

DX Monitor

Devoted Exclusively to Broadcast Band DXing

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Flash Tips

We'll open with several more flash tips and other news:

KHWY-1030 in Folsom, CA will begin testing around November 12, and hopes to begin regular broadcasting sometime between November 15 and 22. Their format will be "contagious country" (maybe that'll be their slogan, too?) Chief Engineer is Richard Green, PD is George Sepulveda, receptionist's first name is Rebecca, phone number is 916-351-1030, address is 409 Glenn Drive, Folsom, CA 95630. This info from Pete Taylor, who apparently forgot to find out the name of the janitor.

The FCC has approved a constuction permit for a new station in Orange County, CA on 830 kHz, to be operated by Orange County Broadcasting Co. The station won't be on the air for at least several months, so if you haven't heard KIKI yet, you still have time. This from the LA Times via Steve Mittman.

 $\frac{WSB-750}{WPL0-590}$ will drop NBC radic affiliation and replace it with ABC on January 7. WPL0-590 will be dropped by ABC. No word on who will pick up NBC. This from the Atlanta Journal, via Karl Jeter.

 $\underline{\text{WHND-560}}$ replaced their old, structurally unsound tower in late October. The new tower is 410 feet high. This per Fred Vobbe, IRCA member and WHND Chief Operator.

WKKQ-650 in Hibbing, MN is now on their new frequency (ex-1060). Gene Martin reports hearing them during the day with a signal better than WCCO's. Also see this week's CDXR for more letails...

CKIM-800 has been making some major cost cutting moves lately. They recently fired half their staff and new owners have announced they will make CKIW a "good Windsor radio station." During the late 1960's and early 1970's, CKIW was the number one station in Detroit and had a large audience in much of the Great Lakes area. Currently, they have less than one percent of the audience in Detroit and having some major financial problems. This per the Detroit Free Press, via Fred Voobe.

Odds and Ends

If you are planning to send us a check for some IRC's, as advertised here a few weeks ago --- you're too late. We don't have any more. We'll let you know when our supply is replenished, but it'll probably be a while.....

Have you applied for <u>IRCA Achievement Awards</u> yet? If not, send an SASE to our awards chairman Bruce McFadden, 1029 Walden, Ave., Cheektowaga, NY 14225. DX Shack.

That about does it for this week's front page. Have a good Thanksgiving!



Western DX Forum

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IRCA—Serving the Broadcast Band DX'er Since 1964

Editor: Ric Heald, 1632 J St., #3, Eureka, CA 95501

. DEADLINES - WEEKLY ON TUESDAY

W. GEORGE ELLIOTT, P.O. BOX 312, PENTICTON, BC V2A 6K4

Greetings from north of the border. Not much has happened around here. It seems like when summer arrives the radio gets put aside for other activities. Like going to the beach and going to work. And during summer when the other jocks take holidays it seems as though I'm at work more than anything.

For a reminder, I still work at CKOK 800 Penticton. My shift is Monday to

For a reminder, I still work at CKÖK 800 Penticton. My shift is Monday to Friday 7PM-Midnight PST. But every so often I find myself working more than my assigned shift. For example, I've just completed work 12 nights in a row. The weekend guy didn't work out so I'm doing evenings until a replacement is found, and before that, I went to work three weeks Monday to Friday with the flu. We haven't got any back-up jocks. Oh, how I love small town radio. (Would they consider a Yank? Namely me, hi-RtH.)

Anyway. as I said earlier Tive just finished 12 nights straight during

Anyway, as I said earlier, I've just finished 12 nights straight during fall BBM's. It's that time of the year again, a sure sign of winter. I don't know how it'll turn out this time because we have up to four different promotions going on and listeners have been phoning expressing dismay and confusion. Of course, CKOK has had a "reputation" around town because of some management/advertiser dicsions. It appears as if the listeners aren't important in this market.

This is a weird market. This town has only three radio stations: CKOK (MoR/T40), CKOR FM (EZL) and CJGV-FM (traditional C&W). But there are other area stations that are part of the market: CKSP Summerland (C&W), CKOO and CKOO-1 Osoyoos/Oliver (MoR), CKOV Kelowna, CKIQ Kelowna and numerous cable FM outlets from Seattle (KHQ-FM is popular here with the 18-35 year olds). (Seattle? Spokane maybe?-RtH.)

Wish me luck, eh? My shift is simulcasted on CKSP, CK00, CK00-1. Also to be included on CKRP as well.

Good DX to all until next time. 73 de WGE.

BILL HARMS, SUSLAK, APO SAN FRANCISCO, CA 96301

Writing from Mount Sorak near Sokch'o, South Korea located 25 miles south of the DMZ on the east coast.

I've been sightseeing here for the last two days. At night I've been doing some bandscanning. There are few power lines around so the band has been rather quiet (compared to Seoul). Being on the east coast the Japanese stations cram the band on almost every frequency.

South Korea is also much better because there's very little jamming of the North here all of the WRTH listed North Koreans are in the clear. Even the (1053) Voice of Reunification is good here (at least the jamming can be nulled out).

Since I've been back to Korea I've been taping ID's so I'll have a lot of information to draw from as to how South Koreans ID. They have a basic pattern on the hour, but the exact wording varies a bit. All local stations have their own ID, but not every hour. I think Korea would be a good place from which to DX with good equipment (especially a loop antenna) and if one isn't intimidated by the language barrier. I've heard somewhere around 400 or 500 stations in just two months. MM's is the best time for real long distance DX as the JO's are off then. More later.

Ahn-nyoung. 73 de WJH.

MIKE HARDESTER, 175 PEGASUS DR., LITTLE, CO 80124 (Cont. from last issue)

A couple of years ago while dricing from California to North Carolina, I investigated many an antenna location and did the same dricing from North Carolina to Colorado and back (two round trips in three weeks. . .phew!) and have concluded people (with no connection to broadcasting) erect antennas and then leave them. . .with no forwarding address. In all seriousness, since heading to North Carolina in 1982, I would estimate that I have traveled the back roads of uncountable cities of the USA in search of antennas seen from a freeway and maybe 10% have had the station/letters displayed. The rest? Who knows? (You can usually tell by the over-modulation and bleed-over-RtH.)

Here I'm talking about 40 or 50 antennas sighted and located. n farm pastures (where nearby residents know nothing about the antennas), behind cyclone fences on hillsides, along side a road in Kansas where no farm/ranch/ building was noted for miles, and the list goes on. There should be a law requiring all antennas (the station owners that is) to display the station call letters at the antenna site, hi. For those in the best industry. . . any reason for call letters not being at the antenna site? Forum report reply would be appreciated (give Ric something to do)! (Simple reason, all those sickoes out there with wire cutters and detonators. . .yes, for real-RtH.)

Anyway, our first day in Littleton (we're actually a subdivision removed (somewhat from same), the in-laws decide to head west on County Line Road and what do my eyes behold but a large five-tower array and on investigation --

no call letters. Can't win.

On a closing note, among the few stations/antennas located was the single tower of KLOE 730 set in the picturesque countryside setting of a barnyard. Well, enough for now. Very 73.

GARY LARSON, 2806 LINCOLN, BURBANK, CA 91504 (818) 848-1880

Hello. It's 21 October, one day after the SCADS GTG. Went to Huntington Beach for almost the entire time. Don Schmidt had a very interesting meeting. Met Steve Mittman, Mark Bixby, Mike Bittner and several others there. Next

SCADS GTG is scheduled for February 1985.

Locally, KROQ 1500 is off. Jim Hilliker says they ve been off for about three weeks. Seems they've been sold. Was told to call the KROQ FM office and talk to Scott Mason about this change. I called the number, but it was disconnected, but 520-1500 still seems to work but no answer. Wish they's be T40 or similar to KROQ FM.

KWNK 670 no longer has Kings hockey as of 20 October. The story I sent to Gary Parton regarding this says they (KWNK) got booed when mentioned at the Forum. (Boy, they're off to a good start, hi-RtH.) So, KGIL 1260 now has the majority of the remaining games.

Frank Aden, hope your DX'pedition goes well.

Yes -- Richard Wood is to be on a DX program on KABC and their net on 15 December. Please support the hobby and use the 800 phone number for questions from listeners.

Yes, Ric, note the stations using same calls on AM/rM: KOIT, KDFC, KKHI and KFIG. (KKHI AM/FM has always used those calls since change from KQBY and before that KOBY and KEAR-RtH.)

I would think these stations are trying to keep calls in listener's minds by having a combo station with the same.

Ric, as to KNCR -- at night who's the pest on 1090, as if I didn't know. (Yes, it's who you think -- the Tijuana connection, hi-RtH.) Well, 73 until later on.

STEVE MC GREEVY, 45 ELDA DR., SAN RAFAEL, CA 94903

Hello from Marin County. I haven't been in these pages for quite some time. The trip to Nevada, Idaho and Oregon was a huge success, unfortunately we had no time to visit any DX'ers in the many towns we passed through. One of the most enjoyable parts of the trip was the two days and nights spent in Monitor Valley in central Nevada. I recall mentioning how empty the dial would be during the daytime on the BCB and it was on hand-held portables except for some strong Reno and Salt Lake stations. But, I set up a 700-foot east wire and the band came alive. Midday reception ALL day of 880 KRVN, 770 KOB, 640 KFI a loud 850 KOA. All Las Vegas and Reno were strong, all the Bay Area including KTIM 1510, 1540 KASA Phoenix, 670 KBOI. The strongest groundwave signal from the Salt Lake area was 700 KFAM. I logged 75% of Utah

During the afternoon of 29 May, Sheldon Remington and I spent five hours hiking to the top of the Simpson Park Range five miles north of our Monitor Valley campsite and 2,500 feet above same, and using my Sony ICF-7600D and a microcassette recorder, heard and taped rM tropo reception from Salt Lake, Reno, Las Vegas and loud aircraft scatter fade-ups of the two Cedar City, Utah FM's, all 200 miles and more. BCB at night was very good, except for thunderstorm QRN. Latins were very strong, especially 750 Nicaragua, 834 Belize and a strong unID 890. At sumrise I heard 819 New 7 ealand and KIKI 830 Honolulu. So all in all, a very enjoyable stay in the high desert of central Nevada.

Possibly "desert" is a misguiding word, because I've noticed how much drier the southern San Joaquin Valley and the Tehachipi's near I-5 are in comparison to the Monitor Valley, plus the surrounding mountains had snow remaining from winter. Central Nevada is quite beautiful and GREEN in the late spring, early summer period. I would recommend a trip along US Hwy 50 through the state from Ely to at least Austin, and plenty of hot DX. We did on the last day just as we were departing for Ely, have some nasty thunderstorms roll in. (I've been there in August, Steve. Makes Bakersfield look green, hi-RtH.) By the way, several GY's were heard on the 700-footer in the Monitor Valley, all day long. Such as 1490 KJQN Ogden, KELY 1230 Ely, 1340 KBET, 1450 KBET, 1230 KCBN (all Reno), and a battle between KSUE 1240 Susanville and KELK Elko, Nevada. I suspect a lot of this midday reception was indeed skywave, because I did a lot of rechecking at close intervals and noted how some stations would disappear. I observed 1080 KRPX Price, Utah do several fades at noontime and ditto 1540 KASA. (That's quite common here in the winter-RtH.)

RIC HEALD, 1632 J ST., #3, EUREKA, CA 95501

First off, seems I've got postal service problems again. No column last week because of no mail, and the two forums that were to run concurrently got misplaced in the "done" file. There's got to be a better filing system, hi.

misplaced in the "done" lile. There's got to be a better filling system, fil.

Yes, it appears KGA 1510 has once again gone NSP, however, they must of had
technical problems last Sunday night/Monday morning (4/5 November). When I
leave KRED (about 11.30P), I tune to KGA, but last week nothing. Once home I
noticed how 1520 Oregon City was making themselves an uninvited guest on 1510,
but did hear some faint SS -- Ontario? Also, morning before, 04 November, KGO
was off leaving CHQR (which is a pest with KGO on) in the clear.

Got a letter and cassette from member Tunno Aboven of Finland. Seems he

Got a letter and cassette from member Tuomo Ahonen of Finland. Seems he logged local KINS 980 at s/off. Not bad, Tuomo, as they were using only 500 watts. In fact, a local CB'er who was here helping me reinstall my mobile unit listened to the tape (and you know how non-DX'ers can't hear the same stuff we do), expressed surprise at how clear the ID and s/off was. Excellent catch, Tuomo and I'll see what I can do to get you a verie. By the way, this time of year, we have lots of rain, temperatures at 12-17C daytime, 7-10C at night. For skiing, we have a travel about an hour from Eureka to 1,300 metre high Horse Mountain.

