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"Beginning my third year in the NRC, the greatest club around!" (Roger Giannini, Ill.)

IN THIS ISSUE ...

RANDOM THOUGHTS ABOUT RECEIVERS - Bob Foxworth

NEW NRC MEMBERS THIS WEEK:





\* Gene DeLorenzo, Colby College, Waterville, Me. (Welcome back!) \* Joe Jarearone, Erie, Pa.

Welcome to the NRC, people, we hope to be reading of your DXing activities often here in the pages of DX NEWS. Why not introduce yourself in a Musing?

## RENEWALS THIS ISSUE:



DeLorenzo (Marc)... Bristow (2 years)... Thomas (D)... Gianinni... Hoogerheide... Kenney... Dexter... Bell... Peters... Fallon... Bartos... Gangler... Fountain... Holbrook... Smith (FL) ... Soomre.. Kahn... Block... Anderson... Hansen... Lewis... Kruse... Bartels... Kerr... Millar... Vinzitti... Washburn... Basehore... Hoffman...

## FLASH ALERT REMINDER ...

If you would like to become part of this service (details in last issue) send 10 postcards to Carl Junker, 1312 Colwick Dr., Dayton, Ohio 45420 and he will alert you of any DX specials that may pop up on short notice! Carl's phone is 513-254-9936 for any information you care to phone in.

HI - LO PUBLISHING SCHEDULE IN EFFECT..

With this 20 page issue we begin our new policy which will save the NRC quite a lot of money. The next DX NEWS will be a 40 pager, we hope to be able to continue on this schedule for some time. Also, third class members will be getting all their 20 page issues by first class mail, so be prepared to receive many copies out of sequence because of speedy first class delivery!

STARR'S YADLAND CONTEST SOLUTION IN THIS ISSUE !!!



The NRC is fortunate to number among its 550-odd members quite a number of scientists and engineers who deal with problems related to BCB DX'ing on a regular basis, or who are applying their professional skills in original research for DX'ing. While the NRC has probably published more original technical material on BCB DX'ing than all other groups in the history of the hobby combined, we are unable to publish all of the material submitted due to space limitations and the highly technical nature of some of these articles.

In order to make this information available to those members sufficiently interested, we've decided to begin a new service - NRC Monographs. Articles which are so technical and specialized that they will appeal to only a very few members will be available from Mark Katz just like reprints from past issues but they will not have been carried in DX NEWS. We have two items in this category now: important enough to make available but too long and technical to run in DX NEWS. The first is a 17 page article by Dave Fischer on the geometry and mathematics of great circle signal paths; 17 pages of spherical trigonometry and computer programs which represent probably the most exhaustive and complete treatment of the topic ever written. If you're a technical type getting into direction finding and great circle bearings, this article is a must. The second item is a minor epic from GPN on loop antennas. Entitled "Analysis of the Electrostatically Perturbed Loop Antenna", this article is an original mathematical analysis of the general perturbed loop antenna as used by BCB DX'ers and includes the derivation of ordinary cosine loops, cardioids, LSCA's, etc. This analysis predicts the pickup pattern for any antenna of this large general class and takes into account such ordinarily neglected effects as the complex reflection coefficient of ground beneath the antenna, etc. Anyone into Loops deeply with a good physics background will find much useful information in this article; it's the result of 5 years of original analysis and experimentation and will be appearing in IEEE fairly soon... 40 pages of almost solid equations but it's the last word... Both of these unique bedtime reading items are available from Katz at the same rates as ordinary NRC reprints. If you've been researching a MW DX topic but have held off sending it to DX NEWS because of lack of general interest, let us know at HQ and we'll se about running it as a Monograph. Monographs will be announced in DX NEWS and will appear on future reprint lists...

# HELP!

Ernie Wesolowski is now preparing to produce the final copy for the Incredible Pattern Book but he needs some more members to volunteer to help with the drawings. Like the publication of DX NEWS, preparation of the Pattern Book is far too big a job for one man-thus the call for aid! If you're willing to pitch in and volunteer, you'll soon be receiving a full kit of materials and instructions on what to do. If you'd like to help out on this project (which is guaranteed to make you the World's Greatest Expert on whichever channels you're assigned to prepare!), please contact Ernie Wesolowski, 1416 Pasadena Omaha, Nb. 68107. Join up and get a taste of what's gone into such past NRC projects as the First and Second NRC Domestic Logs, the LA Log, etc. !

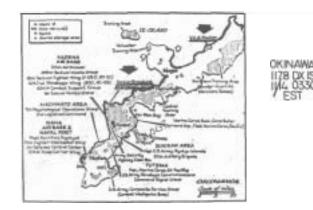
A very last minute tip from Hardester says that he's noted an unidentified stn on 847.13 kHz s/off 0932 with GSTQ; Mike, in Ca., thinks it is Tarawa off freq; loop bearing seems to confirm; anyone else hear this??? **\*GPN & BGK**  SOLUTION TO THE STRANGE CASE OF THE YADLAND DISAPPEARING FOOTBALL PIRATE - JERRY STARR

WELL, HAVE YOU PUT THE FINAL TOUCHES ON YOUR SOLUTION TO THE GREAT FOOTBALL MYSTERY STATION ON 1221?

ANSWER: WBBW-1240 ALSO OPERATES AN FM-STEREO STATION, THE TRANSMITTER IS IN THE SAME BUILDING AS THE STUDIOS. THE FM, HOWEVER, DID NOT CARRY THE O.S.U. GAME, IT WAS ONLY ON THE AM. BUT, WBBW HAD SENT IT'S STEREO GENERATOR TO R.C.A. FOR REPAIRS AND HAD INSTALLED A REPLACEMENT UNIT LOANED TO THEM BY R.C.A. ONE SECTION OF THIS UNIT OPERATES BY PRODUCING A 19 KHZ CARRIER. FOR SOME REASON THIS 19 KHZ COMPONENT IS LEAKING INTO THE AUDIO LINE BRINGING THE O.S.U. NETWORK FEED INTO THE AM CONTROL BOARD. BEING SOLID STATE, THIS AUDIO AMPLIFICATION EASILY PASSES 19 KHZ ALTHOUGH IT CAN'T BE HEARD. THIS 19 KHZ CARRIER IS PASSED THROUGH THE CONTROL BOARD AND IS FED INTO THE TRANSMITTER WITH ALL THE OTHER AUDIO. WHEN EVER THE NETWORK CALLED FOR AN IDENTIFICATION OF A LOCAL COMMERCIAL, THE NETWORK LINE IS TURNED OFF AT THE CONTROL BOARD, THUS REMOVING THE 19 KHZ FROM THE TRANSMITTER INPUT. RESULT: THE SPUR PRODUCED BY THIS 19 KHZ IN THE TRANSMITTER ON 1221 DISAPPEARS. WHEN THE NETWORK FEED IS RESTORED AFTER THE LOCAL ANNOUNCEMENT, THE 19 KHz IS ONCE AGAIN FED TO THE TRANSMITTER AND THE RESULTING SPUR WITH WBBW-AM AUDIO RETURNS ON 1221.

WERE YOU RIGHT? IF SO REWARD YOURSELF BY FACING THE DIRECTION OF YOUR NEAREST LOCAL AND CHANTING THREE TIMES: "DON'T GO NSP". OR BETTER YET, GO GET A COUPLA' CANS......

The winner of this contest is Bob Foxworth, some 10 entries were correct but Bob was the first to get his in. To Bob will go a Pattern Book.





JAMES E. CRITCHETT - 1504 Glenwood Drive - San Diego, California - 92103 Between 5/21 & 10/5, reception reports have been sent to:

KLEI-1130, Kaulua, Hawaii, for RS programming, 6/13 @ 3:42-4:08 EDT; to KIKZ-1250 Seminole, Tex. for s/on program Sat. 6/19, 8:33-8:50; to KCIN-1590 Victorville, Cal. for morning program Thurs. 8/12, 9:45-10:03; to KBG0-1580 for their Sleep-less Marathon, heard 5:20-6am MM 8/16 (Waco, Tex.) and to KUAI-720, Eleele, Hawaii, heard very clearly 10/5 4:12-4:35. The above reception reports prove stations can be heard from the SW corner of the Mainland, U.S.A. Verifications have been received from KLEI-1130 KIKZ-1250 KBGO-1580, a long, friendly letter, and KCIN-1590. The latter sent a friendly letter, CM & "KCIN 1590 Khronicle," a 12page promotion for the station and its staff. Give KUAI time to reply. So stations do reply to requests for verification. The John Kold receiver and Ralph Sanserine loop have been very helpful in adding new stations to my log. Since 6/1 there have been 11 entirely new or call-change stations heard; since 10/28/70 98 new ones have been added. The IRCA Contest started 9/15, & I habe already heard 241 station IDs; 120 from 540 to 1130k, the balance from 1140-1600. The map showing stations heard includes KFAR-660 WBZ-1030 WKIS-740 and nine Hawaiians for the distant ones. KFAR lasted only from 5:58 to 6, but two IDs were heard. I retired from steady work 9/30 and now have more time to DX nights, and sleep days. Russ Edmunds, Ernie Wesolowski, and Jerry Starr, please write details of assistance needed, if any.

FATHER JACK PEJZA - 3266 Nutmeg Street - San Diego, California - 92104 Did you ever look at the mailing label on your DX NEWS? Some

pretty interesting messages turn up at times. SCECPSDDX (Southern California Excluding Certain Parts of San Diego DX) is holding its annual Thanksgiving Gettogether at Grant Manning's place, 4034 Ingraham Street, San Diego, on Sat. Nov. 27, from early afternoon until ..... I hope that some of the L.A. area DXers can make it down here. RjE, KGOE-850 is now on. I haven't heard them yet; nulling the splatter from XEMO-860, all I get is XEZF-850, which is now IDing, incidentally, as "La Rancherita." The Foreign Contests look interesting; I'm glad to note that the stations in each 10k block have been reduced to four; I had mucho trouble last year trying to fill that last blank in several blocks. MM DX has been fairly good recently; a good number of Japs noted on 9/20; unfortunately XETRA-690 came back on just before ID time, thus spoiling any chance to get a tape of the ID of JOAB-690. I've even managed to send some reports; with postal rates going up again, I wonder how long I can afford to keep on doing that. Auroral CX on NM 10/4 & SM 10/3; KDKA-1020 faded out enough for me to get a tentative ID on Tonga. Details on receptions sent to Foxy. 73.

