1936 f/outs

2026-2040 unID 88.5

5/18 Es

0915 WVMW 93.5 AZ Show low, ad 745
0917 KNAU 88.7 AZ Flagstaff 855
KRFMT 96.5 AZ Show low, b 745
0922 KXTzt 94.1 NV Henderson, m 1040
0922 KKFR 92.3 AZ Glendale, ID 840
0923 KILT 98.7 AZ Phoenix, K-lite 835
0925 KYRA 97.1 NV Las Vegas, ID 1050
KILAT 90.5 NV Las Vegas, g 1050
0930 KCOL 94.5 AZ Phoenix, ID 835
0931 KQVO 97.7 CA Calexico, ID 1015
0932 KTTI 95.1 AZ Yuma, Kitty 970
0945 KMLB 107.9 AZ Chandler, g 820
0954 KMBD 96.9 AZ Phoenix, AZ ID 835
1030 KCEP 8u.1 NV Las Vegas, j, ID 1050

5/18 Es

1100-1130 KDDB 92.5 CA Paso Robles, k, ID 1340
5/19 Es
0917 KEYat 88.5 ND Belcourt 1335
0920 KBHET 89.3 SD Rapid City, c 1040
0921 ASRZ 94.9 NE North Platte, ads 815
0924 KSDZ 95.5 NE Gordon, ad 940
0929 KSKY 95.1 SD Deadwood, KOSky 1065
KRCs 93.1 SD Sturgis, ID 1065
0931 KKLs 93.9 SD Rapid City, ad 1040
0932 KVSRT 97.9 SD Rapid City, g

0950 f/outs

1044 KQDY 94.5 ND Bismarck, k, KQ-94 1200
1048 KBYZ 96.5 ND Bismarck, M, ID 1200
1116 KMPR 88.9 ND Minot, ND net ID 1300
1121 unID 97.9 (MUF)

5/20 Es

1259 KBBG 88.1 IA Waterloo, ID 960
1613-1627 unIDs 88-89
1616 KFJM 89.3 ND Grand Forks, nx 1240
1814-1819 unIDs 88-89

5/21 Es

1052 WIAA 88.3 MI Interlochen, psa's 1255
1057 WKTI 94.5 WI Milwaukee, ID 1100
1100 WPNE 89.3 WI Green Bay, ID 1190
1105 WKOR 93.9 WI Sturgeon Bay, ad 1225
1120 f/outs

1659 WCMQ 92.3 FL Hialeah, ID, Sp 1150

tr

2334 KTIZ 96.9 LA Alexandria, r, ID 385

5/22 tr

0200 KVNE 89.5 TX Tyler, g, ID 290
0203 KDAQ 89.9 LA Shreveport 350
0744 KFXE 92.3 AR Pine Bluff, k, AR 505
0745 KABF 88.3 AR Little Rock, g, ID 515
2112 KCKwt 92.3 LA Laplace, r 495
2151 WPAF 92.5 FL Panama City, ads 785
2159 WMAU 88.9 MS Bude, MS Net ID 470
2200 WPCS 89.3 FL Pensacola, g, ID 685
2201 WTYX 94.7 MS Jackson, ID 525

5/23 tr

0318 KFXE 92.3 AR Pine Bluff, ID 505

5/24 Es

1403 WDDQ 95.1 IL Decatur, ID 895
1606 unIDs 88-92
1617 KLCYt 94.1 UT Salt Lake City, m 1080
1618 KCFXt 98.7 UT Salt Lake City, r
1623 KLRZ 94.9 UT Provo, r, Z-95
1640 f/outs
1800 unIDs 88-95
1804 WIOT 104.7 OH Toledo, ID 1185
1807 CEWV 97.9 NB Brandon, local wx 1410
1809 WFTW 104.9 IL Fairfield, area ads 845
1812 KCO-FM7 99.1 NB Winnipeg, Can. nx 1410
1820 KEYat 88.5 ND Belcourt, bluegrass 1335
1837 KTIST 98.5 MN Minneapolis, g 1110
cont.....

SOUTHERN FM DX

5/24 Es		
1843 KKEZ	94.5 IA Fort Dodge, ID	935
1857 KROK	95.7 MN Morris, ad	1125
1858 KESD	88.3 SD Brookings, SD Net	1020
1859 KMFR	88.9 ND Minot, ND Net	1300
1901 KRLC	92.5 SD Sioux Falls, ID	975
	unID 92.7 Canada (nx)	
1923 KSEZ	97.9 SD Sioux City, Rock-98	910
1927 KLOH	98.7 MN Pipestone, ID	1010
	KZXA 96.9 NE Seward, area ad	795
1932 KWOA	95.1 MN Worthington, wx	995
1942 WWJO	98.1 MN St. Cloud, ID	1140
1953 WKOX	94.7 ND Grand Forks, r, ID	1240
1957 KXLP	93.1 MN New Ulm, area ad	1050
2000 KMCA	106.3 MN Ada, area ad	1240
2004 KQRS	92.5 MN Golden Valley, r, ID	1100
2005 WLTBT	102.9 MN Minneapolis	1110
2007 KSTP	94.5 MN St. Paul, KS-95	1110
2008 WCALt	89.3 MN Northfield, c	1080
2010-2050	unIDs 88-99 then lull to	
2108 unID	89.3 (Spanish)	
5/31 Es		
0853 KSBrt	88.5 CA Mission Viejo, j	1150
0856 KFAct	92.3 CA Los Angeles	1190
tr		
0859 KNFM	92.3 TX Midland, ID	280

Dyer, cont.

5/31 Es

0900 KLOK	88.1 CA Long Beach, j, ID	1180
	KXLU 88.9 CA Los Angeles, ID	1190
0903 KRObt	97.9 CA Long Beach	1180
0905 KCHV	93.7 CA Coachella, ID	1070
	KJCI 98.7 CA Los Angeles, ID	1190
0906 KMET	94.7 CA Los Angeles, ID	
0907 KFWrt	105.9 CA Los Angeles, r	1190
0912 f/out		

TIME STATS FM ES 1986

Month	days	#	min
Jan	2	3	210
Feb	-	-	-
Mar	-	-	-
Apr	2	3	115
May	13	29	1355
Jun	12	25	1280
Jul	14	27	2220
Aug	14	21	1915
Sep	3	3	105
Oct	5	11	560
Nov	-	-	-
Dec	5	5	130
sum	70	127	7870

FEBRUARY 1987

SOUTHERN FM DX

5/18 Es

1212#WTEZ	101.1 TX Lubbock, calls	
1213 KEAN	105.1 TX Abilene	
1217 KZII	102.5 TX Lubbock, Z-102	
	(First logging on 102.5 since 1971)	
1218 KMUL	103.1 TX Muleshoe, calls	1085
1220 KZZO	197.5 NM Clovis, The Zoo	1060
1225 RFXM	94.5 TX Lubbock, RMX	
	KRTct 94.3 TX Ozona, Wich Falls ref	
1232 KAMWt	89.1 NM Albuquerque	
	KLYT 88.3 NM Albuquerque	
1238 KNINT	92.9 TX Wichita Falls	
1239 KQIZ	93.1 TX Amarillo, Z-93	
	KVRP 95.5 TX Haskell	1270
	KLSF 96.9 TX Amarillo	
1240 KGNC	97.9 TX Amarillo	
	KMML 98.7 TX Amarillo	
1241 KZZQ	101.9 TX Amarillo	
1250 KDXR	104.3 TX Borger	1145
1251 KQZT	105.9 OK Hobart	
1255 KRTN	94.3 NM Raton	940
1256 KATXt	97.3 TX Plainview	
1257 KJYO	102.7 OK OKC	1355
1258 KOCC	88.9 OK OKC	
1308 KSPI	93.9 OK Stillwater	1370
	REBC 94.7 OK OKC	
1309 KXXY	96.1 OK OKC	

Jefferson, cont

5/18 Es

1310 KZBS	98.9 OK OKC	
	ALTE 101.9 OK OKC	
1315 KANG	92.5 OK OKC	
	unID 91.9 ?? Spanish	
1316 KCSct	90.1 OK Edmond, c	1355
1317 KANZ	91.1 KS Garden City, c	1125
1329 K209A	89.7 KS Oakley, c/91.1	1120!
	(Phone verie from KANZ)	
1332 KOSUt	91.7 OK OKC, c	
	(Hey, watch it John, KGSU is from my home town, not OK! DB)	
1333 KMGS	93.9 KS Dodge City	1195
1341 KLZSt	97.9 KS Wichita	
1342 KUALt	103.1 OK Enid	
1344 KHUqt	106.7 KS Hugoton, baseball	
1346 KEYNt	103.7 KS Wichita	
1349 KDCG	95.5 KS Dodge City	
1350 KZPC	90.5 CO Colorado Springs, nx	ID915
1353 KEZU	94.5 KS Scott City	1125
1356 KVGbT	104.3 KS Great Bend	
1359 KQMA	92.5 KS Phillipsburg, ID	
1413 KYEZt	93.7 KS Salina	
1419 KHOK	100.7 KS Herington, calls	
1421 KHAZ	99.5 KS Hays	1155

A healthy second half of May for Es. Very nice of local 106.7 to go off during the event of the 17th! I don't often get six new Es catches in a span of about 15 minutes, with half of them over 1400 miles.

John Jefferson, 4016 Crest Ct., Pleasanton, CA 94566

One skip opening this year (5/18) beat the whole of 1984, and probably last year as well for total stations heard. As always the MR80 was the tuner, fed by the S/Probe-9 at 55' off the ground. Underlined are new, # indicates new to Pleasanton (but not to the Bay area). Note: Due to the incredible number of stations across the band, I made no effort to get ID's for obvious relogs. Relogs remarked only by a format may be assumed to fall into that category. Only those where there remained some doubt are marked "t" for tentative.

