



DX News



OFFICIAL PUBLICATION OF THE
NATIONAL RADIO CLUB
P. O. BOX 99
CAMBRIDGE, MASS. 02142

VOLUME 38

OCTOBER 31, 1970

NUMBER 4

"Congrats on NRC Log - Beautiful!!!"

(Karl Schulte, Md.)

IN THIS ISSUE...



PATTERNS, Part I - Paul Hart
DX'ing the Bottom of the Band - Clarence Freeman
All Cubans off the Air! - IDXD



PRINTING...

The printer continues to experiment with various types of plate makers so it may be a few issues before we settle down to consistent contrast again. Foxy's new IBM typewriter should effectively eliminate breakup in that section... Last week's issue delayed because of Columbus Day...

NRC LOGS...

The delivery problem with some NRC Logs has been pretty well pinned down - one batch of a couple dozen somehow got shunted aside and separated from the rest at mailing; the last copies appear to be straggling in now and we've also sent out a number of duplicate copies to those who've reported the slowest delivery. **Contact HQ if your Log still hasn't come through;** we have set aside enough extras so that no member who ordered one will be denied a copy because of mail problems!

THE YOUNGSTOWN GROUP EXPANDS...

Dave Schmidt joins the engineering staff of WHOT as AN audio engineer at the end of November, writes Jerry Starr. **This gives WHOT a record of three active members at one station - and six NRC'ers within a five mile circle!** Will Youngstown replace Boston...? (Starr)

*GPN

MUSINGS of the Members

Ernest R. Cooper
438 East 21st Brooklyn, NY 11226

GEORGE B. SHEPHERD - 104 Pinewood Circle - Rosemount, Minnesota - 55068

I was at the NRC N.J. Convention I it was fun to meet so many of you. Of anybody ever goes through the Twin Cities be sure to stop by. I can give directions by letter or phone. I will not accept collect calls, but if any of you rich people should want to call me, phone is 612-432-7975. Call 5-10pm or noon-10pm Sat. & Sun. CMT. DX! 8/10- WCCN-1370 good w/rr @ 8:15pm, ETC. 8/11- KCHR-1350 f/c ID @ 1:45. 8/12- WROC-1490 w/WX @ 3:50; KCHF-1520 @ 8:45pm. 8/13- WPIV-1360 f/c good w/MSAI/KRYS @ 3:43; WCKV-900 f/c good w/ CHML @ 3:35. 8/13- CHEF-540 Oct. was IAC w/no QRM @ 10:45pm, normally I get CHK w/KEMA. If any of you needs Wyo., try KYRS-1350 f/c on Sat Fri. 2-2:10, heard 8/14, Wyo. #3. MM 8/17 was very poor. Aurora wiped out the whole dial almost. I got KNUC-1340 w/ID @ 1:18, then lost to unID RCN Mexican. KXHL-1010 very good w/no QRM @ 2:55. 8/18- KROC-1490 made it finally w/ID on r/c @ 1:30. 8/19 brought f/c of KULR-1420 @ 2:45 w/good signal w/CHK & WPIX-1490 ID @ 4:02, then too weak to report. MM 8/24- WTTI-1530 good on ET/rr @ 1:30, no QRM. 8/27- I fixed SRS for a change & 250v XEID -1580 strong @ 7:02, unID QRM. 8/28- KXOK-1240 f/c strong @ 2:25; KLF3-1420 ET w/ XIF @ 3:30. 9/26- YSC-1015 @ 12:20 w/R. International ID, fair w/no QRM. 9/27- WLIK-1270 good w/unID QRM @ 6:30am; WCBM-1560 0. w/c/v & excellent signal @ 7:05; KLLR-1600, Minn. #87 fair @ 7:55pm s/off. I now need only WELX-1450 to complete Minn. MM 9/28- CKLC-1380 Oct. excellent @ 5am s/on, slight QRM. WFIN-900 Pa. r/c w/o CHML w/s/off @ 5:30. 10/1- WKKD-1580 @ 6:18 w/fair signal & rr. 10/3- CKHX-920 s/on a surprise @ 6; then local KXHL s/on 6:05; KUIS-1090 ET/ID @ 6:30. 10/4 - R. Caribe-1041 Cuba good w/MOR & ancient EE rr @ 2:10am, no QRM. MM 10/5- OC on 1560 during XEID TEST time, is this what they used? CKNL-850 w/FF-rr @ 3:55, PAIR & no QRM; KXUB-590 U. #6 good w/CKEY on f/c @ 4:10; WACK-1380 good w/MSA of KXKO @ 5:18; WFOC-1330 only 500w good w/KPH looped @ 5:22. At the Expedition in N.J. I got KFAD w/MT; WCCO WAFB-680, WFEA-1370, WLOB-1310, WGOR-1290 & others, mostly before 12. This must be 30 so 73 & good DX until I hear some & report.

DAN PHILLIPS - X-2 Seminary Village - Louisville, Kentucky - 40207

As Tony the Tiger would say, "The new NRC Log is G-R-E-A-T". I heard a grand total of 44 new stations last year w/a whopping total of seven veries. Since I haven't reported since January I guess I can include a little about the Solar Eclipse. Jim Hall (IRCA) & I listened with little success. We heard WZ KXKA WAVA WJR & WEPD. These were about the best we heard. No new stations were heard however. It was rather disappointing after all my expectations were not realized. Only recent additions are KFTL-690 heard on s/off this Summer (7/28) & WPIV-1550 Ind. on BS w/Chicago Cubs BB. I am saving up my money & hope to have enough soon to get a Sony 1600/w. I need a good portable rig. We have a weekend pastorate at Madison, Ind. The DX there is good compared to Louisville. Since WLAS went AW it has just about ruined the whole band. With no MWs there it sure helps. I got me an HK-22 Heathkit transceiver for 40 meters so if anyone wants a single sideband QSO on 40m on the weekend, let me know. I'm looking forward to bulletins coming every week. They were so sporadic last year that it was discouraging. That, even though I was receiving it first class! Best of DX to all. 73a PS- ERC, who was Brooklyn Dodgers' radio announcer in 1955? I forgot his name. (Red Barber, Connie Dessond, and Vin Scully -ERC)

DAVID COPELAND - 560 East 82 Street - Brooklyn, New York - 11236

Nothing new to add except I heard, on 10/12, WGFJ-1500 testing from 12:00:15 to 12:16:15. Can anyone tell me who TTed without ID from 1:11 to 1:35am on 10/12? I received veries from WLCY/PP/c & WYQJ. Not much time to complete FEY loop or DX, due to becoming a slave for N.Y.C. Welfare Dep't.

YOU'VE HEARD OF DANCING CHECK TO CHECK. WELL, HOW ABOUT MUSING, WEEK TO WEEK? DEADLINE DATE HERE CURRENTLY IS THURSDAY- PLEASE BE KIND/THROU TO DOUBLE SPACE! PLEASE STICK TO RCN DX AND DO NOT INCLUDE NAMES OF VERIE SIGNERS IN MUSINGS.

SCOTT BROCKWAY - 112 North Crescent Drive - Rome, New York - 13440

The DX CX here have improved w/the addition of a little cold WX which was welcomed thoroughly a week ago. New stations in, or at least with reports out, are: WHY-1590 w/the usual pop mx w/WAKR slop, WXYZ-1270 w/MoR, WPOP-1410 @ 10:20 w/pop of course, WBSM-1430, WBAH-1480 w/a Test, WTAH-1250 w/WX & mx, WHEC-680 w/a talk program on NBC Monitor, WMAQ-670 running dual to WHEC w/Monitor MX @ 9, WGN-720 w/a pro FB game, WHEK-930 w/pop mx, WGY-310 w/MoR & talk of a softball game of their station vs. one in Troy, N.Y., WHEM-1180 w/QRM from WNYA & WOWO, WHEX-620 w/CBS MX, WOR-710 w/a talk show, WATE-1320, WTOP-1600 w/WX from the Capitol, WINS-1010 w/QRM from CWNE, WHZ-1030 w/a hockey game w/the Bruins WUNR-1600 w/MI, WBLR-1350 logged at the same time as WNLK-1350, the latter w/a Baltimore Orioles game, the former w/MoR, WBAI-1360 w/Reds BB & no sign of WDRG QRM, WJLD-1160 w/pop mx, WTAH-790 w/WX items on Norfolk, WEDV-0330 w.LA mx, WAVE-1300 w/severe QRM from WYBE, & WEDB-1070 w/pop mx & s/off @ 6:20. New veries in CJHL-660 in LAC w/pop mx & no sign of WFIL in its usual haunt. CHJ-1580 w/scene FF talk & mx, WAAB-1440 w/a nk: a CM, WFIL-860, WQAR-1290 w/a v/l that their current v/q supply was exhausted but a promise of one as soon as they get more, EYKL-1640, WYBE-1300, WYIC-1100, WEXE-1260, WOND-1470, WAKR-1280 w/a "Halloween" v/q in black-white-orange, WYTR-870 WIP-610 WBSM-760 WHEX-960 WLN-700 WABC-770 WCB8-860 WIRX-980 WBSM-1050 WBNV-900 w/a nice v/l & an invitation to visit the station, WEFW-1110 WHE-1050 WQXR-1560 WHEC-1480 WNLK-1350 w/a nice CM & v/q, & WBAH-1470. That's it from here except to tell Scholz that his "funnies" are real good & his little section I'm sure, filled us all in on the Convention - too bad I couldn't come. Does Wood really have veries from Middle Earth?

GEORGE KELLEY - 118 White Street - Belmont, Massachusetts - 02178

I was on a wild trip this past weekend to Berlin, N.H. to visit WRCer Fred Wilson who resides in the Mt. Washington Valley just N of THE mountain. Berlin is about 160 miles N of Boston & a good 4 1/2 hour drive. I left about 5:30am EDT & by 9 I was cresting the left slope of THE mountain. I don't think Mr. Popkin or anyone in the FCC has ever travelled further than the Lake region of N.H.; because they allocated 1400 to Littleton, and 1400 to Berlin, both with 250w. These towns are TWELVE miles apart, & both stations tear each other apart! Fred has a very nice set-up. His ER is an HQ-125X w/several longwires. He also has a stereo tape recorder plus a nonb recorder. Fred has been teapositioning with member Eric DiRico in Pittsburgh. You see, Fred is partially blind & was having a very hard time reading the bulletin, so Eric was taping the highlights for him. DXing is very nice from up there, but THE mountain blocks the S horizon quite nicely; needless to say, Canadians dominate the dial. DX: 9/26- CKLC-1370 Oct. w/clear ID @ 2:01am & rr. UnID on 1440 carrying Orioles BB @ 2:20am, any ideas? 9/27- Virmitea, Ukraine-1545 logged fair-to-good @ 11:30pm w/male/female announcements & ol mx. Signal quite strong at peaks, but much high-band flutter. First Russian for me. Malta-1545 @ 11:00pm w/Arabic chanting w/Cinnitea, had a TT on for some time before s/on. 9/28- Albania-1088 noted strong @ 12:10am w/WX in un-ID language. MAJ2-817 Madrid also very strong @ 1, only 12kw? 10/1- Umm 1 negawatt Bayda, Libya-1134 very good w/chanting @ 7:15pm, Stuttgart-575 heard for the first time @ 7:30pm, pop mx; HNK-989 Madrid finally strong enough @ 8:10pm to split off from domestics. PJA6-925, E. Victoria, Aruba, logged very good @ 8:15 pm in EE. 10/7- ERTV-715 good w/BB ID @ 9:31pm, Honduras is country #59 for me. WBS-705, St. Vincent, w/fair-weak signal & much AEXO splash @ 9:34pm. Country # 60 (and the Admiral has only 122 - aged). Good DX.

