



DX Monitor

Devoted Exclusively to
Broadcast Band DXing

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DX Calendar

- Mon Jan 28 KUEN-900, Wenatchee, WA, 1000 w, D1, will test 0300-0330 EST. Send reports to Randall Beckstead, CE, KUEN, Box 79, Wenatchee, WA 98801. Arranged by Neil Zank for NRC.
- Mon Jan 28 KVEL-920, Vernal Utah, 5000 w, D1, will test 0700-0800 EST, send reports to Margaret Hemmert, CE, KVEL, Box 307, Vernal, UT 84078. Arranged by Wayne Heinen for NRC.

Odds & Ends

In keeping with an unwritten club policy of fouling up at least one mast-head number per month, it's time to note the error in last week's heading. It should have been Volume 17, Number 14. You guys are lucky I don't also take care of the club's financial records, hi.

WVLC-1170 and KEGG-1560 DX tests were both on, although KEGG was later than scheduled. See EDXF and CDXR, respectively, for details.

CJXX-1430 is now on the air (see inside). Was noted testing by yours truly on Monday morning, December 24.

Jef Jaisun says that KASY-1220 in Auburn, WA, will boost to 2.5 kw any day now. Their new pattern will be east-west.

The Saint Louis Internationale DXers (SLIDX) will have a meeting January 20, 1980 at 2:30 PM at the Famous-Barr in Northland Plaza, corner of Lucas and Hunt and West Florissant Roads, somewhere in the Saint Louis area. For more details, contact Rich Eddie, 152 West Rose, St. Louis, MO 63119.

The Golden West DXers Association has another new address, effective 1/1/80. The new address is P.O. Box 1524, Eugene, OR 97440.

With a new year and a new decade upon us, let's make a resolution to improve our reporting standards. Some thoughts which come to mind:

- Report to the forums often. Let the rest of us know your observations and thoughts on your latest DX activities, receivers, radio stations, and other timely and relevant topics. If you're a new member, why not introduce yourself? At the same time, try to limit your forums to DX related topics. Some recent ones (mine included) have gotten a little off the subject lately.
- Newspaper clippings are welcome here, if they're interesting and relevant. They should deal primarily with AM radio, tho. I've received a few lately on FM stations, etc., which aren't really appropriate.
- Write an article for DXM: receiver reviews, construction projects, articles on stations, etc. are always welcome here. Write headquarters for instructions on how to write them. Happy New Year....Bruce Portzer

Broadcasting Information

Greg Monti
1110 Fidler Lane #1424
Silver Spring, MD 20910

call	kHz	day/night	
new	550	???	Pinehurst NC wants WDLV
KGMB	590	5000/5000	Honolulu HI wants KOKK
WKMB	1070	250/	Stirling NJ wants 2500/
new	1120	1000/250	Hatillo PR wants WMSW
WBRM	1250	1000/	Marion NC wants 1000/500
WUNA	1340	250/250	Aguadilla PR wants 1000/250
WBSG	1350	500/	Blackshear GA granted 2500/
WOL	1410	500/500	Somerville TN
WONS	1410	5000/	Tallahassee FL wants WKQE
WJIC	1510	250/	Salem NJ granted 2500/
KKAP	1540	10000/	Astos-Capitola CA wants KMFO
WKKR	1540	1000/	Pickens SC wants WPKZ
new	1580	10000/	Camp Lejeune NC wants WJIK
WARV	1590	1000/	Warwick RI wants 5000/5000
WHVL	1600	1000/	Hendersonville NC wants 5000/
????	????	???	Vancouver WA unknown existing stn wants KAPO

From the Dec 10 and 17 issues of Broadcasting.

RADIO Philadelphia Big Five Conference Basketball coverage is
PROGRAMMING flagged by WHAT-1340-PA and its FM, WVDB. Network
NOTES stations include WOTQ-1590-PA and WUSS-1490-NJ. University
of Maryland basketball is on WMAL-630. Navy is on WNAV-1430
Annapolis Md. George Washington U is on WAM-1390 Arlington VA.
Georgetown U is on WOL-1450 Washington DC.

Sears has quit sponsorship and production of the Sears Theatre.
A name change will be likely as it moves to the Mutual network... WBBG - 1260 Cleveland OH has reverted to a top 40 format after a try at talk.
The station plays plenty of oldies and aims for a 25-40 demographic....
Another station now on the oldies bandwagon is WNYG-1440 Babylon NY....
KILT-610 Houston TX is running talk 2200-0100 local time... Another
rocker adding talk in the evenings is KAAY-1090 Little Rock AR. KAAY
has also picked up the Larry King Show overnight.... The new RKO Network
has released its first affiliates list: WHBO-560-TN, WGMS-570-MD, KROD-600-TX,
WSGN-610-AL, KPRC-610-CA, WRKO-680-MA, WOR-710-NY, KULF-790-TX,
WKTY-850-NC, KJJJ-910-AZ, KHJ-930-CA, WKY-930-OK, KMGY-940-AZ, WGMS-1050-VA,
WKNW-1340-TN, KOIL-1290-NE, KEYN-1410-KS, WGSC-1390-SC, KUYS-1440-TX,
WOLF-1490-NY, KFJZ-1270-TX, and WFFM-1550-PA. WGMS and WOP will carry
network commercials, but not network programs. RKO feeds three-minute
newscasts on the half-hour from 0630-2030, plus extra feeds in drive
time. The schedule will be expanded later. "Lifesound" features are
fed at :15 from 1115-1915. Other features include "Family", "The Sexes"
and "Inside Out"... WINS-1010 New York and WBZ-1030 Boston have joined
the ABC/I net... WOR-710 New York has joined ABC/E net.

The Iranian situation has brought out the radio troops: WTO-1290
Dayton OH called the besieged embassy to inquire as to the condition of
a local resident held captive... the RKO Network claims it was the first
to air a message from a hostage... KMPC-710 Los Angeles claims it broke
a story about some hostages being moved... KOA-850 Denver had a pro-
Khomeini student on a controversial talk show... WSOC-930 Charlotte NC
claims it started a regional "display of unity" (white armbands).

Geoff Edwards and Wink Martindale have exited KMPC-710 as the
station reschedules itself... The ABC network(s) have a three-year
contract to air the Kentucky Derby starting this spring. CBS had that
contract for 29 years... WTRY-980 Troy NY will be broadcasting live from
the Winter Olympics at Lake Placid, NY and will feed reports to other
stations owned by the Great Scott chain... WHAT-1340 Philadelphia PA is
increasing its play of jazz... "Super XIV" is the title of a CBS special
to be aired Jan 19 & 20. Win Elliott will review/preview the Super
Bowl... KIQI-1010 San Francisco changed its format to oldies for the fall
ratings period with much success. Along with the music, they aired news
of the years featured.

The 17-year-old battle over the license of KPLA-1110 Pasadena CA is
over. A conglomerate of applicants led by Bob Hope's Western Broad-
casting will own and operate the station. KPLA's license was revoked in
1962 when it was discovered a) it was running a phony contest, and b) the
owner was Canadian, not American as required by law. (Continued on p.10)

Eastern DX Roundup

Bob Curtis, 17 Cobbleview Dr., Colchester, VT 05446

DEADLINES: Mondays - All times are Eastern Local

- 516 YWA ON, Petawawa 12/10 0033 Radio beacon w/1kHz tone & coded ID every 16 secs. Fair signal. (WPT-DC)
- 560 WCKL NY, Catskill 12/4 0731-0734 Local nx by OM, spot for Capital Savings Bank w/branches in Catskill. Fair to poor o/CFOS. My 80th NY station. (NW-ON)
- 600 KSJB ND, Jamestown 12/2 0025-0040 c/w mx, Ae nx at 0030, ID & TC at 0036, no spots. Poor-fair w/WMT and WCAO. Not heard since DXpedition to Williamsford. New for Toronto. (NW-ON)
- 610 (CKTB) ON, St. Catharines 12/3 off w/OC 0000-0100. (NW-ON)
- 630 CKRC MB, Winnipeg 12/2 0048-0052 OM ID as "Country CKRC", then c&w song. Poor w/WMAL & WPRO. Not hrd since early '77 (NW-ON)
- CFCY PEI, Charlottetown 12/5 2330-2336 Sport nx w/major league & local scores, ie. Summerside & Charlottetown, 2336 spot for a mall in Charlottetown. Fade-out by 2337, poor-fair w/WMAL, CFCO & WPRO. (NW-ON)
- 680 (CFTR) ON, Toronto 12/1 Off 1600-1617, and possibly 1213 around 0400. As a result WNYR & CBF-690 easily audible at pre-SSS. Was hoping to try SSS on 580 & 690, but CFTR came on about 30 mins too early on the 1st snowstorm of the year. (NW-ON)
- WNYR NY, Rochester 12/1 1601-1617 c/w mx, "68-WNYR" ID's, a few spots. Fair-good while CFTR was off, nothing in null. (NW-ON)
- 930 CKNS ON, Espanola 12/10 0007 Wx forecasts for northern ON (temps as low as -28°C/-18°F). Good u/WFMD. (WPT-DC)
- 1090 CHRS PQ, Longueuil 12/6 1616 FF talk by OM. Fair u/WBAL. (WPT-MD)
- 1140 WQBA FL, Miami 12/7 1730 SS talk by OM, ID w/chimes by YL. Fair w/null of WRVA. (WPT-DC)
- 1190 WLIB NY, New York 12/3 1703-1708 Nx w/items on Jamaica, local spots for a lawyer on Madison Ave. & a fuel dealer. Poor in WOWO null. (NW-ON)
- 1250 (CHWO) ON, Oakville 12/3 Off 0010 to at least 0100. (NW-ON)
- WEMP WI, Milwaukee 12/3 0042-0055 T40, Paul McCartney Xmas song, ID & phone #, other mx by Al Stewart & Robert John. Poor to fair in WTAE null w/CHWO off. (NW-ON)
- 1280 WKST PA, New Castle 11/30 2337-2352 In w/FF OM & FF mor mx. Poor w/WCHS & CKEY slop. My 52nd new stn for November. (NW-ON)
- 1320 CFCM ON, Richmond Hill More on CFCM (see 1310 in EDXR for Dec. 1) CFCM has not been on 1310 for 2 years, & is c&w/talk w/MM SP re (SG-TN) Not Toronto, but Richmond Hill (suburb). (NW-ON)
- 1360 WKOP NY, Binghamton 12/6 1642 ID & DJ talk after song by Ronnie Milsap. Poor w/others. At 1655 was blasting in. (NW-ON)
- 1390 (WEAM) VA, Arlington 12/11 1700 Noted off. Back on at 1710. (WPT-DC)
- 1430 (CKFH) ON, Toronto 12/3 Off 0000-0130, CKFH & CKTB have been off quite a bit on MM, & CKFH on SM. No pattern to SP's. (NW-ON)
- WIRE IN, Indianapolis 12/3 0020-0044 c/w mx, wx & road reports, ID's & spots for Mac's Family Restaurants and Ram Paging Beeper Service. Good o/WEIR w/CKFH off. (NW-ON)
- 1500 ???? UNID, 12/3 0043 Stn noted in EE w/rlgs pgm w/contemporary mx & talk by OM. Is KSTP using rlgs pgm MM? WTOP/WCZY off (NW-ON)
- 1550 WOR1 TN, Oak Ridge 12/2 1733-1734 3 ID's heard in a YL contest spot. Poor in CBE null. (NW-ON)
- WSER MD, Elkton 12/4 0805 ID, address given, played "Pina Colada Song" & "All You Need Is Love"/Beatles. Fair o/u CBE. (NW-ON)
- 1570 CKLQ MB, Brandon 12/3 0005-0130 In w/no problem w/nx, wx for ND, SK & MB & c&w mx. Fair o/XERF after CFOR s/off 0004. (NW-ON)
- WGLX OH, Galion 12/4 1658-1710 Ae nx, wx, ID into a mor song and then a song by The Carpenters. Fair in CFOR null. (NW-ON)
- 1590 ???? UNID, 12/3 0030-0130 T40 mx like "Babe" u/WAKR. WQQW was off due to MM. (NW-ON)
- 1600 KCRG IA, Cedar Rapids 12/5 1704 Song "Better Luck Next Time" after ID & mx by Seals & Crofts, 1708 talk by DJ & spots then faded out. Surprised at this, Never heard except on ET (NW-ON)

