



DX Monitor

Devoted Exclusively to
Broadcast Band DXing

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As you may have already discovered, the Ted Vasilopoulos Award ballot is included in this issue. Read each nomination carefully and vote for the person of your choice.

EDITORS WANTED

As noted last time, Bob Lazar is resigning as EDXR editor. If you would like to take over the column, get in touch with our president, Phil Bytheway, right away, as he's already gotten a couple of volunteers. Also DX Worldwide East still needs a permanent editor. If you're interested, write or call Phil at 9705 Mary Avenue NW, Seattle 98117 or 206-784-5145.

GETTOGETHERS

Speaking of Phil, he's planning to hold a gettogether at the aforementioned address on Saturday, July 14, 1984, at 2 p.m. Bring your own junk food and things for show-and-tell (receivers, ~~veries~~, etc).

Also, I know this is still a long ways off, but Ted Fleischaker has a get-together planned for Louisville, KY, the weekend of October 20th. This will be an informal affair with lots of time for radio talk, promo trading, and some informal station tours if enough are interested. The event will likely take place at one of the local Holiday Inns. If interested, write to Ted at 3023 Tremont Drive, Louisville 40205.

And if Louisville is too far to travel, you might consider attending the Seattle gettogether on October 20 at the home of Tim and Sue O'Hare. More details later.

TAPESPONDERS WANTED

We've recently received letters from two pwople interested in trading airchecks of their local stations with airchecks of U.S./Canadian stations: Mark Gleeson, 156 Stymie Avenue, Clubview West 0140, SOUTH AFRICA. Mark is especially interested in tapes of US-type top 40 and AOR stations, and can offer tapes of South African broadcasts in return. Simon Parry, Flagstones, West Heath Lane, Sevenoaks, Kent TN13 1TA, ENGLAND. Simon is the U.K. rep for an IRish private station called ABC Radio. He is interested in trading/buying recordings of American AM/FM stations, as well as stickers, T-Shirts, and other promo items.

For those who have been wondering, Gilfer Associates plans to continue to operate as they have been, following the death of their founder and President, Perry Ferrell. Perry's family and the staff at Gilfer send thanks to the many people who have sent sympathy cards and letters. Gilfer's address is 52 Park Avenue, PO Box 239, Park Ridge NJ 07656.

Next DX Monitor will come out sometime around July 14 (HQ deadline: July 6). I'll most likely be in Riyadh, Saudi Arabia at the time (no, I'm not joking) so Phil or Jef will get to do the honors. See you later....bp.

BROADCASTING INFORMATION

Greg Monti, 1301 S. Cleveland St. #356, Arlington, VA 22204

call	kHz	day/night	st	city
✓KLAC	570	5000/5000	CA	Los Angeles adds Motorola stereo (Mittman)
✓WAGR	580	500/	NC	Lumberton wants WTSB
✓KGDN	630	5000/2500	WA	Edmonds granted KCIS
✓WCAS	740	250/	MA	Cambridge granted 1090 kHz & 5000/ (I'll bet this isn't true since a comparative hearing with WILD 1090's renewal hasn't been held yet!)
- new	770	2500/	OH	Buchtel wants WAIS
✓RXQR	790	500/2500	CA	Clovis granted KXTC
✓WPED	810	500/	VA	Crozet granted 1000/
✓appl	820	2500/	CO	Manitou Springs
✓KGOE	850	500/500	CA	Thousand Oaks granted KMDY
✓WEAT	850	50000/1000	FL	West Palm Beach granted WCGY
✓KISD	860	1000/1000	OR	Phoenix granted KMFR
✓RFJZ	870	250/	TX	Fort Worth wants 1000/
✓KPUA	970	5000/5000	HI	Hilo granted 670 kHz and 10000/10000
✓WNVN	970	5000/	MI	Ishpeming granted WUPY
✓new	980	1000/1000	AK	Kenai wants KKEN
✓KKSS	980	5000/5000	MN	Richfield wants KMFY
✓WKLM	980	5000/5000	NC	Leland granted WAAV
✓WHOO	990	50000/5000	FL	Orlando wants to "change hours of operation," to what, we don't know; they're fulltime now
✓WNPC	1060	1000/	TN	Newport appl for 1180 kHz & 10000/ returned
✓KVLI	1140	500/	CA	Lake Isabella granted 1000/
✓new	1140	250/	KY	Brandenburg granted WMMG
✓KKCI	1140	500/	MO	Liberty granted KCXI
✓KSKS	1140	1000/	TX	Conroe wants KMUV
✓WIXC	1140	25000/	TN	Fayetteville granted Hazel Green AL
✓KQQQ	1150	1000/	WA	Pullman granted 1000/500
✓WCRR	1170	1000/	NY	Cornwall wants WVSG
✓KEZY	1190	10000/1000	CA	Anaheim wants 10000/2500
✓KSMJ	1190	10000/5000	PR	San Juan granted WXTO
✓new	1210	10000/500	AZ	Sahuarita wants KBCD
✓WINF	1230	1000/250	CT	Manchester granted WKHT
✓WENY	1230	1000/250	NY	Elmira appl for Southport NY & 1200 kHz & 5000/ 1000 returned
✓KRNS	1230	1000/250	OR	Burns granted KZZR
✓KLLK	1250	2500/1000	CA	Willits wants 5000/5000
✓KGIL	1260	5000/5000	CA	San Fernando, Harris to Motorola stereo (Mittman)
✓KTLC	1270	5000/1000	ID	Twin Falls granted KTFI
✓WDGS	1290	500/	IN	New Albany granted 500/1000
✓WTSB	1340	1000/250	NC	Lumberton wants WAGR
✓WAAV	1340	1000/250	NC	Wilmington granted WBMS
✓WCHQ	1360	1000/500	PR	Camuy wants 1000/1000
✓KAUL	1380	5000/2500	AR	Little Rock wants 5000/5000
✓WAMS	1380	5000/5000	DE	Wilmington adds Kahn stereo (Apel MI)
✓new	1390	2500/	LA	Ridgecrest granted KVLA
✓WJQS	1400	1000/250	MS	Jackson granted WOAD
✓KKNX	1400	1000/250	TX	Huntsville wants to "increase daytime power to 250 watts" according to Broadcasting
✓WFTE	1410	1000/	IN	Lafayette wants WCFY
✓WMYN	1420	500/	NC	Mayodan granted 1000/
✓KSCP	1420	500/	WA	Renton wants KRIZ
✓WVHK	1430	500/500	MI	Mount Clemens granted WBRB
✓WBMK	1430	1000/	TN	Knoxville granted 5000/
✓KYOU	1450	1000/250	CO	Greeley granted KGRE
✓WTHU	1450	500/100	MD	Thurmont wants 500/400 (!)
✓KTXH	1450	1000/250	MT	Whitefish granted KSKR (not KSLR)
✓WFAB	1460	500/500	PR	Juncos appl for 770 kHz & 5000/5000 dismissed
✓KRBC	1470	5000/1000	TX	Abilene wants KFQX
✓KWRD	1470	2500/	TX	Henderson granted 5000/
✓WCNS	1480	500/1000	PA	Latrobe granted 1000/1000
✓WOFN	1490	1000/250	FL	Bradenton wants WTRL
✓KDBM	1490	1000/250	MT	Dillon wants KDBI
✓KNCI	1500	250/	TX	Boerne granted KYCS
✓WKAI	1510	1000/	IL	Macomb granted WLRB
✓WDJD	1510	5000/	MI	Jackson granted WJCO
✓WARR	1520	1000/	NC	Warrenton wants 5000/

-KLFJ 1550 500/ MO Springfield granted 5000/
 -new 1560 5000/ NE Imperial granted KBRL
 -new 1570 1000/ WI Holmen granted WKBH
 -WZKY 1580 250/ NC Albemarle wants 1000/
 -WPJS 1580 1000/ SC Orangeburg granted WORG
 -new 1590 500/ KY Gray granted WALY
 KCRI 1600 1000/ AR West Helena granted KWHA
 new ??? ? ? AK Dutch Harbor granted KBEI (is this an FM?)

Get ready for band expansion! Western Hemisphere nations meet beginning on 4/14/86 to plan on how the new 100 kHz worth of AM band (1605-1705 kHz) will be used. One main proposal is to make the ten new channels of 1610 thru 1700 kHz new "graveyard channels" with a 1000-watt limit day and night. The other proposal is to make the new channels "regionals" with 5000 watts permitted. FCC engineers expect 2000 new fulltime stations to occupy these channels. The new band will probably go into service around 1990. The FCC has published a notice of inquiry, inviting public comment on how it should prepare for the 1986 meeting. Among the things that are to be decided: how to bring the new service into existence since consumer AM radios don't go up to 1705 kHz yet, whether an industry advisory committee should be formed, and preparation of groundwave and skywave field strength prediction charts.

More deregulation for AM's: They'll no longer be required to put a signal of 25 millivolts per meter over the main business and industrial areas of their communities of license. The only requirement now is 5 millivolts per meter throughout the community of license with no neighborhoods required to be stronger than the rest of town. This provides increased flexibility in transmitter site selection. Expect some new or existing suburban AM's to (re)locate their transmitters to provide good coverage of nearby major cities. Both of these signal levels would be considered ear-splitting local levels by DXers.

Results of an AM Stereo survey by the National Radio Broadcasters Association show that 10.4% of those stations responding are transmitting in stereo and another 2% have stereo equipment on order. Of those now in stereo, 40.5% are Motorola, 29.8% are Harris, 23.7% are Kahn and 6.1% are Magnavox. Only about 1/4 of all US AM's answered the survey.

The FCC's Mass Media Bureau has issued guidelines for applications of extensions of time to construct AM or FM radio stations, also known as the put up or shut up policy: Permittees will be required to show that construction is complete and testing is underway or that significant progress has been made in buying equipment, building or site or that the only reasons construction progress has not been made are uncontrollable circumstances (such as zoning laws or poor weather). If these showings can't be made or if the permittee doesn't answer FCC calls or letters inquiring how construction is proceeding, the CP will be canceled and the frequency will be open to competing applicants. This policy is designed to prevent "fake applications" in which one outfit applies for a frequency just to prevent somebody else from building a radio station on that frequency but never builds one himself.

Except as noted, from the May 7, 14, 21, 28 issues of Broadcasting.

RADIO PROGRAMMING NOTES (NRC=Natl Radio Club DX News; RP=Radiophiles; others from Broadcasting or source credited)

WGN 720 IL Chicago adds ABC/Information network effective 7/27.
 WWRC 980 DC Washington is rumored to be changing calls soon concurrent with sale from NBC to Greater Media, new calls and format unknown but word is talk will be dropped except for NBC Talknet (Apel MI).
 WCFL 1000 IL Chicago: the sale to Statewide Broadcasting has been approved by the FCC, which dismissed several petitions to deny.
 WGAY 1050 MD Silver Spring is rumored to be changing calls to WWRC (to be picked up from WWRC 980), format from easy listening to talk and network to ABC/Talkradio (Apel MI).
 WNEW 1130 NY New York is one of at least two radio stations giving away a top prize of \$1,000,000 in a spring ratings period contest. WNEW calls people at random and asks them what station they listen to. "WNEW" yields a small prize. If the contestant can also name the last three songs or artists played on WNEW, the contestant wins \$20,000 a year for the next 50 years. Contest began 5/3 and runs until a winner is found.
 WEAM 1390 VA Arlington, now co-owned with country WMZQ 98.7 Washington DC will likely go country soon, ex-big band (Apel MI).
 NBC is replacing "Impact: Religion" with "Intersect: World in Religion"

Sunday mornings at 0830 ET effective 6/3. NBC will also cover the Democratic National Convention from San Francisco 7/16-19 with some of the hourly newscasts anchored from the convention floor, special reports at :20 and :40 past each hour, and speeches and balloting fed for station use. NBC Source will shortly add a 2-hour weekly version of Dr. Ruth Weathermer's popular New York telephone talk show "Sexually Speaking" which appears on NBC-owned WYNY(FM) there.

Syndication: Guess what? Right! Another weekend hit survey show is on the market: 3 hours called "Hot 30" hosted by Bobby Rich. Also in syndication: "Mickey Rooney's Musical Memories" one hour, don't know if it's daily or weekly; "Greatest Sports Legends" 90-sec radio version of the TV show.

PENDING STATION SALES (call or format change may be on the way):

WCAB 540 NC, WJTO 730 ME, KKON 790 HI, WOZO 850 NY, WNYN 900 OH, WBEN 930 NY, WBER 950 SC, KNEB 960 NE, WWRC 980 DC, WKMK 1000 FL, KGRI 1000 TX, KCHI 1010 MO, WGAY 1050 MD, WACQ 1130 AL, WAMG 1130 TN, KQTI 1130 TX, KIXC 1150 TX, WMPA 1240 MS, WDAE 1250 FL, WRKQ 1250 TN, WNRK 1260 DE, WPID 1280 AL, WAMR 1320 FL, KWSK 1330 ND, KAPA 1340 WA, KFLJ 1380 CO, KTNM 1400 NM, WFTF 1410 IN, WMYQ 1410 MS, KPOC 1420 AR, KGNB 1420 TX, WATP 1430 SC, WKHJ 1440 SC, WJQI 1450 NC, KENN 1450 NM, WJAK 1460 TN, KDEW 1470 AR, KBXN 1470 UT, WOFP 1490 FL, KBRG 1490 WA, WNLB 1510 CA, WNST 1600 WV.

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 BCB LOG-BOOK (by Frank Aden)

The below program is written for either the VIC-20 or Commodore 64. It is a simple log storage program in which you can review the loggings by either frequency, country-state, call, time and date. Listings are added via the data statements at bottom. This program was based on one originally appearing in DX-NEWS.

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0 PRINT "M":FORZ=1TO50:PRINT"YOUR NAME LOG BOOK":NEXTZ
1 PRINT"Q"
2 PRINT"DO YOU WANT FREQ., CALL, STATE, DATE OR TIME":INPUTX#
3 IFX#="FREQ"THEN8
4 IFX#="STATE"THEN14
5 IFX#="CALL"THEN20
6 IFX#="DATE"THEN26
7 IFX#="TIME"THEN32
8 PRINT"Q":PRINT"WHAT IS THE FREQ."
9 INPUTQ#:PRINT"Q":FORI=1TO2500:READA#
10 IFA#="END"THEN38
11 READB#,C#,D#,E#,F#,G#:IFA#(<)Q#THEN13
12 PRINTA#;TAB(5);B#;TAB(14);C#;TAB(20);D#;TAB(25);E#;PRINTF#;TAB(9);G#;PRINT
13 NEXTI
14 PRINT"Q":PRINT"ENTER STATE OR COUNTRY"
15 INPUTQ#:PRINT"Q":FORI=1TO2500:READA#
16 IFA#="END"THEN38
17 READB#,C#,D#,E#,F#,G#:IFF#(<)X#THEN13
18 PRINTA#;TAB(5);B#;TAB(14);C#;TAB(20);D#;TAB(25);E#;PRINTF#;TAB(9);G#;PRINT
19 NEXTI
20 PRINT"Q":PRINT"ENTER CALL LETTERS"
21 INPUTQ#:PRINT"Q":FORI=1TO2500:READA#
22 IFA#="END"THEN32
23 READB#,C#,D#,E#,F#,G#:IFZ#(<)D#THEN25
24 PRINTA#;TAB(5);B#;TAB(14);C#;TAB(20);D#;TAB(25);E#;PRINTF#;TAB(9);G#;PRINT
25 NEXTI
26 PRINT"Q":PRINT"ENTER DATE"
27 INPUTQ#:PRINT"Q":FORI=1TO2500:READA#
28 IFA#="END"THEN38
29 READB#,C#,D#,E#,F#,G#:IFY#(<)B#THEN31
30 PRINTA#;TAB(5);B#;TAB(14);C#;TAB(20);D#;TAB(25);E#;PRINTF#;TAB(9);G#;PRINT
31 NEXTI
32 PRINT"Q":PRINT"ENTER TIME"
33 INPUTQ#:PRINT"Q":FORI=1TO2500:READA#
34 IFA#="END"THEN38
35 READB#,C#,D#,E#,F#,G#:IFV#(<)C#THEN37
36 PRINTA#;TAB(5);B#;TAB(14);C#;TAB(20);D#;TAB(25);E#;PRINTF#;TAB(9);G#;PRINT
37 NEXTI
38 PRINT"TO REVIEW AGAIN TYPE NRUN"
41 DATA670,08/13/83,0530G,WMAO,CHICAGO,IL,LOOP
42 DATA670,08/13/83,0500G,KBOI,BOISE,ID,TAPE
43 DATA620,08/13/83,0500G,KGW,PORTLAND,OR,LOCAL
44 DATAEND

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MEDIUM WAVE OBLIQUE PROPAGATION - ANOTHER VIEW

Randall J. Seaver
May, 1984

1. INTRODUCTION

Lankford [1984] derived the critical frequency formulae for transverse and longitudinal propagation and computed numerical solutions for low wave elevation angles with typical and minimal nighttime mid-latitude ionospheric electron densities. The paper notes that longitudinal propagation (i.e. along magnetic field lines) is not consistent with low wave angle propagation at mid-latitudes, thereby leaving quasi-transverse propagation as the major mode for determining oblique wave critical frequencies of the ionospheric regions.

Appendix I interpreted the numerical results as they apply to Medium Frequency propagation at mid-latitudes and concluded (in part) that:

- a) In the early evening hours, the best long distance MF propagation will be near the top of the BCB band where F_O (ordinary wave, F-region) propagation is possible and a larger low band segment (say 600-1100 khz) where F_X (extraordinary wave, F region) propagation is possible.
- b) In the early morning hours (local midnight and later) the entire BCB is hypothetically open for F_O , F_X , and combined F_O and F_X propagation.

For the case of European and/or Asian reception from North America, the Appendix hypothesized that the signals are propagated by both the E-region (at higher latitudes) and the F-region (at mid-latitudes), due to the higher ionization levels at high latitudes. For North-South paths (e.g., Latin America or Down Under), the Appendix hypothesized that an E-/F- region mix might occur due to the variation in the gyrofrequency in the lower latitudes.

The Appendix also discussed ionospheric absorption, the effects of geomagnetic activity, and concludes by briefly covering other potential modes of propagation, including ordinary E-region modes.

My purpose in this article is not to discuss the main body of the paper, which I have not evaluated mathematically, but seems to be technically correct for the assumptions for which it was derived; however, I do disagree with the interpretations provided in the Appendix, and wish to discuss my own interpretations more fully in the balance of this article.

Seaver [1978] presented a discussion of Medium Wave propagation, including the nighttime E-region critical frequency for oblique "ordinary" waves. This article provides additional information to support the hypothesis that nearly all nighttime long-distance Medium Wave propagation occurs via refraction in the E-region of the ionosphere.

2. ORDINARY VS. EXTRAORDINARY WAVES

When radio waves encounter the ionosphere, they split into two components, called the "ordinary" and "extraordinary" waves. They follow different paths and incur different ionospheric losses. The total wave energy is shared between the two waves in a ratio which depends upon the angle between the direction of the wave and the Earth's magnetic field vector. Oliver et al. [1971] gives the equations for the losses due to this "polarization coupling" that occurs each time a wave enters and leaves the ionosphere. Only on East-West paths at equatorial latitudes does the "ordinary" wave suffer a large polarization loss. On the other hand, the "extraordinary" wave polarization loss is greater than the "ordinary" wave polarization loss, except for East-West paths at equatorial latitudes. For instance, at 60 degrees geomagnetic latitude (which is about 30 degrees latitude in North America), the "ordinary" wave has a polarization loss of about 1 dB, while the "extraordinary" wave suffers a loss of 7 dB.

The ionospheric absorption experienced by the "extraordinary" wave is infinite at the gyrofrequency, and greater than that experienced by the "ordinary" wave at frequencies above and below the gyrofrequency, according to Knight [1975] and others.

The conclusions that one can draw from the Olver [1971] and Knight [1975] papers is that the "extraordinary" wave mode is not a viable candidate for long-distance nighttime Medium Frequency propagation, especially for high and mid-latitude propagation paths below the gyrofrequency. Consequently, Lankford's [1984] hypothesis that the F-region is responsible for Medium Frequency propagation in the frequency range of 600-1100 khz, via the "extraordinary" mode, is not validated.

3. IONOSPHERIC ELECTRON DENSITY

The Lankford [1984] paper uses an E-region critical frequency of 300 khz (measured with a vertical ionogram) as representative of a minimal nighttime E-region mid-latitude ionosphere, and a 550 khz critical frequency for a typical E-region ionosphere. A review of the literature indicates that the minimal nighttime ionosphere may occur only in low-sunspot years and at times of low geomagnetic activity in mid-latitudes, as Lankford stated.

