# DXMEMS <br> The Magazine of the National Radio Club 

VOLIMME III
APFIL 1, 1\%7 M MOMEER 21
"I like DX NEWS almost as much as I like onions."
(Charles Rossier, Ma.)

IN THIS ISSUE...
Principles of Vertical Patterns - Wesley Boyd Sunrise/Sunset Míp for April - Father Jack Pejza GPN's Resignation from DX NEWS - BYC Major Merger Announcement - NRC/Iowa SW DX Club Very latest FCC changes (see below) - H. T. Fell

NEW MEMBERS THIS WEEK...
*Audie Kaufman, 3000 Ocean Pkwy, Apt. 17 T, Brooklyn, NY 11235
*Henry Fain, 4001 Hauendale Dr., Nashville, Tenn. 37207 *Jim Davidson, PO BOX 861, Batesville, Ark. 72501

FLASH FROM THE FCC - Very latest changes...
As most of you already know, the AM station freeze imposed by the FCC was recently lifted; now however, the commission announces these startling new changes: CLEAR CHANNEL stations have been granted the much sought after SUPER POWER, they a re now allowed to run 1 million watts during the day, and 250,000 watts at night! Most of the $1-A$ outlets we have contacted have said that construction of the new transmitters is already underway. REGIONAL CHANNEL stations not only will have power increases, but frequency changes as well. "We will try to squeeze as many new stations in the AM spectrum as we possibly can" says Commissioner H. T. Fell. The new regional channels are as follows: 548-557-566-575-58.1-593-602-611-$620-629-=-791-=-908-917-926-935-944-953-962-971-980-989---1151--1250-$ 1259-1268-1277-1286-1295-1304-1313-1322-1331-1349-1358-1367-1376-1385-1394-1412-1421-1430-1439-1448-1457-1466-1475-1484- Powers for regionals are now 75,000 watts day and 25,000 watts night. This is to take effect April 30, so your local on 1320, will now be 1322, so on and so forth. LOCAL STATIONS will remain on their respective freq., but will have new powers of 15,000 watt day and 5,000 watts night, non-directional of course. Commissioner Fell added at the end of our conversation, "Good DX. "

BIG GEORGEIN COMMAND...

A recent shake-up here at HQ has relieved GPN of his duties as Commander-in-Chief, and from now on $I$ will be taken care of club responsibilies. Things will go smoothly; YOU WILL ENJOY DX NEWS! BGK

Mon. March 26 W M OP 900 Ocala, Florida 5,000/1,000 D-1 12:01-12:30 IRCA Mon. Aprll 2 G O E 1590 Richmond, Birginia 5,000 D-1 12:30- 1:00 IRCA 2
2 FTi. April 6 WHI I 1570 Eny Springs, Min. $1,000 \mathrm{D}-1$ 1:30 $-3: 00$ N R C Sat. April 7 HPXC 1410 Prattiville, Ala. 5,000/2,000U-4 1:30 -3:00 IRCA
Mon. April 9 WK I K 1370 Leonardtom, Maryland 1,000 D-1 2:00 $-3: 30$ N R C A Monday scon TIJ C 675 San Jose, Costa Ricn 15,000 U-1 2:00 -5:00 N R C WCER 1390 Garlotte, Michigan 5,000 D-3 All Morning IRCA $\mathrm{kc} / \mathrm{s}$ power A.M., E.S.T. Info SPBCIALS

W J A B. This is a 5 kilowatter, non-directional, which'll be on testing at this time. They are a country music station, so watch for that, and for the usual cycle tones and maybe some Morse Code Ins. Reports, go to Mr. Fred Desjardins, WJAB, 841 Main Street, Westbrook, Maine, 04092 .
-Budd Bailey, IRCA
WRAN. This program mas scheduled over sdven months ago, but we atill do not know what aort of prograwaing they will use. Send reports to Mr. Don Martin, Director of Fagineering; Millbrook Avenue at Route 10 - Dover New Jersey, OT801.
-Gene Vonderembse, NNRC
WHII. We are not at all sure of this one, supposed to be an gRC Teat, which we received no word on - the date was confused, so this one is very much on the tentative side, but try anyuay.

WPXC. This is normaliy a country/vestern station., but Chatles L. Grider, of UIXC, mants to run a test with rock maic. He wants to test their day pattern, and will do so on elther Sat. April 7 or 14 , or poesibly both! A crowded dial spot, but give 'em a look-see. Address is Box 548 , Prattville, Alabama, 36067 . -Adolph Rattay, IRCA

WHOP and HGOB info received here too late. We again beg you to allow AT LEAST 8 UKRSS when writing for test dates! It takes mail a lot longer these days, so don't let these atations go on with testa about wich scarcely anybody mows in

- advance! It's mot fair to the station, the DXers, the NRC, the IRCA, or anybody. And it onn really aliemate a station against the $\operatorname{mK}$ World to get no reports! WMOP's address: Terry Reaves, C.E., Boa 1136, Ocala, Fla. 32670. Mady Minnehan. WGOE's address: Ken Fourney, 104 West Franklin, Richmond, Virginis, 23220.

Brian Cartwight.

## "AN" SITLATICN

950 WICA 2 Himtington, W. VA. NSPT on MMs, rr
HEARD SINCE LAST ISSUE WKOA-1510
Boynton Besch, Florida

Dear Mr. Cooper:
an the statian 's Staticarery - whri-1600
(erstand your extreme annoyance about not heving March 8, 1973 had planned. I suppose moat of the fault is my orn. I was an vecation sil during that period and just returned last webs. Our chief engineer was involved in a set of very complicated procedurea involving the de-turing of 10 large high voltage towers that were interfering with our aigmal. I did not leave sufficient instructions for our maintemance engineer or for my becretary about the matter. "All I can do is apologize and assure you that ve did not mean to deliberately hurt your efforta.n -Sincerely, (signed) Mark Olds, Exec. V.P. \& G.M.