JERRY STAHR - WHOT Radio - Youngstown, Ohio - 44406

There are sometimes incidents that make this sport of DXing very interesting, one of which occurred this evening, 10/5. While dialing around, I noted a very strong carrier & TT of all things on 1580, this was about 7:45pm. The short periods of TT continued until about 8:45 when recorded mx was heard. Of course, this isn't exactly the right time to be RTing. I listened for quite a while hoping for an ID but no such luck. The loop indicated the signal was coming from a general E/W direction. What follows may be hard to believe, but it's true! I

4 decided to phone some of the stations which I thought it might be. Since they're all daytimers, & if nobody was there to answer the phone, it wouldn't cost me anything. The first one I chose was WCKV, Washington, N.J. since I am acquainted w/their PD quite well. As a sideline I record announcements & production items for smaller stations who would like an extra voice on the air. One of these is WCRV which Wes & I visited coming home from the Convention. Well, I called & when the phone was answered, I could hear the same mx on the phone I could hear on the RX. Sure enough, they were testing their limiter & were not aware the X which is in the basement of a house, was on the air. The quite surprised CE promised me a verie which I will add to the special file of weird verifications. By the way, WCRV has promised a DX TEST later in the season (all this arranged before I heard them tonight) & if their signal tonight was any indication, they should get out very very well. They have a tiny tower in the backyard of the home the XR is in that can't be over 80' tall, but it sure seems to work. The Convention was a gas again like the last two I attended. I can hardly wait for the WC doing next year. It was certainly great to see all of you again, or at least your blurred outlines. Grrk! One final thought on the WCRV matter, when I explained what was happening to the CE, the first thing he said was "What are you, with the NATIONAL RADIO CLUB or something? Our fame is spreading."

BOTTOM DX

Clarence H. Freeman

In recent years there has been a great increase in the use of the channels at the low end of the Broadcast Band for regular broadcast purposes. At least 15 different countries, representing every continent, have stations active somewhere from 520 to 539 on your dial.

Or is that your first problem, that these channels are not on your dial? If so you are somewhat in the position DXers faced 30 years ago when 540 kHz initially came into use. If I remember right it was the need to extend my receiver's range to cover that channel which enticed me into fooling with the internal works of my table model. On our present day superhetrodyne receivers it is possible to adjust the range to fit a little longer band onto the dial, but this involves not only making a new dial scale, but it upsets the tracking between the oscillator and the RF circuits. But there is a simple way to do the job that will not interfere with the present operation of your receiver, in fact it will give you the ability to peak the performance of your set on all other parts of the band as well.

All that is required is the addition of a small adjustable amount of capacity in your oscillator and RF tuning condensers. This can be achieved by paralleling a small variable condenser to each of the tuning condensers in your present receiver. These should each be independant with its own control knob so that you can peak each stage for maximum output.

The oscillator is the key frequency control unit and it should be modified first. Tune to your 540 kHz station; then connect the ungrounded section of the variable condenser you are adding to the ungrounded section of the oscillator condenser in your set. This can be recognized usually by its smaller sized plates, but if all the condensers are physically the same size you can spot it as the one which reacts to the approach of your finger by shifting the frequency of the set. After the new condenser has been added the frequency

RICK EVANS - Box 1988 - Gary, Indiana - 46409
 Best news here is the logging of a new state, the first since last December, in Nevada, KCRL-780 on 10/12 RS. #48 heard here; only Alaska & Delaw were to go. Any ideas on Del.? (WDEL-1150, Sam s/on? -ERC) Other than that, not really much, seems slower than last year. 9/28- WHDH-850 Mass. MoR 2:30-3:05; WCBM-680 Md. somewhat subdued rr 3:32-4:15 o/u KNER; CKLC-1380 Ont. s/on 4:58 30 5:15 no GSQ, c/w mx; CJET-630 Ont. easy listening mx 1:30 L&C. 9/29- KQV-1420 Pa. rr poor 3:26-3:33. 10/1 (First Fri) KTCB-1410 Ark. apparent r/c 1:15-1:30, said they were testing w/Commercial Monitoring of Lee's Summit. 10/3- WSAM-1400 Mich. NX @ 3 mixed w/KPERU for one very much wanted, but I was not able to copy, maybe later in the year - cross your fingers! WMQM-1480 Tenn. ET 3:23-3:45 in/out TT c/w & OC during which KBOX, another much wanted, was logged. WPDX-750 W. Va. s/off 6:45pm w/hymn; KNUJ-860 Minn. s/off 7:30, no SSE. 10/11- WCOS-1540 Ala. ET/mx 2:26-3:53 o/u ZNS1, KXEL being off for the first time noted in a long long time (report out to ZNS1 also). WPTR-1540 N.Y. unnn faintly u/ZNS/WCOS AN/rr. (Is this WCOY, Rick? -ERC) 10/12- KXRL-780 Nev. RS NX MX WX sports, PSA 3:56-4:20am w/mc to estatico. WTAQ-1300 Ill. is now NSP, drats, as 1300 is not too well worked here. Best bet in the E for Nevada is now probably KCRL-780 on 10/12, though time will tell if it was a fluke. Veries: v/1- WHEP. v/q- KXEL WJOB CKEB. Totals now 1,045/573; 48/45; 8/5; 29/6. Who types out the list of Specials for the NRC? 73. (Attsa me, Rick, hi -ERC)

DONALD J. KENNEY - Box 1668 - Santa Monica, California - 90406
 NO DX over the Summer, & few veries. I hit an amazing 83% verification percentage on my 24 reports last season including CBXQ-540 KQHD-1170 Kwajalein-1220 Freetown-1205 & Dakar-764. I would have to say last season was the best, ever remember, w/TA carriers in on at least a dozen nights; all continents logged in the first week of January; no less than four Ecuadorians noted on 2/9; & such rarities as 40w CBC relay on 540 & the 2kw New Zealander on 1460 noted six different mornings. I hope this season is as good. I am the proud owner of a 6 or 8" stack of old radio club bulletins - NRC foreign sections (pre-offset), IRCA foreign sections, NASWA bulletins, ASWLC bulletins & NNRC SW sections. They cover various portions of the years 1966-1970. It seems a shame to throw them out. I'll be happy to give them to any DXer who wants them. Just drop me a note. If you have a particular interest, mention it so that if I get two or three people requesting them, I can split them up reasonably. I'll pay the postage. 73.

HEARD SINCE LAST ISSUE
 780 K C R L Now RS-AN-cl mx, SPU 1000 W H T H -----, Ohio. (Both NRC)
 REMEMBER OUR WEEKLY DEADLINE IN BROOKLYN IS NOW THURSDAYS. LET'S HEAR FROM YOU!

IDX D Monitor Reports

Members' Loggings:
Bob Foxworth, GPO Box 2111
New York, N.Y. 10020

#650-NBI

534 kHz

AGN	(beacon)	.05 kw	Agen, France
CV	"	.05 kw	Calvi, France
FH	"	.025 kw	Clearwater, NS, Canada
HXD	"	.4 kw	Douala, Cameroon
KAR	"	.4 kw	Karbo, Sweden

534.96 kHz

(Buzz from TVI, color sweep harmonic)

535 kHz

W.I.B.S.		.5 kw	St. George's, Grenada, Windward I.
----------	--	-------	------------------------------------

535.5 kHz

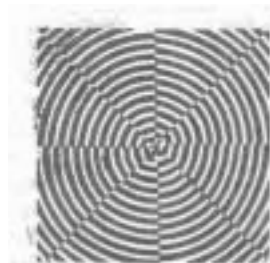
(Buzz from TVI, B & W sweep harmonic)

536 kHz

....		5 kw	Port Stanley, Falkland Islands
LJ and SLJ	(beacons)	.1 kw	Aengelholm, Sweden

539 kHz

300 kw	Budapest, Hungary
1 kw	Kuwait, Kuwait



Deadline: Arrive at Gen PO by Wed AM. Fone tips very late Wed. nite (after 2330 EST) 212-582-0844. Reporters, please use standard width 8½ inch paper (does not have to be a full 11" length) but please use one side of the sheet and leave a small space between items as they are cut into strips with scissors and I have been known to fix a drink before cutting the strips ... for this reason, the items do NOT have to be arranged by frequency; I sort them as they are cut up.

By the expressed opinion of those responding to a poll taken last year, the IDX D section of the NRC has adopted GMT as our time base (while keeping Eastern local time in the Domestic sections, however) and I want to point out that for those who desire, reports sent to your Editor may be in either GMT, EST or whatever the sender prefers - as long as you let me know which time base you are using! We have in excess of a 95% placement rate for items submitted, nonetheless it is to be hoped that those reporting will not send in great batches of common loggings which repeat every week; also that reports contain info about signal strength, interference and anything else that will help other DXers log the signal. (see p. 17, Nov. 15, 1969 DX News for more on this topic.)

Receptions:

570 Mexico. XEJB Monterrey at 0530 10/2 w/complete ID and rancho mx. Uses "BJB" most of the time for ID. This one is very strong for their limited pwr, killing WFAA who is normally alone here this time of night. Has been hrd a couple of times since. (Conrad, Fla.) (Walt Rogers, NH next item)

575 Germany. S.D.R. w/mx, steady s/3 signal and good quality audio 0331 10/11.

580 Puerto Rico. WKAQ San Juan 10/4 0820 IDing as "K A Q Mas musica" with very lively SS mx. Also noted RJR Pt. Galina, Jamaica IDing as 550 Montego Bay at 0830; both of these with local WDBO nulled; alone on chnl. (Conrad, Fla)

584 Spain. RNE 0518 10/13 w/brief anct in Spanish folo by cl mx (Heald, NY)

600 Colombia. Radio Libertad, HJHJ Bqla. 0730 10/4 with ID as Radio Libertad and rather typical tropical mx. This one is always hrd but is rarely atop the Cuban and several US stns. The tropical mx separates it from the Cuban fairly easily. (Conrad, Fla.)

606 Costa Rica. Radio Tic Tac, San Jose TIAV at 0115 10/5 with Tic Tac ID and pgmg quite like the Radio Columbia network there. This signal is most always in there, but very weak and bothered badly by the Cuban on 600 who is very splashy. (Conrad, Fla.)

610 Colombia. HJKL Bogota, same comments as 990 except 10/5 at 0830. There seems to be no local ID on these at all at night, when it is late, just the RCN RCN network ID. A very good signal with only slight WDAF intf. (Conrad, Fla)

640 Cuba. CMQ w/usual rhetoric 0325 10/9 atop the usual CBN. (Rogers, NH)

640 Guatemala. Classical violin and piano occasionally just behind or even with s-9 CMQ who were pgmg a vocal group and noted 0515-0600 10/11. No anct hrd, even at the ½-hour. Would be in for 2 or 3 mins; out 5 or 6. They were 30 to 50 Hz away from CMQ. F/in at 0559 and gave call TGW twice, MW - SW 49mtr and FM freqs and off with NA 0601. Noted KFI peeping thru CMQ at 0609 and they were likewise 30 or 40 Hz away from CMQ; suspect Guat. is close to freq and Havana is the one a bit off. I understand TGJ has been running late; perhaps this reflects competition for them? (Foxworth, NY)

655 Ecuador. Ecos de la Montana, Guayaquil w/several ment of Montana and Ecuador 10/4 0810 with a fast, lively mx unlike most other LA stns. Very strong and easily separable from WSM. Thought this one was due to move to 660. (Conrad)

656 Italy. Napoli s-2 sig, weak modulation, Italian mx 0336 10/11. (Rogers, NH)

660 Alaska. Portions of KFAK ½-hourly mx readable 0930-35 10/12, very readable time and temp 0941 between rock mx. With their time and temp, who needs an ID, hi. XERPM generally atop, as usual. (Murley, Cal.)

