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DX Monitor

Devoted Exclusively to
Broadcast Band DXing

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Robert Kramer is hung over from his get-together; hence, no column this week. I have no idea what happened to Ric Heald and WDXF. He's probably in the process of moving to some other obscure California city.

HOT DX TIP OF THE WEEK

On Monday, January 15, 1985, WQPM-1300 in Princeton, MN, will test from 0100 to 0130 EST. The test will include test tones, polka music, and voice IDs. Phone number is 612-389-1300. Reception reports can be sent to Todd Rust, Chief Engineer, WQPM, Princeton MN 55371. Thanks to Tom Jasinski for the info. Go get 'em!

We've gotten quite a couple of letters recently, urging us to support a move to legalize the use of shortwave receivers by inmates in Pennsylvania correctional institutions. The present law forbids such things for security reasons (it probably goes back to the days when Police calls were just above the AM broadcast band), even though possession of AM and FM radios is okay. The backers of this move are promoting a letter-writing campaign from interested citizens living in Pennsylvania and the rest of the country. We have a sample letter and a list of Pennsylvania state legislators to send it to. While it's too lengthy to print in DX Monitor, we'd be happy to send a copy of it for an SASE.

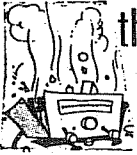
Need a Cuban verie? Paul Ormandy of Oamaru, New Zealand, says the WRTH address for Radio Rebelde is incorrect. Try one of the following instead: Apartado 3540, Habana 3, or Apartado 6277, Habana 6. Their verie signer is Pedro Ney Gomez, Director.

NEWS FROM THE GOODIE FACTORY

A new Goodie Factory catalog, listing scores of new reprints, is in the works at the moment. It'll be available in a few weeks. In the meantime, if you don't own one of our great DX publications, the IRCA Almanac and A DXers Technical Guide, here's information on how to get yours (and, for that matter, what they are):

The IRCA Almanac is a 168 page collection of articles, charts, lists and tables on AM broadcast stations. It lists slogans, sports networks, national, regional, and statewide news networks, syndicated and religious programs, and much more.

A DXers Technical Guide is a collection of receiver reviews, construction articles, and technical discussions on receivers, antennas, and accessories for medium wave DXing. It's written in a way which is useful to the newcomer with no technical knowledge, as well as the experienced tinkerer. To order either book, send \$5.50 cash or check (U.S. IRCA members only, others write for price info) to 1017 West Manhattan Drive, Tempe, AZ 85282.



Notes on Mediumwave Beverage Antennas

by Nick Hall-Patch and Don Moman

Recently, a number of Beverage antennas were set up by the authors at Pembina Forks, Alberta ($52^{\circ}59'N$ $116^{\circ}38'W$) and along the Diversion Reservoir at Jordan River on Vancouver Island's west coast ($48^{\circ}30'N$ $123^{\circ}59'W$). A primary intention was DXing of course, but a number of observations were made (mostly at Pembina Forks) concerning the apparent directionality and gain of the wires related to their height, length and use of a termination, along with some experiments with grounds and ground substitutes and with paralleling of wires. Most of our comparative readings were made using the S-meter of an IC-R71 receiver which had been calibrated against a lab grade signal generator. Most observations were on reasonably distant groundwave signals which gave solid S-meter readings. Comparisons of distant signals were more subjective, as splatter often made good S-meter comparisons impossible.

The Pembina Forks site is an open meadow with space for wires in the 210 to 280 degree range; further north was possible if a road was crossed. We used 210, 240, 270 and 320 degree wires of varying lengths. Although the site is in the foothills of the Rocky Mountains, relatively distant horizon blockage was minimal, no more than 2° , but there was a low hill about 8 meters/25 feet high about 100 meters beyond the ends of our 300 meter wires at 210° and 240° . The 270° and 320° wires were unblocked. The meadow was somewhat soggy at this time of year (early October) but judging by some of the DX heard, relative wetness of the ground was not too detrimental to the antennas.