Mike, most stations don't hang their shingle at their transmitter site because most people not only don't care, they don't even see the towers, hi. In fact, KYA used to have their calls emblazzoned on their tower at night but lo and behold, they discovered that that was causing their signal to become slightly directional at night, or rather, other stations on 1260 discovered that, hi. But actually, if you sit on front of unmamed towers and time your car radio, you should be able to instantly pinpoint the stations, unless of course, you're near an antenna farm, like the toll plaza of the San Francisco-Oakland Bay Bridge. And also there is a precaution against vandalism, especially of the stations. pecially at talk stations. About 20 years ago KNX had their guy wires cut and operated on a longwire until damage could be repaired.

Otta room. Gotta get this down to the post office and off to Seattle, or in journalism to the post office and off to Seattle.

journalism terms, put this baby to bed. See y'all in 7. 73 de RtH. .

KANADIAN KORNER! Knews From "The Frozen Knorth" October 10, 1984 47watts Ul Toronto (Pearson Intl. Airport) TIS 530 onC... CJOK Ft. McMurray finally sot this ancient CP 10/5kw. U2
Must protect CEK-540. And this from BV: Drops BNV
#205 10011 Franklin Avenue T9H 2K7 550 ABFlin Flon drops all CBC(now via CBVF-FM) 590 MB CFAR Vancouver "Newstalk Radio" now has ex BC Premier 600 BCCJOR Dave Barrett on AN open line show. Dropped late night talk due to poor ratings...just music. Ment-Laurier got CRTC OK to drop all SRC(CBC French) Prince George got OK to cut back on its 9 stations 610 PQ CKI BC CJCI 620 local pgms. due to economy. That's CIVH, CFEV, CFLD. Gjoa Haven 40w. Ul lprt gets CFFB-1230 via satellite & has local access. From BV. He's probably heard 'em. Richmond is not stereo yet. Slogans: "Sunshine Radio" 640 NT CBIA "Sunshine Radio" 650 CISL "West Coast Gold" & "C-isle" Sasketoon wants 10kw. U4...from 1250 M.sGrevetown now twins both CJYQ-930 & CFIQ-970 650 SA CKOM CHYQ 670 NFTimmins got CP for 730 then got CP for 750! Timmins got CP for 50/10kw. but only wants 10/5kw. CKGB 680 ON CKGB 750 ON Saskatoon wants 10kw. U4 from 1370
Regina wants 10/5kw. U2 from 1300
Calgary wants 50kw. U2 from 810
Brooks wants 10kw. U2 from 1340...I'll bet on QR SA 750 CJWW 760 SA CJIE 770 AB CHQR Brooks wants 10kw. U2 170m 1740...1'11 bet on the Brampton wants 820. CRTC told them no for.-lang. until Penticton buys CINL-1400 Princeton for a twin. 5pm. Calgary is stereo. XR for 770 would be 5 miles south. Brampton wants 50/10kw. from 790 Hamilton wants 50/50kw. from 1280 Moffat BroadcastingU4 Richmond Hill(metro Toronto) wants 50/25kw. U4 from 1320 Abbatsford is "Golden Hits Padio" & is again using pre-770 790 AB CIBQ CIOW ON 800 CKOK 810 : AB CHQR ON CKMW 820 CHAM 820 ON CFGM 820 ONAbbotsford is "Golden Hits Radio" & is again using pre-CFVR

timed separate IDs when twinning CHWK-1270 nights.

850 BC

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CFFR Prince Rupert has been 10km. Ut but should be 2 km. If yet letter to Brich Velhon.

C... Inverser-Winderhere 1/1km. Ut twin wanted by CMAL-1050.
   860
              DC
   370
              BC
                                  Inversere—Windermere 1/(Nr. U) twin wonted by CHAL-1050. Doubtful, but CRTC liked it when they put first stas. in Falmap & New Denver. They promised a studio.

Edmonton wants 50kw. U2 from 1100. Deto are on QT.

St.-Jerone CRTO caid CH to temporary twinning of 0JSA-1050 until the economy gets better...1997???

Drumheller again wants 50kw. U4. Last time ORTO told them to at least mention Big D. Now they want the xr at Strathmore(just B of Calgary). What's CRUM(owners) got to lose (see 330 & 770). Like CPOW-750 has been an Edminton oth, since 1960, hi. Calmose? Who caree?
                      CITOR
CITOR
CITOR
              AD
AD
PQ
    830
    300
    900
                      CETO
   910
              AL
                                   Edminton sti, since 1960, hi. Campse? Who cares?
                      arrese
              <u>В</u>С
 1050
                      CILL
                                  Vermon wants another twin, on 870 Invermere-Windermere
 1060
                       07/11
                                  Calgary. Iam Systemy thicas the call. Like OPR-66
Bet we'll just hear "AN 106". Phone 240-hits. Em CPCM?
 1110
.140
1250
1250
1240
                      onte
onte
              AD
Do
                                   lami ton wanto 835.
                                                                          V2 lort r-37J-1930 is on
                                  Ft. McMurray will finally nove to 550 main which listed as 1'w. Anjone know? feeds its 2000-1800 mt does it twin CMVD-1250 AM? The Pas(like in foot, hi) got OK to drop OEC. Port Alterni drops all CDC(now via CDPQ-PM)
              AB
                      CJOI:
              \mathbb{P}^{\mathbb{Q}}
                      CHOIL
              PQ
MB
                      CJUD
 1240
                      CJAR
 1240
              BC
                      CJLV
 12/0
                                 Waya got CHTC Off to Gron CHC. Twins CHCY-540(920)
Hope now "Canyon Radio" & use their own pre-timed
              ON
                      CJUA
 1240
                      CKGO
                                 Rope now "canyon manto" a use their own pre-timed separate IDs when twinning CHWK-1270.
Waterton 50w. here en 1260 care 37. Reard by the Hardys They thought they'd be blown away by C-jock 1220.
Saskatoon wants 650.
Regina wants 760.
 1240
             AB
                     CEP?
 1250
             \Sigma L
                     CHOM
                     CJI
 1300
             SA
 1340
             HP.
                     CKVK
                                 Cornerbrook...Box 1340...not on jet. Brooks wants 770.
 1340
             AB
                     CIBQ
 1370
             SA
                     CJWW
                                  Saskatoon wants 750.
                                 Westlock. CRTC cried but said OK to new owners Going mostly automated due to heavy competition from CKN,
 1370
             AB
                     CFOK
                                 CFCW, CJAX, all country in the same Edmonton market. CKML/CFNL now own it. They also own 50% of CJUI-1440
                                 which is also in the same market
Degelis wants ( & 2 FM twins) want to twin CJAB-FM Rimouski
1370
                     CEVD
1400
             BC
                                 Princeton will become a twin ofCHOK-800. Call change?
                     CINL
                                 Sys says will CIML-1 now become CIML? Two points? Golden now has a studio(twins CKCR-1340 & CKMR-550)
1400
             BC
                     CKGR
                     1400
            AB
                                 Stattler wants 830.
1420
            N3
                                 Digby got OK to drop CBC plus a twin at Weymouth 103.3 3kw.
1450
                     CBXI
            AΒ
                                Hinton moves to 8.1 Note CBC leaves All on for about a yr.
                               after the FK arrives.
                                Hopedale Hoves to 107.3 r-CFGB-1340. Easy DX. Waterton ex 1540 says BV. Heard by BH. They thought
1490
            NF
                     CENII
1490
            AB
                     CEP?
                                 CJPR might blow them away.
                                 Buffalo Narrows 75% country 25% rock all live 15w. per BV I doubt if even Brian's heard this one...well, not yet.
                     CIBI;
1,600
            SA
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CJMT-1420 is supposed to relay CMAC 145-515 M-P 5-9 Sun "Vie de Couple" CRTC seled CRC to please use A" if at all possible for future lpits. CRTC Offed use of all 14 Montreal freq. for a tunnel ad-info "thing". Note that all those applications for the ex clears have been approved by the DCC(Canada's PCC part one). Part two approval is needed(CRTC).

Thanks for CJAM call, Dan Sys & EV-Brian Vernon CHEW-980 hired Rafe Mair(ex CHOR-600 hot-liner) for Mid.-2am show.



ON THEORIES, EXTRAORDINARY WAVES AND ELEVATION ANGLES IN MEDIUM WAVE PROPAGATION

Randall J. Seaver

1. INTRODUCTION

Lankford [1984b] contends that it is impossible for one scientific theory to refute another without some <u>experimental</u> evidence which agrees with one theory and disagrees with the other. He states that, since Seaver [1984] did not present any such experimental evidence, Lankford's theory has not been refuted.

My Webster's New Collegiate Dictionary defines the terms "theory" and "hypothesis" as follows:

Theory - A plausible or scientifically acceptable general principle or body of principles offered to explain phenomena.

Hypothesis - A tentative assumption made in order to draw out and test the logical or empirical consequences of a theory.

There are other definitions in other dictionaries, but I consider the above to be reasonable. Within this context, I believe that the "theories" that Lankford [1984b] attributes to himself and myself are really "hypotheses" and in my article I was careful to call them such.

The "Theory" of radio wave propagation that I believe in is the Magnetoionic Theory. It was initially developed by Sir Edward Appleton in the 1920's. Davies [1965] and other books present the derivation of the theory and the complete equations. The equations relate the complex refractive index of the ionosphere to the electron density, Earth's magnetic field characteristics, and to the electron collision rate at a given point in space and time. The equations can be integrated with distance to determine the ray path and the ionospheric absorption of radio waves at Medium Wave and Short Wave frequencies.

Sen and Wyller[1960] formulated the Generalized Magnetoionic Theory, which accounted for several factors that were oversimplified in the classical Appleton theory. Both theories account for the presence of the "ordinary" and "extraordinary" waves which occur when a wave enters the ionosphere.

Experimental data in the form of ionograms have verified the validity and application of the theories. Computer programs have been developed that calculate the ray path and absorption characteristics, assuming representative ionospheric electron densities, a model of the Earth's magnetic field, and an effective electron collision rate (e.g. Jones and Stephenson [1975]).

Since the Booker quartic equations, upon which Lankford [1984a] has chosen to base his studies, are derived from the classical Appleton Magnetoionic Equation, it is evident that Lankford also accepts the basic Theory extant in radio wave propagation. Therefore, Lankford and I seem to agree on the "theory" involved; the difference in opinion is on the "hypotheses" concerning Medium Wave propagation.

Based on medium wave field strength measurements gathered over many years, primarily by the CCIR (International Radio Consultative Committee, which includes the FCC and the BBC), and on the Magnetoionic theory, Knight [1975] has developed a model for Medium Wave field strength prediction. This was published in the 16 July 1984 DX News so that Medium Wave DXers can read a definitive work on Medium Wave propagation. It is clear that the hypotheses in Seaver [1984] agree with the Knight [1975] model, while Lankford's [1984a, 1984b] hypotheses do not agree entirely with the Knight [1975] model.

It is evident that Lankford has chosen to test the Magnetoionic theory and to try to investigate the extraordinary wave aspects of the theory and then to apply it to the study of Medium Wave propagation. However, Lankford [1984a] has not taken account of the influence of absorption at the reflection point (resulting in Equation (24) of Lankford [1984a] in his work). This assumption greatly simplifies the calculation of the critical

frequency at oblique elevation angles. It is my opinion that the inclusion of electron collisions (and therefore absorption) is necessary when considering medium wave propagation below the gyrofrequency, especially when critical E-region frequencies are being determined.

Lankford's [1984b] comments on Seaver [1984] dwell on two major themes; these are:

- The existence of the "extraordinary" wave mode and its potential for oblique medium wave propagation
- b) The elevation angle at which long distance medium wave signals arrive.

The basic difference of opinion, as I see it, is that Lankford does not believe that low angle "ordinary" waves refracted from the E region are viable. He believes that higher angle "extraordinary" waves at low (e.g. below 1100 khz) Medium Wave frequencies and "ordinary" waves at higher Medium Wave frequencies refracted from either the E- or the F region are responsible for long distance propagation. On the other hand, I believe that the "extraordinary" wave suffers high polarization coupling and absorption losses and is therefore weaker than the low angle "ordinary" wave, which is propagated over the entire Medium Wave frequency band via the E-region.

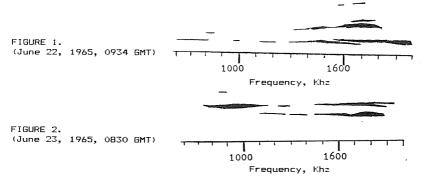
The following sections discuss Lankford's [1984b] comments in greater detail.