- 665 Portugal. Strong carrier noted from 0330 10/9. (Don Kenney, Cal via JM as are all of Don's reports this section). Lisbon with Port. mx and talk at 0338 10/11. Shallow modulation and WNBC splash. (Rogers, NH). Lisbon at 0010 with drama, man and woman, 10/12. (Heald, NY near NYC)
- 674 unID. Very weak audio 0340 10/11, bad modulation, s- $\frac{1}{2}$. Who? (Rogers)
- 740 China P. Rep. Urumchi, probably, at 2215 10/1 w/talk by man and woman in the characteristically "violent" Peking manner. (Burger, Netherlands)
- 750 Japan. JOIB Sapporo NHK-2. Hrd at 2115 10/6 with English lesson. Fair but with heavy Lopik QRM on 746, f/out around 2120. **This and 830 are first** from a country I almost considered impossible. (Burger) (Very nice, Jan)
- 750 Alaska. KFQD mx headlines at 0900 followed by MoR, dominant, was also strongest Alaskan of 3 on MM 10/12. One unID SS subject to very light fading, noted 0859-0913 until joined by 3rd stn with long fades and unloopable. The latter was either Spanish or Japanese; time and signal characteristics point to very tentative JOIB. (Murley, Los Angeles)
- 760 Cuba/El Salvador. Radio Reloj, assumed to be Havana, way over San Salvador (assumed it was YSKL as ment San Salv'd'r and Santa Ana in a spot during mx show) from 0857 to 0906 10/12 w/WJR looped and KGU not audible at that moment (though unloopable from WJR). No sign of reported HJAJ. (Murley, Cal. who sez his receiver not working in recent DX News ...?)
- 770 El Salvador. YSKLB beautiful 10/4 0603 with no sign of WABC. Clearest ID ever hrd from them; even gave call letters. YSKL-760 also was hrd well at same time. (John Shannon, Pa.)
- 780 Venezuela. YVOD San Cristobal. In the clear with WBBM off. ID as Ecos del Torbes several times around 0730 10/5. Very strong audio, on the verge of overmodulation, especially when ancts made on the mic. (Shannon, Pa.)
- 800 N.W.I. PJB s/on at 0753 with anthem and even wiped out KINY, CKOK, CKLW and unID. unID same bearing, looped. Unable to read hoped-for CJAD. That seems to cut a few more minutes off this open channel after XELO s/off on MMs; this hrd 10/12. (Murley, Ca.)
- ** 830 Japan. JOBB Osaka NHK-2 hrd 10/6 at 2025 with melody until s/on at 2030 and ID in Japanese. Good copy and almost no fading. (Burger, Netherlands)
- 835 unID. Long fades on signal looping NNW-SSE, correct for TP or LA, was not readable 0923-0929 10/12. Assume this is Nanchang due to signal, loop and timing, but... (Murley)
- 850 Cuba. Radio Revolucion assumed CMDC with male and female ancrs and mx, dominating 0831-0846 and 0848-50. ID at 0850. This on 10/12. Suffered ear-bending KTAC test at 47. OC from KOA was dominant, s-9+. Had no sign of Hilo or Nome. (Murley, Cal)
- 850 Colombia. HJKC Bogota over everything on the channel with clear Caracol en Colombia ID at 0722 10/5. Played some comedy hits mixed with mx. (Shannon, Pa.) HJKC with ID for Caracol and Nuevo Mundo in Bogota. This one is way atop KOA at times but is subject to much fading. (Conrad, Fla.)
- 854 Peru. I assume this is Peru but did not log it as I didn't catch an ID. Was in and out 0630-0730 10/5. Local mx with most songs introed, but never did catch an ID. (Shannon) (Likely they; I understand Curacao is off by then.)
- 860 China P. Rep. 10/1 at 2230 with mx and talk in Chinese, fair. (Burger)
- 870 Japan. JOIB Fukuoka NHK-2 10/6 at 2105 starting English lesson with a song. Fair signals. (Burger, NL)
- 880 unID. Who is the AN SS here. (Peru rptd-ed.) Was good at times with Sp. mx and much talk 10/5 0800-0930 or so. Listened off and on during this block but was weak and in QRN, which is just now diminishing with the advent of Fall. I am sure they ID but the one ID I could have heard was buried by "WCBS New York Testing". (Conrad) (Send a card to Joe Cooper, at WCBS and tell him his timing in playing IDs is excellent, hi -ed.) OBZ4N Lima with mx and lot of talk. Frequent IDs as Union, or Radio Union. Hrd 0644 10/5/ Country #51 here. (Shannon, Pa.)
- 890 Colombia. HJCE Bogota very nice with WLS off. Good ID as L.V. de Bogota at 0700 10/5. (Shannon)

- 917 Spain. Radio Espana at 0018 10/12 with what seemed to be a fiesta, with locally popular mx. (Heald, NY)
- 980 China P. Rep. Hrd with IS and talking at 2200 10/1. (Burger)
- 985 Neth. Antilles. Radio Victoria PJA6 finally logged 10/9 0028. Poor signal on a good Auroral night. What is power? (Raczko, Ohio)
- 989 Spain. Radio Peninsular with MoR in Spanish 0024 10/13. (Heald)
- 990 Colombia. HJDB Medellin on AN show 10/5 0800 with only RCN ID and went on with the RCN pgm. Was very strong but had some QRM de KTKT. (Conrad)
- * 1010 Cuba. Radio Guanã, Pinar del Rio. Continuing the new habit of IDing, this one was giving everything but the call letters 0415 10/2. This is the one that used to be on 1019, but has moved here now and leaves an unID on their old freq. (Conrad, Fla.)
- 1010 Mexico. XEHL Guadalajara 10/4 0510 with ID using call, location etc. and into ranchero music, mixed with some other Sp. mx. Was essentially alone, noted some CFRB way under them. (Conrad)
- 1015 El Salvador. Radio Internacional, YSC a very good signal at times, noted 0018 10/9. (Raczko, Ohio)
- 1020 Colombia. HJDP Neiva, Radio Colosal 10/4 at 0710 with a Radio Colosal ID during a rare KDKA fade. This is the AN Colombian that has been here for a couple of years. They were there MM, too, over KGBS. (Conrad)
- 1034 Estonia. Looping north of Portugal, a strong carrier noted 0330-0430 on 10/10. (Don Kenney via JM)
- 1035 Haiti. Hrd with usual religious 0136 10/2; s-5 with WBZ splash. (Rogers)
- 1043 DDR. Dresden strongest TA carrier into Santa Monica on 10/10, was noted 0330-0430. (Kenney)
- 1100 Taiwan. BCC Tamsui hrd 9/28 at 2100 with cl mx for a few moments, then into some sort of dictation-speed news by a woman in Chinese, which was also hrd on 1200. (Burger, NL)
- 1100 Cuba. CMHV Cienfuegos Radio Animada, gave ID as such, 10/4 0300. Uses a typical Cuban pgm with much talk by Fidel but with local ID now. Hrd Colombia and WKYC way under them. (Conrad)
- 1130 Cuba. CMHA Santa Clara, Onda Musical 10/4 at 0700 s/off with complete calls, location etc. Plays nonstop good music and IDs every half hour. A good signal here after KWKH s/off with WNEW nulled. Uses a blend of showtunes and standards, all instrumental. (Conrad)
- 1178 Ryukyu Is. Tentative on Okinawa. Had 30 and 60-to-70 second fades, 4 to 10 seconds in, some audio readable but just barely under KCBQ splatter, loop bearing of questionable accuracy as had to use loop primarily to eliminate splash from local KEZY-1190. Noted 1327-1339 10/12. (No local spur noted here earlier in the morning). (Murley, Cal.)
- 1200,8 Cuba. Another Cuban drifter, now hetting WOAI badly. It is CMKD and the freq is an estimate as I am not good at estimating audio tones. Hrd at 0445 10/5. (Shannon, Pa.)
- 1205 France. Bordeaux carrier from looping and timing, noted 0430-35 (now before Sierra Leone carrier comes on) 10/10. (Kenney, Cl.)
- 121A England. BBC tone test noted for a few minutes after 0500 10/10. (Kenney)
- 1225 unID. There has been a SS stn here for a few weeks now. Seems to loop abt Colombia. Seems to be AN and hope to get an ID for next report. (Shannon)
- 1280 Mexico. XEAW onterrey, Radio A-W 10/2 0800 with Radio AW on the hour, the only time any ID seems to be used. Badly mixed with WADO and is similar to it in pgm. This one is quite weak and does much fading under WADO and the Cuban tick tock. (Conrad)
- 1286 Portugal. CSB-3 at 0005 10/12 with talk, seemed a newscast. (Heald, NY)
- 1290 Cuba. CMKS Guantanamo with Radio CMKS, Guan'o Cuba, primer territorio libre de America, 10/4 0005. This one is rather stable on 1290 now since they moved back onto freq from 1291. (Conrad)
- * 1315 Mexico. XERP Tampico "R-P" 10/5 0330. This one is off freq here, sposed to be on 1330 and with ranchero and IDs after each record using a long slogan I can't copy and "RP en Tampico." A welcome catch for 100 watts. Had a moderate signal with much fading. (Conrad, Fla.)

- 1320 Nigeria. N.B.C. Enugu. 9/27 at 2230 with old Eng. songs like "Girl from Kingston town" etc. Had a religious pgm at 2250 and s/off at 2305 with anthem. Quite good, sounded they were more than 10 kw. (Burger, NL)
- 1400 Mexico. This is a bit silly but..who is likely to be the one I would hear here playing AN Ranchero; many jingles between records. It is just below the threshold of audibility on the channel, usually just under whichever US stn happens to be dominant at the time. Someone offer any help from Texas? This one is hrd almost nightly. Loop bearing impossible due to the jumble of stns here on this channel in the south. (Conrad)
- 1420 Mexico. Cd. Juarez XEF with complete ID 10/2 at 0610. This one plays mx almost identical to WHK but with the added feature (?-ed.) of all Spanish ancts. Top 40 sounds with a tendency towards R and B or Motown sound. Is a powerful signal, as are almost all of these Mexicans. (Conrad)
- 1430 Mexico. Veracruz XELL 10/5 0545. This one spotted during Ia Hora Nacional under KELI and logged with a couple of beautiful slogan IDs around 0545 and then a complete call and slogan around 0600. With KELI nulled, it was all alone and strong with ranchero, and other Spanish mx as well. (Conrad)
- 1460 Colombia. Bogota HJJW 10/5 0610 and the rest of the night. This one was completely alone on the channel with many Radio Nueva Continente en Bogota IDs; hzd a long ID about every 3rd record. Quite a signal for 1 kw. Music was much like any of the Todelar stns, as well as pgmg format. (Conrad, Fla unid. Several carriers here, no audio 0326 10/11. (Rogers, NH)
- 1484 Mexico. XEUR D.F. with complete ID at the end of La Hora de Mexico 10/5 0505 then into mx which was not ranchero. Many Mexicans seem to be more distinctive when they aren't ranchero. This was quite strong, even atop a WCKY test. (Conrad)
- 1550 Australia. Ment Qsld, accented native English, loop bearings were OK, fast fades and moderately deep on a rather shallow signal. Instr mx and 2 male anncrs hrd 0953-1009 10/12. Had no ID thru the mess, however. (Murky, Thailand. Voice of Free Asia, hrd at 2200 s/on 9/28 with "this is the Voice of Free Asia; the following pgm is from the VoA" or something similar. Then into unk lang and s/off 2230. Good signal. (Burger, NL)
- 1586 Germany. W.D.R. by far the best and steadiest European here. Has at least a s-3 signal every night and many times is better than semilocals. (Rogers)
- 1590 Mexico. Mexico D.F. XEVOZ Radio Voz 10/5 0530 with many IDs as such, a lot of music but not ranchero, all in Spanish and some SS versions of Top 40 from the U.S. This one mixed, at times, with WETT of all things. (Conrad)
- 1597 Dominican Rep. HIFA has been here since 8/24 and perhaps earlier, have a good tape of ID. MoR latin mx on past 0300 many nights. (Rogers, NH) (see p. 12, Vol. 37 No. 25 DX News, last April-ed.) Radio Cultural, S.D. s/off at 0533 on 10/9, 90 minutes later than listed in the recent D.R. list. Was preceded by pgm of cl mx. (Starr, Ohio) (This is the stn hrd, but listed as 1579, in the Ringwood report, 10/10 DX News -ed.)
- 1600 Mexico. Radio Fiesta, XEQT Veracruz 0525 10/5 with many R. Fiesta IDs and ranchero. This must be the one I have been hearing mixed with US stns for about a half year now. This night, it was way atop. Is only listed as 250 watts but I wonder about this one. (Conrad, Fla.)