The Jordan River site was also soggy, and the horizon is rather jagged. Only wires at 270° and 90° were used, and in these directions blockage was about 2° , but a steep hillside directly to the south meant blockage at 240° was approximately 15° , and it got worse as the bearing moved to the south. Bearings to the north of 270° also suffered blockage, but it was around 5 or 6 degrees.

One subject that is often brought up in discussion of Beverage antennas is the use of a terminations resistor to ground at the far end of the wire to attenuate signals arriving from the back end of the wire. We made a number of observations on daytime signals directly off the back of the wire. The "ground rod" used was a 9" spike, hardly the best thing to use, but the ground was very damp at the point it was used. Termination resistors used were 470, 510, 560 and 680 ohms. Variation in resistor values over this range did make some difference in the amount of attenuation suffered by signals from the back of the wire. The 680 ohm termination resistor provided about 8 dB more attenuation on CBK-540 than the 470 ohm one using a 300 meter wire lying on the ground at 270° . But the 470 ohm resistor was already providing 12 dB of attenuation. So, for best results in attenuation off the back end of the wire, the exact resistor value seemed to make a difference, at least at 540 kHz, and with a 300m wire.

However, a 375 m wire in the same direction and lying on the ground did not show any attenuation difference between using a 470 ohm and a 680 ohm resistor. More interestingly, the attenuation of CBK was now only about 7 dB. Using a 375m wire raised to 2m above the ground showed the 470 ohm resistor to be the most effective in attenuating CBK, but even then the greatest attenuation was on the order of 11 dB. The use of a termination resistor seemed to be most effective on a shorter wire (at least for one lying on the ground; we didn't try a shorter wire in the air), and more effective for a wire in the air than for one lying on the ground. These results were only for 540 kHz, but even there, a 75m increase in wire length did show some noticeable changes in back end attenuation, more significant than the change in termination resistor value.

It did seem that the "longer" the wire was related to the wavelength of the received signal, the less effective any termination resistor was in attenuating signals from the back of the wire. CBW-990 was attenuated about 10 dB at best when CBK-540 was being attenuated 20 dB by a suitable termination resistor, and we never managed to get more than 4 or 5 dB attenuation on CJOI-1440. Again, variation in termination resistor values did not make a great difference in attenuation, particularly at the higher frequencies. Incidentally, CBK, CBW and CJOI were all within a few degrees of co-linear with the direction of the wire.

We should have checked signal strengths of CBW and CJOI on the unterminated wire against signals on an unterminated wire running towards these stations, i.e. 180° away from the test wire. The wire may have already attenuated these signals somewhat, as they had to travel to the far end of the wire, then be reflected back to the receiver. It was noted for example, that CJOI was about 10 dB stronger on a 50m random wire in the trees than on the 270° unterminated Beverage. John Clements and Chuck Hutton in "Some Thoughts/More Thoughts on Beverages" (NRC Reprint A27) noted that terminations became less useful as the wire was made longer, as transmission line losses in the wire attenuated signals coming in from behind the wire. A signal which has already suffered these losses in getting to the receiver would presumably not show so great an attenuation when a termination resistor was placed at the end of the wire, because the reflected signal from the far end of the wire would have been attenuated anyway by the time it arrived at the receiver. But should transmission line losses have increased 16 dB between 540 and 1440 kHz as we observed, or are there other factors involved? From a practical standpoint, however, it appears that termination makes more of a difference for short Beverages (in terms of wavelength) and for those raised above ground.

A wire running 180° away from the test wire was used at Jordan River a few weeks later (both were unterminated and 300m long), but due to the lousy S-meter on the homebrew receiver used, and the fact that observations were made at night, no accurate comparisons could be made. However, on all signals from Australia and the Pacific Islands observed, strengths were better on the wire pointing towards rather than away from the target area. In many cases weak but readable audio became a carrier when the antenna was switched from the "forward" to the "backward" wire. Generally similar reductions were noted on domestic stations when the wire used was 180° away from the target area. It would appear these transmission line losses can be of great importance in determining whether DX is heard or not.