The E-region is a dynamic field composed of molecules, ions and free electrons. Solar radiation causes ionization to occur during daytime hours, with the number of electrons peaking near noon. The electron density continues to fall off after sunset, reaching a minimum near midnight (see Knight [1972] for typical values). This minimum electron density may be as low as 1000 electrons/cu.cm in sunspot minimum years, but typically is 3000-5000 electrons/cu.cm. near midnight, and significantly higher near sunset.

Figure 1 shows the variation of "ordinary" wave oblique propagation critical frequency as a function of ray elevation angle and E-region electron density, from Seaver [1978]. This figure shows good correlation with Lankford's [1984] "ordinary" transverse wave oblique critical frequency data (since 300 khz vertical corresponds to about 1100 electrons/cu.cm. and 550 khz vertical corresponds to about 3750 electrons/cu.cm.). The figure shows that for an E-region electron density of 1000 electron/cu.cm and a wave incident at or below 5 degrees, the critical frequency will be above 1500 khz, thereby effectively blanketing the Medium Frequency band for "ordinary" wave propagation.

The conclusion that one can draw from this information is that the minimal electron density occurs only rarely at midnight, and that the E-region electron density at sunset is significantly greater than it is at midnight. There is sufficient E-region ionization to refract low angle medium waves, even when the minimal electron density exists. Only on occasions when the minimal electron density occurs will "ordinary" waves on the higher BCB frequencies (above 1200 khz) and at high elevation angles pass through the E-region and be refracted by the F-region. Consequently, Lankford's [1984] hypothesis that the entire BCB is open in the early morning hours for F-region propagation via the "ordinary" wave, the "extraordinary" wave, or a combination of the two modes, is not valid.

4. ELEVATION ANGLE

Lankford [1984] uses 5 and 10 degree wave elevation angles to provide examples and to support his hypothesis that the F-region is mainly responsible for propagating mid-latitude Medium Frequency signals. Data in Knight [1975] and others indicate that one-hop paths at elevation angles down to 0 degrees and multi-hop paths down to 1-5 degrees are the predominant mode of Medium Frequency long-distance propagation via the E-region "ordinary" wave.

The prevalent model (i.e. Knight [1975] and others) of E-region refraction of Medium Frequency "ordinary" waves results in a maximum one-hop distance of about 2200 km (1360 statute miles). This is consistent with my own DX experience wherein stations

within 2200 km are much stronger and consistent (i.e. less fading minute-by-minute, and with less day-to-day variation in signal strength) than are stations at distances greater than 2200 km. My "one-hop" clear-channel stations in Southern California include KBOI-670, WBAP-820, KOA-850, KRVN-880, KOMO-1000, KTWD-1030, KSL-1160, WOAI-1200, KOMA-1520, and XERF-1570. These stations are always in during the evening hours at relatively high signal strengths. On the other hand, my "greater than one-hop" stations, including CBK-540, WSM-650, XERP-660, XEX-730, KOB-770, WCCO-830, Belize-834, WHAS-840, WWL-870, WLS-890, WHO-1040 and XEB-1220, are often at relatively low signal strengths; there are times when the "two-hop" path signals are equal to the "one-hop" path signals on adjacent frequencies, but these occasions are relatively few. Auroral absorption may account for some of the variability for the more northern paths. The "two-hop" path signals also experience more frequent fading rates, which would be consistent with the prevalent theory.

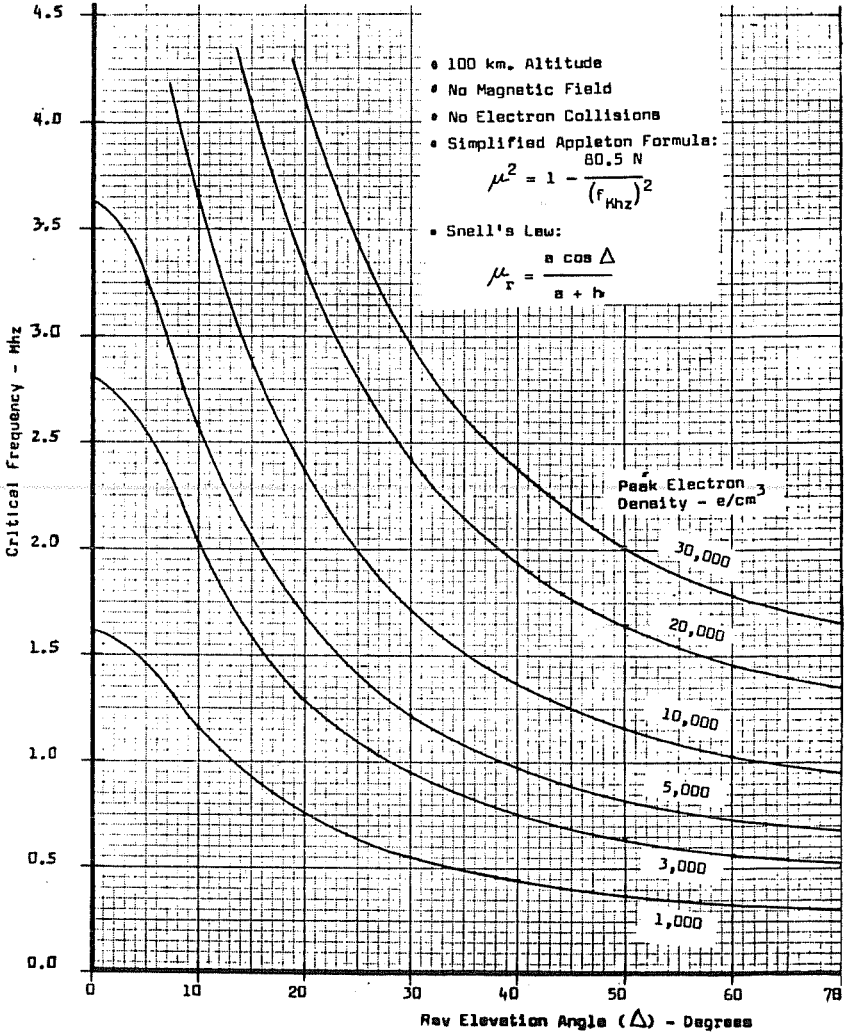


FIGURE 1. OBLIQUE RADIO WAVE E-REGION CRITICAL FREQUENCIES

The argument put forward by some DXers concerning low elevation angle paths (say, less than 5 degrees) is that ground attenuation reduces the field strength significantly. This is true, but the extra ground attenuation loss for a low angle wave is usually less than the extra ionospheric and ground reflection losses suffered by a higher elevation angle wave with more hops. Knight [1975] provides data to calculate the various path losses. The ground attenuation loss is mainly a function of ground conductivity, elevation angle and frequency. For a 1 degree elevation angle, the sea water loss is only 2 dB, for good ground conductivity (10 mS/m) the loss is about 10 dB, and for poor ground conductivity (1 mS/m) the loss is about 20 dB. For a 5 degree angle, the losses are 0 db (sea water), 5 dB (10 mS/m), and 10 dB (1 mS/m).

To illustrate this difference, Figures 2 and 3 show the field strength analysis for the path San Antonio (WDAI-1200) to Chula Vista on a night with minimal E-region ionization for one-hop and two-hop paths, respectively. The field strength analysis is based on the Knight [1975] methods of analysis. Figure 2 shows that the one-hop path has a 1.5 degree elevation angle and results in an estimated field strength of 43 dB. For the two-hop path of Figure 3, the elevation angle is 9.1 degrees and the estimated field strength is 33 dB. The 10 dB difference in signal strengths means that the one-hop path will dominate and should provide a stable signal. Indeed, WDAI-1200 is received at an estimated 40-45 dB in Chula Vista on an average early morning.

5. IONOSPHERIC ABSORPTION

Lankford [1984] states "accurate theories of absorption exist only for vertical incidence and frequencies above 2 mhz". I disagree

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*****
***** MEDIUM WAVE PROPAGATION ANALYSIS BY THE KNIGHT WAVE-HOP METHOD *****
*****
* RECEIVER LOCATION: Chula Vista CA                117.15 W. LONG.  32.72 N. LAT.
* GROUND COND'Y   10.00 MS/M
-----
* TRANSMITTER LOCATION: San Antonio TX             98.50 W. LONG.  29.42 N. LAT.
* FREQUENCY       1.2000 MHZ                       * EFFECTIVE RAD. POWER  50.00 KW
* GROUND COND'Y   10.00 MS/M                       * ANTENNA HEIGHT      0.250 W'LENGTH
-----
* UNIFORM IONOSPHERE CHARACTERISTICS              * MAX E-REGION E-DENSITY 1000 E/CM3
* E-REGION VIRT. HT 90.0 KM                       * F-REGION VIRT. HT    250.0 KM
-----
* PATH GREAT CIRCLE DISTANCE 1125.2 STAT MILES = 1810.9 KM
* GREAT CIRCLE BEARING 96.72 DEG CLOCKWISE OF NORTH
* 1 E REGION REFRACTIONS          * 0 GROUND REFLECTIONS
* AVG. ELEVATION ANGLE 1.56 DEG   * AVERAGE HOP LENGTH 1810.9 KM
*****
***** MEDIUM WAVE FIELD STRENGTH ANALYSIS BY THE KNIGHT WAVE-HOP METHOD *****
*****
              LONG.    LAT.    DIP LAT.    MAG ANGLE    COND'Y    LOSS
              (DEG W)  (DEG N)  (DEG N)    (DEG)       (MS/M)    (DB)
-----
TX GROUND      98.50    29.42
TX POLARIZATION 107.66   31.41    59.21    272.40
IONOSPHERIC ABS. 107.66   31.41    59.21    272.40
RX POLARIZATION 107.66   31.41    59.21    272.40
RX GROUND     117.15    32.72
*****
* RADIATED POWER GAIN 16.99 DB   * TOTAL POLARIZATION LOSS 3.06 DB
* UNATT. FIELD STRENGTH 50.29 DB * TOTAL IONOSPHERIC LOSS 5.93 DB
* CONVERGENCE GAIN 8.34 DB      * TOTAL GROUND REFL. LOSS 0.00 DB
* TX ANTENNA HT CORR. 0.40 DB   * TOTAL TERM. GROUND LOSS 23.55 DB
* FIELD STR. (NO LOSSES) 76.01 DB * TOTAL PATH LOSSES 32.54 DB
-----
* ESTIMATED FIELD STRENGTH FOR RADIATED POWER = 43.46 DB
*****

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FIGURE 2. MEDIUM WAVE FIELD STRENGTH ANALYSIS - WDAI-1200 KHZ TO CHULA VISTA, ONE-HOP PATH.


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*****
***** MEDIUM WAVE PROPAGATION ANALYSIS BY THE KNIGHT WAVE-HOP METHOD *****
*****
* RECEIVER LOCATION: Chula Vista CA          117.15 W. LONG.  32.72 N. LAT.
* GROUND COND'Y  10.00 MS/M
-----
* TRANSMITTER LOCATION: San Antonio TX          98.50 W. LONG.  29.42 N. LAT.
* FREQUENCY      1.2000 MHZ          * EFFECTIVE RAD. POWER  50.00 KW
* GROUND COND'Y  10.00 MS/M          * ANTENNA HEIGHT      0.250 W' LENGTH
-----
* UNIFORM IONOSPHERE CHARACTERISTICS          * MAX E-REGION E-DENSITY 1000 E/CM3
* E-REGION VIRT. HT  90.0 KM          * F-REGION VIRT. HT    250.0 KM
-----
* PATH GREAT CIRCLE DISTANCE  1125.2 STAT MILES = 1810.9 KM
* GREAT CIRCLE BEARING  96.72 DEG CLOCKWISE OF NORTH
* 2 E REGION REFRACTIONS          * 1 GROUND REFLECTIONS
* AVG. ELEVATION ANGLE  9.13 DEG          * AVERAGE HOP LENGTH  905.5 KM
*****
*** MEDIUM WAVE FIELD STRENGTH ANALYSIS BY THE KNIGHT WAVE-HOP METHOD ***
*****
          LONG.      LAT.      DIP LAT.  MAG ANGLE  COND'Y      LOSS
          (DEG W)    (DEG N)    (DEG N)   (DEG)      (MS/M)      (DB)
-----
TX GROUND          98.50      29.42
TX POLARIZATION   103.03      30.49      59.24     275.80
IONOSPHERIC ABS.  103.03      30.49      59.24     275.80
GROUND REFLECTION  107.66      31.41      59.21     272.40      3.0
IONOSPHERIC ABS.  112.37      32.15      59.02     268.98
RX POLARIZATION   112.37      32.15      59.02     268.98
RX GROUND         117.15      32.72
*****
* RADIATED POWER GAIN  16.99 DB          * TOTAL POLARIZATION LOSS  3.07 DB
* UNATT. FIELD STRENGTH  50.16 DB          * TOTAL IONOSPHERIC LOSS  13.64 DB
* CONVERGENCE GAIN      2.46 DB          * TOTAL GROUND REFL. LOSS  13.43 DB
* TX ANTENNA HT CORR.   0.32 DB          * TOTAL TERM. GROUND LOSS  6.63 DB
* FIELD STR. (NO LOSSES) 69.92 DB          * TOTAL PATH LOSSES      36.77 DB
-----
* ESTIMATED FIELD STRENGTH FOR RADIATED POWER = 33.15 DB
*****

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FIGURE 3. MEDIUM WAVE FIELD STRENGTH ANALYSIS - WOAI-1200 KHZ TO CHULA VISTA, TWO HOP PATH.

with this statement; the generalized magneto-ionic theory of Sen and Wyller [1960] provides the best available theory and includes the effects of the Earth's magnetic field and electron collisions on both ionospheric refraction and ionospheric absorption. When the actual electron density profile of the ionosphere is modelled in a ray-tracing computer program (e.g. Jones and Stephenson [1975]), medium and short wave path ionospheric absorption can be calculated accurately.

Knight [1975] provides ionospheric absorption losses for a model "mean" nighttime ionosphere in the range of 3 to 12 dB (decreasing as frequency increases and lower on North-South paths); this data was derived from ray-tracing computations. I have also run the Jones and Stephenson [1975] ray-tracing program with different model ionospheres to investigate the effects of the electron density profile on ionospheric absorption. My results indicated that ionospheric absorption is very dependent on the level and reflectivity of the electron density profile. For instance, raising the "mean" electron density profile only 5 km reduced the absorption significantly. The absorption was also significantly reduced if the electron density was more reflective, i.e. if the electron density gradient was increased (this includes sporadic E layers which have a very high gradient). The conclusion that one can draw from this information is that ionospheric absorption is highly variable due to the day-to-day and hour-by-hour variations in the E-region of the ionosphere.

My own hypothesis is that "great" DX conditions at mid- and low latitudes occur when the E-region of the ionosphere is raised above the "mean" and/or is more reflective. With such conditions, the absorption on one or more hops is reduced (perhaps even zero) and the signal strength of both strong and weak signals are enhanced, either generally or from one particular geographic region. However, there may be other factors that "enhance" long distance Medium Frequency signals, such as M-type paths (where a wave gets trapped between the E and F regions over much of the path) and chordal paths (where the wave does not suffer a ground reflection loss, due to magnetic field effects or an ionospheric tilt).

Nelson [1971] described the effects of the Earth's auroral zone on high-latitude paths. In the auroral zone, the precipitation of energetic particles into the D-region of the ionosphere results in more ionization and hence higher electron densities at altitudes down to 60 km. These high electron densities cause very high ionospheric absorption that greatly reduces the signal strength of waves passing through the zone. DXers in the northern latitudes frequently experience "auroral" conditions wherein northern stations have low signal strengths due to the auroral absorption effects, thereby allowing southern stations to be heard.

The auroral zone is actually an oval with a width of 10-15 degrees latitude, centered on the magnetic pole, that rotates diurnally, with the most southward extent near local midnight due to the effects of the solar wind on the Earth's geomagnetic field. The easiest way to visualize this is to consider a thick "curtain" hanging down to about 60 km altitude; within the "curtain" there are high electron densities. The auroral oval migrates toward the equator during periods of higher geomagnetic activity and toward the magnetic pole during periods of lower geomagnetic activity. The southward extent of the auroral oval seems to control the reception of high latitude European stations in Eastern North America and the reception of high latitude Asian stations in Western North America. This occurs as a result of the sharp increase in electron density at low altitudes as the radio wave enters the auroral oval, resulting in high absorption.

However, under some conditions, reception of high latitude stations may occur through the "doughnut hole" in the auroral oval. In this case, the radio waves are propagated through the auroral zone, passing beneath the auroral oval "curtain", and refracting from the ionosphere within the "doughnut hole". This mode is thought to be responsible for reception of European stations in Northwest North America and Asian stations in Northeast North America.

6. CONCLUSIONS

The conclusions drawn in this article concerning Medium Frequency oblique propagation include:

- a) The "ordinary" ray is the primary mode by which medium waves propagate, since the "extraordinary" wave is greatly attenuated by polarization loss and absorption. The exception is East-West paths at equatorial latitudes.
- b) The E-region of the nighttime ionosphere contains sufficient electrons to refract low elevation angle (5 degrees or less) "ordinary" Medium Frequency waves back to Earth. Only when the E-region electron density is extremely low, the wave BCB frequency is relatively high, and/or the elevation angle of the wave is relatively high will the "ordinary" wave pass through the E-region and be refracted from the F-region.
- c) Assuming E-region refraction of "ordinary" waves, the maximum one-hop distance is about 2200 km, and the observations of this DXer confirm this. For multi-hop paths, a rule-of-thumb of about 1000 statute miles (about 1600 km) per hop is reasonable.

- d) Ionospheric absorption can be highly variable, and cases of very low absorption are probably the cause of enhanced signal strengths. Very high absorption of radio waves in the auroral zone effectively prevents some reception of high latitude European and Asian stations in North America.
- e) It is possible to compute ray paths and ionospheric absorption of Medium Frequency radio waves using sophisticated computer programs. These methods depend on an accurate representation of the Earth's magnetic field, electron collision rates, and ionospheric electron density profiles to result in accurate results.
- f) It is possible to compute average field strengths of radio waves using relatively simple computer programs that account for all of the losses and gains for the ray path. Knight [1975] and PoKempner [1980] provide methods to do these calculations.

7. CLOSURE

In the above sections, I mentioned some of the research I've carried out using the Jones and Stephenson [1975] ray-tracing computer program and the average Field Strength prediction program based on Knight [1975]. I hope to write articles in the future on the results obtained using these two programs. Some of this research has been presented at the NRC/Los Angeles (1980) and IRCA/Seattle (1983) conventions.

It is worthwhile noting that every article, report or book that I've read that describes Medium Frequency propagation states that the nighttime E-region is the primary mode of long-distance medium wave reception. It is interesting that only DXers have hypothesized that the F-region is the primary mode for Medium Frequency propagation.

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the irca technical column

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The following article by W.R. McIntosh first appeared in the April 1984 Lowdown, and is used with the author's permission. The Lowdown is the bulletin of the Longwave Club of America, 45 Wildflower Rd., Levittown, PA 19057; this club has quite a strong emphasis on technical matters, much of it of use to the medium wave experimenter.

SOME ANTENNA EXPERIMENTS -- Part 1

If you think the title above sounds as if I'm settling down to a long siege of work, you are correct. Let me explain. Several months ago I had a peculiar idea; what would happen if I took a Longwave loop that contained a lot of wire and used it as a wound-up longwire? For lack of a better name I am referring to the antenna that has resulted as a "helical longwire". If anyone has a better name let's hear it. I'm not that proud of the nomenclature.

DXers have used metal "Slinky" toys (stretched and supported) as antennas with good results. It has been proved that longwire antennas do not have to be strung in a straight line; they may be bent to fit in a given space. My own 120' inverted L antenna is bent in a broad hairpin shape in the attic; it works fine. The important factor seems to be getting as much wire as possible up in the air and not worrying too much about the exact shape as long as it does not double back on itself sharply. What got me going were all of the letters from folks who live in apartments, condos, or restricted housing and who are not allowed to erect an "unsightly" outdoor antenna. Some of them install a short preamplified whip such as the McKay Dymek DA100, the Radio West KRS, or one of Ralph Burhans' designs and get away with it, possibly by installing them out of sight or in an attic. Running a clip lead to a rain gutter, downspout, window frame, or other metallic part of their home may take advantage of the fact that any large metallic object can become a useful antenna if it is not grounded. A little experimenting with coupling/tuning devices may produce useful signals. Many of us started by using our bed springs or a window screen.

Some years back I heard a few DXers at a SCADS meeting discussing the use of vertical antennas that consisted of wire wound on a long weatherproofed 2 by 4. They seemed to use about 100 to 200 feet of wire, and they reported good results in the BCB and the Shortwave. Such an antenna should be useful in a horizontal position also.

Of the folks using these experimental antennas (and that certainly includes my odd-shaped inverted L) some are using preamplifiers to raise signal levels and some are not. Some use antenna tuners and/or preselectors and some don't. The important points causing such decisions often are the characteristics of the receivers in use. Do the receivers have good sensitivity; do they have bad front-end overload characteristics; and do they need all the help they can get?

