

# \* D X MONITOR

PUBLISHED BY
THE INTERNATIONAL RADIO CLUB OF AMERICA

March 27, 1971

VOLUME EIGHT, NUMBER 27

All times in the domestic sections are Eastern Standard Time. All times in the foreign section, DX Worldwide, are Greenwich Mean Time. EST = GMT - 5 hours. GMT = EST + 5 hours. Please report to sections in the appropriate time zone.

## CHANGE OF ADDRESS

Mike Northam has moved to a new address. All official club mail as well as personal correspondence should be sent to his new address effective April 1, 1971. This includes all dues for new members and renewals, changes of address, corrections of any sort relating directly to the label or your expiration date. The new address is:

Michael B. Northam - 1608 N.E. Knott Street - Portland, Oregon 97212

Things NOT to send to Mike: complaints and inquiries regarding receipt of DXM, the New Member Packet, membership card, and reprints. If your bulletin ever arrives postage due or is sent by the wrong class of mail, let DEE know. Mike can only forward your request; during the summer, the delay will be considerable. ALL inquiries and orders for club supplies are under "embargo" so to speak. No material is being sent at the present time. But when you do order, write to DEE. Anything you want published in DXM, unless it clearly requires Presidential authorization, should be sent to DEE at the 6059 Essex St. address.

If you've already sent your dues to Mike at the old address, do not worry; they will be credited with due promptness and you will not miss any issues if you follow previous request to send your renewal 30 days before date of expiration. Because labels are prepared well in advance of use now to preclude a repeat of the previous disaster caused by the PO losing the labels temporarily, it is especially important you mail early.

FOR PUBLICATION IN OTHER RADIO CLUB BULLETINS, MAGAZINES, ETC: Please do NOT announce a change of address for IRCA. The reason is that the club is trying to standardize the address for publicity so that all requests for info on the club arrive promptly at 6059 Essex St., Riverside, CA 92504. When writing something for publication, it is appreciated if that address be used exclusively. Dues are forwarded promptly and no issues will be missed in this manner.

		EST			DX CALENDAR And the state of th
Tue. Apr.		c63 <del>0-</del>		860	Nacogdoches, Texas lkw frequency check
Mon.	12	0300-0400	CKRW	610	Whitehorse, Y.T. lkw NNRC/Michael Lynch
Mon.	26				Greensboro, N.C. 250w NNRC
Wed.	28	0100-0400	WCOX	1540	Camden, Alabama lkw NRC/IRCA-Lombardo

DON'T FORGET THE FOREIGN DX CONTEST FOR THE MONTH OF APRIL ONLY. DETAILS AT THE END OF 'FIRST TWENTY COUNTRIES IT ENGLISH' IN MARCH 13, 1971, DX MONITOR.

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EAST COAST DX ROUNDUP
 March 27, 1971
 Editor; Dave Faulkner 1430 Pine Grove Ave. Port Huron, MI 48060
  Send all reports to bruce. Deadlines are Fridays.
  __________
  YOU WILL BE READING REPORTS IN THIS ISSUE FROM;
       Marc De Lorenzo 35 Sylvan Drive Hyannis, MA 02601
       Dave Faulkner 1430 Pine Grove Ave. Port Huron, MI 48060
       Jerry Robertson 6065 Gardner Line Croswell, MI 48422
  (JR)
  (DSS) David Singer 5501 Old Richmond Avenue Richmond VA 23226
       Steve Taaffe Box 156 Dayton, IN
                                         47941
 This idea per Brh, but I think it's a good one. What do you think?
 IL Chicago o & u KMON w/talk show 0140-0150 2/6. (JR)
  560
       WIND
              LF Miami o/KMON & WIND w/rr 0243-0448 2/6. (JR)
       MAGW
 600
              FL Jacksonville o & u WCAO w/rr 0320-0330 2/15. (JR)
       WPDQ
              HI Honolulu fair w/ID - nx 0400 3/1. (ST)
 650
       KORL
              WI Superior hrd ID at 1900 3/7. (JR)
 710
       WDSM
 730
       CKLG
              BC Vancouver fair w/wx 0344 3/8. (ST)
 770
              NM Albuquerque good u/WABC w/HI 0156 3/8. (ST)
       KOB
              MN Minneapolis exc. w/nx 1909 3/5. (ST)
       KUOM
 870
              NY Ithaca exc. w/ET 0122 3/1. (ST)
       WHCU
**970***WJMX**
              SC Florence fair on TEST w/mx, IDs. 0211 3/15. (DSS)
              AL Montgomery good w/WCFL looped w/s/off 1859 3/3. (ST)
1000
       WQTY
       WXTN
              MS Lexington good w/WCFL looped w/nx 1900 3/3. (ST)
1020
       KGBS
              CA Los Angelos poor w/relig. show 0300 2/15 rr mx after
                 0300. (JR)
1070
       UnID
              ?? Canadian s/off w/"O Canada" & GSQ u/WIBC 0000
                 3/14. (DSS)
1090
       WKTE
              NC King hrd w/elnt sig. on IRCA DX 0300-0335 3/8 thru
                 WBAL OC. TEST consisted of TT, cw mx, many IDs.
                       Good on DX 0310 3/6 w/QRM from Wolfman. (ST)
                 Good on DX TEST 3/8. (JR) (Missed 'em again - DF)
1110
       KFAB
              NE Cmaha continues to make occasional appearances;
                 haven't they gone directional again yet? (DSS)
       WBT
              NC Charlotte taking a rare SP MM 3/15. (DSS)
       KMOX
              MO St. Louis s/off 0300 3/15. Announced as only 10
1120
                 kw. Since when? (DSS) (Something about this was
                 mentioned in an earlier bulletin, but no further
                 details were given. Anyone have any? - DF)
1130
       WCAR
              MI Detroit poor w/rr u/WNEW 3/15 0240. (DSS)
1150
       CKOC
              ON Hamilton dominating channel w/rr 0200-0300 3/15.
                 (DSS) (They do more than dominate here hi. - DF)
       AMIW
              OH Lima good w/CKOC 1840-1843 2/12. (JR)
       WYNE
              WI Appleton good o/CKOC w/rr 1710-1719 2/6. (JR)
1270
       CJCB
              NS Cidney vy. good w/cw mx 0405-0430 3/8. (JR)
1290
       WPVA
              VA Petersburg fair w/cw mx 1715-1745 3/7. (JR)
1300
       WAVZ
              CT New Haven hrd w/a test w/WERE while listening for
                 WMVO TEST. 0235-0240 2/22. (JR)
       WFBR
              MD Baltimore w/rr mx 0115-0120 o/WERE 3/10. (JR)
1370
       KDTH
              IA Dubuque good o/WSPD w/wx 1920 2/21. (JR)
       KFJM
              ND Grand Forks exc. w/f/c 0202 3/12. (ST)
1380
       WYNK
              LA Baton Rouge exc. w/ET 0200 3/1 w/500 watts. (ST)
1440
       KILO
              ND Grand Forks good w/TEST 0300-0310 2/22. (JR)
1470
       CFRW
              MB Winnipeg good o/WOHO w/rr 0435-0437 3/8. (JR)
1480
       WHOM
              NY New York good w/ID 0400 2/8. (JR)
       WSAR
              MA Fall River fair on TEST w/mx 0135-0217 2/15. (JR)
1490
       KRUS
              LA Ruston good w/ET 0200 2/22. (ST)
       KXRA
              MN Alexandria good w/f/c 0137 3/8. (ST)
       WVOC
1500
              MI Battle Creek good w/WDEE w/cw mx 1810-1815 s/off
                 2/23. (JR)
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IL Zion good ID 1813 2/17. WDEE nulled. (JR)

WZBN

March 27, 1971 EAST COAST DX ROUNDUP Page NJ Ocean City - Somers Pt. good w/s/off 1730 2/23. (JR) 1520 WSLT 1530 KFBK CA Sacramento good w/McR, ad, ID 0228-0230 3/8. (MD) OH Cleveland w/R&B 0900-0913 2/27. (JR) 1540 WABQ WPAW NY E. Syracuse good o/KXEL w/ID 1800 3/8. (FR) 1560 KPMC CA Bakersfield w/cw 0127-0132 2/16. (JR) 1580 KAMI NE Cozad fair w/nx, wx, & sx  $1850-1853\frac{1}{2}$  2/28. (JR) CA Santa Monica w/nx 0130 2/16. (JR) KDAY KESM MO El DoradoSprings w/KFDF w/s/off 1900 2/23. (JR) KFDF AK Van Buren w/s/off o/KESM 1900 2/23. (JR) GA Columbus good w/rr 0423-0425 3/1. (JR) MD Morningside good w/rr 1759 3/7. (ST) WCLS WPGC 1590 WETT MD Ocean City good o/WAKR w/ID 0232 2/22. (ST) WGRY MI Grayling is on w/ 1 kw & signal beamed primarily north. Is regular in Gaylord, o/50 miles away. Seems to be primarily cw and MoR w/no rr at all. WCIX, 1270 Charlevoix is, however, apparently not on as yet. This CP is well o/a year old. (DF) 

Dave Faulkner - 1430 Pine Grove Ave. - Port Huron, MI 48060 First off; a big welcome back to ECDXR to Marc DeLorenzo. My typewriter is now completely cleaned and should do some far better stencils. Will not make it tothe YAD meeting, but am leaving for Toledo soon after these are mailed. As for DX; I managed to miss the WKTE DX TEST again, this being the second time. Oh well, maybe next year!! A severe head cold has vastly curtailed my DX activities of late, w/no stations being hrd in the past week, a truly bad sign for me. If you haven't voted yet do it now, and don't forget to make it "Toledo in '71" as DEE would say. CKJD is still off daily as they haven't bothered to get an all night DJ. Well 73s & peace.

(continued from front page)

Membership Dues: (U.S. funds) \$9.50 first class mail, \$6.50 third class mail, \$14 air mail. Third class is not recommended because of unreliable service. Publisher: Don Erickson, 6059 Essex St., Riverside, CA 92504. 714-687-5910. Bulletin schedule: Weekly thru April 3 then: Apr. 17, May 1, 15; June 12, July 17; Aug. 14; Sept. 4, 18; Oct. 2, 16, 23, 30, etc. NEXT ISSUE: April 3.

DX CALENDAR

KSFA is not a DX program; it is a f/c per verie. Reports to: KSFA, Gene Fields, PD, Box 848, Suite 301, Savings and Loan Bldg., Nacogdoches, TX 75961. -Al Ogrizo-CKRW reports to: CKRW, Box 1799, Whitehorse, Yukon Territory, Canada. vich Info received from: John Tweedie, Gene Vonderembse and Tom Sundstrom. Program arranged by Michael R. Lynch.