Terminating a wire is difficult in some situations as decent grounds are hard to obtain in dry rocky or sandy areas. A substitute ground that has been suggested is the use of a further $\frac{1}{4}$ wavelength of wire running beyond the termination resistor, which is used in place of a ground rod. We tried a 75m extra length of wire beyond our termination resistor (75m is $\frac{1}{4}$ wavelength at 1 MHz) and it was comparable to our ground spike on CJOI-1440 and gave about 3 dB more attenuation on CBW-990, but on CBK-540, the ground substitute was vastly inferior used with the 375m wire in the air, and actually acted as an added length of antenna when used with the 300m wire on the ground, i.e. received signal strength increased rather than decreased! As 75m of wire is closer to one-seventh rather than $\frac{1}{4}$ wavelength at 540 kHz, these results are hardly surprising, but for a wire in the air, a 75m length of wire seems to act as a reasonable ground substitute for use with a termination over at least the central portions of the MW band.

Grounding the receiver end of the wire is also difficult when the soil is unsuitable, but should probably be attempted for safety reasons. Most of our DXing was done without a ground, and the reception of distant signals did not seem to suffer for the lack. Three 75m lengths of wire were laid out on the ground behind the van at about 50° intervals and were connected to the van's chassis (and thusly to our receivers). As a substitute ground, these radials did not have a great influence on our receptions. There were random increases and decreases in signal strengths on domestic stations, increases being mainly limited to stations at the low end of the band, and off the back end of the wires. There were no changes noted in the signal strengths of the long haul down-under receptions.

One thing that is always surprising when using Beverage antennas run in different directions is how directional these wires can be; there really are noticeable differences in strengths of stations received, and sometimes different stations are received. The most spectacular examples for us were off the backs of the antennas. Latins were best off the 320° wire; and the 270° wires gave best receptions of CBJ-1580 and WQXR-1560 while the 240° and 210° showed mostly XEDM-1580 and KPMC-1560. In general, all through the band, eastern clears were greatly superior on the 270° wires. It was particularly noteworthy that wires of only 30° separation could show such significant differences on signals received. At one point, 4QR-612 was received only on the 270° wire; generally, Queensland stations were better on the 270° wires, while New South Wales was better on the 240° wires. (Townsville is at 263°, Brisbane at 253°, Sydney at 249° from Pembina Forks). Fiji-891 was dominant on the 210° wire one morning while 5AN was dominant on the 240° wire (Fiji is at 240°, Adelaide at 257° from the site). The 210° wire was often inferior to the others for DU reception

due to heavier domestic splatter (all the stations from San Francisco to Vancouver, B.C. are in a swath from 200° to 235° from the site). The list really goes on and on---it pays to put out more than one Beverage if it can be managed.

Directional effects were also apparent on two parallel antennas of different lengths and/or heights. Before any observations were made on two parallel wires, it was important that we find out whether one wire would greatly influence another one strung a few meters away. A 300 meter wire at 270° was set up, then a parallel wire was run out about 4m away from the first. S-meter readings of CFUN-1410 were taken from this wire and from the first one as the second wire was put out in 50 meter segments. There was some daytime skywave fading on the signal, but there was no large variation in signal strength on either wire as the second wire was rolled out. Hutton's "Analysis of the Beverage Antenna" (NRC reprint A28) quotes varying distances for significant coupling to take place between two parallel Beverage antennas, but our simple test seems to show that there was not a large amount of coupling between wires of the spacing we used. This is not to say that the wires did not influence each other at all, especially when we were DXing and had a number of different wires running into the van we were using as a DX shack. At one point, leaving one wire unconnected to a radio or a ground caused one of us to completely lose a signal from Radio Paradise-825 off the back end of another wire. This was just as likely due to signals from the wires mixing and cancelling within the wires inside the van as to influence between wires along their length, but we won't swear to it.