DAL DABESSTETN sends us the ligt of the 19 Ixers who reported to KTHO. They ranged froa Tulsa, Okla. to Bman River, Man. to lorth Dartwouth, Mess. Nobody to the Weat henrd them it seens, probably due to KING/XFPRS.

The Masings aection this session is very skimpy - but we primted everything received wich follow the rules for Musinga ellgibility. Won't you perri out there try to do better by us? The season is in the home atretch - how about it, lida?

Deadlines: Fridays of each week; DX phone: 201-838-5721 prepaid. Reproduction of items contained in ind without specific credit to National Radio Club and individual reporter strictiy pronibited. vocal segue. (Edwards, NJ)
MEXICO. XeFI Chihuahua, Chth now w/R. Mexicana slogan, 3/12 0720 , XEFI call, power as $5 \mathrm{kw}(20$ times more than nominal night power of 250 w ), CST TC, "música ranchera".(Hauser,TX) DOMINICA. R. Dominica, Roseau is definitely here. Logged for first time on $3 / 12,0205$ to $0231: 30 \mathrm{~s} / \mathrm{off}$. Program of easylistening music wi th few announcements at 0227, power is definitely 10 kw . per announcement and is on from 1000 to 0230 with some breaks in the afternoon. Good carrier but modulation is a bit weak. Apparently all the former WIE stations now carry separate programming. (Merriman, Va.) COLO:BIA. HJJX, Bogota $3 / 120726$ with doorbell chimes, "Desde Radiocentro TODFLAR en Bogotí, les habla Emisoras Monserrate". No strain w/WSM off. (Hauser, Texas)
675 NICARAGUA. YND, Union Radio Managua in excellent level 0910 0920 2/26 with lively spots, charros, etc. Very faint 400 Hz . or so het - same as hrd evenings but much weaker. IND was a good 57 or S8. (Foxworth, NY) (Welcome back, Bobl) MEXICC. XELG Leon, Gto., $3 / 120649$ hrd without even trying while tuning across local KKYX, "La Fabulosa LG" wile EKYXer paused for breath. (hauser, Texas)
COSTA RICA. TIHB San Jose 3/12 0729, $1: 32$ TC "Estas son las emisoras Radio Reloy de Costa Rica", SAH of some 100/min w/looped Whw. (Hauser, Texas)
unID. 3/7 0756 in SS. IDs as "Radiorama" or similar. No WOR pest. (Frcho, Ohio) (XEMP more than likely, as they use this slogan. Ed.)
GUYANA. BRG Georgetown topped channel briefly 0119-0123 3/11 during Boston SLT - talk by the woman mayor of Georgetown, after which man IDed st ation as "Radio Demarara, the happy sound". Good tape. (Moore, Mass) (Welcome back, kay! Ed.) VENEZUELA. VYQQ Puerto la Cruz on top of channel during most of Boston SLT - IDed as "Radio Puerto la Cruz" at 0120 3/11. (Moore, Mass)
unID. FF with American pop tunes MM 3/12, ID by woman, man in FF. Then Bert Kaemphert tune $0543-0548$ fade-out. Andorra? (Edwards NJ)(Wi thout a doubt. Ed.)
(Edwards
GILBERT
EJLICE. VSZ, Tarawa, weak carrier noted $3 / 120736$. (Hanser, Texas) GUATEMALA. TGXR. Ciro's still putting out on 1700, noted $3 / 130645$. (Hauser, Texas)
BRAZLA. ZYD6 8 Rio. R. Mundial in wh excelient signal on 3/5, 0640-to after 0700. So strong I at first thought it was a testing domestic. Plays US pop music, ID every 2 or 3 records as "Mundial". Brief EE announcement at 0700, "Welcome to Rio, Wonderful Cityo" (Merriman, Va.l
CUBA. R. Enciclopedia ID, $2: 38 \mathrm{TC} 3 / 120738$, light mx; very pleasant listening. (Hauser, Texas)
VENEZUELA. YVRQ R. Aeropuer to Maiquetía, still presumed to be the AN on 1820 with soft mx, YL anmt $06593 / 13$, also $3 / 12$ at 0711 and 1009 checks. (Hauser, Texas)
940 MEXICO. XEQ México, DF way atop $3 / 110615 \mathrm{w} / \mathrm{typical}$ SS mx 1030 MEXICO. XEQR México, DF in like a ton of bricks $3 / 50834$ MHXICO. XKQR Mexico, DF in like a ton of bricks
W/MOR SS mX. IDs as "R. Centro". (Frcho, Ohio)