WGBG programming and additional info not reported so far.

WCOX will use C&W music. Return postage is a must; prepaid calls will be accepted at 205-682-4677. Reports to: Steve Kennedy, P. O. Drawer 620, Camden, Alabama 36726. -NRC/IRCA-John Lombardo

ERROR-Listing of WINE DX as 980 was in error. WINE was on 940; still is, hi. Hope nobody missed the DX program because of this error.

GEOMAGNETIC INDICES The geomagnetic indices for the period of March 10 - 23 was as follows:

March 10 - 16 15 6 13 24 20 16 13 March 17 - 23 8 4 9 13 2 2 3

CPC Results appears on page 6. Please keep those cards coming. More will be supplied as soon as they can be printed.

Be sure and send your nominations to Dave Prather. Each member may nominate 7 persons for the Board of Directors and one each for President and Secretary-Treasurer. To be eligible to run for office, a member must have been in IRCA for at least 1 yr, as of April 1, 1971.

earch 27, 1971

EAST COAST DX FORUM

Page 4

Editor: Bruce R Heimburger - 817 Rawlins St - Port Huron, MI 48060

Deadlines: Fri's, DXM changes to bi-weekly soon. Check front page

First off from CMS comes news of that mysterious split has been  $puz-zling\ him\ lately.$ 

1166 WGLI NY Babylon (or relay thereof) positively identified as the one here at 2000 March 9. (what about a spur-Brh)

Jerry Robertson - 6065 Gardener Line - Croswell, MI 48422
3/17-3/18 Hi everyone. I hope to be the next State of the Month Editor & would appreciate formats of any station in Mich. I would like to trade CMs & would like CM swappers to write(come on CMers where are you?) Veries in are v/q-WVON, WOW, WCAO(w/CM), WYDE, WMBS (w/CM), CHUM, & WABQ. v/l-WLKE, CKLC(w/CM), WGOE(w/CM), CHLO(w/CM), WNAK(w/CM), WABQ(w/CM), v/r-WGNY, v/f-WAZY(w/CM), WMOC(w/CM), KTOK, WDEN, WCAR(w/CM), v/c-WHAS. MW: It would help if you put directional info in Broadcasting info, other than that it's fine. 73s.

David Singer - 5501 Old Richmond Ave. - Richmond, VA 23226
3/16-3/18 Hi. Cx seem to be improving, both on a short-term and a long-term basis, as WHO is once more booming in here nightly. About 4 yrs ago, when I was just getting into DXing, WHO was a favorite station here, but its signals had faded from their former "armchair" level until recently. I've just about given up on DXing on Sunday evenings and MMs until 0100, since WBZ has been carrying "Sports Huddle". That show is so weird, it makes some DX tests look sane, hi! For FM DXers: local WTVR-98.1 has started to s/off at 0000 rather than 0200. No reason given, but this seems to be a permanent change. Toledo in 71. 73.

George Bryson - 8762 Hosmer - Detroit, MI 48214

3/17-3/18 Egad. As one of the WCers said in the bulletin a few weeks ago, We like to "raise a little hell, etc" at conventions, which is right we do. But did you realize that if Toledo gets the convention this year that it will be a first for IRCA? It will! for you'll notice that even though there have been conventions east of the Missispipi NONE OF THEM have been on the real East Coast or, in other words, the EST TIME ZONE! They have always been in the CST zone, which is the center of the country, if my memory serves me correctly. Of course, the WCers, except Dan Sys, DEE & a few others couldn't care less about tradition either, all they seem to care about is: "Let's get the convention again this year so we can all get together again & have a bash like we did in Vancouver last year." WCers: is it really fair to the EC? especially the EST zoners? We like to have a time when we can get together at a reasonable cost & "Raise some Hell, etc" too don't you think? Enuf. Finally got KFYR, will wonders never cease? 73s to all.

Stephen Martin - 12115 Northwood Drive - Upper Marlboro, MD 20870
Hello--I haven't been doing much DXing on BCB lately but have gotten
a few veries in. I got a 4VEC verie raising my foreign total to 9/7.
Cuba & Mexico are the only not veried & I just sent a rpt to CMQ.
Other totals are 235/52, 29/24, 3/3. For all TV DXers, WBFF-45 Balt.
is now testing & on 3/16 WDCA-20 is increasing power to 4meg. They
claim its the worlds most powerful xmtr but isn't there some station
in China or Russia with more? Any members w/Allied 2515's please
write for I might get one & would like comments. I agree w/SH's comments.on 50 kW'ers. I, too haven't gotten Calif. & would appreciate
tips on any of the 50 kWers. Any one who can give me some info on
ARRL SWL bureau please do. 73s for now & hello to RZ.
Should be on my way to the Toledo GTG in a while, should be a blast.
DFs purpose in omitting čertain 50 kW rpts is to weed out useless RS
rpts. He certainly wouldn't exclude WC 50 kW rpts. Sparce turnout
this week, let's work to get it back up there again-Brh.

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MIDWEST DX ROUNDUP
                                                                PAGE 5
27 MARCH 1971
EDITOR: Richard C. Evans, Box 2146, East Chicago, INDIANA, 46312
            4/8, 4/22, 5/6, 6/3, 7/8, 8/5 (final).
DEADLINES:
ONT Owen Sound, 0544 3/8 w/s/on Nat. Ant. u/WIND OC (RSK)
                Weird unID hrd w/s/off 2001 3/10; KGRT (seemingly the
 570
      3333
                only possibility) was on. Un ID played SSB (BWL)
                                                                   (LBG):
                Chadron, good w/ID 1929 3/10 (BWL)
 610
      KCSR
            NE
                Los Angeles, sput noted around 0330 MM 3/8 //-640/665 *
 615
      KFI
            CA
                Omaha, hrd for call change from KOZN 1943 3/10 (BWL)
 660
      KOWH
            NE
 665
            CA
                Los Angeles, distorted but very strong here //-615
      KFI
                and 640 with ID 0328 MM 3/8. Was testing for only a
                few minutes on these spurs; program on 640~\rm{was}~RS(LBG) Carlsbad, fair u/KSSS, KRMG w/rr & ads 1943 3/8 (BWL)
 740
      KBAD
            NM
                Houston, in w/rr 3/8 o/WTAR until 0205 s/off (BL)
 790
      KULF
            TX
                Lubbock, 1928 3/5, very good w/news (BWL)
      KFYO
            TX
                New Orleans, was testing w/l kw. aux. tmtr, ID 0300
 870**WWL***LA
                MM 3/15. Really strongh, though (LBG)
                Fort Worth, u/o WWL w/s/off SSB 1929 3/4 (BWL)
 870
      KJIM
            TX
                Bowling Green, Nx & Wx until 5/off 0104 3/8. Gud sigs*
 930
      WKCT
            KY
                Florence, Vry gud on DX w/Inst. Mx on 3/15. Mentioned
 970 * *WJMX * * SC
                power as 5kw. Logged till 0215 (BL)
                Roswell, ETing w/TT 0220 3/8 (BN)
1020**KSWS**NM
                Chico, was AN 3/8 w/some sort of telephone program (BN)
     KPAY CA
1060
                King, fair on DX w/ tone & varied Mx 0325 3/8 (BL)
1090 * *WKTE * * NC
                w/special TT & Mx good slight Wolfman 0302 3/8 (RSK)
                _Omaha, noted off AM's of 3/4/5/9 but on 3/8, freq.
1110
      KFAB
            NE
                 all KLRA (BN) Noted off 3/5 and 3/12, maybe a Friday
                     Are they going to go directional again soon?(BWL)
                Weak w/rel. melodrama that ended at 0400 MM 3/15. Odd
1120
      KPNW
            OR
                 that KMOX was silent; usually it's off the 1st MM of
                 each month, but was not off MM 3/1. Maybe a schedule
                 change (LBG)
                 Cleburne, fair o/wak KMOX giving mailing address, ID,
      KCLE
             TX
                 and then cutting carrier abruptly 1931 3/8 (BWL)
                 Burlington, logged for report 2000 s/off 3/7; KGMC-
1140
      KNAB
            CO
                 1150 splatter gone for some reason (BN)
                 North Platte, good w/ID pm ET 0141 3/7 (BWL)
1240 * * KODY * * NE
                 Austin, fair w/CW Mx 0225 3/8. New capital here (BL)
1300
      KVET
             TX
                 Dallas, now running HI week mornings. a pest here (BN)
1310
             TX
      WRR
                 Chicago, 3/11 noted off w/rare SP (RSK)
1390
      WNUS
             IL
                 Pittsburgh, 0229 3/11, poor u/WING & WONS r/c w/wx(RSK)
             P\Lambda
1410
      KQV
                 Golden Valley, poor-fair w/prog. RR o/unID SS 0433 3/8
      KQRS
1440
            MN
                 Phenix City, 0227 3/8 poor u/WVON slop (RSK)///(BWL)**
1460
      MPNX
            J_{1}L_{1}
                 Wichita, 0401 3/8 fair w/f/c(?) TT & ID (RSK)
1480**KELO**KS
                 Clifton, f/c w/TT 3/8 0215-0230 w/Tucson Monitoring Co
1490**KCUZ**AZ
                 Mitchell, f/c of 3/5 hrd in entirety w/tone but only
     **KORN**SD
                 ID 0240 (BN) fair-good on IRCA DX w/TT, IDs every 2½
                 minutes, from 0225-0240 3/5 (BWL)
                 New Roads, w/f/c not listed on r/c list. TT & ID fair
1500**KWRG OK
                 u/WOPA slop (RSK) (How about a date and the times --
                 both on and off? please--rce)
                 Pawhuska, DX not hrd. Were they on? (BL)
       KOSG
             OK
                 Albuquerque, new stn in w/SS format, ID in SS 0933
1520
      KVWX
             MM
                 3/5. 500 watt-D, non-directional (BWL)
             ONT Windsor, everybody's pest hrd here 0500 s/on 3/8 (BWL)
      CBE
 1550
 1560**KCTI**MO
                 Macon, 0123 3/11 w/ET, fair C&W Mx (RSK)
                 Daingerfield, ETing C&W Mx 0205 3/8 (BN)
     * *KEGG* *TX
                 Davenport, 1915 3/11 fair w/s/off no SSB (RSK)
       KWNT
             I\Lambda
                 Watertown 1842½ 3/11 fair w/sports (RSK)
       WTTN
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Next week is the last of the weekly issues. My deadlines for the summer are above. The three week old policy will not apply then!