It's usually easier to lay a Beverage antenna directly on the ground rather than put it up on supports, so we planned to find out what sort of differences in reception would be likely when similar length wires in the same direction were used but with one 2m above the ground (wire A) and one lying on the ground (wire B). A daytime bandscan showed that stations within about 35° of the far end of the antennas suffered some loss in signal on wire B compared with wire A, on the order of 3 dB or so. However, CFPR-860, the one closest to the 270° bearing of the antennas produced a marginally better signal on wire B. Wire B showed greater losses for signals from the back end, on the order of 6 to 9 dB, with only one at -3 dB. Perhaps there was greater ground losses on the reflected signal with wire B. Two stations, KGA-1510 and KBOI-670 were at 90° to the wires, and in both cases showed a 3 or 4 dB gain when wire B was used. With long distance signals from down under next morning, it was generally found that signals were marginally better strength with less splatter on wire B, though two signals on 1575 and 1629 showed markedly stronger signals on this wire. Bearings of the received signals were in the 230 to 260° range. The poorer directionality of wire B (implied by stronger signals from KGA and KBOI) was also in evidence at night. Wire B was comparable in its reception of Latins with the 320° wire, yet wire A was much poorer. Two later wires at 240°, one on the ground and one in the air, also showed similar tendencies in receiving Latins--the one on the ground was reasonably good for Latins, while the one in the air rejected them. It appears then that a wire on the ground gives somewhat poorer signal strengths off the ends, particularly off the back, and somewhat broader directivity.

Another comparison of interest is that of a longer Beverage versus a shorter one. We ran a 300m wire at 240° then another 240° wire that was about 650m long, both lying on the ground. This latter wire was not perfectly level as the land rose abruptly 8 meters or so about 400m from the site. Results with this longer wire were quite peculiar, as it showed consistently less strength on all signals compared with the shorter wire. Signals from the Vancouver area just 5° off the antenna bearing were poor compared to the shorter wire, as were almost all Australians. When there was improvement in strength with the longer wire it was minimal, and only at the bottom end of the band. This did not correspond with expected results, nor did it correspond with later tests at Jordan River using a 300 and a 600 meter wire at 270°, both about 1.5m above the ground. There, the longer wire gave consistently better signals on co-linear domestics (all off the back), and on a suspected Papua New Guinea station on 864 and on the low band NHK stations. PNG is at 270° from the site and Japan at 300°. Australians, except for 6DL-531 (also at 270°) were consistently poorer on the longer wire, though the terrain might have had some bearing on that result.

At one point at Pembina Forks we had one 375m wire and one 300m wire, both raised, and at 270°. Daytime observations generally confirmed that the longer wire gave better signals on the mid and upper band, but only in the direction it was pointed in. Vancouver signals at 235° were down 2 or 3 dB on the longer wire over the shorter one. KGA-1510, perpendicular to the wires was also about 2 dB less on the longer one. Only at the lower end of

the band were signals improved in strength on the longer wire if they were off the back or more than 20° removed from the forward direction of the wire. The literature leads one to expect that longer Beverages (in terms of wavelength) would be more directional and deliver more signal from the direction that they do favour, and the 270° wires seemed to confirm this. But our longest wire (at 240°) did not live up to expectations. Perhaps it was simply that the wire was lying on the damp ground and ground losses were too great. Also, the Pembina Forks area is coal mining country, and according to a geological map of Alberta, the area we were in is liable to have coal deposits. If coal is a reasonably conductive ground material, and there was coal in the ridge that we extended the 240° wire over, then it might help explain our lack of results with this antenna, but that's really a shot in the dark.