REPORTERS THIS ISSUE

- WPT-DC Bill Townshend, 4500 Conn. Ave., NW, Washington, DC 20008
Realistic TRF
- WPT-MD DX'ing after work at Marlow Heights, MD
- NW-ON Niel Wolfish, 15 Donwoods Grove, Toronto, ON M4N 2X4
Realistic TRF & FRG-7

Bob Lazar
511 W. Doty St., Apt. 208
Madison, WI 53703

Central DX Roundup

Deadlines: Wed. 1/2, then Tuesdays _____ 85° to 110°W _____ All times Eastern

- 550 KSD MO St. Louis, fair around 1200 w/ mx 11/7. (TS-IA)
570 WAAX AL Gadsden, poor-weak 2132 w/ C&W mx, then ID 11/3. (TS-IA)
600 KSJB ND Jamestown, weak 2315 11/21. WMT almost killing the signal. (TS)
620 WRJZ TN Knoxville, 2200 12/4 good w/ ID and into R&R. (TS-IA)
630 CKRC MB Winnipeg, poor signals at 0505 on 12/13 w/ a sports report by OM DJ. (MH-IL)
640 KFI CA Los Angeles, 0105 12/4 good overpowering CMQ. (TS-IA)
710 CJRN ON Niagara Falls, 12/10 0039½ good w/ sports. (RK-IL)
750 KSEO OK Durant, 11/24 fair to poor 0730 w/ very little QRM from WSB. My best catch ever! New. (TS-IA)
880*WCBS*NY*New York, noted signing off 0100 11/26 and apparently testing w/ ID's every 5-10 minutes. (GT-FL)
950 WBBF NY Rochester, 12/10 1725 fair w/ ID while looking for WGOV or Tampa. WJPC will soon be fulltime here (their 6 towers are up per Mike Hogan) so have to finish off this freq. (RK-IL)
1010 KLRA AR Little Rock, 11/30 1815 ID & went into music. Heard it just before night antenna pattern change. (TS-IA)
1090 WAQE WI Rice Lake, 12/7 1726 fair w/ ID, MoR mx, a fairly new stn. (RK)
CHEC AB Lethbridge, 12/10 0319 fair u/ CKKW w/ PSA. (RK-IL)
1120 KPNW OR Eugene, 12/10 0204 fair-poor u/ KMOX w/ nx. (RK-IL)
1130 KBMR ND Bismarck, s/off amnt at 1758 on 12/9, s/off done by Barry Anderson. (MH-IL)
1190 KRDS AZ Tolleson, 12/10 0200 fair u/ KEX (with loop aimed at Portland) w/ ID then UPI nx. No sign of KLIF or KJLA. (RK-IL)
KDAO IA Marshalltown, will be celebrating its first year of broadcast around 12/15. (TS-IA)
KEX OR Portland, 12/10 0200 unbelievable signal (S9) all night, w/ nx. (RK-IL)
CPSL SA Weyburn, nx report by Ian Chreighton at 1800 on 12/9. Excellent signals. (MH-IL) 12/10 1749 fair w/ promo. (RK-IL)
1220 CJOB AB Lethbridge, 12/10 0116 fair w/ wx & ID as C-Jock, u/ CJRB. (RK)
1290 KLEH IA Anamosa, 1200 good. Could anybody tell me how much power KLEH runs on? On for about 3 months. (TS-IA) (They're 500 watts with a directional antenna. Also, this is the correct location according to my information--ed)
WQIN PA Lykens, 12/8 1624 fair w/ promo. (RK-IL)
WATO TN Oak Ridge, briefly atop the rest at 2007 12/9 w/ "It's 39 degrees in the energy capital of the world...A-T-0." Pop mx followed. (GT-FL)
1310 KDIA CA Oakland, 12/10 0142 fair w/ ID as DIA then gone. (RK-IA)
1320 KXYZ TX Houston, good 0253 11/22 w/ "Sunshine R., your constant Christian companion...KXYZ"; and w/ UPI nx 0245 12/8. Is this format & network change a recent thing? (GT-FL) (I believe it is--ed)
1340 WCMI KY Ashland, 12/6 0122 good w/ ID, has suddenly become a regular. (RK-IL)
1350 CKAR ON Oshawa, at 1622 w/ an ad for the Red Rooster Restaurants, and much rock mx. (MH-IL)
1420 WCOJ PA Coatsville, 12/6 1630 fair w/ ID u/ WIMS, WHK. (RK-IL)
1440 KRZD CO Wray, 12/8 1827 fair w/nx, mx & s/off. Note new frequency, ex-1470. At first I thought was on the wrong freq. (RK-IL)
1490 WDXB TN Chattanooga, "From Choo-Choo City, this is WDXB, Chattanooga," 0202 12/8. NBC nx followed, fair level. (GT-FL)
unid ?? All I heard was KTTI and then faded out. Can anybody help me? I heard this some time ago so it may be old call letters. (TS)
1500 KXVQ OK Pawhuska, 11/24 1936 poor-fair, caught s/off. New. (TS-IA) (Todd, please note their new call letters--ed)
1540 KNEK KS McPherson, 12/11 1808 fair u/ KXEL w/ Kansas nx. (RK-IL)
1570*WHII*MS*Bay Springs, testing w/ dial tone 0214-0221+, 11/22; frequent ID's. (GT-FL)
1580 KPIK CO Colorado Springs, 11/21 fair w/ ID, wx, then mx. (TS-IA)
KZIA NM Albuquerque, 11/10 caught s/off. QRM from KLOU and KPIK. (TS)
1590 KSPR AR Springdale, 11/9 poor. I got lucky on this one. I just got my new tape recorder and taped this frequency for about 30 mins. Only heard call letters but couldn't quite hear it. Then they went to wx, they said "The wx for N.W. AR." One of my better catches. New. (TS-IA)

1590 WRTR WI Two Rivers, good at s/off 1718 on 12/12. Mentioned being owned by the Paragon Broadcasting Co. (MH-IL)

DX Tests

1170 WVLC MA Orleans, tried 0400-0423 12/2. WWVA one--no hope. (GT-FL)
1470 CJVB BC Vancouver, tried 2115-2354 12/1...not heard. (GT-FL)
1560 KEGG TX Daingerfield, xlnt (but 1/2-hour late) w/ football fight songs & frequent ID's 0330-0402. Mentioned that this was "a DX test" & gave phone # and address. (GT-FL)

Per the List

First Thur. 1490 KBIX OK Muskogge, 12/6 0200-0206 fair on f/c TT, this in WOPA null which does not favor OK very much. IDed through phone call and having person at station turn tone off and on. (RK-IL)

A tip of the hat this week to

- MH - MICHAEL L. HOGAN, 13910 Chippewa Ave. Apt. 1, Burnham, IL 60633 (Panasonic RF-877, GE Superadio)
- RK - ROBERT KRAMER, 3406 W. Pierce, Chicago, IL 60651 (HQ-129-X, HQ-100C, 2 4"x3' spiral loops, LW)
- TS - TODD SKAINE, 2215 Clay St., Cedar Falls, IA 50613
- GT - GERRY THOMAS, 2355 W. Michigan Ave., A-11, Pensacola, FL 32506 (GE Superadio)

Welcome to Todd this week. Also, it's nice to see Robert back in CDXR with some real nice catches. I had a call from Larry Godwin last night (12/16) with a tip about a station in Idaho (KCID I believe it was) that was off frequency on 1466. I was unable to hear it due to splash from local WISM-1480. 73.

.....

MORE ON THE FCC'S 9 KHZ PLAN

From the 12/13/79 wires of United Press International, via Bill Moriyama....

The Federal Communications Commission has voted to reduce channel spacing on the AM band. The action could lead to authorization of 1400 new fulltime AM stations.

An FCC spokesman says the action will promote an increase in station ownership and a greater diversity of programming. The vote was unanimous. It still has to be approved by the State Department and submitted to a regional Administrative Radio Conference of the Western Hemisphere in Buenos Aires in March, 1980.

If the proposal is approved, channel spacing will be reduced from ten to nine kilohertz on the AM band. A kilohertz is one thousand cycles per second.

There are now about 2250 stations assigned to the band with 107 channels in any one area.(Incorrect! There are over 4000 stations. bp)

If the band was reduced to nine kilohertz, the tighter spacing would permit an increase in the total number of channels from 107 to 119. This expansion would mean an additional 200 to 1400 fulltime stations could be authorized.

Many of the currently authorized stations operate during the daytime only and the FCC decision could permit them to expand to fulltime operation.

AND A REHASH OF THE RESULTS OF WARC..... from Bill Hardy

WARC '79 finally ended in Switzerland on Dec. 6. WARC decided to allocate 525-535 kHz for AM broadcast in this hemisphere. The FCC will determine whether to shift this frequency from its current TIS use, to use for AM broadcast stations on 530 kHz, which would be limited to 1 kw day, 250w night, to avoid interference with beacons. WARC also voted to expand the AM band to 1705 kHz (the U.S. had sought expansion to 1860 kHz). However, the frequencies above 1605 won't be available for AM broadcast stations in this hemisphere until completion of a regional conference in the year 1985 to plan the service. As for 9 kHz spacing in this hemisphere, that topic will be decided at the ITU Region 2 conference next March. The FCC staff is recommending that the FCC commissioners vote to seek 9 kHz spacing at that conference. (From 12/10/79 Broadcasting, used by permission of the publishers.)

western dx roundup

ALL TIMES ARE EASTERN LOCAL

Phone for hot WDXR tips: (206)532-6827 till 10:30pm (PLT)-no collect calls
DEADLINES: Each Thursday

REPORTERS FOR THIS WEEK:

- (JDK) Jim Korn-P.O. Box 31111-San Francisco, CA 94131
Fisher 90-T AM-FM hi-fi tuner, 4' spiral loop without r.f. amp.
(MEM) Mark McMillan-Rt. 3 Box 381-Rathdrum, ID 83858
HQ-180, 1000' East Beverage, 880' SE Beverage, 660' NE Beverage
(bp) Bruce Portzer-6546-19th Ave. NE-Seattle, WA 98115
HQ-180A, 4' loop
(BW) Bradford Wall-25871 Union Street-San Bernardino, CA 92410
Zenith Trans-Oceanic, 4' box loop
(RW) Robert Wien-1304 Dentwood Dr.-San Jose, CA 95116
GE long-range portable, SM-2