27 MARCH 1971 MIDWEST DX ROUNDUP PAGE 6 EDITOR: Richard C. Evans DEADLINES: Stated on first page.

1590 KLIV CA San Jose, good u/KUDU w/ads 0608 3/8 (BWL)

1600 XELO? MEX Cd. Juarez (?), hrd on this freq. (2 x 800) w/ID 0148 3/6, harmonic or relay stn? (BWL)

## R/C HEARD VIA THE LBG LIST:

KDIX-1230 ND (BWL) 2nd TUE: 1st FRI: KVRS-1360 WY (BN) 1st SUN: WMAY- 970 IL (BWL)(RSK) KLWW-1450 IA (RSK) KCII-1380 IA (BWL)(RSK) 2nd WED: WHUB-1400 TN (RSK) KCCR-1240 SD (BWL) KDTH-1370 IA (RSK) WD/N-1490 IL (BWL) 2nd THU: WYDE- 850 AL (RSK) 2nd MON: KXRA-1490 MN (RSK)(BN) WLPF-1430 FL (RSK) WCAZ- 990 IL (BN) WONS-1410 FL (RSK) 2nd FRI: WNJH-1580 NJ (RSK)

## A TIP OF THE HAT THIS WEEK TO:

LBG - LARRY B. GODWIN, 5421 South Clinton Court, Englewood, Col. 80110

RSK - ROBERT KRAMER, 3406 West Pierce, Chicago, Illinois 60651

BL - BIL LEMAK, 206 Fliva Drive, Fort Walton Beach, Florida 32548

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

BN - BILL NITTLER, 4950 South Julian, Englewood, Colorado 80110

Kind of a small section this week. Probably reflecting the poor conditions right now. Please note that I do not use the two-letter abbreviations for the Canadian Provinces. Nebraska is NE, Kansas is KS. V/f CKEY. I, too, would like to see the convention back in the East/West traditional switch, opposite the NRC to make it convenient for the members of both clubs. Personally, I would consider any parent who did not take an interest in their children's reading material and club affiliations to be derelict in their duty. And many ideas from non-members can be, and have been, useful to the IRCA. understand that the suggestion for the current IRCA format came from an NRC member in hopes of fostering different images for the two clubs. It seems to be working. That's about it this week. Oh yes, I am running, definitely, for the BoD this year. LBG, thanks much for the kind words! DEE-rest is yours. 73's --30--

CPC Results WAGL was on and then some. Members from every part of the country reported reception. Chuck Albertson had good sigs; Dave Christensen forget to set alarm clock; Bruce Portzer didn't hear a trace (but suspects loop was accidentally detuned at the time). Bob Karchevski and Steve Kamp had good sigs. DOC Hardester reports poor sigs. Steve Simonsen and Don Erickson both had exc. sigs. Blake Lawrence, Tom Palmer, Roger Horie, Gary Nuthals, Percy Kesteven and others reports varying degrees of signal strength unrelated to their distance or area.

 $\underline{\text{WMVO}}$  is assumed not to have been on. Only reports are of unIDed TT during time of scheduled program.

KLUC verie has been received by Bob Karchevski; v/s is Keith Stewart (Griffith).

Steve Kamp mentions that XETRA was AN MM 3/22 and also that KOS-1210, a San Diego bootlegger, was heard in San Jose. Pretty good mileage for a bootlegger. Gary Munn's card took 7 days to travel across the country. Most take 2 days. Bruce Portzer heard 3LO-770, WSAI-1360, and KTHS-1480 as well as KYAK-650, Colombians on 820/840 and ZBVI. Blake Lawrence rpts CJRS-1510, WAKY-790, WMEX-1510, KTHS r/c.

Gary Jackson has Comm. Handbook now. And DEE no longer has any WRTH's available. All but two were sold on the phone!

THIS ISSUE will hopefully get mailed by early Sunday AM; things aren't too promising. Goal is 5 AM Sat. 3/27. Last issue was mailed Fri. AM regardless of PO's Thurs. PM postmark. Can't even trust a postmark these days. Support your local ZIP Code.—DEE

DEADLINE: Thursday, nine days before publication date of Sat. See front pages. ROBERT KRAMER - 3406 W. Pierce - Chicago, Illinois 60651 Hi. Greetings from DX land. This morning I called wIRV during their ET & the CE said hi to me nn the air. Totals here: 434/283, 39/36, 6/6 prov, 7/6 ctys, 62/33 f/c I now have a total count in veries of 590, which includes BCB, SWBC, FM, & TV. I just rovd 3 more awards: 200 stns, 6 prov, & 25 capital cities. Latest veries: v/q WBEL CHUM WRIT KWKH KMA WKMI v/l WDOR KCOG CFGM v/f KILO WSAR KTOK WBAA KCMO. So until next week, I will sign-off. I operate with a power of 50,000,000,000,000 watts on any frequency. I'm a genuine bootlegger. 73. RAY KRAMER - 3406 W. Pierce - Chicago, Illinois 60651 Hi. Greetings from the Windy City. This is the 1st time I've reported to the MWDXF. I am 16 years & a jr. at Prosser Vocational High School. I am going on my 7th month of BCB DXing. Totals: 150/90, 34/28, 4/4 prov, 3/2 ctys. Latest veries: v/q WNOE KWKH WIRL WIFE CBK WABC WCHS WCPC CBW WCBS CKLW & WMMN. Well, that's it for now, as I have to take the turkey(what turkey??) out of the oven, hi. 73. (WELCOME to the MWDXF, Ray. We'll be looking forward to your reports in the future. LEE J. FRESHWATER - 2601 Lancaster Dr. - Muncie, Indiana 47304 317/289-2409 Hi. from one of your newest members. I finally renewed after a four year lay-off. For all of you that remember me from back in 1966, I haven't stopped DXing. State totals are 35/36. But to introduce myself to other members & bring the rest of you up to date, I'm 20 years old & a soph. at Ball State U. majoring in Radio/TV & Journalism. Receiver here is a Halli. S-38B & an old RCA 617A. Antenna is 100 ft. longwire + IRCA loop. I spend most of my time DXing on the BCB because I couldn't stand shortwave. I am a domestic type of DXer. Not much DX here lately due to the fact that when my TV is on up-stairs, it drives my radio crazy. Recent veries are: v/1 WEVA-860 WDEN-1500(f/c) WRNL-910 WPEN-950 WEED-1390(f/c) WAAX-570 WDEL-1150(w/anice note about NRC & the upcoming test of 2/15/71) CJRN-1600; v/q DEE-1500 KNX-1070 KLIF-1190 WBAL-1090 WMEX-1510 WSUN-620 WBAY. Over 15 lines, have to go. Good DX to all from Muncie, Ind. home of the BEARCATS. (East Chicago please take note, hi). do tapespond & would enjoy hearing from you. 73. (WELCOME to the MWDXF, Lee, and we hope you will favor us with your reports often. -LDB) GARY D. DeBOCK - AdCom, NTC - Great Lakes, Illinois 60088 Greetings. Recent veries include: v/l WCBL-1290-CM KOLY-1300 KBIZ-1240-CM WGBF-1280-CM WSAR-DX-CM WDEL-DX-CM KILO-DX-CM & WEDC-1240-sked. Other DXes heard but not reported were WJOB-1230 & WKVI-1520, both rather poor. Totals: 450/90, 41/31, 340 DXC. Regarding the convention site, I'm partial to San Diego, but can well see how some Midwest members would favor Richmond. Anyway I hope to drive over to the Toledo meeting mentioned recently in the EC sections along with some Chicago-area members. Thanks to all who arranged recent DX specials. 73's. CHUCK THE WALL - 5966 Williamstown - Dallas, Texas 75230 It has been a very long time since my presence has been known around here. Other

It has been a very long time since my presence has been known around here. Other activities having curtailed DX & radio work all together. Very few new loggings this season. Best have been: KEDO WWNC KCII & KCBC. Veries have been: WIRE KERB WIBC KYW WSPA WRR KIXL WQBC KVSF CHUM WAOK & WCBI. Not very much for a long season. I hope to get back in the groove in the coming mos. and be back in DXF & DXR often. Will be in San Fran. & L. A. in July and possibly Toledo, if the convention is held there. It seems I am about all that is left of the Texas contingency of the IECA, which is a real shame. After all, the biggest and the best state should have the most DX and DXers. DGC: You should hear about my yr soon with a cassette. Hang on. LDB: The pokes surprised everyone didn't they??? (You bet they did! -LDB) watch out in '72. Super Bowl VI has a good chance to make it here, too! Well, HAPPY ANNIVERSARY TO IRCA & EVERYONE. 73 and be cool.(WELCOME back to the MWDXF, Chuck. And thanks for the kind words in the note sent along with your report. They are appreciated!!!-LDB)

Of all the valuable things that money can buy, the most valuable is the man who can't be bought.

<u> IARRY B. GODWIN - 5421 S. Clinton Court - Englewood</u>, Colorado 80110 Hi gang. Greetings from Englewood, home of Mountain Man Nittler and myself. By the way, TRS, the reference you heard on WSAR re its farthest report was to Bill Nittler; I tried for it but no luck. Anyone who hasn't received the WRTH by now: please contact me at once. I'm very glad the taped verie proposal passed, but there's a question as to the effective date. I'm submitting another proposal that would make the effect of the proposal retroactive without limit, i.e., tapes made years ago would qualify. Comments? Sure sorry to hear RCE is giving up his post. Maybe we can persuade him to continue! Bill Hardy, welcome back to the states! Your reports from Panama were always interesting. Don't forget to send in your nominations for officers to Dave Prather. Suggestion: look through the past 10 bulletins and pick 7 good nominees for the Board. Good DX.