HONDURAS. HRVA R. Tiempo, San Pedro Sula NEW harmonic on $21603 / 130420$, SS anmts, het, 0500 some QRM gone, IDs and TCs after every record, dance mx, 0537 2-min-fast TC,
unID. on 3450 , of wich this is the most lixely fundamental, $3 / 121035$ song so unding LA, 1037 anmt maybe mentioning Cadena Radial Paraiso(?), slightly off-freq carrier distorts; 1043 intermittent CW QRM. (Hauser, Texas) (Perhaps the unID Honduran, R. Paraiso? Ed.)
HONDURAS. HR??. Slogan of this one is definitely R. Paraiso, not Paradiso. Frequent mention of Honduras. Heard with poor to fair signal s on $3 / 90230$ to 0300. They had one recorded D that gave both power and call but unreadable due to WWVA splash and static. Ifirely location El Paralso on the Nicaraguan border. (Merr 1 man, $\nabla_{a}$ )
VENEZVELA. YVQV R.Acarigua 3/ 121016 o/others u/Avoo cafrier, 6-digit phone, ID, enthusiastic promo. (Hauser, TX) MEXICO. XEYV Huatusco, Ver:, NEW harmonic, quite well heard on $2360,3 / 131330$ local ad; dedications, 1335 devotional pEm from Mexico $7 \mathrm{DF} ; 1340$ ending, ad, more requests; 1400 slogan as "R. Amor" only ID, in passing, hrd twice, "editorial de hoy', fading out; never hrd on 1180. (Hauser, Tezas) unID. LA - SS stn noted 0204-0224 during Boston SLT; various stations reported here - which one is it?? 3/11. (Moore, Mass) (I believe CMJP is again heading up this way, as several yrs ago. What $s$ ay, RFST Ed.)
unID. $3 / 121020$ soft mx, 1022 SS anmt; to weak, too much het. (Hauser, Texas) (Dominican noted here nightly, Glenn. Ed.) ST. KITIS. Radio Paradise very strong $0945-1005$ 2/12 with religious $n x$, dedications and birthday greetings. Noticeable hum during portions of pgm , tho not present during songs. New country, (Bruce Portzer, Wash)(Welcome, Brucel Ed.) HONDURAS. HRH6 R. K1 Mundo again well heard on 2680 , after two weeks of debilitating atmospherics; $3 / 130602$ in its midnight news roundup. Much stronger than 1080/2160 was. (GH) VENEZUELA. Someone piayed an anthem 1005 2/3 (not Venez NA per my National Anthems album) tho gave apparent s/on beginning "Esta es Ondas del Mar...Venezuela.... $1380 \mathrm{kHz} .{ }^{\text {. " }}$ In fair-strong until 1050 fadeout w/Venezuelan mx (fasttempoed vocals $\mathrm{w} / \mathrm{harp}$ accompaniment) and EST +1 TCis. Anm of sorts 1032 mentioning Caracas. Anyone know call location? (Portzer, Wash)(YVJD, Puerto Cabello, 5 kw ., per location? (Portzer, Wash)(YVJD, Puerto Cabello, 5 kw , per CANTON ISLAND. AFRTS $3 / 120850$ EE anmt, peaks at 0905 , and $0928 \mathrm{w} / \mathrm{ID}$ in passing, best hrd Yet; $0935 \mathrm{f} / \mathrm{up} \mathrm{w} / \mathrm{pop} \mathrm{mx}$, but be still in 1000 s/onreadable, down in mud. At 1004 , seemed to e still in ilte mx, no SSB hrd. (Hauser, Texas) Referring to "Chers' ID as Twajalein was my error. I have yet to hear "Canton" mentioned, but am inclined to credit those who have, rather than those tho include "Eniwetok" in a direct quote or an announcement. (Hauser, Texas)
NBTHERLLANDS ANIILLES (SABA). PJS1? Voice of Saba believed to be the one here on $3 / 12,0145$ to s/off at 0201. Played US pop standards brief announcement by a female in what I think was BE just befor e s/off. Very poor and splash from $1430 / 1440$ didn't help. (Merriman, $V a$ ) (Believe call is PJP1, Al. CoLorsiA. Hs EK. Radio Reloj de Tulua, still doing well on 2880 AN, $3 / 120709 \mathrm{w} / \mathrm{ID}$ and TC; also $3 / 13$. (Hauser, Texas) MSXICO. XERH, MÁdico DF NEW as harmonic on $30003 / 130620$ Whsual "R-H, R-H, Radio Tricolor" jingle, member of R. Distrito Federal group. Also audible on 1500 , where dominant.
(Hauser, Texas)

PUERTO RICO. WKFE, Yauco noted in at S6 level atop channel 0914 2/26. Faint trace of audio behind and slight SAH. Had assumed this was WCNA but now in latest DXWN is a report that XEBG $s / 0 f f$ at 0800 M and channel then is clear. Also a report that $4 Q D$ was logged on WCNA and Hawail $2 / 26$. WTFE still in 0953 under CBE OC. All this $2 / 26$ - the last MM to still in 0953 under CBE OC. All this $2 / 26$ - N ) date I have been up this late. (Foxworth, NY) COLOMBIA. HAX, Su Voz Portena, on $3 / 4$ to sign off at 0630 . HJAX is still correct call per s/off announcement, not HJCB as listed in WRTH. (Merriman, Va)

## Thanks to these reporters:

Matt Edwards, Rocikaway, NJ Bob Foxworth, New York
(2) Aichard Frcho, Cleveland, Ohio Glenn Hauser, Von Ormy, Texas
(3) HP180A; SMP: 100 W/NRC $4^{\prime \prime}$ I00p
(18) HQ160 560 ' $100^{\prime} \mathrm{LW} \mathrm{EN}$ Alan Merriman, Fairfax, Va. (5) 2-HQ180̊'s, sMP, NRC Ray Moore, Walpole, Mass
( Ray Moore, Walpole, Mass 40" loop with DIGFET preamp; 250' LW Bruce Portzer, Seattle, Wash. (2) WC120, 41 DCL

Verifications --
527 SWITZERLAND. Beromunster sent nice card in 4 months for taped report. This is a printed card for the two Beromunster MW stns. In GG. All details but gives frequency as 529 , no signer. Address is Radio DRS, Abteilung Technik, Schwartztorstrasse 21, 3000 Bern. (Merriman, Va)
HATMI. Cap Haitien sent $\nabla / q$ and i1terature for $12 / 27 / 71$ DX Special. 13 months after original report, 9 month after f/up/BP COLOMBIA. R. Tequendama, Bogota sent $V / 1$ in 3 weeks. Usual $\mathrm{V} / \mathrm{s}$. Mentions power is 30 kw . (Poertzer, Wash)
ARGENTINA. R. del Plata, LSiO, Buenos Aires sent nice letter in $2 t$ weeks for tapted report. Signer is Guillermo L. Perrone, Director. He says he envies my system for medium wave reception. A potential DXer? (Merriman, $V a$ )
DOMINICAN REPUBLIC. HIJC R. Maiba, Santiago sent good letter in 5 weeks for taped report. Signer was Julio Caballero, Administrador-Propietario. Very colorful and attractive letterhead. (Merriman, Va.)