Report from Japan - Bruce Reynolds: DX cx here seem quite promising so far. Here's a rundown on some of the stns noted:

- 540 So. Vietnam. AFVN weak but in the clear 1812 10/6 with rock AN show.
- 560 China. Peking noted under AFKN-Seoul at 1705 10/6 with harangue // 570, 580, 585, 590, 680, 700, 760 and 880. Off by 1800. Reminent of Castro.
- 580 So. Korea. AFKN-Taegu. Best AFKN outlet, nightly with rock.
- 585 China P.R. This outlet carries the Russian svce after 1800. Noted still going in Russian at 1915 9/22.
- 600 Philippines. DZAX, Bulacan Engl. s/off noted 1603 9/22 and just after the KBS-So. Korea s/off.
- 610 Guam. KUAM Agana in fairly well at 0810 with "The World Tomorrow" 10/12. ID 0827 "The Voice of the Western Pacific." QRM from JOLK.

- 620 China. Harbin, hrd regularly evenings. Had Russian svce 9/22 at 1637 and s/off at 1755. Noted unID s/off 1759, probably Taiwan.
- 620 UAR? Stn hrd here on 10/6 with steady signal 1850 to past 1900. Had mid-eastern sound, lang; looped correctly for Batra. No discernable ID.
- 625 North Korea. Domestic pgm #1. Was // 695, 725, 785, 877.5, 930 and 1005.
- 629 Asia RSFSR. Vlad'k a regular, noted with R. Moscow Eng at 1245, 9/12.
- 645 China P.R. Peking a regular here; notad opening of Russian svce 9/22 at 1800 with IS and "govorit Pekin"
- 650 Okinawa. AFRTS a regular evenings with much JOJG QRM, hrd on AN show in the clear.
- 655 North Korea. Domestic pgm #2. Noted // 690, 735, 800, 965 and 1080. S/om is at 1950 with IS, ID and NA.
- 655 unID. SE Asia stn here 1919 10/6 with American mx and man/woman ancrs. Talk beginning 1930 with stringed instrument signature piece played 3 times hrd before Korean's carrier on at 1943. Glenn? (Hue, Vietnam has been rptd here but I don't know about possibility of western mx. I think Glenn can check-ed.)
- 701 unID. Weak stn here 9/22 1820 to past 1900 in Mid-Eastern lang. no IDs were caught. Man and woman talking after 1830 with a list of names at 1853 including many "Mohameds". Istanbul?
- 705 Thailand? A stn here with fair signal 9/22 as late as 1920. Is the Thai listed here on AN?
- 710 Philippines. DZFM, Bulacan noted with AN show. MoR mx. Had an EE ID 1714.
- 710 So. Korea. HJKA Seoul K-B-S s/on is 1959 after IS, very potent here.
- 760 Okinawa. KSDT with "R-O-K" ID. At 1730 9/22.
- 840 So. Korea. HJLY, Seoul carries Billy Graham 1200-1230 Sundays.
- 845 China. Peking s/off noted 1835 9/22 // 760.
- 870 Taiwan. BEV-52 in well at 1800 s/off 10/6. Left an unID stn which is probably Saigon.
- 880 Okinawa. KSEK in the clear after 1800 with rock 10/6. Also noted evenings under JOPK with R&B. All in English. AFRTS has plenty of competition down there!
- 973 Asiatic RSFSR. Yuzhno-Sakhalinsk noted with wierd mixture of opera and light pop mx 1350-1400 9/19; a six pip TS hrd on the hour.
- 1178 Okinawa. VoA is hrd regularly in the evening, with jammers.
- 1190 So. Korea. HJLX, Inchon. This missionary stn has Eng. religious pgms to 1100 nightly.
- 1360 So. Korea. AFKN-Osan noted at 1935 9/22.

Thanks, Bruce. We hope to hear from you again.

VERIFICATION SECTION

- 750 Nicaragua. YNX sent v/1 signed by Rafael O. Cano, Gerente General advertising their coverage "Ia Equis en America" like "KOMO Kountry". (Pejza, Cal)
- 780 Br. Vir. Is. ZBVI sent v/q after 7 months. (Pejza)
- 1142 W. Germany. AFN Bremerhaven sent a very nice v/1 and AFN card by Staff Sgt. Victor D. Sage, Chief Anncr. Address APO NY 09069. (Burger, NL)
- 1205 Sierra Leone. Pix postcard of "The Ribbi Ferry" with typed confirmation signed by the Director - Radio. Received it in August for Oct. 1969 reception, after 1 f/up. Since the sard says "thanks for the report" and mine appears to be the 3rd received this year, there may be an improved verie policy here now. (Robie, Mass)
- 1412 Spain. EAJ-17 Radio Murcia sent v/1 by M. Pachero in 24 days. (Burger)
- 1412 Spain. EAJ-6 Radio Requete de Navarra, Pamplona sent v/1 + pennant by Teodoro Gonzalez Martinez, Jefe de Programacion. (Burger)
- 1412 Spain. EAJ-25, Radio Tarrasa sent nice v/1 from Jose M. Sallilas, director, in 40 days. (Burger, Neth'l'd)
- 1540 Spain. EFE-25 L. V. de Andalucia, Cordoba sent pix pc from Salvador Carraseo, Jefe de Emisiones in 9 days. These 4 from Spain bring me to 48 veries from there. (Burger) (1540 was reported freq; nom. they're 1570-jb)

Last Minute Section

640 unID. I got a phone call from RJE about 0220 local time (EDT) 10/15 with the incredible information that none of the Cuban stations could be heard. Russ had recvd the word from Jerry Conrad, who was getting in touch with Geoff Fox in Miami Beach. Evidently some of the Cubans were in the process of returning to the air in the few minutes I was on the phone with Russ. I noted a moderately strong signal on 590 which sounded like Cuban pgmg, and got definite ID via program content from a loud stn on 690, hrd about 0230-0235. The familiar low het on 550 was not notad. Russ noted the 630 stn return to the air about 0225. The most remarkable thing I noted, after I got off the phone, was that 640 was "open" and remained open. I put "open" in quotes as one could not miss the absence of the 640 Cuban rock-crusher. I was doing the section at the time, so stayed on 640 until 0430 local time (0930 Z) and was generally treated to clear, perfectly readable reception of KFI which is a great rarity in the East. An unID SS was hrd with what seemed to be a s/on at 0807 (GMT). Very declatory, bombastic style with long pauses between sentences and a touch of echo-very much like the Brazilians s/on on 860 and at ID on 1000. It seemed like a Brazilian until it came in clearly enough to discern words as Spanish and not Portuguese. I'm not sure that this was a s/on; perhaps just a fade-in. Was hrd very clearly for a couple of minutes at 0833 with a definite "la hora equis" and a possible "radio exitos" several times. At 0845 noted a TC "...dos de la manana" and "noticias de ultima hora" with very rapid delivery. Signal would go completely out for 8 or 10 minutes and then appear during a KFI fade, it reached s-7 to 8 a couple or 3 times. The freq was 5 or 6 Hz away from KFI; essentially right on the channel. I see 2 possibilities here: HRVF, Radio Exitos, Tegucigalpa, listed as 1 kw in 1970 WRTVH, or a YNK relay in Chichigalpa listed 1 kw in FBIS. I could get no location. Stayed on the channel to 0930 and hrd them (I took it as they) in the background of KFI from time to time, and no one else was noted to come on the air during the time. Including the Cuban. So if CMQ is indeed going to be silent, this could open a lot of possibility on 640. I am quite sure, but not certain, the one I hrd was "radio exitos" but the slogan could be anything.

Have hrd nothing on the news to indicate anything happening in Cuba that might involve broadcasters there. It may possibly have been a failure of the telephone line feed, which would not, seemingly, be a continuing thing. However, the silence of CMQ could indicate otherwise, as it would be easy enough to program that station even if the inter-city links failed. So, if anyone can come up with some details on this, as to what happened, we would like to know. And, if Cuba does remain silent, this "exitos" seems like a good possibility thru KFI. This being section night, I can't make a check 2 nights running, but will report next week.

Changes in Station Data

"New AM stations, applications"

Fairbanks, Alaska. Big Country Radio, Inc. seeks 970 kHz, 5 kw-U. P.O. address: c/o Robert W. Fleming, 428 4th Ave., Anchorage 99501. Est. construction cost (figs. appx.) \$23,000; first year operating cost \$75,000; revenue \$110,000. Principals: Richard C. Cruver, president-treasurer, Glenn S. Miller, VP-Treas., and R.W. Fleming, asst. secy (each a 1/3 interest). Principals own respective interests in KYAK Radio, Anchorage. Annod Aug. 4. (Broadcasting 9/28/70)

"New AM stations, call letter action" Nome, Alaska. Cath. Bishop of Northern Alaska granted KNOM.