The first step after getting the idea of the "helical longwire" was to hit the books and see who had already tried it. I don't claim to be original, but I couldn't find any reference to such an antenna. Only one thing left -- try it!

On hand in the Mc Shack is a tunable loop (Figure 4 page 8 September '83 LOWDOWN) that is 40" by 40", has 22 turns of wire in the tuned loop, contains 293 feet of #26 solid copper wire, and is tuned with a two section variable capacitor of 365 + 140 pf. It covers a frequency range of 150 to 600 KHz and has been extended below 150 KHz by using clip-on fixed padding capacitors in parallel across the variable tuning capacitor. If frequencies above 600 KHz were needed then a switch was made to some other antenna. I don't use tapped windings on loop antennas. A single link turn over the center of the loop winding feeds a length of RG58 coax cable which goes to the receiver.

To try this Longwave loop as a helical longwire I removed the link turn and the tuning capacitor, and used only the loop winding. One end of the loop winding was left floating -- not connected to anything. The other end of the loop was connected via the center conductor of the coax cable to the receiver.

The results with this simple setup were disappointing. The signal strengths were about 20 to 40 db less than those delivered by my DA100 and my inverted L antennas in the Longwave and the BCB. The use of a preamplifier was not tried because the signal-to-noise ratios were bad. Instead I added various antenna tuners and preselectors between the antenna and the receiver. Mixed results were obtained. Things got complicated fast. The antenna tuners on hand are a Grove TUN2, a Grove TUN3, a McKay Dymek DP40, and a homemade pi-section tuner that uses the plug-in coils from a grid dip meter to cover the range from 10 KHz to well over 50 MHz. To summarize quickly my results were as follows:

1. The Grove TUN2 was far more successful than the Grove TUN3. The more versatile and flexible TUN2 allowed me to select antenna tuning and matching combinations that were not available on the TUN3. [Unfortunately, the Grove TUN2 is no longer manufactured and sold by Grove.] Signal strengths and signal-to-noise ratios were delivered to the receiver by the Grove TUN2 which were about the same as those obtained with the DA100 and the 120' inverted L in the frequency range from 10 KHz to 20 MHz. That's right -- all the way from the low end of the Longwave up through the Shortwave to about 20 MHz. Above 20 MHz trouble was encountered with the TUN2 which I have not solved yet.

2. The McKay Dymek DP40 did not produce useful signals or signal-to-noise ratios on my receiver in the Longwave, but worked well in the BCB and Shortwave ranges all the way up to 30 MHz.

3. The best results were obtained using the homemade pi-section antenna tuner which produced very good signal strengths and signal-to-noise ratios all the way from 10 KHz through 30 MHz. In fact on many stations tuned the helical longwire and the pi-section tuner produced better results than either the DA100 or the 120' inverted L.

Obviously these are preliminary results and much more work remains to be done. The length of wire in the helical longwire is probably important. 293' of wire produced good results when properly tuned. One of my next projects will be to wind a new loop that contains 500' or more of wire to verify my current best predictions. Then I plan to try a long skinny winding of about 300 to 500 feet of wire on a 2 by 4 or a cardboard tube. That may wind up installed in the attic. Maybe the 293' loop would work better up in the attic. For the time being I will keep the loop in the shack so I can check directional effects.

No antenna tuners or preselectors were used on the DA100 or the 120' inverted L antennas so far in this experimentation. These two antennas have been my "reference antennas" for about ten years.

The receiver used was a Drake DSR2 Laboratory Receiver. It has a 1000 ohm input impedance for the range of 10 to 500 KHz and a 50 ohm input impedance for 0.5 to 30 MHz. This receiver has a large, well-damped, signal strength meter calibrated from 0 to 100 db signal levels. Checking with a calibrated signal generator has showed that this signal strength meter is accurate to +1 db. Anyone interested in experimental antenna work may have problems if their receiver has a small, bouncing, S-meter calibrated in S-Units. Various manufacturers set each S-Unit as equal to anything from 3 db to 6 db. There is a good fix for this which can turn almost any reasonable all-wave receiver into a better laboratory instrument. That is to install a high impedance VTVM or FET meter on the receiver's AGC (AVC) line as an S-meter. This will result in a definite improvement for several reasons. First, the high impedance meter probably has switchable decibel scales which can furnish very fine readings. Second, the VTVM or FET meter probably will have a larger, more stable meter movement. Third, the high impedance meter will be in parallel with the receiver's own internal S-meter and can serve to calibrate it better for future use. I have been known to use a Heathkit VTVM permanently wired into a receiver as an S-meter for careful experimental work. Adding the high impedance meter to the AGC line should not interfere with the receiver's alignment if the leads used are short. Keep the AGC line lead and the ground lead well separated to prevent capacitative loading of the AGC line.

One important thing noticed along the way was that while the 293' loop of wire when used as a tuned Longwave loop was quite directional and produced good nulls, the helical longwire idea destroyed most of the directional properties and only very small nulls were obtained.

This whole project is not a copyrighted personal trip. Everyone is invited to join in. In fact, to put it bluntly, I would welcome some help. You never know where your next good idea is going to originate. I used #26 solid copper wire merely because I lucked into a quantity of it a few years back. Larger gauge wire, particularly larger gauge Litz wire, might produce even better results. It is suggested that wire as small as #30 is usable, if that is what you have available. The math found in various books has led me to think that the more wire the better. I doubt that a little BCB loop would contain enough wire to work very well as a helical longwire. Anyone want to prove me wrong?

This whole project started as an attempt to design/develop a low cost indoor antenna that would be useful over a large frequency range (10 KHz to 30 MHz). So far the necessity for a good versatile antenna tuner has increased the cost and complexity considerably. However, the design so far is useful over the required large frequency range and can be operated indoors. There is still a lot of work to be done. It seems that only the surface has been scratched. In particular I would like to hear from anyone who does experimental work of their own, or can find anything in the literature about such an antenna design. I would like to get Xerox copies of any such literature. Keeping the Window antenna and other off-center fed antennas in mind it might be worth while connecting the feed point for the antenna somewhere besides at one end. It also seems obvious that such an antenna could be used as an auxiliary loading coil for another antenna which could be attached at the free end of the wire coil.

One word of caution -- if your receiver is in a plastic case instead of being totally shielded by a metallic case, be careful about using any antenna too close to the receiver. RF radiation from a receiver oscillator or synthesizer can cause noise problems. Don't get your antenna near an operating computer or hand calculator. Either of these can be worse than an old black and white TV set or as bad as a cheap light dimmer. This microcomputer word processor which I am using gave me quite a bit of trouble on radio and TV reception until I moved the computer to the far end of the house and positioned it to use the large mass of metal around the disc drive as a shield between the rest of the computer and the RF receiving equipment.

One preliminary observation which I cannot explain is that the 293' coil of wire seemed to work very well as an antenna even without any antenna tuner when it was used in the higher frequency bands of the Shortwave. Have I missed something somewhere? Signal levels and signal-to-noise ratios were as good as those with the DA100 and/or the 120' inverted L.

It is planned to continue with these experiments as time allows. I would value hearing from anyone who tries some of these ideas or anything else that may occur to them. I'm certain that there are many possibilities which have not occurred to me.

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* * * * *

For those who are interested in refurbishing vintage radios, or even later model tube sets, Antique Electronic Supply, 1725 W. University, Suite 2, Tempe, AZ 85281 stocks a number of parts of interest, and have pretty good prices on a large selection of new radio tubes. Catalog costs \$1, but perhaps they will quote specific tubes to you for an SASE and a polite request. Stocks of many types are limited, so get 'em while they're hot.

(info from Dennis Kibbe)

* * * * *

Recently in QST magazine, there have been a series of articles on the basics of electronics, "First Steps in Radio" by Doug DeMaw who writes with great clarity on matters technical. With any luck, the ARRL will put these articles together in a booklet, but until then, find a ham with a QST subscription, or check your local library.

* * * * *

We heard a little bit about the Bearcat DX-1000 but it seems to have sunk without a trace. Larry Magne reviewed it on RCI's SWL Digest awhile back and found it roughly comparable to the FRG-7700, R-2000 etc. Audio not as good as the IC-R70, it wasn't great at signal handling--medium wave stations turned up in the SW bands (Good Lord! What does it do on the MW band?), sensitivity limited by synthesizer noise, and poor selectivity in the 6 kHz position--wide skirts apparently. Larry felt that there was more emphasis on software with this rig, but didn't find it well planned out.

EASTERN DX FORUM

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Reports from members living east of the Mississippi River
Deadlines: 6/29 7/27 ?

Dr. Richard E. Wood, College of Education, P. O. Box 959, Abha, Saudi Arabia

In a recent DXWVII I reported that right-wing British parliamentarian Enoch Powell had proposed that the British sovereign bases on Cyprus be closed down. That would mean the probable closure of the BBC relays there. Well, on 4/13 I noticed the surprise absence of all SW signals from BBC Cyprus, yet no apology for a temporary break when listening to BBC direct from England or other relays. Another surprise was finding BBC Cyprus still on the air on MW--AA on 639, AA and Parsi on 720, and EE on 1323. This is still the situation as I type this on 4/15--MW is still on but SW is still off. I have heard no explanation, tho' I listen to BBC most of the day here, but a friend says he heard an apology, saying the absence of Cyprus SW was due to a labor dispute at communications headquarters in London. Certainly, there have been such strikes recently, linked to the celebrated British political dispute on the abolition of the right to union membership for workers to GCHQ (Government Communications Headquarters in Cheltenham). But--why should a strike affect only the SW relay in Cyprus and not the NW? And why only Cyprus, why not Oman, or Ascension, or the others? The moral is--hear and verify all possible stations now, you never know when they may go off the air unexpectedly. This is especially true in Western countries like the UK, France and Belgium, while strikes, budget cuts or the introduction of regional governments may break up or silence existing national networks, a process somewhat similar to the current breakup of the erstwhile clear channels in the U.S. Thanks to "Johnny Canuck" for explaining my unid CBC on 1400 hrd in Labrador; yes, it must have been CBG, ex-1450. Speaking of regional CBC outlets, I note with pleasure reports of recent veries from CBC stns, e.g. CBO-920. About two years ago the CBC announced that reports on domestic broadcasts would no longer be verified. Perhaps a memo to this effect was circulated. But by now it has been forgotten or ignored. What experiences have IRCans had recently in trying to verify CBCers other than CBO? Perhaps the no-verie rule is still being enforced at CBC HQ in Montreal. It's interesting to note that CFPR-860 BC dropping to 2.5 kw nights. I often listened to that one when I lived in Hawaii. With KKUA (and XETRA) on 690, it was the best BC CBCer in Hawaii. Finally, congrats to the Medium Wave Circle (7 The Avenue, York, Y03 6AS) on their 30th anniversary--their edition 216, March, 1984, is nicely produced but Feb. DX in England was poor--nothing west of WCAU. 73.

J. B. Hughes, 13720 Gulf Boulevard, Apt. 401, Madiera Beach, Florida 33708
Greetings all. Just got back from a DXpedition to Lake Kissimmee about 100 miles east of here, mainly to fatten my Florida totals. Nineteen new stations were logged so I might head north next time and try again. A couple of catches were mention are WJZX-960 Cocoa, Fla.(ex-WKKO) which ID's as "Fox Radio 8-60" and WRKT-1300 Cocoa Beach, Fla. now with Ai news. Noticeably absence was WOKC-1570 Okeechobee, Fla. just 60 miles or so south of the lake. All DX was done on the car rx-Delco. Static was moderate and getting worse so I had to pass by a couple boderline stations. Locally, DX has been on the slow side, but I keep trying. 73's and good summer DXing!

John Clemmer, 4524 - 7th Street, Apt. 2303, East Moline, Illinois 61244
My trip at Easter to Texas was real nice including some great Wx. I drove down to Dallas thru Des Moines, Kansas City and Tulsa. Enjoyed listening to KSO, WDAF, KWOK, and KVOO on the way down -- all are very good C&W stns. One of the few AM Top 40's of the trip was KELL-1430 Tulsa. They weren't bad, using "14 K" slogan. I spent 3½ days in Dallas-Fort Worth. Metrpex radio was good. KXOL-1360 was a very interesting C&W stn using "Cowtown Country" slogan. KRQX-570 "K-Rocks" and KAAM-1310 were neat oldies stns--very rock oriented musically. KPJZ, ex-KJIM-870, is the MYL stn in town--nice to see the 870 filling the big band void since the 1270 went Spanish. On FM, KAFM is a good T40. Next stop was Austin, where I had an enjoyable 3 days. Austin radio was only average. KTXZ-1560 West Lake Hills-Austin is on fulltime w/an oldies format. Supposedly 10 towers --5 day and 5 night! The best Austin stn was KHFI-FM 98. The most interesting Austin area stn was KELG-1440. KELG calls itself "Radio Free Texas"

(Clemmer, cont...) and plays country music. They are a nice sounding stn; I had a great visit talking to the PD for an hour and a half! Four towers throw most of KELG's signal WNW toward northern Austin. On the way to San Antonio, I stopped in New Braunfels, one of the nicest small Texas towns I've seen. The area was settled by Germans originally and is very neat and orderly. KGNB-1420 was one of my favorite stations of the trip running a great homebrew big band/EZL format. The Wx was great for sight-seeing along the Riverwalk in San Antonio -- 96 deg. on April 19th! San Antonio radio was fairly decent. KKYX-680 was great w/its C&W format. I had a very friendly visit at KKYX including a chat w/the PD. My two visits to KKYX have been among the friendliest anywhere. The new 760 in San Antonio is still not on the air as of May 5th per a friend's report. Houston was my final stop. KIKK-650 w/C&W oldies, KNUZ-1230 w/oldies and KKBO-790 were all fun to listen to. KRBE-1070 was a riot while I was in town as they were kidding other Houston stations and having a lot of fun with their ad/contemp format. The new 1180 stn in Humble (metre Houston) is not on the air yet either. Closer to home it will be interesting to see what happens to WJJD as they have been sold by Plough. Plough also sold WSUN-620 and is looking to sell the rest of its chain. The Anniversary issue really was great. Nice to see all the Forums. Local KSTT-1170 has Chicago Cubs baseball this year. WLS had a bumper sticker in every Sunday Chicago Tribune on 5/6. Knowing the Tribune's circulation, I bet WLS gave away over one million stickers in one day! (The 5/26/84 Editor & Publisher shows an average six months Sunday circulation for the Tribune was 762,882--rce) I'll definitely be in Toledo for the convention and am looking forward to the GTG and Mud Hens game. Enjoy the Summer and see you in Toledo. Be there, Aloha!

Karl J. Zuk, 154 Old Post Road North, Croton, New York 10520

I recently had the pleasure of giving the Sony SRF A-100 AM stereo receiver a trial run. It was very interesting to hear stations from all over the country in stereo. I have some reservations about the SRF A-100. It is a very insensitive radio. If you listen to the Magnavox, Harris, or Motorola system, you don't hear the sound properly decoded because the decoder chip is made as a compromise to decode all three, and therefore, does not decode any of them with complete efficiency. I liked the Kahn system best, although the Magnavox system, as transmitted by WOWO, Fort Wayne, Indiana, seemed to sound much better than the Motorola stations I heard. I think that Motorola must be using its capital and influence to gain its current position as front runner in the AM stereo race. It sounds just dreadful when skywave picks up. I live 35 miles from a 5kw Motorola station, and reception after sundown in stereo is just unlistenable. If you have a good signal to work with, the SRF A-100 sounds really nice. It is the best sounding BCB radio I have heard for high fidelity reception. It even beats the McKay-Dymek AM5. It is no threat to FM stereo, at least at this stage of development. A tunable notch filter will be essential in any serious AM stereo receiver, because the heterodynes are very annoying at night. I am annoyed at the FCC for continuing its deregulation of all the broadcast services in our country. It is becoming impossible to keep up with all the different powers and patterns that a station might operate under. You now have the PSA, PSSA, Critical Hours, and Daytime and Night-time authorizations. You need a multi-paged document on each station just to know what power and direction a station is transmitting. I noted that a station in Virginia was cited for operating with over 200 watts during a period when it was authorized for around 20 watts. I guess the FCC is still serious about upholding its laws, no matter how complex they become. I am afraid that the BCB will begin to sound like SW, with ever increasing powers and endless interference. The FCC is under the impression that if broadcasters do not have to abide by technical regulations, they will keep their operations in top shape to stay competitive. I see the trend having the reverse effect. Broadcasters are not in business to create high quality programming. They are in business to make money. You make more money if you achieve reasonable results with the least amount of investment. I think you see what I'm getting at. I just wish I knew how it will end up. I'll be a BCB DXer until the band goes to nothing byt data transmission! I hope AM stereo and liberated power allocations will bring about a new generation of aggressive station owners who will program their stations to go after the under 50 market, instead of endless stations playing "Music of Your Ending Life" and Larry King Clones. Here's to the future of BCB!! 73.

Bob Walker, 3907 Mack Road, #61, Fairfield, Ohio 45014

Hi all! Thought it about time that I add a few lines here in the midst of summer static. By the time you read this I will have moved to the new address as above. My first time at home ownership, and once I get used to a mortgage payment, I'll enjoy it, hi. Actually the move will allow me to have a spare bedroom to stack my radio equipment for a change. Beyond the

(Walker, cont...) move plans are underway for a vacation to Toledo and its 1984 Convention. It will be my first IRCA Convention in seven years, so I'm looking forward to it. Hope to see many of you there! DXing has taken a backseat, temporarily, to moving and preparing for my novice ham test. Last time I actually DXed was on 4/28 when on 740 I noticed a station testing between 2200 and 2300 EST using Rod Stewart's Maggie May and a few testing announcements, but no ID. When the station dropped their carrier CBL or KRMG would dominate. Any ideas? I thought possibly a station getting ready for twenty-four hour operation. In other stuff, the Louisville ratings are our and WHAS-840 is #1 in that city. A real upswing for them as they have added quite a few rock cuts; recently, 9 or their 10 current songs on their playlist were in Billboard's Top Ten. In Cincinnati, it has been announced that WCKY-1530 will pick up NBC and carry Talknet, dropping Larry King. This will make WCKY the only station in the nation with exclusive agreements with both CBS and NBC. Both networks are said to be in favor with the agreement since it will help to strengthen WCKY's Newstalk format. WLW had been the NBC affiliate for the past 57 years, but in recent months had dropped both Talknet and the hourly newscasts. Be good to have Bruce Williams, of Talknet, back on the air here in Cincinnati as for some reason it's the only network talk show I enjoy listening to. Well, I think I'm getting close to the limit so I'll close out with a reminder that I'm always on the lookout for tape traders. 73s.

Richard C. Evans, P. O. Box 1294, North Wales, Pennsylvania 19454

Well, I'm back from Alabama, but with no news on what's happening in the radio world down there. Seems I forgot to pack any of my radios to take with me. I did manage to pick up 56 new papers from my collection so I should be able to feed ads, news articles, etc. to Seattle this summer from the Southern region of the country. Looks now like I will be in Toledo this summer for the convention, but I haven't asked the boss for the day off from work yet. If it seems strange that I was able to come up with the circulation figures for the Chicago Tribune in John Clemmer's report on the previous page, I just happened to reading that issue of the E&P while waiting for the Liquid Paper to drop on mistakes in the column. One note to my comment, though--the figure is for the average Sunday circulation over a six month period ending 3/31/84. I don't know what the high or low number was during that time. No DX here lately. Gotta run. PTL.

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CONVENTION NEWS

As most of you know by now, the 1984 IRCA convention will be held August 17 to 19 in Toledo, Ohio. Your hosts, Gary Siegel et al, are busily preparing for the festivities, which will include station tours, banquet, auction (with Ted Fleischaker as auctioneer), and much more.

A registration form was included in the last DX Monitor, but in case you forgot where you put it, here's some additional information:

The Place: Sheraton Westgate Inn, 3536 Secor Road at I-475 exit 17 in Toledo
Room Rates: \$45 single, \$51 double, \$6 per additional person. Reservations are held until 6 pm. Rooms will be held longer if guaranteed payment arrangements are made (credit card number or first night's deposit). Check in time is 4 pm, checkout is noon.

Registration: the fee is \$22, payable in advance, which includes the banquet (main course is fried chicken). Checks payable to IRCA CONVENTION 1984.

Auction items: can be sent to Ken Romstadt, 2541 Schroeder Court, Toledo 43613
Send him your old unwanted logs, magazines, books, radios, bumper stickers, promo items, antennas, radio parts, tape recorders, etc etc and help bolster the club's bank account.

Transportation: Toledo can be reached by airlines, Greyhound, Trailways, and Amtrack. Additional air service is available to nearby Detroit. The convention committee can pick you up at any of these places, with adequate notice (one week in advance).

For reservations and information: write or call Gary Siegel, 2728 106th St., Toledo, OH 43611. 419-726-1405.

Lots of DXers are planning to attend, so don't miss it. It should be fun!