## 'HIJACK' OF RADIO STATION THW ARTED BY SWITCH OFF

SACRAMENTO, Calif. (AP) - A Sacramento radio atation swiched off its transmitter yester day to prevent would be airwave hijacker from mating a apeech whil molding the dise jockey at gunpoint.

Hobert Williams, dise jockey at KZA,P told newsmen
 Station soarces said the man succeeded in pating a for words out on the air betfre someone - spp engineer at the transmitter - switched of thi wid.
were called, but the man left before they anriveci. The gumman was identlied as a sponsar angry aboct: bill for a spot advertisement, a station source sald

Hello again, es HOA used to (maybe he still does) say. A small column this time, June, because both the wx and the cx heve been June-ish $W x$ in 60 is, cx touard Neu England, and GYs dominated by semi-locals again. On weil.....

## Call Thalicalions

| 1220 | CP $-O K$ | (Midwest City) req. KRMC |
| :--- | :--- | :--- |
|  | WSAF-FL | req. WQSA |
| 1320 | WJAS-PA | req. WKPQ |
| 1440 | KILO-ND | req. KRXL |
| 1560 | WTPS-NI | req. WBUK |

## Changes

CJRN-ON SP is Sun. AM, but mot sure of time (WB)
KQRK-NV ex-KIXQ (Las Vegas)
CP -PA (Lebanon) - DELETE
WSUM-OH Is tuning directional array, methiniks. Starr \& I both note a veak $O$ there afternoons in WCFL that wasn't there 3 wks ago, (WB) *** A note from Joe Brauner confirms that all four of their towers are up and that tests were imminent as of 1 st
WQWX-NC New call (Mebane CP)
KSDO-CA As of $3 / 5$ this one is AN-6 w/ talk format. Probably this coFCC ides w/the lang-awaited pwr incresse. (FJP)
----FL FCC has proposed initial decision for grant of permit for Pine Eastle-Sky Leke, Fl. (wherever that is, hi) for 250 w. non-DA day. My atlas doesn't show the place, but w/WAVS on the channel, Northern Fla. is a good guess.
WBBW-OH On late $3 / 3 \mathrm{w} / \mathrm{Cleve}$. BKB. If WWWE on $w / \mathrm{BKB}$, this will be.
WEIC-IL Sked is now 0600-0100 per letter. Is on extended program test permit panding linal approval of new nite pattern, when will go back to 24 hrs. (WB)

* 1320 WJAS-PA Is now ID'ing (except on hour) as "13-Q" which has apparently to do w/their new call request (see aboverije). Is RS to 0300 MMs, guess on 0530. (WB) Same info on Ds. If format \& IDs are indicative, all other stations $w /$ this sort of thing $w /$ "Q" IDs are NSP, and runor is this will be too... (dm)
1330 WGHT -NY ex-WFSR
+1390 WFMI-OH Sat, Sun extends RS to $0200 \mathrm{w} / \mathrm{s} /$ off SSB. $\alpha$ to 0230 ish (WB)
+1530 WQLW-IL new call (Flors CP)
1600 CFRS-ON CP: 20000 U4, po: 1560. (Guess next we'll see a few apps, for 1560...-RJE Other appls. for $1590 \& 1600$ all denied.

MARCH: 1 st TU: WIOS-1480 (JMP); 2nd MM: WNYR-680 (JMP); 1st FM: KFVS-960 (WB) 1st MM: KNOX-1310 (WB); $1 \frac{\text { st }}{} \mathrm{S}_{\mathrm{a}}$ : WSHN-1550 (WB)

CHANCES: WYDE-850 hrd w/ annc'ed f/c 3/3 0149-0200 (1st SA) (WB)
WLSV-790 Per call sez that next \& all subsequent $f / c s$ would be the Mr nearest the 15 th of manth, from 0010-0020. (dm)
WIQT-1000 Per Eng. WLSV, this one will have r/e right after (dm)

## sunsel 1 Evenint

 0400-30 3/12 (JMP)(4) S/an 0403 w/ID into TT on TEST. Wk thru WPEN $\propto$ (ID'ed 0400) but surprisingly clear. Another ID c 0410 . KJRG test earlier not hrd due to WKAZ, but w/WPEN an couldn't tell if WSAZ was still on or not. (rŔs)
UPEN-PA 3/12 MM SP annc/d 0103-0500 (TRS)

F Frd unIn $\alpha$ here $3 / 120050$, presume WaTS (dm) *** Is typicel of their behaviour hrd here many times. Mostly $\propto$, usually one ID. -RjE
WELI-CT Is this on Sun AMs?? Noted a few wks ago, but not last 3 Suns Only CFAC-CHNS-2FB (in WERC/WFIR SPs) $0430-0515$ or so (WB)
***NRK,WPHB or WCHV quite possible -RjE ane. (WB) *** WHEN HRD ??? -RjE
WKCY-VA ET W/T7, EfN 0025-40+ 3/9 (WB)

1560 WGLB-WI On ET w/ Mitch Miller stuff (Yecch) 3/2 0112-0120 (WB)
WKCG-GA $3 / 11 \mathrm{~s} /$ on $0615 \mathrm{w} / \mathrm{SSB}$ then wx . Think this was the 0 C-TT noted 0600 on as no change in s-meter at $s / o n$ (TRS) WTRQ-NC $3 / 11$ s/on 0630 just ahead of WQXR $\propto 0631$, poor sig compared to that which earned this "pest" status last Spring. (TRS) WDXR-KY Atop much QRN $3 / 110139 \mathrm{w} / \mathrm{rr}$ ( RF )