DOUG SHARP - 5524 West Willow Highway - Lansing, Michigan - 48917

Due to Summer school and other activities DX has taken a back seat for the moment. However, several interesting things are developing in the radio shack. First of all, I'm going with a girl from Sao Paulo, Brazil, whose brother is a DXer. I'm sending him an LA Log. Also, as a consequence, I'm taking Portuguese. I'm developing a computer program that will measure the relative strength of each station as a function of power/distance2, plus other important variables. The results should prove interesting. I've had only two significant catches of late: WKGN-1340 on 9/2 @ 2:37am and OMCD-760 u/WJR on 9/13 @ 10:35pm. Tell HQ I'll renew as soon as I get a job. Also, reserve a pattern book for me. Best of DX. (And best of job hunting -ERC)

SHELDON MILLER - 7904 Harding Avenue - Miami Beach, Florida - 33141 I've been out of DX for a while & I'm wondering how the NRC is doing. I'm thinking about getting into it again! (Good thinking, Shel! -ERC)

MIKE COLLINS - 2021 Main Street - Stratford, Connecticut - 06497

Trying to tune 680 more clearly (WRKO Mass. & CFTR Ont. coming in) I noticed a station slightly to the right of the frequency, around 6:32pm on 9/17, was coming in w/cl mx, & then an announcement in SS, so I assume it was Seveille, Spain on 683. They faded before the hour, so I couldn't get a positive ID, but it had the distinctive sound of a TA. At one point, it was quite strong, stronger than WRKO as a matter of fact. WFLI-1070 Tenn. conducting tests on 9/29 around 2am w/an ID on the hour, playing oldies & quite strong here. I also caught WMBL-740 Morehead City signing on 9/29 @ 10pm w/info on approaching Hurricane Ginger. Mx was MoR & standards, signal very good, often on top of CEL & SS. Later on WOBR-1530 Wanchese, N.C. was fading in/out around 12:15 on 1530 w/light mx & WX info u/WCKY. WOBR w/only 250w comes in all day on the beaches of the Hamptons of Long Island. WKV0-1330 Havelock, N.C. was also on, very weak here w/rr & info.u/WEVD around 12:30am. WMCT-1070, Greenville, N.C., which usually goes off around midnight, stayed on AN w/rr, info and commercials. 10/3- R. Horizonte, Colombia, very dominant on 540 here all evening, w/another SS there too, possibly Mexico. No Canadians nor WDAK Ga. evident. 10/4- 250w WVOB-1520 Md. o/WKBE until 6:30-m s/off. WNHC-1340 Conn. had a spur on 1380 for a short while several weeks ago, wiping out WOWW Conn. & WAWZ-N.J. & WENX -N.Y., usual daytime occupants of 1380 here. WNHC correct d the situation & the spur disappeared after a few days. Fortunately spurs are usually non-existant here. 1510 is a fun frequency nights here, w/any one of five stations on top at a given time. WNLC Conn., WMEX Mags., WRAN N.J., WIAC Tenn. or CJRS Que. WFEA-1370 N.H. has a 30 minute NXcast @ lam, w/s/off @ 1:30 nightly. WSPD 0. comes in after that. As in my last Musing, all times are EST except those specified EIT. (\*) (Please use E.L.T., Mike, to avoid confusion - OK? -ERC)

BILL FEIDT - 8708 Contee Road - Apt. 14 - Laurel, Maryland - 20810

DX has been copious since my last report, so right to it. 9/21-WAHT-1510 @ 7:13-7:14pm s/off u/much WTOP hash. WZUM-1590 Pa. @ 7:29-7:30 above ; jumble w/s/off; studio & offices given as Pittsburgh. WJSO-1590 Tenn. @ 7:40-7:43pm s/off, location given as Johnson City. WM00-1550 @ 7:55-7:59 s/off w/very good signal o/nulled CBE; slogan is "Voice of the Gospel", s/off-SSB. WESY-1580 Miss. @ 8:16pm w/no QRM @ s/off for tape. 9/22- WSPF-1000 N.C. @ 7:31 s/off. WV0V-1000 Ala. @ 7:58pm s/off, slogan is "Serving the Tennessee Valley." 9/24-WESA-940 Pa. @ 7:25-7:30pm s/off carrying high school FB; no anthem. 9/26- WTQX -1570 Ala. 7:58-8 s/off. WCIS-1580 @ 8:20-8:27 w/rr. 9/27- WCBG-1590 12:10-12:15 am r/c-TT & ID taped. WKB0-1230 @ 12:20-12:30 w/f/c. Belize-834 12:56-1:04am s/ off for tape, announced //-920. KTIK-1280 Col. @ 2:16am w/brief ID & into rr. WFBS-1450 N.C. @ 2:59-3:07 w/announced ET. WDEN-1500 noted testing much of the AM; they must have more XR problems than any other six stations in the world combined! (Excluding WABC's AXR, of course -ERC) 9/28- WJMX-970 S.C. @ 6am s/on w/ Dixie. WESC-660 S.C. @ 6:35-6:40am about even w/WNBC w/c/w & WX. WFKO-1380 Ohio 7:42pm w/promo for FB broadcast. 9/29- WATE-620 @ 6:25-6:32am w/MoR. 9/30- WKKS -1570 Ky. @ 7:43 s/off. WAMY-1580 Miss. @ 7:50-7:59 s/off; slogan is "N.E. Miss.'s most powerful Mutual affiliate." (What a claim to fame! -ERC) I also noted a station on 1530 much of evening w/Hurricane Ginger reports; probably unn WOBR, giving WCKY a goodrun much of the time. 10/1- WGHQ-920 N.Y. @ 6am PSA s/on. WUFF-710 6:30-6:46 w/"Woof Radio" IDs. 10/2- YNM-620 12:59-1:10am w/ID & seven-note IS. 10/4- WPLB-1380 r/c 1:13-1:17. WPAD-1450 Ky. @ 1:47-1:53 f/c. 10/5- WCCP-1560 S.C. @6am s/on briefly o/WQXR. 10/6- WTTC-1550 Pa. @ 6:59am s/on. WTTN-1580 @ 7:01 s/on completely in clear. 10/7- KSWM-940 Mo. @ 7:02 s/on at fantastic level - listed as 28w PSA but I think they were running a lot more. October is an interssting month for s/ons as CDT PSAs come on before my local non-PSAs. 10/8-WREM-1000 6:55-7:01 s/off "The Big 1", my second WREM, the other, Remsen, NY-1480 now WADR. 73 & DX.

RONALD F. SCHATZ - Box 2814 - AMF - Miami, Florida - 33159

Note my new address. Mail sent to "National Radio Club ... " will also be accepted, this for Convention purposes. Residence & phone are the

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6 same as before, but not for long. Hotel elimination continues, & with our overwhelming choice down here it's not easy. I've also started work on the most fun part of all - the Convention budget - which reminds me: As is true with any convention, the more who come the cheaper things are going to be for the individual, so if you stay home (with a Convention in Miami, who'd be crazy enough to do that?) everyone else will have to pay more. The auction, and possibly some casino games (hush up, y'all) should help the financial end a bit. OK, at present my "longwire" is a telephone line, so you can blame that on the 120 Hz hum you hear when you call me. However the pickup is of near-beverage proportions, and so are the slop & mixing products. If you want to try it, use the yellow wire. If you're wondering about this "new RFS", I've adopted that "mod" look, having waited four Navy years to do so. . I can't imagine anything else that would be different about me. GPN shirr changed though! WQAM-560 has not been AN for several days now - I never thought I'd see it. And WINZ-940 was gone MM 10/5. People, there is hope yet. One out of every four Miamians drinks "cafe cubano", otherwise known as demi-tasse or expresso. The "Latin" way to partake of it is while standing on a street corner duscussing politics! . Try this unique local custom, among other activities, when you attend Miami in '72. 73 & a good DX season to all.

## TIM KERFOOT - 34 Cross Street - Weston, Ontario

I am ready for a good DX season, but it looks like time will be limited. This Summer I did census work for Statistics Canada (federal government), and lived in east-end Toronto. The difference that 12 miles cam make in reception CX is unbelievable. At nightm WJAC-850 is just as strong as CJBC there, whereas on the same RX here, WJAC is very difficult to copy through CJBC slopover. WHM-1050 was easily heard through CHUM, something that rarely happens at this location. (CHUM'd be very interested to learn that, Tim -ERC) CFCM, a real menace in this end of the city, yields easily to CKOY out there. It has been a slow season thus far, w/only two new catches: 9/11- WGRP-940, 5:30pm s/off. 9/13-WEBO-1330, 5:58pm. Recent veries have been: WJML WEBO WNJH WTBB (for 5/70 report). Will the Foreign Contest have more entries than last time? 73.

