



DX Monitor

Devoted Exclusively to
Broadcast Band DXing

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Sun Jan 16 **WBZT-1130**, Waynesboro, PA will test 0100-0130 EST w/1000 watts D3. This will be their annual proof-of-performance test and will mostly use tones. Send reports to Louis Scally, CE, WBZT, Box 309, Waynesboro, PA 17268. Arranged by Bob Binau, NRC.

Sun Jan 16 **KALM-1290**, Thayer, MO, will test 0100-0115 EST with 1000 watts D1. The test will include test tones, voice and code IDs, and a taped conversation with Terry Klasek. Phone: 314-264-7211. A SASE is required for verification. Send reports to Bill Martin, CE, KALM, PO Box 15, Thayer, MO 65791. Arranged by Terry Klasek and Richard Eddie for NRC.

Flash Tips

We'll open this issue with a couple of flash tips:

The first is of interest mainly to the west coast coastal Beverage crowd. There is a special short-term low power (100 watts or less) station on the air for the Boy Scouts Jamboree somewhere in Queensland, Australia (I forgot to note the location). It will operate as 4SJ on 1620 kHz and it will be on the air 12/28 to 1/8 at 2000-1200 UTC (on 12/31, New Year's Eve, it will be on until 1415. Thanks to Chris Martin for this info....

Also, from Ric Heald, via Bill Hardy, comes word of another clear-channel-breaker -- KORD, Pasco, WA, which is now operating on 870 (ex-910). They're probably daytime-only for now, until they can get their nighttime facility running.

Mike Todd has a Realistic TRF-12-655 for sale. It's 3 months old, found new, in the box, at a rural North Carolina Radio Shack dealer. It's been modified with a PCIM digital readout, Gilfer filters, and improved antenna/ground input. \$65 or will trade for SM-2 or Radio West ferrite loop. His address is Box 392, Banner Elk, NC 28604. Phone 704-387-4561, no collect calls.

If you like DXing Latin American stations, you might be interested in a booklet called "LA-DXing", published by the Radio Nuevo Mundo DX Club of Tokyo, Japan. It's aimed at Shortwave DXers, but it includes info on many BCB stations, too. It's 118 pages long and includes schedules, wording of IDs, articles on stations, articles on stations, and Spanish and Portuguese vocabularies. Cost is \$6 (US), cash only, from Tetsuya Hirahara, 5-6-6 Nukui-kita, Koganei-shi, Tokyo 184, Japan.

.....
The Mystery DX Test was on as scheduled. The station was WHIM-1110 in Providence, Rhode Island. And it was arranged by (you guessed it) Craig Healy, who says he received phone calls from as far west as West Virginia during the test. If you heard it, the address for reports is c/o Craig Healy, PO Box 182, Cumberland, RI 02864.

That does it for this week's front page. Look inside for more DX items. 73, CU next week, and report often in 1983. bp.

A Review of the Drake R-7A

Craig Healy

I bought a Drake R-7A last summer and thought I'd share some observations on it. Sensitivity is quite good- 4 microvolts for 10 db signal to noise ratio on AM. Intermodulation specification calls for 99 db dynamic range. Image rejection is greater than 80 db. Antenna input impedance is 50 ohms on all ranges but 0-.5 MHz. There it is 200 ohms. It has digital frequency readout, covers 0-30 MHz with no gaps, has a noise blanker as standard and comes with the 2.3 and .5 MHz second I.F. filters.

When I started looking for a radio to replace my R-390A, I had a few requirements in mind:

1. Performance- It's gotta be good!
2. Size- After two years of moving the R-390A to the beach house, I was determined the next radio had to be smaller than a breadbox and light enough to carry under one arm easily.
3. Power- Had to work on 12 vdc as well as house current.
4. Coverage- At least 100 kHz to 30 MHz.

The R-7A did this and more. Also, since it is built in the USA, parts and service are a snap.

After a few months of use, I'm quite happy with it. Some points:

12 volt operation is provided by a jack on the back. When operating on house current, about a half ampere of 12 vdc (13.5 volts actually) is available to power outboard gear. I power a loop amplifier with it and no increase of heat in the power supply is noticed.

Tape output- At the correct level for most HiFi equipment. Works fine with my Sony reel to reel. This level is not affected by the setting of the volume control.

Antenna selector- It can switch between three antennae and send two of these out to another receiver. By putting one antenna to "main" and a second one to "ext. rcvr" and putting the selector switch to "main/main" the splitter works as a combiner. Such as with two phased longwires....or longwire and loop, or.....

As I suspected, sensitivity is more than adequate. I use an external 35 Mhz low pass filter. There are three TV stations and an FM not too far away and I prefer not to have their signals in my radio. They caused spurs in my R-390A. A 3db pad is also used between the R-7A and the filter, mostly for properly terminating the filter in a 50 ohm load. Even with all this stuff between the radio and the antenna, external noise is still the limiting factor on weak signal reception.

Strong signal handling seems fine. My location isn't too tough, though. The three strongest signals are 65mv/m, 30 mv/m and 28 mv/m. By comparison, at one mile, a one kilowatt non-directional station will show 150-250 mv/m signal strength. Three signals less than 100 mv/m is not a hard test. A few weak internally generated signals are audible. None are a nuisance.

The radio is built with 2.3 and .5 MHz second I.F. filters. A bypass position is wired in which only uses the first I.F. filter of 8-10 kHz bandwidth. Almost HiFi in sound quality. Factory options of interest are filters of 6 or 4 kHz bandwidth. Sherwood in Denver makes a 3 kHz filter. I haven't used any of these, yet.

Notch filter- Quite effective and easy to use. There is an in-out switch control, with a knob to position the notch in the passband.

Three ABC speeds are provided, plus "off" for manual gain control only. "Slow" and "medium" are good for ECB DX. "Fast" is for code transmission with full break-in. (QSK in ham lingo) This is what the factory said when I inquired about poor AM operation in "fast" mode.

The digital display reads out to the nearest hundred Hertz. It does jump back and forth when the frequency is about halfway between 100 Hz points. I don't find it a problem, though. Stability is great, short or long term. I leave my R-7A on continually as is my habit with some transistorized equipment. If any drift is noticed, chances are pretty good it's at the other end.

The noise blanker is pretty good, depending on what it's up against. I haven't seen a more effective one, and this has no adverse effects on a desired signal. I did have experience with a blanker on another brand of radio that caused spurs and intermodulation noise in the presence of a strong signal. This one appears to be pretty solid.

Audio- The AM mode is only fair. The audio is much cleaner and clearer in the SSB/CW mode. The internal BFO must be centered on the carrier frequency, of course. This effect is much more pronounced with weak signals. Upper or lower sideband reception can be chosen with the pass-band tuning without disturbing the main tuning. A good synchronous detector would help a lot here. It looks quite easy to add, too. I am working on a circuit, now. The internal speaker is as good as a small speaker can be in a less than optimal enclosure. An external speaker does help greatly. A headphone jack on the front seems to drive most any headphone well.

Tuning range- The top end of the BCB is a problem. The bypass filters in the front end are arrayed so that one filter covers the BCB. This is fine except that when this filter is selected, the radio (this one at least) only tunes up to around 1545 kHz. To get the rest of the band, you must use the next bypass filter up. This has a low end cutoff point of around 1650 kHz, and causes a noticeable decrease in signal strength from 1500-1610 kHz. Switching in the built-in preamp helps some but it still isn't great. This preamp is inactive below 1500 kHz, by the way. Example: Local station WADK-1540 is about S-7 $\frac{1}{2}$. With the preamp, S-8 $\frac{1}{2}$. By going over-range on the 1.0-1.5 MHz position the signal is about 10 db over S-9. This may seem like a lot of signal, but weak stations do disappear into the noise. I tried extending the range of the tuning oscillator to cover up to 1610 kHz or so. This produced a very annoying birdie around 1595 kHz. This wasn't satisfactory so another method was tried. By moving the band selector from the 1.5-2.5 MHz band back toward the 1.0-1.5 MHz position, a point was found that had the tuning oscillator in the 1.5-2.5 MHz band range working with the BCB front end filter. This was satisfactory on a temporary basis. Long term efforts will involve moving the low frequency cutoff point of the 1.5-2.5 MHz band filter to the 1.5 MHz area. This is the only annoying quirk found.

Durability seems to be fine. Good construction and parts are in evidence throughout the unit. My house was hit by lightning late this summer. The strike took out some coax connectors and an antenna loading coil. The radio only lost a small antenna input disc capacitor. No other problems were noted. A good cold water pipe ground did help, as did a "Blitz Bug" type lightning arrester.

In conclusion, I'm very happy with the radio. Longwave performance is quite good, shortwave is excellent, and the BCB is at least as good as the R-390A. I'd still buy it if I had to do it over again.

Seattle Times 12-5-82

Twisting the dial

One of the things some KING-AM people learned a few months back, when holding "focus sessions" with soft-rock listeners, was that they were confused by programs from RKO II Radio Network. North King County listeners, at least, told KING researchers they thought of KRKO, Everett, when they heard such programs. A short time later, KING dropped the RKO II Network, returned to NBC.

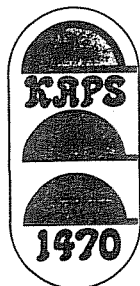
In a summer visit to Beltsville, Md., where they assemble the Arbitron radio ratings, another Seattle station's manager noted two diaries with indications of listening to "RKO-AM," very close to KRKO's identifying slogan of "RKO-14."

These diary entries were credited to KING-AM in the Spring, 1982, rating book.

WLLH
RADIO 140 STEREO 99
WSSH

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Best Bets in the Pacific Northwest

By Bruce Portzer

A few years ago, Bill Hardy wrote an excellent article in which he listed the most likely targets for logging the 50 states, DC, 10 provinces, and two territories. Since then, there have been many changes in the AM dial, especially in this corner of the country. Enough, in fact, to make it desirable to reexamine the relative ease (or difficulty) of hearing each of these political entities.

In this article I've ranked the states and DC from 1 to 51, and the provinces & territories from 1 to 12, then interleaved the two lists to give an even better perspective of where each ranks. For example, Alberta is the second easiest province to receive here and it ranks just behind the seventh easiest state, Utah.

Rankings themselves are somewhat subjective, based on my own experiences and those of other DXers in the region. The rankings are based on current and projected interference levels from co-channel and adjacent channel stations. There's a slight bias towards Seattle, since 1) it's near the center of the region, 2) it has the highest concentration of DXers in the region, and 3) I live there. However, I've tried to consider the whole region (WA, OR, and southern BC) in reaching this list. To a lesser degree, this list is also valid for an area bounded by San Francisco, Salt Lake City, Edmonton, and Juneau.

CATEGORY I: Very Easy

The following states and provinces can be heard on any receiver worth DXing with, on almost any night of the year (barring extreme auroral or sporadic-E conditions). Some can even be heard in the daytime.