## EPCRTEAS 1

Richard Frcho - (RF) - Cleveland, Ohio (9) w/ HQ-180A, SM-2, $100^{\circ} \mathrm{LW}$ (e-w) Thomas R. Sundstrom - (TRS) - Willingboro, N.J. (10) w/ HQ-150 \& SM-2 or DX-150A Nes Boyd - (WB) - Youngstown, Ohio (23) w/ HQ-180A \& 3' loop. (( ( w/LW.
Jim Poterbe - (JMP) - Yardley, Pa. (5) W/ HQ-200 \& SM-1
Dan Myers - (dm) - Toledo, Ohio (11) w/ HQ-180A \& 3' loop.
Father Jack Pejza - (FJP) - San Diego, CA. (1)
This week's insipidity award goes to anyone re-printing info from DXN w/out proper credit. I know who it is, and so does he, so hopefully.....

REPRINIING OR OTHEFWISE COPYING THE MATERIAL CONTAINED IN DDXD WITHOUT PROPER CREDIT TO ORIGINATING INDIVIDUAL AND TO DDXD \& NRC IS STRICTLY PROHIBITED. ITEMS CREDITED TO OTHER CLUBS MAY NOT BE USED UNDER ANY CIRCUNSTANCES!!!!

Who will be this year's Domectic DXer of the Year ??? The Winner will be announzed at the Boston Tea Party over Labor Day weekend, only a bit shy of the 200 th anniversary of the First Boston Tea Party. The leaders are still nip \& tuck l!

$$
73 \pi \text {, de } \mathrm{ajF}_{\mathrm{I}} \mathrm{By}
$$

## Ney Techninure in Congmumige

The undeveloped Narth including the $Y$ uhon The undeveloped North, including the Yuko
encompasses one-third of Canada. Harsh climate and lack of arable soil bar
Thidespread sertlement Tmall. predominantly Eskimo town of Rankin Inlet in the Northwest Territories, on the western shore of Hudson Bay was
chosen by Bell Northern Research together
 in Th Garating incodcansy Copurnion Rankin Inlet. beca
pankin inlet. because of its lack of news-
papers, radio or television was chosen for papers. radio or television was chosen for
this experiment. The system called Commu-
nity Interaction Tel nity Interaction Telephone (Comminter-
phone) combines the availability of phone) combines the availability of
residential telephone sets with the coverag capability of radio. By use of a low-power
system. anyone with a telephone can have
access to the airwaves by dialing a certain
number. Four incoming calls can be murbedcast simultaneously.
The Comminterphone can be used for
special amnouncements, news bullet seather warnings and so forth. One can se how this system will come in handy in this isolated area. Experimental use of this new November 1971 and will continue until November of this year


## hopefully this will answer some of the questions from onmers of the n.r.c.

 Night Pattern book. The patierns shown are the measured patierns, however these are measured at ground level (zero degrees). They make no attempt to show any skymave radiation that may exist. In reality the F.C.C. doesn't aeknowleoge such radiation at angles much above 50 degrees.Figure \# 1 is information available in the fCC's Rules and regulations. It indicates vertical radiation at different antenna heights for 1,000 watts hon directional on the left hand side. The right hand side shows everything scaled to $100 \mathrm{mv} / \mathrm{m}$ however we won't be using this section.

With the left hano section we can read the fielo in mv/a at one mile. it can ge noted that shorter tohers have huch more skyhave radiation than taller ones. In most cases the possible use of such towers is offset by the inereased COST FOR THEM.

The bottom line indicates the field, and we can see a $\frac{1}{4}$ mavelegnth tower develops 180 my/m at one mile. This can be increased to $200 \mathrm{mv} / \mathrm{m}$ by going to a tower 0.311 wavelegnth but both are very similar. If height were increased to 0.5 wavelegnth the fielo increases to $230 \mathrm{mv} / \mathrm{m}$, with reduced skrwave. a further increase to 0.625 mavelegmth increases to 280 mv/ $M$ with even less skyhave signal.

He collo reach similar fielos with a 0.25 havelegnth toner but the power REQUIRED ISN' LICENSED BY THE F.C.C. TO REACH 230 MV/M WE WOULD NEED ABOUT 1,500 watts and for $280 \mathrm{mv} / \mathrm{m}$ he need about 2,000 watts.

Increasing height huch beyond o. 5 havelegnth does inerease the field at one mile but also develops a secondary lobe. This can be seen in figure \#1 at an angle of about 60 degrees and a field of about 80 mv/m. In mast cases this is outsioe of most stations coverage when it returns to earth. Hovever koka 1020 Pitisburgh, penna. uses such a tower and has problems. Our secondart lobe RETURHS and causes interferance hith normal grounduave signal. This creates a, hole with severe fading from about 45 to about 70 miles from the transmitier.

FIGURE \#2 Shows oifferent tower height reouired by the f.C.C. For the DIFFERENT CLASSES OF STATIONS. WE CAM ALSO ESTIMATE YHAT THE TONER HE IGHT SHOULD ae at $0.25,0.580 .625$ havelegnth at different frequencies. It should be noted that the tallest tohers are required for clear channel class 1 stations however they also are to serve the largest areas.

A class 1 station operating on 600 Khz (if the fCC would allow it) would have a toner height of about 550 fit. UnLess limited to 500 fr. by the fab. In reality most stations stat closer to o. 25 havelegnth toners hhich woulo be closer to 400 ft. tall. Glass 11 and 111 stations on this frequency could use towers of about 300 ft. In these cases the height is less than 0.25 waveLEGTTM AND THE SKYWave is incrensed.