- 610 CJAT BC, Trail 12/10 0351-0355 quite good at times, way o/CHNL in KRKE null. Thought CKYL at first. Ads for Yamaha snowmobiles, then Kelly Stereo Mart of Trail, ID "Hear the Jones sport fishing report all weekend, here on C-JAT 6-10." Nice SID. (RW-CA)
670 ?KDLG? AK, Dillingham 12/10 0426 tent. w/WMAQ off & KNBR off, no Cuban in sight. Weak C&W mx w/female annrc. Looped NW. This their format? Will try next MM, if KNBR is off again. (RW-CA)
680 (KNBR) CA, San Francisco 12/10 0408 totally off for 2nd MM in a row. Back on 0500, but mx may have just been testing, so unsure.(RW)
+12/10 off at 0440, carrier on & off. (BW-CA)
CFTR^t ON, Toronto 12/3 0450; 99% sure it was them w/spot for Nob Hill Farms grocery featuring Canada Grade A roasting chickens from Holstring (not sure of spelling) Farms of Brampton, Ontario. Also ran a spot for Markham Airport Flying School. QRM from XELG-680 & XETRA-690 made this one rough. KNBR off. (JDK-CA)
710 KPFA CA, Carmichael 12/10 0551 KIRO & KMPC off; w/contest & ID.(BW)
730 KURL MT, Billings 12/10 1757 DJ splatter, ID into Christmas mx. Per phone call CE mentioned possible CPC test. (MEM-ID)
KURL^t Possibly the one w/apparent s/off 1830 12/16. Had annct w/harp mx at beginning & end, then disappeared. Too much CKLG/line noise to tell for sure, but only likely stn w/that s/off time.
750 WSB GA, Atlanta noted in passing 0525 12/9 u/KCBS-740 slop..... (bp) w/ID. (BW-CA)
790 KFGO ND, Fargo info they are 24 hr. & new SP 2nd MM of each month 0230-0245 EST, per phone call. (MEM-ID)
850 *KOA* CO, Denver 12/10 0331 OC's, TT's & occasionally totally off. Badly wanted CFVR possible in the 850 "GY" but not definite.
CKRD AB, Red Deer 12/10 0536 w/KOA off, 20 min. earlier had (RW) CST zone stn here but no ID. CKRD w/wx report. (BW-CA)
860 CJBC ON, Toronto 11/29 0630 w/FF "Ici Canada" ID into FF interview.
940 *KFRE* CA, Fresno 12/10 0306 w/TT's. (RW-CA) (BW)
1030 KTW0 WY, Casper 12/10 0242 on w/Xmas mx, RS too, w/reg. "Midnight Cowboy," asking listeners how old Mickey was. Caller won 5 45-rpm records for right answer. (RW-CA)
1070 (KNX) CA, Los Angeles 12/10 0451 totally off. CFXA alone but UNID rr faded up briefly & mixed w/them. YVMA in there. CKST? (RW-CA)
1100 KREX CO, Grand Junction 11/27 2200 w/ID, CBS nx. XEPRS-1090 slop.
1110 CHQT AB, Edmonton noted all day 12/16 w/light MOR. Apparently a high latitude skywave effect as KPNW-1120 which is closer w/less rugged intervening terrain, was inaudible till mid-afternoon. Other Albertans (CBX-740, CBR-1010, GFCN-1060, CKGY-1170, CKXL-1140, CKTA-1570, CFRN-1260) were audible most of the day except for a couple of hours around noon. (bp-WA)
1320 KGNR CA, Sacramento 12/10 0247 very potent on new 5kw night pattern here. Used to be very rare on night pattern, but now a pest. Usual ID "Newsradio 132." (RW-CA)
1390 KSLM OR, Salem 12/10 0255 good in KGER null just before s/off.(RW)
1410 KWYO WY, Sheridan 12/16 1750 creaming nulled CFUN w/end of "Sunday at the Memories" pgm. (bp-WA)
1600 KWOW CA, Pomona 12/10 0245 fair in semi-nulled horrendous KLIV-1590 slop w/"Here it live...on KWOW!" (RW-CA)

End of page--tests & UNID's next week. Happy New Year! ♥

Eastern DX Forum

John Zondlo
1802 N. Rockwell, Apt. 107
Bethany, OK 73008

Mike Brooker-245 Old Forest Hill Road-Toronto, ON M6C 2H5

Seems like my last forum got lost somewhere between Hammond IN and Bethany OK. This one will probably be sent to the VOA transmitter site in Bethany OH. I can't remember what I said in that last forum, except that I probably mentioned hearing my 600th station by getting three IA's in one night. Anyway, I'm over 650 now. Do you BARF guys or ex-SFPers read EDXF or EDXR? Last MM (Dec 3) CFTR was off and I got your version of the "Weighty 680" KNBR. This MM (Dec 10) I tried for the KEGG-1560 test but didn't hear it because KCJJ was blasting in. Does KCJJ really have to sign off every night between local sunset and WQXR sign off? I also had KAAV-1090 for (officially) my 40th state. I heard them before in 1973-74 and didn't count it for totals or send for a verie. That was before CKKW moved to 1090 and killed the frequency. Got one of the nicest veries from WFOY-1240- a personal v/l saying my report was more detailed than their log, a CM which shows that the GA and half the SC coast is within their 0.1 mv/m contour, and an Art Deco station logo which looks like something out of "The Great Gatsby". I also got one of the weirdest veries recently from WHAK-960. They typed a one-line verie statement on an invoice or bill, with a carbon copy, and sent it in one of those window envelopes that are used to send out bills. Oh well, I once saw a v/q that looked like a cheque. By the way, WFOY stands for Wonderful Fountain of Youth, as they are owned by the Ponce de Leon Broadcasting Corporation. Bill Wurtzel- see you in the "Big Slop Apple". It's too late for me to warn the other New York/Long Island/New Jersey IRCans that I will be in New York December 20-23. It's too bad the Long Island railroad is on strike. I was planning on going out to Patchogue to blow up WYFA. Good luck, John- whatever it is you're doing down there in Oklahoma. (Thanks, Mike-jz) Happy Holidays and 73's from the site of this year's baseball winter meetings.

Ernest R. Cooper-5 Anthony St.-Provincetown, MA 02657-(617) 487-9337

In reading through some of the recent Eastern DX Forums, the thought occurred to me that in many of the tips, there are items which could be used by an unscrupulous DXer to obtain verifications from stations he did not and likely could never hear. It has happened before - even before the Vietnam fiasco, which seemed to lower the standards of honesty among many people in all walks of life. It's conceivable that there could be such an unscrupulous person among the 400-plus membership of the IRCA, although none comes to mind. Remember, even One of the Twelve was unscrupulous! To eliminate any such temptation, I'd recommend that items like "Commercial for Gary's Garage" heard at 2305 EST be reduced to simply "Local commercial at 2305". On another subject- I'm sorry WWVA did not sign off during WVLC-1170's Test on 12/2 - they had maintained a first Sunday at 0400-0600 SP for several years, right up until 11/79. Noticing they didn't go off on SM 11/4 as of yore, I wrote them to ask why and to "beg" for a silence for the WVLC Test, and enclosed return postage - but, alas, no reply, and as you know, you who tuned for WVLC, no compliance, either. Thanks to Richard Pistek, the only DXer to call during our Test!

12/16/79 - BIRTH OF CJXX

By: W.George Elliott

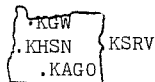
Grande Prairie, Alberta's booming west-central city, recently added another radio station to Canada's ever-growing number of radio stations already in operation.

CJXX, which is operating with a power of ten thousand watts, signed on in the evening of December 16th. It's located on the local frequency of 1430 kHz. CJXX's General Manager is Frank Valentini, and Bob Humnick is the Program Director.

The City of Grande Prairie, which attributes it's annual growth rate of ten per cent. to the development of oil and gas, now has a population of 21 thousand.

Grande Prairie's pioneer radio station, CFGP, signed on November 2nd, 1937, and is at 1050 on the AM dial. And with the addition of CJXX, the residents of Central Alberta, now have a much larger choice of radio stations to listen to. Source: Broadcast News Teletype, December 16, 1979

western DX forum



Ric Heald
1058 Sanchez Street
San Francisco, California 94114
Phone (415) Valencia 1-0447

DEADLINE IS EVERY THURSDAY 9 DAYS PRIOR TO PUBLICATION DATE
+++++
GENE ALLEN, 134 BRET HARTE WY., VALLEJO, CA 94590 - 11 Dec 1979

Note 10 Dec from 1539 to 1600 (PLT, ELT?-Rth) that KMCE (ex-KWIP) 1580 was in operation. Reception 100 percent except overmodulation splatter from KLIV 1590. KCVR 1570 Lodi, also 5 kw, but very clean here. Verie in from KSRA 960 for recent DX TEST - back in 7 days. Lots of propaganda being received from R. Peking and R. Korea. Too bad they are not as eager to answer their BCB DX reports with a verie. Technical data received on the Kenwood R-1000, but looks like a set built "to a price" and has low sensitivity ratings on the BCB. Also, the selectivity values are not as good as the old tube type Collins and Hammarlunds. Does any IRCA member use the McKay Dymek set? Wud like to hear. 73.

ROBERT WIEN, 1309 DENTWOOD DR., SAN JOSE, CA 95118 - 12 Dec 1979

Well, this forum was prompted by a previous forum, which was prompted by a previous forum, which. . . Anyway, there is a correction to my last forum. KESE 1240 Monterey signs off at 0000 PLT, not 0100. The KJOP sign off is 0100. Well, Rth, KEST isn't that strong. Easily nulloable. KONE Reno always strong in KEST's null, rarely anyone else there. KONE sometimes overrides KEST! KVEN is heard at times u/KEST when looping N/S. KTIP is uncommon. Still looking for KPSI, KOWN, KYOR and KAVA. KAVA the most wanted of the group, gets out to the north (OR and WA), but not to the south. Ditto KUKL. (KAVA use to be heard infrequently here when KEST's sign off was 2230 or 2200 PLT--several years ago, of course, hi-Rth). Believe it or not, a few weeks ago on SRS, KVEG 1400 was the last station to fade-out, 1 hour after local sunrise in San Jose. Even KONG was long gone. KRAM is quite dominant on 1340 most nights well over KMAK and KBET. 1240 has KDIG dominant with KROY, KSON, XEGG, KJOP and KPOD under. 1230 has a mass, KCBN on top the last few weeks, before that it was KLAV and KRDG. During the day here, KXQR has a fair signal. Thought I had KHIS 800 this morning, which is still needed, but KGO slopped just at the right time, during a spot on the station I need. Rth, can you get KWIP during the day? (That would take an Act of God since they're now KMCE - see Allen's forum - and yes, but with tremendous KLIV slop-Rth). Caught KFRC and KNBR both off last MM, 10 Dec. Netted CJAT 610. Was looking for CKYL and WDAF, but this will do. And in KNBR's absence, 680 dead, as usual. Anyone in the Bay Area need KEOS 690? Catch them with KNBR nulled (ha-ha) (You can be replaced, hi-Rth), null XETRA at the same time, and there they are. Wait until CBU signs off; much easier. KSFO seems weaker in recent months, KLZ better in KSFO's null, but nothing else. (You should also hear KPQ; we did from Kaskey's old near-the-ocean SF QTH-Rth). Where's KBLU? (Yuma, AZ-Rth). Just what CA needs, another station on 1250. That'll make five. I've got three so far, one of which is tentative. No KNCO yet. This is harder to hear than KAHI! Do have KEKA now, though, caught on an ET. Before KFIA went on, got them during a daytime ET; veried then. Trying for a KVNI 1080 ET on SSS lately, but nothing so far. (An ET at sunset? S/off maybe?-Rth). Caught Kfar last MM with KNBR off. Good chance at KBRW or KDLG? Rth, do you know of anyone in the Bay Area who has heard any of the following stations: KNEZ 960, KVOR 1300, KXXO 1300, KHSJ 1320, KQIL 1340, KTAN 1420, WOC 1420, KAMP 1430, KODL 1440, KIRV 1510, KISA 1540 (anyone on the WC heard this daytimer?), KQXI 1550, KDFL 1540, KLOV 1570, KPIK 1580, KXEM 1590, KCIN 1590 and KVG8 1590? Also, Rth, have you heard on 1560 besides: KIQS, KPMC, KKA, KGHO or XEJPV? (WQXR, WDXR, KQYX, KWCO, XEVIP, KRCB-Rth). No KEGG 1560 here. Nothing on 1560 anyway. 73.

MIKE BITTNER, 221-36th ST., MANHATTAN BEACH, CA 90266 - 14 Dec 1979

A belated thanks to Jim and Karen Young for their fine hospitality at the SCADS GTG at their home in Wrightwood, CA. Jim's fantastic DX shack is better organized and has more gadgets than the control room of the nuclear sub. A place for everything and everything in its place. His Radio West loop actually comes down from the ceiling and rotates like a periscope. I think he puts his hat on backwards, hangs his arms over the ferrite bar and torpedoes DX! Have been reading Andrew J. Rimington's forums with great interest. At least there is one other member out there who builds his own receivers. Been more of a listener lately than a DX'er, using my

homebrew rx and loop to reject the slop from KABC and KOB in order to enjoy the nightly classical music from KCRL Reno. During recent trip to NASA Langley Field, Hampton, VA, no chance to DX but found their TIS interesting. It guides you to the various points of interest on the field and is not on 530 or 1610, but in the middle of the dial. The week before, made a trip to Grumman Aircraft, Calverton, NY. Again, no chance to DX, but was eyeballing radio station bumper stickers on the Long Island Expressway. Seemed as though every other car had one. Most notable was a car with two stickers on the rear bumper. Left one said "LUV WNBC", right one said "DISCO SUCKS"! A bit crude, but right-on. (And there's a great C&W song with that title, hi-Rth). Finally broke the 200-heard mark with KORL, WSM, CKWX and KIDD. Took three evenings to finally get a solid ID on KIDD over/under KOH through KFI slop. Both KIDD and KOH were using plain, unadorned "Radio 63" as a slogan instead of the slogans listed in the IRCA Almanac. Tried for the 01 December CJVB special, but netted nothing except for the usual loud "ekees-eh-beh-beh-seh", and a station with frequent mentions of Antelope Valley and Palmdale that sounded like KECY or KECI (KUTY??). Thought they were KUXX now. (They are, and a daytimer--unless they forgot to pull the plug at sunset-Rth). Best of DX to all in the new year. Mike.