4/29 gw		
2215 K201?	88.1 CA Stockton, ex K228AN	20
5/1 Semi-local		
0027 KRPQ	104.9 CA Rohnert Park	60
	over/under KBRG Fremont, 8 mi. es away	
5/18 Es		
0930 KHFL	90.4 SN Ciudad Obregon	1030
	Superstereo 90 (off channel from 90.5)	
0935 XHCNAt	100.1 SI Culiacan, L	
0939 CHHB	94.7 SN Ciudad Obregon?, SS	
	XHMAtt 99.5 SE Mazatlan, SS	
1019 KSNM	98.7 TX Truth or Conseq.	845
1026 KLTO	94.7 TX El Paso	970
1028 KFIM	92.3 TX El Paso, r	
1036 KRWG	90.7 NM Las Cruces, c	940
1036 KLAQ	95.5 TX El Paso	
1038 KHEY	96.3 TX El Paso, k	
1041 KTSM	99.9 TX El Paso, b	
	XHH 100.7 CH Ciudad Juarez L	
1043 KXCR	89.5 TX El Paso, ID	
1046 XHGU	105.9 CH Ciudad Juarez, L	
1052 KAMZ	93.1 TX El Paso, r	
1053 KTEP	88.5 TX El Paso, talk	
1101 KASht	103.1 NM Las Cruces, r	
	KPASt 103.1 TX Fabens, g	
1103 KUSTt	90.5 AZ Tucson, c	
1105 KLOZ	102.1 TX El Paso, k	
1114 KGRT	103.9 NM Las Cruces, k-Great, k	
1116 KCPe	104.9 NM Mesilla Park, psa	940
1127 unID	89.7 TX? g, KACU Abilene?	
1130 KOCvt	91.3 TX Odessa, r	
	KTZAt 92.9 NM Artesia, r	

5/18 Es		
1132 KQIFt	96.9 TX Odessa	
	KCKN 97.1 NM Roswell	
1133 KODMt	97.9 TX Odessa	
1134 KCEEt	99.9 TX Nonahans	
	KBJT 107.5 TX San Angelo, ID, L	1285
1141 KPERt	95.7 NM Hobbs, k, FM-96	
1144 KGLL	97.5 TX San Angelo, calls, k	
	(First logging on 97.5 since 1975)	
1148 KNFM	92.3 TX Midland, calls	1175
1149 KBLL	92.9 TX San Angelo, calls	
	KZORt 94.1 NM Hobbs	
1150 KBIMt	94.9 NM Roswell	
	KLLLt 96.3 TX Lubbock	
1151 NMTH	98.7 NM Maljamar, c	1015
	(signal to 11 on scale of 12, beating most locals.)	
	KRLBt 99.5 TX Lubbock	
1152 KORQ	100.7 TX Abilene, calls	
	KWESSt 102.1 TX Nonahans	
1153 unID	103.1 TX?, Spanish	
1154 KUPC	104.7 TX Lamesa	1160
	KACI 105.5 TX Andrews, ID	1145
1200 KFVN	107.9 TX Abilene, ID	
1203 KTDt	89.7 NM Ramah, Sports in Indian lang?	
1206 KNMIt	88.9 NM Farmington, talk (weak)	
	KACVt 89.9 TX Amarillo	
1207 KFLqt	91.5 NM Albuquerque, g	875
1208 KTXE	93.9 TX San Angelo, calls	
	KIXY 94.7 TX San Angelo	
1212 KLTct	100.3 TX Lamesa	
	cont.....	

Something on the order of 120 stations heard in a 5 hour opening. That is almost certainly the most ever in an opening. The spectacular 7/9/82 opening produced 95-100 stations heard in a 13-hour marathon; I don't have detailed notes for the big openings of 7/29/76, 6/10/77 and 7/4/79, but don't believe any of those came close to 100 total stations heard. The distances involved 5/18 were fairly modest, and the areas received not uncommon, so 7/9/82 remains the champion in those categories (with loggings from IL and WI, as well as Houston, TX). Of course, the 1976 & 1977 events take honors for most loggings, since back then nearly every station was a new catch. Well, that's it for now.

Eric Bueneman, P. O. Box 1202, Florissant, MO 63031-0202 CST

Eqipt: Sears model 91867, amplified rabbit ears at 540' ASL

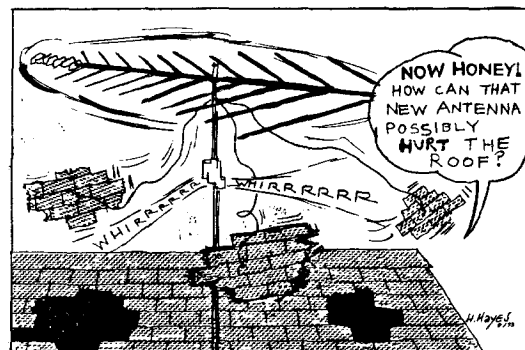
12/23 tr (all DX from Hazelwood)

2029 KGRS	107.3 IA Burlington, ID, r	145
2031 KTXY	106.9 MO Jefferson City, \$, r	100
2032 Springfield, IL	91.9, 101.9, 103.7, 104.5	80

12/23 tr

2033 Rolla, MO	88.5, 105.3	80
2034 Decatur, IL	95.1, 102.9	
2140 WJVO	105.5 IL S. Jacksonville, r, ad	65
2146 WNSN	98.7 IL Springfield	80

Trop not as good as November 28-29, but most of the stuff received are regulars during the summer! [And they should still be with unamplified ears. You should sacrifice some and get a better DX machine. With my mediocre CB-60 portable from Radio Shack I can receive stations comparable to what's in your report the majority of the time, for instance KMCO 101.3, McAlester, OK, monitored without too much fading while doing this column. In-expensive rigs like the GE Superadio and Radio Shack's mini-tuner have been praised before in the VUD for their DXability. DB]



WESTERN TV-DX

February 1987

This month we see a continuation of the reporting begun last month of the super tropo event of late November and new reports of a super tropo opening in late December. I guess it may become known as the Holiday Tropo Event of 1986 as it seemed to peak around Thanksgiving and again around Christmas.

The reports of the Christmas tropo include reception of Florida UHF stations in Illinois. Distances reached the 1000 mile point.

Those DX'ers fortunate enough to be able to take advantage of the conditions which developed will have DX stories to tell for a long time! (Of course, no one would object if these events repeated themselves a little more often.)

Also included are reports of a little E skip in December and a belated report of E skip to Texas last June, including 144 MHz skip on the 11th.

New _____ New Mode _____ Tent. - t Unidentified - unid S/On - + S/Off - =
 ID Color Bars - @ _____ Unid Color Bars - % IHTP - ♀ Misc. Test Patterns - &
 BN - Baja California Norte JA - Jalisco ES - El Salvador

Jim Pizzi, P.O. Box 1778, Lovington, NM 88260 (505)-396-3251 MST

11-15-86 @ 1900 tr KLAB 23 TX 400 Christian Television Network
 (Dallas-Fort Worth 21, 27, 33, 39 snow free - 23
 and 49 much weaker - it didn't look like KLAB
 was at 5000 kW.)

This is my last report from Lovington - moving back to California - should be there after January 15th. My mail will be going to my parents' house at 814 Brookhill Drive, Paso Robles, CA 93446 until I find a place of my own - probably in the Santa Maria area.

When I get settled in, I'll give a closing stats report for Lovington - I'll sure miss all the great DX, but one can't live on electromagnetic waves alone - wish me luck. 73's, Jim

(We'll all miss your fine reports of long haul tropo. Good luck in California. Keep us posted on what you catch from there. fm)

Pat Dyer, 5315 Silvertip Drive, San Antonio, TX 78228 (WA5IYX) CST

Equipment: 1980 model Penncrest 9" black and white, Archer V-100 and eight bay bow tie UHF array at 20 feet with rotor.

June 1986	7 Es 0815 unids chs 2-4	8 Es 0919 Cuba t 3
3 Es 0850 unids chs 2,3 nw	(MUF 92.7-0821)	(MUF 88.3-1021)
0910 KVVUT 5 NV	0857 WITVt 4 IN	1048 WISC 3 WI 1065
0914 KVBC 3 NV 1050	0859 WITW 2 IN 935	1057 KGAN 2 IA 945
0955 fade/outs	0920 WITMjt 4 WI	1059 WJMN 3 MI 1280
1050-1100 unids ch 2 w	0929 WISC 3 WI 1065	1213 KTCGA 2 MN 1110
(Spanish)	1025 WCCOt 4 MN 1110	1400 fade/outs
5 Es 1220 unids chs 2, 3 w	1029 KTCA 2 MN 1110	1815-1900 unids chs2-3
1227 KNBct 4 CA	1059 KDLH 3 MN 1250	1905 KNOP 2 NE 815
1228 KCBS 2 CA 190	1059 KCFE 2 ND 1240	(MUF 92.7-2004)
KEYT 3 CA 1270	(MUF 98.5-1104)	2100 aprox fade/outs
1255 spotty f/out 1310	1259 CKND2 2 MB 1435	9 Es 0915 unid 2 (briefly)
1353-1359 much the	1325 KKMA 2 ND 1225	1050-1157 unids chs2-5
same - chs 2-4	1432 KTVQ 2 MI 1245	1159 KINT 3 IA 985
6 Es 0915 unids chs 2-4	1450 fade/outs	KGAN 2 IA 945
WEAR 3 FL 685	1910 unids chs 2, 3	1259 WJMN 3 MI 1280
0917 WIVYt 4 AL	1915 KNBct 4 CA	WBAY 2 WI 1190
0929 WESH 2 FL 1055	(MUF 105.9-1920)	1350 fade/outs
1005 fade/outs	1931 KCBS 2 CA 1190	1800 unids chs 2-4
1129-1132 unids ch2 ne	2117 KNAZt 2 AZ	1859 KIDK 3 ID 1215
2200 KDKat 2 PA	2215 fade/outs	to 2243 unids chs2-4
2209 unids ch 3 ne	0720 unid channel 2	2243 KCBSt 2 CA
2239 KTCA 2 MN 1110	0829 WBTV 3 NC 1105	10 Es 0920 unid channel 2
2346 WBAY 2 WI 1190	(MUF 94.7-0843)	0959 WESH 2 FL 1055
2355 fade/outs	0858 WUND 2 NC 1360	1015 WIVJt 4 FL