Some stations on upper frequencies do use tall towers for the increased coverage. Many of these can of spotted in the nor.C. Night pattern book by the increased coverage of stations of similar power. Some will not be very obvious due to poor conductivity around the transhitter keeping the field at one mile REDUCED FROM WHAT TI MIGHT REACH.
the fielo doun it's night transhitter site on an old strip mine. This will KeEp the field down from what it might achieve at a better site. However it

Compare the pattepus on 1410 Hz ,
000 watts full time and the patterns of the examples are very simiap hing and hpop shou the partan station is using tai examples are very similar. wing excellent site. The same is true haen you compare kov/woov but the pittsburgh station uses towers of over 0.5 wavelegnth for the adoitional coverage.

## 14





5:34pm at flne level w/ID \& Pro-Bowl coverage for a new tape. Tenn. 5:43pm s/off w/Dixie before \& after s/off annoumcement. I/ heve veritil from their 1958 DX TEST, but I needed tape. USAC-1470 Ky. $5: 45 \mathrm{pm}$ very weakly w/ s/off; promo for 105.5 FM \& mentioned 500w PSA. $1 / 27-\mathrm{WMW}-1520 \mathrm{Fla}$. 5:45pm a/ off $U / F M$ peomo. I beli ve they used SSB, but sigmal very weak \& I couldn't be sure; WKBU misaing. Whig-1530 Fla. 5:59pm s/off-8SB; WCXY gone completely. WEac was fit fair level, but fady. $1 / 28$ - WNTT-1520 Ga. $5: 420 \mathrm{~mm}$ surfacing brieply o/wKB during s/off, but not enough for a tape. 2/19- WNWI-1080 2:03-2:30am w/TBST; very rough copy $W / Q R M$ om WIIC/WKLO, but code IDa \& march mix punched through vell enough for report. Fine $v / 1$ back in short order. Apparently they didn't receive very wany reports. XGMO-060 T1juana, $3: 13-3: 25 \mathrm{am}$ w/US rr format in RE, normally dominant KONO not noted. RAK2-1502 R. Popular, Sevilia noted at s/on 1:01am $\mathrm{w} /$ program aked by gal \& ID by man; dominant w/others in background. WBRW-1170 $\mathrm{N} . \mathrm{J}$. $5: 30 \mathrm{pm}$ g/opf - norma 1 WHIN missing. 2/20- WRMM-840 Conn. $5: 25-5: 30 \mathrm{w} / \mathrm{MOR}$ to e/, off; slogan is "Fhyme $\mathrm{F}_{\mathrm{B}}$ dio". WIGAS nulled \& WVPO not noted. WWST-960 0. 6pm s/ off \& FM promo; even with WFTC. $2 / 22-$ WFIC-1530 Va. $5: 59-\mathrm{m}$ domimant at oforr w/ WCXY Aurorally blanketed. WASC-1530 S.C. 6:12-6:14 c/w to s/off-ssB. $2 / 26-\mathrm{A}$ rottem M - waAR noted on 1481. 5a around 12:57am; jumped back to 1480 shortly after. 3/5-PRA3-2YD68 (au choix) -860 incredibly dominnt 12: 25-lam w/varied mx including NA cuts and Portuguese annoumcements by man u/GR -3 TCs \& Mundial slogan; wich call is correct? 3/7- WZIP-1050 0. 6:45pm amid jumble w/s/orf; whin gone. KMIS-1050 6:53-6:59pa a real surprise w/ux, PSA \& a/off for very ciar tape; usea SSB \& Clear Channel 1050 slogan. 73.
KEs Orycauk - 12934 Page C. 72 - Blue Island, Illinois - 60406
Hi all again. Fothing much to report but I guess a mall Musing is better than no Masing, en alli $2 / 28$ isaue got here $3 / 5$ co unfortumately missed the $2 / 3$ 以rio-TEsT was in neither the $2 / 14$ nor $2 / 21$ issue. And aince I was up past 12 gat. AM, it would have given ne something to try for. Ch well. I tried the 3/5 WACX-TEST 12:01-12: 15 but got nothing but regular siop \& no IDs Sorry but me eyes can't get me to stay asake past zam weekends \& lam reekdays aince 1 work day ndw. knough for that. 2 reading quite a bit about Musing around 900 z . I can't help but feel lucky for mers away from Chicago that they can puil in signa ls without the heavy alcp that WIS -890 gives out. Same w/WCFI Musing between $1440 \& 1500$ is also a pain. 1450 and 1470 WOPA \& KiPP both being Soul stations really splatter. WOPA- 1490 (as explained in W. B. 's article in $2 / 28$ issue) is hard enough to null but I can do it. I have never nulled WOPA or wPP. (Huh? -ERC) My award to the station with the best daytime signal froa here is WT-600 Cedar Papids, 200 miles $W$ - it's a lmost impossible to wipe out, but they have a pleasant Mor format which I enjoy much. A pleasure to read Jeff Konnett's
 (I have WBAA or KARN) WFLI-1070. I vill close for now. I sent out about 15 letters for $B B$ networks corrections in $2 / 20 \& 3 / 1$ snc sm witing for results. after wards considering results $I$ will send out more. 73 for now.