DOUG NYHOLM, 2071 CEDAR ST., SAN CARLOS, CA 94070 - 15 Dec 1979

Hello and Happy Holidays to everyone. Haven't been DX'ing at all lately. I spent 6 long weeks at the Ambassador Inn in West Covina for a company school and am sure glad to be back home. I took the old DX-150 down, but soon discovered that reception aside from any DX was non-existent in a motel. The car radio worked better. It seems to me that there are more open frequencies on which to DX down there than there are up here. I noticed a few peculiarities such as KYA on top of KGIL and KXRX over KROQ to name a couple. From what I can determine at my local QTH, DX this season has been quite poor and though the Bay Area may not be the worst location as far as the NSP'ers and 50 kw'ers go, it's gotta be in the top 10. Things don't look to improve either. Hopefully, when and if the weather changes and we get our winter rains here, conditions will improve. I received a v/l from KRAI 550. It was from Larry Harris who said he didn't know a club like ours existed and was very interested. A sample DXM might be in order and even a DX TEST. How 'bout it Seattle? Well, 73 and improving DX to all.

DOUG PIFER, 2506 S. RITA WY., SANTA ANA, CA 92704 - 16 Dec 1979

Tuning the TV dial, I noticed Dick Dorwart on KNBC ch. 4 being interviewed on the program, "Sunday." I don't know when it was filmed, but his hopes were high as he is pursuing a construction permit. No mention of the other carrier on 830. You know, I've only logged 250+ stations. It seems like a lot, but really isn't. Anybody know the average for this area? (That's really hard to answer, Doug. Your QTH, rx, antenna, local XR sites, etc. all figure into that picture-Rth). I have been getting new stations at a good clip, though. Now that I've heard the Orient, I guess Australasia is next, but I think I just missed its prime DX season. (Try again in the early spring-Rth). I am currently trying to get a 390 (?) (Collins 390?-Rth) for my brother. I know I will be using it myself as I've always wanted one, hi. A few weeks ago my dad was trimming bushes and my antenna leads were also trimmed. Oh well, they weren't really good anyway. I wish I had room for a larger antenna. Not much else going on except work, school and DX now and then. Why not print photos of members in their DX shacks? Even small photos. Good DX.

W. GEORGE ELLIOTT, c/o CKOV, P.O. BOX 100, KELOWNA, BC V1Y 7N3 - Part 1

Seasons greetings one and all! The Okanagan has been lucky as far as the wintery white stuff is concerned. Four inches on 30 November and it all melted away in the next two days. Had less than an inch last week, which is just about gone now. Temperature has been nice - usually above freezing by five to ten degrees (F). On 06 December, my birthday, Kelowna had the highest temperature across Canada; 60°F. Not bad, eh? Maybe Rth and a few of his S.F. pals might just pack their bags and move up here. (Not a chance - was 65°F that day here in S.F., hi-Rth). Just think, Rth, no more K-pEST! (Just new ones, like CKOV, hi-Rth). Going back a little, in the 11 November WDXR, Spokane's own Bill Harms reported hearing CKOV at 0442 PLT on 28 October. Congrats Bill! I was the DJ you heard do the weather and sports. By the way, the weather and sports are logged at 30 minutes past each hour, so I must have been on the phone (yeah, strange as it may seem, I do get phone calls, hi) so I might have not noticed what time it was. Also, since WJH's report to WDXR, I have been playing morse ID's (CKOV) during my show, for the benefit of DX'ers. AN jocks can be nice

guys too, you know, hi. The station has gone through a few changes, ie. rewiring, overhauls, etc. and now have a reported.. "Much crisper sound," which helps. All of our hit C&W songs are now on cart (recorded via an equalizer) so we have very few singles in the control room now. I had a phone call one night a couple of weeks back from a jock who works at CHWK. He was looking for work out here (good luck!). Anyway, we got talking about radio, and he said that CHWK was planning to go to cart in the future. He made it sound like they were going to be the first in BC to do it. "We already did," I said, and boy would I had loved to see the expression on his face. He probably thinks we've got some station here...if he only knew...(Part II next week).

RIC HEALD, 1058 SANCHEZ ST., SAN FRANCISCO, CA 94114 - Tele-Forum: (415) Valencia 1-0447 to 2200 P1T and prepaid

Happy New Decade to all! Got so carried away last week, I typed my phone number wrong, hi. jz, I hear you. I shudder to think what it will be like in another 20 years. One reporter's forums are (with his knowledge and consent) routinely rewritten. And do you agree that forums from Canadians are better written? Back to the basics, gang, hi. Well, the USPS did it to me again. No, as promised, you will not find my meager two loggings in this weeks' WDXR. It was sent, but the stamp came off, and, of course, was returned to me for postage. No sense resending it -- would be too old for any use, tip-wise. Gene, I "played" with the McKay Dymek set at a SCADS meet a few years ago. Unless drastic changes have been made, stay with what you have. And as Grant Manning said at a GTG (BARF, I think) regarding the Dymek antenna, "Best piece of furniture I ever owned." Hi Grant! Robert, I've heard: KNEZ, WOC, KAMP, KODL, KIRV, KPIK and KCIN. All but KODL are veried. Have also heard and veried KHFH now KTAN. I actually DX'ed a MM, 17 December. Guess KRRX 1500 has developed a regular SP. The usually strong KSTP was there, but deep under wrestled an ID from XERH Mexico City, using "Este es H" frequently as their apparent slogan rather than R. Tricolor per an old Mexiglenm list. Also, a mystery of sorts. Was a rocker in there too, and thought I heard "WTOP" (unneeded), but they are suppose to be all news. Any suggestions? Also on 1260, heard SS, but deep under CFRN. Heard time check, which was for the Mountain zone - Mazatlan? Did hear XEL a few minutes later with "R. Capitol", so maybe the DJ was an hour slow, or my Spanish isn't as good as I thought it was, hi. It has been quite a while since I DX'ed a MM. When did XED 1050 go NSP? After receiving a three-parter from WGE, I once again remind you all that since we are currently on a weekly basis, if you wish, you can type (or write) more than one forum at a time, and I will run them in weekly succession or whatever you wish. Just remember to double space. That's it for this week. As a parting thought, a little thought for the new decade. You can always teach a canary to sing, but you can't tune a fish. 73 and good DX de Rth..

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Broadcasting Information...cpntinued from page 2

WINN-1240 Louisville KY's Jesse James recently had a female listener suggest that he lose his inhibitions by doing his show in the nude. James put the question to his listeners who said yes. As soon as the bare broadcast got underway, six females called to say they were listening in the nude. Two offered to come down to the studio for a "nude-in". The airing of Joe Stamoley's "Put Your Clothes Back On" put an end to it....Gary Lockwood of KJR-950 Seattle has been heard recently playing blackjack on the air/phone with his listeners.

Bob Pittman has stepped down as Program Director of WNBC-660. He originated the station's current top 40 format in 1977....Rumor has it that WHBO-560 Memphis TN will be going all-news in morning drive or perhaps switch to a pop/adult approach instead of top 40....A fan of WSLR-1350 Akron OH and of singer Waylon Jennings has affixed an entire WSLR billboard complete with Jennings' picture to the side of his house....The recent fall ratings period brought a blitz of radio station television commercials to Washington DC area viewers. Leader of the pack with a multi-dozen-thousand-dollar campaign was WRQX(FM) whose commercials feature a beautiful lady lip-synching to a composite WRQX aircheck. WRQX runs a top 40 format.

DXing From Bermuda

by Charles A. Taylor

When we arrived here in Bermuda in September of 1978, one of my first acts was to set up a Realistic MTA-7 table-model AM/FM radio set, and tune the MW band. My first awareness was of the total emptiness of the MW band, aside from our three MW locals (ZFBI-960, ZBMI-1230, and ZBM2-1340). Coming from the teeming MW environment of central Indiana, this was a unique experience.

Shortly thereafter, the Drake SPR-4 and the SM-2 emerged from their nests in our luggage. After connection, this combination revealed weak signals on nearly every 10-kHz channel. Most of these signals were at the threshold of readability, or roughly 20 microvolts per meter. The next day, I experimented with using the cottage telephone drop line as an antenna, with resulting immediate improvement of readability. Maximum results were eventually achieved using a 100 foot longwire and R-390A/URR combination at the National Aeronautics and Space Administration (NASA) tracking station at the far east end of the US Naval Air Station, St. Davids.

Bermuda is a group of some 360 islands. By far the largest is the main island of Bermuda, from which the group takes its name. Bermuda is not in the Caribbean, as is often thought, but is on the same latitude as Savannah, Georgia; Jackson, Mississippi; or El Paso. Bermuda is isolated, alone, in the Atlantic; the nearest point of land elsewhere is Cape Hatteras, North Carolina, 500 miles to the west-northwest. Nassau (Bahamas) is 911 miles to the southwest, and San Juan (Puerto Rico) is 950 miles directly south. Groundwave signals are audible from the northern Caribbean nations, or Cuba, Haiti, Dominican Republic, Puerto Rico, Virgin Islands, Saint Kitts, and Antigua. All the North American eastern littoral states and provinces, possibly excepting Newfoundland and Prince Edward Island, are audible on groundwave.

Here is a recapitulation of the MW daytime groundwave spectrum here in Bermuda: (* indicates that, aside from the listed station(s), another unidentified station or stations can be observed beneath)

DAYTIME

540	WGTO*	Cypress Gardens, FL	690	WAPE	Jacksonville, FL
550	WGNG*	Pawtucket, RI		CBF	Montreal, Quebec
555	ZIZ	Basseterre, St. Kitts.	699	HIDC	Valverde, Dom. Rep.
560	WGAN	Portland, ME	705		Kingston, St. Vincent
	WGAI	Elizabeth, NC	710	WOR	New York, NY
570	WMCA	New York, NY		WGBS	Miami, FL
	CMHI	Santa Clara, Cuba	720	CMGN	Colón, Cuba
	WGMS	Bethesda, MD	730	WACE	Chicopee, MA
580	WKAQ*	San Juan, PR		WPAL	Charleston, SC
	CJFX	Antigonish, NS	740	WMBL*	Morehead, NC
590	WEEI	Boston, MA	750	WHEB*	Portsmouth, NH
	CMKV	Holguín, Cuba		WSB	Atlanta, GA
595		Roseau Dominica	760	CMCD	La Habana, Cuba
600	WICC	Bridgeport, CT		WJR	Detroit, MI
	WCAO	Baltimore, MD	770	WABC	New York, NY
	CMW	La Habana, Cuba	780	ZBVI*	Roadtown, Br. Virgin Is.
610	WIOD	Miami, FL	790	WTAR	Norfolk, VA
	WIP	Philadelphia, PA		WEAN	Providence, RI
620	WVNJ	Newark, NJ	800	WTMR*	Camden, NJ
	HISD	Sto. Domingo, Dom. Rep.	810	WKVM*	San Juan, PR
630	WPRO	Providence, RI		WGY	Schectady, NY
	WQBS	San Juan, PR	820		(unknown)
	CMHQ*	Santa Clara, Cuba	830	WNYC	New York, NY
640		Arnouville, Guadeloupe		HIJB	Sto. Domingo, Dom. Rep.
	CMQ	La Habana, Cuba	840	4VEH*	Cap Haitien, Haiti
650	HIAT	Sto. Domingo, Dom. Rep.	850	WRAP	Norfolk, VA
	WSM	Nashville, TN		WHDH	Boston, MA
660	WNBC	New York, NY	860	WTEL*	Philadelphia, PA
670	CMKP*	San Pedro, Cuba	870	WFOA	Hato Rey, PR
680	WRKO	Boston, MA	880	WCBS	New York, NY
	WPTF	Raleigh, NC	890		(unknown)
	WAPA	San Juan, PR	900	WEAS*	Savannah, GA