EASTERN DX ROUNDUP

Bob Lazar

11011 Becontree Lake Drive, #410
Reston VA 22090

Deadlines: 6/28, 7/31

All times Eastern

- 850 WCGY FL W. Palm Beach, 5/20 1355 hrd well during a weekend at Lake Okeechobee. "85-CGY" ID. Ex-WEAT and no longer all news. (JBH-FL)
- 1230 WGGG FL Gainesville, 5/17 2053 hrd ID in a jumble. (JBH-FL)
- 1240 WMMB FL Melbourne, 5/17 2031 ID noted before fading back into the graveyard. (JBH-FL)
- 1560 WVGW TN Nashville, 5/8 2045 ID and s/off. Fair signal w/ Christian format. (JBH-FL)
- 1580 WBBE KY Georgetown, 5/7 2015 ID and s/off. No SSB. (JBH-FL)

Eastern DXer

JBH - J. B. Hughes, 13720 Gulf Blvd., Apt. 401, Madeira Beach, FL 33708

As you may have read in the last issue, I am resigning as EDXR editor. If you are interested in taking over the column, let IRCA president Phil Bytheway know. All the job requires is access to a typewriter and adequate typing proficiency. It usually takes me about 1 to 2 hours to do a column, sometimes much less for columns like this and occasionally I've been blessed with large columns that might take a little longer. It looks like local WVBK-1440 is off the air for good. They are selling their transmitter site to a telephone company (Bell Atlantic, if I recall correctly) who will demolish the existing antennas and install a communications facility. I read this info in a local paper about a month ago and forgot to pass the info on to you until now. Sorry. 73.

CENTRAL DX ROUNDUP

Robert Kramer

6416 N. Richmo

Chicago, IL 60644

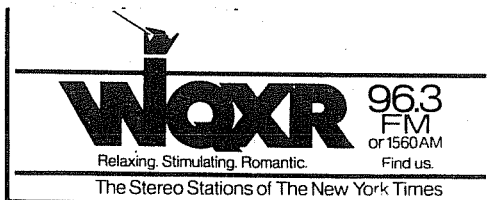
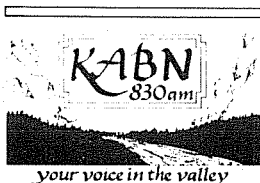
All da Rest

- 810 KBHB SD STURGIS, 4/26 2237 good o/weak WGY w/severe wx info, C&W mx. TMJ-IL
- 1060 WAMT FL TITUSVILLE, 4/10 2004 on top w/lcl spot, lost to KIMO, no KYW. TMJ-IL
- 1090 WGLC IL MENDOTA, 4/20 1924 until 4/23 1550, off the air w/equipment problems. Sounded like modulation or audio problems. Heard them strong but very weak audio on 4/20, off 4/21 & 4/22, back on 4/23. TMJ-IL
- WMUS MI MUSKEGON, 4/20 1927 good o/very weak WGLC, finally a good log on this one w/pest WGLC down w/equip. problems. TMJ-IL
- 1280 WSAT NC SALISBURY, 4/10 2005 w/Atlanta Braves baseball, WMRO having equipment problems, running OC for 10 minutes. TMJ-IL
- 1330 WWHI IN EVANSVILLE, 4/26 2013 very strong w/Gospel pgm & Bible Store ad. TMJ-IL

The Lone Ranger

TMJ... Tom Jasinski 503 Jensen Shorewood, IL
(FRG-7, 2 1/2 loop)

Not much time spent DXing ECB recently, most of my DXing hours have been spent chasing LW beacons. In a very short time I've gotten 147 of them, including NS, NB & MB. All this during the part of the year that normally isn't noted for good DX cx. Does anybody out there know if there is a correlation between what is being heard via LW beacons & ECB cx? It would be great if one could use the beacon band to get a gauge on what is happening on ECB. Another benefit to beacon chasing is that I have almost learned code. See y'll in Toledo.



WESTERN DX ROUNDUP

Nancy Hardy
2301 Pacific Avenue
Aberdeen, WA 98520

All times are
Eastern Local

Phone for hot WDXR tips: (206)532-6827 till 10pm(PLT)

DEADLINES: Monday July 2, Thursday July 19

REPORTERS FOR THIS ISSUE:

- (BH) Bill Hardy-2301 Pacific Ave.-Aberdeen, WA 98520
FRG-7, SM-1
- (JH) Jim Hilliker-1502 E. Hedgewood Ave.-Anaheim, CA 92805
Kenwood R-1000, Radio West loop
- (DKK) Don Kaskey-465 Burnett St. #1-San Francisco, CA 94131
Hammarlund HQ-140X, SM-2
- (GL) Gary Larson-2806 N. Lincoln-Burbank, CA 91504
DX'ing at work in Encino, CA w/GE Superadio
- (PM) Patrick Martin-P.O. Box 843-Seaside, OR 97138
SP-600JX, two 1500' east Beverages (one terminated, one not)
- (SMM) Steve Mittman-2248 West 37th Street-San Pedro, CA 90732
Realistic TRF, 3' wedge
- (DP) Dale Park-2253 Kanealii Ave.-Honolulu, HI 96813
Sony ICF-6700W
- (bp) Bruce Portzer-6546 19th Ave. NE-Seattle, WA 98115
Racal RA-17, 4' box loop
- (RW) Robert Wien-1309 Dentwood Dr.-San Jose, CA 95118
GE Superadio, GE long-range portable, SM-2

***** OF SPECIAL INTEREST:

- 730 KURL MT, Billings per v/l, KURL now operates w/5000 watts and "(we) transmit through a Harris (stereo?-SMM) MW5B transmitter... (with) an overall height of 303'..." (SMM-CA)
- 760 KSJL TX, San Antonio per call to stn Sat. 5/5, they said they'd be on the air Monday 5/7. Nothing noted w/KFMB all MM 5/7 except WJR & Cuban. If they're on, they put a pretty good null this way! (RW-CA)
- 790 KXTC CA, Clovis 5/23 1530 usual good signal in KGO-810 null w/local spot, IDs as "K-ecstasy" & "AM 790," EZL. Call change, ex-KXQR. I've logged these calls twice now! (RW-CA)
- 930 KSWB OR, Seaside 6/4 received written CP grant for move to 840. Move should take place around August. Will be 1000/500. (PM-OR)
- 1000 KMLO CA, Vista per call to stn, power is actually 2500/250. (They are listed everywhere as being 5000/1000.) However, they do have application on file for 5000/1000; though nothing has actually been granted yet. (SMM-CA)
- 1030 KMAS WA, Shelton-Olympia 5/8 1031 fair w/nx & local ads. Believe this was first day on their new freq. (bp-WA)
+5/8 2100 ending local nx, Shelton-Olympia ID, then Ai nx. Good thru static, ex-1280, possibly first day on channel. (BH-WA)
+5/27 2340 good w/KTWO. Local spot, rr mx, jingle "KMAS." Listed as 1kw day/night in my log, but don't think they're nighttime yet. Freq. change, ex-1280. (RW-CA) (Last we checked they were day only.--NH)
- 1110 KRLA CA, Pasadena MM 2/13 SP has changed to MM's 0445-0800. (SMM-CA)
- 1120 KLIM CO, Limon per phone call, Mon. 5/7 was their first day of broadcast, signing on at 12 noon, and in all likelihood, they were my unID 1120 ET'er 5/7, as they had done some ET'ing the night before. They are 250w daytimer only, CP recently granted. (RW)
- 1190 KEZY CA, Anaheim upon returning to the air MM 2/27 0610, CE ment that "...nighttime power is 1000 watts & daytime is 3900 watts. That's a little bit of trivia for you. This is the chief engineer, Rocko, and now I'm turning it over to Rick Shaw." I learned later that their day pwr is only 3900 because they have to protect KCBQ-1170 in San Diego. Yet, ironically, they will be boosting to 10kw days (directional towards Los Angeles) this summer. At that time they will also be utilizing Harris stereo. (SMM-CA)
- 1230 (KPRD) CA, Barstow KPRD-1230 & KZNS-94.3 (ex KWTC AM&FM) went dark Wed. 3/7/84 6pm PLT, ending (for the AM) more than 30 years of broadcasting. (SMM-CA)

- 1280 KYKN OR, Eugene 4/19 0137 fair-poor in KIT null, ending Portland Trailblazers basketball game, YL saying "K-Y-K-N 13," then into C&W mx. Had ad in game for a Eugene business. 0141 same YL said "Continuous country in AM stereo, here's 4 in a row on K-Y-K-N, 13-Kickin'." Could be automated. Ex-KBDF, format change from news-talk. (BH-WA)
 +5/14 0900-0903 fair o/KJOY/KKAL w/"13-Kickin'" ID, local nx, "Kickin' Satellite Weather," another ID "Continuous hit country, 13-Kickin'" another 4 in a row, from KYKN." Wiped out by KAZA-1290 s/on at 0904. Call change, ex-KBDF. (RW-CA)
- 1400 KUNA CA, San Luis Obispo 5/11 0500 briefly o/KQMS/KVOY w/KRE off on rare SP. Clear ments of "San Luis Obispo," "coast," & "KUNA" into EZL. Lost immediately. Call change, ex-KSLY. Been after this one for 2 months or more. (RW-CA)
- KSPT ID, Sandpoint now 24 hours AN w/Larry King. In often on east Beverages. (PM-OR)
- 1440 (KPRO) CA, Riverside went dark Tu 5/15/84 10:10pm PLT, thys joining its sister stations KPRD & KZNS in Barstow, which went dark in March. KPRO was originally to have gone off the air Th 3/15 6pm PLT, but was bailed out just minutes before that deadline by an anonymous person named "Deep Pockets." (SMM-CA)
- 1470 KBSN WA, Moses Lake ex-KSEM 3/6 0204 xlint way o/KXOA w/ID, "Solid Gold Saturday Night" syndicated program (not listed on network in IRCA Almanac). Was looking for KWIV's f/c which has never shown! (RW-CA)
- *****
- 523 "NDWA" CA, Offshore? Wed 4/4 1640 cw Morse Code beacon returned! 0/5 years ago (3/25/79 1310 ELT), "NDWA" was logged on 532kHz. Five hours later it vanished. (See 6/16/79 WDXR.) Now, just o/5 years later, it has mysteriously reappeared! Per call to the F.C.C. in Long Beach, "there are no records of such a beacon." Probably from a military ship, but interesting how it disappeared for five years. Also interesting how "CFCZ" was logged just a few days earlier on the same freq. (perhaps the same beacon?). "NDWA" took 4 seconds to tap out, followed by a 3-second "dah"; repeat. Midday #130. (SMM-CA)
- "CZCF" CA, Offshore? Su 3/25 1820 unID cw Morse Code beacon hrd mid-day, was probably from a military ship offshore. Interestingly, there was no audio. The code was being produced by the carrier being turned on & off! The "CFCZ" took exactly 10 seconds to be tapped out, then there was a long 16-second "dah"; repeat. Utilizing the PRG-7 in the SSB mode produced an artificial tone, making copy easier. Midday #129. (SMM-CA) (You listed "CZCF" in the call letters column, Steve. Should it have been "CFCZ"?-NH)
- 550 KOY AZ, Phoenix 5/29 0758-0800 very strong, interesting promo w/ listeners telling why they listen to KOY, SID, into detailed ID, like a s/on (power, freq., location of studios & xmtr) then another ID "55-KOY, Phoenix, Arizona's radio station." Into Morning Magazine" wx, nx. (JH-CA)
- 650 KORL HI, Honolulu 4/13 0520 noted w/carrier instead of SP. KKUA/KIKI mixing noted for first time; now, how you figgah? (DP-HI)
- 670 KBOI ID, Boise 5/28 0350 in clear w/contemp. mx (Doobie Bros & Carpenters songs). Nothing hrd yet of KWNK testing. Called stn but no answer. (GL-CA)
- 690 ?CBF? PQ, Montreal 5/14 0600 susp. w/"O Canada" u/CBU OC. (RW-CA)
 (XETRA) BCN, Tijuana noted off the air all day Mother's Day Su 5/13-- morning, afternoon, evening; on into MM 5/14. (SMM-CA)
- 700 KFAM UT, North Salt Lake City 5/28 0352 in fair w/EZL, MOR. Some XETRA-690 slop. (GL-CA)
- 710 (KMPC) CA, Los Angeles 5/28 0353 noted totally off. However, returned to air 0400. (GL-CA)
- *KIRO* WA, Seattle 5/21 ET'ing w/pop mx. (RW-CA)
- 730 KURL MT, Billings Wed 4/11 0828 lady annrc reported an Indian Affairs investigation of an accidental shooting. Then, "Look for rain or snow showers today & tomorrow with wet, NW winds..." Into relig. mx format w/male DJ. Lost at 0836 when KBRT-740 OC popped on. New. (SMM-CA)
- KSVN UT, Ogden Wed 4/11 0823 in w/beautiful signal. Annrc ment snow showers this morning. "Now another 30 minutes of solid gold on K-7---730 on the A.M. dial." Into oldies. (SMM-CA)
- (CKLG) BC, Vancouver 5/14 0443 w/OC, totally off later on, then on again w/TT's. (RW-CA)

- 740 KCBS CA, San Francisco is now app. 24 hours NSP. SM SP no longer in effect (carries Larry King at that time). (RW-CA)
- 750 KERR MT, Polson Th 5/3 0833 fair w/local Chevy dealer ad, ID's, into C&W mx. KCBS-740/KFMB-760 slop. Ex-1070, but never logged on that freq. New. (SMM-CA)
- ?*KERR*?+5/4 0216 apparently one w/TT well o/KXL. (RW-CA)
- 760 KGU HI, Honolulu 5/5 1600 noted first time w/CBS rx via satellite instead of via KCBS (AM S.F. not TV L.A., hi.) However, use of satellite is irregular as regular phone feed has been noted often. Some features also come via satellite. New sked includes Michael Jackson et al 1500-1700 EDT, Dr. Toni Grant et al 1700-2000, Larry King 0000-0500, Ray Briem 0500-1000, Ira Fistell 1000-1100, mostly on same-day delay. (DP-HI)
- 770 KXA WA, Seattle 5/14 0230 overriding KOB w/ID, usually way u/KOB.(RW)
- 850 KMDY CA, Thousand Oaks ex-KGOE, is now all "Comedy Radio." Also carries some sports. I guess they figure the way some teams play nowadays, it is hilarious, hi. (SMM-CA)
- CKRD AB, Red Deer 5/20 0523 blasting in in KOA null w/ID "Music-waves, 85, CKRD," into Michael Jackson mx, lost to KTAC. Rare here. (RW-CA)
- 870 KORD WA, Pasco 5/28 0349 end of ABC Direction nx, local ad, ID "Big Country, KORD," C&W mx. Good. (JH-CA)
- 880 KJJR MT, Whitefish 5/20 0526 bombing in obliterating KIXI w/KRVN off as usual SM, "AM 88, KJJR" ID. (RW-CA)
- KWIP OR, Dallas noted u/KRVN 5/16 w/ID 0434. New ANER? (DKK-CA)
- 900 KFBA TX, Floydada MM 3/19 0742 good w/"You've been listening to the Agricultural Report on the --- Radio Network." "This is KFBA, Floydada." Into C&W mx. Ex-KFLP. (SMM-CA)
- 980 KSVC UT, Richfield Fr 5/4 2300a noted on air after dark on car rx while driving through Bishop, CA on the way to Mammoth. Was on for emergency coverage of a dam which burst in Kanosh, Utah. Haven't logged this one back home yet. (SMM-CA)
- 1000 KRHS AZ, Bullhead City 5/11 0830 w/full detail s/on atop KOMO. Into C&W mx. (DKK-CA)
- KRDZ CO, Hayden 5/3 0825-0845 in well w/farm & cattle report. ID at 0845 was "KZ-1000." (DKK-CA)
- KOMO WA, Seattle 5/28 noted AN holiday weekend MM 5/28. (RW-CA)
- 1010 KDJW TX, Amarillo 5/14 0606 weak u/KXEG w/AP nx, ID. (RW-CA)
- +6/2 poor o/u unID rr, "KDJW" in C&W tune at 0415. (PM-OR)
- 1020 (KTNQ) CA, Los Angeles 5/27 0520 totally off, KYXE/KBCQ mix. (RW-CA)
- KBCQ NM, Roswell 5/5 0442 strong w/C&W mx w/KTNQ off. KYXE beneath. KBCQ noted AN6 since. Wonderful-Wonderful. (DKK-CA)
- 1030 KCTA TX, Corpus Christi 5/11 hrd well w/relig. program at 0530, ID "KCTA, 50,000 watts, Corpus Christi" into spot. Haven't hrd this one in years. (PM-OR)
- 1060 KUKQ AZ, Tempe 5/28 0355 rr mx w/some KNX-1070 slop. (GL-CA)
- 1070 KNX CA, Los Angeles Fr 5/4 2300a noted tuned in in a drug store in Bishop, CA while passing through on the way to Mammoth! There was a huge fire raging in Santa Barbara, & the store manager told me that KNX was tuned in so she could hear coverage of the fire. I told her that KNX's xmtr is located in Torrance, CA and I live 9 miles from it. She was impressed, but not nearly as impressed as I was that someone would be "DX'ing" here, of all places, hi. (SMM-CA)
- 1090 KKBB CO, Aurora MM 4/2 Entertainers format hrd through KNX-1070/KRLA-1110 slop. Hrd a few IDs & MST TC's, then short comedy routine at 0329, followed by SID's. Legal ID ("KKBB, Aurora") poorly hrd at 0400. Came up better at 0428 w/slogan "The World's Greatest Entertainers continue on 1090 KKBB." New. (SMM-CA)
- KKYN TX, Plainview MM 4/2 0436 momentarily came up w/ment of contest. ID given twice as "1090 Country KKYN." Into C&W mx. Only second time hrd. (SMM-CA)
- (XEPRS) BCN, Rosarito noted off the air Su 4/1 2120 (6:20pm PLT) on my car rx. When I got home MM 4/2 0315, they were still off! OC popped on 0458; directly into RS (no s/on!) at 0502. DJ ment at 0515 that he plays oldies every night from "9 to Jam" without even so much as a hint that they had been off the air all evening! (SMM-CA)
- 1100 WWWE OH, Cleveland MM 5/2 finally logged (one of my most-wanted) following KRLA-1110 s/off for MM SP at 0446 (XEPRS-1090 was also off). Legal ID at 0500 "WWWE, Cleveland, a service..." Then hrd CBS nx. (WWWE is listed as an NBC affiliate. Did they switch to CBS, or was CBS from KREX, who is listed as being off at this hour?) Two min. later XEPRS returned to the air, totally obliterating 1100! New. (SMM-CA) (Almanac says WWWE is CBS & not NBC!-NH)

1110 *KRLA* CA, Pasadena 5/28 0355 OC, noted w/stn u/o. Unable to copy mx, but maybe C&W. Some fading. (GL-CA)
 KHEI HI, Kihei MM 2/13 0500 legal ID "1110 on the AM dial, this is KHEI, Kihei." Into pop mx. Mixing w/KFAB. Rare here. (SMM-CA)

1120 (KPNW) OR, Eugene-Springfield 5/21 0409 w/OC. (RW-CA)

1130 KWKH LA, Shreveport 5/28 0700 fair in KSDD null w/legal ID "You're listening to one of America's great radio stations, your official... (faded), American Dream...station for the Twin Cities, the radio ranch, K-W-K-H, Shreveport-Bossier City." Into local nx w/local sponsor. Haven't hrd in awhile. (JH-CA)

1140 ?KVLII? CA, Lake Isabella 5/8 2243 tent. in KPRZ-1150 slop. Woman doing wx, hard to understand. Hrd a few temps, then sounded like "You're tuned to KVLII, Lake..." then wiped out by KPRZ slop again. A minute later, all I had was KMJJ. Poor. (JH-CA)

1200 *WOAI* TX, San Antonio 5/7 0341 & 5/28 0353 w/TT, OC. (RW-CA)

1210 *KCLG* UT, Washington 5/28 0332 noted w/TT, ID. (RW-CA)
 KASY WA, Auburn Th 2/30 0123 hrd a few IDs as "Casey." Mixing so badly w/KREW, I couldn't get any details as I was never quite certain as to whether I was listening to KASY or KREW! New.(SMM)
 KREW WA, Sunnyside MM 2/13 finally logged w/pop mx (Motels, etc). Ment of "featured album this week with Linda Ronstadt." ID at 0452 as "AM 1210--24 hours a day." Relogged Th 2/30 0123 w/pop mx, "1210 AM" IDs & ment. of Sunnyside. (SMM-CA)

1220 KBNO CO, Denver Th 5/3 0811 faded in w/promo for coverage of '84 Olympics in Los Angeles. Then "KBNO, Denver" ID, into pop song. Lost to XEB. (SMM-CA)