STAN MORSS - Route 3 - Bradford, Nassachuset ts - 01830
3/2- WSUB-980 oted o/WTRY at s/off 6pm \& HE30-970 o/wCaH a 6;00t s/ fif, so over to 14, to look for WSVP - but only an FFC \& WKKD. Seema to be a hum ike carrier on 45 k evenings lately - veak voice $\&$ wx just abdurt at noise level. 3/5- For at least a new report I got R. Cordillera-1190 - very good today. 860 Mystery" still a mystery - I put in 30 minutes an OC/TT but no IDs heard. I had CST RS in backrround. If ERS's R. Nordsee has a listi better awitch! Make it Dr Pepper. (I don't get it, honest! -ERC) V/1 from WhGo WHO SAID a/as test was Pop understand the NRC Convention site comandtee is considering the Hejpole-Sheratom as posaible spot for Convention - the Spm snack cart to each room, the new the congenial (an if Com. Boone gives his ax, we ar nel. KXJK-950 Forest City Ark. TEST in ensily w/qFM by WKAZ/WTOF 4:014:30, TT \& DR. WDCR-1 GNC-1190 St ephenville Nfld. evidently the CBC Nfid. here © 4:35am. Weak U.S. c/w inatzumentals on 1550 e 4:Ham, no ID. I'm bappily surprised to geta v/1 from ara who I evidently did hear in spite of WHL - I didn't enclose postage on (Were you THERE, Stan - so postage to Bob Curole for his courteous response.

LAUHEAD - 591 W. Co. Road B - St. Prul, Minnesota - 55113
February saw the most new loggings here since January 1972, w/ 31 added to the 10g. Some recent DX: MM 2/26 I got a beautiful one-hour tape of R. Paradise beginaing © $4: 13$, ce report sent. They have been heard the las three M/s, but not with the fantastic signal of $2 / 26$. The only Special heard $2 / 26$ was KLEB -1600 Is. With much QRM from KIAII \& others. Other recent loggings include: 2/13-WIOU-1350 Ind. © 1:50am. 2/14-WSIV-1140 I11. poor © 5:59am. $2 /$ 16 - WAAC-1300 Ond. f/c © 2:33. 2/17-WAAM-1600 Mivh. falr © 1:13am, KSKY-660 Tex. good e $7: 15 \mathrm{~s} / \mathrm{off}$. Four new ones y $2 / 19$ in KUPD -1060 Ariz . © 1:0 4 , WNUI 1080 Ind. Specis 1 heard well here © 2:03; ID only from WGBS -710 Fla. heard ove mess e 2:50. This is only \#te from Fls. Also uKIX - 850 N.C. f/c heard well ea $4: 38$, N.C. 部. $2 / 20=$ WCON-1290 Wis. finally heard e Bam FS SRS. 2/21- HI program on $1110 \mathrm{u} / \mathrm{KPAB} O C$ © $1: 51$, WBT assumed, N.C. \#2; WPOK-10803 and WPEO-1020, I11. both heard on SES. $2 / 26-$ KLLBB-1600 TEST fair © $3: 28$, and $3 / 5$, CJKL-560 weak @ $11: 39$ pm . Who is R. Mexicana on 580 ? Never gives ID other than that. Is this XEFI as noted in IDXD in DX NEWS \#17? I heve heard him several times a round 3:30am. Iocal KPSI-950 seems to have changed format from Request Padio to $\mathrm{c} / \mathrm{w}$. They are the only AN c/w station in the Twin cities so I guess I can put up with thast, hi $\mathrm{V} /$ is in from KAKB KBMM KIMX KTGO, \& $\mathrm{V} / \mathrm{g}$ from CWHA. Very nice $\mathrm{v} / 2$ and other info from HERC-DX. I have received many tips and useful info from carl Dabelstein from our weekly chat vis ham radio. How about some more of you hams joining us? Hrite! Finally, welcome to new member Bill Jeanings of Minneapolis. Nice to see more members from the Midwest. 73.

JIM POTERBA - 949 queens Dfive - Yardley, Pennsylvania - 1906 t
Howdy, folks. DX has taken a swing downard in the past two weeks, not too much interesting material noted. Here's what we ve had: 2/26 AM: KSYL 970 TEST teatative $r / c$, tentative report conflimed. $3: 30$, KLBB- 1600 on NRC TESI atop! NKAN when they stated 3:25! WKEN is 70 miles from here; KLies 1,200. HHON \& WCPK TESTs 1600 both On. $4: 30$, HOS22-650 noted atop our friend KJJX w/ talk progrem. $2 / 26$ - WKRE- $-0005: 45 \mathrm{pm}$. $10: 37 \mathrm{pm}$ I had WNOE -1060 very stroag $u / K Y W$ 10cal G/GFP nulled. 3/3-WDOC-1310 atop semi-10Cal WCAM w/r/C-1T 4:50am. WFI $\sim$ 1530 s/off 6:300m. $3 / 4-$ CHRS-1090 beneath WBAL E 6:35am; WILD-1090 mixing w/CHPS e 6:36; WUFO-1080 6:56am; WGRT-930 7:05. A1s0 WTRI-1560 s/an 6:15am in clear
 $3 / 5$ AM: KrsA-950 tentative on $r / \mathrm{c}$ e IUPK, as noted 1050 en KUPK-1050 another tentaitve $\mathrm{r} / \mathrm{c}$ 2:15. KrJZ-1270 very strong bencath unid caat uous mx (CJCB, ERCR) \& Cubsan nulled. (CJCB is c/w, Jim -ERC) Finaliy, WIMG1410 atop there a 11 morning. $3 / 6-\operatorname{mos}-1480$ on $r / c$ 12:30am. (No sign of him bere, s/an, etc. 6:05am. WGRY TEST a 1so Tun on 3/3, as planned. (NO siga of him here, JIm - ERC) On to veries: LPIK WROI WHUN KEHK WNNR WKI KSYL WAXC WAK WKVA WAOF. interesting article on Frensel diffraction, GPN! It should be quite clear by now that I have little to say, to 73 s to all.
no muit - Box 508 - Everett, Washington - 98201
Week /8 in ' 73 netted two new loggings: 2/19-KDUN-1470 Ore. s/an 9:04am. 2/21-KMCN-1380 da 1. AN w/c/w, ID © 4:55am for 10 g \#30 thereon. Week \# a big blank, so ay skein of at least one new logging per week in '73 ends at 8 ." die lone verie in, WJCD-1390, a nice one as at PSA, 500w. A pleasure to hear 4 QR NX ID over $4 \mathrm{FK}-840$ e $8: 10 \mathrm{am} 3 / 4$, then $12 \mathrm{~m}-1000$ much of the morning $3 / 5$, unn, but interesting! If my WRCB-1385 indeed turns out to be Canton Is. rather than Biinteresting. If not quite as good a catch, but still most distant 250 w by a hair-we'll see!