910	WSBA*	York, PA	1250-1260	(unknown)
920	WJAR*	Providence, RI	1265	Basseterre, St. Kitts.
930	CFBC	Saint Johns, NB	1270	CJCB Sydney, NS
	WPAT	Patterson, NJ	1280	WADO* New York, NY
940	WINZ	Miami, FL	1290	WGLI Babylon, NY
960	ZFBI	Devonshire, Bermuda	1300-1320	(unknown)
980	WRC	Washington, DC	1340	ZBM2 Devonshire, Bermuda
990	WZZD*	Philadelphia, PA	1350-1370	(unknown)
1000		(unknown)	1380	WBNX New York, NY
1010	WINS*	New York, NY	1390	(unknown)
1020	KDKA	Pittsburgh, PA	1400	WOND Pleasantville, NJ
1030	WBZ	Boston, MA	1410	CIGO Port Hawkesbury, NS
1040		(nothing)		KQV Pittsburgh, PA
1050	WHN*	New York, NY	1420	WBSM New Bedford, MA
1060	KYW	Philadelphia, PA	1430	WWEL Medford, MA
1070	WNCT	Greenville, NC	1440	(unknown)
1080	WTIC	Hartford, CT	1450	ZBM1/2 beat
1090	WBAL	Baltimore, MD	1460/1470	(unknown)
1100	WHLI	Hempstead, LI	1480	WSAR Fall River, MA
	ZDK	Saint Johns, Antigua	1490	WUSS Atlantic City, NJ
1110	WZAM	Norfolk, VA	1500	WTOP Washington, DC
1120		ZBM1/2 beat	1510	WNLC* New London, CT
1130	WNEW	New York, NY	1520	WTGR Myrtle Beach, SC
1140	WRVA	Richmond, VA		WKBW Buffalo, NY
1150	WDEL*	Wilmington, DE		WSLT Ocean City, NJ
1160		(unknown)	1530	WOBRR* Wanchese, NC
1165		Saint Johns, Antigua	1540	WADK* Newport, RI
1170	WHLW*	Lakewood, NJ	1550	WVAB* Virginia Beach, VA
1180	WHAM	Rochester, NY	1560	WQXR* New York, NY
1190	WLIB	New York, NY	1570	(unknown)
1200		(nothing)	1580	WYFA* Patchogue, NY
1210	WCAU	Philadelphia, PA	1590	(unknown)
1230	ZBM1	Devonshire, Bermuda	1600	WWRL* New York, NY

NIGHTTIME AND TRANSITIONAL

As may be expected, eastern Caribbean and northern littoral Venezuelan stations are audible via skywave earliest. Usually Puerto Rico, due to closer proximity to Bermuda and great number of available stations, and Venezuelans, due to great numbers of available stations and higher powers, are audible at local sunset. Also audible are the Virgin Islands, Antigua, Barbados, Saint Kitts, et al. Trinidad doesn't become audible until later due to cochannel North American groundwave interference.

The Dominican Republic and Haiti fade up next, followed by eastern Cubans. By the time Mexicans and Central Americans begin to fade in, they are already obscured by the cacophonous barrage from North America.

Colombia is much in evidence later in the evening, especially since loop bearings from Bermuda to Colombia are abeam to bearings to North America.

The sunrise pattern of fadeins mirrors the sunset pattern, except that transoceanic paths endure longer than their transcontinental counterparts. This clears frequencies for Cubans that are otherwise buried by North Americans. Mexicans and Central Americans remain established after local sunrise, along with some Ecuadorians otherwise buried.

Eastern transoceanic fadeins precede local sunset by as much as an hour and a half. The Spanish and Portuguese, along with Algerians, the monster Saudi on 1521 kHz, and Monaco-1467, lead the pack. These easily dominate adjacent North American channels. Most eastern transatlantic channels have two or more occupants, and the highband Spanish clusters are riotous. Eventually, however, all are engulfed in the multivoiced, polyphonic, frantic, eternal flood of RF from North America.

Due to the lack of congestion of close-in broadcast stations and the lack of overpowering locals here in Bermuda, signals arriving via long transoceanic paths constitute the majority of targets for observation. These long paths are much more susceptible to meteorological influences than shorter paths. The variability of the MW spectrum here is much more evident than in Indianapolis. Especially in the case of numerous midband signals, it is difficult to establish by short-term observation which signals are arriving via groundwave, and which are arriving via ephemeral modes of

propagation.

During the local winter season, WLW, 700 kHz, Cincinnati, is a frequent noon visitor. WJR, 760, Detroit, is perhaps more frequently noted here. Last winter, 12/78 to 3/79, WLW was observed to begin a normal fade at about local sunrise, Cincinnati; but would begin to fade up again at about 1400z (1100 local), reaching clear audibility around 1600z (1200 local) and continuing into the afternoon. This is a path of about 1300 miles. So far this winter (12/79), the pattern is repeating itself.

Bermuda had proven itself to be somewhat of a DXer's paradise during the past 15 months that I've been stationed here, with access to the European and African transatlantics that Indianapolis could not hope to equal. Nevertheless, North America continues to shower QRM at night, so a good loop antenna is still necessary in these isles of fun and sun and DX, where all signals, except for three locals are transatlantics.

--Charles A. Taylor, US Naval Air Station Bermuda, FPO New York, NY 09560

Sharing Time

By Thomas White

Marconi was lucky. His unique status during wireless experimentation on his father's Italian estate insured that there were no competitors for airtime. As radio developed this situation rapidly deteriorated. Even the limited number of ship and shore stations at the dawn of the century frequently found it necessary to develop agreements in order to allow communication to take place. The reason of course was technological. Spark transmitters were about as selective as thunderstorms, and only a few longwave wavelengths were available. In those cases where no designated authority existed to settle disputes, cooperation was required but often not attainable. A local airhog might make it impossible to receive the desired dots and dashes through the normal background howls and screeches of static and competing signals. One option for protesting the nonessential transmissions of a nearby pest was to anonymously tie a weight to the sending key of your own set. This potent and surprisingly popular method of counterattack was an accepted part of the rough and rugged early days of oceangoing wireless.

The development of organized broadcasting in the early 1920s required a more civilized attitude. This newfangled service required that a measure of "listening pleasure" be assured. KDKA's debut took place in November 1920, and every United States broadcaster authorized in the next 2 years was assigned to the same "wave" of 360 meters (approx. 830 kHz). Time sharing between stations in the same community was clearly required. Moreover, the stations themselves were responsible for developing equitable time distributions, as federal authorities refused to get involved in local disputes. Fortunately, no station of this pioneering age desired to provide more than a few hours daily of programming. Unfortunately, most coveted the same time period of the evening hours.

New York City was a major magnet for early radio activity. Actually it proved too popular. By June 1922 at least 10 metropolitan broadcasters of various shapes and sizes had entered the ether via the 360 meter wave. (This even though AT & T, protecting its investment in a new commercial experiment over WEAF (now WNBC) had begun to refuse to sell anyone in the NYC area a transmitter. At this time AT & T had a near monopoly in the production of high power radiophone transmitters.) Each newcomer required that adjustments be made, provoking acrimony from the senior outlets. Following multilateral bargaining, an intricate time sharing agreement for the ten broadcasters was ratified, covering 9 AM to midnight daily. This document, historic, although equal to the Treaty of Versailles only in complexity, featured station time slots as short as 15 minutes. WJZ (now WABC) predominated, claiming 5½ hours weekly. Its holdings were, however, chopped up into 7 separate time periods. Assuming every station was able to make each of its scheduled appearances, a weekday radio enthusiast could have heard more than 20 assorted sign-ons and sign-offs throughout the day.

Later innovations eased this complex state of affairs. In late September 1922 a second wave of 400 meters (approx. 750 kHz) was made available for quality "Class B" operations. The following May saw the beginnings of the modern 10 kHz spacings, with the creation of a band of frequencies extending from 550 to 1350 kHz. Refinements continued to lessen the need for piggybacking. But the biggest boon came in July 1926, when a ruling held that the Department of Commerce had overstepped its legal authority by specifying operating requirements for licensees. Until the reestablishment of controls the following February, stations were generally free, in a somewhat chaotic fashion, to choose their own frequencies and hours.

Federal authority was restored with the formation of the Federal Radio Commission, predecessor of today's FCC. Assigned the job of reorganizing the jumbled ether, the FRC developed interference standards far more restrictive than those currently in force. Their task of composing and assembling a national jigsaw puzzle of allocations under these tight standards proved both long and difficult. Frequency swaps and counterswaps were ordered, which for a time rivaled the previous uncontrolled period in frenetic activity.

Due to unrestricted grants of licenses to all comers, the period of "deregulation" had produced an increase in the number of stations. Armed with the new legal provision that stations be operated in the public "convenience, interest, or necessity", a number of excess broadcasters were pruned. But scores of the surviving stations were required to become time sharers, some in groups of 3 or 4, especially in the more saturated East. Even many clear channel operations, most in the same community but some separated by hundreds of kilometers, were included. By the reallocation of November 1928 over half of the approx. 625 stations were sharing time.

An added restraint of this period was the "Davis Amendment". Designed to promote the equal distribution of radio service, it effectively blocked expansion in the East and Midwest until the South, West, and Southwest could attain broadcasting parity. Areas under American jurisdiction were divided into 5 zones, with quota points assigned the states and territories therein. If a station in an oversubscribed region applied for an improvement in facilities, it was informed that only if another station relinquished the desired quota points could the change be realized. For stations wanting a fulltime grant, the obvious conclusion was that if, for some reason, your frequency partners were to expire, the necessary points would be freed. Many were unwilling to let time and attrition take its course. Hoping to speed up the process, a large number of disputes broke out as to various competitors actually their status as "public trustees". Beginning in the early 30s sharetime facilities were required to submit a formal division agreement prior to each license period. In many cases these were less peace treaties than preliminary skirmishes.

The situation did become less critical in later years, as the development of directional antennas and less restrictive frequency separation standards eased technical requirements. In the legal sphere the Davis Amendment was finally dismissed as impractical. Airspace remained tight in the most congested metropolitan regions, however.

Many of today's major stations once shared time. Some even have blood on their hands. In 1928 the biggest one time consolidation occurred as five small town Nebraska stations were voluntarily merged with a surviving sixth, KGBZ in York. KGBZ shared its frequency for a time with KMA in Shenandoah, Iowa. In 1935 the two stations filed applications seeking to delete each other. KMA won.

Brooklyn boasted 4 timesharing stations in late 1928. Following a decade long legal free-for-all, WARD emerged victorious, absorbing its 3 adversaries. It later moved to Newark, becoming WNJR.

And in 1931, noting that Illinois was over quota, WJKS in Gary, IN argued that the two Chicago stations sharing 560 kHz be deleted, and WJKS allowed to move from its share time frequency to fulltime on the emptied channel. Permission was granted in a decision which was eventually sanctioned by the Supreme Court. (In 1944, after the Davis Amendment which supported the move was safely out of the way, this station moved to Chicago as WIND!)

The trend of consolidation is continuing. WHAZ Troy, NY had a Monday night slot shared with WEVD and WPOW in New York, until the latter bought WHAZ in 1967 and reduced it to daytime-only status. Until 1970 WBAP and WFAA held joint custody of both 570 and 820 kHz. WBAP purchased the right to broadcast fulltime on the clear channel, leaving WFAA 3.5 million dol-

lars richer but reduced to regional status. 1979 marked KYAC Seattle's receipt of permission to operate fulltime, due to the addition of a directional antenna used during the nighttime operation of KWSU Pullman. (KWSU still must close down during the nighttime hours set aside for KYAC non-directional operation, leading to a kind of "one-way" timesharing.) Recently WAWZ and WBNX in the New York area have informed the FCC that they are unable to come to an agreement on their respective hours. Their last agreement will remain in force until FCC hearings produce a settlement. Meanwhile, WAWZ has applied for exclusive possession of the frequency.