Western TV DX

February 1987

Pat Dyer (continued)		14 Es 0959 KNOP 2 NE 815	20 Es 1930 WESH 2 FL 1055
10 Es 1017 WCIX 6 FL 1150	1911 soon fade/outs	1911 unids channel 2	WEDut 3 FL
1057 WPTVt 5 FL	(Spanish -south)	1924 YSR 2 ES 1200	1938 WCPXt 6 FL
1058 WPBT 2 FL 1150	2012 fade/outs	15 Es 0730-0830 unids chs2-4	(MUF 94.9-1943)
1059 WEDU 3 FL 985	(MUF 107.9-1108)	0829 WBAY 2 WI 1190	2030 fade/outs
(MUF 92.5-1329)	1329 WJMN 3 MI 1280	1429 KDKA 2 PA 1280	21 Es 0810 unid ch 2 nw brf
1429 KDKA 2 PA 1280	(MUF 92.5-0900)	1459 KKMA 2 ND 1225	1145-1215 unids 2,3 sw
1533 WJMN 3 MI 1280	0929 KKMA 2 ND 1225	1533 WJMN 3 MI 1280	1515 unids chs 2, 3
1700 WKYC 3 OH 1250	1127 soon fade/outs	1429 KTVQ 2 MI 1245	1517 WJMN 2 OH 1075
(Away to 2115)	1306 unids chs 2-6	1457 KGAN 2 IA 945	1538 WQMHt 4 OH
2115 unids thru FMI	(MUF 95.1-1308)	1505 WDAFt 4 MO	1559 WAVE 3 KY 945
(MUF 144 @ 2141- e TN)	1429 KTVQ 2 MI 1245	1600-1850 unids chs2-4	1624 KDKA 2 PA 1280
(MUF 105.7-0001)	1457 KGAN 2 IA 945	1858 XEWO 2 JA 690	1705-1750 unids chs2-5
11 Es 0100 WPMY 2 NC 1175	1505 WDAFt 4 MO	1900-2023 unids chs2-4	(MUF 88.5-1747)
0121 KYUS 3 MI 1235	1600-1850 unids chs2-4	1340-1350 unids ch 2	2318-0000 unids 2,3 nw
0135 fade/outs	1858 XEWO 2 JA 690	1450-1600 unids chs2-4	2330 KUTV 2 UT 1080
0750 unids chs 2-6	1900-2023 unids chs2-4	(Spanish- south)	22 Es 0950 unids chs 2-4 w
0759 WCIX 6 FL 1150	1613 KNBct 4 CA	1618 KPHOT 5 AZ	KNBct 4 CA
WIVJt 4 FL	1621 KTVK 3 AZ 835	1624 KNAZ 2 AZ 855	0959 KNAZ 2 AZ 855
0825 WPTVt 5 FL	1641 XHAQ 5 BN	(MUF 100.7-1650)	1040 unid channel 2 e
0859 WCPX 6 FL 1035	1756 fade/outs	17 Es 1015-1030 unid ch 2 ne	1105 Cuba t 3
(MUF 144 @ 1024 - in &	1658 WPBT 2 FL 1150	18 Es 0915-0955 unids chs2,3	1124 WESHt 2 FL
out for 3 hours to FL	WIVJt 4 FL	0945 WBTVt 3 NC	1145 fade/outs
SC, NC, AL, GA, & VA)	(MUF 107.9-1749)	0959 WPMY 2 NC 1175	1215-1245 unid ch 2
11 Es 21132 unid channel 7	(VOR's by 1755)	1000 WTAR 3 VA 1375	23 Es 1045-1220 unids chs2,3
Es 1543 WEDU 3 FL 985	unids chs 2, 3	1156-1237 unids 2 s/sw	(Spanish- south)
(MUF 94.9-1543)	Mexico (soon fd)	19 Es 1002 unids ch 2 ne	1701 unid ch 2(Brief)
0727 unids chs 2-6	12 Es 0659 WBEM 2 IL 1045	1059 WJBK 2 MI 1225	24 Es 1225-1259 unids chs2,3
0729 KINT 3 IA 985	0718 WISC 3 WI 1065	1242 fade/outs	1259 KUSD 2 SD 920
(MUF 98.9-0848)	0729 unids chs 2-6	20 Es 0915 unids channel 2	25 Es 1002-1027 unids chs2-6
0929 KDKA 2 PA 1280	0929 KDKA 2 PA 1280	(Spanish - se)	1027 WCCOt 4 MN
0944 CBWFT 3 MB 1410	0959 KUSD 2 SD 920	1115 unids channel 2	1028 KTCA 2 MN 1110
1230 KNOP 2 NE 815	1230 KNOP 2 NE 815	(Spanish - sw)	KIDK 3 ID 1215
1400 KKMA 2 ND 1225	1400 KKMA 2 ND 1225	1129 KGPYt 4 SD	1129 KUSD 2 SD 920
soon fade/outs	13 Es 1750-1850 unids chs2-4	1130 unids chs 2-6	1224 CKND2 2 MB 1435
1821 KDKAt 2 PA	1821 KDKAt 2 PA	(MUF 93.5-1132)	(MUF 104.1-1352)
2050-2100 ditto	14 Es 0847 unids chs 2, 3	1159 WWAY 3 NC 1250	1508 fade/outs
0859 KUSD 2 SD 920	0859 KUSD 2 SD 920	1203 WPMY 2 NC 1175	1943 unid ch 2(Brief)
0900 KINT 3 IA 985	0900 KINT 3 IA 985	1245 fade/outs	26 Es 0935-0959 unids ch 2
unids chs 2-5	unids chs 2-5	1350-1357 unids chs2,3	27 tr 0402 KTBS 3 IA 350
(MUF 96.9-0914)	(MUF 96.9-0914)	1400 KTW 2 WY 1015	29 Es 0745 unids channel 2
0928 KPMY 3 ND 1200	0928 KPMY 3 ND 1200	1647 fade/outs	(Tr masking MUF)
KPRyt 4 SD	KPRyt 4 SD	1744 unids chs 2-6	tr 2115 KLTLt 18 LA
		(MUF 99.1-1746)	KLPTB 24 LA
		1828 KNAZ 2 AZ 855	2346 WAFB 9 LA 450
		1829 KVBC 3 NV 1050	30 tr 0016 WGN 26 LA 510
		1907 KCBS 2 CA 1190	0157 KLFY 10 LA 395
			0159 KADN 15 LA 395
			0200 WNOL 38 LA 510
			0422 KTBS 3 LA 350
			Es 1602 WBTV 3 NC 1105
			WPMYt 2 NC
			1607 WAVE 3 KY 945
			1614 WQMHt 4 OH
			1616 WJMN 2 OH 1075
			1630 fade/outs
			1805-1813 unids chs2,3

The best 144 MHz E skip event in some 3 years on June 11! Things mercifully took a lull of sorts for my 20 year high school reunion activities here (June 27-28).

William Draeb, Ellis St., Rt. #2, Kewaunee, WI 54216 CST

Equipment: See January 1987 Western TV DX

December 1986	13 tr 2200 WCTE 22 TN 589	16 tr 2115 WUSI 16 IL 402
5 tr 1755 WCET 48 OH 400	WDRB 41 KY 437	WVUT 22 IN 405
2000 WIVQ 36 KY 473	14 tr 1820 WCET 48 OH 400	Cent IL/IN UHF's

Frank Merrill (continued)

18 tr 2238 WBRE 28 PA 750
 2241 WVIAT 44 PA
 2247 WQAC 67 OH 480
 2252 WDAU 22 PA 755
 2301 WJOC 44 OH 470

19 tr 0010 CBLFT8 61 ON 590
 0202 WTOV 9 OH 500
 (Sign/off- 0207)
 WTVG 13 OH
 0213 WLCU 12 PA 580
 0253 WPXI 11 PA 560
 0300 WKBS 47 PA 620
 (ID w/ WPCB-40)
 0306 WPCB 40 PA 580
 0357 WXYZ 7 MI 400
 0400 WDLI 17 OH 480
 0417 WVAH 23 WV
 (Snow free)
 0430 WHIO 7 OH 350
 0445 WJRW 8 OH 480
 0447 WNEWS 5 OH 480
 0451 unid ch 2 either
 WDTN or KDKA
 (Sign/on @ 0455)
 0500 WQWK-13, WICU-12
 WPXI-11, WBNS-10
 WUAB-43, WCLQ-61
 CITY-57
 WTVET 51 PA CCI
 0519 WKBW 7 NY 660
 (Over WHIO- 7)
 0521 WLYH 15 PA 740
 WHIZ 18 OH
 0536 WYTV 33 OH
 0540 WTRF 7 WV 500
 (Under WHIO- 7)
 0549 WBOY 12 WV 570
 0600 WCMW 21 MI 350
 0603 WCMV 27 MI 380
 (77 chs 14, 21)
 0611 WJET 24 PA 580
 (Over WDHQ-24)
 0630 WTAF 29 PA 810
 WFAT-19, WTAP-15
 0659 WFMJ 21 OH 550
 0700 WNPB 24 WV 580
 0708 CBFT 54 ON 410
 WPBO 42 OH
 WLEX-18, WLF1-18
 (Over KLJB-18)
 WLCN 19 KY
 (Over WHOI-19)

27 tr 0446 WQNT 6 NE 340
 (WOC- 6 off air)
 0454 KPTM 42 NE
 KQTV- 2, WIBW-13
 KAKE-10, KARE-11
 KIMT- 3
 0550 KOLN 10 NE 370
 2255 KDEB 27 MO
 (Over WQEC-27)
 KOLR 10 MO
 (Over WGEM-10)
 KSPR 33 MO
 (Snow free)
 2330 KMOS 6 MO 190
 KTVP 29 AR strg
 28 tr 0055 KLRT 16 AR 440

31 tr 0530-0600 WQW-21,
 WUFM-28, WGTU-29
 Detroit UHF's
 0605 WUFM-28/WTTE-28
 overpowering
 closer WSJV
 0605 KOLR-10 off the
 back over WMVS

November 1986
 6 tr 0334 CBLFT 25 ON 640
 0444 CITY2 31 ON 570
 to (o/WIHI briefly)
 0500 Detroit UHF's
 Toledo UHF's
 Cleveland UHF's
 Fort Wayne UHF's
 Grand Rapid U's
 OKC 14,25,41,471
 0555 WUVV 29 NY 660
 1532 CBLFT9 40 ON 520
 Ontario also on
 chs 29,42,48,59
 Detroit, Toledo,
 Cleveland, Lima,
 Lansing U's
 1542 CBFT 54 ON
 CITY 57 ON
 Ch18 a mess with
 WTVV and CICO18?
 1700 WILJ 54 MI 310
 WQLN 54 PA
 1759 W46AC 46 MI 380
 (Traverse Cty WQML- 6)
 8 ms 0544 & CBFT 2 PQ
 11 tr 2018 KLITJ 49 TX 630
 KHBB-47 o/ WIVP
 2021 KXTX 39 TX 640
 2042 KWTV 9 OK 500
 KSPR 33 MO
 2100 KHBS 40 AR 420
 AR on chs 11, 38
 OK on chs 11,14,
 23, 34, 43, 47
 2130 KAJT-43 o/ WYZZ
 KMSS 33 LA 550
 (Under KSPR-33)
 2134 KIVE 10 AR 480
 2144 KRZB 26 AR 450
 2159 KSLA 12 LA 550
 2200 WKVT 15 MS 560
 2201 KAIT 8 AR 340
 2203 KATL 8 OK 400
 2219 KLNG 51 TX 620
 2230 KLTM 13 LA 540
 2251 WWSB 27 MS 550
 2258 WTRT 26 AL 460
 2300 WFTQ 36 AL 460
 2305 WHNT 19 AL 500
 WHIT 25 AL
 2332 KETA 13 OK 500
 2345 KTXA 21 TX 640
 2347 KDFI 27 TX 640
 2355 KTHV 11 AR
 2357 KMCT 39 LA
 (See Note # 3)
 12 tr 0037 KTEH 10 OK 590
 0055 WVTM 13 AL 575
 0143 KATV 7 AR 400
 0200 KOTV 6 OK 400

Frank Merrill (continued)

24 tr 2055 WFTT 55 IN
 (Over WRSP-55)
 CBFT 54 ON
 2100 Western OH and
 Cleveland U's
 snow free.
 2200 W68BN 68 IN 320
 (Fort Wayne TBN)
 2220 WSBT, WKEF, WVUT
 all atop local
 WIUM-22 (2 mi)
 2300 W39AA IN
 (Fort Wayne w/WXON-20)
 2304 W65AH 65 OH 440
 (Loudonville WOUB-20)
 W69AO 69 OH 460
 (Millersburg WOUB-20)
 2326 W69AO 69 OH 460
 (Millersburg w/WICS-20)

16 gw 1630 WWTIO 35 IL 120
 (Nothing else
 possible; con-
 ditions dead.)