"EXTRAORDINARY" WAVES

There is certainly no "myth" about the extraordinary wave insofar as the Magnetoionic theory or my own beliefs are concerned. It's presence on the many available ionograms confirms the theory itself. That Appleton may have erred in the derivation of the values of the gyrofrequency or in the polarization equation (as pointed out by Lankford [1984b]) is not really germane to the discussion; those errors have long been corrected and the theory is unchallenged in radiophysics circles.

However, seeing "strong extraordinary traces" on vertical ionograms (quasi-longitudinal propagation along magnetic field lines in mid- and high latitudes) and hypothesizing that strong traces exist for oblique extraordinary quasi-transverse waves (nearly across magnetic field lines at mid-and-high-latitudes)—is—illogical—it's an "apples and oranges" situation.

The only "experimental" data of real value that Lankford [1984b] offers is the oblique incidence ionograms of Fenwick and Barry [1966]. Unfortunately, I don't have a copy of that paper. However, I do have a representation of the two oblique incidence ionograms from Lankford [1980] in Lankford's own hand, reproduced in Figures 1 and 2 (but without Lankford's notations).



This data was taken over a path from Stanford CA to Lubbock TX, a distance of about 2000 km, on two successive nights in 1965.

Figure 1 shows a trace from about 600 khz to about 2000 khz at one level, and a trace from about 1300 khz to 1800 khz at a second level, with some other traces of short extent. The lower trace has some breaks in it

that may represent interference from local stations or short-term fade-outs at the instant the ionogram was taken. Fenwick and Barry apparently believe that these two major traces are one and two-hop "ordinary" traces showing refraction from the E-region. I agree with that conclusion. Lankford [1984b] does not indicate his belief on this ionogram one way or another. There do not appear to be any characteristic "extraordinary" wave traces on the ionogram of Figure 1.

Figure 2 shows a trace from about 1100 khz to 1900 khz at one level, and a trace from about 700 khz to 2000 khz at a second level, with one short trace at a third level. The two lower traces have some breaks. Fenwick and Barry apparently believe that the two major traces are one and two-hop "ordinary" traces showing refraction from the E-region. I agree with that conclusion. As Lankford [1984b] notes, the bottom trace starts at about 1100 khz; based on this, he hypothesizes that the second trace is an "extraordinary" wave trace below 1100 khz as the "only reasonable explanation".

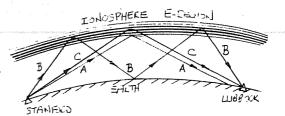
I have another "reasonable explanation", totally consistent with the magnetoionic theory and my own hypothesis:

"The lower trace starts at about 1100 khz because the E-region of the ionosphere was low enough to prevent the one-hop ordinary wave from being received over the distance below 1100 khz. Above 1100 khz, the one-hop wave was refracted from a slightly higher altitude that made reception possible."

Figure 3 illustrates this situation. Curve A is a low frequency (e.g. 1000 khz) single-hop path that falls short of the Stanford to Lubbock distance with a zero degree elevation angle. Curve B is the two-hop path at this same frequency. Curve C is a higher frequency (e.g. 1200 khz) single-hop path at approximately a 1 degree elevation angle that is refracted from a higher altitude than curve A because it requires more electrons to be refracted back to Earth. Such a situation is probably quite common, especially in the early evening and in the summer months when there are more electrons produced in the E-region by solar illumination during the day.

FIGURE 3.

- A. Low frequency, one hop, zero degrees.
- B. Low frequency, two hops, 8 degrees
- C. High frequency, one hop, 1 degree.



It is possible that a one-hop "extraordinary" wave could be received. What would an "extraordinary" wave trace look like on an ionogram? It should steadily increase in altitude (since it would be refracted from the 150-200 km altitude of the ionosphere) and should get gradually weaker due to the increasing absorption as it nears the gyrofrequency, disappearing between 1200-1500 khz due to very high absorption near the gyrofrequency. The second trace on Figure 2 extends across the frequency range (with some breaks) and is at nearly constant altitude, slightly increasing with increasing frequency. This would be characteristic of a two-hop "ordinary" wave trace, rather than a one-hop "extraordinary" trace.

I believe that my hypothesis, stated above, is more reasonable than is Lankford's hypothesis that the lower portion of the second trace is an "extraordinary" mode trace. If my hypothesis is correct (and it agrees with that of the researchers Fenwick and Barry), then Lankford has no apparent experimental data showing oblique "extraordinary" wave traces to support his hypothesis.

In summary, I do recognize that the extraordinary mode is possible, and that it will penetrate the E-region below the gyrofrequency. However, I believe that the polarization coupling loss, which is significantly greater for the extraordinary wave than for the ordinary wave, the high absorption

loss of the extraordinary wave near the gyrofrequency, and the variability of the gyrofrequency over the Earth effectively precludes reception of the extraordinary mode on long-distance paths. I agree with the statement in Knight [1982]:

"At the gyromagnetic frequency, the extraordinary wave of the magneto-ionic theory is so greatly attenuated that it makes a negligible contribution to the received signal; furthermore the attenuation exhibits a broad maximum centred on the gyromagnetic frequency. As a consequence, the extraordinary wave can be disregarded for all practical purposes within the medium-frequency broadcasting band (approximately 550 to 1600 khz)."

3. ELEVATION ANGLES

The published data that Lankford [1984b] quotes concerning arrival angles of radio waves is for short wave frequencies. To take average arrival angles at short wave frequencies and to extrapolate the data to Medium Wave frequencies would not, in my opinion, be a valid use of the scientific method. A good statistician can make numbers tell whatever story he wants told! For instance, an "average" arrival angle for the stations I might receive over a certain frequency range (for example, the BCB) might well result in a S-10 degree angle (since most of the frequencies are covered by stations within 1200 km or 750 miles) with a few down to 1 degree.

Short wave stations may have average angles in the range of 5-10 degrees for several reasons, such as:

- a) Short wave antennas are usually targeted (using antenna height and directional patterns) for specific regions of the world, often within 3000 km or less, resulting in optimum elevation angles of 5-10 degrees.
- b) The ground attenuation of low elevation angle waves increases significantly as the wave frequency is increased.
- c) The E-region of the ionosphere can cut off very low elevation angle waves, but permits waves at higher elevation angles to pass through at short wave frequencies. This is especially true on multi-hop paths since the E-region peak electron density can vary widely over a long path.
- d) The F-region of the ionosphere is not nearly as "spherical" as the E-region; on long paths, the short wave rays can be refracted from much different altitudes on each hop and can be deflected from a great circle path by ionospheric tilts, bulges and troughs in the F-region electron density along the ray path.

Lankford [1984b] quotes the Wilkins and Kift [1957] arrival angle data for a Ceylon to England path at 16 mhz and states the average angle was about 7 degrees, with 30% of the measurements below 5 degrees. Over this path, which is about 8600 km in length, and assuming a 300 km F-region virtual height, I estimate that a two-hop path would have an arrival angle of -2 degrees, a three-hop path would have an angle of 5 degrees, and a four-hop path would have an angle of 10 degrees. The average 7 degree angle quoted is very consistent with these estimates.

One piece of published evidence of low arrival angle Medium Wave propagation is provided in the oblique incidence ionograms of Fenwick and Barry [1966]. If, as Fenwick and Barry suggest (and I agree with), the traces are one and two-hop "ordinary" E-region modes, then the one-hop trace should have an angle in the 0-2 degree range (depending on frequency).

Other evidence can be found in the DX bulletins where thousands of receptions are reported each year, including paths over 10,000 km. What is required is a systematic study of field strengths of regularly heard stations, and then to correlate the average field strengths observed with the average field strengths estimated using the Knight [1975] wave-hop method, the CCIR-1978 method (described in PoKempner [1980]), etc. I have done some of the field strength observation work over the last five years and plan to write an article presenting the data and the field strength estimations for correlation.

All of the accepted methods of estimating field strength (e.g. Knight [1975]) indicate that one-hop "ordinary" wave paths at elevation angles down to 0 degrees and multi-hop paths in the range of 1-5 degrees are the predominant mode of Medium Frequency long-distance propagation via the

E-region. Lankford has not presented any firm experimental or theoretical data to refute the accepted methods — he has only hypothesized higher elevation angles, in tandem with his "extraordinary" mode hypothesis, based on data of questionable applicability.

4. CLOSURE

This article has addressed the two major themes that were the basis of Lankford's [1984b] critique of Seaver [1984], namely "extraordinary" wave traces and the elevation angle of oblique waves at Medium Wave frequencies. The Fenwick and Barry [1966] oblique incidence ionograms support the Seaver [1984] hypothesis that "ordinary" waves refracted from the E-region are the major propagation mode throughout the Medium Wave frequency band. If this hypothesis is correct (and it matches the accepted methods of Knight [1975] and others), then Lankford has no published data to support his hypothesis.

I ask the question:

"If the recognized authorities in radio broadcasting accept the Knight model (as indicated in PoKempner [1980]), then why don't Lankford and Stanbury accept it?"

Who would you believe? The broadcasting authorities and radiophysicists on one hand, or two DXers with little physics background on the other? I choose the former with no reservations whatsoever.

5. REFERENCES

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ERRATA

One error of substance found its way into Seaver [1984] on page 27 in the bottom paragraph: The listing of KOB-770 in the two-hop path listing should be in one-hop path listing. KOB-770 is definitely a one-hop path from Chula Vista and not a two-hop path as listed. My thanks to C.M. Stanbury II for pointing this out.

EASTERN DX ROUNDUP

All Times

Karl J. Zuk 154 Old Post Road North

Croton-on-Hudson, New York 10520 Eastern Local

value and the company and the

(KVJ-GA) Karl V. Jeter, 2115 Scarbrough Road, Stone Mountain, GA 30088 Hammarlund HQ-150 with 2000 foot NW Beveridge, 1500 foot W Beveridge, phasing unit.

(KJZ-NY) Karl J. Zuk, 154 Old Post Road North, Croton-on-Hudson, NY 10520 Stinky Delco car radio (to and from Lodi, NJ)

590 WROW NY, Albany.11-3 1600 Nice strong signal into Northern NJ and Westchester County, NY. IDs as "AM-59 WROW". Good. (KJZ-NY)
880 WEEG GA, Jefferson. 10-30 0721 with modern C&W, ads, and uses slogan "Great 880 Country." (KVJ-GA)

910 WPFB OH, Middletown.10-28 0055 Fair with Larry King, Mutual news, ID, then back to Larry King 1259-0106. ID included slogan, "Serving Southwest Ohio, with real country, 910 AM WPFB." Listed as only 100 watts at night! (K7J-GA)

950 WROL MA, Boston. 11-2 0700 with heavy duty religious format. Fire and Brimstone preaching. Good, way above WPEN, Philadelphia. (KJZ-NY)
990 CBW MB, Winnipeg. 10-30 0612 Good with CBC news, ID as "CBC Manitoba,"

into big-band type music. (KVJ-GA)

1010 KXEN MO. Festus-St. Louis. 10-27 1827 with Ernest Tubb record offer spot, C&W music. (K√J-GA)

1060 KAYR AR, Van Buren. 10-27 1845 with sign off, mentioned FM sister station, "FM-102." D-500. (KVJ-GA)

1060 KLSM MO, Springfield. 10-27 1850 with Music of Your Life type format. Slogan "Always your favorites...always." Sign off at 1900 with SSB. D-500. (K/J-GA)

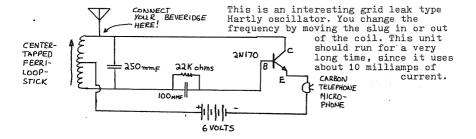
1360 WIXZ PA, McKeesport. 11-3 0740 with C&W music format. ID as "Wick-Zee 1360." Good. (KJZ-NY)

1380 WSYB VT. Rutland. 11-3 0730 with MOR pop records, male DJ. Ads for various places in Vermont. Good, way above local WKDM, New York, the weakest 5kW from NYC into this area. (KJZ-NY)

1550 WNTN MA, Newton. 11-2 1625 with OM reading race horse results in tired voice, distorted audio. Mention "We have to get off by 430, so we won't be able to bring you the eighth race. Hear the results tomorrow morning on WNTN. Very Strong, with abrupt sign off at 1630. (KJZ-NY)

1550 WKBA VA Vinton. 11-2 1715 with sign off. Christian music format. Good. (KJZ-NY)

Welcome to the Karl and Karl show. Thank you Mr. Jeter, for saving me from dancing with myself. A warning to all other IRCA East Coast members, if you don't send in a report, I will send out my two cats to bite your leg! I will be in the land of Mary Tyler Moore and Prince for three days to cover the outcome of Mr. Mondale's campaign. Maybe I'll pick up some Western Canada DX I've always wanted to hear. Speaking of DX, here's a quicky project to create your own. Using only a handful of parts, you can be the owner of the rarest DX station in North America! All you need is the microphone from a telephone, a ferric loopstick antenna coil, and a few parts. 4 "AA" cells will power this nicely. The antenna should not exceed ten feet, or the FCC will not consider you legal, (and someone might hear you, God forbid!)Have fun, please send in your reports! 73's de KJZ.