Currently there are just 10 share time setups on the broadcast band, located mainly in the East and the Midwest. In most cases these stations date back to the FRC reallocations of the late 1920s. However, WLEE Richmond, VA was a relative latecomer, picking up WBBL's unused hours in 1945. (WBBL, on the air only 2½ hours each week, has by far the most limited schedule of any active AM broadcaster.) Timesharing's most recent addition occurred as two stations, WCEV and WXOL, were authorized to take the place of a deleted Cicero, IL broadcaster.

It is interesting to note that 8 of the 20 timesharers are noncommercial outlets. In fact, educational broadcasting has traditionally been associated with time sharing. Recently promulgated rules by the FCC will require FM educational stations not maintaining at least a 12 hour daily schedule to begin sharing their frequency if requested.

Space does not permit a detailed history of each of the current share time operations. However, the background of the KUOM-WCAL arrangement is broad enough to cover most of the turmoils this class of stations faced.

4 educational institutions in Southeast Minnesota received broadcast authorizations in 1922 and 1923. Two were in Minneapolis - the University of Minnesota's WLE (now KUOM), and the William Hood Dunwoody Industrial Institute's WCAS (later changed to WHDI). The other 2 were located in Northfield - St. Olaf College's WCAL and Carleton College's KFMX. Although many colleges in this era quickly allowed their authorizations to lapse under circumstances no more pressing than apathy or limited checkbooks, these 4 continued to provide programming throughout the 20s. Unfortunately, the FRC spectrum reorganizations applied increasing pressure, as each offered only a few hours daily of programming in an area oversubscribed under the Davis Amendment provisions. That some kind of share time agreement was required was apparent. A proposal was submitted to the FRC that the 4 be assigned the same frequency, where the necessary time agreements could be amicably negotiated.

After a series of frequency shifts the FRC finally settled on a plan that only partially satisfied their desires. In October 1928 4 stations were assigned to the same spot on the dial. However, WLB, WCAL, and KFMX were required to divide their small island of the ether with a very aggressive commercial outlet, WRHM (now WWCT). WRHM's owner, the "Minnesota All Night Broadcasting Company", left little doubt about its distaste toward any constraints on its airtime. It soon applied for fulltime operation, a move that could be accomplished only with the demise of the 3 other channel occupants.

WHDI found itself equally vulnerable but more isolated. Its October move was also to a frequency shared with 3 others. Shortly thereafter a further move reduced its companions by 2, but the remaining bed partner, commercial WDGY, took a no more generous view of cooperation than did WRHM.

Many long grinding hearings in Washington followed. Greater economic clout bought better legal counsel and lobbying presence for the 2 commercial stations. They considered this an acceptable business expense aimed at fostering higher income. For the colleges, with limited finances reduced the beginning of the depression, it was a wearing marathon struggle fought on a strictly defensive basis.

Friendless WHDI was the first to fall. Bowing to the inevitable, the William Hood Institute sold its station to WDGY's owners in late 1931. WHDI was quickly deleted, leaving WDGY the fulltime channel it desired.

The ranks of the 3 stations allied against WRHM were reduced by one when Carleton College allowed its license to lapse in April 1933. (Its hours were split among the 3 survivors.) The former director of KFMX noted bitterly that "educational and commercial broadcasting will not mix". The battle ended with the relaxation of Federal rules. In 1938 WLB and WCAL moved to a daytime-only frequency. WRHM expanded to its long sought fulltime status following their move.

SPURIOUS RESPONSES AND HOW TO RECOGNIZE THEM

Michael B. Northam

A spurious response (spur) is any signal heard on a frequency other than that upon which it is being broadcast. There are many causes of spurs, but they all involve receiver overload by a strong local station (or stations) in one way or another. The general classifications of spurs and how to recognize them are briefly described below.

True Images

A true image will often be heard at a frequency of twice the IF frequency of your receiver below the actual transmitting frequency. For example, if your receiver has an IF of 455 kHz (the most common IF frequency), a strong local station on 1600 kHz would be heard at $1600 - (2 \times 455) = 690$ kHz. To determine if your receiver is subject to true images, find the IF frequency of your receiver (most likely 455 kHz), multiply this by 2 and subtract the product from the frequency of the strongest local station in your area transmitting above 1450 kHz (note that $1450 - (2 \times 455) = 540$, the lowest BCB frequency). Tune to this frequency (690 in the first example), and if no audio from the local station is heard, it is unlikely that any spurs that you may hear are true images.

Cross Modulation

Cross modulation may occur at frequencies close to a strong local station ("close to" may range from 10 kHz to 200 kHz or so, depending on the strength of the local). This condition is characterized by audio from the local station being heard along with a weaker station's audio on these adjacent frequencies. For example, if the strong local transmits on 1430 kHz, and audio from this station can also be heard along with audio from other stations on 1420, 1440, 1410, and 1450 kHz, then the problem is probably cross modulation. (Note that cross modulation is distinguished from overmodulation and normal sideband splatter which is not a receiver problem but a problem at the radio station's transmitter. Cross modulation effects are only heard when another station's carrier is present. If the local's signal is heard on 1455 kHz (between BCB channels), for example, the problem is overmodulation or sideband splatter).

Internal and External Mixing

These two spur classifications have very different causes, but the effect is nearly identical, hence they are discussed together. Mixing is probably the most common cause of spurs on the BCB, but unfortunately, it is also the most difficult to identify because of its complexity. Basically, two RF frequencies (in this case BCB stations) may combine to form what are called "product" frequencies which may be heard on the receiver. The problem is usually most severe when the two stations are transmitting on nearby frequencies, but may also occur in other instances. For two strong local stations, one transmitting on frequency A, the other on frequency B, the first "products" are A+A, A+B, B+B, A-B, and B-A. For example, consider the case when the locals are on 600 kHz (A) and 1000 kHz (B), respectively. Then mixing signals could occur on any (or all) of the following frequencies: 1200 kHz (A+A); 2000 kHz (B+B); 1600 kHz (A+B) or 400 kHz (B-A). To complicate matters still further, these first products may mix among themselves, the original (A and B) frequencies, and the signals from a third station, producing signals on 800 kHz (2B-2A); 1400 kHz (2B-A); 200 kHz (2A-B), etc. If the two stations are within 100 kHz of each other, the products 2A-B and 2B-A are particularly common.

IF Feedthrough and Audio Rectification

IF feedthrough and audio rectification are unique among spur classes in that their effects are independent of receiver tuning. If you hear Morse code, a local SW, FM, or TV station no matter what frequency you tune, this is your problem. A station broadcasting near the IF frequency of your receiver (usually 455 kHz) will often "feed through" the audio circuits in your receiver. This situation will be particularly bad if your receiver is in need of alignment. Morse code from a beacon station (or any station transmitting near 455 kHz) heard on your receiver will indicate this problem. The wiring of your receiver may act as a tuned antenna for some VHF frequencies. If a powerful local station (usually FM or TV) operates near one of these "tuned" frequencies, the audio from the station may be recovered by the receiver.

Cures

Prevent overload or remove unwanted signals with either an antenna tuner or a tuned antenna (like the loop). Also try reducing the RF gain control of your receiver, if either of the above don't work.

The preceding article (by a former IRCA member) was first printed in 1967. It is being reprinted due to a continuing interest by BCB DXers in knowing why stations show up where they shouldn't. Note that internal mixing can also cause non-BCB signals on the BCB. I have a preamp that does a dandy job of pumping shortwave and FM audio into the 540-1600 range....bp

List of Radiobeacons- 510 to 1750 kHz

Compiled by Bruce Portzer. (D) indicates a daytime only operation. (R) indicates the beacon operates only on request.

510	HO	Housan, France	1615	MIL	Quincemal, Peru
	PO	Hsin-Chu, Taiwan		OR	Ohura, NZ
	SN	St. Yan, France	1616	UR	Buro, Sweden
	ST	St. Truiden, Belgium	1619	KL	Klovningarna, Sweden
512	MAM	Matamoros, Mexico	1620	CEP	Concepcion, Bolivia
513	ME	Meythet, France	1623	FAM	Fazenda Amalia, Brazil
514	THN	Thorn, Netherlands		HUM	Humaita, Brazil
515	OS	Columbus, Ohio		PTT	Pto. Trombetas, Brazil
	ETM	Etimesgut, Turkey	1625	TIKX	San Jose, Costa Rica
	LXI	Luxiel, France		ZUI	Ascazubi, Ecuador (D)
	ZR	Beziers/Vias, France		KU	Krogstadsudde, Sweden
516	YWA	Petawawa, Ontario	1635	ORI	Orito, Colombia
518	MC	McMurdo, Antarctica	1638	PRN	Tapuruquara, Brazil
	CRL	Criel, France (D)		SLV	San Javier, Bolivia
	TS	Toulouse, France		URC	Urcos, Peru
519	ALB	Isla Alboran, Spain		ZYL	La Brea, Brazil
520	ONB	Brussels, Belgium	1645	TLC	Tulcan, Ecuador (D)
521	INE	Missoula, Montana		YPI	Yaupi, Ecuador
	ORC	Orange City, Iowa	1650	UIB	Quibdo, Colombia
	GF	Cleveland, Ohio	1655	CIO	Cicuco, Colombia
522	AG	Agen/La Garenne, France		LOJ	Loja, Ecuador (D)
525	KR	Hodeida, Yemen		PAT	Pastaza, Ecuador (D)
	KU	Chiayi, Taiwan	1662	PZA	Puerto Cabezas, Nic.
526	UUP	Uplands, ON	1670	CZU	Corozal, Colombia
530	NB	Nabob, Ontario	1675	BGA	Bucaramanga, Colombia
	YCH	Chatham, NB		UIO	Quito, Ecuador (D)
534	YAW	Shearwater, NS	1685	MAC	Macara, Ecuador (D)
544	LIC	Lichfield, England		DRC	Dos Rios, Colombia
	EVX	Evreaux, France	1688	PRJ	Benjamin Constant, Braz.
562	ING	St. Inglevert, France		PUD	Eirunepe, Brazil
	LMG	Limoges, France		DVG	Cucui, Brazil
580	MBR	Mende/Brenoux, France	1690	MDE	Medellin, Colombia
634	LAM	Lambourne, England		ESM	Esmeraldes, Ecuador
670	DCS	Dean Cross, England	1695	TBU	Tibu, Colombia
	STN	Stornoway, Scotland	1698	FRS	Flores, Guatemala
700	DG	Davgavgira, Latvia (R)	1700	OLM	Olmedo, Ecuador (D)
	SKR	Ostrovsekar, USSR (R)	1704	TNT	Tegucigalpa, Honduras
719	NR	Mys Bol'shoy Lyamchin, USSR	1708	CUE	Cuenca, Ecuador (D)
	NT	Shevedskiy, USSR		PRO	Boca do Acre, Brazil (R)
740	KM	Muscusnove, USSR		PUB	Carauari, Brazil (R)
745	K	Ostrovkamanopasnost, USSR		PVK	Altamira, Brazil (D)
760	J	Ismalia, Egypt	1710	SNG	San Ignacio de Valasco, Bolivia
797	CFD	Cranfield, England		P	S. Jose Campos, Brazil
1580	AGR	Agrinon, Greece (D)	1715	SIS	Puerto Asis, Colombia
	KOZ	Kozani, Greece (R)		BA	Puerto Barrios, Guat.
1600	RS/RN	Selvikurnef, Iceland	1720	LAG	Lago Agrio, Ecuador (D)
1602	LGM	Leguizano, Colombia (D)	1730	LAT	Latacunga, Ecuador (D)
1606	SRE	Sucre, Bolivia (D)	1735	WK	Porto Velho, Brazil
1610	TDA	Trinidad, Colombia (D)	1740	CAN	Canar, Ecuador (D)
1613	RAB	Rabinal, Guatemala	1745	PSO	Pasto, Colombia
	DL	Traslov, Sweden (R)			

Hearing Latin American & Caribbean Countries In the Pacific Northwest

by Bruce Portzer

Recently there was an article by Mark Connelly et al in DX Monitor on how to hear each of 46 Latin American and Caribbean countries from the Northeast Corner of North America. Following in that same vein is this article, which covers reception of those same countries from another corner of North America, the Pacific Northwest.