17 tr 1745-1800 WIVG-13 OH
 (See Note # 4)
 1800 Columbus UHF's
 Dayton UHF's
 WIPB 49 IN
 (Snow free)
 WCPO 9 OH
 18 tr 1900-1950 WBMG-42 AL
 and WIRT-26 AL
 21 tr 1730 WDEF 12 TN
 WKPT 19 TN CCI
 WTVK 26 TN CCI
 WPBt 30 GA CCI
 most Kentucky's
 WAITL 36 GA
 WETO-39, WTCL-45
 WGNX-46, WBSN-47
 WDSI-61
 1800 WUNE 17 NC 540
 (0 kHz - WAND)
 1830 WJHL 11 TN 500
 1900 WNRW 45 NC 620
 1903 WGGT 48 NC 660
 1909 WPTFT 28 NC
 (0 kHz - WSJV)
 2220 WDBJ 7 VA 550
 (Under KHQA- 7)
 22 tr 0050-0300 n OH & Detrt
 0400 WITO-21, WZTV-17
 (17 had CCI from
 WDBB or WTBS.)
 1450 Cleveland t CCI
 on chs 19,25,643
 WNEO 45 OH
 Toledo's
 24 tr 1650 Virtually all of
 eastern KY U's!
 WEHT-25, WLCN-19
 WKOH-31
 (Thru Peoria's)
 1702 WLJC 65 KY 430
 1730 WPBO-42, WPBY-33
 WTSF-61, WCLQ-61
 Toledo's
 1800 K57AU 57 IN 250
 (Columbus TBN)
 1859 W5BAG 58 OH 410
 (Georgetown WCET-48)
 1900 WKAST 25 KY KET?
 WKZT 23 KY 300
 WKEF 22 OH
 (Over WIUM-22)

26 tr 0539 WWTV 9 MI rare
 2337 WLAX 25 WI 220
 (Under WEEK-25)
 27 tr 0000 Minneapolis U's
 WEAU-13, WLEF-36
 Detroit UHF's
 Cleveland UHF's
 Lima, Topeka, &
 Oklahoma City Us
 KTVP 29 AR
 by
 0300 W54AF 54 OH
 W68BN, W57AO
 W22AET 22 OH CCI
 Pittsburgh UHF's
 WSEET 35 PA CCI
 KARE-11, KMSP- 9
 WDLI-17, WSAW- 7
 0308 KSTP 5 MN
 0510 WEAQ-49, WNEO-45
 WFAT-19, WOIO-19
 W39AA 39 IN
 0530 W31AA 31 OH 450
 (Newark WOSU-34)
 0540 WWPB 31 MD 710
 (Veri by phone
 via Jeff Kadet)
 0607 WQED 13 PA
 0700 WTAF-29, WKBS-47
 WLXJ-46
 Time for bed!
 1420 KKTX-39, WUIV-12
 KLNG-51, KSLA-29
 WPMG-42, WPGH-53
 OKC, Detrt UHF's
 WBFt 45 MD CCI
 Topeka, Tulsa
 CBLFT9 40 ON 520
 CBLFT8 61 ON 590
 CITY-57, WILX-10
 WIVG-13 snowfree
 etc., etc., etc.
 1646 CICO18 18 ON 520
 1703 CPPL 10 ON 520
 (Blew away WGEM)
 1707 CITY2 31 ON
 (Over WMBD-31)
 W64AK, W67AL
 WXYZ 7 MI
 WSBT 47 VA CCI
 1755 WJW 8 OH call
 1830 KOED-11, KETA-13
 KGCT-41, KOIV- 6
 1915 WTOL 11 OH CCI
 on KOED w/ant sw
 1928 WPMZ 69 PA 800
 1940-2200+
 WTBV 54 NY 880
 (TBN 0 to WQLN)
 1950 CBET 9 ON 410
 W68BV 66 MI
 W58AG 58 OH
 W57AG 57 WV
 W65AH 65 OH
 W69AO 69 OH
 W54AF 54 OH
 2252 WLCZ 40 NY 760
 2300 WNJBT 58 NJ
 2325 K54BB 54 OK 560
 (Duncan KETA-13)

Frank Merrill (continued)

THIS IS THE REAL BIGGIE!
I am not even going to try
and summarize except in the
most extreme cases. Prob-
ably 400 stations seen today

28 tr 0005 WBRE 28 PA
(Snow free)
0044 W48AA 48 WV 660
(Keyser w/WNWO-24)
0053 @WWCP 8 PA 620
(Under WJW-8)
(No sign - WQAD)
0100 =WFMZ 69 PA
unid channel 70
0115 WLYH 15 PA
0138 WDCR 20 DC 740
0144 WTVS 26 CT 975
(AN tel auction)
0213 K28AC 28 OK 550
(Lawton w/WHO -13)
0216 W26AA 26 NY 660
(Jamestown w/WHME-46)
(Via W46AB)
0248 WAKC 23 OH 480
0305 W36AB 36 MD
(Oakland w/WIHT-31)
0320 WBNG 12 NY 760
(Veri by phone)
0328 WJAC 6 PA 620
0359 WTAJ 10 PA 650
0403 @WNEP 16 PA 755
0413 & K36AB 36 OK 590
(Lawton w/WIHR-13)
0429 WDIV 4 MI 400
0435 @WKYC 3 OH 480
0437 @WVIT 30 CT 940
0454 @WENY 36 NY 730
(Under WUPW-36)
0502 @WNED 17 NY 660
(Under WDLI-17)
K18AM 18 OK off
back of antenna.
(See Note # 8)
0600 K71BO 71 KS 450
(Herrington KAKE-10)
0620 W83AH 83 WI
K30AL 30 KS
(Iola KIWI-11)
0630 +KAFT 13 AR 390
0640 CITY-57 off back
0720 WWHI 68(NY) 860
0736 W5JT 65 NJ 830
(State # 34)
0747-0800
W73AR 73 NY 700
(Arcade WNED-17)
0800 W72AQ 72 NY 700
(Grt Villy Twp WNED-17)
0815 K69## 69 ??
(Unknown CBS)
0903 K63## 63 ??
(Unknown ???)
(See Note # 9)
0923 WSNL 67 NY 935
0929 WNJZ 58 NJ 840
WNTJ 52 NJ 820
WFMZ 69 PA

28 tr 0938 W65AJ 65 NY 680
(Angelica WXXI-21)
KXIX 39 TX
(Like a local)
1002 KDAF 33 TX 640
1007 W57AR 57 WI
1030 W72AM 72 PA 710
(S Willmsport WHIM-27)
1035 CCI on most chs
above 70.
1059 WWLF 56 PA 790
1100 W71AI 71 NY 820
(Stamford WCNV-24)
1112 WTRF 7 WV
1130 WQEX 16 PA 560
WTAJ 10 PA
(Blew away WGEN)
1147 W70BA 70 PA 710
(Williamsport WHP -21)
WUOC 44 OH and
ch 65, 69 xltrs
1252 WIVE 51 PA 760
1400 WMPB 67 MD 770
1419 WNUV 54 MD 770
1433 WGBS 57 PA 810
1435 WQOT 60 NH 990
(STV w/o barker)
(State # 35)
1446 WXTV 41 NJ 860
WQED 13 NY
1528 WIGI 61 DE 790
(State # 36)
1650 W63AB 36 PA
1651 W63## 63 ??
(Unknown ID card)
(South of W63AB)
(See Note #10)
1700 W62AY 62 MD 720
(Frederick WMPB-67)
1711 W60## 60 ??
(Unknown PBS)
(See Note #11)
1830 WETG 66 PA 580
1920 WBBF 45 MD 770
(Under WRGT-45)
1939 W72AT 72 PA 720
(Towanda WVIA-44)
W65AA 65 PA 720
(Canton/Troy WVIA-44)
2036 WFTY 50 DC 740
2200 massive fade out
leaving mostly
KY and s OH.
WPGH-53 weakened
WPGH-53 gone for
the first time
in two days!
KJTM 38 AR wk
KZTV-17, WCAY-30
& WHBQ-13 strong
0620 WPGH 53 back
Clvnd, Colombus,
Dtrt, Canton, etc.
0640 WTAJ 29 PA 810
WWPB 31 MD 710
0648 WWHI 68 NY 860
0730 WLVY 39 PA 800
0822 WXTV 41 NJ 860
0830 WLIJ 55 NY 960
(Under WRSP-55)

29 tr 0830 WSNL 67 NY 940
(Almost snw fr)
2000 All eastern KY
except WKAS-25.
2014 W43AG 43 KY 310
(Hopkinsville LPV)
2023 WBKO-13, WTCI-45
2100 WLTJ 11 TN 380
(Long sought)
2105 KTEJ 19 AR 350
2125 W58AG 58 OH
2233 WCTE 22 TN 370
2306 WFTQ-36, WHBQ-13
2345 WJMT 16 TN 390
30 tr 0130 KLTJ 49 TX and
other D-FW UHF's
0143 =WBKO 13 KY rare
0201 KXII 12 OK 550
0214 KTYT 11 TX 640
0320 KOTV 6 OK
KSNCT 2 KS
(Open crr AN)
0333 K13MN 13 IA
(Washington KGAN- 2)
0344 KSAT 12 TX 890
(See Note #12)
0426 K45## 45 ??
(Unknown country mx)
(Same pgm -WHBO)
0429 KBVO 42 TX 820
0436 WPGH 53 PA
(Seen 6 of the
last 7 days)
0444 K28AC 28 OK
(Lawton w/KERA-13)
0500 +KSAT 12 TX 890
0503 KERA 13 TX 640
0516 KTVI 11 TX
(Well on top)
0530 WFAA 8 TX
(0 kHz - WQAD)
0543 KLMG 51 TX
@KCEM 6 TX 760
(With KOTV on,
both ID's read)
(See Note #13)
0600 KODE 12 MO
0619 KWIX 10 TX 730
(KOLR s/on 0620)
(See Note #14)
0623 @KXXV 25 TX 730
(Under KNLJ-25)
0626 KPOB 15 MO
KAFTT 13 AR
WVAH 23 WV
0644 WUOB 20 OH 500
(Under WFYI-20)
(WIGS on almost
instantly after)
0648 W58AG 58 OH
0658 @KTVV 36 TX 820
0715 KHBS-40, KOED-TT
0727-0836
KNCT 46 TX 750

December 1986
26 tr 0039 WATL 36 GA 640
WVEU 49 GA 640
WGNX 66 GA 640

Frank Merrill (continued)

26 tr 0039 WVTM 13 AL
0052 WTBS 17 GA 640
0133 WLTZ 38 GA 635
0145 WDEF-12 all mrrng
0217 WOFL 35 FL 975
(See Note #15)
ms 0228 @WCYB 5 VA 510
tr 0334 WNAL 44 AL 590
WDBB 17 AL
0433-0502
WMOD 43 FL 1000
(Veri via phone)
0455 WJSP 28 GA 635
0502 WCLP 18 GA
0512 WCJB 20 FL 890
(Veri via phone)
0513 WAAB 14 GA 760
(Same ed- 18, 28)
0523 WISG 31 GA 725
(Veri via phone)
0535 WYCC-20, WCJB-20
2200 WJSP 28 AL