1230 KIBS CA, Bishop 5/13 2241 very strong on top in KGFJ null w/local ad, promo for Dodgers baseball, ID, C&W mx. Also, a regular the past few days, 5/31 & 6/1 at their 0759 s/on w/SSB, full details, into Ae nx. Good. (JH-CA)

1240 KSMA CA, Santa Maria MM 5/28 0305 s/off u/unID, "KSMA...good night and good morning." Rare SF or just AN-6? (JH-CA)

1250 WREN KS, Topeka 5/22 hrd w/oldies rr w/KKFX QRM. ID "The excitement is here, tell your friends about the Wren, W-R-E-N, Topeka," into net nx at 0400. (PM-OR)

1270 KIML WY, Gillette hrd w/s/off 5/28 0515, "KIML will resume broadcasting at 5:15am" (MST). Off. (PM-OR)
 KIML+MM 5/28 0611-0615 caught tail end of reg. f/c, 4th MM. TT's, many good IDs. S/off type ID at 0615. F/c starts at 0600. Fair. (JH-CA)

1290 KMEN CA, San Bernardino-Riverside 5/28 0400 ID "KMEN San Bernardino-Riverside, presenting the K-Mendous Memorial Day hits." In fair o/other stn. (GL-CA)

1300 CJME SK, Regina 5/11 0545 hrd well o/mess w/ID's & several Regina spots. Good. (PM-OR)

1320 KEZL CA, Oceanside Fr 5/11 0101 noted w/interesting new top-of-the-hour ID: "It's a minute past 10:00 at KEZL AM & FM, Oceanside to San Diego." (SMM-CA)

1330 KFH KS, Wichita 6/2 fair w/talk show u/KUPL at 0430. (PM-OR)

1340 KATY CA, San Luis Obispo 5/14 0213 good on top w/C&W, ID. They are back on the air! (RW-CA)

KIST CA, Santa Barbara Tu 5/8 1807 new slogan often used now is "The Energy AM." Also "The Energy AM--KIST--where local news comes first." (SMM-CA)

KXTC ID, Nampa 5/13 fair o/mess 0513 w/13-K IDs, wx for Boise area. (PM-OR)

1350 *KLYD* CA, Bakersfield 5/21 0600-0717 ET'ing this period w/rr mx, ID and end of ET at 0717. (RW-CA)

KABQ NM, Albuquerque 5/7 0310-0320 w/SS program. Fair signal. (DKK-CA)

1360 KRKK WY, Rock Springs 5/14 0500 w/ID "Your place in the country, KRKK Rock Springs, C&W mx. New. Fair. (PM-OR)
 +5/28 hrd again at 0530 w/C&W mx, "KRKK" ID, rr stn QRM.(PM-OR)

1380 KTOM CA, Salinas 5/25 0500 noted w/ID "KTOM FM and AM, Salinas-Monterey," so now app. simulcasting AM/FM. (RW-CA)

KOTA SD, Rapid City 5/20 hrd w/PSA & "KOTA-1380" ID, o/KRKO at 0945. Fair. (PM-OR)

1390 KBLQ UT, Logan 5/23 hrd above the jumble for a minute w/"KBLQ" ID at 1012. (PM-OR)

1400 KAAP CA, Santa Paula Su 2/19 1803 ID "There's only one--Jack Jones, Kay Star, Frankie Lane, Harry James, Bing Crosby, The Andrews Sisters, Ella Fitzgerald, Diane Warwick, The Carpenters, Nat King Cole; UNFORGETTABLE." (jingle) "AM 1400." "We are unforgettable 1400--KAAP, Santa Paula--serving Oxnard & Ventura."(SMM)

1400 KNDE CA, Visalia 5/4 0158-0200 good usual signal in KRE null w/YL DJ, ID as "Candy time is 10:58," jingle ID on hour "KNDE, Visalia." Call change, ex-KONG. (RW-CA)

KNOR OK, Norman 5/11 listened off & on 0300-0530, hearing a rr stn o/u KSPT, 0520 Oklahoma wx followed by jingle "K-N-O-R," then at 0540 promo for Mother's Day & tag "from your friends at KNOR," jingle "14--KNOR," rr mx followed. Taped & reported. New, w/presumed 250 watts. Hrd again 5/13 0445 w/"KNOR" jingle u/KSPT Sandpoint, ID. (PM-OR) (Great catch, Pat!!!--NH)

1410 KCONR OR, Portland 5/13 2330 w/ID, then short s/off atop massive QRM and KRE-1400 splat. Rock mx prior to s/off may have been them. (DKK-CA)

1420 *KSTN* CA, Stockton 5/27 0500 w/strange "whooping" TT. (RW-CA)

1430 KARM CA, Fresno MM 2/27 0500 end of pop song, then local wx given by lady DJ. Wx report concluded w/"It's 36° at KFIG/KARM, Fresno." (SMM-CA)

1440 KOPA AZ, Scottsdale 5/28 2210-2215 in the clear w/KPRO silent. Hall & Oates song, "Copa 100..." talked about a listener's call, "... she made the switch to the station playing her favorite songs." S/off 2215 "KOPA-AM, Scottsdale now leaves the air. Join us again tomorrow morning, but for right now, tune your radio to K-O-P-A, FM at 100.7 for the most music & best variety, on 'Copa.' Carrier off, no SSB. They must simulcast AM & FM. Good. Not hrd for awhile. (JH-CA)

(KPRO) CA, Riverside has been silent since 5/16, I believe. BUT, they do go on air only for sports broadcasts which they have a contract for, Angels, Lakers in May & June. On 5/22 2155, OC, then s/on 2200 "Good morning, this is KPRO, Riverside..." Into anncr. ment. financial problems and being on only for Angels & Lakers games. (JH-CA) (Sorry! This should probably have been in "Of Special Interest."--NH)

KSKX KS, Topeka 5/20 hrd w/nx country net, NBC break at 0400, ID at 0359:55. KVON QRM.6/2 hrd well o/all "Country 1440, KSKX, Topeka" ID at 0500. (PM-OR)

KPUR TX, Amarillo 5/20 here briefly above the jumble, sounded like an intro of Jump-Van Halen? Then "On KPUR, Amarillo" at 0400. (PM-OR)

+5/28 0712 fair-poor in KUHJ null w/KPRO silent. Many ads, then DJ w/TC "6:12, at 14, K-P-U-R" into mx. Not needed, but it's been a few years since hrd last. (JH-CA)

CFCP BC, Courtenay 5/13 0549 now 24 hours w/"CBC stereo" (i.e., CBC-FM network) all-night freaky-rock mx show "Nightline." No local ID on hour, just CBC ID 0559 & mx across hour. Definitely CFCP as no other Canadian on 1440 has this strong a signal and it looped north. (BH-WA)

1450 KQDI MT, Great Falls 6/2 wx at 0425, "46° at KQDI," KGRZ QRM. (PM-OR)

KFLS OR, Klamath Falls 5/13 0503 nice singing ID, then C&W. In several times this hour, so evidently now AN at least on weekends. Up until 1980 this was one of my most-wanted! (BH-WA)

KAYO WA, Aberdeen 5/14 was first day for extended hours of 0758-0300 (0858 Sundays). Now runs Ralph Emery Show weekdays 0805-0900 and 0205-0300. New owners also changed FM callsign to KAYO-FM, so no more "KAYO-KJMD" ID's. KAYO-AM-FM still simulcast except during Seattle Mariners baseball on AM only, w/regular mx continuing on FM. Otherwise, still C&W format w/Ai nx on hour. (BH-WA)

1460 (KDON) CA, Salinas 5/15 0436 totally off. 5/15 0445 totally off, back on RS at 0500. (RW-CA)

1470 KWSL IA, Sioux City 5/14 0145 w/rr mx mixing w/KBSN. (PM-OR)

KELA WA, Centralia-Chehalis 5/14 0244 good o/KXOA w/ID, TC. Rare here other than SRS. (RW-CA)

1480 KRED CA, Eureka 5/28 0000 in KWIZ null, ID into ad for Arcata Honda. Sounded like network C&W show. Poor. (JH-CA)

KLMS NE, Lincoln 5/14 good on top of mess at 0130 w/rr mx, request line, KLMS ID's. (PM-OR)

KUUX NM, Hobbs 5/28 0746 poor in KWIZ null, on top briefly w/wx "...over Hobbs it's...degrees at K-double U-X." Into C&W. (JH-CA)

1490 KKLB ID, Chubcock 5/23 hrd w/ID and Ford spot, ment Pocatello, into AP nx at 1000. (PM-OR)

?*KRTN* NM, Raton 5/18 0200-0210 tent., 3rd Fri. f/c. TT's strong at times in KWIZ-1480 null. Some QRM when KBAS would fade up. No ID's hrd in the breaks between TT. (JH-CA)

- 1520 KMPG CA, Hollister Th 5/3 0859:30 s/on w/500-watt PSA ment. Definite ID's hrd u/KACY. (Tent. logging 24 hours earlier produced no ID's.) New. Calif. #203. (SMM-CA)
- KACY CA, Port Hueneme Wed 5/2 0900 noted using slogan ID "The New 15-K" (ex-Casey 1-52). Legal ID Th 5/3 0900 "The new sound of 15-K is KACY, Port Hueneme-Ventura." (SMM-CA)
- 1530 (KFBK) CA, Sacramento 5/28 0420 totally off. (RW-CA)
- KUUY WY, Cheyenne 5/28 w/ID at 0559:45 "The one & only, KUUY, Cheyenne," into CBS nx. (PM-OR)
- 1540 KASA AZ, Phoenix 5/6 0830 s/on u/KZLA, poor, then on top, fair 0832, ID, into relig. mx. (JH-CA)
- 1550 KXEX CA, Fresno 5/4 w/SS program 2233 in KKHI pause, KRGO too. (DKK)
- *KKHI* CA, San Francisco 5/7 0454 w/TT. (RW-CA)
- 1560 *KPMC* CA, Bakersfield 5/14 0310 noted w/varying TT. (RW-CA)
- *KGHO* WA, Hoquiam-Aberdeen 6/2 0422 good, testing. Hrd "mellow" pop mx, then ID "95-FM, K-G-H-O." Into PSA about a library "Call 249-4211." More mx, then carrier on & off. Hrd mx here as early as 0345 w/no ID. Called stn, talked to GE Steve Allen, said rectifier tube blew out & was replacing it & doing testing. Both he & the FM DJ were happy to hear about my reception. New. WA #20. (JH-CA)
- 1570 XERF COAH, Ciudad Acuna Wed 3/21 0400 Ai nx. Annet at 0412 "XERF--- the world's most powerful commercial radio station---at 1570 on your radio dial." Then toll-free (800) number given. (SMM-CA)
- 1580 KNIX AZ, Tempe-Phoenix 5/28 0404 in fair w/C&W, annct. of the AZ 500 list that can be picked up at any 7 Eleven store, then into C&W song Convoy. KDAY off. (GL-CA)
- *KDAY* CA, Santa Monica 5/7 0511 noted w/TT. (RW-CA)
- (KDAY)+Off the air morning & afternoon on Mother's Day, Su 5/13. Interestingly, XETRA-690 in Tijuana, and an FM stn in San Diego (KIFM 98.1), were also off the air all day. (SMM-CA)
- +5/28 totally off. (GL-CA) (Time?--NH)
- 1600 KBBX UT, Centerville 5/2 s/off 2230 full detail. Strong atop. Annc'd hours as 0600-local sunset. (DKK-CA)
- 1610 TIS OR, The Dalles TIS stn now quite regular in early AM. "Welcome to The Dalles," info on the city. Presumed 10 watts. Noted again 5/11 0510. Run by the local Chamber of Commerce. Reported. (PM-OR)

May f/c heard:

1st MM 0300-0315 KQIK-1230 OR (RW-CA)

May f/c not heard:

1st MM 0315-0330 KSKR-1450 MT (RW-CA) (Ex-KTXX.--NH)

Help with an unID:

1360 KOHU OR, Hermiston, this was DKK's unID a few issues back, as they definitely mention xmtr on River Road in their s/off. (bp-WA)

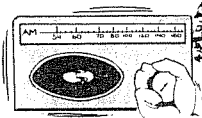
UNIDs:

- 730 5/14 0530 rr fading up w/Michael Jackson, then lost rapidly u/CKLG OC, wasn't a CKLG ET. Looped ENE. CKAC makes the most sense. Other ideas? CKDM? (RW-CA)
- 750 5/28 0354 unsure of location or call. Talk call-in program, in fair. (GL-CA)
- 930 WKY Oklahoma City, OK possibly the unID rr 5/29 u/o KSEI briefly at 0410. Possible Okla. ment at 0411. Too much KSEI. Is WKY still rr?(PM)
- 1030 5/21 0920 stn weak in KFTWO null, thought it was usual KLOK-1170 spur (caused by KFAX, 1170-70=1100, 1100-70=1030), but it wasn't // KLOK! Faded out rapidly, then replaced by KLOK's spur! Possibly someone's image or possibly KXZI San Luis Obispo? KHWHY Folsom, CA? (highly unlikely), or poss. a new OR/WA CP? Who is this???(RW-CA) (How about KMAS Shelton, WA, ex-1280?--NH)
- 1120 5/7 0720-0800 KLIM? unID ET'er w/C&W mx, playing Dolly Parton album over & over, quite weak, though fair on peaks. KPNW off, though they did turn OC on at 0755 but signal came in thru KPNW's null, completely inaudible during deep fades. Looped east. (RW-CA)
- 1190 MM 2/27 0505-0610 fair u/KEZY OC w/C&W mx. Had occasional rooster crows, though an EE-language station! Affiliated w/ABC. Looped east. Does KLIF fit? (SMM-CA)
- 1290 5/7 0349 unID in KCUB null w/delayed jazz/Suns pro BKB game, on Mutual network. No sensible Mutual outlets listed in Almanac. Immed. s/off after game. Thought I hrd a ment of "...Texas," which could be KRCV, but loop was ENE in KCUB/KMEN nulls. KHSL? KUMA? KGV0? (RW-CA)

- 1340 5/14 0220-0224 an interesting unID, suspect f/c. Looped ESE. Not KTQO f/c, wrong looping. KSYX f/c listed 0210-0220 2nd MM, KSIL's f/c is 0220-0230 but on 3rd MM. Perhaps KSYX switched times or KSIL moved their f/c to 2nd MM? Began promptly at 0220 w/no ID & ended at 0224 w/no ID. (RW-CA)
- 1400 Alliance, Kansas? Possible here w/spot for some power company in Wichita. Surfaced briefly at 0320 on 5/11, lost u/KSPT. (PM-OR)
- 1400 5/11 stn surfaced very briefly at 0400 w/ID "W--," lost in mess. (PM)
- 1440 5/14 w/country mx net, ID at 0400. Sounded like KSKX, but too much other QRM. (PM-OR)
- 1570 5/28 0403 stn in poor w/fading. Ment. AM stereo, w/MOR mx. (GL-CA)

Not too bad a column for the tail end of the season. Thanks to all who reported this month! The next WDXR deadline is listed as Monday, July 2. If my work schedule permits, I'll type on Tuesday. If you want to be SURE your tip will be in time make sure it arrives on Monday, though. On Saturday July 21 Bill & I will head in the direction of Montana and Wyoming (Glacier & Yellowstone National Parks). That's the reason for the Thursday July 19 deadline. Happy Summer! ♡

**TOP
END**



A monthly column of loggings, discussions & information for the 1600 - 1800 kHz range. Deadline: The last Saturday of the month. All times are GMT

Craig Healy 66 Cove St Pawtucket, RI 02861.....

•June 1984... An interesting article was in "Radio World" recently. The FCC is preparing to issue a Notice of Inquiry to get comments on the planned expansion of the AM band. This is in preparation for the Regional Administrative Radio Conference in 1986. It is expected that the upper limit of the AM band will be moved to 1700 from 1600, creating 10 new channels. These will not be available until 1990 and depend on reaching agreements with 40 other countries in this hemisphere.

LOGGINGS:

- 1615 NEW ZEALAND Ohura 1055 4/22 OR beacon, good. (Peterson @bev.)
- 1629 ??? 1050 4/22 MI161 or Z161 mixing w/ 2RPH, Australia. (Peterson @bev.)
- 1637 ??? 0123,0125,0127 5/21 KA80100 very good w/ very fast code. (Healy)
- 1640 ??? 1022 3/24 KA83694 fair, fadey. Fast code. (Peterson)
- 1685 COLOMBIA Mercaderes 1013 5/5 MER fair w/ fades. (Peterson)
- 1689 PAPUA NEW GUINEA Mt. Hagen 1117 4/22 MH good. (Peterson @bev.)
- 1707 ??? 1032 3/24 2NJ and dash. ID and short dash sent for 30 seconds every four minutes. (Peterson)
- 1740 ??? 0156,0200,0204 5/21 KA5223 (not KA8!!) very good, fast code. (Healy)
- 1782 ??? 0405-0408 5/22 30 pip/minute station fair. Short pip only. (Healy)
- 2900h RI Lincoln 0215-0230 5/21 Local drive-in theatre harmonic. Very strong at 5+ miles. Should get out ok on skywave. (Healy)

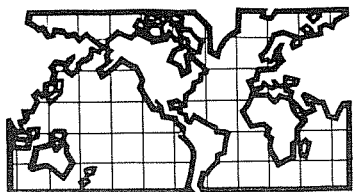
Logging credits:

Art Peterson--Richmond, CA FRG-7, loop, longwire, tuner
 Art Peterson--Año Nuevo Point, CA 1200' beverage site, FRG-7
 me--same place, same stuff (sigh)

TEN TARGET STATIONS ON 175 METERS

- 1610 ANGUILLA The Caribbean Beacon is heard all over North America. Should be the easiest 175 meter station to hear.
- 1613 GUATEMALA Rabinal RAB beacon is heard everywhere.
- 1685 COLOMBIA Mercaderes MER beacon is also widely heard.
- 1675 ECUADOR Esmeraldas ESM beacon. Harder than MER but not too tough.
- 1615 NEW ZEALAND Ohura OR beacon. Only a West Coast target. Can be heard east of the Rockies, but don't bet the rent on it.
- 1709.5 ??? Decca HiFix station. Sounds like the morse code letter "J", with the first dit at a slightly lower frequency. Fairly easy.
- 1746 ??? Another Decca station like above. Not as strong, though.
- 1747 ??? Another Decca. As good as 1709.5 usually. Someday we'll find out where these things are.
- 1668 BELIZE 2nd harmonic of Belize-834. This is heard up into Canada and gets out better than 834 sometimes.
- 1635/1637 ??? This last target isn't a station, but rather a group of them. These are heard all over the country with various calls/times. There is something for everybody here.

Parting question: Any of you computer-genius types out there have a RTTY program/hardware for a TI99/4A computer? Receive-only is fine. Or any other interesting programs for that matter. I have a nice morse code program to trade, if you'd like. 'Til later.....