RICH SRGALAS - 221 Bocana Street - San Francisco, Caliiornia - 94110
Greetings. I haven't Mused in quite a while, therefore a re-into is in order. I sal 20 \& a Jumior in Accounting at the $U$. of San Francisco. I haven't done auch pring since Caristmas vacation due to achool. Verles that have haven't done auch pring since Carlstmas vacation due to school. Veries that ha come since then include KIAY-1580 KOGO-600 KMAR-620 WIS-890 KHJ-930 KIKA-1020 \&
WHO-1040, a 11 logged in December. I now have 18 ststea heard, i4 verified, three provinces heard, one verifled, and two foreign countries heaid and verifled. ERC, I will try and Muse more often now. 73.


ESS BOYD - WHOT a 4ul North Blaine Avenue - Youngstom, Chio = 4450 haven't heard much of anything \& Jim's hearing sll the goodies. Beginners luck right, ERC? (No, Wes - he's an avid reader of MUSINGS, hil -RRC) or maybe Janes Schaidt have gone deaf on us. WPFB-910 0. should be kinda casy for mapy of you now during your 910 pest SPB . He is on SM \& MM if not NSP, w/much EZ listening instrumentala \& long IDs and jingle about four minutes a fter the hour. Good/fair in both KGIC \& USBA SPs. UMCY-1RTO KY wa the OC/ET/TT \& instrumental thing 8 1:40-3 on $3 / 12$ - announced PoP. HJAS-1320 Pa. now is " $13-Q^{m}$ but still is HJAS in legs 1 IDs. I guess they decided to start the slogans before the UPIQ call is legs 1 IDs. I guess they decided to start the slogens before the WPIQ call is granted. They still are off Mi 3 but is not NBC , $\&$ has gone Top-40. I noted MYND 1280 for me. Unique skip on $3 / 9$ for 30 minutes ( $12: 05-12: 25 \mathrm{pm}$ ) ( 20 sinute ? F ( S-8 dind ent dis = ent. Great from $N \mathrm{~F}$ - skip continued that eve - I had over 30 rinutes fair to good copy of WICY-1490 N.Y. W/Boston-ImA. EKB On Martual net till $1: 058$ / off. WBIE $3 / 5 \& 3 / 12$ so $3 / 5$ \& $3 / 12$ so add another to the group there. I don't know $S P$ if one exists.
 up Yo 10 kW . WBRN -1600 Gm . having trouble w/night CP. Big stink is being raised列 onth s dely. when ave ben 100 . 1420 Mes . still in Mis there
 unique on 600 as castro-wide HCAO Dot audible. daly WPDQ $12: 50=1: 05$. anetro seens to be back on AN-600 again. I had a super-sser 3/22 AM but I didn ${ }^{1} t$ stick to check it out. Good Dring, if any still exists.

RICBARD FRCHO - 2992 Esest 114 Street - Cleveland, Chio - 44104
Not much to report this week due to plain laziness on my part. 3/6- WACY-790 © 2:2bam w/rr, no WIAR; WONH-1280 © 6:24pm w/c/w - this one vas last heard in 1965. WILS-1320 6:40pm, ID heard somewhere among the QRM. This same day, $3 / 6$, netted me four new catches in a row SSS, three or the on the same 1560 ency. They are: WRDN-1560 Ind. © 6:50pm w/grest signa 1 , s/off 6 6:59; wicm 1560 Tenn. © 7pm s/off w/no SSB; KIUI-1560 Mo. © 7:04 w/WX, c/w; KTGR-1580 Mo. © 7:15pm s/off, good for 250 w . 3/7-UnID-710 2:56am w/SS, ID as "R. Rase or aine ilar, no WOR; WIS-560 8 7:54pw w/great signal. 3/11- Zra-940 3 1: 15aw, s/offe 1:18; WDER-1560 1839 mm w/rr in much Pres. Thatzit for now, Hata Adal (as they say in Guam). ERC, I mailed this on $3 / 13$, when did you get iti I'm trying to coordinate nailins so my Musings will arrive A.S.A.P. for DE NESS. (ASAP13 Your Musing arrived here on Deadline Day, Thursday, $3 / 15$ - ERC
HANK WILKINSON - 6620 Beemen Avenue - North Hollywood, Callfornia - 91606
I dan't get may opportunities to DA any more due to pressures at work. However, I got a reek's vacation and cluldn't resist trying for the sta tion in the Marshail Is lands on the morning of 3/12. I tuned in e 3s49an EST And there he was L\&C. I held an until $3: 35$. He gave three time checks and three ID Report is in the ail. I tried for the R. Paradise" station on 1265 but locs 1 tations on 1200 \& $1270 k$ did not go off M - I will try agein. The $\mathrm{H}_{\mathrm{g}}-180$ and the sanserino loop with amplifier make a wonderful twosome for pling on split fre quenclea. I have leas than three years to go before retircment. I will probably leave Southern calirornia. I hope to get back to some serious Dxing again. I ure 188 2t. N regards to all those who work so hard to put out the NRC Bulletin week after week. 73s. (Thank you, Hank - good to hear irom you! -mac)

Oh yeah, APRIL FOOL! Please ignore almost everything on the cover BGK