26 tr 2200 WBMG 42 AL
Huntsville
Atlanta 36,46,69
KTVP 29 AR
KQMC 34 OK
KGCT 41 OK
2230 WXTX 54 GA 635
(o/u WZDX-54)
(Veri via phone)
2235 WJSU 40 AL 590
2244 WPBA 30 GA 640
(Veri via phone)
Atlanta 36 and
46 very strong
2359 WCTE 22 TN
27 tr 0500 WGNL 26 LA 735
to
0600 KLRT-16, KTHV-11
WXVT-15, WJFW-12
WAOW- 9, WNAL-44
0630 +WRBT 33 LA 730
(o/u KSPR-33)
0643 KJTM 38 AR
(Over K38AB- 38)

27 tr 1400 WHIQ 25 AL 510
1406 WTGLT 52 FL
1403 WFTS 28 FL 990
(Veri via phone)
WSBN 47 VA 500
(Almost o/WVTV)
1535 WTGL 52 FL 1010
(See Note #16)
2200 WCFE 33 AL 590
28 tr 0112 WWSB 27 MS
Birmingham, etc.
0152 WPOL 38 LA 735
0211 WPML 15 AL 780
WDBB 17 AL
0555 Huntsville (all)
WTO-21, WCFE-33
KGCT-41
0602 WABW-14, WCLP-18
0610 KODE 12 MO
(Also on IA xlts
33, 38, 44, 54)
Tulsa 23, 41, 47
KOKH 25 OK
Atlanta 36,46,69

Note # 1 - 10/28 @ 0630 - Channel 59 ended AM weather, went into aerobics. Bearing was roughly toward Bristol, Tennessee, or a bit south. ID at 0630 seemed to list about a dozen stations, or perhaps a program schedule. Andrews, North Carolina shunted northward by a "wave guide"? Or WEIU-51 as on November 25 at 0619? However, these programs don't seem to be WEIU's schedule. Help!!
Note # 2 - 10/29 @ 2331 - KOED-11 was logged by using a 20 dB attenuator in the line. This eliminated a too strong WGEN-10 splatter, but left enough KOED to log. Note that this trick will sometimes work to get onto adjacent channels! Have also tried it several times for WHNS-21, North Carolina, so far without any success.
Note # 3 - 11/11 @ 2357 - I phoned this minister, who told me they're on channel 39, KMCT, as I suspected.
Note # 4 - 11/17 @ 1745 - WTVG-13, but no other Toledo's, weird because this is the worst getter-outer from there. Not WIHR-13.
Note # 5 - 11/25 @ 0114 - During fantastic tropo openings, DX'ers should be alert to possible translators carrying the wrong stations. In such instances, they may intermittently shut off and turn on, as the "wrong" station fades above and below the translator's signal threshold. This one (and, after 0153, the channel 37 "phantom") would often disappear suddenly as WIHT-31 would fade below threshold. An excellent example is K33AB, Ottumwa, Iowa, which is almost always all night with WISN-12 during good tropo.
Note # 6 - 11/25 @ 0619 - Why would WEIU-51 show up on channel 59 zero beat to WXIN-59? (Also on October 28 @ 0630 maybe?) - What would cause this? A mixing product with WRSP? Note that the 0630 October 28 reception was not zero to WXIN-59 as it was today, and I think my October 28 reception was a legitimate station/translator.
Note # 7 - 11/25 @ 0800 - K69DP, Minneapolis stations strong, but not overly so, this one seems far-fetched in spite of the correct ID. Is there anything closer and/or with more sensible power? Maybe I had a localized tropo duct?
Note # 8 - 11/28 @ 0502 - This "proves" existence of the 1000 mile plus tropo path - which existed most of the morning!
Note # 9 - 11/28 @ 0815 - K69##
11/28 @ 0903 - K63## - KTEC claims the House of Clocks ads that I saw on channel 69, but I can not find anything listed on channel 63 that ties in with the jewelry store ad I had. These two faded in and out in unison, maybe in the same tone. I'm not even sure what K69## is. No Austin's - I suspect a tropo duct to here, localized, with Dallas, snowfree.
Note #10 - 11/28 @ 1651 - ID card with tone. Words "Channel 63" in center of screen in two lines. Smaller print at bottom. Probable area is Pennsylvania / Jersey. Definitely not Angola, Indiana. Anybody recognize this? "Appar-ently" not from as far north as southern/central Connecticut, but could've gotten into central Pennsylvania along a "wave guide" then made it here, and it could appear to be further south. I have noticed this rarely, but

Frank Merrill (continued) (for instance) have had WSYM-47 once from Toledo's direction. I have seen this "wave guide" effect change a station's bearings by up to 80-100 on occasion.

Note #11 - 11/28 @ 1711 - W60##? - Bearing was correct for West Virginia. Is there any other channel 60 translator with PBS at all from this tropo area? Maybe this can not be resolved for sure.

Note #12 - 11/30 @ 0344 - KSAT-12 beats my previous high band VHF tropo record by 120 miles.

Note #13 - 11/30 @ 0543 - KCEN- 6 beats my previous low band VHF tropo record by 120 miles (coincidence, or what?).

Note #14 - 11/30 @ 0619 - KWIX-10 - Before claiming this, I not only verified that they had this, but called up other channel 10's in the general direction to verify that nobody else did.

Note #15 - 12/26 @ 0217 - Per phone call, WOFL-35 has a huge program shake up starting January 5, and they've been running promos at almost every break.

Note #16 - 12/27 @ 1535 - Veri via phone. I found out where their tower was before I measured distances. I just hope Jeff's map is accurate! Nice to have cracked the 1000 mile barrier, incredibly tough from this region.

(Regarding your notes numbers 1 and 6 - WEIU-51 showing up on channel 59 - I suspect this one was "invented" by your receiver. If the carriers from two UHF channels separated by 8 channels (such as 51 and 59) are both present in the front end of your receiver at sufficient levels they MAY beat against each other and create a new carrier frequency. That new frequency WILL appear within the IF passband of your receiver and WILL ultimately be demodulated into some sort of video information. If this was the cause of your channel 59 reception of WEIU-51, you would not have seen it if the channel 59 carrier had not been present, and you may not have seen it on other receivers hooked to the same signal source. The FCC recognized this potential problem when they established the so-called UHF "taboos" in formulating the channel allocation table, and chose to not allow the construction of facilities with broadcast channels separated by 8 within 20 miles of each other. What do you think? fm)

William Eckberg, 1032 Sterling Road, Dixon, IL 61021 CDT

Equipment: See January 1987 Western TV DX

<u>December 1986</u>				
1 tr 0450	WOIO 19 OH 401	0145	WAKC 23 OH 404	
6 tr 2255	WOTO 35 IL 30	0230	WFAT 19 PA 549	
7 ms 0455	KJRH 2 OK 519	0250	WJET 24 PA 481	
	0525	KPRC 2 TX 890	0415	WKBN 27 OH 450
	0617	KAMR 4 TX 803	0450	WYTV 33 OH 450
8 ms 0510	KAMR 4 TX 803	0455	WSEE 35 PA 481	
9 ms 0532	KPRC 2 TX 890	0500	WIAF 29 PA 741	
10 ms 0450	WBRZ 2 LA 784	0508	WEAO 49 OH 404	
	0508	KJRH 2 OK 519	0510	WNED 45 OH 426
16 ms 0510	KAMR 4 TX 803	0517	WOIO 19 OH 401	
tr 1300	KHNE 29 NE 464	0525	WBGU 27 OH 359	
	1305	KXNE 19 NE 402	1100	WPGH 53 PA 491
22 ms 0515	KJAC 4 TX 856	1158	WKSO 29 KY 405	
tr 0615	KHNE 29 NE 464	1230	WQLN 54 PA 481	
	0620	KYNE 19 NE 402	2200	WOAC 67 OH 417
			23 tr 2330	K58AE 58 IA 294
				(Clarinda WQMT- 6)
			24 tr 0020	K56CA 56 MO
				(St. Louis LPTV)
			0110	KGMC 34 OK 612
			0115	WOIO 19 OH 401
			0120	WAKC 23 OH 404
			0200	WPGH 53 PA 491
			0205	KOKI 23 OK 519
			0300	KTBO 14 OK 612
			0300	KSNF 16 MO 413
			0310	KOKH 25 OK 612
			0545	KIVP 29 AR 463
			0600	K56AF 56 IA 294
				(Clarinda KMIV- 3)
			27 tr 0900	KIVP 29 AR 463
			28 tr 0700	KTBO 14 OK 612

The tropo opening of December 23 and 24 was nearly a carbon copy of the great Thanksgiving opening. Binghamton and Philadelphia will be my furthest tropo to the east. The new religious channel 35 in La Salle is a powerhouse. I've heard most of the New York members have logged it already.

Marvin Shults, RR#1, Toulon, IL 61483 CDT/CDT

<u>September 1986</u>				
13 tr 0600	KOAMT 7 KS	0730	WKEF 22 OH	
	KCPT 19 MO		WRGT 45 OH	
<u>November 1986</u>				
24 tr 0729	WCET 48 OH	0800	WVWV 51 OH	
	WIII 64 OH		WVWV 51 OH	
			Toledo 24, 36	
			24 tr 0830	Detroit 50,56,62
				Clevlnd 19,43,61
			2156	KYFC 50 MO
			25 tr 0630	W54AF 54 OH
				(Bucyrus LPTV)
				WOAC 67 OH
				KYFC 50 MO