CENTRAL DX ROUNDUP and na manana manana manana manana manana manana manana mana mana

Robert Kramer 6416 N. Richmond Chicago, IL 60645

UNIDED, SPECIAL, CHANGES, et. al. WKKQ MN NASHVALE? , 10/24 1718, could ne WCKQ and or Grand Rapids, MN, Didn't 650 hear QTH clearly, many ID jx "650 WKKQ, Stereo 65 WKKQ", "Clear Channel Stereo AM 650", many ads for Grand Rapids stores. Some QRM from WSM, fair not listed in my NRC & any 1984 DXM, so whatzit? (It's WKKW-ex 1060, don't know the city of license though, apparently the CP listed for 1080 was incorrect, ed.) FM-IA MOODY, 10/31 0730 mixing w/WJR, KMTL, ID, phone #, asking for calls. LEB-IL 760 WURL AL JOHNSON CITY, 10/15 0315 fair-good on DX Test w/TT & IDs. KDF-IL 790 WETB TN CRANE (or KXOY) 2310 10/29 good fade in lottsa clutter & KCMO in fades, 810 KXOI? TX also CKJS & a Pakistani pgm (who?), KXOI IDs & "AM 81"Texas News, & full ID "810 KXOI Crane, Odessa, Midlands". FM-IA (Fritz, my log shows the calls for this one as KXOI, the night CP must be on., ed.) AUFORA, 10/30 1908 good w/features, Denver Area wx in KAAY null, ex-KKBB// 1090 KISZ co DAVENDOMT, now using these calls, ex-KSTT "KZX" slogan, T40 mx, simulcasts FM 97X mornings. JC-IL, 10/24 0022 w/plenty of clutter o/kV00 "KZX" & "11 1170 KKZX KZX" IDs. JJR-WI NEWARK, 10/29 0030 at first very poor, but much stronger by 6100 after WIBV 1260 WNRK DE s/off, w/TT, ID & mx. RK-IL, 10/29 poor/fair w/ID, TT on DX Test. KDF-IL, 10/29 0130 thru 0230 good on DX Test w/TT, ID @ 0133 mixing w/WNDE. LEB-IL 2243 10/30 fair in clutter, rck mx & OM on "13 KFOW", WHIO faded in, also 1290 KFOW? KOLI & CFRW. What's KFOW ? Could be KSOW, but it's rather clear on the tape as either. FM-IA 10/29 0225 "Classic Hits on 1380 K-Gold". KCK-IL (KGLD St. Louis, ex-UNID 1380 KWK, ed.) 10/29 0220 "Adult Music on AM-1390". KCK-IL (What type of music were they 1390 UNID playing ? If black oriented, this is WGCI, ed.) <u>NORMAL</u>, 2320 10/27 C&W mx & "AM 1440 WMIA" ID, ex-WRBA. FM-IA 1440 WMLA KEMANE, Mol/adoom, dropping C&W. JC-IL 10/29 1820 possible ID as WFBR, good signal, ment. of several Wisconsin 1450 WKET 1550 UNID towns during nx. KCK-IL (probably WEVR, the calls are phonetically similar to those you describe, ed.) All da Rest SAN ANTONIO, 2130 10/25 rck mx, brief ID, good. FM-IA 550 TX KTSA KANSAS CITY, 10/29 0710 good, mx, commentary. KCK-IL FHOENIX, 10/29 0740 weak u/XENK, lcl KILT slop w/nx block, MST TCs, ID in 610 WDAF MO 620 KTAR AZ sportscast. PN-TX MOORE, 10/29 0555 xlnt in clear, wx, ID. KCK-IL (Note correct city of 640 WWIS OK license, ed.) SAN ANTONIO, good 1845 10/24 ID, PSA, "Great Country 68 KKYX" slogan. FM-IA 680 KKYX WINNIPEG, 1628 10/25 fair OM w/Sportsline "On OB", full ID. FM-IA NEW ORLEANS, 10/28 1910 good, traffic rpt, ID. KCK-IL CJOB MB 690 XITW EL PASO, 1848 10/24 good traffic watch ID & lcl spot, rck mx. FM-IA KHEY TΥ LAMESSA, 1938 10/29 SS fair, SS EZL mx, "Radio 6-90 (sies Noventa) & KPET TX something like R. Fundamenta, then EE KPET SID. FM-IA OSKAIOOSA, 1440 10/29 good rck mx & ID. FM-IA 740 KBOE IA HOUSTON, 1905 10/24 good nx & wx, IDs in context. FM-IA KTRH 770 MINNEAPOLIS, 10/29 1725 fair, nx, promo, ID. KCK-IL KUOM IUBBOCK, 1920 10/24 fair in clutter "Total Radio KFTO" & C&W mx. FM-IA KENNETT, 10/26 1928 good w/ID, extensive area wx, no WCCO or Belize. PN-TX 790 KFYO TX 830 KBOA MO FITTSBURG, 1843 10/25 xlnt "20-20" wx, spots, ID. FM-IA, 10/29 1740 lcl 860 KKOW KS ad, ID by location. KCK-IL RICHFIELD, 1720 10/21 fair, pop mx, ID, slogans "Country 980", ex-KKSS. FM-IA PRAIRIE DU CHIEN, poor in clutter 1705 10/30 some good fade ins w/lcl ads & 980 KMFY MN WPRE WI ID, SID, o/u WCUB, KMBZ. FM-IA HUNTSVILLE, 10/29 0645 weak w/s/on, lost to WZTN s/on. PN-TX MONTGOMERY, 10/29 0646 good w/short s/on into Gospel mx, apparent format 1000 WTAK ALWZTN ALchange from oldies. PN-TX GARNER, 10/29 0635 poor w/C&W, several "K-One" IDs, wx for Raleigh-Durham, WKBQ EST TCs, spots & nx. PN-TX BIME SPRINGS, 10/29 0618 fair fading o/u KHOG, XEUR, w/AC mx, "Suburban 10-30 Radio" IDs, Kansas City wx. PN-TX 1030 KBSM MO WAPI AL BIRMINGHAM, 10/31 0654 strong, all alone w/mx & morning features for the 1070

great Southeast. LEB-IL

```
BERLIN, 10/29 1720 xlnt, ads, ID, no sign of WCLC. KCK-IL
1090
      WISS WI
                  BROWNSVILLE, 10/31 0643 mx, ID & SID, good 5 min then gone. LEB-IL
1130
      WASP
             PA
                  SALINA, 10/29 0445 good, ID, mx. KCK-IL
      KSAL KS
1150
                  BATON ROUGE, 10/29 1916 dominant w/mx, wx, ID. LEB-IL
      W.I PO
                  COLLEGE STATION, 10/29 1939 very weak w/mx, ID. LEB-IL WELCH, 10/31 0637 jumped out of mess for ID then into mx & gone. LEB-IL
             TX
      WTAW
      WELC
             WV
                  KALISPELL, 10/30 1943 weak in WHAM null, mx & wx for NW MT, good opening to
1180
      KOFI MT
                  NW, also found KTWO-1030, KIMM-1150 & KADE-1190. LEB-IL
                  BENTONVILLE, 10/26 1938 good o/KLIF w/lcl promo, spots. PN-TX SAGINAN, 10/31 0630 very weak w/mx, ID behind nulled WCAU. LEB-IL
1190
      KJEM.
             ΑR
1210
      WKNX
             ΜI
                  MCCOME, 10/29 1955 x1nt o/all others, multiple IDs, wx. KCK-IL OTTAWA, 0010 10/30 FF EZL mx, woman DJ, "ici R. Canada" ID @ 0100, presumed
1250
      WHNY MS
       CBOF? ON
                  off 0109 in fade & hrd Canadian National Anthem. Any help on this ? FM-IA
                  Fritz, this is definately CBOF, ed.)
                  SPRINGFIELD, 10/28 2100 good, ID, nx. KCK-IL
      KGBX MO
1260
                  HUNTINGTON, 10/17 1935 fair w/black mx (format change from C&W), s/off. PN-TX
       KIPR TX
                  PINE BLUFF, 10/25 0700 weak s/on, lost to jumble. PN-TX
1270
       KABS AR
                  TALLAHASSEE, 10/25 0650 lcl ads, EST TCs, promo, poor-fair. PN-TX
       WTNT
             FL
                  COMMERCE, 10/25 0700 ABC, then GA nx, spot, ID, sports. Poor w/WTNT & the
       WJJC GA
                  pack. FN-TX
                  AURORA, 1720 10/30 fair w/sports tlk show, ID "1280 Radio WMRO", fade. FM-IA
1280
       WMPO
              TL
                  MOULTRIE, 10/29 0650 fair o/WIRL slop ID, wx. KCK-IL
1300
       MTMW
                  EVANSVILLE, 10/28 2050 good, ID, wx. KCK-IL
1330
      WVHI
             IN
                  CHATTANOOGA, 10/29 0655 lcl nx, ID, traffic, EST TC, fair-good. PN-TX
1370
       WDEF
                  FRANKLIN, 10/29 0659 Bluegrass mx, nx promo, ID "AM 13-80 Wy-Zoh Country",
1380
       WIZO
                  fair o/KAUL, others. PN-TX
                  FAIRFIELD, 10/29 1810 xlnt, ID, many Duquoin ads. KCK-IL
1390
       WFIW
              IL
                  SEYMOUR, 10/29 0615 fair, ID, lcl nx & wx. KCK-IL
       WJCD
              IN
                  COLUMBIA, 10/29 0321 wx for Columbia, ID then gone, u/KTTS & others. PN-TX
1400
       KFRU MO
                  CLARKSBURG, 10/19 6215 w/Tlk Radio pgm in fade up o/mess. JJR-WI DOVER, 10/29 0600 fair u/WING, ID by location. KCK-IL
       WPQZ
1410
       WDOV
             DE
                  LACROSSE, 10/29 0729 xlnt ID, nx. KCK-IL
       WIZM
              WI
                  WIGGINS, 10/29 0600 brief s/on, very poor, then Rel. PN-TX
1420
              MS
       WICC
                  MELFORT, 0010 10/28 good, hollow audio or remote, 1cl talent show, ID. FM-IA
       CJVR
              SK
1440
                  ANNA, 10/29 0640 good o/Normal, many IDs. KCK-IL
       WRAJ
              IL
                  NIAGARA FALIS, 9/30 0600 fair-good w/s/on. KDF-IL MCKENZIE, w/TC in clear fade up 0720 10/23, no WROK or WNFL at all ! JJR-WI DES MOINES, 10/29 0539 C&W, several IDs as "Great Country", contest promo,
       WJJL
       MUHW
             TN
1460 KSO
                   u/WACO/WXOK. PN-TX
1470
       WBIG
                  GREENSBORD, 10/29 0550 weak w/big band mx, EST TC, ID, wx. PN-TX
                  PARES, 10/29 0833 briefly fair w/XEMS, KSAM & others, spot, ID. PN-TX MINEOLA, 10/24 0700 poor w/AM & FM s/on, then lost to KAGC s/on. PN-TX KNOX, 10/29 0725 good, nx, wx, IDs. KCK-IL
1490
       KPLT
              ТX
1510
       KMOO
              TX
 1520
       WKVI
              IN
                   TUCSON, 10/27 2050-2100 fair in KGBC null u/WOKJ w/jazz, s/off no SSB. PN-TX
 1550
       KUAT
              ΑZ
                  WEST VALLEY CITY, 10/27 2055 fading, poor-fair w/minor league hockey, ID &
       KRGO
              117
                   lcl spots. PN-TX DOBSON, 10/13 0645 fair w/several IDs, phone #, not s/on. KDF-IL, 10/25
 1560
       WYZD
                   0646 promo & temp. alone. No WPAD or WQXR. JJR-WI
       WINS
             OH
                   COSHOCTON, 10/31 0600 u/WPAD w/s/on & gone. LEB-IL
                   TAKE CHARLES, 10/29 0405 xlnt, mx, many IDs. KCK-IL GALESBURG, 10/24 1946 suprise, fair-good w/last portion of s/off u/lcl
 1580
       KLOU
              LA
 1590
       WAIK
              TI.
                   KYOK, no SSB, PN-TX
                                                    BACK FROM VACATION
 LEB... Larry Black RR #1, Box 108A Glenarm, IL 62536
 (R-1000, SM-1)
 JC.... John Clemmer 4524 7th St East Moline, IL 61244
 KDF... Karl Forth 2714 N. LeClaire Chicago, IL 60639
 (HQ-160, IC-R70, ICF-S5W, Loops, LW)
 KCK... K.C. Kerchner R.R. 1- Box 91 Edelstein, IL 61526
 (DX-100, TRF, S-120, Pegboard Loop)
 RK.... Mike Hogan's Main Man
 (R-1000, HQ-129X, Radio West Loop, Kowalski Loop)
 FM.... Fritz Mellberg 1505 Central Hawarden, IA 51023
 (IC-R70, amplified wedge)
 PN.... Pete Nolan 100 Market #64 Galveston, TX 77550
 (TRF)
 JJR... John Rieger 1586 S. 82nd West Allis, WI 53214
 (IC-R70, R-1000, RF-2900, Kowalski Loops, Radio West Shotgun)
                                                        CADX XV
 The 15th edition of the Chicago Area DXers holiday get together will be held over New
 Year's weekend (Dec. 28- Jan. 2) at 6416 N. Richmond in Chicago. Phone 1-312-262-6299.
```

If you attend, you can see Mike Hogan spin wool into gold, witness Karl Forth's amazing

oil change procedures & experience Mike Jeziorski. Why not attend ?