DX WORLDWIDE - WEST

Pat Martin - Editor

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DX this time around is back on the slow side again. After a few days of very good conditions to the South Pacific and DU land, back into poor conditions. In news: According to T.V. Times (published in Hong Kong) British Forces Radio on 1251 KHZ is now off the air. Only FM/VHF in used. Now on with the few tips this month:

PAH-AMERICAN DX ROUNDUP

- 690 MEXICO, Fresnillo, Zac. concerning ADs unid on 690 in 4/28 DXWW-W, this is listed in the Mexiglen list, with 5 KW days/250 watts nights, on from 1200-0500 GMT Slogan listed is "Radio Optimista". (RW-Ca)
(Thanks for the help on this Robert.PH)
- 710 MEXICO, Culiacan-XEBL on 5/21 at 0830 Good w/S/off "Radio Bonita" ID Full ID, then Mex. NA, off, strange s/off time this has been my unid SS plaguing me a Don Kaskey. New. (RW-Ca)
MEXICO, Guaymas-5/7 at 0731, good alone ment. of Guaymas, Now Radio Bonita, no longer Radio Amistad. (RW-Ca)

TRANS-PACIFIC DX ROUNDUP

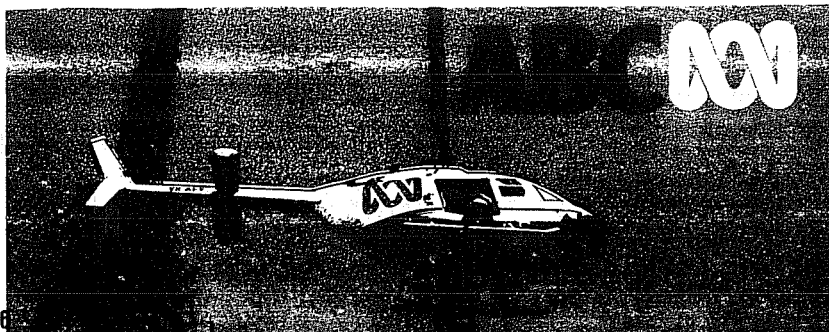
- 531 NEW ZEALAND, Alexandra-4XA, hrd well o/2MC w/Otago Radio and Pop mx at 0732 on 6/2. (PM-Or)
- 558 FIJI, Suva-Radio Fiji here w/YL in Fijian in passing at 0745-6/2 (PM-Or)
- 648 AMERICAN SAMOA, Pago Pago-wVUV, fair w/rr mx and EE aner at 0815 on 6/2. (PM-Or)
- 702 AUSTRALIA, Sydney-2BL, fair w/ABC nx at 0900 on 6/2. (PM-Or)
- 765 NEW ZEALAND, Hastings-2ZK, good w/rr mx and 77-ZK IDs at 0820 6/2 (PM-Or)
- 1206 AUSTRALIA, Grafton-2GF, hrd well in passing w/C&W mx and TC at 0816 on 6/2 (PM-Or)

VERIFICATIONS

- 558 SOUTH KOREA, Pohang-KBS received vq in 4 weeks for taped report sent to Seoul. KK verie #10, no signer. (PM-Or)
- 666 AUSTRALIA, Canberra-2CN received vq in 3 weeks for taped report. 2KW, This is ex 1440, along w/new ABC stickers. (PM-Or)
- 738 CHINA, Changsha-Hunan People's broadcasting station, rec. vq in 5 weeks for taped report sent direct to Changsha. vq in CC. My first direct CC verie #18. (PM-Or)
- 873 CHINA, Harbin-Heilongjiang PBS, rec. vq from Peking in 4 weeks for Taped report. Sent along many colorful CC bookmarks and Postcards, no signer. (PM-Or)
- 1040 HAWAII, Honolulu-KIFH, rec vq from Alan Roycroft in 2 weeks for rep. KIFH using same KP01-tx site. (PM-Or)

THANKS TO THESE REPORTERS

RW-Ca Robert Wien-1309 Dentwood Drive-San Jose, California 95118
PM-Or Yer Editor
SP-600JX, term. 200' NE antenna, Ground system



*DXWWE*DXWWE*DXWWE*DXWWE*DXWWE*DXWWE*
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* D X W O R L D W I D E E A S T *
*
*DXWWE*DXWWE*DXWWE*DXWWE*DXWWE*DXWWE*

| Mark Connelly - editor |
| 30 William Road |
Billerica, MA 01866 USA

Times & dates are expressed in GMT/UTC.

All reports this time are from Neil Kazaross in Ogunquit, Maine.

Trans-Atlantic DX

- 1034 GUINEA-BISSAU (t) - APR 28 (Sa), 0000 - carrier switched off.
No Portugal - 1035 QRM (AU CX). WBZ phased.
- 1143 USSR Kaliningrad poor to fair w/R.Moscow World Service:
EE female ancw w/nx, typical cl mx, then R.Moscow World S'ce
ID on MAR 29 (Th) @ 2332-2337. + Also poor/fair w/M&W in EE &
2 ID's APR 25 (We) 0031-0038 & poor MAY 01 (Tu) @ 0003.
- 1152 unID - MAY 01 (Tu) @ 2350-0005 (MAY 02?) - too weak for readable
audio. Romania is listed off at that time & I'm thinking that
one of the British stations was 'trying to make it'.
- 1161 FRANCE Strasbourg - APR 30 (Mo) @ 2359 - poor/fair w/ 1160 het
(domestic or foreign ?-ed.) notched; man in FF w/R. France
International ID.
- 1161 GREAT BRITAIN (t) - MAY 01 (Tu) @ 0000 - several pips (with the last
one prolonged), well u/France. Pips sounded definitely to be of
the same pitch as BBC pips. The only TA's (other than super-
regulars & Senegal-1503) in tonight were N.Europeans in the mid-
1100's frequency range.
- 1206 SIERRA LEONE (t) Freetown - MAR 29 (Th) @ 2350 - Afro or AA chanting
poor, occ. audible through WCAU slop, noted again @ 2353; carrier
off by 0005 (MAR 30). Couldn't get // 5980 to help with ID.
- 1503 SENEGAL Tambacounda - APR 30 (Mo) @ 2339 - poor w/ rhythmic Afro mx
resembling a steel band playing slowly. Atop WTOP slop.

Pan-American DX

- 570 CUBA - APR 28 (Sa) @ 0517 - R. Reloj nx & time pgm noted here
per Hakiel tip: signal good, atop domestic QRM. Strength seemed
similar to that of the R. Rebelde xmtr that was previously on
the channel, so it was probably just a program switch.
- 590 VENEZUELA Caracas YVKL - APR 28 (Sa) 0115-0118: finally logged w/
WEI phased (some Cuban QRM present) -- LA ballad // 5030.
- 600 VENEZUELA Cumana YVQB - APR 28 (Sa) - Rumbos doorbells @ 0354 then
s/off with Venez. National Anthem @ 0357. In mess w/ other LA's.
- 610 TRINIDAD Port-of-Spain -- APR 28 (Sa) @ 0404 - very good to
excellent w/ s/off of National BC Service: R. 610 ID's, anthem,
prayer, etc. w/little trace of semi-local WGIR on Bev's.

- 620 ANTIGUA St. John's - LOCAL LIKE (!!) w/ calypso mx APR 28 (Sa) @ 0125; still just as strong @ 0400 APR 28 w/BBC pips, then BBC nx. + APR 29 (Su) @ 0400 xlnt w/comment 'mx continuing until one on ABS Radio', into reggae mx (no BBC nx: unlike previous day @ 0400)
- 640 COLOMBIA Santa Marta HBJB - APR 28 (Sa) @ 0406 - atop 639 TA het; R. Suceso mention (R. Suceso is slogan used by Radio Cadena Nacional (RCN) network affiliates). Reception was after s/off's of Guadeloupe & YVQO pests.
- 700 JAMAICA Montego Bay - APR 28 (Sa) @ 0409 - poor w/ calypso mx, then JBC R. 1 ID just above QRN - soon lost under SSLA stn. WLW nulled w/ phasing unit. Jamaica-700 is much easier in RI, it's tougher here (in Maine) due to poorer (=less) waterpath & greater Distance. (The same could likely be said for Central America, Cuba & southern US. However Maine, NH, & Cape Ann (MA) beat RI to heck for Africa, Brazil, & E. Caribbean - ed.)
- 710 VENEZUELA Caracas YVKY - APR 29 (Su): contrary to listed 0600 s/off time, actual s/off w/Venez. National Anthem, then carrier cut occurred at 0408. Strength equal to that of WOR. (They often blow WOR away at West Yarmouth - ed.)
- 810 VENEZUELA Valencia YVSH - APR 30 (Mo) @ 0258 - ending s/off w/ Venez. anthem; u/WGY/HJCY/ZNS-3 QRM. Has previously been heard with s/off around 0357.
- 820 BRAZIL (prob.) ZYJ738 - APR 19 (Th) @ 0030 - poor, but clearly // the network w/ soccer; u/ domestic QRM w/ 819 het notched. ZYJ738 is the most powerful 820 Brazilian usually noted. (Has anyone noted Surinam returning to 820 ? -ed.)
- 840 BRAZIL (unID city) - APR 19 (Th) - PP soccer coverage, score 0-0, // the network; fair signal (atop St. Lucia during a prolonged fade of the latter) @ 0025. Fair to good a bit later at 0113.
- 840 COLOMBIA Santa Marta HJBI - APR 29 (Su) @ 0410 very poor w/ Ondas del Caribe ID; powerful St. Lucia OC phased. HJ's are considerably weaker in ME than in RI.
- 860 BRAZIL Rio de Janeiro ZYJ459 - (date not given) @0050-0052 - nicely o/HILR/CJBC w/PP anc, PP pop mx; then mixing w/CJBC during Mundial ID, good signal.
- 890 BRAZIL (unID city) - APR 19 (Th) @ 0027 - in weakly, but surprisingly no real QRM was present. Soccer // 880 et al, poor to fair. Some 891 het noted.
- 895 COLOMBIA Santa Marta HJBM - APR 30 (Mo) @ 0303 - fair to good w/ R. Galeon ID, then LA mx
- 900 BARBADOS Bridgetown - APR 29 (Su) @ 0145 - xlnt. & way atop w/ AT40 pgm & ID 'C. B. C., R. 900, the Heart & Soul of Barbados'.
- 990 VENEZUELA Barquisimeto YVTA - APR 28 (Sa) @ 0040 - poor u/Grenada; Mundial Tricolor ID.
- 1000 BRAZIL Rio de Janeiro ZYK522 - MAY 02 (We) @ 0011-0014 - PP talk & songs, poor to fair but atop channel. + MAY 08 (Tu) @ 0158-0159 - fair o/WCFL: PP anc into typical romantic PP song. WCFL atop by 0200. Rio-1000 commonly noted. (Occasional at W. Yarmouth; never logged in Billerica - ed.)

- 1010 BRAZIL Fortaleza ZYH625 - APR 29 (Su) @ 0154-0158: poor to fair, rising up along with an SSLA stn, u/WINS; PP anc, then PP song, usual O Povo ID. +APR 29 @ 2334: R. O Povo ID by PP man then O Povo jingle by woman, then romantic PP song; poor to fair, but dominant in AU CX 1/4 hr before local sunset. No WINS or any northerly domestic skip noted at all before 0030 on APR 27/28/29.
- 1010 DOMINICAN REPUBLIC Santo Domingo HIJP - APR 28 (Sa) - very good to xlt & in the clear w/QRM phased: call ID & R. Comercial jingle in SS.
- 1010 VENEZUELA Ciudad Bolivar YVQE - APR 30 (Mo) @ 0307-0312: another rare inland eastern YV here, poor, well u/WINS w/CFRE & another SSLA occasionally QRMing, too. Uptempo LA mx definitely // 4770 per 5 checks back & forth using the R70's single memory.
- 1040 BRAZIL Sao Paulo ZYK537 becoming common around local sunset: PP talk poor to fair in severe WBZ/WHN slop APR 19 (Th) @ 0010 & @ 0034 w/R. Capital ID. + APR 28 (Sa) @ 0012: atop SSLA; PP talk, GMT-3 TC, then nice folk dance PP mx - fair to good signal. + APR 30 (Mo) @ fair; WBZ slop phased.
- 1050 VENEZUELA Puerto Ordaz YVNQ - APR 30 (Mo) @ 0123-0135 - ranging from inaudible to fair w/aurorally-weakened WHN phased. I heard several 'Caroni' mentions & an apparent R. Mundial ID, 2 SS GMT-4 TC's and a mixed (US & LA) mx format. Some QRM from XEG preacher (XEG a pest in Maine !?-ed.) & second YV (R. Nacional de Venezuela) who had light mx. Eastern YV's in very well tonight.
- 1060 unID LA - APR 28 (Sa) @ 0131 - romantic SS ballad, fair w/ KYW phased. It didn't stay audible long enough (for ID). LA CX good at the time. (I suspect a YV, Neil. By the way, no WTTP up there at night? - ed.)
- 1070 *** FRENCH GUIANA *** Cayenne - APR 30 (Mo) @ 0106 - taped: // super-strong 3385 w/French anthem, then 'cute' IS repeated five times, then TT which faded into 'mud' of other stations by 0108. What a nice surprise! (Good show! - ed.)
- 1080 VENEZUELA Barcelona YVQJ - APR 27 (Fr) - very good w/Rumbos nx doorbells @ 2318 & bombing in & brutalising (Ouch!- ed.) WTIC/LA's @ 2329 w/ local ad.
- 1110 VENEZUELA Carupano YVQT - (no date given) @ 0028 - local-like w/Rumbos doorbells, then lively SS mx.
- 1130 BRAZIL/VENEZUELA - ZYJ460 atop on APR 27 (Fr) @ 2332 w/R.Nacional ID in PP o/YVRL which had Caracas mention & R.Ideal ID @ 2333. Aurorally-attenuated WNEW in weakly.
- 1160 VENEZUELA Merida YVOK - APR 30 (Mo) @ 0053-0101: occasionally topping jumble of LA's - pgm // 3395 kHz (LA talk & mx). + (t) APR 28 (Sa) SS talk/mx @ 0042, apparent R.Universidad ID & GMT-4 TC @ 0044, same ID in QRM @ 0106. Had slow SS mx pgm after 0044. --- Subsequently ID'ed (see APR 30) by shortwave //.
- 1160 DOMINICAN REPUBLIC Santiago HIBG - APR 29 (Su) @ 0428 - fair w/ID 'Esta es HIBG', then GMT-4 TC.
- 1170 PUERTO RICO Ponce WLEO - APR 28 (Sa) @ 0150-0157: good to very good w/ 2 R.Leo jingles, SS mx, US Top 40 mx; weak WWVA phased. + APR 29 (Su) @ 0056: Leo ID, 1170 mention, & talk 'la radio .. del Caribe'. 'Almost xlt'. Also noted GMT-4 TC & Puerto Rico at other times. I think that I read that this was going to 5 kW and it sounds as if they have.
- 1180 BRAZIL (unID city) - APR 19 (Th) @ 0044 - fair w/ soccer & Brazil mention, usual electronic sounds, o/LA stn & through phased WHAM.

- 1210 VENEZUELA Barcelona YVQZ - APR 30 (Mo) @ 0148-0159: fair to good, w/LA mx, Barcelona & Anzoategui mentions, US Top 40 mx. Well o/ WCAU & presumed R. Coro (YVNM).
- 1220 BRAZIL Rio de Janeiro ZYJ458 - APR 28 (Sa) - very good w/'Futbol do Brasil' @ 0118. This was atop at every check between 2330 & 0120. + APR 29 (Su): Blasting in 'like it was in the next room' (according to my wife who was with me) @ 0052-0055 w/Globo ID & PP anc'r taking a phone call.
- 1220 COLOMBIA (t) Barranquilla HJVF - APR 28 (Sa) 0142 suspected the one here with lively Colombian accordion mx; poor signal w/ the dominant Brazilian (ZYJ459) phased.
- 1250 VENEZUELA Puerto Ordaz YVPZ - APR 29 (Su) 0042: poor to fair w/ semi-local WKBR 'phased to death'. TC & two 'R. Puerto Ordaz' ID's. Stations from inland eastern Venezuela aren't common. (... especially on crowded US regional channels - ed.)
- 1270 unID - APR 29 (Su) @ 0038-0039: LA mx poor. Although local WTSN was successfully phased out, other domestics soon overtook the LA.
- 1280 unID - APR 28 (Sa) @ 0048: weak LA noted, soon lost. US SSer WADO was phased.
- 1300 VENEZUELA Maracaibo YVMS - APR 29 (Su) @ 0024-0025: fair in AU CX w/TC, local mention, R.Reloj ID, electric sounds. O/another LA.
- 1310 CUBA (unID city) - APR 29 (Su) @ 0032: a new & likely high-powered outlet here w/MoR SS mx, then announcement 'R.Internacional ... Habana, Cuba' well o/WLOB/other LA's in severe AU CX.
- 1420 VENEZUELA Maracaibo YVZO - APR 29 (Su) @ 0028: poor w/slogan 'Musica de Venezuela ... R.Vision Marabina' With WBSM & others.
- 1430 COLOMBIA Barranquilla HJPW - APR 30 (Mo) @ 0025: poor to fair in AU CX - 'de Barranquilla' & Colombia mentions between LA songs. This one gets out well. (High Getoutability Factor - ed.)
- 1500 VENEZUELA Cumana to xlnt peaks w/ no WTOP (AU CX) - w/'Viva con R.Dos Mil' on APR 28 @ 0150-0157. + Also 2 R.Dos Mil ID's APR 29 @ 0002. 'En Cumana' mention also noted. This is my unID from earlier this season, as the slogan I had heard previously sounded like R.Dos Mil.
- 1505 ANGUILLA (t) The Valley - MAY 01 (Tu) @ 0145: just strong enough to put some audio through bad WMRE-1510 slop.
- 1540 BAHAMAS Nassau ZNS-1 - APR 30 (Mo) @ 0031-0033: to xlnt peaks well atop WPTR; wx, ad for Miss Bahamas Pageant, then into religious pgm, 'Insight'.
- 1560 VENEZUELA Puerto la Cruz - APR 29 (Su) @ 0006: good w/ lively LA song, TC, R. Mar ID. At 0007 a R.Mar ID w/r rolled greatly; mixing w/other stn, during AU CX.

Well that's it for Column #1 for me. Thanks should go to Neil Kazaross for sending in such a fine report for the normally-slow spring season.

Neil Kazaross, former DXWWE editor, DX'ES with the following gear: Icom R70 receiver, (phased) pair of 1350 ft. Beverages (bearing 150 deg.), (phased) longwires, WALLION DX Labs proto-MWDX3 phasing unit, Bohac Loop, APT-2 regenerative tuner, & BBA-1 broadband amp. Neil also has another great DXing aid, the Atlantic Ocean, within a mile of his house.

Neil's address is P.O. Box 1908 - Ogunquit, ME 03907.

Neil sent a ton of comments which I'll try to get in next time.

Next deadline is JUN 30. Let's see those summer vacation beach DXpedition loggings! '73 & good DX

DX WW II

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T R A N S - P A C I F I C

CHINA - Zibo PBS-1143 in Shandong province and Tieling PBS-1602 (in Liaoning) are now on (BBC).

FIJI - FBC is considering a commercial service on MW, 3 locations (FBC via DXA).

HAWAII - KIP0-1350 now on 570 with 1kw. KHLO-850 may move its XR to the KIPA site near Papaikou. Supposedly there has been an application for Hilo 1060 1kw. The 1310 and 1380 CPs are not on yet. KKON will stay on 790 (Chuck Boehnke, vacationing in Hilo).

INDIA - Madras-20kw will be upped to 200kw by the end of the year, and a new 10kw outlet is being installed in Madurai (no freqs.-PT). The increased coverage from Tamil Nadu state is believed to be an Indian government response to treatment of the minority Tamil community in Sri Lanka (BBC).

IRAN - The 800kw XR in Khuzestan (damaged by Iraqis) has been rebuilt (no frequency-PT). Announced Khuzestan frequencies are 711 1080 1160 1215 1386 (BBC).

MALAYSIA - Two new unlisted Sarawak stns. noted on 738, 1512 (M. Greer, ADXN).

MALDIVES - Two new MW XRs and a studio complex are being installed by Australians; these should be in service within two years (ADDX via VMNM).

NEW ZEALAND - 3ZV-1287 Westport opened April 1; 2kw; relays 3ZA-747 but eventually it will have some local programs. 4XD-1431 Dunedin now testing its new 1kw XR. 3YW-1458 Westport now only 400w; it relays 3YZ-918 fulltime (D. Ricquih, ADXN).

NORFOLK IS. - VL2NI-1566 now opens at 1900 Mon-Sat (J. Ewens, ADXN).

SOLOMON ISLANDS - If you heard DW programs on 945kHz recently, don't be surprised. "The DX Gypsy" observed it recently, and conjectures the SIBS 9545kHz SW outlet was off the air, so the 945kHz was relaying a 9545 DW transmission instead (DXA).

TAIWAN - Voice of Asia appears to have reverted from 612 back to 621 (M. Warner, NZDXT).

THAILAND - EE external svc. is on 927kHz starting at 2250 (R. E. Wood, SCDX).

USSR - Kazakh Radio in Alma Ata now has Korean programming on 1098kHz Wed. 0800-0900 and Sun. 0700-0730 (summer times) (BBC).

T R A N S - A T L A N T I C

ALBANIA - R. Korce active again on 1202.5 (DSWCI via VMNM).

ALGERIA - 981kHz carries Alger Chaine 3 (FF) rather than AA (M. Morisse, SCDX).

ANDORRA - In the way of background, the French and Spanish lease the two assigned MW frequencies from Andorra. Spain didn't want to pay the \$350,000 fee for 702kHz operation, so it went off. Also, they wanted to broadcast commercials in both SS & FF, and under pressure from France, the Andorrans wouldn't allow this. France paid some of the money, and the rest is being negotiated. According to this, then, 702 is still off, other than for occasional Spanish "circuit adjustment" tests (BBC).

ANGOLA - RNA outlet noted on 1387 (JA, ARC). RNA 944//1367 24h (BDXC via ARC).

CYPRUS - The strike at the BBC relay station is now over (BBC).

GERMANY, WEST - The RCI GG program is carried on Berlin-810 1730-1800 (BBC). SDR-612 testing, location unknown (MWSC).

ICELAND - Hofn-666 is now running only 400w and will be closed shortly. The 738kHz Skjalardarvik XR will be rebuilt shortly. The PTT wants to close down all the other MW stations (1386 1485 1512) but is meeting with popular resistance on this (BT, ARC).

INDIA - AIR Tiruchirapalli-891 is ex-1602 (R.E.Wood, ADXR VIA DXC, MWSC).