## JOHN OLDFIELD - 11623 84 Street - Edmonton 2 , Alberta

Have you noticed Canada's increasing "Twin" population? I refer of course to the many dual station operations, especially here in Western Canada. The CRTC says that in order to keep their license, the twins must maintain separate studios, and there must be two hours per day of separate programs (or programs originating from the so-called "relayer".) You're not likely to hear separate IDs though, as most se arate programs occur only during the day. In Manitoba it's CFAM/CHSM-950/1250. On the Sask. prairies you'll find the Soo Line twins, CFSL/CJSL-1190/1280, and Frontier's CKSW/CJSN-1400/1490. The FF CFRG/CFGR -710/1230 station is not a twin. This is just a KIRO 710 protection thing. Alberta has only CJYR/CKYR Yellowhead Radio - 970/1450. B.C. os really the home of the twins. On Big Vancouver Island: CFCP/CFWB-1440/1490. There are many more inland in the mountains of B.C.; CFKC-CKKC-1340/1390; CKEK/CFEK-570/1240; CHNL/CJNL -610/1230; CKXR-CKCR-580/1340; and the Okanagan "triplets" - CKOK-CKOO-CKGF-800/ 1400/1340. Going N we'll find the Caribou Trail Trio: CKCQ/CKWL/WKBC-570/920/1240. West again there's CFEV/CFLD 1230/1400, and CFTK/CKTK-590/1230, and finally the Alaska Highway twins: CFNL-CKNL-560/590. New arrivals should be born by Springtime, hi. I wonder if CFFB-1200 CP for 1210 is accurate? Our CBC wastes a lot of money, but even such a stupid move is beyond them. Not that it matters to many, but the NWT. is 1,000,000 square miles and is divided into three districts: Mac-Kenzie (CHAK-860 CFCT-600 CFYK-1340), Franklin (CFFB-1200 and Alert AFB station) & Keewatin (no stations). Surely such a vast area should be classed as two "provinces" for DX purposes, instead of ONE MILLION square mile area. Believe it or not, there ARE even American DXers who have heard both the exotic sounds of CFFB& CHAK. I think they should be rewarded further by counting a new extra "province", lucky 13. 73. (Could be WOAI-1200 is raising heck w/CBC over CFFB on 1200- ERC)

WE'VE GOT A WEEKLY DX NEWS NOW, BOYS, AND THAT MEANS WE GO TO PRESS EVERY WEEK, & WE WANT TO MAKE EVERY MUSINGS SECTION LARGE AND NEWSY - HOW ABOUT Y-O-U ?

BLAKE LAWRENCE - Box 803 - Canon City, Colorado - 81212

ERC, don't shoot me, but I'm writing this Musing as a "Punishment." You see, a notorious Pittsburgh member (hint - he's not Paul Barker) beat me in a race to 800 stations heard (you might call it a landslide victory, hi), and we agreed on the following as a punishment. Well, here goes. I hear that Miami got the NRC 1972 Convention, via DX Monitor. Too bad the vote did not go to the virtual Shangri-La of Pittsburgh-Youngstown. Pittsburgh and Youngstown have all the advantages of perfect Convention sites - just think how many lamps the Allegheny River could contain! And the wonderful perfume from the dense grey cloud above the two cities could be nothing but inspiring for DX. Imagine the surprise of the Convention-goers at hearing the rare WABC-1155! And, last but not least, the one and only Eric DiRicco (winner of the recent Raquel Welch bounce-alike contest) would be there with all of his natural poise and (koff) charm, and his magnetic personality. Described herein is the 1973 Convention site - Pittsburgh-Youngstown! Enough of this trash - I've got to have some of these 30 lines to tell of my recent DX. MM 9/13- KENR-1070 running NSP on new CP ; c/w mx @ 4:14am; WISM-1480 Wis. good w/ID for AM & FM, rr, 4:28; WAKR-1590 Akron w/NX @ 4:32am o/pest KUDU; WKLO-1080 w/jingle & rr @ 5 04, fair signal for a measly kilowatt; new KAYQ-1190 good @ 5:10 w/"Kay-Cue" IDs & MoR. MM 9/20- XEL-1260 @ 4:45 w/R. Capital ID in SS, & KLEI-1130 Hawaii w/ID @ 4:34, then out. This one was Hawaii #2. Still no sign here of relatively "easy" KORL. KRD0-1240 is now 24 hours, SPU. As I understand it, semi-local KETR-710 will be getting some new call letters and a new format in the future due to recent sale. I also hear that some groups are protesting the format change, as they consider all-NX a benefit. Attention SCers: Be the first on your block to get the new style KIMN SC! Also available here are lots of KDKOs, KTIKs, and some FMs. 73 to all and best of DX in the new season.

CARL "SKIP" DABELSTEIN - 3300 North 56 Street - Lincoln, Mebraska - 68507

Well, it's bean such a long time since I've reported, that perhaps I should re-introduce myself. I've been in the NRC since 1961, but inactive the last few years. I recently moved to Lincoln from Omaha, as I have gome to work for Central Telephone and Utilities Corp. as assistant Controller at the HQ in Lincoln. I have an advanced Class amateur license - KoSEV. On the BCB I have 1,240 heard and 964 verified in 46 states and 24 countries. Enough for the introduction. Some late DX activities include: 10/4- Logging taken on KSSS-740 Colorado Springs w/Mutual NX @ 7am EST. (All times EST). Log also taken on KBIL-1140 w/c/w @ 5:30pm. 10/5 brought the s/on from KRAI-550 Craig, Col. @ 7. On 10/6 two 1280 s/ogfs were logged; WGBF-1280 Evansviilr, @ 11:59 and WDSU-1280 New Orleans, five minutes later. The latest veries to find their way to my mail box are: WAAX KTUF KOKY KTLK WVON WNUS KMCD KOKX WHOP WLBJ WSAC KAGE WMBH KAYQ KFSB WBBZ KSPI KVRA KTSM WIZM WQXR. Many of these were a result of a little f/up activity during the Summer months. I hope to have a little more time to spin the dials this season. Nothing else to report here. If any of the members who are hams wish to set up some type of sked, let me know. Also, anyone having problems getting veries out of stations in the Lincoln/Omaha area, drop me a note. 73s.

RONALD J. MUSCO - 16 Chestnut Drive - Windsor, Connecticut - 06095

Greetings from this inactive DXer. Work at Hamilton Standard Electronics has been keeping me very busy w/ most weeks at 20 hours overtime. With the extra money I hope to purchase a Sansorino loop kit by Christmas time. I did have an SM-1 here for a few weeks but returned it. All listening here w/a long wire. WYRE's TEST 9/17 made it here 12:18-1 w/much static as thunderstorms went by @ 12:15. 10/10, per tip in DX NEWS I tuned 1110 to take a log on WGRG Pittsfield Mass. for #34 from that state. WHIM makes mince meat of him but I managed a daytime report. S/off @ 6:12, no anthem heard. At 6:13 WTBQ heard s/off-SSB for N.Y. #49. I tuned down to 1070 to hear WKCK Pa. 6:19-6:28 power cut, strong @ S-7. I was trying for WCIR. No WDVL-1270 TEST heard here 10/4. 73.

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Times in IDXD are GMT. One side of paper would be appreciated. Receptions:

- 525 Costa Rica. Radio Rumbo, Cartago hrd 10/4 0425-0505 with music and 2 good IDs. Hrd apparent s/off 0505. Much static. (Eddie, Mo.)
- 540 Ecuador. Tropicana in well 0610-0620 10/11, clear; the only audio hrd; about 200 Hz off freq, very weak het. Many "Tropicana" IDs hrd and hrd at least one as "Radio Tropicana". Generally slow, flowery sad-sounding vocals, guitar accmp<sup>1</sup>t; one vocal group by Trip los Panchos appx 0617. Music style very repititive, not a lot of talking. (Foxworth, NY)
- 575 Costa Rica. Perfect Radio Musical ID given 0512 10/4, then into typical Latin mx. Several calls listed. (Kelelley, Masass.)
- 590 unID Mexican hrd with rock mx 0635 10/4 under Cuba. First time hrd. (Eddie, Mo.) (Likely XEPH -ed.)
- 600 Colombia. HJHJ o/u WICC 0607 10/11 which is unusual here. 75 to 100 Hz off freq causing a nasty buzz. "Libertad" ID well hrd. As WICC was saying "7 and ½ past 2" HJHJ said, "la hora...una, las nueve minutos" and plug, "24 horas, Radio Libertad, primera en la costa, primera en la ciudad."(Foxworth)
- 640 Cuba. CMQ audible under KFI SM 10/3 0650 on mild auroral night. (Pejza, Cal)
- 640 Venezuela. Ondas Porteñas noted over CMQ 0550 10/11 with lively uptempo mx, cumbias, fiesta type mx by "las estrellas brilliantes" contrasting CMQ with its generally slow mx and much serious talk. Had a great signal, very steady. Was still there at 0557 but gone at 0620 recheck. Live remote pickup, PA speakers could be heard, and crowd cheering. Seemed about 20 Hz away from CMQ. Hrd again 10/12 to 0555 s/off, same circumstances. Complete s/off anmt on the 12th with anthem hrd. (Foxworth, NY)
- 650 Hawaii. KORL loud and clear 0740 9/20, 2 others under. (Pejza)
- 655 North Korea. Just a het 9/26 at 0750, fair 9/27 1150. (Pejza)
- Pyongyand Net 2 powerhouse audible under splash but fading severely, too much so to hunt for parallels. Same music and anners from last season, IDable from format. 0853 10/4. (Murley, Cal.)
- 655 unID SS here 0335-0353 10/4 with Caracol. Nothing in LA log or DXN, was strong on Beverage but barely readable on loop. (Starr)
- 655 El Salvador. YSS hrd 0404-0455 s/off 10/2, symphonic mx, #17 hrd. (Eddie)
- 655 Ecuador. Carrousel in all morning that I listened 10/11 ranging from good to excellent, needed no xtal filter or Q-mult as 650 and 660 domestics were silent. Good TC given in EST at 0615. Moderate thunder static was noted. Lively mx. 10/11 was quite good, it seemed, for LAS. (Foxworth, NY)
- 664a Guatemala. Radio Fabulosa, TGRT hrd 9/30 0515-0600 s/off with organ mx between songs. Also hrd 10/1 and 2 at same time. (Eddie, Mo.)
- 670 Cuba. CMKP in well 0745 9/20. (Pejza)
- 675 Nicaragua. Union Radio, YND hrd 0547 to 0600 s/off 10/1, almost-rock mx and nx. (Eddie, Mo.)
- 690 Cuba. CMBC in very well with XETRA off 0715 9/20, quiet MoR; on top all night. (Pejza)
- 690 Japan. JOAB very faint // 770 etc. under Cuban, KKUA nulled 0935 9/20. XETRA s/on 0956 killing chance for ID. (Pejza)
- 700 Japan. unID under WLW and SS 0933 9/20, was // 770 etc. (Pejza)
- 701 Morocco. Sebaa-Aioun way over WLW 2325 9/16 with MoR, first time hrd here. Also noted Algeria-548 and Morocco-611 good about the same time. (Kelley,Ma)
- 710 Mexico. XEMP, Radioráma 71, Mexico, D.F. This, in case there is still doubt, is the unID of last season. (page 12, 6 Feb 71 DX News-ed.) They are part of the Grupo Oro, which includes Radio Juventud-660, LA DF, 970, XEB, La B G, ande, 1220, Radio Fiesta-1470 and Radio Tricolor, R-H, 1500. The v/s is Pedro Mendizabal, Gerente. (Gleason, P.R.)
- 715 Honduras. HRTV is <u>now Radio Caribe</u> (see p. 12, 12/12/70 and p. 12, 2 Jan 71 IDXD -ed.), in unbelievably strong with several IDs, spots, nx, pinning (ctd)