Rankings and choice of the easiest to receive stations are based on reception patterns and dial conditions (co-channel and adjacent channel interference) in Washington, Oregon, and British Columbia. However, with a few exceptions, this article should be valuable to persons living anywhere in the western U.S. and Canada. There are a few differences which DXers in other parts of the west should keep in mind. One of course is their own adjacent and co-channel interference situations, which vary from one city to another. For example, it may be relatively easy to null KFI to hear Cuba for a British Columbia DXer; however, a Los Angeles DXer would have a much rougher time performing this feat. Also bear in mind that Caribbean stations are heard more easily in southern California than in the northwest. Thus, while the Cayman Islands are ranked far down on this list, they might rank in the top ten for southern California DXers.

As a general rule, Latin American and Caribbean stations are more difficult to hear in the northwestern corner of the continent than in the rest of North America. One of the main reasons is because of distance; this part of the country is farther from Latin America than other regions. Another is that signals arrive here over paths that travel mainly over land and thus are not received as well as if they had arrived over sea water. Finally, there is almost no time when co-channel domestic interference is in daylight and Latins are still in darkness. The only exception worth mentioning is during late spring/early summer, when a few parts of Mexico and the west coast of South America receive daylight later than the midwestern U.S. and Canada.

On the following pages, I've ranked the Latin American and Caribbean countries from the easiest (1) to most difficult (46) to receive. I've also broken the countries into categories (easy, moderate, etc.) which will be explained as I go along.

EASY - The following countries can be heard by relatively inexperienced DXers on relatively unsophisticated equipment (such as a GE Superradio or Realistic TRF with air- or ferrite- core loop). Most can best be heard during the evening hours (before midnight PST) and some have stations which broadcast in English.

1. México. As if it wasn't obvious, the English language border stations make this country numero uno. XETRA-690, XEMO-860, XEROK-800, and XEG-1050 lead the pack. If you want some "authentic" Mexican reception (i.e. not beamed to U.S. audiences), XEWA-540 and XERPW-660 can be received most evenings. Dozens of other Mexican stations can also be heard here at various times of the evening and night.
2. Nicaragua. Radio Sandino-750 overpowers WSB most evenings and is probably the easiest non-Mexican foreign station to receive in these parts.
3. Cuba. The 880 kHz outlet is in every night after KRVN signs off. IDs are difficult to pick out at times, but the syrupy instrumental music and female announcer are distinctive. The 780 kHz outlet battles WBBM every Sunday morning when KCRL is off. CMQ-640 can often be heard with KFI nulled. Other outlets sometimes heard here include 590, 660, 670, 840, 1180, and 1210 kHz.
4. Colombia. HJAJ-760, HJCE-890, and HJBI-840 are received here quite often during the evening. HJQA-1000 and HJJR-1005 are heard regularly on Monday mornings with KOMO off. HJFF-1210 sometimes is heard if CKDA slop happens to be merciful. HJCY-810 is heard during rare KGO silent periods. And many other outlets can be heard under good conditions.

5. Belize. R. Belize-834 eludes many a DXer due to its shallow modulation and TV sync birdies on the same frequency. However, it is heard fairly often during the evenings or after it's 1100 s/on.
6. Costa Rica. Titania-825 often makes a good showing with its mixture of U.S. and Latin pop music and a sweet young lady intoning "Titania" in the middle of most songs. TIW-775 and Sonora-675 sometimes poke through the splatter from West Coast 50 kwers. TIHB-700 is another good target to shoot for, as is TISRHB-1125.
7. Netherlands Antilles. PJB-800 sometimes makes a respectable showing around 0500 UTC (9 pm PST) through the Canadian and Mexican QRM. This station has been heard by several relatively inexperienced DXers at this time with English language news.
8. El Salvador. YSS-655 can be heard many evenings and after 1100 UTC s/on. Listen for "R. Nacional de El Salvador" IDs.

MODERATE DIFFICULTY - The following countries require a bit of patience and skill, plus a decent receiver/antenna system. However, they are regularly received by many DXers in this corner of the continent.

9. Panamá. R. Libertad-840 is probably the easiest Panamanian. Onda Tropical-1200 may show up regularly in the future (try Monday mornings when WOAI is off). R. Macaracas-825 has been reported by many DXers battling Titania evenings, although I've never heard it.
10. Haiti. 4VEC-1035 makes its best showing around 1100, although reception will be rougher with KTW0-1030 apparently now NSP. 4VUE-660 is also worth looking for.
11. Venezuela. YVOZ-1200 shows up some Monday mornings with WOAI off. YVNA-660 is also a good bet around 1000 on weekday mornings. YVKS-750 hasn't been heard lately, but might occasionally top WSB/KFQD.
12. Surinam. If you can get past the CKLG-730 slop, SRS-725 is a good possibility in early evening or after about 0900 in the morning.
13. Dominican Republic. HILR-860 was heard fairly often on Monday mornings before last summer's hurricanes, although it could still show up out here. HIJB-830 might also make it through the ether.
14. Honduras. R. Honduras-880 was heard well last season just after KRVN signed off. R. Moderna-830, likewise, when WCCO wasn't too obnoxious.
15. Guatemala. TGW-640 might make it through a nulled KFI. TGJ-880 sometimes can be heard with KRVN nulled or aurorally attenuated.
16. Saint Kitts. Radio Paradise-1265 is best on Monday mornings with the 1270 crowd off the air. ~~Z1Z-555(570) / NW of GUARDALUPE~~

DIFFICULT - It definitely takes experience, skill, a communications receiver, and a loop or Beverage to bag these countries. The experienced foreign DXer can expect to receive them once a year if he or she is lucky.

17. Jamaica. JBC-700 and 750 sometimes override the eastern clears and/or other Latins on their channels.
18. Ecuador. HCFA2-540 sometimes comes in during the wee early hours. HCEW2-995 is another good bet for this country. Try Monday mornings with KOMO off.
19. Cayman Islands. While this country is "easy" in most parts of the U.S. it is very difficult to receive here. The best bet is the 1205 outlet which can be heard evenings when conditions are good. 1555 is hopeless during the evening and difficult at 1100 signon.
20. Peru. R. Nacional-854 pierces the KTAC splash every once in a while. R. América-1010 is occasionally heard through the various QRMs on the channel. Onda Popular-1040 has been heard a couple times in Seattle. Try Sunday mornings with WHO off.

- 21. Antigua. Caribbean Radio Lighthouse makes an occasional showing through the 1160/1170 splash. ZDK-1100 might make it through some day with KFAQ off or looped. ALSO ON 620 / N. OF GUADELOUPE
- 22. Puerto Rico. WRSJ-1560 has been heard at signon, though not recently. WAPA-680 has been heard with KNBR off, which isn't too often.
- 23. Dominica. Another rarie. Try 595 some morning and hope for the best. S. OF GUADELOUPE (545, 1060, 590, 695) ???
- 24. Montserrat. The 740 outlet was heard a few times at Monday morning signon before KCBS moved their SP to Sundays. The 885 kHz outlet might now be the best bet.
- 25. Argentina. Radio Del Plata-1030 poked through XEQR and Colombia about once a year, but with KTWO apparently now NSP that one morning a year will have to coincide with a KTWO silent period. Only other likely bet would be LRA-870 if WWL ever goes off.
- 26. Brazil. R. Globo was a good bet on 1180 but it's hopeless on 1220. Best be for this country would be R. Tupi-1040, which can sometimes cut through KPOI and the Colombians on Sunday morning with WHO off. R. Record-1000 made it here once several years ago and might make it out this way again.
- 27. Saint Lucia. The outlet on 660 is worth a try some morning. (625) (840)
- 28. Chile. R. Diego Garcia-1180 was the best bet, but is reportedly now off the air. R. unversidad Technica-1210 was heard in California a couple seasons back. R. Portales-840 was heard in California on a Beverage a few seasons back. As another longshot, try for R. Cooperativa-760 if KFMB is ever off. WRTH lists their s/on as 1100 and the station was heard on the west coast during the 1960's.
- 29. British Virgin Islands. ZBVI-780 is a longshot. It was heard by many west coast DXers in the late 60's and early 70's. Nowadays, with KCRL off SW only, and WBBM NSP, the only hope is for them to sign on earlier than the listed 1500, or for KCRL to be off on the right weekday morning.
- 30. Bahamas. ZNS1-1540 can be heard if KZAM is off some Monday morning (very rare) and if KZLA and KXEL don't go NSP.
- 31. Paraguay. R. Caaguazú-645 is supposedly still on the air, but hasn't been heard in North America recently. It's worth checking for, though, if deep South American reception is promising.

THEORETICALLY POSSIBLE - The following countries have not been heard in western North America in recent years. Given the right conditions and/or a silent period from a certain NSP station, there's a slight chance they might make it in. Don't get your hopes too high for them.

- 32. Grenada. The 535 outlet is heard in the northeastern U.S. and has an open frequency. It could show up on the west coast some morning or evening if conditions are good to the Caribbean.
- 33. Saint Vincent. This country's outlet on 705 also is heard on the east coast and has a clear frequency. Try for it Monday mornings with KIRO and KMPC off. Listed signon is 1030.
- 34. Bolivia. The best bets I see are stations on 780 and 1530 which are heard in Scandinavia. Unfortunately, WRTH only lists low powered jobbies on these channels, so I'm not sure of slogan or location. At any rate, 780 would require a KCRL silent period (Sundays) and WBBM to be nulled or wiped out by aurora. Ditto 1530 with KFBK (Monday SP) and WCKY. Other possibles: R. Illimani-1020 with KTNQ off or R. Mendez-680 with KNBR off. Don't hold your breath waiting for them though....
- 35. US Virgin Islands. WVWI-1000 seems possible at 1000 Monday morning signon with KOMO off, but to the best of my knowledge it hasn't been heard out here. W51A-1340 250
W5TX-970 5000
WRAA-1290 5000

- 36. Guyana. GBS-760 might show up some day if KFMB is off or nulled, WJR is off, and HJAJ and KGU cooperate. Like I said, it might show up....
- 37. Guadeloupe. All you need to do is wait for the right KFI silent period and cooperation from the Cuban. The 640 outlet has a listed schedule of 1030-0230. Don't get your hopes up for this one either, but it could show up out here some day. *1420 ALSO*
- 38. Barbados. CBC-900 needs a CJVI silent period as a minimum and I have no idea how many years it's been since that happened. Maybe some day, during the wee early morning hours....
- 39. Trinidad. R. Trinidad-730 could show up during a CKLG silent period (and they actually happen sometimes). Even then, you'd still have XEX and the Colombian to contend with. R. Guardian-610 is a hopeless case. When KFRC goes off, there's still about a dozen domestics to contend with. *(WVVI?)*
- 40. Anguilla. Radio Anguilla-1505 has a clear frequency but only 500 watts of power. But it was heard years ago in Edmonton on a DX test. Maybe some day at 1030 signon it will miraculously appear.
DUG EAST OF SAN JUAN

YOU'VE GOT TO BE KIDDING - The following countries are close to hopeless at the moment, if not totally hopeless. Based on current station status in these countries and the current schedules of co-channel domestics, I see little hope in hearing any of them.