IRELAND - RTE1 is on Tullamore-567 and Cork-729 from 0630-2400 in EE except for Irish Gaelic news 1000-1002, 1201-1204 (exc. Sun.), 1600-1601, 1801-1802, 1945-2000. **Radio Na Gaeltachta** is on Connemara-540, Corca Dhuibhne-828 and Tir Chonaill-963 in Gaelic from 1100-1330, 1700-2000 (Sun. 1050-1300, 1525-2000). RTE2 is on Athlone-612, Dublin-1278 (plus Cork-1278 0002-0150 only) in Gaelic from 0630-0150. **Cork Local Radio-1188** is on 0630-0150; it relays RTE1 0630-1207, 1330-1630, 1755-2400, and RTE2 from 0000-0150. **Community Radio-1485**: location and schedule varies. The RTE has been jamming Radio Nova, and is now working on Sunshine Radio-531 (P. Davidson, SCDX).

ISRAEL - Network A on 576 1107 1250 1314 1440 is on 0358-2310 (Sat. 0458-2310). FS ppgm. (15min. unLess noted): RR 0415-0445, 0630-0700, 1945; SS 0445, 0615; EE 0500, 1100-1130, 1500-1505, 1800; FF0515, 1130-1200, 1505-1510, 1815; **Mograbit** 1730; **Ladino** 1745; **Bukharian** 1900; **Georgian** 1915; **Romanian** 1930. Network B on 657 711 845 882 927 1206 and Network C on 531kHz (pop music) are both on 0358-2310 (Sat. 0458-2310). Network D AA service on 738 & 1206kHz is on 0358-2215 (to 2300 during Ramadan). The 738 XR also carries RR 0200-0255. The IDF outlets on 756 1134 1224 1287 1305 1368 1404 1575 1584 (+ 1880 1944 2025 1682 2905) are 24h. **Persian** is on 675 738 1026 from 1700-1730 (BBC). **NOTE**: Network A lists 1107; I believe this is supposed to be 1170, since both 576 & 1170 are

listed in a separate External Svc. list as carrying the Net. A foreign language programming. Also, the Persian pgm. at 1700 under External conflicts with the 675 738 1026 Net. D schedule, which has a political talk in an Iraqi dialect Tue. 1715. Also, programs are 1 hour earlier than listed in the summer (PT).

LEBANON - Voice of Lebanon-873 now has 5 minute news summaries in EE at 0800, 1200, and 1600, and FF 0700, 1000, and 1500. A current Beirut bandscan:

585 R. of Free & Unified Lebanon	989 Radio Lebanon (state)
837 Radio Lebanon (state)	1080 Voice of the Mountain
873 Voice of Lebanon	1476 Radio Free Lebanon
930 Voice of Arab Lebanon	1504 Voice of Palestine (BBC).

LIBYA - The Main Program is on 675 711* 827* 909 1052 1061 1080* 1124* 1251* 1448* from 0500-2350 approximately; stations with * carry the "Voice of the Greater Arab Homeland" from 1745. The Foreign Language Service on 1590kHz has FF 1500-1700 and EE 1700-1900. The Radio of the Holy Koran is on 1402kHz (no schedule provided) (BBC).

LESOTHO - the new 100kw XR is testing on 639kHz (WRTH via MWSC).

MADAGASCAR - The 1242kHz outlet is currently on 1239.8 (VK).

MALTA - DW-1557 has AA 0415-0550, 1100-1150, 1900-2035; GG 1400-1800; and Maghribi 2045-2120 (BBC).

PORTUGAL - AWR now requires 2 IRCs for a QSL card (WDXC via ARC).

SOUTH AFRICA - The SABC has been adding many MW XRs for its vernacular services, previously only on FM: **729-R. Venda** is 24h, probably in the Johannesburg area; **QRN from R. 5, Cape Town. 864-R. Venda //729, Pietersburg. 990-R. Tsonga** 24h, Pietersburg. **1287-R. Swazi** is on 1630-1930; at other times, relays R. Zulu; presumably the old Johannesburg East XR. **1404-R. Ndebele** is on 1630-1930 (R. Zulu-1287 relayed other times). Probably in Pretoria area; QRN from Bophuthatswana-702 harmonic. **648-UNID** - strong carrier observed, but no ID yet. Addresses: R. Venda/Tsonga, Box 3295, Pietersburg 0700; R. Swazi/Ndebele, Box 28151, Sunnyside 0132; R. Zulu, Box 1640, Durban 4000. SABC R. 5 will start AM stereo transmission with a powerful XR in early 1985 (VK).

SPAIN - EFE25 RCE Cantabria noted on 1094. EAJ4-1260 R. Galicia now on 1179 (JA, ARC). RCE Zaragoza-1409 ex-1413; 20kw (Olle Alm, ARC). Antena 3-819 Orense, new. R. Valladolid noted on 1540. EAK33 RP de Vigo-999 ex-1134 (MWSC, EBU via VMWN).

SUDAN - The General Program is on from 0400-2200 on 576kHz and from 0400-1600 on 1296kHz. The Voice of the Sudanese Nation ("Sowt al Umma") is on 1296 from 1600-1925 and 963kHz from 1600-2200. Holy Koran Radio is on 963kHz from 1330-1600. Radio Juba-693 has local programs 0500-0700 (EE news 0500) and 1600-1800 (EE news 1615, AA news 1700) (BBC). The 576 outlet is reported as operating on 590kHz. 963kHz carries "Idha'at as shaaba" until 1330. 693-Juba not observed, and there is no information that Yambio-909 was ever on. The government says Nyala-540 50kw and Port Sudan-860 7kw are on (Gerhard Werdin, stationed in Sudan, SCDX). Sennar is still on 1295 (R. E. Wood, SCDX).

SWEDEN - Hoerby-1179 has these 1/2 hour pgms.: GG 1630, 2000; RR 1700, 1930, 2200; PP 1730; FF 1800, 2030; EE 1830, 2100, 2300; SS 2230. RSI is now using a new IS, "To the Wide Wide World" ("Ut i vida varlden") (info from Radio Sweden; effective thru Sept. 30).

TANZANIA - The Zanzibar-584 outlet is off due to XR failure (BBC).

UNITED KINGDOM - Activity: 1125 Greek Cypriot Broadcasting, London, is on. 1161 Viking Radio, Hull, is on. 1287 R. Amanda. 1296 after BBC R. Trafford, R. Rochdale opened on May 12. 1323 R. Jackie is purportedly getting a license. 1350 R. Floss is on. 1413 Skyline Radio, 0600-2400, relays R. Invicta 0000-0600. 1557 R. Lancashire, Oxcliffe and BBC R. Nottingham-1584 both should be on by now. (ARC). V. of London Turk is a new minority station on 1016kHz (BDXC via VMWN). BBC R. Kent 1035/774 now relayed on 1602 (ADDX via VMWN). Bo Nensen of UKVK, visiting London, notes both Skyline & Amanda, and tells us that R. Elenore is on 1179, not 1170.

INTERNATIONAL WATERS - Laser Radio (ex-729) is now testing on 558kHz (J. Hermans, J. Klein, SCDX). Radio Caroline may start running religion. Four Freedoms is supposed to go on from a North Sea location with 50kw on MW by August 14 with a daytime pop music service (WRLI, Wonderful Radio London Intl.) 0600-1900, and The Voice of Free Gospel from 1900-2400 (ARC).

P A N A M E R I C A N A

ARGENTINA - Significant newly authorized stations: LRH253-1160, Puerto Iguazu', 5/.5kw. LRH218-1210 El Dorado, 10/5kw. LRH251-1320, Resistencia, 25/1.5kw. LRK200-1360, Concepcion, 5/1kw. LRU241-1370, San Luis, 25/3kw. LRI201-1390, Bariloche, 25/3kw (GIB).

BRAZIL - (ZY prefix) J778-540 R. Mirador now 10/.5kw. L308-650 R. Santa Cruz now 5/1kw (NOTE: other sources list it as Em. Sant Cruz, 5/.25 kw). K538-790 R. Brasil ex-1270. L281-950 R. Jornal now 5kw. J306-1060 R. Educ. de Francisco Beltrao ex-1200. L278-1060 R. Grande Belo Horiz. now 25/5kw. K...-1070 R. Serrana ex-1020. I425-1090 R. Celeste now 10/.25kw. J598-1170 R. Dif. Mossoro' now 10kw. L221-1190 R. Guarani' ex-1340, now 10/1kw; maybe they finally made the move. J...-1190 R. Cl. Sao Domingos ex-1410. K573-1230 R. Cacique, Capao Bonito, ex-1590. J...-1230 R. Guararema, San Jose' SC 10/1kw, ex-1560. J455-1280 R. Tupi now 200/100kw. K243-1370 R. Maua' ex-R. Independencia; now 5/.25kw. (ARM, OA, CRM, PDX via ARC).

CHILE - CD109 R. Minería de Punta-1090 is off because its facilities have been destroyed. CC146 R. Talcahuano-1460 has been operating from a Navy island for many years without a license. During the removal process, the equipment was damaged; it should be back on shortly (G. Barrera, ARC). (In a later note, GIB says CD109 is back on - PT)

COSTA RICA - Cadena de Em. Columbia network includes San Jose'-760 20kw; Liberia-1060 50kw; Puntarenas-1160 5kw; Nicoya-1240 2kw; Limon-1320 2kw; San Carlos-1460 2kw; Cd. Quesada-1520 2kw, all 24h (WRTH).

CUBA - Cuba's response to the US' proposed R. Jose Marti is a service called "Radio

Abraham Lincoln" (BBC).

ECUADOR - C.R.E.-560 25kw, ex-550. V. M. Rendon-600, Guayaquil; Em. Gran Colombia-610 25kw, ex-615; Palacio de la Gobernacion-620, Loja; R. Libertad-767, ex-745; R. Atalaya-815 ex-810; CRO-915, Cia Radiofonica Orense is 12.5kw; Canal Tropical-930, Guayaquil, new. Radiofesa-950, ex-945; Rdf. Tarqui-990 is 25kw; F. Mil-990 1kw, ex-995. Super R. Guayaquil-1050 is 5kw; R. Novedades-1105 1kw, ex-1095; R. Exito-1105 is ex-1110; R. Centro-1130, ex-1125. R. Condor-1146, ex-1140; R. Via-1175, ex-1160; R. El Sol-1190 ex 1195; Canal 12/Super R.-1200 ex-1195, now 1100-0500; R. Centinela del Sur-1215, ex-1505; R. El Mundo-1220 ex-1224; R. Marañon-1220 ex-1225 (WRTH).

HONDURAS - The VOA is reportedly going to operate from Bay Islands on either 1530 or 1550kHz (SWNS via SCDX). R. Juticalpa-560 ex-1250; R. Comayagua-718 ex-710; R. Intibuca-730 ex-740; HRRN1-930 R. Sistema, Comayagua is new, 1300-0300; R. Novedades-980, Comayagua, new; LV de Atlántico-1150 5kw ex-1220; R. Estrella-1280 HRYT ex-1270; R. Constelacion-1370 ex-1340; R. Danli-1372 ex-1365 (WRTH).

MEXICO - XEBL-710 is now IDing as R. Bonita; 0830 nightly s/off (D. Kaskey)

PERU - New are R. La Favorita-610 and R. Omega-660, Lima; R. Ondas del Titicaca-1270, Puno; and T. Fenix OBX6P-1280, Camana. R. Sicuani-1365 ex-1395 (WRTH). O...3-1190 R. Cancash is new with 10kw; uses slogan LV de los Andes. OAX6M-1470 R. Tacna "LV Austral del Peru" will increase to 5kw (RNM in SWB via ARC).

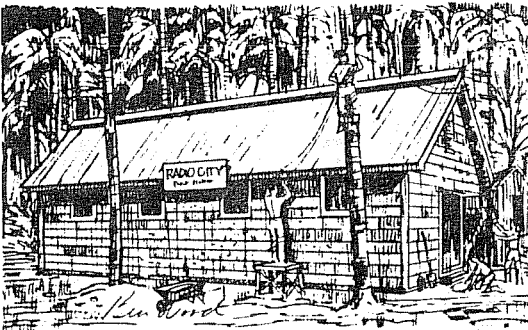
SURINAM - Both R. Apintie and R. Paramaribo are back on (BBC).

Credits: ADXN - Australian DX News #232. ARC - Arctic Radio Club (Sweden) #24/22 & 23. BBC - BBC Monitoring Service (copyrighted) - 1984 #s 18-22. DXA - DX Australia #22. FERC - Far East Radio Club #77. GIB - Gabriel Ivan Barrera, Buenos Aires, Argentina. MSC - Mittelwellen-Spezial-Club (W. Germany) #78. NZDXT - N.Z. DX Times, 36/9. REW - Richard E. Wood, Abha, KSA. SODX - Sweden Calling DXers #s 1785-1792. SWNS - Short Wave News Service. VK - Vashek Korinek, Edenvale, S. Africa. VMN - Vienna MW News #61. WRTH - World Radio TV Handbook Newsletter. **NOTE: Material included herein may be reproduced freely in other DX publications providing credit is given to both IRCA and the originating contributor.**

Dr. Richard Wood is doing a column now for "The International Shortwave Listener's Program Guide," \$19.95 a year from Miller Publishing, 424 W. Jefferson, Media, PA 19063. Historically, Richard is not known to restrict his listening to SW, so I suspect some MW items might be included where appropriate. And it was good to hear from **Don Kaskey**, who after several discouraging MMs on 710, was able to ID XEBL's new slogan. Many of our foreign exchange publications have picked up the new 1040 Honolulu calls as KISH. Please correct this to KIFH.

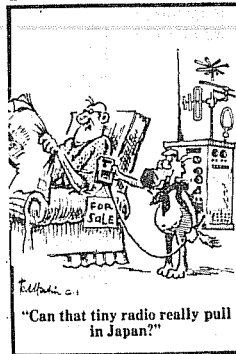
Next month, we will list a number of major LA changes from info on the WRTH. In the meantime, have a happy summer, and thanks, as usual, for your continued interest in and support of this column - PT.

Great Moments in Communication



IT IS MARCH 13, 1944 and out in the Pacific on the island of Guadalcanal United States Marine corpsmen are putting the finishing touches on their own "Radio City," bringing the total number of expeditionary force radio stations to 85. These stations present, besides news received by short wave and then rebroadcast, 28 hours of top flight American radio shows in recorded form each week, and 14 hours of radio fare tailor made for GI listening. These programs are prepared by the Armed Forces Radio service and the Army News service. The expeditionary stations are manned by army personnel given practical training in overseas radio activity. The new station here at Guadalcanal is manned by a staff of two officers and eight enlisted men, veterans of broadcasting in the United States. The programs they put on are presented in typical United States style, with formal announcements and a strict time schedule. Troops know that at 7 and 8 each morning they can get 15 minutes of the latest news; at 12:30 on several days spiritual talks by the different chaplains, and in the evenings the big shows like Bing Crosby, the Hit Parade, Bob Hope, and others they are accustomed to hearing back home. The program schedule is under the direction of Captain Spencer Allen, formerly with Radio Station WGN back in Chicago.

Pavlov



Left: from Communications News

Above: Philadelphia Inquirer 6/1/84 via Rick Evans

IRCA Almanac Updater #3.3

RKO RADIO NETWORKS

Update to IRCA Almanac, 3rd edition, pages 44-46.

RKO has added many affiliates, especially to the RKO-2 network which has added many small-market affiliates in Kentucky, Louisiana, Mississippi, South Carolina, and especially Tennessee. Either someone at RKO has been doing a super job signing up affiliates in those states, or else RKO has struck a deal with a few state networks?? Thanks to Kathy Shustyk at RKO.

	<u>RKO-1</u>	<u>RKO-2</u>	<u>RKO-1</u>	<u>RKO-2</u>	<u>RKO-1</u>	<u>RKO-2</u>
540		WDXN-TN*	1050	KGTO-OK*	1350	KLYD-CA*
560	KBLU-AZ	KSFO-CA		WJXY-SC*	1360	WHBG-VA*
	WHYN-MA	WEBC-MN/WI	1080	WNCR-NC*		
		WFIL-PA	1090			
570		WHBQ-TN	1110	KAAY-AR	1370	WFCG-LA*
		KLAC-CA		WKRA-MS*		WLSV-TN*
		WKBN-OH		WUAT-TN*		WYNO-OH*
580		KFXD-ID		KYOO-MO*	1380	WCOG-SC*
590		WFLO-GA	1120	WRLV-KY*		WWSA-MS*
		WRTH-IL	1130	WAKK-MS*		WSPB-NC*
		WROW-NY		WAOA-MS*		WVBT-VA*
600		KSXO-CA	1140	WASG-AL*		WVTV-NC*
		WCAO-MD		WVTV-NC*		WVTV-NC*
610	KFRC-CA			WVTV-NC*	1390	WVTV-NC*
620	KIPA-HI	WSUN-FL		WVTV-NC*		WVTV-NC*
	WRJZ-TN	KIPA-HI	1150	WVTV-NC*		WVTV-NC*
630	KIDD-CA	KHOW-GO		WVTV-NC*		WVTV-NC*
		WLAP-KY		WVTV-NC*		WVTV-NC*
680		WRKO-MA	1170	WVTV-NC*		WVTV-NC*
		WTNR-NY		WVTV-NC*		WVTV-NC*
690	KBLI-ID*	WVOK-AL*	1190	WVTV-NC*	1400	KTRC-NM
710		WOR-NY	1220	WVTV-NC*		WSIC-NC
740		WSVQ-TN*		WVTV-NC*		KIVR-OR
		WCWY-TN*		WVTV-NC*		
		WRNR-WV*		WVTV-NC*		
		WRPQ-WI*	1230	KDZA-GO		
770		WJMW-AL		WTCJ-IN		
790	WAKY-KY	WWBD-SC*				
		WCTA-TN*				
		WMTS-TN*				
860	WOAY-WV*		1240	WDDO-GA		1410
900	WZXM-MI*	WEAK-KY*				KQAM-KS
910		KJJJ-AZ				
		WJGW-TN				
920		KDES-CA	1250	WREN-KS%		1420
		WBOX-LA&		WTAE-PA		WRCG-GA
		KQEO-NM		WWDC-DC		
		WKRT-NY	1260	KVSF-NM	1430	KTYN-ND*
		KKLS-SD*		WDKN-TN*		
		WOKY-WI		WVOM-MS*		
930		WFXI-FL*	1270	WQSI-TN*	1440	KEYS-TX
		WKXY-FL		KCVL-WA*		WNFL-WI
		WMGR-GA		WIXI-KY*		
		KSEI-ID	1280	KWCL-LA*		
		WHON-IN*		KYRO-MO*		
		WKY--OK		WJAY-SC*		
940		WECO-TN*		WTYL-MS*		
950	KSEL-TX	KRRP-LA*	1290	WOMP-OH*		
		WBKH-MS*		WTNX-TN*	1450	
		WBBF-NY		WLZZ-WI		
960	WPRT-KY*		1300			
970		WAVG-KY		KYNO-CA		
		WXQK-TN*		KPTL-NV		
		WANV-VA	1310	KGMT-NE*		
		KLHT-WA		WVIV-NY*	1460	KYSN-GO
980		WLPQ-KY*	1320			
		KKSS-MN	1330	WNIX-MS		
990		KRMO-MO*		WKOV-OH*		
		WLKW-RI*	1340	WROD-FL		
		WNOX-TN		WBGD-NY		
1010	WYST-MD*	KDLA-LA*		KRMQ-LA		
		WMOX-MS		WSSC-SC	1470	KWSL-IA
		WORM-TN*		WCDT-TN		(continued.....)

IRCA Almanac Updater #3.3, continued
 RKO Radio Networks, continued

	<u>RKO-1</u>	<u>RKO-2</u>		<u>RKO-1</u>	<u>RKO-2</u>		<u>RKO-1</u>	<u>RKO-2</u>
1480		WABB-AL KRED-CA KBEA-KS WJFC-TN* WJLE-TN* WISM-WI	1520		WQMA-MS* WKOE-TN* KECK-NE* WPJM-TN* WBN-TN* WJJT-TN*	1590		KKAY-LA* WMIM-PA* WABV-SC* WDEL-TN* WSTL-KY* WIXI-KY*
1490	KSYC-CA WTUP-MS KOAW-NM	WDAN-IL WFXV-KY WCVA-VA	1550 1570	WPGR-PA*	KQWB-ND WLBQ-KY* KMAR-LA* WHLF-TN*	1600		KFNV-LA* KLEB-LA* WAYC-PA*
1500		WMJL-KY* WBFN-MS* WDEB-TN*	1580		KLUV-LA* KTGR-MO* WHHM-TN*		Plus 153 FM's (RKO-1) and 137 FM's (RKO-2).	
1510		WSJW-SC*						

RKO-1 Schedules: All times are Eastern.

News (3 plus ads) Hourly :30 0530-2330 M-F, 0530-1830 Sa, 0530 Su,
 0930-2330 Su. Pre-feed at :20 most of those hours.

Sports (2 plus ads) 0645 0945 1645 & 1945 M-F.