RON COLEMAN - Rt. 3 - Rogersville, Alabama 35652

Since I last reported to the DXM, I have moved to Ala. so I have a whole band to start DXing on. I want to wish the IRCA a Happy Birthday, and may she have a long & happy life. I am living on my grandfather's farm; he is retired. I have about 40 acres to put an antenna on. So when I get the time I am going to put one up. I am going to have a nice summer, then start to school in Sept. So I have the whole summer to DX. On taped veries: I don't see how a tape can be counted as a verie, It doesn't prove you heard it. (Does a written verie prove you heard it?? -LDB) It is just a tape of a station not a verie. I have seen the DXF many times when members were trading tapes of their local stations. If tapes are the same as veries, then this would be the same as trading veries. B. McFadden: WCFR does verify. They verified for me in little over a month; v/s is Gordon Steains, eng. He wrote out a short note on back of postcard(the studios are in a fall-out shelter). Recent veries: CHUM WPRW WCRS. 73. (Ron, you sent your report to RCE & he had to forward it on to me. Thus, it didn't make the anniversary issue of a couple weeks ago. Send DXF rpts to me. -LDB) JAMES P. MOHLER - 531 Whiting Avenue - Iowa City, Iowa 52240

My receiver has been sitting in the foyer for a month now, awaiting pick-up by United

Parcel under the guidance of Lafayette. After letter of three weeks and a phone call of a week ago, it just sits there, and the warranty runs out in two days. I am going broke. I recently received a verie from Radio Nederland for their 800 kHz transmission, which I deem different from Trans World Radio. Only one small problem, the time & frequency were wrong, the freq. said 9715 and the time 0500(I heard them at 0000). Maybe I ought to just give up on DXing, nothing ever goes right. Hopefully, my "All-American Seven" (All-American Five plus FM) (??-LDB) will carry me through, I didn't know the sophomore slump extended outside of school, hi. 73 with all the

other...(edited by member per III.F.3.EP).

TOM McCORMACK - 275 Littleton Street - West Lafayette, Indiana 47906 Howdy again! Hope everyone got their Toledo convention vote in, hi. tions here now, & hope to top one grand by June first. Anyone interested in buying a Hammarlund HQ-140-X with GD-125 Q-multiplier, 10" Utah speaker & headphones all for \$150? (You pay shipping; though not much). It's in perfect shape, new tubes, etc., & I think it's about the best rx 'round. (I've heard fabulous DX on it anyway!) Robert Kramer: I've logged 10 stations from the state of Wash. & KGA is a regular here on Sun. morn. (My first Wash. verie was KSND-1590 back in Oct.-1968). RK, you must have meant ST instead of me. GK: KXLF sent me a v/f, v/s is Howard Neckels(took f/up tho). Bumper sticker swappers write, I just started collecting 'em. (Have some to swap too). FDP: KAKE & KLEO both sent me v/l's. Most recent reports sent to: KRLA (KFAB off 3/10 & 3/11!) WOBR-1530(#59 logged f/N.C.) ZDK-1100(what's power?) WSAV-630 (finally!) WTRX-1330 WCAR-1130(sent for DCL points, hi). KRKO-1380 is now a pest here on MM from 0200-0430 EST, surprised more haven't heard 'em! Recent veries: WRNG-680 & WSJM-1400(took 5 mos) both  $\overline{v}/l$ 's. v/r WATI-810 v/f KFGO-790. 73's.

NOTICE!!!!

Don't forget that the DXM will go to another publishing schedule soon. Once every other week for awhile and then once a month thru the summer. Check the front page of this issue or the next for the scheduled dates. Then send your reports accordingly. And, since I travel on business a lot, try to send as early as possible. might be that I would have to type stencils early due to trips, vacation, etc. So play it safe and get your reports in a few days early if possible thru next fall. LDB

# ERIC R. TIBBATTS - Box 165 - Balmertown, Ontario

Greetings: Re the 50kw hassle: I fully support SH's comments in ECDXF. There are several (well, really, many) 50kw clears that I have been unable to get, either because of poor equipment or whatever. These are as much a challenge to me as some of the 500w outlets are for the senior DXer. If the 50kwers are not listed, is it not going to discriminate against the beginning or intermediate DXer who may want to get those stations? Once the junior members are left out of the action like that, the club may as well forget about recruiting new members; it will be dead. I'm sure this is not what the DXR editors were intending, but it would definitely have a negative result among the junior members, where the real strength of the club(hopefully) must lie. Total veries now 330; v/l XEBG - says mine first rpt from Canada, gives pwr as 1kw. WRTH lists as 5kw?? See you all in Toledo! 73's.

JOE A MARKEWICZ - 1394 Elgin Avenue West - Winnipeg 3, Manitoba

Greetings. Just finished writing my exams so now am getting back into the swing of things. Winnipeg will soon know what their zip nos. are by April 13. The P.O. said this system is superior to the U.S. and one better than the British. First two letters for Winnipeg will be "WN". This system should be completed by 1973. During my Easter holidays, Apr. 11-18, I will be in Toronto-Oakville-Burlington area. I will have some spart time so I'll be glad to phone some of the members while I'm there. So write me soon. KILO test heard here but who wants to listen to their pest giving a test. Totals: 351/294 (351 is no of stns rptd to); 34/32, 7/6. Some recent veries: v/l WDXR-1560 KCKN-1340 KVBR-1340 KXLF(9\frac{1}{4} mos) CBXF/CBKB v/q KHQ-590 KXLY-920 WJCO-1510. Where are the other Manitoba DXers? Do they exist? 73's and a thought: the skyscraper commando might strike at any time?

DOUGLAS NYHOLM - 1106 W. Clarendon - Phoenix, Arizona 85013

It seems that I always miss getting a forum rpt in the ann. issue, either right before or right after, but better late than never. As is the custom for ann. time a re-intro is in order. I am in Phoenix attending DeVry Inst. of Technology(electronics ergineering). I originally started DXing in South San Francisco in Oct. '69 & came to Phoenix in June '70. By the way, I am 18 yrs old. Totals for 18 mos of DXing are: 667/555, 46/46, 9/9, 16/14 ctys. States needed are Del, Vt, NH, & SC which I will give a run for the money on the WAGL DX test. Best catches here are: WERI-1230 CBY-990 WMTD-1380 WDTM-1130. I have compiled a State of the Month for Ariz. & am sending it to DEE for publication. Arizona isn't a hard state but any tips & info can help, (I guess). All corresponders welcome here, I do trade CM's but am primarily interested in CM's from stns that I have verified. Welcome all new members and report often. Let's have more MM's like 2/15 which got me 10 new stns. 73. About 300 points now in the domestic contest.

AL OGRIZOVICH - 2429 Schrage - Whiting, Indiana 46394

Yes, Mable, WJOB was on per sked. They were on but came on late as the CE had to put a new monitor in. Gordon Boss said he will probably have another special in the future. I'd like to thank the N.J. boys for listening to the silver voice on WKVI. The silver voice was me! I received them with fair to poor sigs due to their tower not being the right size for the freq. New veries: v/q wPTR KNOX WBAL(N. Allen Hedrich) WVOK(George Blashon) WLS-FM(Roy Huberty-verie on WIS-AM card) v/l KGRT-CM (Robt. Reymont) KSFA+bumper sticker(Gene Fields) KLUC(Keith Stewart) KSAL+CM (Bob Davis) WCBL+CM+bumper sticker(Larry S. Weatherford) KBRB(Renee Burger) WGAP+bumper sticker(Harry N. Plumlee) v/f WFUR(Gilbert Write) KRCB CHYM(+CM & sc-Morry Porteous) WNPV(Leroy Nuss). Still waiting for a WKYK verie. Totals: 434/273 40/38. 379 DXC 133 call letters. Well, that's about it. CU DX nuts later. Gud DX & 73's. LYNN D. BROOKS - Box 253 - Ponca City, Oklahoma 74601

Glad to see that PRK is running for Pres. of IRCA! Dave Faulkner: The elite type-writer produced a much better stencil than the other pica one, hi. And you were complaining about it?? I support DEE on the future publication of "satire" in DXM. And I agree with Tom Sundstrom re printing times when clear channel AN operations on MM are silent. This can be helpful, so I'd like to see DXR editors print it. Are there any coin collectors in IRCA? Especially U.S. type sets, and/or medals. And like DEE, I hope to see more inter-club co-operation between NRC & IRCA next year. It would certainly benefit the hobby!!! WOW! I ask if IRCA can print Conrad's article and it appears in the same issue as my question. Can't beat that service, hi.

Steve Simonson, Ontairo CA

March 27, 1971 . E S T C O A S T D X F O R U : Page 11
Editor: Bob Jacoby, 556 E. Alvarado St., Pomona, CA 91767 (deadline: Thurs)

Recent veries: v/l--KVIF-540 (re-log) and KBOY-750; v/q--KMFC-710 and KKDU-1150 ALGEN-1290 apparently used my report (on IRCA stationary) as Xerox paper and XEROX-1290 apparently used my report (on IRCA stationary) as Xerox paper and Xeroxed "Verified" across the face of the rpt for a v/r. Question: If a radio stn is verified (e.g., XVIP-540) and then goes off the air due to monetary reasons (bankruptcy) and then comes back on the air (e.g., KVIP-540) with no change in calls or frequency, does that stn constitute a "new" stn? I can't recall t is happening in the near past, but since it has, can anyone clarify this situation? (Can't see how it could be counted as a new stn, wike. I suppose it's up to the individual, tho.-BJ) Another question: why do stns w/PSA sometimes have strange powers on PSA, e.g., 170w, 426w, 22w, 3.3w, etc.? Thile I was typing this, a v/q from KKRH-1150 just came along w/a few letters and the DXM. The past two mys have had an increase in static level, but I hope it's only temporary. All for now; back in 7. 75

Matthew Wall - 25776 Malker St. - San Bernardino, CA 92404
Have not sent in a report in a long while so an intro is needed. I'm 13 yrs old and have been DXing since late '68. My totals are about 300/100. I fully support San Diego in the convention and hope I will be able to attend. Have not done much listening lately since I have recently been DXing on the TV & FM bands. Two of the locals in this are KMEN-1290 and KCKC-1350, as I have found out per recent phone calls will not verify under any circumstances since I have sent them numerous reports. (See DOC's rpt above re KMEN.-BJ) The other local in this are KBON-1240 (formally KRNO) will only verify if sent a prepared post card. Recent stns hrd are WKYC-1100, KREX-1100, VOA Florida, and KSUB-590. Am looking forward to the coming up get-together at DEE's place. The date is not set. Well, better go. 73.s. Angeles in 71.