Nancy Hardy 2301 Pacific Avenue Aberdeen, WA 98520

WESTERN DX ROUNDUP

All times are Eastern Local

```
Phone for hot WDXR tips: (206)532-6827 till 10pm(PLT)
DEADLINES: Tuesdays
REPORTERS FOR THIS ISSUE:
(BB) Bill Block-9307 S.E. Clay St.-Portland, OR 97216
R-390A w/Radio West loop; FRG-7 w/65' longwire
(NH) Nancy Hardy-2301 Pacific Ave.-Aberdeen, WA 98520
                                FRG-7, SM-1
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Kenwood R-1000, Radio West loop
(DKK) Don Kaskey-465 Burnett St. #1-San Francisco, CA 94131
 Hammarlund HQ-140X, SM-2
(DP-HI) Dale Park-2253 Kanealii Ave.-Honolulu, HI 96813
Sony ICF-6700W, TRF
  (DP-CA) Doug Pifer-4366 Ocean View Bl. #3-Montrose, CA 91020
                 FRG-7000, MW-1
Rich Toebe-2388 American Ave.-Hayward, CA 94545
  (RT) Rich Toebe-2308 American Ave.-Hayward, CA 94545
Grundig 3400, Radio West loop
(RW) Robert Wien-1309 Dentwood Dr.-San Jose, CA 95118
GE Superadio, GE long-range portable, SM-2
(ØW) John Wilkins-4385 Hoyt St. #205-Wheat Ridge, CO 80033
R-1000, 4° monster loop
                              CA, Palm Springs 10/29 0937 briefly on top thru severe KNEW-910 slop w/sports, jingle ID "KKAM," into MYL, then buried u/KLOC. Call change, ex-KDES. (RW-CA)
  OF SPECIAL INTEREST:
     920 KKAM
  1080 *KWAI* HI, Honolulu 10/29 0620 as predicted by Brock Whaley, noted back on w/ID by DJ Stan Cook (he joined when it was KIOE!)

"This is K-W-A-I on the air for testing purposes only," then carrier. Off 0628, on 0628, then off 0629. Noted 0658 w/mx
                                carrier. UII UO20, on UO20, then OII UO29. Noted UO50 W/mx from "Eddie and the Cruisers," ID as before, Sheena Easton mx, unID rock, then TT. Obviously a "Hot Hits" type format. Ex-KZHI, ex-KIOE. Very good. (DP-HI)

NE, McCook 10/19 1959 YL w/wx, soon lost to QRM. Hrd briefly in KVOR null. New, #635. (0/W-CO)

AZ, Yuma ex-KVOY 10/30 0503 w/ID, also mentioning KJOK-FM 93.1. In/out all a.m. Had ABC nx 0600 & format was rock. (DKK)
   1300 KSWN
   1400
                  KEZC
                                 CA, So. Lake Tahoe 10/24 hrd at 2125 w/ad & wx. (BB-OR)

III. Cedar City 10/24 hrd at 2136 w/ID "Music that music lovers
love best KSUB." (BB-OR)

CA. Hanford 10/30 2205 fair to good, not much KFI-640 slop.
      590
                  KTHO
                   KSUB
      620
                  KNGS
                                  Out of Ae nx, local spot for "Fantastic Sams, 8 Central Valley locations." Woman DJ "5 after 7, and now another hour of country music...on KNGS." Moderate QRN. Only hrd one other
                                   time & that was very poor. (JH-CA)
                                 MT, Belgrade 10/31 1909 Montana sports nx, ad, wx, 1912½ TC & call into relig. mx, 1916 "AM 6-40 Radio" into ads. Very good, no sign of KFI yet. New. (NH-WA)
TN. Nashville 11/2 0041½ ID after C&W mx. Good through nulled
      640
                   KGVW
       650
                   WSM
                                   CISL. (NH-WA)
                                  MO, St. Joseph 10/19 1920 political ad, wx, pop mx. Fair, no
       680
                   KFEQ
                                   QRM. (ØW-CO)
                                  UT, No. Salt Lake 10/31 1904 EZL mx; ID's 1914, 1928 ("There's
                                  UT, No. Salt Lake 10/31 1904 EZL mx; ID's 1914, 1928 ("There's so much more to enjoy on AM 700"); 1928 local nx w/Maureen Fitzgerald. Very good at times, presume still on day power. KNUS-710 slop. (gW-CO)
CA, Carmichael 10/24 2101 hrd w/good sigs w/ID and on top of KIRO until KFIA's power change at 2135. (BB-OR)
CA, Avalon 10/20 0905 s/on "This is K-B-R-T Avalon, broadcasting on an assigned frequency of 740 kHz with a power output of 10,000 watts, by authority of the FCC, with transmitter located on Santa Catalina Island, "into relig. mx. Fair o/QRM processing on the process went to day power. (gW-CO)
       700
       710
                    KFIA
       740
                    KERT
                                   until 0915, when KSSS went to day power. (ØW-CO)
```

- OR, Portland 10/18 0859 ID "You're listening to...all-news 750 KXL information station...this is K-X-L Portland. It's 6:00," CBS nx, 0905 local wx--traveler's advisory for Cascades. New, Oregon #1!!! Poor, KMMJ QRM. (ØW-CO)
- HI, Honolulu per phone call they no longer carry weekly CBS 760 KGU football game, but will air "the playoffs." Does this include baseball? (DP-HI)
- WA, Seattle 10/31 0211 o/u KOB, light pop mx, hrd quick "This is KXA, Seattle," back into mx. Fair. Guess that answers my 770 KXA question about their call letter change, hasn't happened yet. (JH-CA)
- OK, Stillwater 10/18 0815 ID "This is K-S-P-I and K-S-P-I FM, Stillwater," then "The World This Morning" (nx), local ads. 780 KSPI
- Fair w/KOB-770 splatter; WBBM gone. New, #633. (W-CO) CA, local pirate noted 10/28 0140-on w/WHAS far below. Was 840 playing hard rock mx w/Halloween theme. No IDs noted but did intro one song w/"K-Ghoul." Perhaps KDHS returneth? (DKK-CA) KY, Louisville 11/1 2349½ ID very weak thru nulled KSWB. (NH) OR, Seaside 10/28 2155-2209 fair signal w/pop mx. First time
 - WHAS KSWB noted. (RT-CA)
- AB, Red Deer o/thru KOA 10/25 0155-0215+. Pop mx. ID 0210. KOA 850 CKRD
- is seldom nullable here. (DKK-CA)

 UT, Salt Lake City 10/26 w/ID 0845 u/KTRB. Then SLC wx, followed by ID as "K-Light." KVVA far beneath. Ads & light rock mx. Was 860 KLTQ atop all at 0856 w/area wx. ID at 0857 was both "K-Light" & **KLTQ. (DKK-CA)
 +11/5 1958 "K-Light Traffic Report," brief wx, 1959 "KLTQ FM, AM,
 Salt Lake City, KY-FM 93," into song by The Carpenters. Strong
 w/KTRB nulled. Logged as KWHO only once, a year ago to the
- day...11/5/83! (NH-WA) CA, Glendale 10/23 2130 hrd w/good sigs w/ID "KIEV Glendale serving Southern California." (BB-OR) 870 KIEV
- CA, Oakland-San Francisco hrd on 10/28 2033 w/ID w/KKSN nulled. 910 KNEW (BB-OR)
- NV, Reno 10/24 hrd at 2200 w/ID & TC, lots of slop from KKSN-920 KOLO 910. (BB-OR)
- BC, Quesnel 10/31 1927 advice about preventing frozen water CKCQ pipes "courtesy of the City of Quesnel" ID 1931. Very strong
- w/KQEU nulled. (NH-WA)
 930 *KHJ* CA, Los Angeles 10/29 0442 w/TT. (RW-CA)
 990 *KHVH* HI, Honolulu 10/1 0646 noted w/TT's. Per phone call, they were fixing the xmtr. (DP-HI)
- 1070 CKST AB, St. Albert 10/28 0131 in KNX null, first thought it was CFAX until clear call ID was given; good signal, and a newie, too. (RT-CA)
- KBMR ND, Bismarck 10/19 1900 NBC nx; 1905 local nx; 1910 "Dakota
- Country News." Fair o/weak WDGY. KWKH not in yet. (ØW-C0)

 CA, Palm Springs 10/30 1445, also 11/2 1215 weak, but continuous

 TT in null of KPRZ-1150 slop. No IDs, just TT. I called KCMJ on
 11/2, they confirmed they were testing daytime only so far, for
 about 3 weeks. Person I talked to was surprised I hrd them, said 1140 *KCMJ* it was only 1kw, but they might've been gradually increasing power. Still on 1010, soon to switch to 1140 though, 10kw day/5kw night. I'm glad I called to confirm my suspicions, hi. New. (JH-CA)
- 1170 *KOHO* HI, Honolulu 10/20 0810 noted w/carrier instead of SP. (DP-HI)
 1180 KERI CA, Wasco-Bakersfield 11/2 0855 good ID ** "Your Calif. Sunshine Station, KERI. AM 1180, K-E-R-I Wasco-Bakersfield." Nx w/NEN. (DP-CA)
- OR, Portland 10/1 0648 Streisand's "People," DJ mentioning
 "Love Line" on "Northwest at Night" Friday. Tom Bosley PSA for
 Amer. Physical Therapists Assoc. Poor, long deep fades. (DP-HI)
 ND, West Fargo 10/31 u/WOAI 0750. Atop 0757 w/contemp. Christian 1190 KEX
- 1200 KFNW mx & local talk by female. ID 0759 well atop. UPI nx at 0800. Still atop 0837 w/religion. 1st time hre. (DKK-CA)
- 1210 UT, Washington-St. George 11/2 0900 very good w/political nx, KCLG
- ID as "KCLG, Washington-St. George." (DP-CA) UT, Roosevelt 10/28 0847 C&W mx, MST TC, local traffic & Roosevelt area nx items. Bad KOIT-1260 slop but finally pulled 1250 KNEII this one through after a year of trying. Now for KHIL & KUIK. (DKK-CA)
- 1270 KORY NV, Sparks-Reno hrd at 2147 on 10/23 w/T-40 oldies. (BB-OR)

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KAJO OP, Grants Pass 13/28 0955 atop w/ID w into nx. In well 10/31 at 0945 too. Am sure it's a pert to anyone 20 miles away from KOIT. (DKK-GA)
KOHU OR, Vermitton 10/27 0234 solid atop w/two IDs, then add mx.
127
1360
                                                                                 Stayed atop until s/off at 0259. This 13 the one w/studios on River Rd. I noted last winter. REER-1370 slop usually buries 1360 but was mostly absent on 10/27. (DRR-A) 03, Ellisboro 10/27 o/FORD 0244-0247 w/race results from
                                                                                  Portland Meadows & one other track. Seen lost to KCHU/KAMT
                                                                                Portland Measures & one other track. Seen fost to KCASARAL to 2028. (DEM-SA)
ES. Codge city 10/19 2032 Dadge City Demons wo Breat Hend
Eanther FD game. Good sig, but fady. Conerally dominant, but
mixing w/MSCP/MCH2. (Zd=CO)
HI, Pearl City 16/12 2337 per local columnist Dave Monnelly,
HIDT signed on officially Cot. 11 w/Alan "Tom" Adam's morning
show. Permat is MCR/AC. Initially it was on 0520-1200 MST, but
per N. owner would run it until 2230 MCT today, to 3000 Cu &
Non (it turned but to be 2230 again). As strong as HIEI,
meaning it's not as strong as Honolulu stac. NCCH-1420 Slop.
(70-40)
 1370
 1380
                                        KLNI
 (DE-NI)