A phasing unit similar to Mark Connelly's MWDX-1 described in IRCA reprint A40 was used with various pairs of Beverages. Most of the undesired signals received suffered from a mixture of skywave and groundwave, making them difficult to null, and to maintain nulls once they were found. Best success in nulling such stations was when using a 10 kilohm potentiometer as a series Q-spoiler for each tuned leg of the phasing unit. With about 5 or 6 kilohms in each leg, there was some loss of signal from the wires, but nulls were easier to maintain. The most impressive result from the phasing unit was nulling CFFR-660 to yield WNBC, using a 210° and 240° wire. On neither wire alone was there any sign of another station behind CFFR, and even on the 270° wires, which were hearing plenty of east coast DX that evening, there was absolutely no sign of WNBC on 660. It is usually suggested that phasing units use parallel Beverages, but reasonable results were obtained with wires separated by 30° in this case, as well as when using parallel wires. The phasing unit did not seem to be able to separate long-haul signals on the same frequency and off the ends of the wire if they are separated by only a few degrees. Trying to null New Zealand on 756 ended up nulling the desired Australian signal at the same time, but distant signals widely separated in azimuth were no trouble--nulling WCCO-830 to hear Belize for example. The phasing unit is not something to be used during sunrise enhancement, as the DX is fading in and out so rapidly at this time that one is better off to tune around and ID what is strong at the moment. But for whiling away those long night hours on a Beverage expedition, a phasing unit is ideal, as one can ID more stations on each channel than one can with a single Beverage.

A few brief experiments were tried using a 210° and a 240° wire hooked up together to a receiver's antenna terminal, to see if stations within the "V" formed by the two wires were enhanced in any way. Results were rather random; in the daytime both CFUN-1410 and KIRO-710 increased strength by about 6 dB as did KVAN-1550. All were within the "V", but some stations outside the "V" such as CJOC-1220 and CKRM-980 also increased in strength, even if weaker CKDA-1220 and KKNW-980 within the "V" became slightly more readable. New Zealand stations (also within the "V") were attempted using the two antennas the next morning and all lost rather than gained strength using this system.

However, hooking up two parallel wires to the receiver was generally more successful. Increases in signal strength of a few dB over one wire alone were noted on all Australians tried with two 375m wires in the air at 270°. But hooking up a 270° wire in the air with one on the ground caused all sorts of random cancellation effects. Two 210° wires of 250 and 300m lying on the ground were also unpredictable---no gain on 1YA-756 (at 228°) yet gain on 4MK-1026 and 2RPH-1629, both further off the direction of the wire. Further observations concerning changes in directional patterns were not performed, though no increase was noted on KGA-1510, perpendicular to the wire, when two wires were used.

Conclusions

Performing experiments like these and then writing them up later makes one realize just how many more observations there are to be made. It would be useful for example, to observe further just how much loss there is on signals coming from behind a Beverage, and how this loss is related to frequency, wire length, type of ground, height above ground etc. Further observations comparing long and short Beverages could be useful. And trying to find out what directional pattern is shown by an array of two or more parallel Beverages would also be of interest.

All conclusions we draw should be taken with a grain of salt, as there may have been variables we were unaware of (ground conductivity and effects of terrain for example) which may have made some observations suspect. In general, our aim in all this was to allow those lucky enough to have a temporary Beverage site (ourselves, for example!) to take greatest advantage of the space and time they have available. For now, these conclusions

seem to be justified:

-----Point your antenna in the direction from which you want to receive signals. Even if the antenna is unterminated, signals off the back end of the wire will be attenuated somewhat, and it may be enough to lose your DX.

-----If you have room for another Beverage, even 30 or 40° away, and have the wire, use it. Even a 300m wire shows a good deal of directionality.

-----If you can get wire(s) up on poles or trees, they will give greater directional effects and somewhat more signal strength. But a wire on the ground (or for that matter a short random wire thrown up in some trees) will give you more of an idea which direction conditions are favouring at the time.

-----For a temporary site, don't worry too much about exact termination resistance for the wire. Any resistor in the 500 ohm range will help, and for the upper reaches of the MW band may not really be necessary. Unless there is a specific strong station off the back of the wire that you must null, you probably won't miss the termination on a temporary site unless the wire is quite short.

-----A 75 meter wire extended beyond your termination resistor will perform as a ground substitute for at least the middle of the MW band if a reasonable ground is hard to obtain.