- 41. Uruguay. R. Carvé-850 was heard in California a few years ago but at the moment, reception here would require simultaneous silent periods from KTAC, KOA, and CKRD, which I can't see happening. SODRE-650 is supposedly planning a power increase to 100 kw which might change things a bit, but in the meantime, uh uh....
- 42. French Guiana. The 1070 kHz outlet would require simultaneous KNX and CFAZ silent periods to be even worth thinking about. KNX sometimes goes off. CFAZ never does. Even if they were both off, there would probably be some other domestic or Latin station wiping out the channel.
- 43. Bermuda. With two graveyarders and a 960 kHz station here, I can't imagine hearing them. As the absolute minimum, NSPers CFAC, KABL, and KAYK would have to be off, stations further east would probably also have to be off, and conditions would have to be really good. If KABL, KAYK, and CFAC went off and I heard Phoenix, I would be ecstatic. Hearing Bermuda as well would be more than I could handle....
- 44. Martinique. This station was a rarity in the southeast U.S. before a recent hurricane damaged their transmitting system. Since it broadcasts on 1310, an NSP cluttered channel, it's chances of getting out this far are infinitesimally small.
- 45. Turks and Caicos. This country's 1550 kHz outlet only has to fight through NSPers like KGAR, KRGO, KQWB, WOKJ, and I-don't-know-who-else to be heard here. The only chance I see of this one being heard out here is if the FCC decides that all radio stations go off the air between midnight and 5 am to conserve energy. If you believe that will ever happen then you probably also believe in the Easter Bunny.....
- 46. Falkland Islands. The 536 kHz outlet is on the air mainly during daylight hours. Our only hope of hearing it is for a group of penguins to comander the station and run a late night DX test.

In comparing the preceding list with the one compiled by Connelly, Kazaross, and DeLorenzo, certain differences can be generalized. In the northeastern U.S., Caribbean stations are ranked much higher than they are out here. On the other hand, Central American countries do better on the west coast than on the east coast. Some countries, such as Colombia and Cuba, seem to fare equally well on either coast. Western and southern South American countries, while difficult to receive throughout North America, seem to be less difficult in the Northwest than in the Northeast.

CARRIACOU ISL - N. OF GRENADA

HILLSBOURGH 1045 100watts

MONTSERAT - N.W. OF GUADELOUPE

PLYMOUTH ZJB 835 1000 (930)(140)(1450)(640)??

Vigil in the swamp

By Leslie Seifert
Staff Writer

It was 5:12 p.m. and Saul Osias, the engineer in charge at the WNEW radio transmitter building in the marshlands of Carlstadt, had detected an emergency.

For a split second, WNEW was off the air. The pair of 3-foot-tall wall speakers, used to monitor live programs from studios in Manhattan had clicked silent. That's the only time Osias notices them, he says.

The engineer was ready to activate a backup generator, but the momentary power failure was over before any listener could have noticed. Working alone, Osias was cool and in control.

Osias, a 61-year-old resident of Lyndhurst who has nurtured WNEW's signal since the days of the Hit Parade, is typical of a small corps of radio engineers who work in the Jersey meadowlands, keeping most of New York's major AM radio stations — WABC, WHN, WMCA, WOR, WNEW, and WINS — on the air.

Most technical problems at the transmitter are corrected by remote control, leaving the unpredictable — power outages, for instance — to the engineer.

For many years, beginning in 1927 when WOR moved to Kearny from the roof of Bamberger's in Newark, antenna towers were the only signs of development in the meadowlands. They stood like monuments over Lodi, Rutherford, Lyndhurst, Carlstadt, and Carteret.

Until remote control took over in the early 1960s, engineers worked in small groups around the clock. Today they work alone, and each engineer will recall at least one former colleague who couldn't

Transmitter engineers' lonely duty

overcome the loneliness of the swampland.

"One guy developed a neurosis from being here alone. He had a nervous breakdown," said Ed Myers, 61, an engineer who began work at WHN's red brick transmitter in Rutherford in 1942.

"Thinking about the high voltage got to him. You don't get a second chance with that. Your wrong move is your last."

Osias and others say they have become indifferent to the lonely environment after a steady dose of it.

"I started alone on a 500-watt station in South Jersey, and I have been alone out here since 1969. So it's nothing new," said Augustus McAllister. He's a 30-year veteran at WOR who helped draw plans when the station moved from Carteret to Lyndhurst in 1967.

Best site in the area

It's the laws of physics which keep engineers in such a secluded workplace. Chief engineers who oversee technical matters for radio stations say the meadowlands provide the best spot for AM radio wave

transmission in the New York metropolitan area.

The saltwater marshland serves as an excellent conductor for the signal, which radiates from antenna towers and travels close to the ground.

Robert Walton, chief engineer at WHN, said the most desirable AM transmitter would be located in the ocean, where electrical conductivity is seven times greater than in air or on land.

AM radio waves can travel incredible distances, and the Federal Communications Commission, to protect stations from interfering with each other's signals, has set strict rules about where stations can beam their signals. It takes engineers several hours each day to determine where the signal is going and to adjust it, logging each adjustment for the FCC.

"Making a signal directional is like a lady putting on a corset," one engineer said. "You pull energy up or down or squeeze it in the middle."

Avoiding interference

Osias pinches WNEW's 50,000-watt signal each day at sundown by pressing a string of buttons on a 6-foot-tall remote control panel; it responds with an animated light show, flickering in red, green, and yellow.

The result is to avoid nighttime interference with a Shoreport, La., station on the same frequency. It also means that WNEW sometimes is heard better at night in Finland than in Wayne.

Osias then steps into a medium-sized room where walls and 15-foot-high ceiling are lined with copper to shut out interference. Equipment which coordinates the signal from each of the four towers is barely visible inside a masonite grating which protects Osias from energy as high as 30,000 volts. He depresses a metal handle to activate a meter which he reads through the grating.

Osias repeats the process in smaller but similar rooms at the base of each antenna tower.

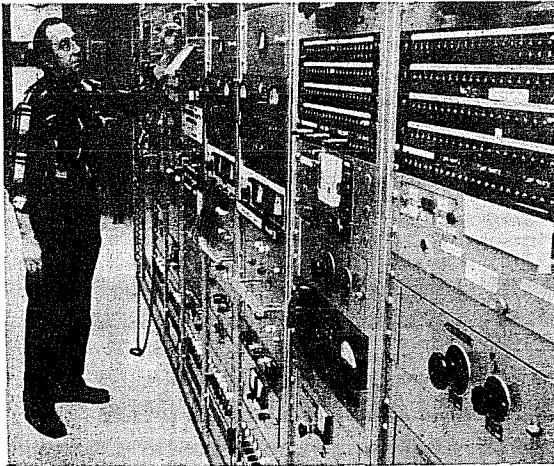
The WNEW transmitter, which, like most, resembles a small power station in appearance, squats inside a gate at the end of a muddy, two-mile-long road cut through tall reeds. The white 4,100-square-foot building contains equipment worth about \$2.9 million, according to Chief Engineer Paul Champion. The transmitter, the newest in the meadowlands, cost \$3.5 million to build in 1968.

The station owns about 100 acres of marshland to prevent nearby development, which could block or distort the signal.

Derricks distort

Construction of the sports complex in East Rutherford has created problems for WHN, where Boris Momiroff must adjust the signal constantly. He says derricks bounce WHN's signal back toward the towers, creating distortions.

Besides development, stations must wrestle with fire and flood — dangers



Staff photo by Gordon Corbett Jr.

Saul Osias of Lyndhurst watches over control panel of WNEW transmitter in meadows near Carlstadt

"The Record", Bergen County, NJ, May 20, 1976

Continued from previous page

New York Times, December 13, 1979
via Bob Foxworth

FCC votes, 6-0, for more radio

Washington (AP)—The Federal Communications Commission voted, 6 to 0, in closed session yesterday to reduce the amount of space on the radio dial between AM stations, a move that ultimately could allow from 200 to 1,400 new stations to open around the country, staff officials said.

Radio stations in the AM band currently are separated by 10 kilohertz, meaning that if one station is operating on a frequency of 750, then the closest frequency that can be used by another station is either 740 or 760.

The commission decided that the spacing could be reduced to nine kilohertz with little danger of increased interference. That would open 12 additional channels on the existing dial.

The number of stations that could be added across the country would depend on their strength and location, and the number and strength of existing stations in each market, as well as on international agreements. According to FCC figures, there are about 4,500 AM stations in the United States.

FCC staff members said that it would be some years before the change was implemented because it still must go to a multinational conference. In addition, it will take time to plan the juggling of existing stations to new frequencies, they noted.

which are magnified in the meadowlands.

Two weeks ago, for example, 25 acres of WNEW land were blackened in a brush fire that local fire equipment could not reach. "The equipment got here fast, but they had to wait for the fire to come to them," said Champion.

The garbage heap beneath the WOR building burned several years ago, damaging copper wire planted in the ground to improve tower efficiency.

In 1962, McAllister recalled, a flood at the WOR transmitter in Kearny stranded two engineers inside the building for several hours until a police boat was able to reach them.

Still, engineers worry most about emergencies that they can control, like failure of power or of the telephone lines which carry studio programs to the transmitter.

Each building houses a backup generator with enough diesel fuel for 11 days of power. In addition, consoles and music tapes are on hand for originating programs at the transmitter.

Most stations have never used emergency equipment, and engineers aren't anxious to try it. They prefer days that are routine.

"They are like engineers on a train," Champion said. "The transmitter, like a train moving, needs attention and maintenance. These men do it."

The Infernal Tower

New York Times, June 6, 1976

By FRANK TERRANELLA

ASIDE from its use as New York's bedroom, New Jersey also serves as the nesting ground for the transmitters of a number of New York radio stations.

To the casual observer, this fact may mean little outside of the fine radio reception afforded New Jersey residents. However, if you are one of the unfortunate who live in their shadow, the towers become a frustration of Jersey living.

Gazing out of a car window on the New Jersey Turnpike on any evening, you can see their flashing red lights, creatures of the meadowlands. They seem harmless enough with no sign of homes nearby, except for the one being built for the Giants. However, there are many other transmitters in Northern New Jersey that are not quite so remote.

The one I know best is on the outskirts of the town of Lodi. Throwing out 50,000 watts of "top 40" rock 24 hours a day, this giant among transmitters is situated in the midst of one

of the most densely populated areas of Bergen County. True, the area was not more serene when the tower was erected. But the eager builders who sold the many houses within feet of the transmitter appear to have given no thought to any inconveniences this was to cause. And so today there are people who pick up their telephones and hear WABC loud and clear.

Transmitters are fickle creatures. Their power outputs vary with direction. Thus, a home 500 yards away may escape the tentacles while another, situated on a strong direction line, may be enveloped a mile away.

I was among the latter. Living about a half-mile from the towering intruder on Route 17 in Lodi, I was an unwilling listener of WABC for three years. What this means is that any transistor radio brought to my home knew only one AM station. My television set never simply flashed "please stand by" when there were interruptions in service. Instead, I had musical interludes by the Jackson Five.

My biggest mistake was buying a \$400 stereo. For three years, I never

played a record without accompaniment from Big Brother, Picture Listening to a soft passage of Debussy, only to have the mood broken by a loud station ID and a gong!

But by far the most annoying rank of the ever-present radio waves was their intrusion in my telephone. Every time I picked up the phone I was greeted with my misplaced Musak even before I got a dial tone. I have friends who to this day think I lived at a radio station for three years.

But that is all in the past now. I've moved to Ridgefield Park, out of the domain of the mighty 770. From time to time I still hear the sounds of my old unwelcome visitor, but always on somebody else's radio.

To the many Jerseyites who continue to suffer so that New York might have radio, I offer my sincere sympathy. For myself, I dream of a pirate AM radio station parked on the front lawn of the president of ABC. ■

Mr. Terranella, who lives Ridgefield Park, is an editor with the Ossining Citizen Register in Ossining, N.Y.

THE INTERNATIONAL RADIO CLUB OF AMERICA

A non-profit organization devoted to the hobby of listening to distant radio stations on the AM broadcast band (510 to 1630 kHz). IRCA is a member of ANARC, the Association of North American Radio Clubs.

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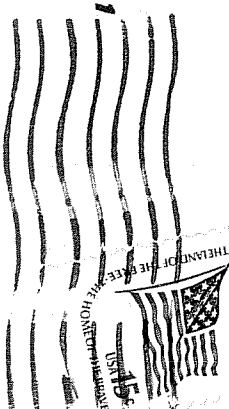
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