<u>Marv Shults (continued)</u>				
25 tr 0640	WQLN 54 PA	0659	WPGH 53 PA	
	0730	WPTT 22 PA	0730	WTEG 30 OH
28 tr 0847	WFMZ 69 PA	0856	WNJB 58 NJ	
	0900	CKCO3 42 ON		
		CITYt 57 ON		
		0935	unids 19,31 east	
		0936	WSFJ 51 OH	
		0937	WNJT 52 NJ	
		0946	WVHT 68 NY	
		0956	WQEX 16 PA	
		0959	WBRX 55 OH	
			WQLN 54 OH	
		1039	CIII29 29 ON	
		1040	Cleveland 19,25, 43, and 61	
		1045	WSJTt 65 NJ	
		1051	WQEDt 13 PA	
		1100	W58AM 58 OH	
			(Youngstown WNEO-45)	
		1200	WSNL 67 NY	
		1434	WKBS 47 PA	
		1445	WGBS 57 PA	
		1448	WOPCt 38 PA	
		1459	WTAF 29 PA	
			WBGU 27 OH	
		1511	WXTV 41 NY	
		1528	WBNS 10 OH	
		1529	WFMJ 21 OH	
		1656	WIVE 51 PA	
		1658	WOLF 38 PA	
		1659	CKCO3 42 ON	
		1714	WLVTt 39 PA	
		1740	WVLTt 56 PA	
		1859	CICO32 32 ON TVO	
		2100	WPCB 40 PA	
			28 tr 2105	WFMZ 69 PA
			29 tr 0758	WISF 61 KY
			0759	WCET 48 OH
				WIII 64 OH
				WGTE 30 OH
				WUPW 36 OH
			0800	Dayton UHF's
			0829	WPBY 33 WV
			0830	Detroit 50,56,62
			30 tr 1029	KTKA 49 KS call
			1033	KGMC 43 OH
			1045	KTBO 14 OK
			1100	KOMU 8 MO
			1157	KOKI 23 OK
				24 tr 0956
				WVHT 68 NY still
				CBEFT 54 ON
				0957
				WPGH 53 PA
				1359
				WNMO 24 OH
				(The Star of NW Ohio)
				1730
				WPGH 53 PA
				0400
				KSNF 16 MO
				0406
				WDLI 17 OH
				0407
				WAKC 23 OH
				0408
				WPGH 53 PA
				WCLQ 61 OH
				0413
				KTBO 14 OK
				0414
				K56BX 56 MO
				(Steelville LPTV)
				KWHB 47 OK
				0420
				KGCT 41 OK
				0425
				K20AD 20 MN
				(Worthington KSTP- 5)
				0426
				K32AF 32 MN
				(St. James KSTP- 5)
				0427
				K65BY 65 IA
				(Waterloo LPTV)
				0429
				WDIOt 28 MN
				0430
				K28AE 10 MN
				(Fairmont LPTV)
				0440
				WUAB 43 OH
				0454
				K52ABt 52 MN
				0500
				WOIO 19 OH
				0859
				KPOM 24 AR
				KIVP 29 AR
				0900
				KHBS 40 AR
				0918
				KGMC 34 OK
				KTBO 14 OK
				0922
				KOKHt 25 OK
				1020
				KCPT 19 MO
				(Over WHOI-19)
				1021
				KCTV 5 MO
				2237
				@K56CA 56 MO
				(St. Louis LPTV)
				22 tr 1859
				5 gw 1900
				WVTO 35 IL TBN
				KYNE 26 NE
				KHNE 29 NE
				KMEG 14 IA
				23 tr 0759
				WCLQ 61 OH
				WUAB 43 OH
				Detroit 50,56,62
				0830
				WSMH 66 MI
				KC T9, 50, 62
				Detroit 50,56,62
				KTKA 49 KS
				0835
				WGBS 57 PA
				0840
				WQLN 54 PA
				0845
				WTLJ 54 MI
				CIII29 29 ON
				WOAC 67 OH
				0846
				WVHT 68 NY
				0858
				WGGN 52 OH
				0926
				W55## 55 MI
				(Iron Men WLUC- 6)
				W57AR 57 WI
				(Sayner WSAW- 7)

Jeff Kadet, Box 20, Macomb, IL 61455 CDT

Equipment: See January 1987 Western TV DX

<u>December 1986</u>				
16 tr 1824	KXTX 39 TX 640	2253	OKC 14,25,34,43	
	1853	St. James MN 315	0100	WPTT 22 PA 550
		42,46,48,52,54	0107	W54AF 54 OH 395
		2028	OKC chs 34, 43	(Bucyrus Tempo TV)
		2325	KDAF 33 TX 640	0208
		0003	@KTXA 21 TX 640	0241
		1815	OKC 14,25,34,43	@KJTL 18 TX 625
		22 tr 1835	K46AI 46 OK 560	0319
			(Durant KETA-13)	WPXI 11 PA 550
		23 tr 0047	%CBLF110 48 ON455	0415
			0354	WJET 24 PA 555
			0417	%WICZ 40 NY 765
			0419	@WKBN 27 OH 510
			0426	WNEP 16 PA 775
				WDLI 17 OH 480
			0433	%WBRET 28 PA
				(Weird pattern)
			0443	WPGH 53 PA 550
			0447	%WYTV 33 OH 510
			1252	WKBS 47 PA 630
			1429	WQLN 54 PA 555
				(ALL day w/WPGH)
			1900	CBLF18 61 ON 550
				CITY 57 ON 610
			26 tr 0001	WBWG 42 AL 575
				WITO 21 AL 575
				WJSU 40 AL 545
			0039	WATL 36 GA 575
			0106	WGNX 46 GA 575
			0115	WLTZ 38 GA 635
			26 tr 0205	WTBS 17 GA 575
				WDEF 12 TN 475
				0209
				WVAL 44 AL 520
				0215
				WVFL 35 FL 975
				ms 0229
				@WCYB 5 TN 525
				tr 0431
				WMOD 43 FL 1000
				0453
				WJSP 28 GA 635
				0507
				WVJB 20 FL 890
				0515
				WCLP 18 GA 510
				WABW 14 GA 750
				0524
				WVSC 31 GA 725
				1837
				WVCI 45 TN 475
				1842
				WVVE 69 GA 575
				1900
				WVPA 30 GA 575
				1907
				WVST 61 TN 575
				1930
				WV1AB 51 GA 475
				(Flintstone WCLP-18)

Jeff Kadet (continued) 27 tr 1530 WMOD 43 FL 1000 28 tr 0111 WGNO 26 LA 735
AL 15,21,26,31, 0208 WPMI 15 AL 700
36,42,48,54 in
all day
27 tr 0543 @WXVT 15 MS 495
0554 K38AB 38 IA 35
(Ft Madison w/WJFW-12) 2134 WCFT 33 AL 535
1530 WIGL 52 FL 1010 28 tr 0111 WNOL 38 LA 735
January 1987
2 tr 2105 WCAE 50 IL 175

The big guy with the silver hair and beard and weird hat (no, not Dr. Gene Scott) paid a visit the last week in December. Four Florida's were logged for tropo state #31 with WIGL-52 being my furthest tropo at 1010 miles.

Forgot to mention this last time - On November 28, before sign/on, channel 10 in Lansing, Michigan, had the wrong call letters on their test pattern! - "WLIX" rather than "WILX."

WCAE-50 was noted on January 2 with a color bar test pattern with ID and audio telling viewers that it'll be WPWR beginning January 18.

WWTO-35 is now on regular schedule. Their test pattern gives "LaSalle/Chicago" as it's location. I estimate that LaSalle is 82 miles from downtown Chicago.

Regarding the W69AO logging last month with WXON-20 - It was also reportedly seen with WICS-20 during the same opening, so I assume it either picks up WOUB-20 directly or it picks up WOUU-44 which in turn picks up WOUB-20. Any other explanations?

1986 will go down as a banner year DXwise. Sixty two days of identifiable E skip plus the late November and December super tropo.

Nathaniel Ely, 1237 East Johnson St., #2, Madison, WI 53703 (608)-257-5220 CDT/CST

Equipment: UHF - modified Channel Master 7 foot dish with 4990 and 4975 preamplifiers, .412 aluminum cable. VHF - Channel Master 1110 with Channel Master Spartan II preamplifier (0061), .412 cable, vertically polarized ten element low band yagi at 28 feet. Tower - QDMX-56 (56 foot free standing). Receivers - Zenith System III's (#SL1971 and #SL1927w, both 19"), Zenith B1310w 13", RCA Colortrack 2000 (25" stereo monitor #FLR2523E), RCA 12" b&w (AJR122s) (Es monitor), and Radio Shack 5" b&w.

October 1986
18 tr 1030 WOSU 34 OH 405 19 tr 0437 CITY 57 ON 485 6 tr 1917 WOAC 67 OH 420
2104 WTVQ 36 KY 430 0448 CIII22 22 ON 520 1919 WPGH 53 PA 505
2107 WPBO 42 OH 420 0455 CFMT 47 ON 485 1921 WSFJ 51 OH 420
2110 Cleveland 19,43, (Finally!) 1924 WPBO 42 OH 420
and 61 400 0503 WKYT 27 KY 430 2008 WFAT 19 PA 570
2112 WYMT 57 KY 575 0506 WLEX 18 KY 430 2028 WYTV 33 OH 460
2113 WDKY 56 KY 460 0529 WOVK 13 WV 525 2049 WYVE 51 PA
2125 WISF 61 KY 0556 WYTV 33 OH 460 2112 WPCB 40 PA 505
2139 WKHA 35 KY 575 0558 WKBN 27 OH 460 2341 WBRE 28 PA
2237 WOAC 67 OH 420 0609 WPBY 33 WV 525 7 tr 0024 CIGA 19 ON 485
2240 WNEO 45 OH 445 0642 WDRB 41 KY 400 0030 WJTV 29 NY 525
WEAO 49 OH 415 26 tr 1900 WTLJ 54 MI 155 0043 CIII22 22 ON 510
0053 CITY 57 ON 485
2245 WKPT 19 TN 565 (Testing)
19 tr 0050 CBLFT8 61 ON 440 31 tr 0915 WPBO 42 OH 420 15 Tower and ants taken down
0057 WVAH 23 WV 525 *****
0125 WAKC 23 OH 420 November 1986 27 tr 2354 KROG 13 MO 240
0142 WITE 28 ON 405 6 tr 1638 Cleveland 19,25, *****
0200 WPPT 22 PA 505 43,61 400
0217 WFAT 19 PA 570 1800 WEAO 49 OH 445 December 1986
0220 WFGH 53 PA 505 WNEO 45 OH 415 24 tr 2300 WWTO 35 IL 125
0257 CKCO 13 ON 440 1812 WOSU 34 OH 405
0259 WHAS 11 KY 400 1815 CITY2 31 ON 420 January 1987
0339 WRNS 10 OH 405 1829 WQLN 54 PA 465 5 tr 2230 WLAX 25 WI 105
0434 CIGA 19 ON 485 1841 CBLFT8 61 ON 440 8 tr 0054 KDEB 27 MO 465
(Tone and "TVO") 1910 WBNX 55 OH 420 0056 KSPR 33 MO 465

***** DX from Cedar Rapids, Iowa with a 12" black and white TV with built in whip.

My landlord quietly began defaulting on his mortgage to the house last May. I had to take down the tower and antennas to prepare for a sheriff's sale in early December. I expect to be moving into a new house in February or March. Since I'm buying the house, it may take sometime before I've got the money to get the DX system back in operation.

Thus ends an era: No more DX from Mr. Nate's House of TV-DX. Log at 526. Coming soon (hopefully): Mr. Nate's TV-DX Ranch! (Yep, we raise TV antennas!) Until then, 73, Nate

Eric Bueneman, P.O. Box 1202, Florissant, MO 63031-0202 (DX from Hazelwood) CST

Equipment: Samsung 19" color TV (circa 1984), Archer VU-110, Winegard UHF antenna, two Archer in-line amplifiers at 540 feet ASL.

December 1986 23 tr 2035 KROG 13 MO 100 23 tr 2040 WILL 12 IL 150
23 tr 2035 KOMU 8 MO 105 KNLJ 25 MO 100 25 tr 0000 WWTO 35 IL 190

A nice Christmas gift from the airwaves on the 25th. As "a sleigh and nine reindeer" was flying over our country, as legend has it; a real surprise came in the form of WWTO-35. The new station is a TBN station (similar to WTCT-27, Marion), but WTCT maintains a NSP schedule. The silly thing about WWTO is that it ID's (as LaSalle-Chicago) with Chicago 80 miles away! The station is also 50 miles from Peoria. It would make more sense to ID with Peoria which has no Christian station, than with Chicago, which already has WCFC-38! With 5000 kW erp, it could make it into the western suburbs and Joliet in the east, the Quad Cities in the west, Lincoln in the south and Beloit in the north, as rough as I would put it. 73 from E.B.