Pete Warren - 1115 13th St. - Salem, OR 97301 Hi all. To start out with, this censoring bit is getting way out of hand. Some people want it and some people don't. Why even bring it up? The club has a very good bulletin. Let's keep it that way. If you like to swear that much, take it out on someone else. 'You may like to "spice" up your report, but soon it would get so that you'd get dirty picking up the bulletin, hi. why can't we keep it out. Then there's the tape verie bit. Ask any experienced DXer (unless he's a fink, hi) and he'll tell you that a letter verie or QSL, is 1000 times more valuable than a tape verie. Tapes can be easily goofed up. They can be magnatized or any other thing. A QSL can't be wrecked, or not that a little clear tape couldn't fix. Also, a QSL can be displayed on a wall or shown to people. Tapes can't. BJ-How much would it cost from DEE to get 250 IRCA letterheads? (Write him and find out, Pete.-BJ) I think I've made my point, so let's hear some more on this. Just received WYLS-1350 v/1, and CE says that they make tests once-in-a-while. WC, if you need Ala., this is the stn--listen between 1:00-1:30 PST AM MM. They are strong!!

Randy Jones - 3720 Lusk Dr. - Sacramento, CA 95825

Hi all! My rx is on the blink, but that's not much of a loss. I can do just as good on my transistor portable, with the luck I've been having. Only half-way decent catches are CJVI-900 and KTWO-1030, with which I've been beating around the bush to get verified. Out of nine taped programs, I chose the best and sent it. Now let's see how long it takes. Gary Jackson, give me a call on 3/20 or 3/21 on how big that loop is, my parents want to know. My total has been brought up to 86 heard, and most are CA. I collect business cards, so send them in. Peace and Good DX.

Steve Kamp - 6149 Monteverde - San Jose, CA 95120 (con't from last week.-BJ) DEE told me once that he thinks that the suppressipn of scandals/controversy gives a club an "air of respectability". I disagree. When I found out about some of the things going on behind the backs of the membership in a couple of other clubs, I was digusted. I have more respect for IRCA than I do for these other clubs which have a so-called "air of respectability around them. 73

March 27, 1971 W EST COAST DX FORUM Chuck Albertson - 103 Cedar Crest In. - Bellevue, WA 98004

Hi. I will again take this opportunity to urge everybody to cast their convention site ballot for SAN DIEGO. A four day gig in Southern California would make a great way to end the summer, what? Last year's convention in Vancouver saw the bombing of CBU-FM concurrently. This year, who knows? Veries: WOHO-1470, KVOP-1400, KGMI-790, KLO-1430, KNDE-1470, KOHU-1570. Has anyone noticed KNDE's sign-off announcement at 0300 on MM? Unless I'm hearing wront, they announce a power of lkw/250w. Perhaps someone in the Sacramento area can check on this. I've heard this on two MMs in a row.

Granam rleck - 666 Cook St. #210 - Victoria, B.C. CANADA
Hello. I have been DXing BCB since 6/27/70 when first report was sent to KYXI.

(They veried, hi.) Now domestic totals are 168/88, 29/28, 4/4. My rx is a Viking RMK 721R BC table-clock radio w/mini tubes. Anyone that has a schemat for Fleetwood BC 46-52 rx w/six tubes, pse sent and I will return when finished. Tnx. Recent veries are v/l KSFO and KMAK-1340. WGY sent v/l, v/q and the RP. Rpts to CJNB and KKHI. I am 15 and attend public school. This is my first rpt. Happy Birthday, IRCA! 73 (Welcome to the Forum, Graham!-BJ)

Steve Kamp - 6149 Monteverde - San Jose, CA 95120 To the people who have complained about the so-called "bickering" over matters related to the club govt: wouldn't you be doing the same thing if you did not agree with the policies of the publisher or some other official? Some of you people complain about the "bickering" when you agree with DEE's censoring, but what would you do if an official did something you didn't agree with? Several of the things DEE has cut out were perfectly legitmate according to the EP (and were OK by the editor's interpretation of the EP, or else correction fluid would not have been spilled). (Not necessarily true, Steve. An editor can let things slip by through error on his part. The publisher serves as a last check against any violations of the EP.-BJ) V/f KGMI-790 Bellingham. V/1 KMMJ-750 Grand Island, NB (v/s is Devere Swanson), KAFF-930 Flagstaff, KFIV-1360. V/q KOOL-960 Phoenix, CHUM-1050 Toronto, KLO-1430 Ogden, CBL-1550 Windsor, XEMO-860, KGEM-1140 Boise. New catches have been fewer lately, but have logged CMBC-690, KCBG-1170, KLUC-1140, CBE-1550, KEGG-1560, CFAX-1070. San Diego in 71....in one building, there are four ARB's, a RBM3, as well as a SPR4, HQ180, SB310, and an SX101. So why not come down and DX with 'em? CBXQ-540 had an incredibly strong signal here 3/15...this 40 watt LPRT is a regular, I think, in San Diego. That's 40 watts at 1500 miles, so why not come out and hear it you ECers?! 73

Bob Jacoby - 556 E. Alvarado St. - Pomona, CA 91767
Hello DXers! Just received a v/l from KSWW-1250 Wickenburg, AZ. The v/s was Jack Huges, GM. Apparently the call letters stand for Serving Wonderful Wickenburg. With due apologies to our Arizona members I've never found anything too wondeful about Wickenburg during my visits there, hi. I've also got another report to KFAX-1100 which I need to complete San Francisco. Anybody got a v/s for these guys? Never had any luck in the past with them. In just tuning around the dial, by far the most amazingly strong signal on the dial is XEGM-950. Here in the Pomona Valley they are much stronger than either XERB or XETRA! Must be some directional pattern they're using. I'm tentatively planning to attend the convention wherever it is held. I have a suspicion I'll be flying back to my native state of Ohio, though. In any event there are competant people to host the convention at either site. Any sports car rally nuts out there other than mbn and myself? 73

Bruce W. Bacon - 239 Arroyo Grande - Los Gatos, CA 95030

A belated happy anniversary to our IRCA. Since the order of the day seems be a reintro, here it goes...I am 19 years old and have been DXing since April, 1968, and joined IRCA in October, 1968. My main hobby at the moment is riding and repairing motorcycles with DXing taking a close second. Approx. totals are 500/130, 38/32 states, 5/3 provinces, 15/4 countries. Main DX rx is Realistic TRF. Teamed up with an IRCA 2' spiral loop, it makes a pretty potent setup. Will be in S.F. fcr NRC Conv. Hope you're there. That's it for now and remember: TOLEDO. 73.

--J. A. Worcester, Worcester Electronics Laboratory, R. D. 1, Frankfort, New York 13340

The merit of the superheterodyne is that it provides the convenience of amplifying at a fixed frequency. This is a big advantage from the standpoints of constant gain and constant selectivity. Additionally, since the I.F. frequency is generally lower than the band covered, stable gain is more easily achieved and greater selectivity can be obtained with the same operating Q's. Finally, with all signals converted to a single frequency, it is possible to employ, when necessary, very sophisticated circuitry that would be quite impossible to implement otherwise. Some examples of this are crystal and mechanical filters, Q multipliers, synchronous detectors with "I" and "Q" channels, phase locked loops, etc.

The superheterodyne, however, is anything but an unmitigated blessing. In the process of providing the desired result, it has in effect become a comb filter, responding not only to the desired signal but to a multitude of spurious ones as well. The basic nature of the frequency conversion process requires that a non-linear device be present to accomplish it. This takes the form of the usual mixer. The mixer is normally biased near cut-off and the applied oscillator voltage causes the current in the mixer output to flow in class "C" pulses rather than sine waves. The result, of course, is an output current rich in harmonics of the oscillator frequency. In addition, undesired signals present at the mixer that are strong enough to experience significant non-linearity also produce harmonics. It is then possible for harmonics of strong undesired signals to beat with the harmonics of the desired oscillator frequency and some combinations will produce the 455 kc I.F. These are called spurious responses.

Another "spurious signal" that does not depend on harmonic production is the image response. This is merely the mirror image of the signal. Both signals produce a 455 kc I.F. frequency; the desired signal because it is 455 kc lower in frequency than the oscillator and the image because it is 455 kc higher. The image frequency is therefore 910 kc higher than the signal. If the receiver is detuned slightly, so the oscillator frequency moves, say, in a direction to decrease the I.F. frequency produced by the desired signal; a little thought will make it clear that the I.F. frequency due to the image will then increase. This is why, when tuning through a signal with image interference, a beat note of varying pitch will be produced. Beat notes will also be produced when spurious responses caused by harmonic combinations are present. In this case, the tuning of the beat through the audible range will become sharper depending on the order of the harmonics involved.

Another form of superheterodyne interference should be mentioned in passing and this is generally referred to as 910 tweet or 1365 tweet, corresponding to the 2nd and 3rd harmonics of the 455 kc I.F. In the strong signal case, these are produced in the mixer but more generally it is a weak signal phenomenon and the culprit is, then, the signal detector. Since this is also a non-linear device, harmonics of the I.F. frequency are produced and if any stray coupling exists between the diode circuitry and the receiver input, signals at these two frequencies will be applied to the input and beat with any desired signals that may arrive. Again, the mechanism involved produces a variable beat during the tuning process. Additionally, if the I.F. feedback is intense, the receiver will become unstable at these two frequencies.

Cross modulation and intermodulation are not exclusively superheterodyne phenomena so will not be considered in this paper.

Since the exact mechanism of spurious response production is frequently misunderstood, perhaps a few specific examples involving fictitious situations may be helpful:

#### Page 2

Listener #1 in Schenectady, N.Y. has a strong local, WGY, on 810 kc. He finds reception difficulties because of this station with WOR in N.Y.C. on 710 kc; WSB, Atlanta, on 750; WABC, N.Y.C. on 770; and WKBW, Buffalo, on 1520. Let's take a look at this: When tuned to WOR (710), his oscillator frequency is 455 kc higher or 1165 kc. The second harmonic of WGY is 2 x 810 or 1620 kc and this beats with the oscillator frequency of 1165 to produce a difference frequency of 455 kc. The others-

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WSB-750. f(osc) = 750 + 455 = 1205. 8 times 810 = 6480. 5 times 1205 = 6025. 6480 - 6025 = 455.
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WABC-770. f(osc) = 770 + 455 = 1225. 5 times 1225 = 6125. 7 times 810 = 5670. 6125 - 5670 = 455.
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WKBW-1520. f(osc) = 1520 + 455 = 1975. 3 times 810 = 2430. 2430 - 1975 = 455.
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A second listener lives in Fort Wayne, Indiana, and he has a strong local, WOWO, on 1190 kc. This interferes with KXOK, St. Louis, on 630; WHAS, Louisville, on 840; WAVE, Louisville, on 970; KMBZ, Kansas City, on 980; WCSI, Columbus, on 1010; KMOX, St. Louis, on 1120; WHUT, Anderson, on 1470; and KXEL, Waterloo, Iowa, on 1540:

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f_0 = 1085.
f_0 = 1295.
KXOK-630.
                                                          7595 - 7140 = 455.
                       7 \times 1085 = 7595.
                                         6 \times 1190 = 7140.
             = 1295. 8 x 1190 = 9520. 7 x 1295 = 9065.
WHAS-840.
                                                           9520 - 9065 = 455.
             = 1425.
WAVE-970
                      7 \times 1425 = 9975. 8 \times 1190 = 9520.
                                                           9975 - 9520 = 455.
KMBZ-980 f^{\circ} = 1435. WCSI-1010. f^{\circ} = 1465.
                       4 \times 1190 = 4760. 3 \times 1435 = 4305. 4760 - 4305 = 455.
                       9 \times 1190 = 10710. 7 \times 1465 = 10255. 10710 - 10255 = 455.
```

Finally, a DXer in Santa Monica, California, has to contend with KDAY on 1580 kc. This interferes with WMAQ, Chicago, on 670; WSB, Atlanta, on 750; KBIF, Fresno, on 900; WCFL, Chicago on 1000; KPAY, Chico, on 1060; KEZY, Anaheim, on 1190; KSRO, Santa Rosa, on 1350; and KBBQ, Burbank, on 1500.