1. Washington. No surprise here, hi. KIRO-710, KOMO-1000, and KGA-1510 have the biggest coverage areas, but you should be able to hear dozens of stations with no trouble.
1. British Columbia. This province has no shortage of 50kw powerhouses, such as CKDA-1220, CKWX-1130, CKLG-730, ad nauseum.
2. Oregon. If you live in Oregon, you may rank this one higher, hi. KEX-1190 and KPNN-1120 are the most potent.
3. California. Like BC, this place has lots of 50 kwers, like KFI-640, KNBR-680, and KGO-810.
4. Idaho. KBOI-670 is the leader here. Honorable mention goes to KRLC-1350 and KIDO-630.
5. Nevada. KROW-780 and KDWN-720 are quite potent at night. Depending on your location, you may have interference from KIRO-710, CKLG-730, KXA-770, KGMI-790, etc.
6. Utah. KSL-1160 is the winner by a mile. KLO-1430 is a distant runner-up.
2. Alberta. Several stations to choose from: CBR-1010, CBX-740, CFRN-1260, CFAC-960, and others. It all depends on who's on the same channel or the adjacent channel in your area.
3. Saskatchewan. CBK-540 is the winner by a wide margin.
7. Montana. KOPI-1180 should be easy unless you have a local on 1170 or 1180. KGH-790, KGVO-1290, and KEIN-1310 are respectable alternates.
8. Wyoming. KTWO-1030 is quite easy to receive everywhere in the region.
9. Texas. WBAP-820 is audible most evenings. WOAI-1200 is likewise.
10. New Mexico. It's a tossup between KOB-770 and KBCQ-1020, depending on your co-channel interference (KXA-770 or KTNQ-1020).

CATEGORY II: Easy

The following states and provinces can be heard on most receivers in most locations on most nights of the year. Poor conditions, co-channel interference and/or adjacent channel splatter can make these places more difficult to hear than the above states and provinces. However, it should be possible to hear them during evening hours on a decent radio, but it may be necessary to null out an offending semi-local on the same or an adjacent channel.

11. Colorado. KOA-850 should be easy to hear unless you live near the KTAC or CFVR transmitter sites. Otherwise, try for KREX-1100 with KFAX nulled.
12. Minnesota. WCCO-830 is the easy winner here. KSTP-1500 is also audible evenings w/CKAY nulled, and may become the easiest Minnesotan if something unmentionable happens....
13. Iowa. WHO-1040 is the winner, with no easy-to-hear alternates.
14. Oklahoma. Try for KV00-1170, KGYN-1210, or KOMA-1520, depending on your local interference.
15. Kentucky. WHAS-840 is the winner here.
4. Manitoba. CBW-990 puts a good signal into the Northwest, but some of us have KOMO-1000 or CKNW-980 to contend with.
16. Hawaii. Several possibilities here: KORL-650, KIKI-830, KAIM-870, KPOI-1040, and KGU-760 are all well-heard when conditions are just right.
17. Illinois. WLS-890 is the only unduplicated clear channel left in Illinois and that probably won't be for much longer. If KIXI-880 or CJVI-900 are

- too much for you, try nulling out Nevada and hearing WGN-720 or WBBM-780.
18. Tennessee. WSM-650 is relatively easy to hear.
 19. Ohio. WLW-700 gets out well, but in some areas has CBU-690 and/or KIRO-710 to contend with. Undoubtedly, 700 will be assigned to someone in Washington or Oregon (if it hasn't been already), in which case, you might want to consider WWWE-1100 with KFAX nulled, after KREX signoff.
 20. Michigan. WJR-760 isn't too hard to hear with KFMB nulled.
 21. Nebraska. This state was a lot easier to hear before KIXI & KWIP moved to 880. KRVN can still be heard in some parts of the Northwest, though. For me, the best bet has been KFAB-1110, which is in most nights with CHQT nulled.

CATEGORY III: Moderate

Some of these places can be heard only between midnight and 5 am PST. Others require conditions to be just right for evening reception (or even after-midnight reception). You'll have to work a bit to log these places, but you should hear all of them eventually.

22. Georgia. WSB-750 can still sometimes be heard in Seattle mixing with Radio Sandino with KXL nulled. In Portland, you'll have to wait for a KXL silent period or try for something like WGSA-1190, which Bill Hardy heard a few months ago.
23. Louisiana. WWL-870 is the favorite here. I ranked this state much higher when I first wrote the article, but then found out KORD had moved to 870. WWL should probably still pop through when conditions are good. If not, KNQE-540 sometimes makes it up here after CBK signs off.
24. Alaska. KFQD-750 was the best bet until KXL went full time. It's still sometimes heard o/u WSB & Sandino with KXL nulled. Best bets may now be newcomers KABN-830 (with WCCO nulled) and KRSA-580 (on sunrise skip after KFXD fades out), but it's too early to tell. KYAK-650 is another good bet
25. South Dakota. KKA-1560 can often be heard after KPWC signs off.
26. Arizona. KXEG-1010 can be heard mixing with XEHL after CBR signs off. Other possibilities include KNIX-1580 (after XEDM s/off), KOY-550 (on MMs) or KTAR-620 (during rare KGW silent periods).
27. Pennsylvania. Two possibilities: KDKA-1020 with KTNQ and KBCQ nulled, or WCAU-1210 if you can get past CKDA-1220.
28. New York. The only unduplicated clear channel station, WNBC-660, is very rarely heard here for some reason. I'd put my money on WHAM-1180 with KOFI off (MM at midnight MST, plus other mornings at odd times). Or possibly WCBS-880, if KIXI goes off.
29. Massachusetts. WBZ-1030 can be heard Monday mornings with KTWO off. Once or twice a year it can even be heard mixing with KTWO.
30. North Dakota. No clear-cut choices here. Try for KKO-1390 at MM s/on (0355 PST) if you can get past KSLM and/or CJCY. Or KFYR-550 with KARI, KAFY, KOY, and CFJC nulled. Or KEYZ-1360 on a Monday morning just before KMO signs on (0445 PST). Or KPNW-1200, currently a daytimer with 10 kw.
31. Indiana. WOWO-1190 is sometimes heard mixing with KLIF and/or Colombia on Monday mornings with KEX off. Second choice is WQHR-1380, which is occasionally heard Monday mornings with KRKO off and California nulled.
32. Missouri. KMOX-1120 can occasionally be heard with KPNW nulled or on occasional Monday mornings with KPNW off.

CATEGORY IV: Difficult

These states and provinces are places you'll probably have to struggle to hear, but with perseverance, good equipment, and luck, you'll eventually manage to hear them.

5. Ontario. Best bet looks like CBL-740 on a Sunday morning with KCBS off, but I don't know of anyone who's heard them recently. Other possibilities include CJBC-860 with XEMO off or nulled (don't confuse CJBC with CBKF2, both are French stns), CJRN-710 with KIRO off (alternate MMs), CFRB-1010 with KXEG & XEHL nulled, CFTR-680 with KNBR off (rarely), or....
33. Kansas. All the best bets require nulling a pest (or waiting for it to go off) or waiting for an NSP superpest to have a rare silent period. KGGF-690 is probably the easiest at 0300 PST signon with XETRA off or nulled. KKOW-860 might be possible with XEMO off or nulled. WREN-1250 is feasible with KKFV off (not too often). Also KPH-1330 with KUPL off (also not too often).
34. Florida. VOA-1180 can sometimes be heard just before KOFI signs on. WGBS-710 is sometimes heard on ETs on MMs when KIRO is off.
35. South Carolina. WESC-660 is occasionally heard at signon (0300 PST, I believe). WCCP-1560 & WAGL-1560 have been heard here in the last 10 years but KKA, KCJJ, XEFAJ, & WPAD can make things rough.
6. Quebec. CBJ-1580 and CKO-1470 are sometimes heard in this neck of the woods.
36. Arkansas. KAAY-1090 is sometimes heard on Monday mornings with KING off and XEPRS nulled, but you'll still have CHEC to contend with.

37. Alabama. Try for WBAM-740 at sunrise s/on (with 50kw) with KCBS off. WMOB-840 is another possibility (also at s/on). WHHY-1440 is sometimes heard mixing with KPUR during rare CFCP silent periods.
38. Wisconsin. WGEW-1360 is heard on rare occasions during KMO's Monday silent period. WIZM-1410 can sometimes be heard with CFUN off (which is about once every 4 years). WEMP-1250 has been heard here with KKFJ off (not too often these days...). If you desperately want to hear Wisconsin you might consider moving there, hi.
39. Mississippi. WOKJ-1550 might be a possibility, mixing with KRGO on Monday mornings with KVAN/KKHI off. WSJC-810 might be possible at power change with KGO off (3 or 4 SMS a year) or nulled. WMOX-1010 has been heard out here at power/pattern change, but not too often. And WKKE-1180 might be audible with KOFI off.

CATEGORY V: Very difficult

You can consider yourself fortunate if you hear any of these places these days. Some have been heard here once or twice in recent years, others haven't been heard in several decades! In a few cases, my suggestions are mere conjecture, based on current levels of interference. Good luck!

7. New Brunswick. CBA-1070 has been heard in California with KNX off, but we still have CFXA to contend with.
40. Virginia. If conditions are exceptionally good, WRVA-1140 might be heard mixing with CKXL on a Monday morning with KGEM off and KRAX off or nulled.
41. North Carolina. A few stations have made it this far west. WTRQ-1560 and WFGW-1010 have been heard on the west coast during equipment tests (maybe someone should arrange a DX test from one of them). WBT-1110 has been heard on the west coast on rare occasions, but CHQT & KFAB make things really tough. WBUY-1440 has been heard on RS in Seattle a couple times, but you'll have to wait for a CFCP silent period.
8. Newfoundland. CBT-540 is a theoretical possibility--the frequency is wide open (except for LPRTs) at their 0130 PST s/on, but as far as I know they've never been heard this far west. Likewise CBN-640 is a possibility with KFI off (not often). These two might be worth trying for on mornings after good TA openings.
9. Prince Edward Island. GHTN-1190 has been heard as far west as Chicago and could be heard on a Monday morning with KEX off, probably at their local sunrise, when they go non-directional.
42. Connecticut. WTIC-1080 might be audible out here if KWJJ ever goes off. A distant runner-up is WNLC-1510 which was tentatively logged here about 10 years ago. 1510 is relatively clear on Monday mornings.
43. West Virginia. WCAW-680 was heard well on a DXtest a few years ago with KNBR off. You might be able to hear it at power change with KNBR off or nulled. WHIS-1440 has been heard in Seattle once or twice with CFCP off.
44. Maryland. WBAL-1090 is a remote possibility with KING off and XEPRS off or nulled. WPGC-1580 is an even more remote possibility at s/on with KDAY & KNIX off or nulled.
45. New Hampshire. WKBR-1250 was heard in Seattle several years ago, but now you'll have to wait for KKFJ to go off as a bare minimum. Even then your chances are rather remote. And the other possibilities are even more unlikely....
10. Yukon Territory. CKRW-610 has been heard in Seattle a couple of times (once with KFRC on!) but that was before CHNL and KONA went NSP.
11. Northwest Territories. It's a pity CFFB moved off of 1210. The best suggestion I've heard comes from Nick Hall-Patch: point a Beverage antenna at Inuvik on a winter day when northern BC & Alberta are in well, then try for CHAK-860.
46. Vermont. WHWB-1000 might be audible at MM s/on with KOMO off, or on an ET or DX test. WCFR-1480 or WSYB-1380 might be audible on MM DX tests.
47. Rhode Island. The WHJJ-920 DX tests never made it this far west, but maybe we can try again some day. Ditto WHIM-1110 or....
48. District of Columbia. WTOP-1500 might be audible some MM with Calif. nulled and KSTP off. The others are even less likely....
12. Nova Scotia. CKBW-1000 might be possible at MM pattern change with KOMO off; other possibilities are even more remote.
49. New Jersey. Assuming you want a station licensed to New Jersey and not just a NYC station with a NJ xr site: try moving to Africa, since that's where most NJ stations beam their signals to, hi. Maybe one of the stations on 1360 or 1510 might be heard on an East-West Beverage on a DX test ET, or unusually good conditions, but it would be a real fluke.
50. Maine. Your guess is as good as mine.
51. Delaware. WAMS-1380 looks like the only one with a snowball's chance in wherever of making it this far west, provided they run a DX test (non-directional), KRKO is off, conditions are superb, and KGMS/KTOM are off or nulled.