- 715 ctd. pinning the meter at 25 over s-9 thru WOR slop 0356 10/1 thru 0410, exc tape, tape sent, new stn. (Edmunds)
- 720 Cuban here o/u WGN around 0600 10/11, maybe 100 Hz off freq altho I did not think to check then. The good LA opening this date seemed to be concentrated below about 900 kHz; nothing unusual noted hi-band altho I did not lock carefully. (This rpt sounds like True Confessions.hi) (Foxworth, NY)
- © Cuba. 0928 9/12 IS (chimes) and anthem. Weak, no WGN. (Oldfield, Alta) 725 Costa Rica. TILX finally logged, weak but separable w/loop under SRS w/ nx, ID 10/4 0230, folo by Latin mx. Radio Capital. (Edmunds)
- 725 No. Korea. Kim-chaek barely audible under SS splash (presume Melodia-73) with excitable male ancr and occasional spurts of oriental orchestra mx. Poor and fading badly. No pips hrd. of course. 0905 10/4. (Murley. Cal)
- 750 Japan. JOIB good // 770 etc., faded slightly under HJDK at 1000 but still clear enough for pips and ID 9/20. (Pejza, Cal.)
- 761 unID. Strong het here under diminished WAEC splash (suspect they were on AXR-rje), classical mx, male ancr with mushy voice in SS, Portuguese or a like-sounding lang; not Eng. Format not Cuba; accent not if was Spanish. Only thing listed is Demerara (who has been known to move up here-ed) Noted 0230-0240 10/4. (Edmunds, NJ)
- 770 Japan. Everyone else hrd this powerhouse months ago (keep talkin<sup>\*</sup> -ed) but a first time for me 0925 9/20 with Eng lessons, Eng news, pips and ID and into Japanese pgmg 0925-1005. 9/27 1100 was similar but without the news; 10/4 in Japanese 1005. (Pejza, Cal.) (Ya know, Edmunds ain<sup>\*</sup>t hrd <sup>\*</sup>em, either)
- 809 Spain. EAJ-5, Sevilla in the clear 0028 on 9/3. This is often hrd, evenings. (Dangerfield, Pa.)
- 809 reference Edmunds report in the 2 Oct 71 IDXD, your Ed. wrote Bengt Ericson for help on some of the items. He says 809 item must be EAJ5, "they have a nightmusicprogram with male ancr", also, "USSR 24 hours" here. -ed.
- 830 Japan. JOBB Osaka the most powerful TP in early stages of a good opening and in like a local with Jap drama of some sort. No sign of KIKI. Most other Jap channels are blocked by Colombian pests. 0810 10/4 (Murley, Cal.)
  @ JOBB not hrd on 9/20 but strong on 9/27 1040 // 770 at 1200, first with
- Eng lessons, pips, etc. Also at 1005 10/4. Was never as strong as 770. (Rejza)
- 836 Spain/Canary Is. Station in SS with light mx pgms being hrd with fairly strong signals, particularly 9/29 0000 to 0030 and NO news on the hour. I had figured this to be Huelva or Granada úntil reading about R. Popular de las Palmas testing here. (Dangerfield) (Ben your rpt missed last week's deadline by 1 day, sri -ed)
- 840 Panama. Could not help noting this while looking for TP's, even with Ondas del Caribe. Sounds much like another Colombian, but Revolución IDs are easy to firm. Should make Panama a very easy country for most on MM's. No sign of the Cuban. 0740 10/4. (Murley, Cal.)
- 840 unID. 2 LA's at good level behind WHAS OC at 0545 10/11, both equal. Had noted a strong LA here 0515 MM 10/4 with uptempo mx, assumed it was HJBI but now realize it just may have been the new Panamanian, if they are on this late. On 10/4, WHAS came on with OC ET at exactly 0530. Now on 10/11, I ckd by at 0540 and WHAS OC was already on. Seemed to be on all morning, what a nuisance. With 2 LAs here, I am tempted to think of HJBI and Panama. Double het between the 3 Carriers (with WHAS reduced but not fully loopable) made audio very messy. (Foxworth, NY)
- 844 Gilbert & Ellice Is. Best reception from San Diego, 9/20 0829-0845, chimes at 0830, news (?) in Gilbertese (?); single chimes now and then. Finally reported. (Pejza, Ca.)
- @ Tarawa in with light fading, chants folo by woman and in vernacular in talk after 0800. Rather a change in sked from last year. 0750 10/4 (Murley)
- \*\* 850.7 Cuba. CMKC, Santiago de Cuba "Radio Revolución" is here now and giving a noticeable het against semi-local WEAT on all rxes here. (Schatz)
  - 870 Argentina. LRA mixed with Cuban (?), anthem and pips 9/20 0900 but nothing else distinguishable. (Pejza, Cal.)

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- 876.5 North Korea. Msd here, talk, march music 0950 9/20. (Pejza)
- 890 Algeria. Noted very good 2250 10/2 with French spkr. MoR mx, WLS f/in was about 2300. (Kelley, Mass.)
- 908 unID. Latin Spanish hrd here, looping about 180°, considerable 910 splaish, 0435 10/1. no hints as to who. (Edmunds)
- unID in IDXD 10/2/71, no stn known on European side of Atlantic is s/off 908 0255. Might be Radio Syd, Gambia, in Eng. overtime? (Ericson, Sweden)
- 940 Mexico. XEQ fair despite local CJCA-930 9/19. (Oldfield)
- 950 Mexico. XEGM Tijuana way over KJR during opening 9/19. (Oldfield)
- 950 unID. China tentatively the one for a few minutes 1048 9/27 before a SS overtook it. (Pejza) (not JOKR? -ed.) P6/P N
- 953 Canary Is. Las Palmas most likely TA hrd with good signal 2321 with cl and operatic mx. Loop bearing and the fact that no European and Iberian signals were present that evening would seem to indicate Canary Is. Only the West Africans were making it. Tip from Marc DeLorenzo. (Kelley Mass.)
- \*\* 967 South Korea. KBS station here 1155-1212 9/6. Had English lessons until 1200, KBS pips, then talk in Korean. Escellent signal 1155-1157; not too strong after that. Possibly HLSA drifting from 970. (Al Lehr, Calif. viaFJP)
  - unID. DF to SE, noted with MoR mx from 0640 10/4 until local noise began 993 just before 0700. Songs in Spanish. (Schatz, Fla.)
- 1000 Mexico. XEOY 9/19 at times even with KOMO. (Oldfield, Alta.)
- 1010 Mexico. XEHL over CBR 9/19 opening. Still my best XE ever..all summer. (Oldfd)
- 1015 El Salvador. YSC hrd well 10/2 to 0355 when suddenly pulled switch, no ID or anything. This folo lengthy Latin mx segues. (Edmunds, NJ)
- 1020 Tonga. ZCO tentative ID 0710 at end of news (?) during a KDKA fade SM 10/ 3. (Pejza, San Diego Cal)
- 1030 Mexico. XEQR over KTWO during 9/19 opening. Was in each evening, tho was weaker, all summer. (Oldfield)
- 1040 China. Better than Japs on 770 and 830 1105 9/27. still in at 1230. (FJP)
- 1040 Colombia. HJAI 9/12 0700-1000 with WHO silent, strong, AN, lots of tape. "Cadena Radio Tropical" and new one for me. (Oldfield)
- 1043 E. Germany. Dresden with good signal at 0115 9/11. Must have been at full strength because when I was in Germany in July they cut power at 2300. (D'gfld) 1050 Mexico. XED Mexicali fair 0910 9/13 with rock. o/u CFGP. (Oldfield)
- \*\* 1060 Mexico. XEEP, R. Educación, Mexico D.F. is here and operating daily with 10 kw. Pgms are cultural/educational with cl mx, folkloric mx or talk the standard fare. Incidentally, on the Mexican subject, all stations are now required by law to include a full call letter ID every 2-hour. (Gleason.PR) (note: GH your item 10/16 IDXD-ed)
- Cuba. CMHU, Cienfuegos with LVdC pgmg, poor under high noise. Probably low 1098 power; hrd 0252 10/4. (Edmunds)
- Libya. Bayda hrd with great signal, chanting 2246 10/1. (Kelley) 1124
- Sprin. EAJ-15 had a dandy signal at 2400 9/13. (Dangerfield, Pa.) 1124
- 1125 Costa Rica. TISRHB, R. Columbia hrd here quite strong w/nx 0255 10/4. (RjE)
- 1130 Hawaii. Kailua's KLEI poor 0703 9/23 u/CKWX. A mix of Hawaiian and soft mx. (Oldfield)
- 1205 Sierra Leone. Freetown noted with a loud n clear signal, commercial for what sounded like "Ovaltine" at 0635 10/4. You would think it were Belize. A poor signal subsequent nights. (Schatz)
- 1292 Colombia. "Ondas del Puerto", Girardot noted usual AN with bambuco mx medley 0625 10/4. Good signal any AM. (Schatz)
- Romania ?? Hrd strong OC before 0300 10/1, then when came back about 0304. \*\* 1295 hrd weak audio looping about 35°. Might well have been a Slavic lang but not certain. Signal quality was similar to other East European TA's hrd earlier this season - rock-steady carriers, strong, but weak audio. (RjE.NJ)
  - 1325 Haiti. 4VW noted after much searching under TIRG and PJA-10, finally pulled out some French 10/5 0058-0107 but strangely (or not strangely, for Haiti-ed) the audio modulation almost died completely around 0300, so no ID. Definitely this one, though, and definitely 1325. (Edmunds)