```
f_0 = 1125.
f_0 = 1205.
WMAQ-670.
                              simple image. 1580 - 1125 = 455.
               f^{0} = 1205.
f^{0} = 1355.
                              3 \times 1205 = 3615. 2 \times 1580 = 3160. 3615 - 3160 = 455.
WSB-750.
                              5 \times 1355 = 6775. 4 \times 1580 = 6320. 6775 - 6320 = 455.
KBIF-900.
               f<sup>O</sup>
                   = 1455. 9 \times 1455 = 13095. 8 \times 1580 = 12640. 13095 - 12640 = 455.
WCFL-1000.
              f^{\circ} = 1515.
f^{\circ} = 1645.
f^{\circ} = 1000
                             7 \times 1515 = 10605. 7 \times 1580 = 11060. 11060 - 10605 = 455.
KPAY-1060.
KEZY-1190.
                             7 \times 1645 = 11515. 7 \times 1580 = 11060. 11515 - 11060 = 455.
                   = 1805. 6 x 1580 = 9480. 5 x 1805 = 9025. 9480 - 9025 = 455.
KSR0-1350.
                   = 1955. 4 x 1580 = 6320. 3 x 1955 = 5865. 6320 - 5865 = 455.
KBBQ-1500.
```

Now, in order to get into all this trouble, these guys must have had pretty lousy receivers. Actually, the fictitious easterner had a \$175 transistor all-wave portable with 6 spread bands, 2 police bands, aircraft, FM, and a broadcast band - such as it was!

The midwesterner used an expensive communications receiver that had seemingly endless spread bands along with BFO, crystal filters, "Q"-multiplier, noise limiter, and including facilities for handling DSB, SSB, CW, and RTTY. It also had a broadcast band but it was added, begrudgingly, at the insistence of the marketing people who thought they should have their fair share of this market also.

And, finally, the Californian was the owner of a high-priced, digitized job with broadband input that displayed his frequency for him accurate to 6 places but he blew his bankroll on the set and cannot afford the preselector that they now tell him is necessary if he wants to hear much of anything.

#### Page 3

In the context of the broadcast band DXer, all these sets are bad - but not cheap! If the superheterodyne's problems cannot be solved by spending big money for available products, let us examine what has to be done. Obviously, if we retain the superheterodyne, a mixer is required and this means oscillator harmonics are inevitable. The solution, then, is to prevent all undesired signals from reaching the mixer to combine with these harmonics and this may require essentially duplicating normal superheterodyne selectivity in the form of tuned R.F. preselection. Should this prove necessary, was the superheterodyne a bad deal from the start?

Since the early 1930's, the superheterodyne has been the standard circuit for radio reception virtually unchallenged to the present time. There are three reasons why the TRF or "straight" circuit could not compete.

- The TRF set is too broad at the high frequency end of the band. This is easily explained. The nature of coils is that their "Q" tends to remain constant over a given tuning range. "Q" equals the operating frequency divided by the 3db bandwidth ("Q" equals f/BW). Consequently, as the frequency increases, the bandwidth will also increase because "Q" remains constant. Since it is difficult to obtain higher operating "Q" 's than 100, the single stage bandwidth (SBW) at 1600 kc equals 1600/100 = 16 kc. For cascaded synchronously tuned single circuits, the overall bandwidth is related (approx.) to the single stage bandwidth, where N is the number of stages, as follows: BW = SBW : 1.2 x square root of N. Accordingly, for 3 stages, BW =  $16 \div 1.2 \times \text{square root of } 3 = 7.7 \text{ kc}$ . It is necessary to remember that this is only the 3db bandwidth; the 6db bandwidth would be even broader. It further assumes that the stages remain perfectly aligned, a ludicrous assumption in view of the drift propensities of the usual mica trimmers that represent a significant portion of the total circuit capacitance at the higher frequencies. Incongruously, at the lower frequencies, alignment is more likely to be preserved since the much more stable capacitance of the air dielectric main section predominates. Additionally, perfect initial alignment can be expected only at the alignment frequency which might be 1500 kc. A good air gang is tracked to 1%. This means that at other frequencies than 1500 kc, the capacitance may be off the curve as much as 1% or the frequency may be off as much as  $\frac{1}{2}$ %. This amounts to a possible misalignment of 8 kc at 1600 kc and 7 kc at 1400 kc. With these possibilities for a staggered alignment, instead of a synchronous one, it is quite obvious that a "straight" set, as conventially constructed, is ill equipped to cope with the broadcast band radio spectrum from a selectivity standpoint.
- B. The gain of a TRF stage is normally not constant over the tuning range. Constant gain is a necessity if several stages are cascaded or the situation rapidly gets out of hand. For instance, if the gain of a single stage varies 3 to 1, the gain of 3 stages would vary 27 to 1, 4 stages 81 to 1, etc. The reason for this variation is the impedance of the tuned circuit. This is equal to QX. As noted above, the "Q" remains substantially constant. The reactance, however, varies linearly with frequency. For the usual case, where the capacitance is varied to provide the tuning, it is convenient to look at the fixed element the inductance. Since the inductive and capacitative reactances are equal at resonance, we do have this option. The reactance of an inductance increases linearly with frequency (X<sub>L</sub> = 2 pi f L), so the impedance and gain increase in this manner also.
- C. Basic overall stability problems limit the maximum sensitivity that can be utilized. The screen grid tube minimized the feedback problems experienced with interelectrode capacitance. However, the straight set had a basic problem with the tuning gang. This brought the individual tuned circuits in close proximity with considerable capacitance coupling between the leads going to the gang and between the stator sections themselves. In addition, considerable common coupling between circuits was introduced by the common rotor assembly of the gang shaft, wipers, ballbearings, etc. Since the gain per stage was normally 20 to 30 db, the problem of keeping a high performance design (over)

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of this type stable was considerable. Toward the end of the TRF era, extremely elaborate shielding was used with each stage individually confined in a separate shield box. Unfortunately, this resulted in a very expensive receiver and it could not compete economically with the superheterodyne.

The electronic environment has changed so significantly since the 1930's, however, that another look at the straight set is in order. Of particular importance in this respect are the transistor and varactor. Let us look at these briefly.

The transistor is really a fantastic device that has a mutual conductance  $(G_m)$ of 40,000 micromhos at 1 milliampere, compared with a tube (or FET) which has a mutual conductance of only 4000 micromhos at 10 milliamperes. Since the gain of an amplifying stage is equal to  $G_{\mathbf{m}}\mathbf{Z}$ , where  $\mathbf{Z}$  is the load impedance, it is obvious that the transistor can supply a given gain with a much lower load impedance than can a tube or FET. Accordingly, resistance coupled stages with flat gain over the broadcast band are feasible and make it possible to separate the amplification and selectivity functions. By locating the selectivity first, using just enough stage gain to preserve the signal-to-noise ratio (1.5 for example), and then adding the required amplification in the form of an untuned broadband amplifier, provides the ideal arrangement from the standpoints of low spurious responses, cross modulation, etc. In other words, strong nearby signals are attenuated more than they are amplified as they proceed through the amplifier, thus confining the major non-linearity to the first stage. A broadband amplifier as noted above is not feasible with tubes or FETs. These require 10 times the load resistance to provide the stage gain compared with that required by a transistor. In the practical case, the load resistor then becomes so large that the various shunt capacitances become a significant part of the effective load and introduce a serious gain slope that is inversely related to frequency.

Now let us take a preliminary look at the varactor. This is a reverse-biased diode which has the property of changing its capacitance as the reverse bias is varied. They are typically the size of an ordinary glass signal diode and the abrupt junction variety have been around for a number of years. The possible capacitance variation with this construction is typically 3 to 1 with a 1 to 10 volt bias change. Since a 9 to 1 capacitance variation is necessary to cover the broadcast band, a varactor variation of about twice this or, say, 20 to 1 would be necessary because of the stray minimum capacitance that exists in the trimmer, coil, leads, etc. By using a hyper-abrupt fabricating process, this required capacitance variation can be obtained with a 1 to 10 volt bias variation.

Varactor diodes suitable for tuning the broadcast band are manufactured by Motorola, ITT (Intermetal), Matushita, Siemens, and others. As a matter of fact, Matushita (Panasonic) has had two radio models on the market for several years with the broadcast band tuned by varactors. As we shall presently observe, the hyperabrupt junction varactor offers interesting possibilities for making a practical TRF or "straight" receiver.