Sanserino Loop Plans

by Ralph Sanserino

The following is an update of the plans for the popular Sanserino loop, as described in the IRCA Technical Guide and available from Radio West.

LOOP INSTRUCTIONS

The assembly drawing is self explanatory, follow it and you should have no trouble putting the loop together. Take your time and the end product will be a fine performing loop. The following are a few tips for the kit assembler and the do it yourself loop builder.

FRAME - Assemble the 4 arms with the 2 arm supports, tighten all nuts finger tight. Using a square or a right angle, tru up the arms, starting with the vertical arm item 2 and one of the horizontal arms work around the frame truing up the arms and tightening down on the nuts a little more. After making sure the frame is straight horizontally and vertically, tighten nuts.

WIRE - See sketch on assembly drawing for start of wire wrap. Hold wire tight when ending wrap and going thru small holes, wire will tend to slip back on you. DO NOT cut any of the strands when stripping wire. For loops using the 2 FET preamp see sketch on assembly drawing for center tap on 6th wire. Make center tap from scrap loop wire. Omit the center tap when using a 1 FET preamp.

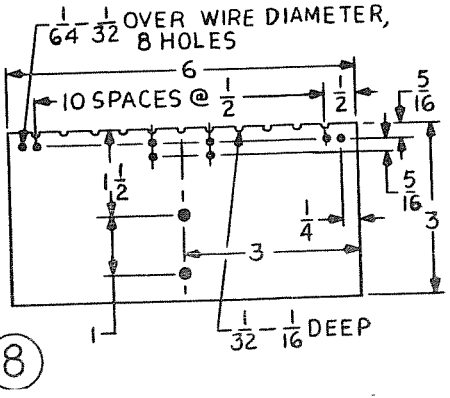
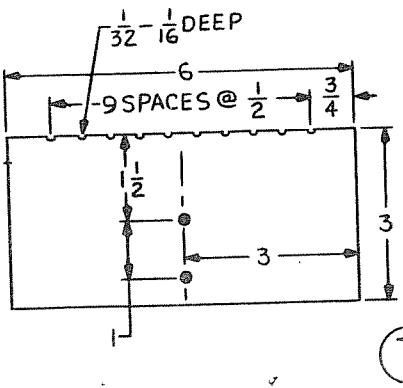
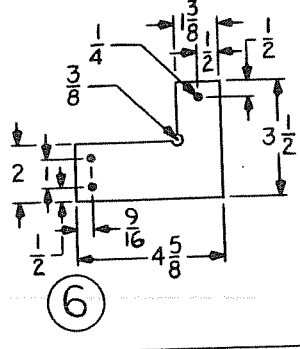
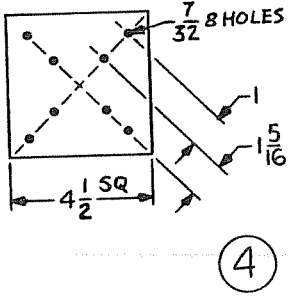
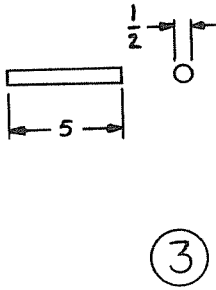
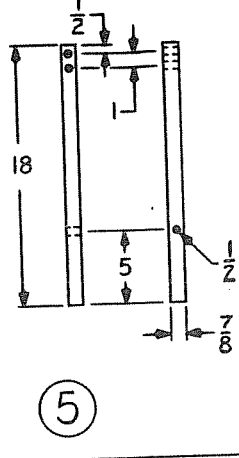
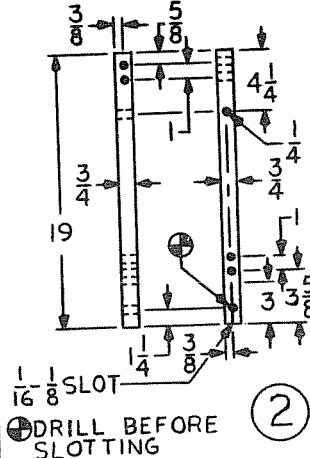
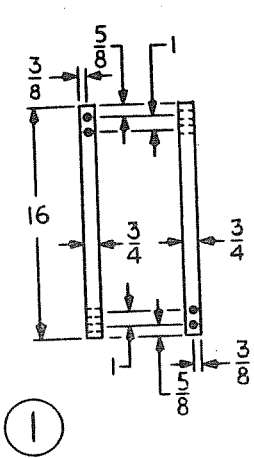
PREAMP - Mount back of preamp on frame, install front of preamp, use item 11 to assemble. Solder center tap of loop to center lug on preamp. Trim loop ends to suit and solder to remaining lugs on preamp.

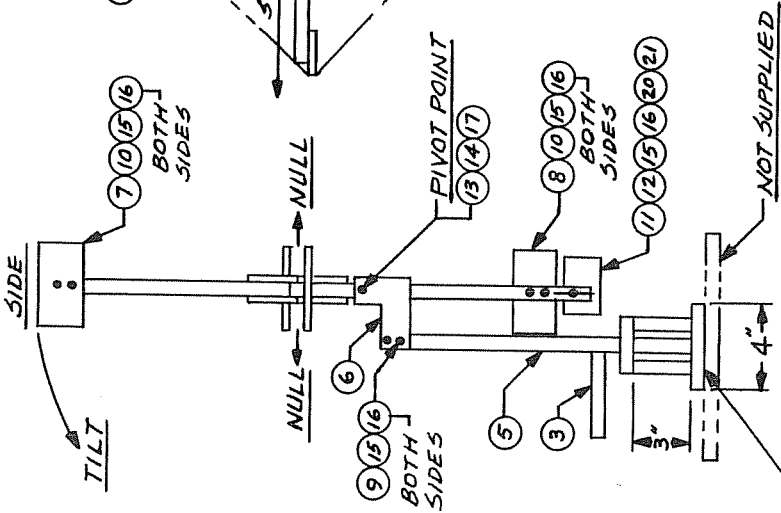
CABLE - Supplied with preamp. On receivers with screw terminals the center conductor of cable goes to 'A1' antenna terminal and copper braid goes to 'Ground', copper braid must be grounded. Plug other end of cable into jack market 'OUT' on preamp.

OPERATION - With preamp power switch in 'OFF' position install battery. With preamp range switch on 'HI' preamp will tune from 730 to 1600 kcs, in the 'LO' position preamp will tune from 540 to 740 kcs. Tune receiver to 1600, tune preamp for a peak on 1600, you will note a sharp increase in signal strength or back ground noise when the peak is reached. The low end can be peaked in the same manner. Make sure preamp is TUNED to correct freq.

NULLING - This takes 'TIME', 'PATIENCE' and 'PRACTICE', so go 'SLOWLY'. Many stations can be nulled by pointing the front or back of the loop at the station to be nulled, loop at '0' tilt, on stronger stations tilt the loop 15-25 degrees and point the front of the loop at the station, check null depth on receivers meter, rotate loop 180 degrees and point back of loop at station, check null depth, using the position with the deepest null (lowest meter reading), move loop back and forth slowly, at the same time adjust the tilt slowly, usually 'up' for a local and 'down' for a distant station. GO SLOWLY. If you have a strong local that slops over on adjacent freqs, put the sloppy one in the deepest null possible, tune receiver and preamp to freq desired trying not to move loop while tuning preamp, this will take care of the slop. When nulling a extra strong local or semi-local try picking a time when they're transmitting voice (talk), this will be the easiest time to null them. If a station uses a directional antenna pattern your location in regards to this pattern will have a lot to do with your ability to null or log the station.

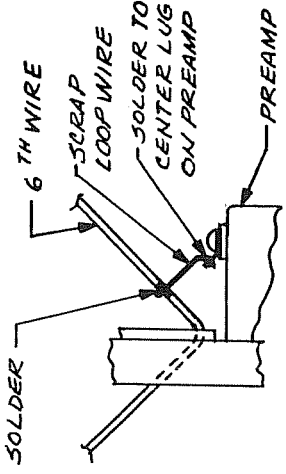
LINK COUPLING - See sketch for start of link coupling. Link coupling to be wound along the center wire of the **TANK** winding.





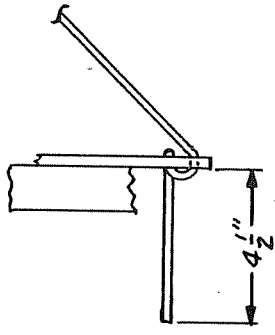
MOUNT BASE ITEM 19
ON LARGER PIECE OF
WOOD OR OLD WOODEN
END TABLE

REPLACE PREAMP WITH
TUNING ASSEMBLY FOR
UN-AMPLIFIED LOOP
SEE SKETCH



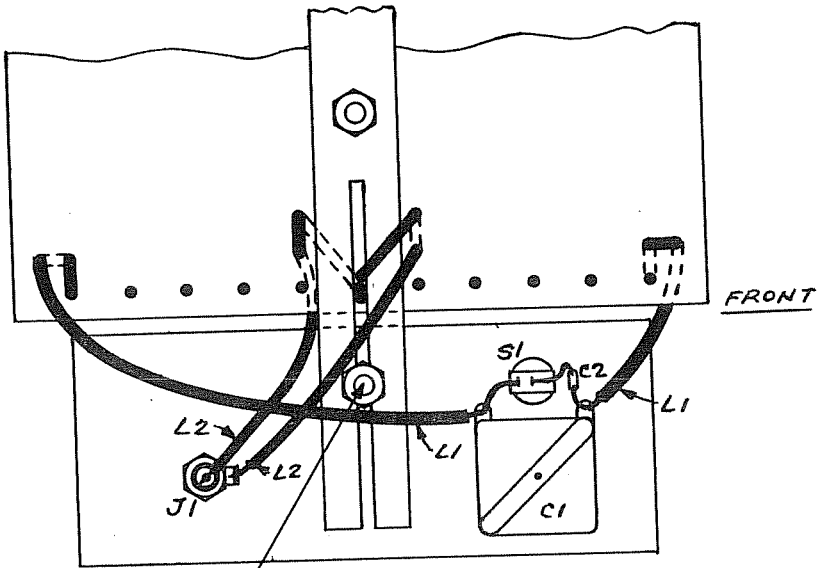
CENTER TAP SOLDERING

NOTE - DO NOT CUT THRU
STRANDS OF WIRE
WHEN STRIPPING



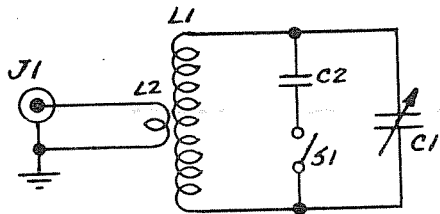
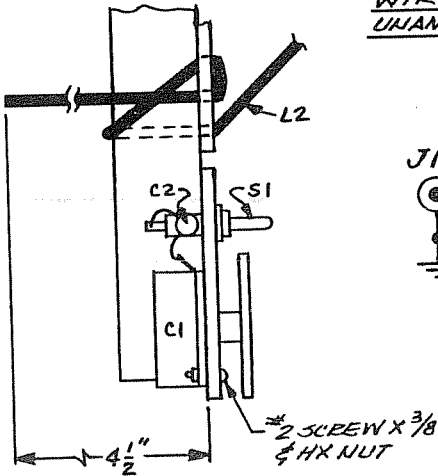
START OF 10 TURN LOOP
FINISH IS OPPOSITE