"Existing AM stns" WUNA Aguadilla P.R. seeks CP to increase to 1 kw. (10/15/70)

EDITOR:

R.J. Edmunds
Box 946
Wayne, N.J. 07470
(201) 335-0397

15

DOMESTIC
X
IGEST



Greetings, peoples: Due to a lack of contributions and a heavy sked at work for me last week, there was no column, hi (obviously). Quickly, let me make a most urgent request: Please list your submissions in frequency order AND by section, i.e. Mdt.- SR, SR & day, SS & eve, changes, r/c's etc. This helps me in publication. Also, double spacing is a great help. Many of you, I realize also do this, and (I mean already do this, demit) it is greatly appreciated. Now on to DX:

midnight to sunrise

- 620 WTHJ-WL Hrd 0022 9/29 u/ strong unID test (Karl Schulte, Balto. Md.)
- * 710 WDR -NY Off MM 10/12 (Page Taylor, Butler, N.J.)
- * 740 KRNO-JK Off Su AM 9/13 (Jerry K. Conrad, Haines City, Fla.)
- * 770 WABC-NY Off Su AM 10/11 0100-0500 for XR maint. per annct. (RJE)
- 860 CBH -MS Hrd 0433 9/29 u/ unID OC (Schulte)
- 960 CHNS-MS 0308 9/29 'til CKWS s/on 0406 (Schulte)
- * 980 WOME-Ch Was on MM 9/14 (Conrad)
- 990 CBW -Ma Hrd 0115 9/29, then faded, much-wanted (Schulte)
- * 1010 WINS-NY Off MM 10/12 (Page)
- * CFRB-On Off MM 10/12 0230+ (Page)
- unID Tester w/ ~~off~~ 0100 9/14 (Conrad)
- 1110 KPAB-Nb Hrd 9/20 2345 u/ WBT OC (Schulte)
- * 1150.9 GJRC-On Is here now, or at least was 0120 10/4 (Page)
- * 1250 WKBR-NH Still on 0200 10/11 (Page)
- 1260 KWYR-SD Hrd on 500w PSA (per v/l) 0629-0646 9/14 (Frank Kennedy, Saratoga, Ga.)
- 1290 WIRK-Fl On most of 9/14 MM for field measurement test (Conrad)
- 1310 CHEL ??? Hrd 9/20 @ 2356 w/ pieces of s/off, anthem o/u CKOY, help?? (Schulte) Could this be a new CP we know not of? -RJE
- KBUC-Tx S/on 0558 9/21, no SSB (Kennedy)
- KZIP-Tx o/KoKX, u/WRR 0640 9/7 (")
- KOKX-Ia u/WRR, KZIP 0640 9/7 (")
- 1330 WMLT-Ga Hrd 0215 9/29 testing w/ mx (Schulte)
- 1340 WKGN-Ky Hrd w/ ID 0230 9/13 (Conrad)
- WLOK-Tn Likewsie (sic) (Conrad) *That's very strange, or should I say 'congratulations' ??? -RJE
- KLOO-Or w/ Willamette Valley wx, 0732 9/21 (Kennedy)
- * 1380 WAOK-Ga Off @ 0300 9/14 (Conrad)
- KPOI-Ha On top AN 8/17 (Kennedy) Sigh - RJE Gee, thassa funny-looking word in print, ain't it.
- 1400 KVOP-Tx S/on 0558 8/17, no SSB (Kennedy)
- 1450 KQBO-Ga On top 0608 10/3 (Kennedy)
- 1460 WRAD-Va ET 0130 9/14 w/ OC & voice ID's (Conrad)
- * 1450 WQSR-SC C/w mx w/ female anncr. AN 9/14 (Conrad)
- 1490 WESB-NC Sports @ 0215 10/5 during quasi-aurora (Page) -??? -RJE
- 1500 CKAY-NC Hrd 0210-0258 8/21 during KXRX SP o/u KBBQ (Kennedy)
- WDRF-MI Hrd w/ WTOP off 9/29 0221 (Schulte)
- 1510 WMEK-Ma Hrd w/ ET/TT, mx, ID 0225 9/21 (Rick Evans, Gary, Ind.)
- * 1530 KWGA-La Hrd w/ F/c 9/21 but 1hr ahead of time thus 0115-0129 (Jerry Starr, Youngstown, Ohio)

1550 KEJO-Mo Hrd w/ TT on anncd. 2/test w/ ID's 0109-0200 testing non-DA (Dave Copeland, Bklyn, NYC) When, Dave?? -RJE)
 WSVR-WL ET/mx past 0215 9/9 (Starr)
 WDDO-AL ET/OC/mx past 0200 9/11 ("")
 WFTY-WJ Ending ET/TT 0132 9/13 ("")
 KQIL-Co ET/OC w/ ID noted 0212 9/29, v/wk o/u unID OC (Starr) some guys have all the..... -RJE
 1560 KMOO-Ck On top 0611-17 8/17 w/ farm rept. (Ke nnedy)
 + 1580 GBZ -Qz Still on for "Quebec crisis" w/ nx, R. Canada ID, imm. follo by s/off anncts., 1/2 "O'Canada, into GSQ, vut carrier abruptly just after start of labter (Page)

sunset & evening

1170 WVLC-Ma In well before LSS w/ nx 1746 10/6 (RJE)
 1290 WTUX-Da In briefly w/nx & spot for bank, 1807 10/13 (RJE)
 WDDO-Ct Hrd s/off 1815 10/13 o/u WNEF (RJE)
 WNEF-WT In w/ RS 1817- 1831 pattern change 10/13 (RJE)
 MPVA-Va Hrd weakly behind WNEF w/ s/off 1829 10/13 (RJE)
 1300 MPVA-WJ Way atop channel @ 1800 s/off 10/06, no sign of WJDA (RJE)
 1410 WJLN-RY Hrd w/ nx 1855 10/6 (Page)
 1440 WJAB-Ma Hrd w/ complete s/off 1800 10/6 (Page) Darn! -RJE
 1520 WYBR-CJ Hrd s/off 1846 10/4 (Page)
 1530 WYBR-MJ 1830 s/off 10/2 atop freq. (RJE)
 1550 WKBA-Va V. wk, o/u CBE @ s/off 10/13 1840-45 (RJE)
 WKYB-Tn 10/02 1900 s/off alone o/CBE; anncd. as Bristol, Va. (RJE)
 WYBR-MJ Hrd 1829 s/off 10/13 (Page)
 1570 WYBR-MJ Unn. but o/CKLM briefly 1804 10/7 (RJE)
 1590 WYBR-MJ Hrd @ s/off 10/13 1830 (Page)
 WYBR-MJ Hrd o/u WMIM @ 1830 s/off 10/13 (Page)

changes

+ 600 KIIK-Co ex-KZIX (R.E.Fischer, Ft. Collins, Co.)
 + 980 KFWJ-Az (Lake Havasu Cy) is on, 500 DL
 + 1080 WLVN-AL (Luverne) is on, 500 DL
 + 1170 WHLW-NJ Hrd testing afternoons w/ 1kw DL, tho' licensed for 5kw D3 (Schmidt, Copeland) To go on RS 11/15 (Starr, Schmidt)
 + 1390 WAPR-FL (Avon Park) is on, 1000 DL

P/C'S

KCII-1380, WJLK-1310, WHBG-1360, WWBZ-1360, WEVA-860 (is on std. time)
 WPLB-1380, WGHN-1370, WEED-1390 (time as listed last column), WVNJ-620,
 WELI-960, WGMF-1500 (2nd MM check) WCAZ-990, KIKS-1310; WTUS-1390,
 WJEA-1150, KTCB-1470.

NEW CHECKS AMONG ABOVE:

KTCB-1470-Mo., 1st Tu, 0245-0300 ELT. (Fischer) (that's R.E.F., not Fi sh)
 WJLK-1310-NJ 2nd Fr, 0000-0015 ELT. (PT)

Giant Updater around 11/1, methinx. Start sending corrections for log, as we intend to set the Corrector about 11/5. 73's RJE

RANDOM NOTES ABOUT THE FOREIGN CONTEST RJE

BERMUDA & ST. PIERRE COUNT AS N.A. (DIV. "A")
 CONTEST STARTS 0000 G.M.T. 10/1, ends 2359 G.M.T. whenever.
 Long wave doesn't count.... ALSO: NO DEDUCTIONS ON FINAL (or only) FORM.

BLAKE LAWRENCE - Box 803 - Canon City, Colorado - 812P

17

I hope I've sent this to the right address, typed it right, etc. Being a new member, I'm still a little bit confused. Star Rogner RX has been fixed, and has picked up some unIDs. On 9/19, someone had rr on 740 @ 11:40pm. 9/20- C1 mx on Radio Today program noted on 800 @ 12:10am, couldn't have been XELW - too weak, & program of better quality than XELW's usual. On 10/4, SS came through w/WHU off @ 5:42am. 9/21- TT on 1220 @ 6:23, s/on 1230 @ 6:29 w/SSB. Now to IDable stuff. 9/20- KRFH-1420 Ariz. o/XEF w/MOK @ 1:10am; NYOA--1590 Tex. w/XEB @ 1:14am; AFAC-1330 Cal. w/c1 mx 5:25-5:30 ID; AFRC-610 Cal. rr u/o pest AGCM @ 5:34am; CHUM-1050 Ont. w/rr @ 5:44am; CKLW-800 Ont. w/rr u/unID SS @ 6:15 am. 9/26 saw WDAY-970 N.D. @ 11:53pm o/KAKC. 9/27- KOTA-920 Nev. 5:01 ID; WLG-730 B.C. w/rr @ 6:09. 10/5- Alarm clock failed to get me up for XEUD, but I did get up @ 4:23 to find an SS on 1560. Was XEUD on later 10/7- WDAY-1060 Cal. @ 10:05pm; XECL-990 @ 11:07 for #400 on heard list. 10/8- WGYM announced they were non-DA that night so they could bring storm info to towns to the E. At 11:30 on 10/8, WOC heard on 1420 w/NX, WX. 10/9 Found WARK-920 Ark. IDing @ 9:29. Semi-locally, KKAM-1350 has dropped A1 affiliation, KPUB has picked it up. Colorado Springs newspaper says KEDI-1490 (ex-KOM) is AN now. It's fantastic - the NRC Log came just the day I was going to have local postmaster check on the delay, hi. I need Oregon! I must s/off, so 73. (Welcome to the NRC, Blake! Isn't there something wrong with your ZIP number? We hope you'll Muse often! -ERC)

JOHN W. HOGERHEIDE - 3 Marquette Drive - Marquette, Michigan - 49855

Good Auroral opening the PM of 10/4. R. Aeropuerto w/YL announcer well atop 910 @ 11:45. LAs all over the dial. 12 s/off's of WOKY-920 w/SSB, WYUI-810 & WYEN w/SSB all noted. WLS-980 s/off @ 12:03 w/SSB; WQBS880 @ 12:05. This left SS on 820 840 860 870 880 & 890. PJB-800 alone @ 12:06; are they AN now? (No -ERC) Log on Caban on 970 @ 12:40 - for new log. 880 was TGJ who s/off @ 12:55 (Is this SS, CDE, or what? -ERC) (It's FDI EDT - ERC) 890 was "La Voz de Bogota" Colombian; WPSA-950 s/off 1 w/SSB for new log; CKWS-960 s/off 1:02; An SS in & out all AM w/WGST-920 but I just couldn't make it out. It seemed to loop Colombia. A very weak SS on 1380 @ 1:30 w/YL announcer, much too weak to ID but all alone. I tried for Peruvian on 880 but static was too strong for anything. Also not a sign of DX Special Mexican on 1560 @ 2-2:15; KEJO-1550 w/rr testing w/drums until 1:50 s/off. Good DX, lads.

BRUCE WINKELMAN - 1404 Alumni Place - Lawrence, Kansas - 66044

Greetings once again! This past weekend was the first real DX opportunity of the year, & I took advantage of it. All times are EDT. 10/10- WJLS-1320 @ 12:28am w/mx; WBAI-1360 @ 12:43am; KENN-1390 @ 1am s/off very weak; KLPN-1390 @ 1:04am w/s/off; WING-1410 completely dominated the frequency @ 1:12am; a TT noted on 1530 @ 1:13, this has to be WCCB r/c; TT noted on 1290 @ 1:30, weak but definitely there, probably KJEP on r/c; unnn WAVE-970 @ 1:50 w/ads & mx; unnn CEW-990 @ 1:53 w/"Big Band" selections; TT on 1450 @ 2:10, no ID, but almost has to be KLMX on r/c. 10/11- WDSU-1280 @ 1:09 w/NX, then s/off @ 1:15 w/SSB 15 minutes ahead of time listed in the new NRC Log; WSLR-1350 @ 1:28 w/WX. 10/12- WCKY-1530 s/off noted @ 12:30am 30 minutes before time listed in new Log. They announced s/on time of 4:45am. The new NRC Log is a masterpiece! You fellas at HQ sure did an outstanding job. I spent nearly four hours 10/9 bringing it up to date w/the updaters in DX NEWS. Now I can really appreciate the work that went into it. Belated congratulations to Dr. Wood. All the above loggings were made with my A-2515 and a crummy loop. I've got to get some plans from HQ for a loop. This one is nearly worthless! I found room for my RX here at KU. It kind of crowds my desk, but then that doesn't really bother me. I am still hoping to get a tap off the 80' longwire on the roof but I haven't devised a scheme yet. Well, that about wraps it up from Mt. Creed. 73s and good DX to all.