It was previously noted that a TRF receiver consisting of several tuned stages has a basic stability problem due to the common condenser gang. By employing varactors instead: (1) the long gang leads are eliminated; (2) the stator capacitative cross-couplings are eliminated; (3) the coupling problems in the common shaft are eliminated and; (4) the tremendous reduction in size eliminates any possibility of significant radiation resistance being present which did exist with the large stator plate assemblies of the condenser gang. Further, by using very low stage gain between the tuned circuits and obtaining the major amplification with a resistance coupled sub-amp not only are the spurious response and cross-modulation problems improved but a completely stable basic amplification system is provided.

With the stability problem solved, let us examine the problem of providing constant bandwidth over the tuning range. By a simple transposition of the basic "Q" relation given previously, we have, BW=f/Q. Obviously, then, to obtain constant bandwidth, the Q should vary linearly with frequency. Since our maximum Q is

C.

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100, this should apply at the high frequency end of the band and provision should be made to have it reduce linearly as the frequency decreases. This is not really difficult.

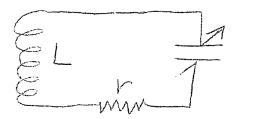
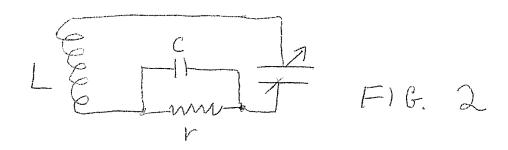


FIG 1

Consider the circuit of Figure 1. If r represents the total circuit resistance, Q would equal X/r. Since, as noted previously, the capacitative reactance and inductive reactance are equal at resonance, we will exercise our option and select the fixed one to consider as a matter of convenience. As we know,  $X_L = 2$  pi f l, so the reactance of the coil will increase linearly with the frequency and r will remain constant, so Q will also increase linearly with frequency which is the condition we desire.

When we try out this circuit and measure its performance we find that the bandwidth no longer varies 3 to 1 over the band as it did previously, but it is not constant, either. The reason for this is that r does not represent the entire circuit resistance. There are dielectric, magnetic and leakage losses that are effectively in parallel with the tuned circuit and these have an effect on the bandwidth variation which opposes the relation we desire. If this is not clear, a shunt resistor has the greatest loading effect at the frequency where the tuned circuit impedance is highest and this is at the high frequency end of the band since Z = QX.

It is not difficult to correct for this, empirically, with the circuit of Figure 2. Suppose we pick a value of C having a reactance equal to r at 540 kc. We then increase r to give the same Q as before at this freq-

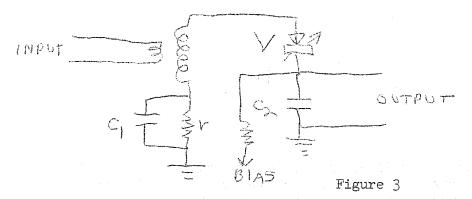


uency. At the high end of the band, however, the reactance of C is so much lower than r that the effect of r in lowering the Q is negligible. By cut-and-try, using this technique, it is no problem to find values of r and C that provide a constant bandwidth over the entire BC band.

Perhaps it would be nice to report that having made the bandwidth constant the stage gain would oblige by becoming constant also. No such luck, however. Stage gain, you will recall, is equal to  $G_mZ$  where Z is the output load. This load is a tapped down replica of the tuned circuit impedance. The tuned circuit impedance is QX. If we examine this in the light of our bandwidth equalling process, we see that Q now increases

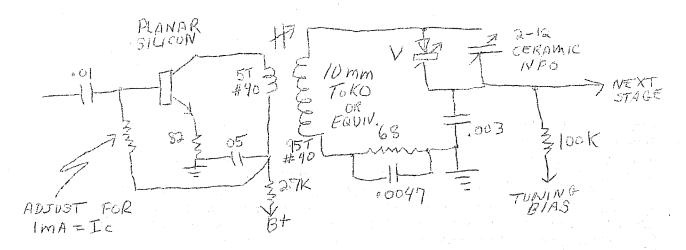
## Page 6

linearly with frequency and so does X with the result that the gain instead of varying 3 to 1 over the band now varies 9 to 1. Thanks, however, to the varactor we can linearize the gain very simply with the circuit of Figure 3.



Varactor, V, and capacitor, C2, form a voltage divider network to provide the matching function to the succeeding base and since the tuned circuit impedance is much higher than the input impedance of the transistor, the value of C2 is much larger than the maximum capacitance of the varactor. Since V varies effectively 9 to 1 in order to tune the band, the attenuation produced by this divider will vary 9 to 1 also; being greatest at the high frequency end where the varactor capacitance is smallest. It will be remembered that the equal bandwidth circuitry produced a 9 to 1 variation also with the gain variation exactly the reverse of that produced by the varactor divider. The net result is constant stage gain. We have now achieved equal bandwidth and equal gain and thus have removed the basic limitations to a successful TRF design.

Figure 4 shows a complete single stage amplifier exclusive of components required for tracking a multiplicity of stages.



continued in the April 19th DXM subject to space in that issue

Editor: Father Jack Pejza, 3266 Nutmeg St., San Diego, Calif. 92104
Telephones: 714-282-0076 or 714-282-2184. <u>Deadlines</u>: Fridays, eight days before date of publication. Next issues: March 26, April 9. Please submit reports in GMT (EST + 5 hours), one side of page, with your name on each page; preferably typed in order of frequency.

#### DXWW Format -- Glenn Hauser

I don't know how other DXers use DXWW, but for me, it serves as a reference source for checking unIDs, once I have absorbed the latest edition. It's very inconvenient to do this, however, since information is split into three sections by geographical area of reporter. If a split has to be made, I suggest that it be by geographical area of the station, Africa and Europe; the Americas; Pacific and Asia. Contrary to apparently popular belief, it is possible to get the same station, especially from LA, on both coasts. Continuing to separate as at present may actually discourage certain DXers from even trying for some stations, on the assumption that "that's east coast DX--no use trying for it here in the midwest," etc. On the other hand, we're usually fairly certain from which major region of the world our unID is coming, and thus could easily check back issues for help...without having to search thru three different lists in each issue.

(Editor's comment: this issue came up about a year ago. At that time, only one or two of the eight or ten who bothered to indicate which format they preferred wanted a switch. Certainly if the majority of those who report to DXWW want a switch, I'll be happy to oblige. I would like to see some expression of opinion, however. To give reporters an idea of what the column would look like, this week I'll divide the tips into the three areas suggested by Glenn.

#### Africa and Europe

- Algeria, Oran 3/12 2315 with weak audio. YL talking and vernacular music.

  Usually only appears at this time for ½ hour or so. Not needed. (ESK)
- 647 BBC Great Britain, Daventry, 3/10 0453, needed. Fair with some sideband QRM.

  Man in GG and YL in Slavic at 0500, following European Service scheduled per WRTH. (ESK)
- 764 ... Senegal, Dakar quite weak but distinct muezzin chantin at 0616 3/17, perhaps their swan song for the season. (GM)
- 872 EAJ101 Spain, Zaragoza is a possibility of the strange station first heard by GM MM 3/8 around 0720. Language seemed SS and loop bearing suggested Europe. The only problem was that no TAs were audible at this time, not even Dakar, 764. Anyone else hear? (LBG)
- 899 RAI Italy, Milan 3/10 0515, best at 0535. Canadians on 900 annoying but not destructive. Man in II with varied music including rock group, pop music, and combo with singing in FF. Musical chimes IS at 0530. (ESK)
- 935 ... Morocco, Agadir, 3/13 0237 with man chanting. Stringed instrument at 0240 and YL announcer at 0253. Strong signal but audic fighting heavy WPAT QRM. Only TA readable over the atmospherics. (ESK)
- 953 EAJ50 Canary Islands, Las Palmas. If EAJ29, Madrid, does sign off at 0000 as scheduled, then this must have been Radio Las Palmas. Igot there late to get ID, only heard the last 4 minutes before 0100 s/off, on 3/9. Definitely SS with man announcer, light musicin background. Fair signal but cut up badly by 950 splatter. Worth watching. (AM)
- 1205 ... Sierra Leone, Freetown and its unmistakable flute opening at 0557 3/17. Extremely faint and perhaps their final appearance for this season. (GM)
- International Waters, Radio Nordsee International probably the station here on 3/9 with pop music. No announcements heard. Noted at 0045 and not there when I checked back at 0120. Probably signed off at 0100. Anyone know for sure if they are still on? (AM) (According to SCDX, they are on again, scheduled in Dutch 0700-1500; English 1500-0100. Ed)

All times in DXWW are GMT (EST + 5 hours, CST + 6, MST + 7, and PST + 9. To convert, for instance, 10 PM 3/20 PST, add 8 hours to 2200, making it 3000.Subtract 2400, to get 0600 GMT. Add a day to make it 3/21.

## The Americas

- 540 LRA14 Argentina, Santa Fe heard with "Radio Nacional" ID only very weak behind HCFA2-Guayaquil at 0729 MM 3/8. Also readable at 0716 with part of a TC. Unfortunately not enough for a report or a taped verie...(LBG)
- 600 CMKV Cuba, San German weak but distinct under domestic QRM with La Voz de Cuba.

  "Territorio libre del America" ID at 0835 3/7. For some reason the Cubans on 640, 720, 740, 830 were not in this morning. (JAM)
- 660 HJJM Colombia, Cali, with music, many ads, frequent Radio Unio IDs 3/15 0645.
- 670 ??? UnID SS with clear ID as "Radio Exitos" 0745 and 0800 MM 3/8, but no hint of TC or country. Signals were strong despite the AN Cuban; style suggests Colombia or maybe CA. Anyone ID? (LBG)
- 680 XELG Mexico, Leon fair with "L-G" slogans and rock music 1123 MM 3/1 and many MMs since. (BWL)
- 690 CMBC Cuba, La Habana good in SS 1133 2/22 with XETRA pleasantly silent. Format was easy listening music, almost mistaken for XETRA until announcer was a YL and in SS at that. (BWL)
- 699½ ??? UnID again heard with soft instrumental music at 1315 MM 3/15, possibly //XETRA-690. Not strong enough to tell for sure. (LBG)
- 700 ??? UnID EE and SS mix with WLW looped, 3/10 0020. Equal strengths from East Caribbean area. One had an 8-note whistle; assume the SS. (ESK)