2 FOOT DC LOOP
540 TO 1600 KHZ



#8 SCREW X 1" LG
FLAT WASHER & HX NUT

WIRING DIAGRAM
UNAMPLIFIED LOOP



SCHEMATIC DIAGRAM
UNAMPLIFIED LOOP

PARTS LIST

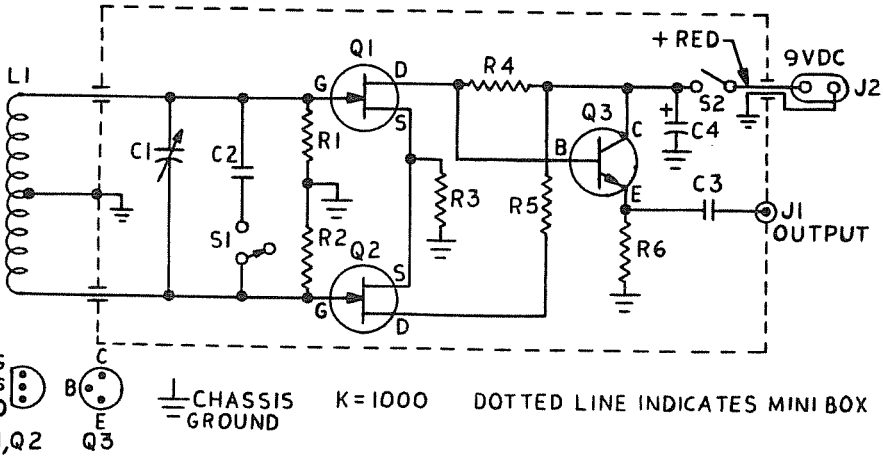
START OF L2 LINK
COUPLING. L1 TANK
OMITTED FOR CLARITY

- CI - 365 PF VARIABLE CAPACITOR
- C2 - 330 PF DISC CAPACITOR
- J1 - RCA PHONO JACK
- L1 - 10 TURN TANK WINDING
86 FEET 18 AWG 19/29 STRANDED
- L2 - 1 TURN LINK WINDING
10 FEET 18 OR 20 AWG STRANDED
- S1 - HI/LO SPST SWITCH
- PLASTIC MOUNTING PLATE 2 X 5 X 1/8 THK
- #8 SCREW X 1" LG W/ FL WASHER & HX NUT
- #2 SCREW X 3/8 LG & HX NUT

NOTE:

1. DO NOT CUT THRU STRANDS WHEN STRIPPING WIRE.
2. SWITCH S1 SHOWN IN 'HI' POSITION, SEE SCHEMATIC.
3. CHECK ALL SOLDER CONNECTIONS ON L1 & L2.

**DIFFERENTIAL BALANCED
PREAMP
W/EMITTER FOLLOWER OUTPUT**



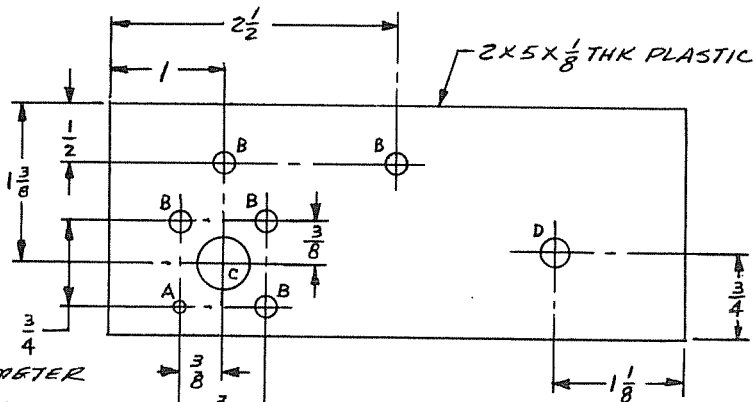
- C1 - 365pf var cap.
- C2 - 330pf cap.
- C3 - .01pf cap.
- C4 - 100uf 25v cap.
- J1 - RCA PHONO JACK
- J2 - 9 volt battery snap
- L1 - 10 turn loop w/center tap

- Q1,Q2 - 2N5484 FET
- Q3 - 2N5134 Transistor
- R1,R2 - 100k 1/4w optional
- R3 - 1k 1/4w
- R4, R5-4.7k 1/4w
- R6 - 2.2k 1/4w
- S1,S2-SPST Switch

- No.1 - 3/4x3/4x16 pine 3 reqd.
- No.2 - 3/4x3/4x19 pine 1 reqd.
- No.3 - 1/2 diameter x 5 dowel 1 reqd.
- No.4 - 1/8 thk plastic 2 reqd.
- No.5 - 7/8 diameter x 18 dowel 1 reqd.
- No.6 - 1/8 thk plastic 2 reqd.
- No.7 - 1/8 thk plastic 3 reqd.
- No.8 - 1/8 thk plastic 1 reqd.
- No.9 - #8 Rd Hd screw x 1 1/4, 10 reqd.
- No.10- #8 Rd Hd screw x 1 1/4, 8 reqd.

- No.11-#4x1/4 sheet metal screw, 6 reqd.
- No.12-RG-174 coax cable 6'w/RCA plug.
- No.13-1/4-20 carriage boltx1 1/2, 1 reqd.
- No.14-1/4-20 wing nut 1 reqd.
- No.15-#8 hex nut 19 reqd.
- No.16-#8 flat washer 37 reqd.
- No.17-1/4 flat washer 1 reqd.
- No.18-wire 18 awg 19/29 stranded x 86 feet.
- No.19-base-make from 1x3x15 and 1x12x12 pine.
- No.20-preamp 2 FET 1 reqd.
- No.21-#8 Rd Hd screw x 1, 1 reqd.

ALL DIMENSIONS ARE IN INCHES,
ALL HOLES 3/16 DIAMETER, EXCEPT AS NOTED.
REV 5/72, 5/75, 7/82, 11/82 RLS



- HOLE LIST**
- A - 1/8" DIAMETER
 - B - 3/16" DIAMETER
 - C - 1/2" DIAMETER
 - D - 1/4" DIAMETER

TUNING ASSEMBLY MOUNTING
PLATE - UNAMPLIFIED LOOP

EASTERN DX FORUM

(215) 368-8067
RICHARD EVANS
P.O. Box 1294
NORTH WALES, PA 19454

reports from listeners living east of the Mississippi River
Deadlines: Saturdays thru 3/19/82

Don Moore, Apartado Postal 3, Santa Barbara, SB, Honduras

A few typo corrections from my 10/2 Forum. Junco is used to make hats, not huts, & the river is the Vlva, not the Vlva (or is it Ulva, can't tell--rce). More likely due to my poor handwriting than rce's typing. (It's a tossup as to who is the better handwriter, you or I--rce) Should have pointed out that DXing with the electricity off is something that happens several times a month here. Big DX news here is my first TA in Honduras, Nice-1557, and my first positively IDed domestic grave-yarder, WNUE-1400. QSL arrived already. Concerning the eventual BCB expansion to 1700 or 1800 kHz. Regardless of when the IRCA BoD approves it for our purposes, in the meantime it would be a very good idea to DX them, while you can hear a lot of CAM beacons & such. When the IRCA approval comes, my guess is it won't prohibit counting previous loggings retroactively. On DXWWE 10/23: Nothing ever noted here on 815 or 895, tho will continue to watch. HRKW is still on 1353+. Some place before saw some tentative HC on 805. There is a new Honduran there, Corporacion Radio 805 (nominal 780) in Comayagua. A few weeks ago, made a trip to La Ceiba & visited a few stations. Some of you may have already heard the report on Glenn Hauser's World of Radio program. On the way stopped in El Progreso & visited Radio Progreso & Radio Moderna, both being real experiences. At Radio Progreso, a Catholic Church owned station run by some very paranoid anti-Americans, I wasn't even able to go inside. At Radio Moderna, they were very friendly however. Radio Moderna is not modern, but kind of old & decaying. I explained to the three DJs present what a verification letter was. One located a not too shabby piece of typing paper - they had nothing with a letterhead-& lead me to a battered typewriter. He couldn't type, but he'd be glad to let me type my verie letter, which I did & then the three of them had fun signing their names & long flowery titles. I took some souvenir pictures & it was off to La Ceiba. In La Ceiba, I visited five stations in all. Radio Ceiba-1060, 1 kw, 1100-0500 GMT was interesting. The manager told me their FM was on a "thousand forty", make that 104.0, I guess, & this after he looked it up to be sure. He then told me they signed on at 0600 local, but the morning DJ overheard & reminded him it was 0500, per his orders. Also checked out LaVoz de Atlantida, 1420, 1 kw, 1200-0500 GMT, the third oldest station in Honduras. Still located in the basement of the owner's spacious wooden house. Looked strange with large neon letters HRGZ on the side of the house. (continued next issue...)

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

Quickly, as it's late and I don't have much time. No DX done last weekend. Two finals last night at Biblical...can't believe the term is over already. I leave for Michigan early in the morning, so this is being typed one day early. No column typed next week, as I'll be away, so expect a big one the following week, typed here on 1/1/83. Hope you had a good holiday season, and you've resolved this year to DX more and report more often to the columns. PTL.

23rd March, 1981.

Correspondence

Many thanks for your

interesting letter of the 19th February last and congratulations on reception of our 2 BL programme. You apparently heard a description of a fight from the Sydney Stadium, which is a feature on our 2 BL programme every Saturday night. We look forward to further reports from you.

THE AUSTRALIAN BROADCASTING
COMPANY LIMITED,
96:98 Market Street, Sydney.

Mr. Eugene Martin,
5446 McCommas Lane,
Dallas,
TEXAS.

UNITED STATES OF AMERICA.



Western DX Forum

★ ★ ★ ★

IRCA—Serving the Broadcast Band DX'er Since 1964

Editor: Ric Heald, 1632 J St., #4, Eureka, CA 95501

1982/3 DEADLINES - WEEKLY ON TUESDAY, 12 DAYS PRIOR TO PUBLICATION DATE

PAT MARTIN, P.O. BOX 843, SEASIDE, OR 97138

Have received some mail from DX'ers recently mentioning that I've never run down my DX set-up, so here goes: I use three receivers. A Hammarlund SP-600-JX17 (cir. 1954), E.H. Scott RBO-2 (cir. 1954) and a Collins (Navy) (cir. 1943). The Hammarlund and Scott I use for BCB and the Collins for 120, 90 and 60 metres SW. For antennas I use a 200-foot terminated longwire running northeast. It's terminated in a swamp (I live about 1mi/1.6km from the ocean). I have a tuneable pot instead of a resistor, so I can vary the resistance as the swamp varies from month to month. Most of the winter the termination is underwater, in the summer the water level is one-and-a-half feet (45cm) below the ground surface. This is my South Pacific/DU wire. It's very directional south/southwest, with a minor lobe northwest (Alaska). Why 200 feet is that directional I'll never know. I was using a 1,000-foot north-east (non-terminated) and the 200-footer is much more directional. I also use 1,100-to-1,200 feet going east, but I plan to change it as it's not very good. I also use a ground system to three driven radials in salty soil. Three rods (connected by #4 solid copper wire spaced one foot apart). This entire setup is buried and under water part of the year (at least). Well, there's a rundown on the DX equipment.

Other equipment includes a homebrew preamp (BCB) for the Scott, audio selectivity filters (overboard), Q-Multiplier for the Scott, four R-to-R recorders, a couple cassette recorders, etc.

By the way, to give you an idea how directional the terminated wire is, Southern and Central Californians have been heard all day here, not just the powerhouses like KFI, KLOK, KGO, KNBR, but KOPY 1050, KFMB 760, KABL 960, KDAY 1580, KQTE 1460, KDWN 720, KVON 1440, etc. They do vary from day-to-day although I do hear a lot of Californians all day here. 73 and good DX. (Thanks Pat, for putting the Bay Area in Central California. Napa and Santa Rosa, however, are the southern edge of Northern California, hi-RtH.)