1300 KENN NV, Armington 10/10 2027 bug mx, local add. Cenerally dominant, but fady and QFN from K.M. (Marce)

1400 KUNA A, San Luis Oblige 10/30 W/ID 2003 for dim W/ERS on rare CF. End LI/M2I type format. In/out until I retired at 0630. (DKX)

1410 KRIS TM, Odecsa 10/10 2100 Recmire Latthers (Odessa) vs 'soper Coupars (Abilene) FT mame, local ads. Very soci signal, dominant. Some mixing w/KVER. Fermian wen same 27-0. (Marce)

1500 KSFF NMI, St. Faul-Minnearchis 10/00 1245 strong at times w/North

Diars NMI hockey. (CH-A)

1560 PKIIV?

1500 COMPAND THE COM
                                                                                   CA, Millows 11/3 0930 poer in meso 9/6 EDM. And of SSB, full sylon, ID. Only legral two others times Mapt. (83. (SY-CA) UT, Manti 10/22 w/ID 0829 arout even w/MEDV. (DEK-CA)
    1590 KMT I
    UNIDa:
     840 10/29 0532 uniD rr briefly o/m KDME (new AMP)/MDAS, faded cut, wonder if this has anything to do w/mg uniD of hird last week on this
                                          wonder if this has anything to de W/my While or and tast week on the free? It KEDP on at this hour? (RMEA) 10/30 w/party King show 0430-0630 in/out. (DEE-CA) 10/30 w/palknet noted ground 0515. KLME? (DEE-CA) 10/30 w/cam format in/out 0520-0630. ??? (DEE-CA) UnID TIS had at 0910 on 10/20 w/II. Chly had the last part of it. I did hear E??-985 by a man. Who is thic? (TE-CA)
     1400
     1400
     1400
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Thanks to old our MOXE separters this week!

AM radio is set to go stereo

1610

CANBERRA stations will be able to broadcast in stereo on the AM band by the end of the year, after a Government decision announced yesterday.

Communications Minister Mr Duffy said that after consultation with in-dustry, the Government would intro-duce the Motorola AM stereo system, rather than let all four stereo AM

rather than let all four stereo AM systems compete.
"After lengthy discussions with the Federation of Australian Radio Broadcasters, it was decided that the best solution was to introduce a single of confusion which has severely affected AM stereo's introduction in America."
Mr Duffy said.
"The problem would have been ex-

Mr Duffy said.
"The problem would have been exacerbated in Australia because some cities would have adopted a complete ly single-system approach, as is likely in the case of Melbourne, while other cities would have had stations using up to four different systems."

He said a multi-system approach would have had the public confused about what equipment was needed to receive AM stereo.

In the U.S., the trend was towards the Motorola

was towards the Motorola standard and the receiver; industry had backed this approach, he said tests had shown that single-system receivers performed better and were cheaper than the multi-system receivers available.

Mr. Duffy gald listenary

available.

Mr Duffy said listeners
would need special receivers to pick up stereo transmissions, but AM radios would not be affected by

Left

Melbourne Sun October 9, 1984 via David Headland





EDITOR: Jim Hall, 240 Byron Rd., Pgh., PA 15237

Another big column this week... Most of the Trans-Atlantic loggings are from Neil Kazaross who submitted a fantastic report a few weeks ago. And there's a mighty large Pan-American buildup here - I'll put about half in this week and the rest next week because there's so much. Mark Connelly noted great AU CX on October 28 and sent in a terrific report for us. Also, there's reports lingering from W. Wyllie, G. Thomas, G. Smith and myself. I hope to soon be logging more Latins with a permanant beverage antenna. I asked for construction tips from Neil Kazaross since he offered in a forum, but that certainly does'nt mean anyone else can't help! So for now, read and enjoy.....Times are GMT/UTC.

TRANS-ATLANTIC DX

1359

TRANS-	ATLANTIC DX
155	WEST GERMANY, Donebach-0216 8/23; Good w/GG pops // 756. (Kaz-ME)
549	
2.7	IND-0335 9/25; Whother Bass with the state of the first the time, so Algeria likely. (Thomas-FL) In at the time, so Algeria likely. (Thomas-FL) TUNISIA, Tunis-Djedelda-0432-41 9/22; Peaking fr/gd // 7225 w/slow TUNISIA, Tunis-Djedelda-0432-419 6 of ther. (Kaz-ME)
630	TUNISIA, Tunis-Djedelda-0492-0197221 Tokanara (Kaz-ME) AA chants. Mixed w/Cuba/WPRO O/WQBS & one other. (Kaz-ME)
657	AA chants. Mixed w/Cuba/WPHO 0/WQSS & one other. MOROCCO, Laayoune-0219-23 E/27: Peaked v. good w/AA singing & bftl MOROCCO, Laayoune-0219-23 E/27: Peaked v. good w/AA singing & bftl
1127	MOROCCO, Laayoune-0219-23 6/27: reaked v. 2004 MARC slop. violins. Slightly growled from presumed Spain, a little WNBC slop.
	(Kaz-ME) ALGERIA, unlisted outlet-0451 8/31: Poor but clearly // 254/531 w/
756	ALGERIA, unlisted outlet-0451 6/51: Foot out of the first outlet-0451 6/51: Foot outlet-045
234	AA chants. (Kaz-ME) UNID-2340 8/31: Very weak carrier here in superb Afro cx. Possibly
c)4	UNID-2340 8/31: Very weak carrier here in the result was TVI - Liberia listed here. Belize on 830 now. Don't thirk it was TVI - Liberia is only one
	not metting any other TVI SIRRAIS. (RAZ-ME) (DISSIPERATE)
	on 834 now according to 64 Whin. Moved here from 836 on 9/20.
837	
	time here. Also 2343 9/29 v. good o/Canalies. (National Property of the here. Also 2343 9/29 v. good o/Canalies. (National Property of the here. Also 2343 9/29 v. good o/Canalies. (National Property of the here. Also 2343 9/29 v. good o/Canalies. (National Property of the here. Also 2343 9/29 v. good o/Canalies. (National Property of the here.)
872	
1124	Another tantalizing off freq. In W/AA tlk o/slight 1125 het. LIBYA, El Beida-2226 9/21: Foor w/AA tlk o/slight 1125 het.
	LIBYA, El Beida-2226 9/21; FOOT WARK the Obligation of the "Everyone" had this 10 years ago - now although listed as 500kw its "Everyone" had this 10 years ago - now although listed as 500kw its "Everyone" had this 10 years ago - now although listed as 500kw its "Everyone" had this 10 years ago - now although listed as 500kw its "Everyone" had this 10 years ago - now although listed as 500kw its "Everyone" had this 10 years ago - now although listed as 500kw its "Everyone" had this 10 years ago - now although listed as 500kw its "Everyone" had this 10 years ago - now although listed as 500kw its "Everyone" had this 10 years ago - now although listed as 500kw its "Everyone" had this 10 years ago - now although listed as 500kw its "Everyone" had this 10 years ago - now although listed as 500kw its "Everyone" had this 10 years ago - now although listed as 500kw its "Everyone" had the proposition of the proposition
	"Everyone" hrd this 10 years ago - now although first are substant- sig is much weaker. 827, 1251, 648, 711 in that order are substant- ially easier. Also 0406 9/20 poor #827 w/AA tlk in WNEW slop. (Kaz)
1006	FRANCE, Bordeaux-0345 9/19: Poor w/FF male. (Thomas-FL)
1206 1286	
1200	
	Also 9/24 2215-2300 when off. Very primitive streams weakly hetted poor & audible occ. Again w/same mx 2242 9/27 v. poor. Weakly hetted by 1287 at times. 1224, 1304, 1349, 1367 all in really well when
	this was hid. Mx similar to 1224. Can disjoint the wide with the wide the wide with th
1304	watts per 84 WRIH.JH) SENEGAL, Dakar-2358 7/5: Quite common. First noted ex-1305 (where
	SEMEGAL, Dakar-2550 /51 Gulter Common of the State of the
1313	
1 341	hetting Spain - soon laded (hear surface) t CANARY ISLANDS, Santa Cruz-2318-28 9/23: Poor w/SS tlk w/1340 notched, during good Afro cx. Also weak het from 1269 was prob-
	Conony (Koz-MF)
	Canaly. (Raz-har an African cy w/mx thru slop, maybe new

UNID-2252 9/23: Poor in African cx w/mx thru slop, maybe new

Nigerian listed in DXWW II. Also, audio bits 2240 9/27 in slop. Het other late Sept. nights. Gone shortly after 2300. (Kaz-ME)

- STATIAL, St. Louis-2243-2307 9/23; Is also on pre- G.P. channel w/occ xint peaks // 1304 w/FF tlk. No break for armts on hour. 1367 Again // on 9/24 at 2245. 9/27 v. good peaks but not // 1304, w/FF/ African mx 2244. This must be my FF speaker hrd last season w/ 'LV de la Revolution' ID. This and 1304 both go off at 0000. Is quite a bit stronger than Angola which is also here. (Kaz-ME) Quite a bit stronger than Angola which is also here. (Aaz-ma) ANGOLA, Luanda-0105 9/25: Poor thru slop // 1088/944 w/Afro mx. At least a carrier is often here on good African nights. (Kaz-ME) UNID-2242 9/23: During xint Afro cx w/bits of mx thru slop w/1367
- 1368 notched. Gone after 2300. Het here other nights, but weak in late September Afro cx. (Kaz-ME)
- TRANCE, synchros-0457 9/22: Fair // strong 1206 w/FF tlk. Conakry is off from 0000-0600. (Kaz-ME) 1404
- ALGERIA, Alger-0500-5 9/22: Poor/fair w/s/on w/NA, into AA chants. (Kaz-ME) 1422

PAN-AMERICAN DX

- COSTA RICA, Cartago-TICAL-0257 10/28: SS vocal fr. to gd. w/only a minimal 531 het. This is definately the easiest Costa Rican 530 here now despite the absence of the splits. (Connelly-CC-MA)
- VENEZUELA, Villa del Rosario-YVOV-0258 10/28: 'R. Perija' ID very 540 clearly dominant. (Connelly-CC-MA)
- VENEZUELA, Caracas-YVKE-0259 10/28: Venezuelan ads, 'R. Mundial' 550
- VENEZUELA, Caracas IVAS -0259 10/20: Venezuelah aus, A. Muhdal & T. Placificado' IDs. (Connelly-CC-MA)
 CUBA-0300 9/23: B. Reloj w/time pips on min. & nx by man/woman in SS. Weak but good sig., also noted 9/29. CW'RR' also, o/NY stn here. (Wyllie-MA) (William-Neil Kazaross thinks this is probably 570 just a program switch from the old R. Rebelde previously on this
- freq. If so, location is Santa Clara, call is CMEA, pwr is 30kw.JH) PUERTO RICO, San Juan-WKAQ-0428 10/28: 'R. Reloj' & 'WKAQ' IDs, nx 580 in SS; way o/Cuba & YV (Venezuela). No trace of any US/Canadian (Connelly-CC-MA) stns.
- t TRINIDAD, Port of Spain-VPL6-0238 10/28: Bits of calypso mx, accented tlk o/v SS LA & WGIR. (Connelly-CC-MA) 610
- PUERTO RICO, San Juan-WQBS-0233 10/28: Strong & dominant w/salsa 630 mx, ads for companies in Mayaguez. (Connelly-CC-MA) (Mark-Do Puerto Rican stns broadcast in SS and EE?JH)
- UNIDs-(no time/date given): Unk SS stns here v. weak, definately 660 two SSers behind WNBC. (Wyllie-MA) (William-R. Progreso's almost certainly one of them, the other could've been one from Columbia, Venezuela, Nicaragua; others unlikely. Try to ID them.JH)
- COLUMBIA, Cali-HJCX-0325 10/28: Loud w/boisterous 'Sutatenza Cali ID. (Connelly-CC-MA) 700
- 740 CUPA, probably Pinar del Rio-0432 10/28: Michael Jackson mx. H.
- Rebeide // 590 et al. (Connelly-CC-MA) COLUMBIA, Barranquilla-HJAJ-0617 10/28: Dominant w/RCN pgm w/ 760 accordians. // 770. (Connelly-CC-MA)
- VENEZUELA, San Cristobal-YVOD-0336 10/28: Loud w/what sounded like 780 an awards pgm - applause sounds noted. Participants were from numerous Venezuelan towns incl. Maracay & Caracas. (Connelly-CC)
- COLUMBIA, Bagota-HJCY-0307 9/29: R. Sutatenza w/good strong sig 810 O/WGY. First Pagota str here, possible s/off at 0356. (Wyllie-MA) COLUMPIA, unk. loc.-0030 10/15: 'R. Sutatenza' net ID. Presumed
- 830 to be HJDM. Good sig. (Smith-DC) (Sardner-If this is HJDM.
- location is Medellin. Can anyone confirm this?JH)