- 1350 Hawaii. KTOH snatches hrd 10/4 1035 with weather: dropped under SS. (Pejza)
- \*\* 1354 Colombia. Believed to be HJHW in Puerto Boyaca hrd here, looping about 180° with several mentions of Colombia but no local mention or ID hrd. Quite weak 0035-0042 10/4. This, apparently despite the LA log saving it is back on 1350. (Edmunds, NJ)
  - 1367 Int. Waters. Radio Nordsee was coming in guite well in mid-evening, in mid-September. (Dangerfield)
  - 1403 Guinea. Conakry. and looping that direction, evidently the French speaker hrd around 0200 on 10/3. Quite clear then, and hrd less clearly frequently in the evenings. (Dangerfield)
  - 1425 Costa Rica. TICJ. San Isidro del General hrd well during wierd cx 0050 on 10/5 with mentions of Costa Rica and San Isidro in a commentary by male ancr. (Edmunds, NJ)
- \*\* 7464 unID. DFed to SSE, 8 Hz het (2 stations on 1464, then? -ed), poor audio, AN. first noted 10/4. Believe a HJ--. (Schatz)
  - 1493 Ivory Coast. Abidjan seems to have been the French station looping that direction, and broadcasting until about 0005 on 9/27. Pgmg was like that hrd by me in Sept 1963 when I first heard, and subsequently verified. this station. (Dangerfield. Pa.)
  - 1525 unID. Mostly a man speaking in Russian, fluctuating signal, good at times, from about 2324 to after 2345, on 9/26. Seemed to be a het against it. Could have been what was being jammed whilst I was tuning the dial close to the Russian border this summer. (Dangerfield)
  - 1554 Lithuania. (re: 10/2 IDXD) Lithuania is very often on already at 0200. At Tomsk, it must be too light (by then), but not unbelievable. New sched. for Lithuania is 0200 s/on. Lithuania-1554 is not indicated as a Mayakchannel. (Ericson. Sweden)
  - USSR. (re IDXD 10/2) Only Tartu with power at that time in Russian. Baku 1586 is also reported to use 1586 but very light at 0442. (Ericson. Sweden)
- \*\* 1591 Cuba. CMDF, Manzanillo, name now "R. Manzanillo", former "Suacanayabo" so noted 0400 10/6. (Schatz)
  - unID TA's, at least 3 of them noted 0600 10/4. Hets were 6 and 0.2 Hz. 1594 Slight audio noted was likely from Lisboa. (Schatz. Miami)

A few new bits of HC information:

- 1105 Radio Exito, Quito here from 1110 with 1 kw.
- 1125 Radio Inti Raymi, Pomasqui has increased power.
- 1225 Radio Maranon, Quito here from 1570 with about 500 watts. Runs late on weekends.
- 1585 La Voz de las Fuerzas Armadas. Quito now operating here with about 1 kw. (Is the station that was projected, last year, to open on 610 or 620?-ed.)
- 1145 Radio Capital, Quito: Inactive.
- Radio Melodia, Quito (relays HCGB1-1310) will be on shortly with 10 kw. 740 ID will probably change to Radio Nacional Espejo at that time.

-Dave Gleason.

The Cuban A<sup>N</sup>ers in the 660-700 kHz range are relaying CMBQ-1060 which is "Radio Enciclopedia" (en-see-cloh-PEH-dyah). A lot of mis-IDs are resulting from this one, thus its mention. The other networks are carrying La Voz de Cuba, as before. MyNew address: PO Box 2814, AMF, Miami, Fla. 33159. - Ron Schatz.

TA's were totally wiped out 10/5 due to a proton flare (severe) 1335 10/4. The AMs of 9/30 and 10/1 showed excellent signals from hi-band TAs down to 1376. Most low-band TA's are still gone. -Russ Edmunds.

That is all for now. I better mention, despite my PO box, I do have access by telephone. (516) 248-4394, usually around 1 AM ELT (0500 Z) if anyone needs to call. Continue sending items to Box 2111 in New York City.

## Random thoughts about Receivers-Bob Foxworth

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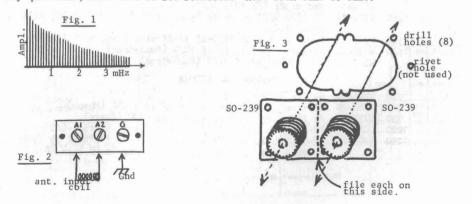
DXers using Hammarlund or similar receivers with 100kHz crystal calibrators (XC-100 in Hammarlund's case) find a great difference in calibrator level when comparing MW and SW. The reason for the much greater calibrator level on the MW band is that the calibrator (a 100 kHz crystal oscillator driven to produce a comb spectrum, that is, harmonics every 100 kHz up through the SW bands) must be powerful enough to produce usable harmonics in the SW band. See Fig. 1 for a graphical representation of the output spectrum. When using such a calibrator on the MW band, the signal is so strong that it obliterates any received signal on the channel. Strong signals in the East, such as WLW-700, CKLW-800, WCFL-1000, WKYC-1100 are entirely masked when the calibrator is switched on.

The solution to the problem is to mount a small SPST switch on the rear deck of the receiver chassis. Any type of switch may be used as only a fraction of a volt of RF, and no DC is involved. A miniature toggle is the easiest to mount however. The single wire signal lead from the calibrator (orange in the case of the XC-100) running from the calibrator subchassis to one side of the ant. input terminal strip is cut, and the switch installed in series so as to open or close the circuit. (Do not wire so as to ground the lead!) When DXing shortwave, the switch will be "closed" to allow full calibrator signal to be heard. When DXing MW, the switch is set to "open" and capacitive coupling around the switch allows a greatly attenuated calibrator signal to be heard. The reduction in signal appears to be greater than about 30 db. This makes the calibrator signal roughly equal to a moderately strong off-the-air signal. Statios such as the ones mentioned above exhibit a pronounced SAH with the calibrator signal with the switch opened and it is possible to get a rough idea if such stations are near their assigned frequency. Use caution, though. Short-term stability of the unheated crystal is no better than a few cycles per minute drift. If it is desired to make an approximate frequency check on a station on an even-hundred dial setting, an acceptable procedure might be to operate the calibrator continuously for several minutes, with the receiver warmed up thoroughly. A minute current through the quartz crystal will heat it up and slightly change the fundamental frequency; it is necessary to let the drift stabilize. While carefully monitoring the beat of the calibrator output with a second receiver, a SW set tuned to 10 mHz and placed near the calibrator so as to allow some signal coupling. This will permit zero-beating the calibrator exactly to WWV at 10 mHz. If you can get your calibrator to within 1 Hz of WWV at 10 mHz, the accuracy will be 0.1 Hz at 1000 kHz. While monitoring your SW set to maintain calibrator zero-beat with WWV, you can simultaneously monitor the BC station being checked and note the difference in cycles per second. The simultaneous monitoring of the calibrator signal on both MW and SW is necessary to ensure against drift of the calibrator. Unless care is exercised the calibrator might drift a few cycles in the time needed to change the set from 10 mHz back to BC frequencies. Another advantage of having a weak calibrator signal on the BCB would lie in tuning to, say, 1200 kHz (in the East anyway) on an auroral Monday morning with nothing but LA's being hrd. This allows one to determine whether his LA is on 1200.00, or 1199.95 (i.e., 50 Hz low) and so on. Unfortunately - this only works on 11 different MW freqs. It should be noted that use of the 10:1 integrated circuit dividers being widely advertised in the ham radio magazines allow generation of an accurate calibrator signal on every one of the 107 discrete MW channels ... if there is sufficient interest. further details will be run in DX News.

An additional benefit of the addition of the switch is to remove the direct connection of the calibrator output from one side of the antenna input circuit. If the DXer is using a balanced loop, with the 2 parallel coax transmission line, this might help improve loop balance, as signal pickup by the calibrator itself would be eliminated from getting into the input. This could be influenced by the use or absence of a FET pre-amp on the loop, and the output impedance of such an amplifier. Use of an emitter follower might be advisable on the loop pre-amp, in any case, if a long transmission line is used. While the receiver is out of the cabinet and on the bench for the addition of the calibrator level switch, it might be advantageous to consider adding some modern connectors to the antenna input circuit itself. This can be guite important if the use of a balanced loop is planned or being done. This modification is applicable to receivers with a 3-lug terminal strip on the rear deck, marked A1 - A2 - G. Such an input signifies that the receiver has an antenna input coil which is almost essential for use with a modern loop. See Fig. 2 for a diagram of what is involved. Hammarlund receivers such as the HO-129X. HO-140 series and the HO-150 are excellent examples of such an input circuit. The HO-180 series receivers, it should be noted, have a single-ended coax input with one connector, in addition to the binding post. This one coaxial input is not a balanced input. What is to be done is: remove the phenolic strip and add two coax connectors, one for each of the two coax feedlines from the loop; connect each of the two antenna input coil leads to the respective center terminal on the coax jack on the rear deck. The connectors are type SO-239 which are made by Amphenol or Dage (among others), they cost less than a dollar each. They mate with PL-259 plugs. (same comments). (Note that if single-ended input to the receiver is desired, such as use of a longwire, the second coax jack may be filled by a shorting plug - this is a PL-259 with the center and shell strapped together). (Note also that the calibrator lead, discussed on the previous page, should lead to the A-1 coax jack, and the A-2 coax jack will be the one that the shorting plug would conceivably used in. This is to avoid shorting out the calibrator signal when using single-ended input).