- 740 CMJL Cuba, Camaguey was a regular here for a few mornings after 0610 with La Voz de Cuba. Fair signals at times, 3/6. (JAM)
- 745 ??? UnID. Have checked for GM's station, but hear only weak carrier. Must be at a bad skip distance from me. (GH)
- 760 CMCI Cuba, La Habana in good with SS music and talk 1224 3/8. (MM)(CMCD? Ed)

  CMCD good in SS with very distinctive format 1212 3/15. Format was news
  for about 50 seconds, "Reloj Nacional" ID, then chime and TC every minut.

  All was over a background of clock ticks, one per second. (BWL) (This
  format is common to all Reloj Nacional stations. Ed)
- 765 YSKL El Salvador, //770 at 1125 3/15. Has anyone found out which relay is in which city? (GH)
- 770 YSKL El Salvador, KL station at 1125 3/15, ranchera music //765; stronger here.
- 780 CMJN Cuba, Camaguey fair in SS //670 as near as I could tell, 1015 3/8. (BWL)
- 800 PJB Netherlands Antilles, Bonaire over XELO booming in, thanks to KGO carrier of 0830-0900 3/14. Typical SS promos. (GF)
- 810 XEFW Mexico, Tampico believed to be the one here with s/cff at 0400 with a NA under KCMO. (JAM)
  - HJCY Colombia, Bogota, "Radio Sutatenza" 3/14 1017, unneeded, under a weak WGY (latter signed as WGFM and evidently using flea-powered auxiliary transmitter). The SS read a list of calls, freqs, then into mixture of talking and sedate LA music. (ESK)
- 830 4VEC Haiti, Cap Haitien 3/15 1035 in Crecle with prayer while WCCO locped; hymn to tune of GSQ; WRTH says SS, but SS was on 1035 instead. (GH)
  - CMCD Cuba, La Habana in way over WCCO with ID 0500 3/13. (MM)
- 840 HJBI Colombia, Santa Marta, fair u/o WHAS evening of 3/5 (forgot the time, hi) heard one RCN ID—thought they were "Ondas del Caribe"in their IDs. Many mentions of Colombia. (BWL)/ Good with full ID giving both slogan and call sign 0730 3/15. (DSS)
- 850 ??? UnID good in SS 1057 3/8. ID as "...con diez mil watts" (with 10,000 watts) ad for something called Nacional ("Tome Nacional"), and then a Coke ad and jingle all sung in SS. Thought this might be the Colombian but they have 50 kw, not 10 kw. Help! (BWL) (There are a course of CAs with 10kw, plus the Venezuelan. Ed)
- 860 XEMO Mexico, Tijuana, B.C. good with religious programs at 0800. Sounds as bad as KXEL. ID at 0830 mentioned the J.C. Gates Co, Inc. 3/14. (JAM)
  - ??? UnID here in SS under and mixing with CJBC and XEMO, with interview program at 0250-0257 3/14. Sounds like a program the CBC would produce. (JAM)

- 870 CMDN Cuba, Guantanamo fair with La Voz de Cuba 0745 3/15. WWL off. (DSS)
  In under WWL 0501 3/13. (MM)
- 880 ??? UnID 3/15 MM 0905 man and woman singing in SS(?), static levels so high I returned to bed after 5 minutes of scanning likely frequencies. (ESK)
- 890 HJCE Colombia, Bogota in under WLS, poor 0501 3/13. (MM)
  - ??? UnID SS under and mixing with WLS between 0310-0326 with continuous SS music. Few announcements. Came in about same time as the Colombians on 750, 810, 820, 850. HJCE? 3/12. (JAM) (Probably. Ed)
- 940 CM.. Cuba, 3/14 1001, ID heard under channel mix. As to location and call, I no longer attempt to reconcile and decipher conflicting logs and station lists and the continual changes of this island. Having heard both, the only difference is the programming of Cuba, North Korea, and Peking is the language. (ESK)
- 960 HJHN Colombia, Barranquilla, "Radio Sutatenza" 3/14 1000 with 6-note IS, reading list of calls and freqs, then firmly IDs itself twice. As on previous day, program consisted of long talks in SS interspersed with single LA MoR selection. Strong signal over mix but faded out by 1030. (ESK)
  - XEIQ Mexico, Ciudad Obregon, Son. was, I believe the one IDing as "Q" 0747 MM 3/15, then into US rock. Faded under KOOL; poor with XEGM slop. (FJP)
- 1000 XEOY Mexico, D.F. quite good under the CBW slop. XEOY dominates 1000 some evenings, 0600 3/13. (JAM)/ In over KOMO, which must have had transmitter trouble, since they wereweak 0517 3/13. (MM)
- 1020KSWS That loud SS station here 0600-0700 3/17 was only Roswell, N.M. trying out what may be a new format to save them from bankruptcy. Don't be taken in: (GM)
- 1030 LS10 Argentina, Buenos Aires believed the SS mentioning Mar del Plata (Argentina resort city) at 0843 MM 3/8, about even with pest XEQR. (LBG)
  - XEQR Mexico, D.F. is also a regular here on some evenings o/u KTWO. Good with an ID at 0430 3/13. (JAM) / Poor way under WBZ, with IS popping through after every record, 0500 3/15. (DSS)
- 1040 HJAI Colombia, Barranquilla in good over WHO 0513 3/13. (MM)
- 1080 YVQJ Venezuela, Barcelona, R. Barcelona 3/15 1000 s/on with Venezuelan NA and followed by another anthem or theme song. (GH)
- 1089 CM.. Cuba RFS list has nothing on 1090, so which is this? Clobbering XERB, poor thing, with distorted signal but no heterodyne, 1059 3/15, with "el rapido de las 5 y 30" //640. (GH)
- Antigua, St. Johns, very weakm under semi-looped KREX and KWYC at 0200 3/15 during a thunderstorm. Not enough details for a report (why, oh, why, do I always hear these things in thunderstorms?) (JPM)(See below for another)
  - XE?? Mexico? Man and YL announcers with SS promo and music 0755-0802 3/12; splash on local 1070 extreme. On 3/13 0745-0755 just man this time. Splash from 1070 still bad. Too weak to ID. (GF)(No Mexicans here; sure it wasn't KFAX which does a lot of foreign language broadcasting? Ed)
  - ZDK Antigua (overlooked before. Ed) with frequent IDs and at 1023 3/15 offering \$11 for news tips. (GH)
- Venezuela, Carupano. KFAB found observing silent period of unknown length on both 3/12 and 3/13 soon after 0700, and both occasions found Mexico City off the air despite the NSP on record for both stations. A good place to listen for Radio Carupano which I caught in mid-winter 0930-1000. (GM)
- 1120 ??? UnID SS 0815-0825 in the unexpected silence of KMOX on MM 3/15. Dropped into oblivion after 0830 leaving only a very weak KPNW on the channel. Tried hard for WVUV but nothing heard. (GM)/ UnID SS in and out with KPNW (KMOX off) MM 3/15 around 0800-0830. Taped an ID at 0816 that was phonetically similar to "Radio Montevideo" but no such listed. Also I doubt it was a DSA because of the format and accent. Note that KMOX used to be off the first MM each month but was not silent MM 3/1. Maybe a schedule change/ (LBG)

- 1180 XEFR Mexico, D.F. still AN; heard with "Radio Felicidad" ID 0741 MM 3/15 atop WHAM (looped). (LBG)
- 1190 XEWK± Mexico, Guadalajara, Jal. poor to fair with WOWO, CFSL nulled. Has the same programs as XEW/XEWA at 0200 3/13. (JAM)
- 1285YNRPS Nicaragua, Granada likely 0254 3/14, with heavy beat LA music, announce-ments, 0305 NA and off 0308. However, at one point seemed to mention Chiclaya (Peru). Will have to check out anthem. (GH)
- 1459 XEXQ Mexico, San Luis Potosi, SLP, Radio Universidad Nacional Potosina, off frequency from 1460 3/14 at 0335 with opera; synopsis at 0410; by 0420 was obviously parallel with 6045 kHz; although no ID heard. (GH)
- 1506 ... Anguilla, The Valley finally logged well enough to report on 2/19, 0010-0200 s/off. Mostly pop, some calypso and what sounded like hymns just before s/off. Female annaouncer during earlier part. Uses 3 or 4 note IS. (AM)
- 1589 XEPT Mexico, Misantla, Ver.. To answer a Floridian's question and to correct my previous report, the variant here is not Monterrey but listed 100 watt (night) XEPT. Heard on 3/14 at 0329, with Mexican music and announcements, 0335 s/off message, and off 0336. Measured about 1588.5 this time. (GH)

Pacific and Asia

- 650 KORL Hawaii, Honolulu 0915 3/14 fair signal with MoR music. KFI slop. (GF)
  690 JOAB Japan, Tokyo in good with FF lesson and ping 1100 3/8 year even Cuber
- 690 JOAB Japan, Tokyo in good with EE lesson and pips 1100 3/8 way over Cuban Note: Steve Kamp did heard Japan on 690 2/15. (MM)
- 700 Jo.. Japan synchros in very good with pips 1200 3/8. (MM)
  - ... China in good with pips at same time as Japan gave their pips 1200 3/8.
- 750 JOIB Japan, Sappore in good in JJ with no sign of WSB 1200 3/8. (MM)
- 780 JO.. Japan, in fair with easy listening music and JJ talking 1200 3/8. (MM)
- 830 JOBB Japan, Osaka in like a ton of bricks 1100-1230 3/8. (MM)
- 1005 ... North Korea, Hamhung in poor in KK 1109 3/8. (MM)
- 1040 ... China bombing in 1410 in CC 3/6. (MM)

### Verifications

- St. Kitts, excellent v/l from Z.A. Joseph, AG, for report of 12/5/70. All details. Mentions that they were testing on 585 for a few days due to severe interference on 570. No mention of where they are now. Transmitter is Australian, and antenna is a top-loaded T, 160' high and 400' long. Very welcome as country #83. Now if ZDK would come through! (AM)
- Anguilla, usual verification letter from Mr. Dunlop for report of 2/19. Specific, but he insists that they are on 1505. Definitely closer to 1506 than 1505. (AM)

#### Reporters

- GF Graham Fleck, #210 666 Cock St., Victoria, B.C., Viking RMK 721 R, builtin loop LBG Larry Godwin, Englewood, Colo.
- GH Glenn Hauser, Kelly AFB, Texas. HQ-160
- ESK Ed Kocsan, Mcrmis Plains, N.J., HQ-180A, 27" loop
- BWL Blake Lawrence, Canon City, Colc.
- JAM Joe Markewicz, Winnipeg, Manitoba
- GM Gene Martin, Denver, Colo.
- AM Alan Merriman, Fairfax, Va. HQ-180A, altazimuth lccp, IRCA FET preamp.
- JPM James Mohler, Iowa City, Iowa, All =American 7 (All-American 5 + FM)
- FJP Your editor, HQ-180A, 3' loop
- DSS Dave Singer, Richmond, Va.
- PLS Phil Sullivan, Leominster, Mass.
- MM Mike McCullough, San Jose, Calif. Lafayette HA63A, IRCA loop and LW/Please let me know your impressions of this new format. I won't change to it unless I get a considerable amount of support. I hope all wrangling about the convention site is now over; if I offended anyone with my comments last week, pardon me. I was quite annoyed to see the apparent favoritism shown to Toledo. Now is the time to submit your nominations for officers to Dave Prather. Try to nominate people who will work conscientiously for the club, not just those who talk a good game. 73 from FJP.