Michael Parks, Route 1, Box 103, Amery, WI 54001 CDT/CST

Equipment: Channel Master 1110 Quantum with Channel Master 0064C preamplifier and RG-11U at 28', Antennacraft P-7 with Winegard PA-4975 preamplifier and RG-11U at 33', Alliance HD-73 rotor, Winegard DA-8150 post-amplifier, Channel Master 7206 Hi "Q" trap, and Zenith Z1920W 19" color TV.

August 1986 17 tr 0006 Alexandria MN 24 tr 0011 WKBD 50 MI 507
3 tr 0056 K22AE 22 MN 131 24,34,36,38,40 0018 KDSD 16 SD 301
(New Uln LPTV) (Ch 34 still with gibberish scroll) 0021 WXON 20 MI 507
13 tr 0116 KGAN 2 IA 239 0038 WTVSt 56 MI
0142 KNLJ 25 MO 473 0010 KPIM 42 NE 359
0143 KDNL 30 MO 480 0016 KSNIt 27 KS
0148 KCRG 9 IA 239 0018 WEEK 25 IL 353
0201 KNLK 24 MO 480 0026 WMBD 31 IL 353
0247 WTCT 27 IL 19 tr 0025 WNDU 16 IN 397
2034 W57AR 57 WI 139 0031 WHME 46 IN 397
(Sayner WSAW- 7) 0032 @WNIT 34 IN 397
2053 WLUC 6 MI 246 0035 WSBT 22 IN 397
2108 WNMU 13 MI 426 (Strongest ever) 0043 KLJB 18(IL) 297
W16AC 16 WI 156 0126 K22AE 22 MN 131
(Land O'Lakes STV) 20 tr 0046 W16AC 16 WI 156
2125 unid channel 16 0052 KSNt 27 KS 472
(IF briefly o/W16AC) 0057 WTVQ 17 IL 269
2132 K47AF 47 MI 207 0103 WIFR 23 IL 269
(Iron Mtn STV-TVC) 0109 Peoria chs 25,31
2133 W65## 65 MI 207 0120 W57AR 57 WI 139
(Iron Mtn STV-SelectV) 2305 W16AC 16 WI 156
2143 W55## 55 MI 207 (Third time in 1 week)
2221 KWCM 10 MN 182 22 Es 1034 KIII 3 TX 1250
1045 WBRZ 2 IA 1036
K52AH 52 MN 182 25 tr 1016 St. Louis City 14,27
(Appleton WCCO- 4) 1229 KUSD 2 SD 292
K54AK 54 MN 182 (SDPTV ID under KTGA)
(Appleton KMSP- 9) 1231 KBGT 8 NE 383
K56BZ 56 MN 182 1859 WQRF 39 IL 269
(Appleton KARE-TT)
K60AB 60 MN 182 September 1986
(Appleton KSTP- 5) 2 tr 0859 K22AE 22 MN 131
2222 KDSD 16 SD 301 K30AC 30 MN 184
2225 W63AW 63 MI 207 (Marshall KSTP- 5)
(Iron Mtn STV-CBN) 23 tr 2304 Chicago's 26,32,
38,44,60,66 337
2229 W67AD 67 MI 207 2305 W64AU 64 WI 157
(Iron Mtn STV-MTV) (Adams STV)
2333 W49AF 49 MI 198 WQRF 39 IL 269
(Crystal Plls WGBA-26) (Note Changed Primary) 2351 WIFR 23 IL 269
2339 W43## 43 MI 207 2355 WEYI 25 MI 434
(Iron Mtn WLJK-TT) WTVQ 17 IL 269
2357 WJMN 3 MI 253 24 tr 0009 WAQP 49 MI 434

Michael Parks (continued)

21 Es 1628-1650 unids chs3,4
 22 tr 1834 Sioux City 14,27
 23 tr 1333 Sioux City 14,27
 K2OAD 20 MN 204
 (Worthington KSTP- 5)
 1334 K32AF 32 MN 152
 (St. James KSTP- 5)
 1409 WANE 15 IN 468
 WNDU 16 IN 397
 WPTA 21 IN 468
 ("21 Alive")
 1410 WSBT 22 IN 397
 WKJG 33 IN 468
 WUPWt 36 OH
 1411 WCFC 38 IL 337
 W39AA 39 IN 468
 (Fort Wayne WFYI-20)
 1411 WFTT 55 IN 468
 1412 WGBO 66 IL 337

23 tr 1412 WHME 46 IN 397
 1413 WNIT 34 IN 397
 1421 WKOI 43 IN 538
 1423 WFLD 32 IL 337
 1426 WOTE 30 OH 509
 1427 WXMt 17 MI
 1429 WBGU 27 OH 516
 1433 WNW 24 OH 509
 1435 WSNs 44 IL 337
 1437 WIHT 31 MI 460
 1439 WSYM 47 MI 426
 1442 WPWR 60 IL 337
 1444 WCIU 26 IL 337
 1452 WCETt 48 OH
 1454 WRGT 45 OH 566
 1507 WSEJ 51 OH 623
 1513 WPTT 22 PA 709
 (New tropo state)
 1521 WKBD 50 MI 507
 1522 WKONt 20 MI
 1523 WOIO 19 OH 599

23 tr 1524 WCLQ 61 OH 596
 ("Home Shopping Club")
 1525 WUAB 43 OH 576
 1604 WQEX 16 PA 709
 1606 WUHQ 41 MI 413
 1622 WVIZ 25 OH 596
 1642 WGVCT 35 MI
 1654 WKARt 23 MI
 1656 WAKCt 23 OH
 (CCI-very diag. pitch)
 1732 WVCY 30 WI 272
 2230 WYCC 20 IL 337
 ("We're Youth Community Colleges")
 2324 WKFT 22 OH
 26 Es 2218 KPRCt 2 TX
 unid chs 3, 4z
 tr 2340 WICS 20 IL 410
 (In only briefly)
 27 tr 0002 WAND 17 IL 420
 0022 KDSM 17 IA 272

Mother Nature gave me a great Christmas present on December 23rd by presenting me with an intense tropo opening into a seldom seen area. (She owes it to me after short-changing me in November!) If someone would have told me I was going to get an opening like this in the middle of a Wisconsin winter, I probably wouldn't have believed him. I had hoped my reception of WPTT-22 and WQEX-16 had broken my UHF distance record; but alas, when I calculated the distance, it came up 30 miles short. W39AA sets a new translator record though. It beats out K38AB, the old record holder, by 136 miles. WPTT must really be interested in attracting the younger audience. Star Trek was the only promo I saw that wasn't for a cartoon. They were promoting themselves as "Kid's TV" and the promo voice-overs were all done by children.

When I saw W16AC and W64AU last August and October, they were both running unscrambled during equipment maintenance. People in those areas got treated to free SelecTV.

I seem to have had more than my usual number of new stations last year, so I guess 1986 wasn't so bad. There are 33 new stations in this report alone.

If anyone's got any openings like that of December 23rd lying around, send them up this way. 73, Mike

NORTHERN FM-DX

Joseph Fela
 150 Robert Place
 So. Plainfield, N.J. 07080
 1-201-755-3852

FEBRUARY 1987

Deadline: 8th of the month

A small column this month, as to be expected this time on the year. This column includes all reports received thru January 10th. I remind anyone wishing to send in a bandscan can do so now, during the slow months. They will appear as space allows - and right now space is something we have.

MIKE BUGAJ - 69 SHERMAN ROAD - ENFIELD, CT. - 06082

Equipment: Carver TX-11, Finco FM-5 with rotor.

NOVEMBER 1986

24 Au
 1930 WUGN 99.7 MI Midlands, g
 25 MS
 0747 WJMI 99.7 MS Jackson "...WJMI time"
 27 Tr
 1745 CFCA 105.3 ON Kitchener,
 a steady 40 db
 1830 WCLW 105.3 OH Mansfield, for 5 hours,
 off and on, good \$, 510 miles
 1834 CBCB 98.7 ON Owen Sound, nx, WRKS
 vanished for 2 mins. 450 mi.

1838 CBL 94.1 ON Toronto, concert
 1844 WGMR 101.1 PA Tyrone, k
 1910 CHFI 98.1 ON Toronto, FM98, soft r
 1929 CHUM 104.5 ON Toronto, r
 1939 CHIN 100.7 ON Toronto, ID and tx and
 disco(?) in Italian, I think

1943 CILQ 107.1 ON Toronto, Q-107, r
 2044 WSHW 99.7 IN Kokomo, "SHINE-99",
 soft r, Big Brothers/Sisters of
 Kokomo, etc. Only 10 db, \$ LED
 flickered a couple of times, weak.
 690 mi. State #18 via tropo.

2054 WKBN 98.9 OH Youngstown, b, 400 mi.
 2100 WLSP 94.3 PA Carbondale, FM-94
 2200 CJBC 106.3 ON Peterborough, FF/mono
 2216 WMG 99.7 OH Columbus, MAGIC, weak,
 other years heard much stronger.

28 Tr
 0700 WANV 99.7 VA Staunton
 0735 WFRB 105.3 MD Frostburg ..fog in the
 mountains.....

DECEMBER 1986

7 MS
 0900 WARM 99.7 GA Atlanta..WARM Atlanta..
 10 MS
 2150 WARM 99.7 GA Atlanta
 "Power 99 is Atlanta's new home of...."
 2250 WTCM 103.5 MI Traverse City
 "...is closing their store in Cadillac
 and they don't want to move the
 merchandise to Traverse City..."
 (wish all bursts were this good).

11 MS

2035 WRLO 105.3 WI Antigo,
 "...with a little help from WRLO..."

JANUARY 1987

3 ES
 2041 WAPI 94.5 AL Birmingham, I-95, r
 2044 WLJS 92.1 AL Jacksonville,
 Jacksonville State Basketball
 2045 WCPC 93.3 MS Houston,AL-MS State BKB
 2047 WJMI 99.7 MS Jackson
 2104 WJMG 92.1 MS Hattiesburg
 2107 WQUE 93.3 LA New Orleans
 "...the all new Q-93...", r
 2120 WBKN 92.1 MS Brookhaven

MIKE HOGAN - 13910 CHIPPEWA AVENUE - BURNHAM, IL - 60633

Equipment: STRAV-460 SONY, Archer Rabbit Ears w/ Magnum tunable antenna amplifier.

MAY 1986

1 GW
 7028 WJCH 91.9 IL Joliet. Family Radio Station
 6 GW
 2100 WDSO 88.3 IN Chesterton. Broadcasting
 election returns under program testing
 authority.