RANDY TOMER, 1969 27th ST., ARCATA, CA 95521

Rumor has it that this week's column would turn out a little on the thin side unless I helped out, so here I am, back again already. (The truth is he called to see if he was too late for this week's deadline, hi-RtH.) The latest development here is that longtime DX'er, John Arthur, formerly of San Jose, now lives in Arcata and still is in to DX'ing. He got ahold of me by phone. . . no easy task, hi. (Did your 2-yr-old talk his head off? hi-RtH.)

The week of 12 December brought somewhat of an Indonesian/SE Asia TP opening - 0 hope some of the other TP DX'ers heard 'em too. Having not heard any Indo's in three or four years, I was at first taken a little by surprise, but the reception pattern was unmistakable, the usual JJ/KK regulars were non-existent, and there was very little Oceania/DU activity. Yet there were good strong carriers on 828, 864, 1053 and 1134 and this combination made me suspicious enough to actually fire up the loop antenna to check the direction and this combined with the lingo's heard definitely pointed to a rare SE Asia-only opening. So the rest of that week I used the venerable HQ-180A and got some good audio and few times, shortly after sunrise (local). And from VOA Thailand 1575 I got my best reception ever. Too bad you missed all this, Ric, tee-hee. (To add insult to injury, I was DX'ing one hour prior and heard nothing. #(!@&%&#()), hi-RtH.)

Last Sunday afternoon (19 December), I listened to Larry Magne's test report on the new ICOM IC-R70 receiver, via R. Canada (17875 kHz at 2130 GMT). An interesting review. He rated it as the best under \$1,000 receiver tested to date, but also noted that it's rather "quirky" in its operation and complicated to use. Its AM filter is rather wide but has good skirts. Using its passband tune, the selectivity can be narrowed to 4.5 kHz, nowhere near the 2.7 kHz that ICOM claims. Sooooo, it looks like we have another expensive receiver that has just-right selectivity for domestic DX. Hmmm, it seems that a \$60 GE Superadio also has good selectivity for domestic DX, and my \$30 TRF with \$5 transfilters and a \$10 homemade shotgun loop also has close to 6 kHz selectivity. 73 de RET.

RIC HEALD, 1632 J ST., #4, EUREKA, CA 95501

I would personally like to extend an invitation to one and all living west of the Mississippi (Manitoba and west in Canada) and all members in the Pacific basin to introduce yourselves to the rest of IRCA membership via a forum. Y'all know the address. . . this month, hi.

I could have shot myself for giving up on what appeared to be average conditions the morning he heard SE Asia. I had to leave for work early that day and shut down the receiver, apparently, just as Randy was firing his up.

Daytime DX, just 180 airline miles north of Santa Rosa is as different as night and day. All day Sunday, 19 December, reception to the north was incredible, with stations from BC, Alberta, Washington and Idaho in all day. I won't count Oregon, as the nearest Oregonian is only 80 miles away, hi. I was trying earlier to hear Another Beat Country on KPLS (a show I engineered back in KPLS days), and normally KPLS is fair to good 15 minutes prior to power increase, then alone from 0715-0730 PST, at which time KAGO powers up. Wrong. CKIQ Kelowna (a new catch, and I've scooped Randy, hi) was virtually alone, as was Vernon on 940, but no sign of CKOV which is usually the first from the Okanagan to poke through. WGE, were you on? But the real surprise was at high noon when CFAC was atop 960, nearly burying KLAD. With the exception of KNBR and KGO, the Bay Area was non-existent. I mean KPQ replaced KSFO, KPRC was buried by the Washingtonian and so on.

Pat, an impressive layout for your antenna system. No wonder you're scooping us all, hi. What would you suggest for those of us with limited space? And don't say, "move," hi.

Well, it was Christmas 1974 when, in a Christmas card, now ex-member Charles Wolff suggested the name for Bay Area DX'ers, BARF. Those who know me know that I have a propensity for organizing, and it was our fearless leader in Seattle who suggested a name for those of us on the North Coast. Ready? Humboldt Eureka Arcata Verification Express and Report Society. Thanks, bp, I knew I could count on you for some solid and wise advise, hi. And no, unlike with BARF, I'm not asking area members to host a convention or take over publishing, hi. (Shucks. ep)

Daytime DX is peaking this time of year and wouldn't you know it, one of my neighbors has taken a liking to a light dimmer which they like to use all day, even when the sun is shining (and that's been one day in the last 14). So I can now add that to the old color TV another neighbor likes to have on 18-to-24 hours a day. And no, I'm not moving again, hi.

That'll do it for another week. See y'all in 7. 73 de Rth. .

Bruce Portzer-6546 19th Avenue NE-Seattle, WA 98115

Looks like everyone's out Christmas shopping this week, from the sizes of some columns. Uh, Ric, methinks it took you and Tomer a couple beers to stretch my suggestion a bit. Actually, I have an even better name than that one: the Humboldt Eureka Arcata League of DXers. Only DX lately is Fiji-1467. Heard on Christmas morning; Santa obviously thought I'd been good, hi.

I seem to recall someone asking recently if CFFB was ever heard in the US when they were on 1210. Yes, they ran a DX test in the late 60's, which was heard in Colorado & Nebraska. Hope everyone had a good holiday season. See y'all in a week.

EASTERN DX ROUNDUP

Bob Lazar

1711 Wainwright Dr.

Reston, VA 22090

Deadlines: Saturdays

All times Eastern

- 620 WSUN FL St. Petersburg, at fair level 12/12 at 0449 w/ promo for Marty Robbins special pgm, several ID's, no spots -ancr was Dave Warner. Co-channel QRM. (MH-NC)
- 1260 WCHV VA Charlottesville, noted 12/12 at 0415 w/ light pop mx, several ID's and no spots. Co-channel QRM, but fair level. (MH-NC)
- 1500 WTOP DC Washington, on 12/12 at 0550 w/ gospel preaching and into nx on hr w/ local wx reports on snow/street cx. Local-like sig. No ID noted within 5 mins of hour. (MH-NC)

Eastern DXer

MH - Mike Hardester, 17 Rowan Dr., Havelock, NC 28532
(FRG-7, R. West loop)

WESTERN

Nancy Hardy
2301 Pacific Avenue
Aberdeen, WA 98520

DX ROUNDUP

All times are
Eastern Local

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

DEADLINES: Tuesdays thru March 22

REPORTERS FOR THIS ISSUE:

- (BH) Bill Hardy-2301 Pacific Ave.-Aberdeen, WA 98520
FRG-7, SW-1
- (JH) Jim Hilliker-1502 E. Hedgewood Ave.-Anaheim, CA 92805
Kenwood R-1000, Radio West loop
- (PM) Patrick Martin-P.O. Box 843-Seaside, OR 97138
Hammarlund SP-600JX, 200' terminated LW, 1200' E/W Beverage
- (DN) Doug Nyholm-2071 Cedar Street-San Carlos, CA 94070
Yaesu FRG-7000, 1245' unterminated Beverage 20 mi. S. of
Half Moon Bay, CA
- (bp) Bruce Portzer-6546-19 NE-Seattle, WA 98115
Hq-180A, 4' loop
- (RW) Robert Wien-1309 Dentwood Dr.-San Jose, CA 95118
GE long-range portable, SM-2

***** OF SPECIAL INTEREST:

1240 KENZ CA, Sacramento 12/13 1010 finally hrd call change, ex-KROY after
3 straight M's when tent. hrd one Mon. night. Clear ID o/KNRY
"We play the favorites, KENZ", then lost. This has really
become tough, KNRY must've done something to their xmtr, they
are just completely dom. day & night and NSP. (RW-CA)

- 530 KRN984 CA, Los Angeles 12/9 0208 Airport TIS very good on the
Beverage. (DN-CA)
- 620 KGW OR, Portland 12/13 0440-0445 DJ gave 2 ID's, pop mx, TC, then
promo for a marathon run through downtown Portland. Fair w/
KTAR nulled. New. (JH-CA)
- 630 KIDD CA, Monterey 12/13 MW 0650 w/KFI-640 off so no QRX. Pop mx,
oldies w/male DJ, "10 til 4 on K-I-D-D". Fair w/KHOW nulled.
New. (JH-CA)
- KHOW CO, Denver 12/13 MW 0652 end of song, DJ gave ID, "K-How"
slogan. 1st time hrd here. (JH-CA)
- 640 (KFI) CA, Los Angeles 12/13 0514 noted totally off, CRQ strong this
morning. (RW-CA)
+Off 0535-0715+ 12/13 leaving Fiji-639 & various latins in the
clear. (bp-WA)
+MW 12/13 0640 checked here & they were off, 1st time I noticed
it this morning. Only hrd weak SS. Carrier was on at 0740. (JH)
- 790 KAEC CA, Los Angeles MW 12/13 0300 hrd man do s/off, ment. going
off for xmtr maintenance. Short tones, then carrier off at
0301. (JH-CA)
- KGHL MT, Billings MW 12/13 0310 hrd C&W mx, DJ came on w/ID
"K-G-H-L, 7-90AM, that's Mel Tillis, 11 after 1 with Eddie
John". Ment. next few songs, wx for Billings. Also hrd 0345
and 0430. Fair to good. Called DJ & talked to him, he was
excited about being hrd down here. New. (JH-CA)
- 830 KIKI HI, Honolulu 12/9 0151 strong w/75th anniversary of Coke in
Hawaii. (DN-CA)
- 870 KAIM HI, Honolulu 12/9 0149 strong w/Christmas mx. This one may
have replaced KIKI-830 & KORI-650 for the best regular signal
here now. (DN-CA)
+12/13 0730-0741 male DJ gave 2:30 TC, played Christmas mx by
Children of the Day. ID, TC 2:41. Mostly poor, very noisy.
New. (JH-CA)
- 910 (KNEW) CA, Oakland-San Francisco 12/13 0300-0310 off on a 10 min. ET
w/OC, TT, back on RS at 0310. I guess this is their once-per-
100 years SP, hi. (RW-CA)
- 1120 (KPNW) OR, Eugene-Springfield off 0435-0600+ MW 12/13 except for
sporadic OC. Weak unID (KMOX or latin) noted. (bp-WA)
- 1210 KCLG UT, Washington Su 12/19 1900 ending Mormon Tabernacle Choir
program, nice ID & into "CNN Headline News." Fair to poor,
atop local images. (BH-WA)
- 1290 KCUB AZ, Tucson 12/13 0552 mixing w/KWEN, then on top. Man gave wx,
"That's K-Cub news." Fair. (JH-CA)

- 1300 KVET TX, Austin 12/9 0156-0206 a total surprise o/u KYNO w/ "Open Line" teletalk program. Signal was mostly on top using the unterminated Beverage, not needed but nice to hear. (DN-CA)
- CJME SK, 12/9 0211 popped in w/an ID & a local item then lost in the mess. (DN-CA)
- 1330 KCLW CA, Redding 12/13 1620 hrd briefly o/KUPL w/Mercer wx (out of Bend, OR). Good. (PW-OR)
- 1360 KOHU OR, Hermiston 12/13 0258 good w/SSE s/off w/KMO off. (bp-WA)
- 1390 ?KRCR? OK, Enid 12/13 0559 tent., sounded like a s/on anncnt., u/a station that had NEC nx at 0600. Hrd "KC-C" very poor, noisy. (JH-CA) (There's also KCBC in Des Moines, IA.--NH)
- KSLW OR, Salem 12/13 0610 definite ID, something about "pushing the right button on your radio, K-S-L-M." Fair. (JH-CA)
- 1400 KVOY AZ, Yuma 12/13 0557 good in KRE null w/ID after Dean Martin song. (RW-CA)
- 1410 KVEG NV, Henderson 12/9 0344 picked out of the mess w/an ad for the Flamingo Hotel, soon lost. (DN-CA)
- 1440 KUHL CA, Santa Maria ~~MM~~ 12/13 0549 pop mx, DJ talked about the YMCA "on Broadway, across from Sambo's". ID, TC. Only thing hrd here at this time this morning. Fair. (JH-CA)