-----Ground the receivers if you can, for safety reasons, but a ground probably won't help your DX much.

-----Parallel wires will give somewhat more signal strength in the desired direction if the same length and height above ground. If you have the construction skills and like to tinker, build a phasing unit and increase the variety of your DX heard by nulling the stronger signals to yield weaker ones.

Further reading:

Beverage, H.H. and DeMaw, Doug. "The Classic Beverage Antenna Revisited", QST, January 1982

Clements, J. and Hutton, C. "Some Thoughts/More Thoughts on Beverage Antennas", NRC reprint A27, available from National Radio Club Publications, P.O. Box 164, Mannsville, NY 13661

Fischer, Dave. "The Super Signal Snatcher", IRCA reprint A11, available from IRCA Goodie Factory, 1017 West Manhattan Dr., Tempe, AZ 85282

Hutton, C. "Analysis of the Beverage Antenna" NRC reprint A28

Moman, Don. "The Practical Beverage Antenna" in A DXer's Technical Guide pp 85-6, also available from IRCA Goodie Factory

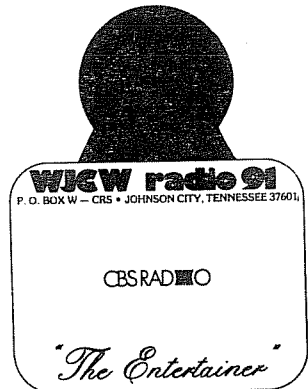
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Best wishes for 1985, and especially to these contributors who made the tech column possible in 1984: Mike Bittner, Mark Connelly, George Hakiel, Dennis Kibbe, W.R. McIntosh, Don Moman and Ben Peters.

(Gerry Thomas mentioned this in a recent Forum, but in case you missed it, he has Vernitron VTD-3-I filters (4 kHz at -6dB, 10 kHz at -60dB) for sale at US\$23.50 postpaid. His address is P.O. Box 2036, Pensacola, FL 32513)

CKLC 1380

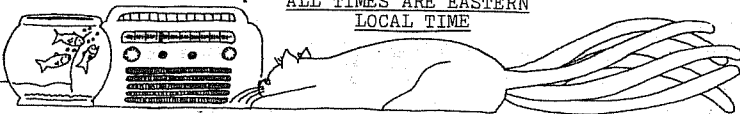
The St. Lawrence Broadcasting
Company Limited
99 Brock Street
Kingston, Ontario
K7L 4Y5



Eastern DX Roundup

Karl J. Zuk, 154 Old Post Road North,
Croton-on-Hudson, New York 10520
ALL TIMES ARE EASTERN
LOCAL TIME

Send in your
loggings today
or this giant
attack cat
will eat your
receiver!!!!



REPORTERS IN THIS ISSUE:

- *****
(JH-PA) Jim Hall, 240 Byron Road, Pittsburgh, PA 15237
Kenwood R-600; Drake R7A, Loops (including a Palomar,) Long wires, etc
(WJH-MD) William J. "Bill" Harms, 8327 Perri Drive, Savage, MD 20763
Yaesu FRG-7, Panasonic RF 3100, longwire and wedge.
(WPT-DC) William P. Townshend, 4500 Connecticut Avenue NW, #301,
Washington, DC 20008 Portavision 12-660
(KJZ-NY) Karl J. Zuk, 154 Old Post Road North, Croton-on-Hudson, NY 10520
GE Superadio, DX-160, 1100 foot random long wire.