The above two stations are new locals. WJCH is brand new destroying a relatively clear channel for Es. WDSO is operating on a new frequency. Speaking of Es, my next report will deal with the extensive 6/11 opening, one of the best in years. 73's. (Why wait? You could have included it with this report. -jf)

JOSEPH FELA - 150 ROBERT PLACE - SOUTH PLAINFIELD, N.J. - 07080 EST

Equipment: McIntosh MR-78 tuner, Stereo Probe 9 @ 40 ft. AG, with rotor

NOVEMBER 1986

28 Super-Tropo
 0752 (to about 0840) Local WNYC-93.9 OFF with
 transmitter problems (great timing!)
 0755 WKXZ 93.9 NY Norwich, r, ads,
 mentioned WCHN-970 prior to 0800. 146
 0800 CFMO 93.9 ON Ottawa, ID, b 342
 0814 CKLW 93.9 ON Windsor, doing a
 Beatles Special, ID, ads 460
 0910 WTPS 103.9 PA Muncy, old r 130
 0919 WFBG 98.1 PA Altoona, FM-98 + call,
 easy listening, good in WCAU null. 209
 0930 WUEZ 97.7 PA Jersey Shore, strong
 with b, "EZ-97.7" exclusively! 154

NOV 28 Tr (cont'd.)
 0946 WHPA 104.9 PA Hollidaysburg, ID, r 209
 1025 WOWQ 102.1 PA DuBois, k, Q-102 230
 1029 WDOK 102.1 OH Cleveland, b,
 "Easy 102" + call 385
 1036 WMJI 105.7 OH Cleveland, "MAJIC",
 r, ads, call, much stronger
 than previous evening 385
 1045 WDMT 107.9 OH Cleveland, also in
 again but not as good as prev.eve. 385
 1214 WDBN 94.9 OH Medina, b, o/WMSP! 391
 1236 WANV 99.7 VA Staunton, b, ID,ads 299
 1244 WSHH 99.7 PA Pittsburgh,WISH-100 292

You Can't Top TROP

Pop a Can
 a Trop!

The Exciting
 Brazilian
 Soft Drink!

(Joe Fela's report, continued.....)

NOV 28 Tr (continued)

1323 WKI 100.5 IN Kokomo, k, ID, many ads 615
 1500 WZWW 95.3 PA Bellefonte, legal ID, AC format, "3WZ" (strict), 177
 1538 WFRB 105.3 MD Frostburg, k, ID, "AM-56 and FM-105" 246
 1738 WILQ 105.1 PA Williamsport, ID, ads strong! WNSR briefly off 142
 2002 WMJI-105.7 and WDMT-107.9 in again!
 2105 WVSC 97.7 PA Somerset, ID, ad 249
 2018 WMRA 90.7 VA Harrisonburg, ID o/Local WFUV 279
 2137 WVZE 101.7 PA Central City, call + EZ-101, ad 233
 2141 (WTPA) 93.5 PA Mechanicsburg, ID, r, ex-WKCD 138

Jacor Broadcasting of Cleveland, Inc.
 3940 Euclid Avenue
 Cleveland, Ohio 44115

WMJI
MAJIC 105.7FM

A correction in my last report. I inadvertently listed KWGG-96.7 as in ID. It is, of course, in OK. At least I had the milage right! On the local pirate scene, both WHOT-91.5 and WFUN-91.9 have been monitored frequently, generally on Saturday mornings from 0030 on. WJPL-91.9 (X-rated at times) is more or less on every Sunday morning from 0015. WJPL has announced it has given up 91.5 due to XR problems. These three are all located in Brooklyn and are getting out 10-25+ miles, depending upon receiving equipment. Best, Joe.

BANDSCAN DEPARTMENT:From Eric Fader (forwarded by Saul Chernos), the **BAYSIDE BANDSCAN**.

Equipment: Onkyo T-9090 tuner w/rabbit ears. Most troublesome locals underlined.

88.1	WNRR	CT	90.9	WKRJ	NY	94.7	WFME	NJ	99.1	MAWZ	NJ	104.5	WSNI	PA
88.1	WCWP	NY	91.1	WFMU	NJ	94.9	WMSP	PA	99.1	WPLR	CT	104.7	WSPK	NY
88.3	WBGO	NJ	91.1	WSHU	CT	94.9	WHOM	NH	99.3	WELV	NY	105.1	WRFM	NY
88.5	WARY	NY	91.3	WUHU	CT	95.1	WRKI	CT	99.5	WBAI	NY	105.5	WDHA	NJ
88.5	WFCR	MA	91.3	WTSR	CT	95.5	WPLJ	NY	99.9	WEZN	CT	105.5	WMJV	NY
88.7	WRHU	NY	91.5	WNYE	NY	95.7	WKSS	CT	100.1	WDST	NY	105.9	WNWK	NJ
88.7	WRSU	NJ	91.7	WXCI	CT	95.9	WLYQ	CT	100.1	WJRZ	NJ	106.1	WBLI	NY
88.9	WSIA	NY	91.7	WHUS	CT	95.9	WADB	NJ	100.3	WHZT	NJ	106.3	WVIP	NY
88.9	WJMJ	CT	91.9	WSHR	NY	96.1	WLEV	PA	100.5	WRCH	CT	106.3	WHTG	NJ
89.1	WNYU	NY	91.9	WNTI	NJ	96.3	WQXR	NY	100.7	WHUD	NY	106.3	WFMV	NJ
89.1	WFdu	NJ	91.9	WSLX	CT	96.5	WTIC	CT	101.1	WCBS	NY	106.7	WLTW	NY
89.1	WMPR	CT	92.1	WLNQ	NY	96.5	WDOB	PA	101.3	WKCI	CT	106.9	WKDN	NJ
89.3	WVRM	NJ	92.3	WXRK	NY	96.7	WYRS	CT	101.5	WKXW	NJ	106.9	WCCC	CT
89.5	WSOU	NJ	92.5	WNYZ	CT	96.9	WFPG	NJ	101.9	WPIX	NY	107.1	WZFM	NY
89.5	WPKN	CT	92.7	WLIR	NY	97.1	WYNY	NY	102.3	WBAW	NY	107.1	WMJY	NJ
89.7	WGBH	MA	93.1	WPAT	NJ	97.5	WALK	NY	102.3	WSUS	NJ	107.3	WAAF	MA
89.9	WKCR	NY	93.3	WMMR	PA	97.5	WPST	NJ	102.7	WNEU	NY	107.5	WBLS	NY
90.1	WUSB	NY	93.5	WRTN	NY	97.7	WCTY	CT	102.9	WDRC	CT	107.7	WSNJ	NJ
90.3	WBAU	NY	93.7	MLVH	CT	97.9	WEVD	NY	103.1	WGNV	NY	107.9	WEBC	CT
90.3	WHPC	NY	93.9	WNYC	NY	98.1	WCAU	PA	103.3	WPRB	NJ			
90.3	WWPT	CT	94.1	WYSP	PA	98.3	WKJY	NY	103.5	WQHT	NY			
90.3	WAMC	NY	94.3	WCTO	NY	98.3	WMMG	NJ	103.7	WIXL	NJ			
90.5	WBJB	NJ	94.3	WJLK	NJ	98.3	WDAQ	CT	103.9	WFAS	NY			
90.5	WPKT	CT	94.5	WDAC	PA	98.7	WRKS	NY	104.1	WIOF	CT			
90.7	WFUV	NY	94.5	WCHR	NJ				104.3	WNCN	NY			

whud
 50,000 WATTS/FM/STEREO

Odds and ends: Dave Nieman reports that he has heard a new Toronto station test on 89.5. Per NRCer Dave Schmidt, the move of WICO-94.3 to 97.5 is currently on the back burner. Per QSLs, a few items. On my WKXZ-93.9 reception, the legal ID mentioned 95.3 rather than 93.9. The station's explanation was that this was for their three translators. I would still think 93.9 belonged in the ID. WCLH-90.7 Wilkes-Barre comments on their 175 watt ERP power. It seems the permit for 2000 watts, as listed in the FM ATLAS, was granted prior to 1977 ("before my time as CE") but due to unavailability of funds, was never instituted. The inference in the letter is that it is a dead subject. Logos in the column are from Rich Eddie (via Dave Nieman) and myself.

WDDD/WDDW
 Route 37 North
 Marion, Ill. 62959

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KIXSfm
 P.O. BOX 880 • KILLEEN, TEXAS 76541

ANARC UPDATE

CLUB PROFILES

ANARC now has two new clubs as members. The Michigan Area Radio Enthusiasts (MARE) has been voted a full member of ANARC. The other club, the All Ohio Scanner Club (AOSC), has been accepted as a provisional member. Both are regional clubs. This is the latest trend for new clubs. Below is a profile of both clubs.

Michigan Area Radio Enthusiasts
 24500 Union, Dearborn, Mich. 48124

This club has now been in existence for just over two years. It was founded by Don Hosmer after the 1983 ANARC Convention. He felt there was a need for DX'ers in his local area to get together. The club has grown ever since. MARE now has a membership of just over 100. The dues are \$5.00 a year. MARE publishes a Newsletter 6 times a year. The Newsletter features technical articles, a Beginners column, Medium and Short Wave News, and a QSL Column. The newsletter is packed with useful information and interesting articles. Sample copies are 50 cents. The Club caters primarily to Shortwave DX'ers and listeners in Michigan, but membership is open to all DX'ers. There is no geographic limitation to membership. The club holds regular meetings and DX'peditions several times a year. They have also published several guides to DX'ing.

All Ohio Scanner Club
 P.O. Box 2496, Springfield, Ohio 45501

This club was founded in 1979. It specializes in VHF-UHF Monitoring in Ohio and surrounding states. The club's membership is about 250. Dues are \$15 for new members and \$12 for renewals. There is no geographic limitation to membership. AOSC publishes a bi-monthly Newsletter. The Newsletter contains Scanner Reports from different sections of Ohio and neighboring States. There is a technical column, beginners column and a new products column. The Newsletter also covers Amateur Radio News and the world "Below 30 MHz". Sample copies are \$1.50. The club holds a yearly family picnic and business meeting. The have also published a little booklet describing the club and its activities. The booklet also contains information for beginners.

If you contact either of these clubs, please mention that you heard about their club through the WPFDA. And, please include a self addressed stamped envelope.

If any other clubs would like to be profiled in a future ANARC Update, please send the information to me and I'll gladly pass it along to our club members.

Before you know it, the summer will be here. It is now time to think about making plans to attend this year's ANARC Convention. The convention will be held the weekend of July 16-19 at the Novotel Hotel in Mississauga Ontario, near Toronto. The hotel is close to the Airport, major Expressways, and the city bus system. The Banquet Speaker will be Bob Grove, owner of Grove Enterprises, a major supplier of radio receivers. Bob also publishes "Monitoring Times". For information on the convention, please write to Ontario DX Assoc., P.O. Box 161, station A, Willowdale, Ontario M2N 5P0, CANADA.

Was I the only one to miss the Great Thanksgiving Trop Opening of 1986? It proves that this is a hobby that takes perservance. I have to get into a habit of checking the TV set atleast once a day, no matter what the conditions seem to be.

That's it for this month.

73's



Steven P Spockman

MR. STEVEN SPACKMAN
 15 BERRY LN
 HICKSVILLE, NY 11801

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