DX TESTS:

- 790 KCEE AZ, Tucson 12/13 0300-0500 tuned in until 0430 but only hrd weak sweep TT's o/u unID SS (XERPC?) w/KABC off. Started getting nervous that it wouldn't show, but nice ID at 0430 "KCEE Tucson testing..." nice ID on tape at 0455 w/full details including address, in between "Cast Your Fate to the Wind" & "Theme From Rocky" ending ET. 2nd most-wanted AZ stn, trnx tremendously to PE who arranged this test. Never could've hrd it otherwise!!! Were those sweep tones around 0310 KABC or KCEE? (RW-CA)
- +12/13 0305-0405 poor on DX test way u/KMI w/tone sweeps at various times 0320-0355, 2 or 3 Morse code IDs 0400, TT 0405.
- +~~MM~~ 12/13 0320 hrd tones u/KGHL, then turned loop (bp-WA) a ways, came in very strong w/some KRCW-780 splatter. Varying pitch test tones, then ID "This is K-C-E-E Tucson, K-C-double E, Tucson, conducting transmitter tests. K-C-E-E, Tucson." Then more tones, also hrd when I tuned in at 0337-0340, and code ID at 0400. Called Bill Croghan at xmtr at 0322 to tell him it was coming in good here after I hrd ID. He ment. he got a call from WI. Thanked him for doing test. New. Also hrd on RS 0705 w/DJ giving wx, ID. (JH-CA)
- +DX test hrd very poorly u/KKON and unID C&W (KSHL?), at 0324 12/13, w/vary of sweep tones, & slow code IDs. Had to phone station, to tell for sure. New, reported. (PW-OR)
- ?KCEE? 12/13 0259 tried but no ID of any sort. Weak TT started before KABC s/off 0300. With KABC gone, TT was way u/KMI which was in average to fair. Tone gone by 0310. Thought I hrd very faint sweep tones around 0320 & perhaps later. Loop was busy nulling local electric QRM from sewer pump station that creams the 700's here. Gave up 0407. (BH-WA)

Dec. f/c's:

1st Tues. ?KKBK?-1340 NW 0650-0700 (tent. w/dial tone, 1st time I've tried for this one) (RW-CA)

Well, the WDXR typewriter goes in for repairs next week. Bill has worn out two keys--not to mention the power return--because of the Almanac typing!!

KWIZ
14-8-Oh!

DX WORLDWIDE EAST

Neil Kazaross, Editor
518 E. Grand Avenue
El Segundo, CA 90245
(213)322 3119

TRANS ATLANTIC DX ROUNDUP

- 765 SENEGAL Dakar 2258 Nov 18 pr-fr w/Native African mx; in WABC slop.
891 ALGERIA Algiers 2256 Nov 18 xInt. w/AA vocals, drums, strings.
1206 FRANCE Bordeaux 2252 Nov 18 good w/rock mx, then FF talk by man.
1349 MAURITANIA Nouakchott 2250 Nov 18 in w/big het against WNIS/WOYK/
Canadians, but not much audio.(Connelly-MA, last 4)
1377 FRANCE Lille good w/AA talk)Connelly-MA) 0520 Nov 18
1476 AUSTRIA Wein 0518 Nov 18 pr-fr w/light cl. mx.(Connelly-MA)
1539 W.GERMANY Mainflingen 0604 Nov 18 presumed fr-pr w/YL w/GG talk.
(Moore-HOND)
1548 UNID 0553-0602 fade out OM w/long talk in GG, instr mx, cl. sound-
ing, then 5 short & one log pip on the hour, into mx. fr-pr sig.
(Moore-HOND) I think this was one of the British stn's. The pips
sound like the BBC's pips(although other countries do carry the
same type of 6 pips) Nothing else is likely here at this time.
I don't know if they would carry GG, however. But, it is possible
to mistake British accented EE for GG as they sound similar when
they aren't received clearly-ed.
1557 FRANCE Nice France Culture first noted fr-gd here Oct 29 @ 0440-
0504 w/ m& w talk in FF & UNID lang. Drama pgm, romantic mx, &
even a brief bit of Arab mx. Taped an ID at 0500. Also noted
Nov 18 @ 0549 in passing w/only poor sig. (Moore-HOND)Nice loud
0514 Nov 18 w/ man in FF. (Connelly-MA)
*****1584***SPAIN EAJ53 R.Elche 0535-0543 Nov 18 fading from v.pr-fr. YL anc
In SS, ID at 0540 during a peak. ID had cl. mx in background,
believe Bach, then into vocal mx, Extremely pleased w/this!!(Moore-
HONDURAS) Fantastic catch!! I was extremely pleased when I hrd this
1 1/2 yrs ago in RI, but you're about 1500 miles further away !! Wow!!
It just goes to show what extraordinary distances the top end
low powered stns. can cover during extraordinary cx-ed.
1593 W.GERMANY Langenberg WDR 0520-0532 Nov 18 fr w/lite instr. mx & YL
GG anc. Presumed. (Moore-HOND) Noted 0511 Nov 18 xInt w/YL in GG,
then nostalgia BFD mx.(Connelly-MA) Rock mx is nostalgia for my
generation-hi-ed.

PANAMERICAN DX ROUNDUP

In case anybody gets bored reading the LA section; you can look above
and say"WOW!!" again-ed

- 526 UNID BEACONS two new ones noted at 0230 Dec 7...CYV & HRD. Anyone
know who they are?(Thomas-FL)
550 VENEZUELA Caracas YVKE 0502 Nov 28 tro good peaks w/SS ad for
something in Caracas; atop WGNG/CFNB. (Connelly-MA)
600 COLOMBIA BARRANQUILLA HJHJ 0513 Nov 28 loud w/R.Libertad ID & SS
talk ment. 50 kw from Barranquilla.(Connelly-MA)
635 CUBA R.Progreso hrd 0330 Nov 10 w/mx, ments of Cuba & R.Progreso
ID's. Haven't hrd them since. (Favich-MI) Back on 640 now-ed.
640 CUBA 0500 Nov 28 festive LA mx. instr. mx//660, o/several others
incl. the HJ. (Connelly-MA)
640 GUADELOUPE Arnouville loud w/disco, FF talk by woman, way o/YVQO/
Surinam/CBN. (Connelly-MA)
649.2 UNID w/WSM phased, SS male & upbeat LA mx audible but extremely
weak; potentially readable w/patience. This at 0345 on Dec 3.(GT-FL)
650 COLOMBIA Bogota HJXX blasting at times o/WSM 2304 Nov 24 w/mx &
commercials (Favich-MI)
650 VENEZUELA Maracay YV1H 2311 Nov 18 very good w/SS ballad R.Vision
Maracay ID several other SS LA's way under in the background
no WSM (Connelly-MA)
660 CUBA 0500 Nov 28 festive LA mx //640; just behind WNEC.(Connelly)
670 VENEZUELA Caracas YV1L fr w/Banco de Venezuela ad; atop other
LA & strong WNBC/WRKO buckshot.(Connelly-MA) (Con)
690 CUBA 0452 Nov 28 SS female vocal// 740, superloud annihilating CBF.
710 VENEZUELA Caracas YVKY 2301 Nov 18 clobbering WOR: R.Capital ID,
SS talk. (Connelly-MA)
720 VENEZUELA Porlamar YVOE 2244 Nov 27 xInt w/mentions of Maracay

- and other YV cities. (Connelly-MA)
- 720 COLOMBIA Barranquilla HJAN 0442 Nov 28 good w/"Unidas" ID's atop a second stn which was playing Colombian style accordion mx. The subdominant stn was probably not a second HJ, however, as WRTVH only lists HJAN for Colombia on 720. (Connelly-MA)
- 725 SURINAM Paramaribo S.R.B. fair to good w/calypsos mx. (Connelly)
- 740 CUBA 0452 Nov 28 female SS vocal // 690 good atop jumble. (Con-MA)
- 750 VENEZUELA Caracas YVKS: 2300 Nov 18 VIASA airline ad, other YV ads. Loud way o/WBSB + Nov 28 xint/like local w/Caracas & R.de Venezuela ments., then "Man Eater" by Hall & Gates, HJDK noted way under w/HJ accordion mx. (Connelly-MA)
- 760 CUBA/COLOMBIA 0434 Nov 28 R.Reloj atop w/usual SS nx & time show; HJAJ Barranquilla under w/accordion mx, LV de Barranquilla ID-- little evidence of WJR at the time. (Connelly-MA)
- 770 ** EL SALVADOR San Salvador/San Miguel YSKL o/u WABC: Good R .Universal ID. (Connelly-MA) Nice catch. The usual stns. hrd u/WABC are Colombia, Venezuela, Panama, & Jamaica -ed.
- 775 UNID nil-fr soft LA mx pre-0500 s/off. S.off & DF suggest HCMP2. Dec 1. (Thomas-FL)
- 776 UNID someone here 0440-0450+ on Dec 1 testing w/OC & causing intermittent het on 775 stn. (Thomas-FL)
- 780 BRITISH VIRGIN IS. Roadtown ZEBI loud/dominant w/ Otis Reading song. (Connelly-MA)
- 790 BARBADOS Bridgetown briefly fair to good w/relay of BBC nx, WEAN looped. (Connelly-MA)
- 800 NETHERLANDS ANTILLES Bomaire FJB xlint. w/SS pgm. (Connelly-MA)
- 810 COLOMBIA Bogota HJCY 0105 Nov 28 good o/WGY w/Mundo Noticias nx pgm. (Connelly-MA)
- 810 BAHAMAS Freeport ZNS-3 good w/usual Sunday morning Black gospel mx pgm, WGY looped (Connelly-MA)
- 825 ST.KITTS Basseterre 2257 Nov 18 EE preaching xlint + 0101 Nov 28 local like w/R.Paradise ID in accented EE, then hymns. (Connelly)
- 830 GUATEMALA Mazatenango TGAV in briefly at 0110 Dec 3 at fr lvl w/call ID. Soon faded (Thomas-FL)
- 846 UNID Extremely weak carrier detected 0305 Dec 7 & looped HC. An 800w HCRA-6 is listed on 845(?) (Thomas-FL)
- 885 MONTSERRAT Plymouth ZJB-fr w/Caribbean mx. (Connelly-MA)
- 917.7 NICARAGUA Managua This is somewhat tentative but could be YNW from 930. (It is -ed) Frequent "R.Mundial, La Numero Uno" ID's & many mentions of Nicaragua & Managua are evidence. Level almost good but mod poor. Lengthy SS male monologues broken by occ. operatic vocals occurred 0120-0145 on Dec 3. (Thomas-FL)
- 930.8 UNID fr carrier but very poor audio (SS male) here 0215 Dec 3. Being bothered by wayward Reloj on 931.2 & 930 inhabitants. Looped SSE. (Thomas-FL)
- 931.2 CUBA Matanzas CHDE presumed the Reloj outlet here 0210-0230+ on Dec 3. (Thomas-FL)
- 935 UNID very weak carrier here Dec 3; no audio but looped HC. (Thomas) My feeling is that the HC's indeed are responsible for many of these very weak UNID 5KHz splits. I think that most of the stn's listed as weak Ecuadorian splits in WRTH are actually on -ed.
- 950 VENEZUELA Caracas YVKG 0147 Nov 28 dominant w/Caracas ad (Con-MA)
- 980 DOMINICAN REPUBLIC Santo Domingo HIPA presumed to be the one w/s/off amnt ment "Republica Dominicana" NA then off 0359 Nov 10. On top of the channel w/CPFL/WONE (Pavich-MI) Good catch -ed.
- 1000 VENEZUELA Moron YVNM 0140 Nov 28 o/others w/Mundial MI ID, Caracas ments. (Connelly-MA)
- 1010 MEXICO Guadalajara XEHL fair o/KLRA/CFRB 0719 Nov 25 w/lively mx & "H-L" jingle (Pavich-MI) Don, you had freq. listed as 1110, but, since it is the Holiday Season I will ask the DX gods to spare you from the penguin flipper, just this once !-ed.
- 1010.8 CUBA Holguin R.Musical Nacional off freq at fr lvl w/jazz & SS female DJ (//950) at 0400 Dec 3. (Thomas-FL)
- 1025 PANAMA David LV de Baru presumed at 0255 s/off on Dec3 w/Panamamanian NA. Level pr & sig competing w/HJFT (Thomas-FL)
- 1080 HAITI Port-au-Prince 4VRD good w/FF talk by man, then tropical mx o/WTIC. (Connelly-MA)
- 1090 t COLOMBIA 0625 Nov 28 accordion mx & repetitive group SS vocal that seemed to go on forever. (Connelly-MA)
- 1100 ANTIGUA St. John's ZDK good w/community event calander in Carib. EE, way o/WWWE (Connelly-MA) 2316 Nov 18
- 1110 VENEZUELA Carupano YVQT 2254 Nov 18 w/doorbells, SS talk u/CED o/WBT (Connelly-MA)
- 1110 CUBA Holguin R. Angulo good w/ID at 0420 Dec 3 & SS female vocal (GT)
- 1120.9 COLOMBIA Cucuta R.Tonchala is here from 1130 w/various types of LA mx & many ID's (uses a 6 note chime before ID) Nöted on Dec2 at 0600 ID w/full info including Cadena Grupo