(2 plus ads) Hourly :45 1445-1845 Sa, 1645-2045 Su.

Olympic Report (2 plus ads) 0655 0955 1555 & 1855 M-F.

Olympic Highlight (1 plus ads) 1145 & 1455 seven days a week.

Features Project '84 (1 plus ads) 0650 0950 1550 & 1850 M-F.

Private Session (1½ plus ads) 0850 & 1150 M-F.

Mind Games (1 plus ads) 1050 & 1350 M-F.

Smart Money (1 plus ads) 1250 & 1450 M, W, & F.

Beat the System (1 plus ads) 1250 & 1450 Tu & Th.

Sound Check (1 plus ads) 1650 & 1950 M-F.

Newsweek: On Air (59½) 0700-0759½ Su; (53½ version) 1035-1128½ Su.

Equal Time (29½) 0800-0829½ Su.

Soap Opera Update (1 plus ads) 1155 & 1255 M-F; pre-fed the night before.

RKO-2 Schedules: All times are Eastern.

News (3 plus ads) Hourly :00, except no feeds 0700-0800 Su nor 0100-0400 M.

Pre-feed at :50 most of those hours 0550-2350. Newscasts from 0000-0500
 Tu-Su and 1900-2300 Sa are "generic," suitable for either RKO-1 or RKO-2.

Sports (2 plus ads) Don Criqui 0615 0915 M-F, John Madden 1615 1915 M-F.

(2 plus ads) Hourly :15 1415-1815 Sa, 1615-2015 Su.

Olympic Report (2 plus ads) 0625 0925 1525 & 1825 M-F.

Olympic Update (1 plus ads) 1015 M-Sa, 1315 daily, and 1855 M-F.

Features Campaign America (1 plus ads) 0620 0920 1520 & 1820 M-F.

Behind the Music/Checkin' In (3 plus ads) 0820 & 1020 M-F.

Money File (2 plus ads) 0720 1120 1420 & 1720 M-F.

Newsline (2 plus ads) 0825 & 1125 M-F.

Newsweek: On Air (59½) 0700-0729½ Su; (53½ version) 0505-0558½ Su.

& 0905-0958½ Su.

Equal Time (29½) 0800-0829½ Su.

Soap Opera Update (1 plus ads) 1155 & 1255 M-F; pre-fed the night before.

"RKO Radioshows" feeds the following long-form programs, in stereo, on
 additional transponders of the RKO satellite system:

Night Time America 0004-0500 Tu-Su (one hour repeated 0504-0600 Tu-Sa).

Countdown America 0900-1300 Sa, 1200-1600 Su. Hours 1 thru 4 are pre-fed
 each day, Tuesday thru Friday, at 1310 and again at 1610.

The Hot Ones 1310-1410 M, 1610-1710 M, 1410-1510 Sa, 2100-2200 Su.

Captured Live 1415-1515 W, 1800-1900 Sa, 2200-2300 Sa, 1800-1900 Su.

RKO Presents Live in Concert - ten 90-minute live concerts fed on various
 dates between April and November 1984.

Solid Gold Saturday Night 1900 Sa-0000 Su.

Solid Gold Scrapbook 1000-1200 Su, 1600-1800 Su.

Live from the Record Plant 2300 Su-0000 M.

In these schedules, you might notice that RKO-1, instead of having an
 updated "repeat" feed at :50 past the hour, now has a "pre-feed" of its
 newscast at :20 past. Likewise, RKO-2 has dropped the "repeat" at :20 past
 in favor of a "pre-feed" at :50 past. RKO-1 and RKO-2 each have their own
 transponders on the satellite, so that their feature feeds don't interfere
 with one another. Music programming is on a separate set of stereo trans-
 ponders, and many of the short features are also fed in stereo simultaneously
 on the separate transponders along with the monaural feed to RKO-1 or RKO-2.

SPORTS NETWORKS

with Dale Park

This time we have radio listings for minor league baseball, an area not often covered here. The listings are from the 1984 edition of the Baseball America Directory, published by Baseball America, Durham NC, except for Mexican Baseball League stations, which come from the 1984 edition of The Baseball Blue Book. Those of you owning both books will find conflicts for several teams; in such cases Directory information is used since it is published later. In nearly all cases the flagship comprises the entire network; announcers are listed if known.

AMERICAN ASSOCIATION OF PROFESSIONAL BASEBALL CLUBS (CLASS AAA)

Denver Bears-p	1600 KLAK-CO	John Rayburn, Joe Cullinane
Evansville (IN) Triplets-r	1400 WROZ-IN	Larry Carlton
Indianapolis Indians-f	100.9 WNON-IN	Howard Kellman, Tom Akins
Iowa Cubs-b	103.3 KXJX-IA	Steve Carroll
Louisville Redbirds-j	970 WAVG-KY	TBA
Oklahoma City 89ers-y	1400 KNOR-OK	Dave Nitz, Tim Stephenson
Omaha Royals-s	None	None
Wichita Aeros-c	None	None

1. Represents Des Moines.

INTERNATIONAL LEAGUE OF PROFESSIONAL BASEBALL CLUBS (AAA)

Columbus (OH) Clippers-v	1460 WBNS-OH	Terry Smith
Maine Guides-q	1490 WPOR-ME	Gary Thorne
Pawtucket (RI) Red Sox-n	None	None
Richmond (VA) Braves-a	1380 WTVR-VA	Bob Black
Rochester (NY) Red Wings-m	1370 WRTK-NY	Jay Colley
Syracuse Chiefs-z ₃	1390 WFBL-NY	Sean McDonough
Tidewater Tides-g	1270 WTJZ-VA	Bob Rathbun
Toledo Mud Hens-u	1520 WVOI-OH	Jim Weber

2. Represents Old Orchard Beach. 3. Represents Norfolk.

PACIFIC COAST LEAGUE OF PROFESSIONAL BASEBALL CLUBS (AAA)

Albuquerque Dukes-e	770 KOB--NM	Mike Roberts, Jim Lawwill
Edmonton Trappers-q	TBA	TBA
Hawaii Islanders-k	690 KKUA-HI	Jack Wiers, Jim Leahey, Ross Smith
Las Vegas (NV) Stars-k	920 KORK-NV	Dominic Valentino, Paul Olden
Phoenix Giants-l	None	None
Portland Beavers-h	1520 KYXI-OR	Kevin Young
Salt Lake Gulls-x	1280 KDYL-UT	Mark Kelly
Tacoma Tigers-w	1400 KPMA-WA	Art Pophan
Tucson Toros-d	None	None
Vancouver Canadians-t	1130 CKWX-BC	TBA

4. Represents 'Aiea. 5. Represents Salt Lake City.

EASTERN LEAGUE (AA)

Albany-Colonie A's-w ⁶	980 WTRY-NY	Phil Pivnick
Buffalo Bisons-q	TBA	Pete Weber
Glens Falls (NY) White Sox-p	1450 WWSN-NY	Tim Higgins
Nashua (NH) Pirates-i	1590 WSMN-NH	Woody Woodland
New Britain (CT) Britsox-n	None	None
Reading (PA) Phillies-h	1240 WHUM-PA	Wayne Sierer, Steve Haag
Vermont Reds-c ⁷	620 WVMT-VT	Jim Donovan
Waterbury (CT) Angels-o	None	None

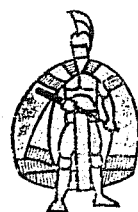
6. Represents Albany NY. 7. Represents Burlington.

Note: New Britain team also known as Red Sox.



**THE
SOUTHERN LEAGUE**

Trussell Professional Building
235 Main Street • Suite 200
Trussell, Alabama 35173



SOUTHERN LEAGUE (AA)

Birmingham Barons-r	960 WERC-AL	Eli Gold
Charlotte O's-m	1600 WGIV-NC	Tony Schlavone
Chattanooga Lookouts-x	None	None
Columbus (GA) Astros-d	None	None
Greenville (SC) Braves-a	1330 WFBC-NC	Jim Phillips
Jacksonville Suns-f	1320 WQIK-FL	Larry Ward
Knoxville Blue Jays-z	None	None
Memphis Chicks-s	600 WREC-TN	Hal Fogelman
Nashville Sounds-v	980 WSIX-TN	Bob Jamison
Orlando Twins-u	None	None

@Affiliates: 1280 WSAT-NC; 1510 WCPL-SC; 105.3 WAGI-SC

TEXAS LEAGUE (AA)

Arkansas Travelers-j ⁸	1010 KLRA-AR	Jim Elder, Brady Gadberry
Beaumont (TX) Golden Gators-k	990 KTRM-TX	TBA
El Paso Diablos-t	TBA	Paul Strelzin
Jackson (MS) Mets-g	930 WSLI-MS	Bill Walberg
Midland (TX) Cubs-b	None	None
San Antonio Dodgers-e	None	None
Shreveport Captains-l	None	None
Tulsa Drillers-y	TBA	TBA

8. Represents Little Rock.

CALIFORNIA BASEBALL LEAGUE (A)

Bakersfield Dodgers-e	1410 KERN-CA	Dan Karcher
Fresno Giants-l	None	None
Lodi Crushers-b	None	None
Modesto A's-w	None	None
Redwood Pioneers-o ⁹	1350 KSFO-CA	Ken Korach
Reno (NV) Padres-k	None	None
Salinas Spurs-x	104.9 KOCN-CA	Jeff Connelly
San Jose Bees-I	None	None
Stockton Mudville Nine-t	None	None
Visalia Oaks-u	None	None

9. Represents Rohnert Park.

CAROLINA LEAGUE (A)

Durham (NC) Bulls-a	620 WDNC-NC	Steve Pratt
Hagerstown (MD) Suns-m	1240 WJEJ-MD	Bob Passmore
Kinston (NC) Blue Jays-z	960 WFTC-NC [@]	Dan Lovallo
Lynchburg (VA) Mets-v	1390 WWOD-VA	TBA
Peninsula Pilots-h ¹⁰	None	None
Prince William Pirates-i ¹¹	1530 WFWC-VA*	Mike Neville
Salem (VA) Redbirds-y	None	None
Winston-Salem Red Sox-n	None	None

10. Represents Hampton VA. 11. Represents Woodbridge VA. @Simulcast on 95.1 WRNS-NC.

FLORIDA STATE LEAGUE (A)

Daytona Beach Astros-d	1380 WDAT-FL	Ron Kendrick
Fort Lauderdale Yankees-v	None	None
Fort Myers Royals-s	None	None
Lakeland Tigers-r	None	None
Miami Marlins-k	None	None
Saint Petersburg Cardinals-j	None	None
Tampa Tarpons-c	None	None
Vero Beach Dodgers-e	1490 WTTB-FL	Joe Sanchez
West Palm Beach Expos-f	None	None
Winter Haven Red Sox-n	None	None

MIDWEST LEAGUE (A)

Appleton (WI) Foxes-p	None	None
Beloit (WI) Brewers-t	1380 WBEL-IL	WBEL: Rick West
	1490 WGEZ-WI	WGEZ: Mark Allen
Burlington (IA) Fangers-y	None	None
Cedar Rapids Reds-c	None	None
Clinton (IA) Giants-l	1340 KROS-IA	Gary Determann
Kenosha (WI) Twins-u	91.1 WGTD-WI	TBA
Madison Muskies-w	1240 WIBU-WI	Dave Collins
Peoria Chiefs-o	102.3 WTAZ-IL	Jim Kelch
Quad Cities Cubs-b ¹²	None	None
Springfield Cardinals-j	None	None

Waterloo (IA) Indians-q	None	Non
Wausau (WI) Timbers-x	1230 WXCO-WI	Nick Ryan, Tim Donavo

12. Represents Davenport IA.

SOUTH ATLANTIC LEAGUE (A)

Anderson (SC) Braves-a	None	Non
Asheville Tourists-d	None	Non
Charleston Royals-s	1340 WOKE-SC	Ted Byrne, Randy Gawthro
Columbia Mets-g	560 WIS--SC	Bob Fulton, Mickey Mixo
Florence (SC) Blue Jays-z	1230 WOLS-SC	TB
Gastonia (NC) Expos-f	None	Non
Greensboro Hornets-v	None	Non
Macon Pirates-i	None	Non
Savannah Cardinals-j	None	Non
Spartanburg (SC) Suns-h	None	Non

NEW YORK-PENNSYLVANIA LEAGUE (SUMMER A)

Auburn (NY) Astros-d	1340 WMBO-NY	Kevin Gillan, Steve Brow
Batavia (NY) Trojans-q	101.7 WBTF-NY	Wayne Fuller
Elmira (NY) Pioneers-n	TBA	TB
Erie Cardinals-j	TBA	TB
Geneva (NY) Cubs-b	1240 WGVA-NY	TB
Jamestown (NY) Expos-f	1240 WJTN-NY	Pete Hubbel
Little Falls (NY) Mets	1230 WLFH-NY	Don Liabl
Newark (NY) Orioles-m	None	Non
Niagara Falls Sox-p	None	Non
Oneonta (NY) Yankees-v	None	Non
Utica Blue Sox-I	TBA	TB
Watertown (NY) Pirates-i	790 WTNV-NY	Bruce Howar

NORTHWEST LEAGUE (SUMMER A)

Bellingham (WA) Mariners-x	None	Non
Bend (OR) Phillies-h	1110 KBND-OR	TB
Eugene Emeralds-s	1280 KBDF-OR	Mike Parke
Everett (WA) Giants-l	None	Non
Medford (OR) A's-w	610 KYJC-OR	Jerry Alle
Salem (OR) Angels-o	None	Non
Spokane Indians-k	None	Non
Tri-Cities Triplets-y ¹³	97.1 KSXT-WA	Barry Phillip

13. Represents Richland WA.

APPALACHIAN LEAGUE (ROOKIE)

Bluefield (WV) Orioles-m	None	Nor
Bristol (VA) Tigers-r	None	Nor
Elizabethton (TN) Twins-u	None	Nor
Johnson City (TN) Cardinals-j	None	Nor
Kingsport (TN) Mets-v	None	Nor
Paintsville (KY) Brewers-t	1490 WSIP-KY	Doug Or
Pikeville (KY) Cubs-b	1240 WPKE-KY	Rondal Smit
Pulaski (VA) Braves-a	None	Nor

GULF COAST LEAGUE (ROOKIE)

None of the ten teams (Bradenton (FL) Blue Jays, Braves, Dodgers, Pirates; Sarasota (FL) Astros, Phillies, Rangers, Keds, White Sox, Yankees) has a radio contract.

PIONEER LEAGUE (ROOKIE)

Billings Mustangs-c	1490 KLCY-MT	Bernie Lust
Butte (MT) Copper Kings-x	550 KBOW-MT	Frasier MacDona.
Calgary Expos-f	None	No
Great Falls Dodgers-e	560 KMON-MT	Gene Bla
Helena (MT) Gold Sox-e, h, s, v	None	No
Idaho Falls (ID) A's-w	None	No
Medicine Hat (AB) Blue Jays-z	1270 CHAT-AB	Kevin Fries
Pocatello (ID) Gems	1240 KWIK-ID	T

MEXICAN LEAGUE

Aguascalientes (AGU) Rieleros	740 XELTZ-AGU	Juan Osiller, Eduardo Vald
Campeche (CAM) Pirates	1280 XECAM-CAM	T
Cordoba (VER) Cafeteros	1280 XEAG--VER	Jose Domingo Seti
Juarez Indios ¹⁴	1490 XECJC-CHH	Edilberto Chavez, Jose Luis Nune
		Rafael Aval
	1420 XEF---CHH	TBA (Englis

Leon (GUA) Bravos	680 XELG--GUA	XELG: Jesus Lozano
Mexico Diablos Rojos ¹⁵	1270 XERPL-GUA	XERPL: Jose Esquerra
Mexico Tigres ¹⁵	730 XEF---DF	Oscar Esquivel, Enrique Kerlegand
Manclova (COA) Acereros	730 XEF---DF	Oscar Esquivel
Monterrey Sultanes	1330 XEQW--COA	TBA
Nuevo Laredo (TAM) Tecolotes	990 XET---NL	Enrique Salinas
Saltillo (COA) Saraperos	960 XEK---TAM	Jesus Franco Garcia
Tabasco Plantaneros ¹⁶	1400 XEDE--COA	TBA
Tampico (VER) Astros	790 XEVA--TAB	Pedro Romero
Toluca (MEX) Truchas	980 XETU--TAM	Jose Davila
Veracruz Aguila ¹⁷	None	None
Yucatan Leones ¹⁸	900 XEWB--VER	TBA
	600 XEZ---YUC	TBA

14. Represents Ciudad Juarez. 15. Represents Ciudad Mexico. 16. Represents Villahermosa.
 17. Represents Veracruz Llave. 18. Represents Merida.

MAJOR LEAGUE AFFILIATIONS: a-Braves, b-Cubs, c-Reds, d-Astros, e-Dodgers, f-Expos, g-Mets, h-Phillies, i-Pirates, j-Cardinals, k-Padres, l-Giants, m-Orioles, n-Red Sox, o-Angels, p-White Sox, q-Indians, r-Tigers, s-Royals, t-Brewers, u-Twins, v-Yankees, w-A's, x-Mariners, y-Rangers, z-Blue Jays, I-independent team. TBA-to be announced.

TIME OUTS: Only 710 KNUS-CO and 990 KHVH-HI are known to carry ABC USFL games. The Denver Post says that KNUS, not 560 KLZ--CO, is the Denver Gold flagship; can anyone confirm or deny? ...In baseball, L.A. is on 940 KDEO-HI, 1110 KHEI-HI and 1400 KNDE-CA while S.F. is on 990 KHVH-HI; Boston uses 850 WHDH-MA and Seattle 870 KORD-WA...On the college side, Arizona was on 100.3 KIKO-AZ and Arizona State on 620 KTAR-AZ, while Hawaii's flag was KHVH...Reportedly 1490 WMBM-FL carries Atlanta Braves...For the record in hockey: In the CHL Colorado was on 1600 KLAZ-CO, Indianapolis 95.9 WGAQ-IN, and Salt Lake on 1430 KLO--UT and 1550 KRGO-UT; however the league has suspended operations so the Montana and Tulsa stations are not known...In the IHL Fort Wayne used 1190 WOWO-IN and Toledo 1470 WOHO-OH; Milwaukee had no radio...EHL Mohawk Valley was on 950 WIBX-NY and USHL Dubuque aired over 1370 KDTH-IA...

That's it for now. Next time, hopefully updated baseball, football, and soccer information. If you have it, send it in a letter (postcards have no privacy) to Dale Park, 2253 Kanealii Avenue, Honolulu HI 96813. See you in DXM.

More on RF Light Bulbs (NAB Engineering Report, via Glen Kippel)

RF lighting devices potentially can interfere with reception of AM broadcasts. In reply to comments filed by General Electric Co. ("GE"), the National Electrical Manufacturers Association ("NEMA"), and others who filed in response to the Commission's Notice of Inquiry (Gen. Docket No. 83-806), NAB urged the Commission to regulate RF lighting devices in an attempt to minimize the AM interference accruing from widespread device operation.

Problem is, these light bulbs are good. The ones we tested, GE claims, produce "light of a 150 watt 3-way bulb (at maximum setting) for only 55 watts"; approximately three times as efficient as existing light bulbs, a remarkable achievement. When multiplied by the average number of light bulbs in typical households, one can begin to see their potential benefits. The bulbs yield a pleasant soft white light as well.

Nevertheless, interference control standards that protect AM reception must be developed and enforced by the FCC. We found the standard initially proposed by GE to be wholly unsatisfactory. For one thing, the GE standards "protected" AM receivers beyond a distance of 10 meters (33 feet!) from the RF lighting device. For another, the cumulative interference effect arising from simultaneous operation of many RF devices was seriously underestimated. Finally, GE defined a "short burst" of RF interference as a burst that could last up to 200 seconds -- over three minutes.

This is an extremely complicated issue. Not only do we need radiation standards for these bulbs, but we need "conducted" standards as well. RF lighting devices can interfere with AM reception by propagating interfering RF through the power line, much as a "carrier current" radio station would.

We'll keep you posted. For a copy of NAB's reply comments in response to GE's standards proposal, call us at (202) 293-3557.

THE INTERNATIONAL RADIO CLUB OF AMERICA

CLUB ADDRESSES

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P.O. Box 26254, San Francisco, CA 94116

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The IRCA Goodie Factory (Publications and Reprints)
1422 W. 5th St., Tempe, AZ 85281

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The International Radio Club of America is a non-profit organization devoted to the hobby of hearing distant stations on the AM Broadcast Band (Medium Wave). IRCA is a member of ANARC, the Association of North American Radio Clubs.

Club Officers: President--Phil Bytheway, 9705 Mary Avenue NW, Seattle, WA 98117. Secretary--Ernest Cooper, Rich Segalas. Board of Directors--Ernest Cooper, Nancy Hardy, Ric Heald, Neil Kazaross, Bruce Portzer, Peter Taylor, Niel Wolfish.

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