BOB KARCHEVSKI - Box 3151 - Daly City, California - 94015

KCRL-780 Reno, Nev. is on RS now, program is cl mx & minimum of announcements. ID just said cl & light cl @ 24 hours a day."

PATTERNS

Paul Hart

18

"AN" SITUATION

ONS 780 K C R L	SPU; cl mx	1380 X E C O	SPU; SS Pop & ranchero mx
790 K U L F	(ex- KTHT) SPU	1450 W D L B	Except Tuesdays; MoR
1070 W I B C	NSP; rr	1460 W B N S	NSP
1300 W T A Q	NSP; NN	1570 C H L O	AN, maybe Sat. & Sun. only?

OFFS 1230 W J O B MMs only, off @ 12/1270 W X Y Z Now s/off 12:30 KLT daily.

JERRY K. CONRAD - Box 952 - Haines City, Florida - 33844

There has been a lot of DX around this past month or so. Much of it is in Foxy's or Russ' column but some things that are not there. Semi-local WAPR-1390 is on the air in Avon Park, Fla. It ruins another daytime channel. They came on some time last week. I first noticed them Fri. 10/9. They are a Top 40 type format. I also have heard IWO several times u/WBZ/XEQR. It is easy to spot this one since they have a network and are the only other KE at night on the channel. Quite a few of the Cubans have decided to start IDing at least at s/off. Most are using calls, slogan, and location, which makes IDing them quite a bit easier. 9/27- At 3:35am I managed to get KORK-920 Las Vegas w. semi-local TMEG milled. I have a pretty good tape on it & it definitely is NOT KARK, same frequency. WVCP-1480 Windermere, Fla. was transmitting on 1605 most of the day 10/5! I called them & the CW said "We are having trouble." They signed off @ 8:55 & weren't there the next day. WAPR by the way was my 18th Florida on the log. I'm up to 200 taped domestic IDs from 32 states & 63 foreign from about 30 countries. This does not count those taped before this season as I haven't had time to transfer them to my new ID tapes. Some of you guys join in the Foreign contests, especially the Caribbean and South American ones. A couple of Auroral nights & your totals will really jump. I'm going to give those two a try but I don't know how well I'll do. I may even join the European section even though I don't have a chance against the North-Easterners. 3 U soon. 73.

ERNEST R. COOPER - 438 East 21 Street - Brooklyn, New York - 11226

A v/f & CM in from WFLB-1380, very friendly. I'm having typewriter trouble this week (again) and so I had to fall back on my old "WABC Auxiliary Typewriter". Bad as this may be, it can't compare to the afore-mentioned piece of junk which was fouling up the polluted skies here the last two MMs, with splatter & spurs on 540s, 615, 695, 845, 1005s, as well as splatter from their main channel from 740 to 800 kc/°. A letter to their GM about it, and also one to WINS, telling them of the interference it gives them. Maybe this'll do some good. A while back, Dave Roys managed to get WIBC-1070 to follow the rules, and it took some doing, but he did it - let us do the same with this Metropolitan Misadventurer! All DX done this week was on Columbus Day, 10/12. CBEF-540 noted @ 12:15am o/the SSeS, but soon lost out to XEWA. Weak Canadian on 860 w/Ontario FX in much detail turned out to be CEE, Halifax, I think, but this puzzles me. It was too weak for CJBC, & they're all FF anyhow, & I was sure I heard the guy say "CBH" & then s/off. Sousa marches on 730 caught my ear @ 1:23 & this one was needed WQHS, Shelby, N.C. on test. At 1:32, after being on top, they suddenly were swamped by XEX. The SS on 650 still on @ 1:45 & s/off w/Venezuelan NA @ 1:53 was Radio Girardot, YVLH. Not enough for a report. Someone on 940 w.MoR @ 2:02? Someone w/Johnny Cash c/w & some TTs o/u WWSW/CBEH on 970, but no IDs caught, noted @ 2:23-2:31 & on, anybody ID him? Report to AN XERH-1500 w/IDs as Eray-Achay, & also R. Tri-Color, through WDEE's ever-present MM OC & o/KSTP. The loud SS on 1380 sounded at first like "R. Eckes" (Radio X, WBNX) SS slogan, but closer listening revealed it to be "Radio Eco" XEQO, Mexico City. Mexico was all over this ayem, also in w/XEQ-940, XEYD-1000 XEQR-1030 XEB-1220 u/WGAR, XESM-1470 on top, CROX apparently off, & XERF u/CKLM. WKEW was also off; WTTO was on top. The erstwhile 1200 Cuban now seems to be on about 1201 - maybe we can find out who that is on 1200 now MMs! That's it from here - C U N 7.

MORE HEADS SINCE LAST ISSUE

1190 W A V S	Now on RS	1390 W A P R	Avon Park, Fla. (rr)
1440 W A Y K	Lehigh Acres, Fla. (RS)	1520 W E X Y	Ex-WIXX

All these from Sheldon Miller, ex-NRCer, except 1390-WAPR, from Jerry Conrad.

Why is KYW-1060 so strong in the Chicago area at night - and how can WNOE operate on the same frequency at night with 5 KW in New Orleans? Why is WWL-870 heard very well all over the United States? Why didn't Richard Wood log WRAL-1090 in Hawaii, even when WCBS, WNBC and WBZ were very strong? And how did I know that he probably would not be able to do it?

If you know what patterns these stations use, can determine a bearing and make a few calculations, these questions are easily and accurately answered.

INTRODUCTION

Patterns are used because they fundamentally affect reception and interference conditions on the broadcast band. This article will describe antenna patterns in detail, and propose the use of antenna pattern information to predict and explain relative signal strengths. Much of the information used is taken from the FCC Rules, Volume III, Part 73 - Radio Broadcast Services. The pattern information is contained in the Cooper-Trent files or is in the station proposals at the Commission in Washington.

As population increases in the United States, more and more services of all types are required. This includes broadcasting, where more choices of program material and consequently more radio stations can be supported by advertising revenue. All stations legally transmitting within the United States are licensed by the Federal Communications Commission in Washington, D.C. When patterns are used, it is almost always because they are required to enable stations to operate without interfering with each other. Many stations now operate very sophisticated patterns as the complexity of controlling interference increases. The interference criteria are contained in the FCC Rules, and it is important to remember that they are based on results normally obtainable with home-type broadcast receivers.

Directional receiving antennas, high-gain receivers and unusual propagation effects are not considered. (Normal day-night propagation changes and their seasonal variations are considered). The fact that we take advantage of all of these things in conjunction with the Commission's allocations and rules is what makes unusual DX "catches" possible.

GENERAL DISCUSSION

If a person or company wants to put a new station on the air, or substantially change the operation of one already on the air, a proposal must be made to the FCC which describes all of the details concerning the proposed operation. In addition to all of the details of ownership, financial and legal aspects, the technical details must be completely described. Within the technical portion of the proposal, two primary factors of interest to us are presented:

1. The submission must give evidence that the proposed station's primary coverage area will be covered by a very strong signal, providing a broadcast service. (Some stations have secondary and intermittent coverage areas - see Note 1).
2. The proposed operation must not interfere with other stations within the limits of the FCC Rules, Part 73.

For purposes of understanding patterns, the second point is the one we must examine most closely, because it is the primary reason for the existence of patterns. There are two basic conditions under which Point 2 above, or lack of interference, must be maintained; day and night. (See Note 2). Both day and night, two fundamental possibilities exist for station-to-station interference:

1. Stations on the same frequency may interfere. (SC or same channel).
2. Stations on different frequencies, but located geographically close together may interfere. (AC or adjacent channel).

Note 1. In order to clarify the terms used, following are the FCC definitions for the three service areas:

- A. Primary service area - The area in which the ground wave is not subject to objectionable interference or objectionable fading.
- B. Secondary service area - The area served by the skywave and not subject to objectionable interference. The signal is subject to intermittent variations in intensity.
- C. Intermittent service area - The area receiving service from the groundwave but beyond the primary service area and subject to some interference and fading.

Note 2. A third class of conditions exists, sunrise and sunset. Some station licenses provide for specialized operation at these times with pre-sunrise authority or "PSA" and critical hours or "CH" requirements. For the sake of simplicity, we will refer here only to day and night conditions.

The problem of satisfying all of the conditions can be and often is very complex. Presented below is an over-simplified situation to illustrate:

Suppose new station B is proposed to operate on 1420 kHz, day and night at 1 KW, to be licensed to a specified small city. Station A is already assigned to 1430 kHz, broadcasting with 500 watts, non-directional, daytime only, 25 miles from proposed station A's location. The new station B must propose to protect station A from adjacent channel interference by limiting its radiation in that direction by use of a daytime pattern. The exact values required will come from calculations so as to conform with the FCC requirements.

At nightfall, station A leaves the air, and station B's daytime protection is not required. However, other stations operating on 1420 kHz will be interfered with by skip from station B unless radiation is limited toward them at night. This may include 4, 5, 6 or even more stations.

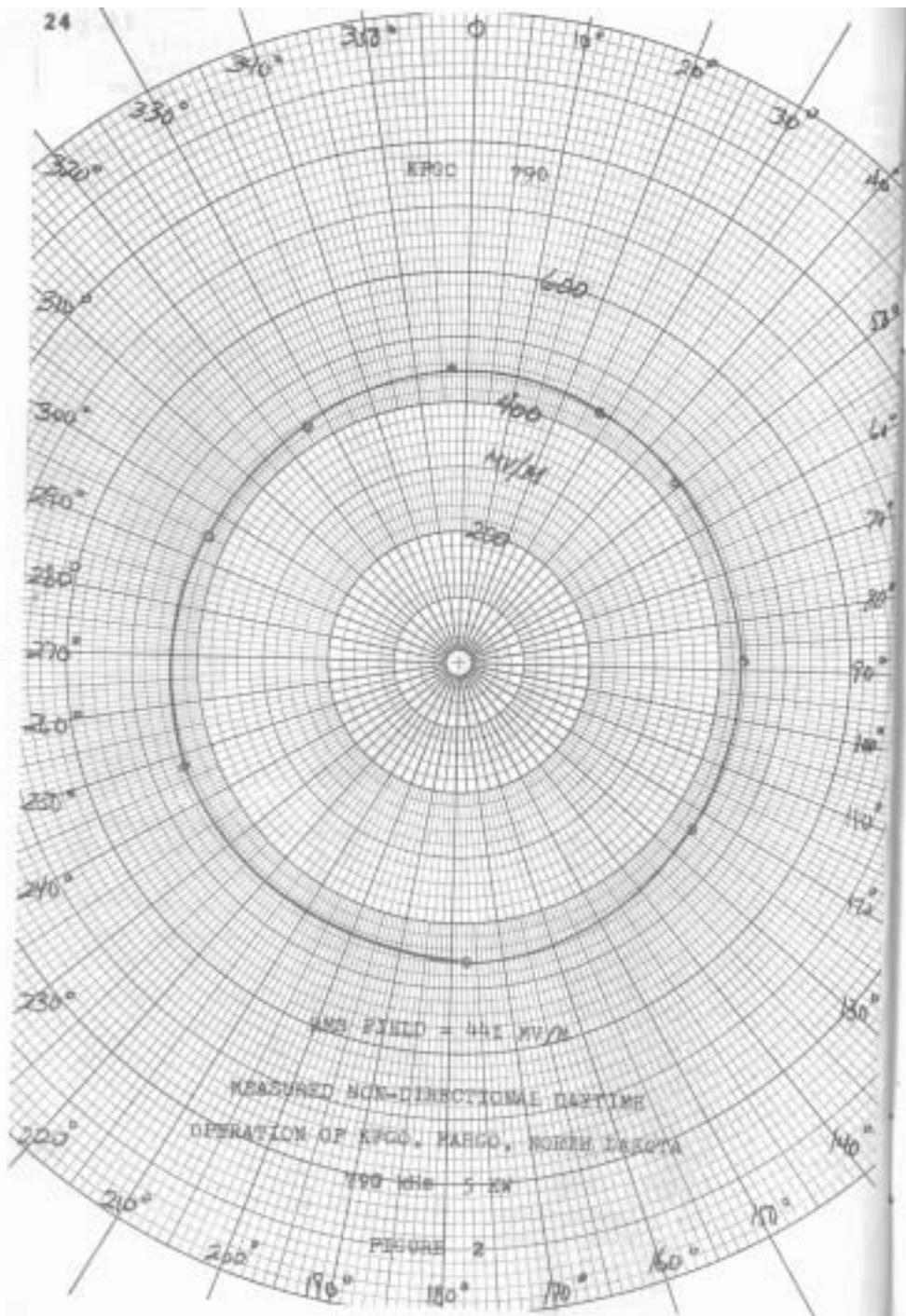
Another different pattern is therefore required for nighttime operation so as to limit station B's interference with these other stations. Again, the exact values required for the pattern will come from calculations in accordance with the interference criteria in Part 73. Care must be taken in proposing the patterns so as not to have a major null in either pattern fall over the primary coverage area, or service to the local audience may be unsatisfactory.