- Colombiano net ment & stated freq of 1130. KMOX was phased. (GT-FL)
- 1160 COLOMBIA Monteria HJAZ 0615 Nov 28 fr w/LV de Sinu ID (Connelly)
Looks like this one is still the dominant IA here late at night-ed
- 1165 ANTIGUA St. John's CRL 2317 Nov 18 preaching fr, some WWVA sloop +
0135 Nov 28 EE preaching. (Connelly-MA)
- 1170 HAITI Port-au-Prince 4VRS believed to be the one 0108 Nov 23 w/FF
talk & African style mx looping SSE. Fr-gd o/HJNW. (Pavich-MI)
Sure sounds like 'em -ed.
- 1175.3 COLOMBIA not sure exactly who this is but am sure it's an HJ.
Level is almost good & songs tend to be segued. Use a call that
sounds like "LV do-bli-KAH" (double K -ed) & Todelar chimes are
audible s/off at 0603 on Dec 3 w/quick carrier cut and no NA.
(Thomas-FL) This stn often uses HJJK ID's. Can somebody pin down
an exact location for this one. HJJK was listed as a new stn to
come on 1060 in DX News. I wonder if it indeed is the same stn as
the slogan hrd by Stutterheim, R.Centro, in no way matches the
listed slogan, Brisas del Batania. Incidentally, this stn must pack
some reasonable power as it has even provided audio here and at
least a weak carrier is almost always noted- ed.
- 1191 UNID carrier here 0510 Dec 5 looped SE, Cuba?(Thomas-FL)
- 1210 VENEZUELA Coro YVMN xint 0610 Nov 28 w/R.Coro ID, female SS vocal
totally atop WCAU, looping unnecessary. (Connelly-MA)
- 1225 UNID don't know who this stn is but don't think it's Ecuador.
Noted at 0603 s/off on Dec 3 w/a NA that doesn't match anything
on the Hutton NA tape. Could be the new Nicaraguan NA, don't know.
(Thomas-FL)
- 1536 UNID just a weak carrier detected 0345 on Dec 5 & looped SSE.
Ecuador? (Thomas-FL)
- 1580 ANTIGUA St.John's VOA 0130 Nov 28 good o/CEJ w/"ThisWeek" mx
documentary pgm then VOA ID & EE talk. (Connelly-MA)

CONTRIBUTORS:

- Mark Connelly 7 Trowbridge Fath W.Yarmouth, MA 02673- HQ-180A, SM2, 30m LW
- Don (TA) Moore Apartado Postal 3 Santa Barbara, SI, Honduras- FRG-7 w/
2.9 Khz mech filter & R.West 15" ferrite loop.
- Gerry Thomas 3635 Chastain Way Pensacola, FL 32503- Mod-FRG7 w/Superloop
- Don Favich 3514 Whittier St. Flint, MI 48506- just a TRF.

I think we'll miss next week's column as Laura & I are going back to RI for Christmas. I'm really looking forward to the DXathon we have planned at Matt's in Montauk.

I will also be job interviewing again back east while I'm there. I'm just dying to get out of IA.. soon!!!!

73's & good DX

- KAZ -

Tests Find a Way to Beef Up Radio Signals a Thousandfold

By David Perlman
Science Editor

Scientists broadcasting radio signals from widely separated transmitters have seen their signals sending cascades of sub-atomic particles snowing down into the Earth's upper atmosphere as the radio waves penetrate the vast belts of radiation that girdle the globe thousands of miles out in space.

Their experiments are showing that the low-frequency radio signals can be amplified a thousand times in power by interacting with those radiation belts — and thereby offer the promise of new ways to create round-the-world communication networks potentially free of interference, they reported.

The successful research project — involving three satellites and a network of radio-transmitters in

San Francisco Chronicle 12-9-82
via Pete Taylor



JOSEPH B. REAGAN
Lockheed lab manager

Antarctica, Maine, Maryland and Washington — obtained its first results only last August, and the experiments are continuing now.

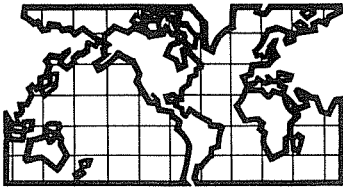
But the first reports on it were presented yesterday by research teams from Stanford University and the Lockheed Missiles and Space Co.'s Palo Alto Research Laboratory at the annual meeting of the American Geophysical Union in San Francisco.

More than 3000 scientists are attending the week-long meeting here to exchange reports on virtually every aspect of the Earth, the oceans, the sun, the planets and the little-known webs of radiation and nuclear particles that eddy and storm throughout interplanetary space.

The experiment by the team from Stanford and Lockheed began in May with the launching of a secret Air Force research satellite from Vandenberg Air Force Base into low orbit around the north and south poles.

Joseph B. Reagan, manager of Lockheed's space sciences laboratory, said the satellite carried a package of complex instruments for the civilian scientists, designed to measure the intensity of electron showers drizzling down from far out in space, and to detect the glowing lights and X-rays emitted when those electrons struck electrified gas particles in the region known as the ionosphere about 40 miles above the Earth's atmosphere.

(Continued on Page 23)



DX WORLDWIDE - WEST

Pat Martin - Editor

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TIME: G.M.T.

DX this week seems to be on the slow side. However, some strange signals have been making it to the West Coast. Randy Tomer, Glen Kippel, both have heard some Southeast Asian type material. I heard an UNID station with Christian Programming this week on 801 KHZ, possibly Guam. News from the FERC-Japan a New station of KBS at Sabug, South Korea is operating with 1 KW on 1602 KHZ, from 2000-1600 GMT. FEBG-HLKK-1188-South Korea has changed its schedule as 2030-0100 Korean, 0700-0830 EE, 0830-1230 Korean, 1230-1430 in CC, 1430-1500 in RR. HLAZ-1566 (Asia BC) 2000-2230 in Korean, 2230-2240 in EE, 1000-1230 in CC, 1230-1345 in JJ, 1345-1500 in CC, 1500-1800 in RR, All this info supplied by ABI Members Asian Broadcasting Institute. Now on to reports:

PAN-AMERICAN DX ROUNDUP

- 640 CUBA, Guanabacoa-CMBB good w/Radio Progreso, Cadena Nacional" ID at 1206 12/13 w/KFI off. (BP-Wa)
- GUATEMALA, Guatemala City-TGW weak w/3 prolonged tone IS given twice u/ Cuba 1201 12/13 (BP-Wa)
- 650 MEXICO, Los Mochis-XENT, assumed source of loud Ranchiera mx 0112 12/4
- 660 MEXICO, Mexico City-XERPM good sig 0110 12/4 w/"66, La Tropical (RET-Ca) de Oro" ID (RET-Ca)
- 750 NICARAGUA, Managua-YNK, great signal u/KKL null 0535 11/19 w/full ID in SS, ment. of Managua and R. Sandino (RET-Ca)
- 825 t PANAMA, Macaracas-HOR56, possibly the one w/weak SS, lively mx 1122 12/13 Only thing listed now, that TIOS has moved. (BP-Wa)
- ST. KITTS, Basseterre-Assumed vy weak EE hymns, Rel talk 0225-12/17 (RET-Ca)
- 830 MEXICO, Culiacan-XEVQ, fine signal 0155 12/17 w/Ranchiera mx, plenty of ads, IDs and s/off anat. (RET-Ca)
- t MEXICO, Mexico City-XELA vy weak clas. mx 0215 12/8, looped SE, haven't hrd this one in several years, no not sure if still clas, so just a tent. (RET-Ca)
- 834 BELIZE, Belize City-Radio Belize weak w/EE Pop vocals 0137, 12/8 (RET-Ca)
- 835 UNID, weak carrier putting hat on Belize 0137 12/8, loop SE (RET-Ca)
- 840 CUBA, CMHW?, sudden fade-up at 0559 12/16 w/Radio Habana Cuba ID, by YL then lost to WHAS. (RET-Ca)
- UNID, mixing w/WHAS at 1007 12/9, WHAS had talk, this one w/lite Inst. mx, poss. Rel. 4VEH?? (DN-Ca)
- 894.25 UNID, Carrier looping SE 0205, some vy weak talk poss. EE Rel, again at 0215 12/17, vy weak carrier (RET-Ca)
- 995 t ECUADOR, Guayaquil-HCEW2 weak wailing SS mx, 1052 12/13, only thing listed
- 1025 UNID, weak carrier looping SE 0230 12/8 (RET-Ca) (BP-Wa)
- 1030 MEXICO, Mexico City-XEQR 0230 12/8 Good sig w/SS vocal "Whistle" ID (RET-Ca)
- 1125 UNID, weak carrier 0155 12/8 looping SE (RET-Ca)
- 1210 GUATEMALA, Guatemala City-TGMK fair w/lively SS mx and SS talk 1041 12/13 moments after Jeff hrd R. Rumbos ID. (BP-Wa)
- 1110 UNID, SS male talk, w/ SS male record 0730 12/13 good in CHQT null, song ended 0733, then nothing! Poss. ET (BP-Wa)