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When I modified my HQ-150, I drilled out the heads of the rivets and went down to the rivet core, drilling from the outside with a 1/8 drill. Then, with a metal chisel, pop pop the rivets from the inside and the phenolic strip will come off. This leaves the two wires from the bandswitch (ant. input coil leads) floating. The resulting hole in the rear chassis looks like a sideways silhouette of a doughnut. Fortunately in the HO-receiver's case, the radii of the ends is just enough to accomodate a pair of side-by-side SO-239 jacks (with the flange on the outside). All that has to be done is to file off about 1/16 inch of one side of the flange on each jack so they will fit snugly in the hole. It is just not quite wide enough, as it stands, for both jacks as they are supplied. See Fig. 3 for an exploded view of this procedure. Of course, if desired by the reader, if mechanical considerations warrant, BNC or other coax connectors may be used. It should be noted that the idea behind using coaxial imputs to the receiver, rather than screw terminals with bare wire, or binding posts, is to eliminate "vertical pickup" on the loop feedline with resulting weakening of nulls. On my receiver, with a 10-foot parallel coax feedline connected, I can hear local WTHE weakly, and that is all. This is with the loop end disconnected and free, of course. This test shows that the feedline by itself exhibits substantially no pickup by itself, which is desirable. Any questions, send them to Bob Foxworth. More from time to time.





Greetings, peoples. We"re now back weekly, and hopefully, we'll see a bit of pickup in DX as the season progresses. All the stops are now out for the NRC-IRCA-NNRC joint club frequency check list for 1971-72. Editors Joe Fela, Larry Godwin, Page Taylor & yours truly hope to have this most important list to the DX'ing public by early November. Henceforth, we'll go with one list for all three clubs, as much of our past efforts have been duplication of effort as well as omissions caused by spr eading efforts too thim. Now on to regulrity.

- r/c's
- SEPTEMBER: 1st TU: KWRF-860; 1st MM: WPLB-1380; 1st SA: WSHN-1550; 2md MM: KLUC-1140; 2md TU: WFTR-1450, KCHR-1350; 2md WM: WBEJ-1240; 2md TH: WPCF-1430; 2md SU: KALO-1350; 3rd TH: WNMT-1520; 4th MM: KPDN-1340; KTNM-1400.

AUGUST: 3rd	TU: WFIG-1290;	WVNA-1590	OCTOBER: 2md FM: WRDI-1580 (ex- WNJH)
NEW CHECKS:			WFUL-KY-1270 TT by Bob Shaw KICK-MO-1340 TT by Paul Hart

#### changes

- + 1380 WMEE-IN ex-WKJG
- + 1490 CP -IL East St. Louis, 1000/250 U1 (9/29)

(additional change items will appear in updater which should appear with this issue from John Lombardo )

#### sunset & evening

- 1070 WKOK-PA All alome 1815-28 pwr cut 10/10. 57 sig. (Rom Musco, Wimdsor, Ct.)
- 1080 WPNS-WV Newie hrd @ s/off 1845 o/WEEP's 25 kw., good tape taken V/1 sez RS began 7/21, Address is Box 454. (Jerry Starr, (Youngstown, Ohio)
- 1110 WGRG-MA Per 10/2 issue, looked for this one , hrd w/ WHIM to 1812 s/off w/ long album cuts, apparently UG rr format. (Musco) WTEQ-NY Hrd s/off SSB 1815 10/10 (Musco)
- 1460 WPRW-VA ID 1930 9/21 prior to Senators BB (Tom Sundstrom, Willingboro, N.J.)
- 1540 WKCB-KY Newie w/ top 40 1930-45 s/off atop freq. 9/27 (Starr)
- 1580 WEYY-AL Dominant to 1915 s/off 10/2 (Sundstrom) WLIJ-TN 0/CBJ 2000 s/off 9/21 (Sundstrom)

#### midnight to sunrise

- 740 WMBL-NC AN for Ginger 9/30 (Starr)
- 810 WYRE-MD TEST hrd 9/17 0018-0100 s5 w/ some QRN (Musco)
- 930 WITN-NC AN for Ginger, local-like sigs 9/30 (Starr)
- 1220 VGNY-NY ET-TT 9/10 0030-33+ u/WGAR (Bob Shaw, Elyria, OHIO)
- 1250 WMTR-NJ ET-mx 9/6 0445-0450+ vy strong (Shaw) \*\* Thank my lucky stars I wuz in Sacto, and not trying to DX here -RjE

	1250	WYSR-VA	ET-TT hrd w/ ID 0200 9/ 14, weak (Shaw) 15
	1270	WAIN-KY	Hrd ID 0130 on DX difficult w/ WXYZ atop. Nothing more TDeble
			to 0200 (Sund strom)
	1320		
	1000	WHHO-NY	ET-TT 0130-0152 10/8 (Starr)
	1330	unID	unID strong TT'er 0225-0240+ 10/8 (Starr) ** Not really much
		WMLT-GA	info there Jerry, besides, 'twas probably WHOT anyway, hi-RjE
		WEAW-IL	
		MDVM-TD	0401+ , ET 9/6 w/ mx & POETRY!!???\$ (Shaw) ** Oh well, it takes all kinds, I guess -RjE
	1340	KZNG-AR	ET 05/5-0600 9/20 musta been a salar a la salar a salar
	1350		
	1370		ET-rr- TT fair u/pest WSPD 0220-25+ 9/13 (Shaw)
+	1380	WAOK-GA	MM s/on now 0500, copied 9/27 (Hart)
		WLCY-FL	Test from b4 0400 to ard 0500 9/27 w/OC,TT,mx. Annet. sed
			"Sched/ ET's", very strong, suspect NDA array part of time(Hart)
+	1390	WFMJ-OH	went AN 10/9 W/ no info on SP as yet, "Tinker-toy ton /0" en-
			other channel gone, crap///(Starr) ## See 1/80. Jer. Rif.
+	1400	KAOK-LA	New sked is 24 hrs SP MM 0300-0600, hrd 10/4 (Hert)
+	4 1 0 0	KNOR-OK	Copied s/off 0130 9/27, anned 1kw day CP on (Hert)
	1420	UNID	Apparent ET w/ downbeat instr. versions of rr bits, noted off
		KTOE-MN	and on 0130-0230 9/16 (Shaw) ((toon (Shaw)
	1430	WHIL-MA	Sales of the bound of the bornes of 7/13, Dogennie Kille there
	14.50	WILLD-PIA	ET-TT 9/9 monitored occasionally 0015-0145, believe entire thing
	1440	WOHN-VA	taped, w/ half-hourly ID's, live s/off (Shaw) ET-TT 0117-0120+ 8/24 (Shaw) (Starr)
	1450	WPAD-KY	EI-IT 0117-0120+ 8/24 (Shaw) (Starr) Topping channel 0140-54+ 10/4 (Shaw) Hrd ET-TT w/ID 0200 10/4
	1460	WPRW-VA	ET-TT w/ID's by femme 0130-0330+ 10/5 w/ ID's every 5 mins(Starr)
*		WRKB-NC	ET-TT 0035-0100+ 9/28. V/L sez call app. for WCUZ was for a now-
			defunct prospective buyer. , so this holds (Starr)
+	1480	WHOM-NY	Is now AN-NSP-SS-crap, w/ AN SS tele-talk thing most nites. Not
		Logine	sure yet if 4th WM r/c is gone or not, but will check (RiE, PT)
+		WOBR-NC	On for Ginger 9/30. V/1 sez address is Box 158. (Starr)
	1550	WVAB-VA	ET-mx 0120-0140+ 10/8 w/ many carrier cuts (Starr)
	1560	WPXY-NC	ET-IT strong 0257-0259+ (Shaw) -9/8
	1200	KLTI-MO	Ending a c&w ET (best thing to happen to one of those bi-RiE)

0215 10/5 (Starr)

THASSIT FOR THIS GO\_ROUND. More DDXD next week, in the mean time, have a happy!



ebu update

## 1385: ECS11 is 20 ki

No.14 647 kHz 464 m	Daventry + 4 st. Simferopol Tovarnik 2 + 2 st. ? Tabriz	G UKR YUG IRN	3/ES	150 100 20 100	647 000.0 647 00, 647 020.8 647 000.5 644 99.	No.42 899 kHz 334 m	Milano ?	I	1	600	899 000.0 895.012
No.34 827 kHz	Riyadh Godhavn Oujda 2 Sofia-Vakarel	ARS GRL MRC BUL	B 2	100	647 000 650 004.1 827 006.3 827 001.2	No.54 1007 kHz 298 m	Beograd Lopik Kerkyra	YUG HOL GRC E	2 1R RNE	120 50	1007.005.0 1007.000.2 1007.004 1006.992.7
363 m	Freiburg + 4 st. Barcelona EAJ.1 Castelo Branco Kiel Gorkii	D E POR D URS	SWF1 SER ENR1 NDR1	20 1 0,5	826 997.8 827 000.0 827 002.1 827 000.0	No.71 1160 kHz 259 m	Kardzali 1 Strasbourg 1 Pamplona EFE.57 ? Abadan	BUL F E URS IRN	1 FI REM	150	1160 0. 1160 000 0 1161 790 1160

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

Dunno if this will make the deadline, but better late than never. New stations in from Johnstown: WHIM-550 w/Phillies EB @ 8:45pm. WDEV-550 w/Red Sox BB @ 9:10. WAEB-790 w/rr @ 7:39pm, WGBI-910 w/c/w @ 7:55pm, WVSC-990 w/rr @ 7:20pm, WOKY-920 w/rr @ 7:52, and three more, all w/Hurricane WX broadcasting. This is the first time I have had the opportunity to log more than one station on w/emergency WX programming: WESR-1330 @ 8:25pm, WITN-930 @ 8:45, and finally, WEEE-990 @ 10:30pm. Verifications in: Mucho thanks goes to Wes Boyd for his tip that WNAX-570 is now verifying if send a PP/c - I did and now have that bugger verified. The scrawl is very bad. Also in: KTAR-620, and w/WNAX that's a total of 38 stat s verified. In, too: WEZA-1410\*, the \* denotes my PP/cs WATE-620 WKAJ-900\* WSNY-1240\* WGBI-910 WAEB-790 WITN-930\*.WVSC-990 & WHIM-550\*. V/ls in: WGBB-1240 & WDEV-550. The TA list looks like a good piece of work. I'd probably expire of a heart attack if I ever managed to pull in one, though. To all those awaiting the ultimate torture of midterms - grok. Till next gathering of idiccy, 73 and bon DX.