A common tactic near coastlines and borders is to locate the station's transmitter inland, so that the peak of the pattern faces toward the town, and then out to sea or across the border. In this way, the chances of interference are greatly reduced. This explains why many coastline stations are difficult to log outside their immediate coverage areas, since only a series of deep nulls faces inland.

Many stations also lower power at night in conjunction with a pattern change to limit interference to the levels required. Most proposals for new broadcast stations are now so complex that they are prepared and submitted by consulting engineering firms specializing in this type of project. Even so, the FCC denies many proposals and some take years for all of the amendments and exceptions to be resolved.

INITIAL PATTERN CONSIDERATIONS

It is essential to keep in mind that a pattern is a graphical representation of a radio signal field intensity generated by a transmitter and antenna combination. In order to facilitate further discussion and illustrate the terms we must use, please refer to Figure 1, the non-directional pattern for WGH-1310. This and all of the patterns in this group are polar plots showing field intensity at 1 mile from the antenna, measured at 0° elevation, or ground level. This form of presentation is used for convenience because this is the form in which data must be submitted to the FCC. Actual values (data points) are shown by the small circles.

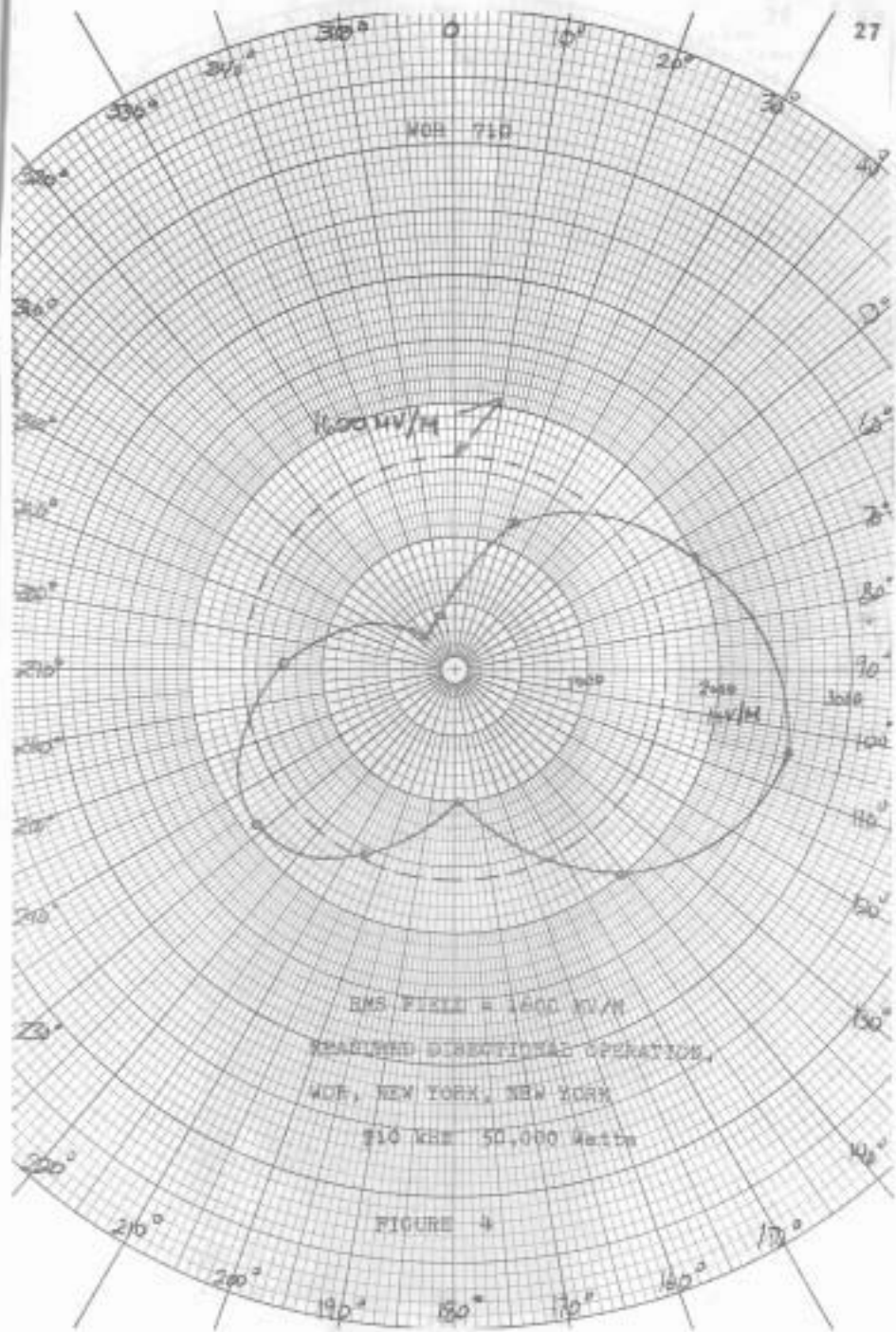
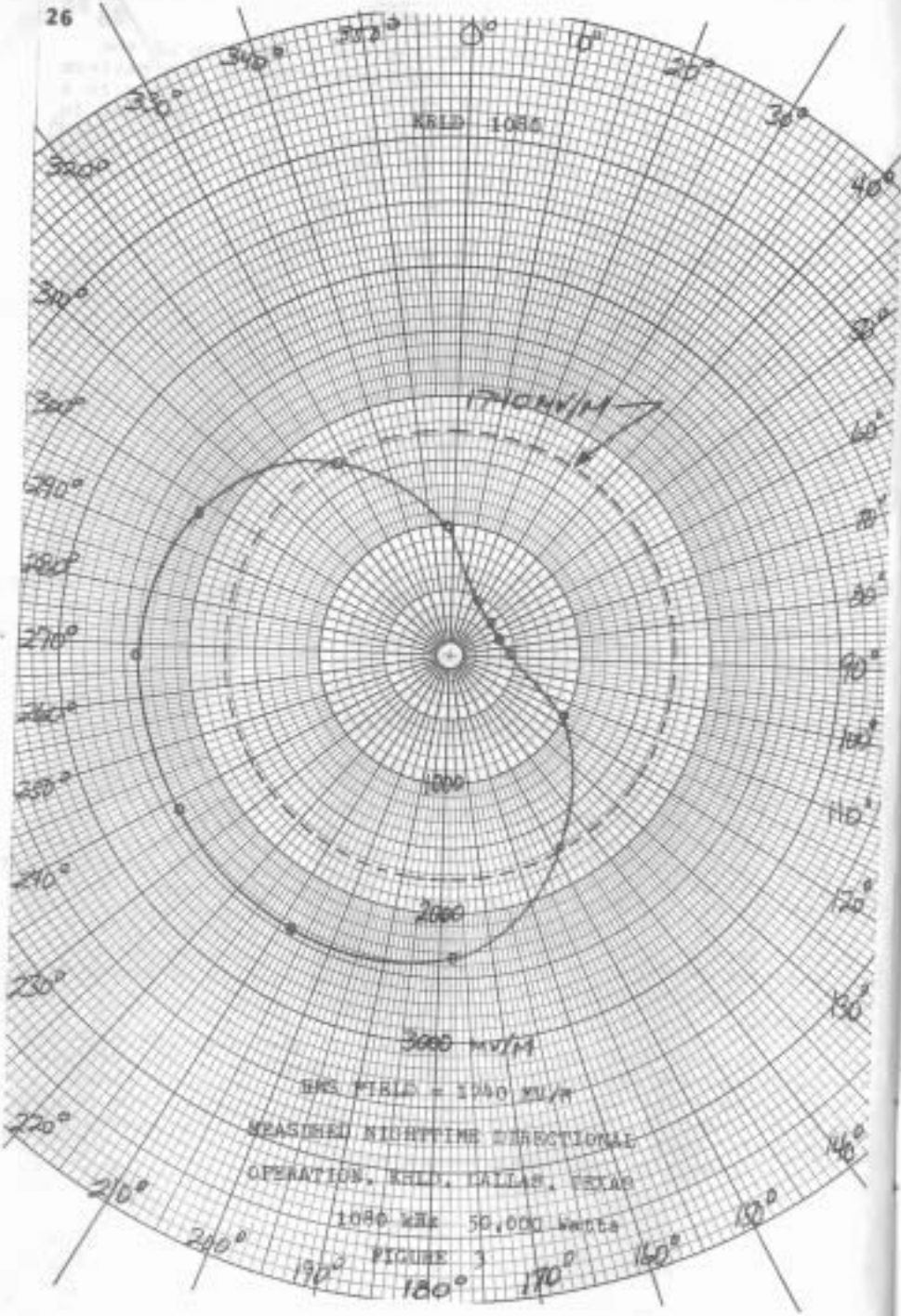


Another concept essential to further discussion of the patterns is the RMS field. The RMS field shown on the pattern is the field strength value that a station would generate in a perfect circle if all of the station's energy were radiated in a perfect circle. In the case of Figure 1, the non-directional pattern is already a perfect circle, so the RMS field is 420 MV/M, the constant radial field strength value of the pattern. Figure 2 is a non-directional survey of KFGO-790. Note that even though this plot is for non-directional operation, the field strength is not perfectly uniform. This is caused by variations in ground conductivity, terrain features, and other factors such as buildings, power lines, and other structures. Because the pattern is not perfectly circular, a separate RMS field value is given, 441 MV/M. Notice that WGH's RMS field is 420 MV/M and KFGO's is 441 MV/M, but both are using 5 KW transmitter power. This indicates that KFGO is using its transmitter power more effectively; more of it is being translated into field strength. This is the reason for obtaining an RMS field value for each antenna for which a curve is given, it serves as a measure of antenna efficiency. This is very important, as the FCC requires certain minimum values of RMS field strength to be generated with assigned powers for all radio stations. The requirements are different for different classes of stations. Not surprisingly, the stations that must have the best efficiencies are class I's, which explains the huge antennas used by these stations. The least strict requirements are for the locals and daytimers, although the FCC does not allow new construction of any radio transmitting antenna tower less than 150 feet in height.