 RRAZIL, Rio de Janeiro-ZYJ459-0522 10/28: Kint & dominant w/men in

 PP & PP vocal. Annoying het from something on approx. 859.7. 860 (Connelly-CC-MA) (Possibly someone off frequency?JH)
- ARGENTINA, Buenos Aires-LRA1-0235 6/6: Pr/fr w/'R. Nacional de Argentina' ID by m in SS, cl mx, ID into piano mx. Also 0400 6/3 870
- VENEZUELA, Valencia-YVLW-0007/R/14: Pr/fr w/Algeria pest on 891 phased. 'Agru R. America' ID, LA mx. (Kaz-ME)
 UNID-2305 10/14: ID as 'R. Valento, La Ondas de la Melodia'.S/on 890
- 900 then at 2305 w/great sig & pizzacato strings, also played Beethoven's 5th Symphony & Mozart's concerto, faded, then Cuban came up. (Smith-DC) (Gardner-Sorry, nothing listed in 84 WRTH. Ideas anyone??JH)
- 920 COLUMPIA, Cartagera-HJAE-0519 10/28: 'Emisora Fuentes' ID just o/ mess. (Connelly-CC-MA)
- 940 MEXICO-XEQ-0550 8/27: V. poor sig w/good but soft audio. Can't figure out slogar. Only possible after CBC FF Canadian s/off. Hrd

ancr say 'El Q' - listed in WRTH as 'La Q de Mexico' but never hrd that slogan. Seems to go off air at 0600. Many ments of Mexico so must be Mex. (Wyllie-MA)

+0555 9/21: MoR SS mx, plowing signal xint atop mess, sounded like powerdown to 50kw xmtr at 0605 - could hear after pwrdown but barely. (Hall-PA)

990

VENEZUELA, Barquisimeto-YVTA-0604 10/28: Dominant w/Barquisimeto ad, 'Mundial Tricolor' ID. (Connelly-CC-MA)

COLUMBIA, Barranquilla-HJAI-0446 9/23: 'CARACOL' ID, nx at 0455, pips on hour, SS mx. Also 0240 9/6: 0250 Comedy Show in SS, TC 1040 at 0300 w/hourly pips, much splash from WBZ 1030. (Wyllie-MA 9/23, Wyllie-RI 9/6)

CUBA-0543 10/28: SS party mx (yeah!JH) //1070. (Connelly-CC-MA) FR. GUYANA, Cayenne-2323 9/24: Pr/fr w/others. FF m // 3385. Also 1.060 1070 0028 8/14 poor w/interesting instr. mx // 3385 w/SS LA QRM, CBA phased. Noted several other times in late Sept. AU, never as good as 4/30 logging. (Kaz-ME)

CUBA-0543 10/28: Festive SS mx // 1060. (Connelly-CC-MA)

COLUMBIA, Barranquilla-HJAT-0210 9/3: LA mx as always, 'R. Reloj' 1100 IDs. Popping up all summer at Prudence. (Wyllie-RI) (William-Are you sure you have the right Reloj? There's three to choose (Williamfrom betw. Cuba & Columbia. Just checking. As a matter of fact, I just chked 84 WRTH & there's no Reloj listed for Cuba. So, you have two to pick from. Did you get a call ID here? Sorry for this bit of confusion folks! JH) ANTIGUA, St. Johns-ZDK-0205 10/11: Booming in w/bizarre DJ w/ rock-n-soul, o/Cuban ticker. No 3WE. (Smith-DC) (Here we go w/ that Cuban ticker again! Maybe there really is a Cuban Reloj here w/Columbian Reloj's, or do the Columbian Reloj's tick also????????

Talk about bizarre, eh Gardner. Any confirmations?JH)
VENEZUELA, Punto Fijo-YVMM-0550 10/28: Fast SS vocals, ID as 1150 Mundial Caribe'. Bombing WHUE into oblivion. (Connelly-CC-MA)
BRAZIL, probably Vitoria-2334 9/24: Noted // 1180/1200/etc. w/PP
tlk. Pr/fr sig. Also 7/4 0042-3 w/PP tlk poor but atop. Tentative 1160 ment of Espirito Santo hrd, no net pamming at this time. Presum-

ably ZYI202. (Kaz-ME) (Espirito Santo's the most powerfull Brazilian here, folks.JH) PUERTO RICO, Ponce-WLEO-0032 6/4: Poor w/'El Leo' & P.R. ment

Using ECSS to get thru somebody's OC in AU CX. Still 250 watts? (Kaz-ME) (84 WRTH still has 250. Great catch! JH)

1170

1180 *** FRAZIL-2309-21 9/27: TWO Brazilians here! One was on the nat'l net, other had m & w in FP seemingly // 1290 which popped thru from time to time. Rapid fading & dominance trading betw these two. Lost to SS LA 2321. Also 2352 9/24: Male PP tlk gd. well atop other Braz. w/futbol net. Talker sd/lk // 4785 which was nearly buried in UTE QRM. If it was // it would be R. Ribomar in Sao Luis on the N. coast. I assume the other is ZYJ463 in Rio which is most powerful listed & is in sometimes when Rio & Sao Paulo (East/Cent. Braz.) is in well, but N. coast (Fortaleza) is not. I wish I could get a listing of which ZY's carry net pgmg as it's nearly impossible to get local IDs when they're on nat'l network

% they (1180 incl.) ID only as H Nacional. (Kaz-ME) BRAZIL, Fortaleza-ZYH585: 2329 7/6: Fading in really early w/PP 1200 nmazil, Fortaleza-ZYH505: 2329 7/6: Fading in really early w/PP
tlk & mx. Good 0121 w/PP tlk. Good on Bev., v. poor on loops
0000-0002 7/4 w/Fortaleza ment, AM/SW freqs., 'Ceara R. Clube'
ID, no QEM, peaked to xlnt. 0017 w/lively PP song. Was common
early eves in July & usually knocked out by YVOZ by 0030-45. (Kaz)

1290 t BRAZIL, Sao Luis-ZYH808-2309 9/27: W/WKNE phased out at 2309. I
hrd PP m & w which sd/lk // to the 1180 stn. I presume to be Sao
Luis. By 2312 WECP which is PP was coming in & these 2 PP stro

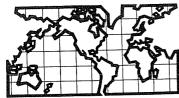
Luis. By 2312 WRCP which is PP was coming in & these 2 PP stns were QRMing along w/WKNE which was growing harder to phase. 1180 had the 2 ZY's wildly trading places. By 2319 WRCP was way atop when WKNE nulled. Two PP stns on two channels - what a mess!!! Very difficult to tell what was what. 9/27 w/N. coast ZY's in exceptionally well. (Kaz-ME)

MEXICO, Cd. Acuna-XERF-0245 10/11; EE holy-rolling ("Praise de Lord!"). W/ all the Canadian jazz now, rarely hear XERF, but in 1570 1956 they had the channel to themselves. AU CX tonite, about six low grade hets. (Smith-DC)

Turned out to be a great column this time around. Hope no major errors appear here - if so tell me and I'll make sure it gets mentioned sometime. You guys are doing a great job for DXWW-E - keep it up! I want to quickly thank Karl Zuk for the notes of congrats - same to you on the super job on EDXR! Let's all make it a great season - it's already started.

REPORTERS FOR THIS ISSUE:

(Kaz-MF)	Neil Kazaross, PO BOX 1908, Ogunquit, ME 03907 TCOM R-70- phased Bevs. 1350' at 150 degrees, 1450'
	at 60 degrees, Bohac-loop, Connelly APT-2, BBA-1.
	proto-MWDX3 phasing unit, phased lw's.
(Connelly-CC-MA)	Mark Connelly, 7 Trowbridge Path, W. Yarmouth, MA 026 SONY ICF-2001- Two 30-m./100' wires, phased w/MWDX3
	phasing urit.
(Thomas-FL)	Gerry Thomas, PC BOX 2036, Pensacola, FL 32513
	ICOM E-70/Superloop : FE3-7/dipole.
(Smith-DC)	Gardner Smith, 1000 Perry St., Washington, DC 20037
	SONY CFM-15.
(Wyllie-MA)	William Wyllie, 95 Peck St., Franklin, MA 02038
(Wyllie-RI)	William Wyllie, DXing at Prudence Island, HI
· -	SHARF GF-450 AM/FM/SW1/SW2. built in antenna.
(Hall-PA)	Jim Hall, 240 Byron Rd., Pittsburgh, PA 15237
	KENWOOD h-600, 100'/400' lws.,3'/5' duel loops,50'
	vertical wire.



DX WORLDWIDE - WEST

Pat Martin - Editor

P.O. Box 843, Seaside, Oregon 97138 (503) 861-3185 - deadline Tuesday

DX of late here has slowed down somewhat. A few 33s and South Pacific Stations are still in here but not as good as it has been. We do have a good turnout this week anyway. Lets hope conditions improve back where they were. The Far East Radio Club and Y. Kato reports Radio Moscow has QRTed since early September. With no other news to report, on with reports:

PAN-AMERICAN DX ROUNDUP

610	MEXICO, Sabinas, Coah. XEBX 10/19 at 0110. Local ads, several ID's
	as "X-E-B-X" Generally under, but occ. over KRKE. Hrd past 0200
	w/LA mx (ØW-Co)
655	EL SALVADOR, San Salvador-YSSS Radio El Salvador. 10/27 at 0036
	Pop/romantic vocals. OM ancr after each w/TC one-liners about
	"Liberty" freedom of thought,etc. Fair at best,long fades // to
	new frequency 9587.3, strong here nightly. (ØW-Co)
730	MEXICO, Mexico City, D.F. XFX 10/20 at 0410 live futbol, Monterrey vs
	??? VG signal,alone on freq. (ØW-Co)
760	COSTA RICA, San Jose-TIIX "Radio Columbia" 10/20 at 0348 Futbol game
	Good signal, alone on freq. no WJR!!! // 4850 SW new. (ØW-Co)
1370	MEXICO, Mexicali, B.C. XFHG 10/20 at 0030 Ranchera mx. cigarette ad
	lots of ads for weekend dances in the area. "H-G" slogans Fair in
	KSOP/KGNO null(ØW-Co)
1470	MEXICO, Tijuana, B.C. XERCN 10/20 at 0117.Local ads, slogans "R-C-N
	Tijuana" Fair, fady mixing with XECU (ØW-Co)
1540	MEXJCO, Hermosillo,Son. XEHOS-10/20 0220 LA mx,many ads, fair to
	good at times, but long fades and mixing w/KXEL and two other S5
	stations on the frequency (KUQQ and KEDA) New XE #60. Anyone have
	the addesss of XEHOS? I want to ship em a report.