#### TONY LAGATTUTA - Box 6291 - Portsmouth, Virginia - 23703

Hi from Virginia. Recent visits to WCPK-1600 & WVAB-1550 reveal both are glad to verify reports. For WVAB, write Box 986, Virginia Beach, Va. 23451. I'll apologize for misplacing the name for the gentleman at WCPK-1600. Has anyone ever heard "Super Lou" on WKLX-1350? A visit to that station was exciting & included meeting him. Now to DX. New RX mentioned in last report is really great. There's still some work to be done but I am very pleased with it. 1370 in daytime gives WKIK & nulled out, gives WJWS, both clear with no slopover from WKIX-1350 only about three miles away. I had WXVA-1550 & WKBA-1550 in about 4pm w/local WVAB-1550 off then. Why doesn't HQ put complete addresses of new members on front page of DX NEWS? I wrote them this question and I hope the answer comes with the Domestic Lo I ordered. Not much time is put into DX now. But I like to work on the home-made DX & visit other DXers. A set of plans for two-tube portable BCB RF amplifier went out to NRCer Myron Gray in N.Y. Still about five sets are left and free to anyone who wants one. If ever laid off work I'd like to move to Boston where th re are so many DXers. Does anyone know any other DXers (may not be in any club) within 60 miles of Norfolk/Portsmouth? Any age - any band (especially BCB), please let me know. Reports this week out to WPYB-1130 WFCM-1550 & WQVA-1530. The Tonkers radio pirates are heroes in my book. I'm for them, but no politics here, hi. Best DX to all.

RICH RICHMAN - 14 East Cheshire Place - Staten Island, New York - 10301 Thanks to a telephone tip (relayed to me by Bernie Duffy) I was

she to log WOBR-1530 N.C., the night of 9/29, and the morning of 9/30. As I guess just about everyone knows by now, this 250w station was on to broadcast advisories on Hurricane Ginger. WOBR could be heard u/WCKY, when WCKY was not broadca ting mx. WOBR could be heard u/WCKY, w/Easy-listening instrumentals and vocals, and frequent Hurricane reports. I heard WOBR @ 9:02-9:05pm, and then again from 12:12am to 12:38. WOBR sent a nice v/1 & CM. A v/f arrived a while back for WCDL-1440 Pa., heard during the week WNJR was off the air). It seems the only new catches lately a e due to unusual CX - hurricanes, stations losing their fully. 73s.

DAN KAHN - 260 Washington Street - Malden, Massachusetts - 02148

I've been a member of the NRC for several years, but just moved up to the Boston area. I'm a grad student at M.I.T. I haven't done any serious DXing here yet. WEEI-590 is just two miles from here, and locals on 1090 and 1430 have XR sites near WEEI's. The other Boston stations are very strong too. But I'm used to it - I lived a mile from the WNBC/WCBS tower in the Bronx for two years. 73 for now, I'll Muse again when I have something more substantial to report. Home phone is 617-321-8150. (Welcome at last to Musings, Dan, and we hope to see much more from you, regularly, along with those other Beantowners -ERC) REMEMBER - KEEP MUSINGS FOR DX DOINCS - NO VERIE SIGNERS' NAMES IN MUBINGS! GEORGE B. SHERMAN - 104 Pinewood Circle - Rosemount, Minnesota - 55068 DX is much better lately. 9/2- WLIL-730 exciting me w/their

199w PSA, fair w/CHIR/unID SS/WGN slop; KOY-550 pleasant surprise w/spot, TC, & jingle "55 K O Y" o/u mess @ 7:48, nearly ISR! MM 9/13- WAGN-1340 f/c-TT S-9 w/ WLAV & the mess @ 2:30am; XECO-1380 "R. Eco" S-9 o/KRKO @ 3:20, on Star Roamer, as is all my DX now. WDAK-540 weak w/rr & "The Big 540" IDs @ 4:50, despite ERP this way of almost nothing to protect CBK, & heard again 9/15 @ 5:25. I wish CBT could make it; hard to believe they 're 10kw non-DA. WAVE-970 S-3 o/KAKC @ 5:25am w/MoR,also MM 9/13. 9/19- Great Aurora! XEPZ-1190 R. Mexicana lkw daytimer S-1 o/u XEWK @ 9:55pm, must ve been on past sunset authority as their LSS was 9:15. MM 9/20 brought amazing reception of WGNT-930 W.Va. s/on-SSB @ 5, WKY nulled. MM 9/27 I had S-4 from KHEN-1590 Okla. @ 7 s/on till 7:30 on 500w PSA w/Rev. Carl MacIntire's 20th Century Reformation Hour. 10/1 and most days since, the new KQAD-800 Luverne, Minn. #89-is S-1 on groundwave 7:30-7:45pm s/off, MoR. WELY-1450 Ely is my only needed Minn. now. MM 10/4- KFAC-1330 Cal. w/cl mx u/KFH @ 4:30; KAYQ-1190 Mo. S-1 o/QRM w/ID as "Kay-Q", just like my local KQRS-1440 IDs, to answer ERC's question of my last Musing. So, KAYQ must be NSP, like everything else, hi. 10/8 was unbelievable considering is wasn't even an MM. WFIR-960 Va. S-2 o/KRSI-950 slop @ 4:33 w/HI; WATE-620 Tenn. S-1 o/QRM s/on-SSB @ 5am; WCLU-1320 Ky. S-3 on 500w PSA w/c/w o/mess @ 6:25am; WDMP-810 Wis. s/on @ 7:15 w/ KCMO; WMTS-810 Tenn. on 500w PSA @ 7:25 w/KCMO/WIMP. All three were playing c/w. There are SEVEN c/w stations listenable here all day: KTCR-690 WVAL-800 KDHL-920 KFIL-1060 KDAN-1370 WMIN-1400 (AN) & KOIM-1520. I'm up to 1,231 heard & I'll have more soon in my ninth 1971 Musing, Best of DX & 73 to all.

#### JAY MURLEY - 1723 Candlestick - Newport Beach, California

TP DXers should find the list of 11/1 Japan changes to be of particular interest. Osaka-870 & Sapporo-750 should end up as easy as Osaka-830. But the big change will be 870. W/100,000w on 870, the NHK-2 outlet in Fukuaka, JOLB. has been commonly heard & reported. In the Rockies & Great Plains, it's been best in WWL's SM s/off period, on a frequency offering such other goodies as the Ecuador, the Argentine, Honolulu's KAIM, & a mercifilly weak Colombian. In the Far West, it's been available on any TP opening w/total clarity after New Orleans and the LAs all fade after their LSR - and before KIEV's 9am PSA. But JOLB is deserting 870 for 50kw on rather crowded 980, and fat chance of most of us nulling the wall of NSP Canadians, etc. on that one. So if you need JOLB get it in October, 'cause it's gonna get a lot tougher. In the 11/1 switch, another NHK-2 will land on 870, a station called JOGB in Kumamoto that's moving from 10kw on 1590 to 500,000w on 870. So, a prediction. On half-decent TP openings, a lot of DXers who wonder what thd WC guys who claim that JJs often sound like SSes on fading signals will learn first-hand. As they try to figure out whether they have the 100kw Argentinan, the 500kw Jap, the 20kw Ecuadorian, or something less interesting like Cuba & Colombia. And they'll be DXing on SMs if they're especially anxious to log their first Japanese (or even TP) station. Because until the Colombians get their new 100,000 watter on 870 functioning, this frequency should be one of the most interesting on the air. And on an entirely different note, the new "Revolucion" on 840 certainly makes Panama a lot easier!

### JOHN TULL - 5539 Oak - Kansas City, Missouri - 64113

A few veries in: XETRA-690 WEW-770 KFEK-1530 KSIB-1520 KFU0-850 WRE0-600 KFMC-1560 WSAI-1360 KWHN-1320 & PJB-275 meters. Reports out to PHA6-925 WEFA-1035 PJD2-1295 TGR-664 WQAM-560 Fla., a new state for me, also KTW0-1030 Wyo., another new state as I am jotting this down. It's 1:30 MM 10/11 & I am at work. Before I came in the BCB was in great shape. I'll just eat my heart out while you all log that good DX. My cascode amp is working real well but I think I'll get a mechanical filter for my next project. I would like to log some more LAS. Well, duty calls - good DX to all. 73.

"AN" SITUATION - ONS	1070 KENH 1190 KAYG			WQAM HJED	(s/off 1 a.m.)
	1240 K R		1180 1560	W H A M W D X R	Fri & Sun. now

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18				S P kc/s	ECIALS watts	E.S.T.	Info:
Mon.	Nov.	1	WAMB	1190	Domelson, Tennessee 250	1:05 -	IRCA
			WRAY		Princeton, Indiana 1,000	2:30 - 3:00	NRC
					Yadkinville, N. C. 1,000	2:30 - 4:30	NRC
				1178	Okinawa 1,000,000	3:30 - 4:30	NRC
			WYRE		Annapolis, Maryland 250	12:15 - 1:00	NRC
Sat.	Nov.	27	KWYS		West Yellowstone, Montl,000	3:45 - 4:00	IRCA
Sun.	Nov.	28	KOBE	1450	Las Cruces, N. Mexixo 1,000		NRC
Mon.	Dec.	6	WCGB	1050	Juana Diaz, P. R. 1,000		NNRC
Mon.	Dec.	20	WOBR	1530	Wanchese, North Car. 250	4:00 -	NRC

W A M B - Reports to Mr. William O. Barry, G.M., WAMB, 1617 Lebanon Road, Nashville, Tennessee 37201.