TRANS-PACIFIC DX ROUNDUP

- 580 ALASKA, Petersburg-KRSA-fair to poor w/Sports o/u KFKD 1520 12/14. Good by 1530 w/wx for Petersburg-Wrangell anf pgm called "The Island" after KFKD fadeout. Local KVI-570 nulled. (BP-Wa)
- 585 JAPAN, Kushiro-JOPG noted 12/9 at 0718 w/OM in JJ, weak (DN-Ca)
- 639 FIJI, Lautoka-weak w/pips and male talk 1100 12/13, KFI off (BP-Wa)
- 648 AMERICAN SAMOA, Pago Pago-WVUV fair to poor w/EE rx, ment. of UPI, more talk, then pop mx 1105 12/13, KFI/KORL off. (BP-Wa)
- UNID, weak 12/9 at 0924 w/what sounded like ABC, mixing. w/JOIG (DN-Ca)
- 650 ALASKA, Anchorage-KYAK, 0831 11/18 good o/KORL w/Sports update, then into C&W mx (RET-Ca)
- 738 TAHITI, Papeete-fair w/male talk 0705 12/13 w/KCBS notched and nulled *Also noted fair native pgm 0720 on 12/11 (RET-Ca) (BP-Wa)
- UNID, 1517 12/3 man and woman whatng, what sounded like KK, maybe was HLKG (RET-Ca)
- UNID, 1540 12/12 vocal mx roughly sim. to what is hrd on R. Malaysia SW stations good signal, briefly looping farther South than JJ/KK path. Perhaps Philippines or Thailand. (RET-Ca)

747 JAPAN, Sapporo-12/9 at 0921 w/good sig and EE lessons (DN-Ca)
756 UNID, 12/9 weak accented EE 0919, prob. 1YA or 4QA? (DN-Ca)
792 UNID, het w/bits of audio 0919 on 12/9, only thing hrd here on 792 was 4QG. (DN-Ca)

801 AUSTRALIA, Cairns-4QY 12/9 a vy strong het most of the night and when audio did surface, it was blasted by KEROK. (DN-Ca) (Shouldn't you list this as tentative? Did you hear programming? PM)

t GUAM, Agana-KTWR poss. the one hrd weakly on 12/20 from 0930 to 1035 w/Back to Back Rel pgm, 2 minutes of mx in EE from 1000-1002, hrd no ID, signal too weak. rel pgms were US rel., Tent. report sent. (PM-Or)

828 JAPAN, Osaka-JOBB 12/9 1009 // 747, good (DN-Ca)
*Also noted JOBB fair w/pips, JJ talk 1200 12/12 (BP-Wa)

t PHILIPPINES?, Cagayan de Oro-DKCC at 1550 12/10 weak vocal mx here Looping towards that area, but no asians at all this AM (RET-Ca)

846 JAPAN, Synchros 12/9 blasting in most of the night, Best JJ on the dial this night (12/9) w/talk in JJ (DN-Ca)

t KIRIBATI, Tarawa assumed this was the good carrier w/weak audio (vocal mx) 0954 12/13. Gone at 1020 recheck (BP-Wa) (Bruce, Kiribati should sign off at 1000.PM)

850 HAWAII, Hilo-KHLO 12/16 0955-1000 wall o/KOA w/Radio 85 ID's, poss. s/off at 1000. ID on the hour, Hi. #23, station 996. (RW-Ca)

855 AUSTRALIA, Maryborough/Eidavaid-4QB/4QO in 12/9 1028 weak w/pop. (DN-Ca)
864 UNID, 1545 12/12 looping towards Indonesia, good carrier, some weak audio. (RET-Ca)

890 UNID, 1545 12/15 standards and Christmas vocals, no ID or break at 1600 assume it was Adak looping that direction. (RET-Ca)

918 UNID, Moderate het 0911-12/9 (DN-Ca)
927 UNID, moderate het 0915-12/9 (DN-Ca)
990 HAWAII, Honolulu, KHVV-"Newradio 99" ID and mx u/KET 0809-12/13(BP-Wa)
999 UNID, het at 0905-12/9 (DN-Ca)

1008 AUSTRALIA, Brisbane-410 vy weak w/Pop 12/9-0907 (DN-Ca)
1026 AUSTRALIA, MacKay-4MK-12/9 at 0900 w/Pop mx, weak (DN-Ca)
NEW ZEALAND, Synchros-12N/12K 12/9 on top 12/9 at 1105 w/Comedy album good sigs no sign on 4MK which was weak on top earlier (DN-Ca)

1035 NEW ZEALAND, Wellington-2ZB, heard well at 0645 on 12/20 w/pop mx, a regular, but normally not this early. Solomon Is. under. (PM-Or)
JAPAN, synchros in Moderate 12/9 at 0900 OM and YL in JJ talks. NHK 2 poor. mod. made audio difficult to copy, could have been // 747 (DN-Ca)
SOLOMON ISLANDS, Honiara-weak w/talk //5020 0940 12/13 (BP-Wa)
NEW ZEALAND, Wellington-2ZB w/pop mx and TC, no sign of JJ which was 12/9 0932-0935 on top just a half hour before (DN-Ca)

1044 CHINA, 12/9 at 1115 weak in CC (DN-Ca)
1116 UNID, Strong het on 12/9 (DN-Ca)
1125 JAPAN, Okinawa-JOAD 12/9 at 0955 vy weak in JJ, first audio I've ever hrd on 1125 KHZ. (DN-Ca) (Try for Vanuatu. PM)

1134 UNID, het 12/9 at 0850 (DN-Ca)
UNID, 1615 12/12 weak Indo-sounding talk, looping towards that direction perhaps an Indonesian. (RET-Ca)

1179 JAPAN, Osaka-JOOR 12/9 at 0953 a het then and now at 1043 weak JJ. (DN)
1197 JAPAN, Synchros 12/9 0951 w/JJ I used to think this was JOBF, but -they have a directional antenna with a bearing on 236 degrees. Could this be JOYF? (DN-Ca) (Could be either, as I have heard JOBF several times here, and verified. PM)

1206 AUSTRALIA, Grafton-2GF in most of the nite, 12/9 w/C&W mx. This station is my DU barometer and for December reception, they were quite good. (DN)

1215 SOUTH KOREA, Jecheon-HLCD 12/9 at 1033 w/good signal, man yelling in KK. (DN-Ca)

1224 UNID, 12/9 hetting w/some audio, could be 2WS? (DN-Ca) (2WS or WXLG-Marshall Is, which I have hrd more here. PM)

1251 WESTERN SAMOA, 12/9 hetting most of the night, finally I hrd some audio on the freq. s/off which // w/1404 (DN-Ca)

1296 UNID, 0949 on 12/9, het (DN-Ca)
1323 FIJI, Rakiraki-in weak w/OM talking in Language. Terrible interference from 3ZM which had Pop mx 12/9 at 1047 (DN-Ca)

1332 NEW ZEALAND, Auckland-1X1, Radio I in good w/Pop Countdown type pgm and ID's 12/9 1048-1101. New. (DN-Ca) (Good catch, PM)

1368 UNID, het an 12/9 (DN-Ca)
1404 WESTERN SAMOA, Apia-2AP in vy good w/mx sign off anmt, anthem 0956-1000 off, right at 1000, but strong het afterwards. Do they leave OC? (DN-Ca) (Not that I know of, poss. 2PK. PM)

1413 JAPAN, Fukuoka-JOIF 12/9 at 0944 w/weak JJ (DN-Ca)
 1458 UNID, het at 0946-12/9 (DN-Ca)
 1467 UNID, het 0947-12/9 (DN-Ca)
 1476 NEW ZEALAND, Auckland-1XA "Radio Hauraki" w/rr 12/9 0943, nice to hear. (DN-Ca)
 UNID, usual awful mess of hets and audio 1222-12/12 (BP-Wa)
 1566 SOUTH KOREA, Cheju-HLAZ 1610 12/12 fair w/JJ Rel (RET-Ca)
 1575 THAILAND, Ban Pachi-VOA 1550 12/12 Best signal ever hrd, EE Broadcast and sent. of VOA (RET-Ca)
 1593 UNID, 12/9 0950 vy weak audio with US Sounding vocal (rock) and non-accented DJ. Can dream for WSZC, can't I? (DN-Ca) (Vy possible, as I have hrd something there, US sounding and WSZC has been logged in California in the last 2-3 years, I believe, PM)

VERIES:

830 ALASKA, Big Lake-KABN in 2 weeks w/RP VL signed by Kathy Okon, PD Spelling incorrect for the Robert Hawk mentioned earlier, last name should be spelled HOUK (RET-Ca)
 873 AUSTRALIA, Sydney-2GB sent vq in 3 weeks, no vs (BP-Wa)
 990 HAWAII, Honolulu-KHVV-Alan Roycroft vq in 2 weeks for report at La Push, Wa. (BP-Wa)

THANKS TO THESE GREAT REPORTERS:

DN-Ca Doug Nyholm-2071 Cedar Street-San Carlos, Ca. 94070
 DXing 20 miles S. of Half Moon Bay, Ca., -1245 ft., Boomerang Bev.
 BP-Wa Bruce Portzer-6546 19 Avenue NE-Seattle, Wa. 98115
 HQ-180A, 4' Box Loop
 RET-Ca Randy Tomer-1969 27th Street-Arcata, Ca. 95521
 SPR-4, HQ-180A, 100 ft. LW, loop
 RW-Ca Robert Wien-1309 Dentwood Drive-San Jose, Ca. 95118
 PM-Or Yer EDITOR
 SP-600 JX, RBO-2, 200 ft. Term. wite, Ground system

The four transmitters then sent coded pulses of radio signals that spiraled outward along the Earth's magnetic lines of force until the man-made radio waves disrupted the inner regions of the Van Allen radiation belts, more than 5000 miles above the Earth.

The satellite instruments, Reagan said, did indeed confirm that the radio signals caused electrons in the Van Allen belts to loose showers of the particles down into the lower ionosphere, where they created a miniature aurora borealis and emitted detectable X-rays.

Two other Navy satellites in polar orbit also clearly identified the coded signals sent out by the experiment's four very low frequency radio transmitters, Reagan said.

The Van Allen radiation belts were discovered by the early satellites that America launched into orbit at the beginning of the space age in 1957 and 1958. They form two huge doughnut-shaped rings of radioactive particles around the Earth, where the radiation is trapped within Earth's magnetic field. The rings extend from about 2000 to 60,000 miles beyond the Earth.

The ionosphere is a much lower layer, composed of electrically charged particles that act as a kind of electrified mirror to bounce ordinary radio waves from transmitters to far distant receivers.

What the joint Stanford-Lockheed experiment

showed, Reagan said, is that radio signals at very low frequencies — the kind the Navy uses to transmit messages to its submarines and the Commerce Department uses to help ships at sea obtain navigation fixes — can actually reach out tens of thousands of miles into the Van Allen belts and precipitate electrons down into the ionosphere.

And for reasons still barely understood, Reagan said, the radio signals are also amplified 1000 times by this interaction with the radiant particles of space — a fact, Reagan said, that "broadens the potential for advancement in new forms of radio communication." It also offers the possibility of creating an entire new range of globe-grdrling radio networks that would not be subject to interference from variations in the ionosphere or irregularities in the Van Allen belts.

Sunspots, which produce magnetic storms on the solar surface and often jam radio receivers on Earth, are a significant hazard to reliable communications, and Reagan suggested that low-frequency radio waves might be used to weaken the effects of the sunspots by "drizzling out" the increased density of electrons that the solar phenomena induce in the Van Allen belts.

The theories behind the experiments confirming the interaction between radio waves and particles in the Van Allen belts were first advanced by the Stanford group, headed by Engineering Professor Robert A. Helliwell, and by Lockheed's Dr. William L. Imhoff.

The Stanford radio transmitter at Siple station in Antarctica, which has been operating for more than a decade, is located atop an ice plateau 8000 feet high and 900 miles from the South Pole. It can send out its low-frequency signals with only 150 kilowatts of power, while the three Navy transmitters in the experiment at Annapolis, Md., Jim Creek, Wash. and Cutler, Maine, all operate at 1000 kilowatts.

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