TRANS-PACIFIC DX ROUNDUP

558		JAPAN, Kobe-JOCR-heard 11/2 at 1420 with talk in JJ signals weak and lots of slop from 560 (BB-Or)
567		JAPAN, Sapporo-JOIK heard with fair signals w/talk in JJ on 11/2 at 1427 (BB-Or)
576		PHILIPPINES, Mandawe City (Cebu)-DYIM possibly the one hrd again at 1450 on 11/4 w/ Sports match, either Basketball or Soccer, way u/2FC. Wish I could get an ID on this one! Def. talk in Philipino,
639	t	some EE words "Persona; Fouls, etc. Will keep trying. (PM-Or) AUSTRALIA, Port Pirie (Crystal Brook) 10/24 at 1415,pop mx 1425- ABC News faded out 1428 to fade up at 1429 with what sounded like a National Anthem, OC at 1430,carrier, het gone } minute later. Poor to nil KFI nulled (BH+NH-Wa)

JAPAN, Sapporo-JOIB 1342 11/2 vy good om in JJ (DP-Ca) JAPAN, Akita-JOUB 1347 on 11/2 Excellent om in JJ. Appeared to be 7/747 Khz Great signal (DP-Ca) 747 774 PHILIPPINES, Cagayan De Oro-DXCC-good o/u JJ at 1434 on 11/4 w/Old 828 U.S. Pops mostly ID's "R-M-N, Radic Mindanao Network, Radio D-X-C-C, Cagayan....D-X-C-C, Radio 8-2-8, R.M.N.-Cagayan de Oro..." Slight KIKI splat,no KSWB QRM (PM-Or) $\overline{\text{UNID}}$, on 10/29 at 1030, Unid rr fading up briefly o/u WHAS-KSWB then lost, is KSDP AN? (Not that I know of, but KDLG is during the Summer months, and KSDP does run some NPR pgms from KDLG. KSDP does run a local rr pgm at night.PM) Wonder if this has anything to do with the unid FF hrd. Is KJKN Pharr, Texas on? (RW-Ca) 840 <code>HAWAII</code>, <code>Honolulu-KHVH</code> at 1046 on 10/1 Noted with Test Tones in keys of B-flat and A (DPK-Hi) 990 PHILIPPINES, Iloilo-DYRP, fair at 1130 on 11/4 with U.S. Pops and ID between records "R-P, D-Y-R-P, Iloilo....R-P". (PM-Or)
NEW ZEALAND, Wellington-ZZR 10/29 at 0914 quite good with National 1017.6 1035 Phone-in talk show. Mentions of New Zealand Party, phone number in Christchurch. KTWO-1030 off MMs so clean signal between the Domestics, nearly het free, but long deep fades. 1000 GMT break for news, ad for Bank of New Zealand. Zedder #2 for Nancy, Country #21 for Bill (BH-NH-Wal) CHINA, 10/29 at 1032 Tent. w/Oriental language, YL into some type 1044 of Opera Oriental mx, in solid for 6 minutes, completely slopping XED and WHO, massive hets on both. Can't tell the difference between CC,KK, or JJ hi (RW-Ca) HAWAII, Honolulu-KWAI at 1120 on 10/29 vy good Noted back on ex KZHI w/ID by DJ "This is KWAI on the air for testing purposes only" and carrier off 1128,on at 1128 off at 1129. Later noted 1080 on at 1158 w/CHR mx, then Test tone (DPK-Hi) MARSHALL ISLANDS, Majuro-WSZO at 0730 YL DJ w/by Corey Hart, other rr mx.local groups, during KFAX fades,Vy poor on 10/17 (DPK-Hi) 1098 HAWAII, Honolulu-KOHO-at 1210 on 10/20 Noted on with carrier instead 1170 of SP (DPK-Hi) HAWAII, Pearl City-KLNI-at 0437 on 10/14 Per Newspaper KLNI officially signed on 10/11. Format is MOR/AC. Initially on 1530-0500 UTC 1380 current sked is 1530-0830 UTC. As strong as KLEI meaning it's not

VERIFICATIONS:

PHILIPPINES, Iloilo-DXRP, nice friendly two page letter in three weeks, Mint stamps return postage. Listed most details in letter, except time, gave rundown on transmitter and antenna (1965 Phil. made)v/s Ernesto G. Flores-Network Eng. Mentioned that recording I sent was quite readable. Philippine Verie #4-5 KW (PM-Or)

as strong as Honolulu stations, noted 10/14 (DPK-Hi) (Per QSL from

THANKS TO THESE REPORTERS:

BB-Or Rill Block-9307 Southeast Clay Street-Portland, Oregon 97216 R-390A, Radio West Loop
NH+BH-Wa Nancy and Bill Hardy-2301 Pacific Avenue-Aberdeen,Wa. 98520

NH+BH-Wa Nancy and Bill Hardy-2301 Pacific Avenue-Aberdeen,Wa. 98520 FRG-7, SM-1 Loop

NH+BH-Wal Nancy and Bill Hardy DXing at Greyland Beach Park

DP-Ca Doug Pifer-4366 Ocean View Blvd. #3-Montrose, Ca. 91020

FRG-7000, MW-1 Loop DPK-Hi Dale Park-2253 Kanea

Dale Park-2253 Kanealii Avenue-Honolulu, Hawaii 96813

SONY ICF-6700W, TRF RW-Ca Robert Wien-1309 Dent

Robert Wien-1309 Dentwood Drive-San Jose, Ca. 95118

GE Superadio, G.E. TRF (Ca 1962) Loop

Tom Adams they are currently 3.5 KW. PM)

ØW-Co John Wilkins-4385 Hoyt Street #205-Wheat Ridge, Colorado 80033

R-1000, 4 foot loop

PM-Or Yer Editor

SP-6003X, RBO-2, 200' Term. LW, (2) 1500 Foot East Beverages, Grounds.



SPORTS NETWORKS WEST

To reflect the addition of "sports Networks" to the roster of DXM columns as of October 20, this column's name has been changed to the above to reflect its origination. Please contribute to either column by sending information about your favorite team. Meanwhile, this time we will try something different. For the benefit of sports fans without a current Vane Jones, White's, or even NRC Log, cities will be listed for the following CFL stations. So grab a can of Moosehead and some fatbacon pizza, and get ready for endzone putning for singles, eh?

CANADIAN FOOTBALL LEAGUE

BRITISH COLUMBIA LION	38		(via Nei	il Gallagher, CFUN Radio)
J. PAul McConnell, To	om Larscheid, Annis Stukus	, Tom	Bricker	
550 CKPBBC _u	Prince George	1280	CHQBBC	Powell River
570 CKWLBC4	Williams Lake	1340	CHNL2-BC2	Asheroft
610 CHNLBC	Kamloops	1350	CJDCBC ₁₀	Dawson Creek
630 CKOVBC	Kelowna	1370	CHPQBC	Parksville-Qualicum
800 CKOKBC@	Penticton	1400	CFLDBC	Burns Lake
850 CFVRBC	Abbotsford		CHNL1-BC2	Clearwater
900 CJVIBC	Vietoria		CINLBC ² @@	Princeton
920 CKCQBC	Quesnel	14 10	CFUNBC	Vancouver
1050 CKALBC	Vernon	1440	CFCPBC	Courtenay
1230 CJNLBC ²	Merritt	1450	CHETBC6	Chetwynd
CFBVBC,	Smithers		CHBVBC	Houston
1240 CKGOBC	Норе		CKSPBC ₆ @	Summerland
CKMKBC,	MacKenzie	1480	CHLDBC	Granisle
CKBXBC ⁴ CK00BC ³	100 Mile House	1490	CFWBBC	Campbell River
CKOOBC ³	Osoyoos		CKBABC	Hazleton
CJAVBC _o	Port Alberni		CK001-BC3	Oliver
CFNIBC°	Port Hardy	1500	CKAYBC	Duncan
1270 CHWKBC	Chilliwack		CHUBBC	Nanaimo
F	- F'!		5	
93.5 CKAL2-BC	New Denver	???.	? CKAL3-BC ₅	Invermere
100.3 CHNL3-BC2	Shuswap Falls		CKAL4-BC	Kaslo
102.1 CISWBCg	Whistler		CJFW1-BC11 CJFW2-BC11	Kittimat
103.1 CKAL1-BC	Nakuspo		CJFW2-BC11	Prince Rupert
104.5 CISPBC	Pemberton		CJFW3-BC 11	Queen Charlotte Island
104.9 CISQBC,	Squamish		CJFWBC	Terrace
106.1 CKGO1-BC'	Boston Bar			
1. Relays 550 CKPG. 2. Relays 610 CHNL. 3. Relays 800 CKOK. 4. Relays 920 CKCQ. 5.				
Relays 1050 CKAL. 6. Relays 1230 CFBV. 7. Relays 1270 CHWK. 8. Relays 1350 CJDC. 9.				
Relays 1440 CFWB. 10. Relays 1570 CHUB. 11. Relays CJFW-FM.				
@Listed as CKSP Penticton instead of separately. @@Is now CKRP and relays 800 CKOK.				

CALGARY STAMPEDERS Ken Newans

1060 CFCN--AB Calgary 6030 CFVP--AB¹ Calgary

Network: Unknown 1. Relays 1060 CFCN.

HAMILTON TIGER-CATS

900 CHML--ON Network: Unknown

MONTREAL CONCORDES (en français)

850 CKVL--PQ Verdun Network: Unknown

(in English)

800 CJAD--PQ Montreal Network: Unknown





SASKATCHEWAN ROUGHRIDERS			(via Willy Cole,	CKRM Radio)
570 CKSWSK 600 CFQCSK FM:	Swift Current Saskatoon	940 CJGXSK 980 CKRMSK 95.7 KCGMMT		Yorkton Regina Scobie

TORONTO ARGONAUTS

10.10 CFRB-ON Toronto 6070 CFRX-ON Toronto Network: Unknown .

1. Relays 1010 CFRB.

WINNIPEG BLUE BOMBERS Jeff Sandler, Rob Faulds, Ed Kotowich, Bud Harden Frances 1250 CHSM--MB 3
Dryden 1290 <u>CFRW--MB</u>
Altona 1340 CKIG--ON 2 Steinbach 800 CFOB -- ON Fort Frances Winnipeg 900 CKDR--ON Ignace 950 CFAM--MB CKRE--ON2 Red Lake 1150 CKX---MB 1220 CJRB--MB Brandon Boissevain 1400 CKSI--ON2 Kenora 1450 CKEF--ON2 Atikokan CKHD--ON2 Sioux Lookout Ear Falls CJRL--ON 1240 CFAK--ON Hudson 1. Relays 800 CFOB. 2. Relays 900 CKDR. 3. Relays 950 CFAM. BLUE BOMBERS

Saskatchewan **Roughride**rs



NATIONAL FOOTBALL LEAGUE

The following listing is courtesy <u>Broadcasting</u>, August 6, 1984, including size of networks and holder of broadcast rights, which are underlined.

Atlanta	920 V	WGST-GA	135 to 140 via Mutual Radio Network
Buffalo	930 (WBEN-NY	13
Chicago	780 7	WBBM-IL	None
Cincinnati	550 Ī	WKRC-OH	65 to 70
Cleveland		WHKOH	37
Dallas	1080	KRLD-TX	107 via Metromedia/Texas State Network
(Spanish)	94.1	KESS-TX	25
Denver	850	KOACO	45
Detroit	760	WJRMI	36
Green Bay	620	IW-LMTW	5,5
Houston	740	KTRH-TX	Over 65 via <u>Mutual Radio Network</u>
Indianapolis	1070	WIBC-IN	17
Kansas City	810	KCMO-MO	70 via Mutual Radio Network
Los Angeles Raiders	1110	KRLA-CA2	.23
(Spanish)	1020	KTNQ-CA*	6
Los Angeles Rams	710	KMPC-CA	21
(Spanish)	107.5	KLVE-CA	1
Miami	610	WIOD-FL	30
(Spanish)	107.5	WQBA-FL	None
Minnesota	830	WCCO-MN	30
New England		WEEI-MA	30
New Orleans	870	WWLLA	41
New York Giants		MNEM-NA	25 to 30 via Metrosports
New York Jets	770	WABC-NY 2	None
	570	WMCA-NY	
Philadelphia	610	WIPPA	27 via Metrosports
Pittsburgh	1250	WTAE-PA	About 100 via Mutual Radio Network
St. Louis	1020	KMOX-MO,	About 50
* * *	630	KXOK-MO"	
San Diego		KOGO-CA	None
San Francisco		KCBS-CA	19
Seattle		KIRO-WA ₅	52
Татра Вау		WSUN-FL	30 via Taft Broadcasting
Washington	630	WMAL-DC	About 100 via Metrosports
-			

Metromedia owns both KRLD and TSNi 2. Bob Speck Productions owns broadcast rights.
 Carries games if conflict on WABC occurs.
 Carries games if conflict on KMOX occurs.
 Taft Broadcasting owns WSUN.

Next time, college and pro information. See you in DXM.

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The IRCA is a non-profit organization devoted to the hobby of hearing distant stations on the AM broadcast band (525 - 1625 kHz). DX Monitor, the official publication of the IRCA, is printed 34 times a year: weekly from October to March, twice in September and April, and monthly from May to August. DX Monitor contains members' loggings, articles on radio stations, receiver reviews, technical articles, DX tips, and other material of interest to radio hobbysits. Ophilors expressed in DX Monitor are those of the contributors and not necessarily those of the IRCA, its editors or officers. Unless otherwise noted, permission is given to reprint non-copyrighted material provided credit is given to IRCA and the original contributor.

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