W R A Y - Reports to Mr. Jack M. Mauck, C.E., WRAY Redio, Princeton, Ind. 47670.

WYDK - Reports to ei her Mr. Harry D. Dannagan, Mgr., or Mr. Darrell Smith, C.E., WYDK, Route 1, Yadkinville, N.C. (or Sun AM 10/31, same time)

(See last issue of DX NEWS for more detail on these three TESTS.)

HEARD SINCE LAST ISSUE 800 K Q A D Luverne, Minnesota 840 R. Revolucion - Panama

MIKE "DOC" HARDESTER - 401 Birchwood Court - Modesto, California - 95350

I'd planned to Muse more often, but lack of time to DX has subsequently resulted in little to Muse about. MM 10/11, appeared to be Auroral w/ECMA 50kws quiet except for WRVA & WKYC who each were 0/S-9 here. SS stations were also absent, but some Hawaiians noted. I suspect KBYR-700 to be the station u/WLW, but weak, & no ID possible. UnID on 847.13 10/11 @ 5:58-6:33 EDT. Unk language w/IS (??) @ 5:59:50 for about ten seconds; s/off-GSQ @ 6:32 & carrier off @ 6:33. I suspect Tarawa, but 3k off? Info and other reports in IDXD. Recently I read where the Postal Service wants to up First Class postage to 9¢. Anyone interested in starting the Pony Dxpress again? EC DXers needing Nevada, check KCRL-780. They're often on past fam EST MMs w/cl ux \* much plano mx. If WHEM is off & CX are good, youshould be able to hear them, despite their antenna pattern. CPCers: How about some exotic DX Specials from the EC, like WABC, WCBS, etc. Seriously though, how about some from Conn., Me., N.H., R.I., Vt., Wis., & other seldom-heard states in the Midwest or WC? I'm working on some stations for TESTs, but nothing definite as yet. 73 & good DX.

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

My Post Office is now stamping my mail "C. CAL Rt. 56 11226", perhaps due to my complaint to Washington two years ago? Or is this a new custom/ Nice v/1-CM from WOBR-1530. NM 10/4- WWRL-1600 off; WIBG-990 ET/OC @ 1:33. Unn WVK0-1580 ET/OC @ 1:15 & on. A bit of WFIR-960 HI @ 1:31, but they soon gave "way to ZFB1 & CKWS. Usual AN WAPA-680 was off: RJR-580 noted @ 2am. CKWS-960 s/off @ 2:05. WMAL-630 ANing @ 2:33. Unn WBAP-820 noted AN, but HJED off. While listening to a high-poeered preacher on 860 @ 2:56am, suddenly another one faded in w/ talk on natural resources, farming, etc. in N.W. anada, plus tide reports @ 2:59, then out, and back in around 3:10, talking about a highway in N.W.T., then out for good, and in then came KONO-rr-AN. I believe this was CFPR, Prince Rupert, B.C., and so does neighbor NRCer Rick Heald, and a tentative is on the way. Rick used to live 200 miles from them and he said he thinks this was they ! 10/7- Unn WHUC-1230 ET w/c/w @ 12:55-1 & on, on top. WHOM-1480, local SSer, was still on @ 1:06. WEEZ-1590 noted AN-rr. A weak XEVIP-1560 was making it in the clear @ 1:13. Somebody TTing on 1550, S 5-6, anybody ID this bird? SM 10/10- Who has "Word of Life" hour on 1570 @ 6am EDT? He s/on @ 5:57, & all I got was "1,000w." MM 10/11-WGAR-1220 off today. TTs on 1300-1310-1330-around 3:10am. CHEC-1090 noted, unn. only second logging of this rarey, s/off @ 4:07am, leaving XEPRS-1090 w/rr or NN. & reported. 10/13- WKIX-1350 seemed off. WSPD-1370 was HI, but with a man, not Dear old Dolly. TAs noted on 1376 & 1554. On 860, I listened to one hour and 8 minutes of opera in EE, two men & a girl arguing over who'd get to sin with her, hi. It turned out to be XEUN, R. Universidad, unn. Good signal o/R. Clarin AN.

VERIE SIGNERS

		. VENIE	5	TON	FUD		
	W. Heinen			1360	WLIQ	R. Savell, CE	G
B = 1	r. McCorm	ack G = E. Wesolowski			WMNS	M. Ceci, CE	I
C = ,	J. Critche	ett H - W. Boyd		1370	WOTR	W. Remington, CE	I
D - 1	M. Sorense	en I - E. Di Ricco		1380	WAMS	T. P. Rollins, CE	B
E -	C. Reno	J - E. Cooper		2)00	WLCY	H. Hunt, E	G
				1390	W NfU S		
550	KOAC	B. J. Ballard, CE	В			S. Schutt, CE	A
560	WFRB		I	1400	WSJM	F. Wolf, CE	B
000					WNUE	J. Ryan, CE	BF
- 70	W OpO F	O. Lammar, CE	, I		WFPA	R. Walls, CE	В
570	W FqA A		/I	1410	WBKN	J. Thames, A	G
580	WKAQ	Reinaldo Royo Jr VP	/GM	1420	KJST	S. Harper, CE	C
620	WVNJ	P. Sestam, CE	B	1430	W FcO B	D. Smith, CE	H
680	WRNG	A. G. Swan, CE	B		W NcJ R	S. Blatt	HI
730	WNAK	R. W. Neilson, CE	F		KELI	G. Thomas, CE	B
740	K TpR H	L. G. Mullan, CE	I	1440	WRBE		G
	KRMG	L. Ballard, CE	I	1440		W. W. Lange, CM	
770	K UqO M		B		WOHN	R. Norton, CE	H
780	ZBVI	D. Douglas, PD	B		W AfA B	J. Kopoyan, E	I
	WMC				WHIS	G. Hendrick	I
790 800		W. A. Radalph, A	G	1450	WHKP	C. E. Renfrow, CE	H
-	CFOB	G. McBride, M	B		KVSL	R. D. Dellmer, O, M	C
810	WSJC	R. Blakeney, GsplMx1		1440	W RfO K	D. Peacock, CE	A
0	WATI	F. Proctor, PD	F		C KTP M	C. L. Walberg, CE	A
820	W AqI T	R. L. Stephens, CE	B	1460	WMBA	J. Bride, O	H
860	WDMG	D. Andrews, PD	G	1480	WSHP	J. Nordine, CE	B
910	K GqL C	D. Adams	A		KTHS	D. Patterson, CE	B
920	CKNX	S. C. Reid, DOE	H		KSDR		
940	W IfN E	J. Yacuzzi, E	B			R. S. Iverson, M	H
	W GqR P	K. Andirsen, CE	B		WIOS	R. A. Van Buhler, CE	H
960	W FqI R	u/u	A	*1.00	WLEE	T. J. Cita, CE	I
970	CKCH			1490	W SfT P	F. J. Ostwalt Jr. CE	В
210		,	A	1500	WDEB	J. L. Bolis, CE	B
	W AqV E	u/u	A		WBRI	T. J. Wallace, GM	B
1010	WANV	C. E. Neer, CE	F		WGMF	u/u	IJ
1010	W M O X	Joy Jones, S	G	1510	K SpO M	C. G. Sprenger, P, GM	C
1030	K TqW O	F. Hildebrand, CE	В	1520	W KIV I	R. Densmore, CE	BFJ
1050	WTCA	K. E. Kunze, GM/CE	B		WINW	R. D. Colaner, CE	H
1070	K FfD I	J. Austin, CE	B		K MpP G	D. Haude, PD	C
	WTSO	S. Stern, Bost E	F	1530	WOBR	G. F. Williams, CE	B
	CHOK	K. E. Monk, GM	H	-/5-	W CqK Y	A. Lentz, CE	I
1080	WEEP	R. C. Brandon, CE	D	1550	KRGO		
1120	W UfS T	G. S. Hess, CE-WJMD	В	1),0		J. Clayton, PD	C
1150	W IfM A	W. E. Harrison, CE	B	1560	KGMO	C. Jackson, CE	H
Les Contra	WABH	N. Whetzel, CE	H	1560	WDXR	J. Bartlett, CE	D
1230	WAUD	C. Harris, PD	B	1570	WONA	M. Simpson	G
1240	KWAK			1580	W NmJ H	J. N. Rodio, P	DI
1270	WCMR	C. R. Sandine, M	H		W SpK T	H. J. Moza, O	I
1010		E. C .Moore, GM	В		WCLS	C. H. Parish Jr., P	G
1280	W UpO K	u/h	H	1590	WSWW	D. Ratz	H
	CHAM	D. Cox, E	I		WVNA	J. Hall, GM	I
1300	WKCY	O. Voigt, CE	H	1600	W UpN R	A. Temple	J
	WAVZ	F. H. Brill, CE	B		Par .		0
1310	W IfS E	N. E. Jorgensen, VP	В	This	is event	hing we have through 8/2	7/71
	C KqO Y	K. Puttock, CE	I				
1300	WSYD	B. Monday, PD	H			to more of you to submit	
1330	WFIN	E. C. Smith, CE	B			rie signers. A lot of y	
	WTRX	D. Gale, CE				t of them. Please check	
	W EfV D		B	back	through t	he last few listings of	this
1340	KSEK	D. Winter, CE	I			't re-submit anything th	
1350		D. Walton, CE	В	was 1	isted in	them. Use our abbreviat	ions
1370	KCHR		G	and 1	ist them	with frequencies and dou	ble-
	WWBR	S. Rapski, CE	H	space	d. We ne	ed more names in this li	st!
	W SqL R	E. Huber, CE	I	Verif	y your ca	ed more names in this li tches! Be a COMPLETE DX	ler!
	W SqM B	u/u	H	Use a	seperate	sheet from your Musing.	