PATTERNS ON PURPOSE

Broadcast band transmitting patterns are generated by utilizing more than one tower, driving each tower with a definitely established and carefully measured portion of the transmitter's output. As a result of tower spacing and electrical tuning networks, the power used is also altered in phase as required to achieve the needed reinforcement and cancellation effects which create the pattern. The actual design of an antenna to give a required pattern is very complex and outside the scope of this discussion. We will deal with the actual measured performance of operating transmitter-antenna combinations without going too deeply into the details of the antenna itself.

Figures 3, 4 and 5 are patterns of some stations selected to illustrate typical situations for discussion. The original sheets have details included concerning the number of towers used, their phasing, field ratios, spacing, height, and orientation. That information is not included on these sheets in the interest of uniformity and simplicity.



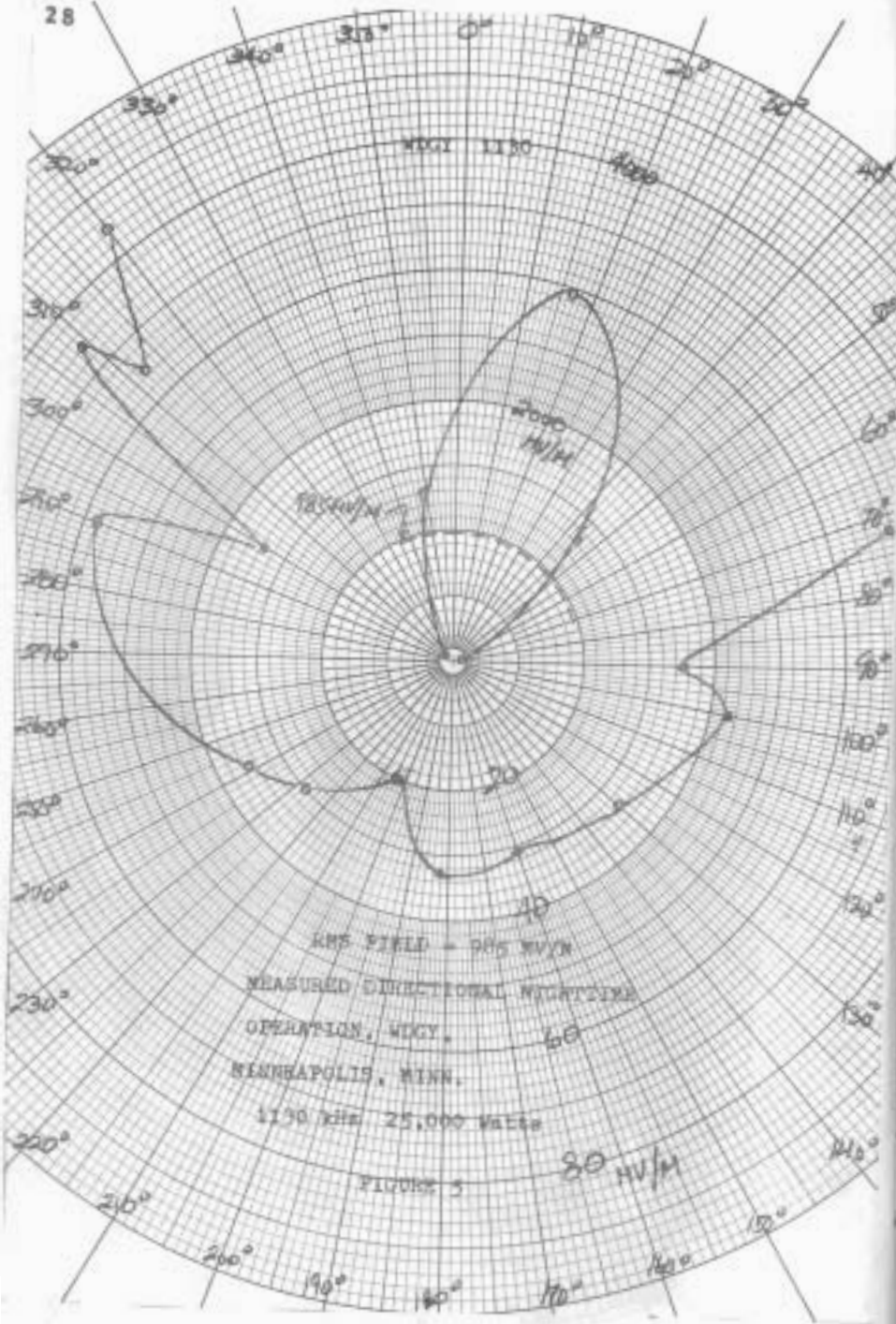


Figure 3 is the nighttime pattern for KRLD in Dallas. This pattern is typical of the simplest type, using two towers aligned along the line of the null and peak. The RMS field value of 1740 MV/M indicates good antenna efficiency. This pattern protects WTIC in Hartford and WTIC mutually protects KRLD. Notice the direction of the very broad peak. Just about all of west and south Texas and much of the Southwest is in KRLD's secondary service area, guaranteeing KRLD protection from interference within that area. Knowing the status of KRLD on this channel, it can be presumed that KSCO and KWJJ both null very deeply in KRLD's direction, which is in fact true. In order to place the nighttime peak across the metropolitan Dallas-Ft. Worth area, the transmitter is located northeast of Dallas in Garland, Texas. It is possible to obtain patterns very much unlike this one with two towers by use of different electrical drive conditions.

Figure 4 is WOR's full-time pattern, a non-symmetrical pattern generated by a 3 tower array placed in a triangular layout. (A symmetrical pattern would be generated if the towers were placed in a straight line). From the log, it can be seen that a flock of other stations are assigned to 710, but they also protect WOR with nulls and all are a good distance from New York. WOR's nulls are designed to protect KIRO and CKVM to the Northwest and North and WGBS, Cuba and Puerto Rico to the South. The transmitter location in New Jersey allows the main lobe to cover New York with practically all of Long Island and New England in the primary and secondary coverage areas. The southwest lobe covers much of New Jersey and Pennsylvania. The RMS field value of 1600 MV/M is reasonably good antenna efficiency but somewhat less than that attained by many other 50 KW stations. As antennas become more complex, the RMS field for the same power input usually drops because the additional tuning networks and lines required result in significant power losses. It may be interesting to many of you that this pattern is relatively new, this data being taken in September 1968. A different pattern was used before then.

Figure 5 is WDGY's present 25 KW nighttime pattern in Minneapolis, a very complex antenna using 9 towers. Notice that the nulls off the "back" of the pattern are so deep that a separate expanded scale is necessary in order to plot them. This technique of presenting two scales on the same sheet is a widely used method of providing maximum information on a single sheet. It is a safe bet that the transmitter is located south or southwest of the Minneapolis-St. Paul area. WDGY's signal in those cities must be fantastic, but a little to the south of the antenna, WDGY must fade very rapidly. On 1130, the primary stations are WNEW, KWKH and CKWX. All of these three stations use patterns at night to protect each other. This results in a "dead spot" on 1130 in the Midwest. The trio WCAR-WISN-WDGY all operate in this area under very strict circumstances so that none of these secondary stations interfere with each other or any of the primary stations. All of them operate with high power, and with the relatively close geographical spacing of these 3 stations, very sophisticated patterns are required. As of this writing, all 3 operate 9 tower arrays with pattern results that are very similar.

30 WDGY's RMS field is 985 MV/M for 25 KW. If we want to relate this to 50 KW in order to judge WDGY against WOR and KRLD, we can compute the RMS field for a hypothetical 50 KW; $\sqrt{\frac{50}{25}}(985) = (1.414)(985) = 1393$ MV/M, considerably less than either of these others. Much of the reason for this is that WDGY's array uses towers $\frac{1}{2}$ wavelength high, and the others use towers $\frac{1}{4}$ wavelength tall. More about that in Part 2.

USE OF THE PATTERNS

As an experienced DX'er with a station log showing assignments and powers, what does 420 MV/M mean to you? Probably not much - you don't have any way to relate that number to your experience. You probably classify a station in terms of power rating, 50 KW, 10 KW, etc.

Let's refer to Figure 3 again. The RMS field circle represents the field that would be generated if all of the available energy at KRLD were radiated non-directionally. For KRLD, 50 KW is worth 1740 MV/M. Notice that at 148° and 326°, the pattern curve crosses the RMS field circle. If you lived on either of these bearings from KRLD, their signal strength would be the same whether they were using their pattern or not. If you lived on the "back" of the pattern, KRLD would appear to be less powerful than 50 KW; if you lived in the "front", KRLD would have to look like more than 50 KW. But how much less - and how much more?

If you live in New Jersey and are listening for KRLD, the knowledge that they are radiating 400 MV/M toward you doesn't help much. But let's say that KRLD is radiating $\left(\frac{400}{1740}\right)^2(50) = (.23)^2(50) = (.053)(50) = 2.7$ KW towards your location. This means that from your location, KRLD appears to generate the same signal strength that it would if their operation were non-directional and their power were reduced to 2.7 KW. That means something, and you now have a "feel" for KRLD's signal.

If you happen to live in Tucson, Arizona and wonder why KRLD is such a pest, a calculation from your location will tell you why. $\left(\frac{2400}{1740}\right)^2(50) = 95$ KW. To you, KRLD is equivalent to a non-directional station running 95 KW.

Take the case of WDGY's pattern again, Figure 5. Look at the peak value of the curve on a bearing of 17°, 2950 MV/M. This is more than KRLD achieves (2450 MV/M maximum), and KRLD has a more efficient antenna, and runs 50 KW. WDGY's radical pattern is squeezing its power into a very narrow, high intensity beam. The apparent power of WDGY on the 17° radial would then be given by $\left(\frac{2950}{985}\right)^2(25) = 279$ KW! That tells you all you need to know about WDGY's signal if you happen to live in their front lobe. Note that the lobe doesn't cover much in angle, whereas KRLD's front lobe covers a very wide

31 area. Due South of WDGY, (180°) the equivalent $\left(\frac{33}{985}\right)^2(25,000) = .001(25,000) = 25$ watts. For reasons that would be fully explained in Part 2, we will accept no more radical reduction in power than 500:1, so for this bearing, the power rating for WDGY will be taken as 25,000/500 = 50 watts.

SUMMATION

These few sample calculations give a good idea of how radically a station's pattern can affect reception of that station in different directions. With patterns like these all over the United States and Canada, it seems that many mysteries of strong reception or very poor or non-existent results could never be satisfactorily explained without pattern information. Take Figure 4, WOR's pattern, and see if it doesn't explain some of your experiences.

The results of these calculations from antenna pattern information will be called EQP or equivalent powers. This expresses the radiation of a station using a pattern as a power in watts on a bearing from the station. In order to make these calculations, you need to know the bearing from the station to your location, and have the pattern available. A station operating non-directionally has an EQP rating equal to its power rating on any bearing from the antenna.

Part 3 will present the method by which this information may be made available to DX'ers, but Part 2 must come first. Many of you will immediately be suspicious that it just can't be that simple. Some will have specific objections. Part 2 will examine in detail the objections to the EQP calculation and show that in the vast majority of cases, the calculations are accurate and useful for prediction of signal strengths.

ADVENTURES OF "HARRIET" IN PARIS PART I