179 WGU20 MD, Chevy Chase. This is the station I reported in the last issue.
It is operated by the Federal Emergency Management Agency. Still
active with good signals 24 hours giving constant voice IDs and
time checks every ten seconds. (KJZ-NY)
530 WNAL-75 MD, Baltimore. (no time,date) Baltimore Beltway Highway Advisory
Radio "advising motorists of ongoing construction on the Beltway."
Fair, but with QRM from Washington National Airport. (WJH-MD)
560 KLVI TX, Beaumont. 12-21 0041 Occasionally topping channel with
unbelievable strength on loops with C&W music, out of sports talk
into "...right here on fifty-six, K-L-V-I." (JH-PA)
580 WTAG MA, Worcester. 12-28 1545 in weakly over/under WHP, Harrisburg,PA,
with a C&W record. (KJZ-NY)
590 WARM PA, Scranton. 12-4 2145 with spot for trip to Florida and The
Bahamas, then oldie song. Good, over/under a Cuban. (WPT-DC)
770 KOB NM, Albuquerque. 12-27 0100 Will wonders never cease? Great
reception over WABC, New York, NY. KOB had Talknet with Sally
Jesse Raphael. Local ads, ID as "The Only Station You'll Ever
Need, 77 KOB Albuquerque." ABC news parallel to WABC at 0100.
Weird echo effect with the news. (WJH-MD)(Echo effect due to
WABC getting ABC news directly and KOB via satellite-kz)
850 KOA CO, Denver. 12-27 0002 with slogan "Newstalk Radio," and ID into
Rockets basketball. Good over all. (WJH-MD)
930 WBBN NY, Buffalo. 12-2 2228 with mention of Larry King Show by man.
Fair atop pest WFMD, Frederick, MD. (WPT-DC)
1120 WUST DC, Washington. 11-26-27 Open carrier all night. Maybe they
Forgot to kill the plate voltage. Usually D-1000. (WPT-DC)
1160 KSL UT, Salt Lake City. 12-27 0015 Blowing away WJJJ, Chicago, IL,
and und station playing C&W music, with local news. (WJH-MD)
t1560 WSHY IL, Shelbyville. 12-20 1719 Station slightly over WQXR, New York, NY,
with ads for Shelbyville, promo for "best gospel music at 3pm".
I thought I had WPAD, Paducah, KY at first, but Shelbyville, KY
is around 100 miles from Paducah. Also considered WYZD, Dobson, NC,
but there's only a Shelby in NC. Can any CDXR members help?
WSHY is D-DA-500. (JH-PA)
1560 KQYX MO, Joplin. 12-20 1754 WQXR, New York, NY in kind of a primitive
phase null, (using three-way switches on several long wires),
leaving "KQYX News" and ABC news on the hour. (JH-PA)
1580 WHEX PA, Columbia. Many penguin swats to your editor. In DXM of 12-22,
I said call was WHEZ, not WHEZ. (sic) The call is WHEX and those
flippers really hurt! Sorry! (KJZ-NY)
1580 KNIX AZ, Tempe. 12-27 0115 My 38th state here in less than two years,
(NM above was #37.) Fair to Good over the Mexican and another SS
station with ID and C&W song. Two new states in 15 minutes! (WJH-MD)
1600 WKGK VA, Saltville. 12-21 0010 Testing with Palomar loop when "...This
is WKGK, Saltville, VA, making transmitter adjustments at twelve
ten AM..." came on, then carrier off. (JH-PA)

That's all there is this week! Please write in your tips so this column
may continue to be of use to all Eastern BCH DXers! One man's local is
another's DX, so send me whatever you have, handwritten, typewritten,
neat, sloppy, it doesn't matter..just send them in! I hope your Christmas
was as good as mine! I did not get an R-71, but I did get a large Steiff
Penguin, which is just out of this world! Eat your hearts out Nancy and
Evelyn! I've had some tremendous TA openings lately. What have you heard? 73 kz

WESTERN DX ROUNDUP

Nancy Hardy
2301 Pacific Avenue
Aberdeen, WA 98520

All times are
Eastern Local

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

DEADLINES: Each Tuesday through April 2

REPORTERS FOR THIS ISSUE:

- (FA) Frank Aden, Jr.-5147 Morris Hill Apt. 133-Boise, ID 83706
Mod. FRG-7 w/box loop, HQ-180A w/MW-1, Uniden 2021 w/SM-1
- (BB) Bill Block-9307 S.E. Clay-Portland, OR 97216
R-390, Radio West loop
- (NH) Nancy Hardy-2301 Pacific Ave.-Aberdeen, WA 98520
FRG-7, SM-1
- (PM) Patrick Martin-P.O. Box 843-Seaside, OR 97216
SP-600, 1500' longwire N-E
- (RHM) Roy H. Millar-13714 30th Ave. N.W.-Marysville, WA 98270
DAK3, unamp. loop; FRG-7, Sanserino loop
- (PT) Pete Taylor-DX'ing at Tacoma, WA
IGF-2001
- (RT) Rich Toebe-2388 American Ave.-Hayward, CA 94545
- (RW) Robert Wien-1309 Dentwood Dr.-San Jose, CA 95118
GE Superadio, GE long-range portable, SM-2
- (JW) John Wilkins-4385 Hoyt St. #205-Wheat Ridge, CO 80033
R-1000, 4' monster loop

OF SPECIAL INTEREST:

- 740 KFOK ID, Boise is trying to move to 730 w/500 watts. Appears they finally got the go ahead & have been doing some testing at night on 730. Looks as if they are having xmtr problems & may be awhile before they get it adapted to 730. Schedule is unknown at this time but they want 10kw days. (FA-ID)
- 950 (KKIC) ID, Boise appears to be off. They have lost their lease on the lot where their tower is & were told to vacate. It has been reported the landlord notified the FCC he was going to cut down their tower & they said OK. Have CP to move to Meridian, ID, fulltime. Have been off since at least 12/18. (FA-ID)
- 1470 KFQX TX, Abilene 12/24 0600 fair o/mess briefly into nx, after C&W tune. Ex-KRBC. (PM-OR)
- 1540 KLSY WA, Bellevue-Seattle 12/17 ID 1403. Ex-KJZZ, KZAM, KBES, KFKF all on KBVU's original frequency! (RHM-WA)
+12/24 0300 poor in tight KSKQ null w/"Classy" ID, ment. of owned & operated by Bellevue Radio Inc., mixed bag format. Call change, ex-KJZZ and 1st stn I've logged w/4 call changes (KBES/KZAM/KJZZ/KLSY). Per call to stn, changed calls MM 12/17. (RW-CA)
+12/29 1956 adult contemp. mx to ID at 2004, "At 1540 AM, we're Seattle's new Classy AM, K-L-S-Y, Bellevue-Seattle. Thanks for listening." Very good w/KGHO-1560 slop. (NH-WA)
- *****
- 530 HAR CA, Sacramento hrd on 12/24 at 2130 w/info on I-80. Tape is 46 seconds. (BB-OR)
- TIS WA, Tacoma fair on 12/26 all day w/message #1 and 12/27 w/messages #1 & #2. (PT-WA)
- 550 KARI WA, Blaine fair days, non-existent nights. (PT-WA)
- 590 KHQ WA, Spokane per call to KHQ, will be changing calls to KLSN "around January 10." Format will apparently remain the same. Calls mean "K-listen." There goes another 3-letter call! (RW)
- 630 KSHR OR, Coquille-Coos Bay 12/20 1101 good o/KIDD in KOH null w/ID using these cities. (RW-CA)
- KCIS WA, Edmonds now fulltime, 12/26 signal OK, but modulation low (translation; clean signal!) allowing KIDO QRM at night. Seems to have started night programming. (PT-WA) (Went fulltime in June.--NH)
- 700 KPAM UT, North Salt Lake City 12/19 1400 xint though a little fadey w/nice ID as "AM 700" on hour. 1st time I've hrd them during day. KBOI & KDWN also in well at time. (RW-CA)
- 750 KXL OR, Portland pretty strong 12/27 2215. Are they 10kw nights yet? (PT-WA) (Supposedly.--NH)
- 870 *KORD* WA, Pasco TT noted 12/28 0515 into RS at 0547. (PT-WA)

910 KKSX WA, Vancouver on top w/classical mx 12/27 2015, usually
KNEW noted. (PT-WA)

930 KAPR AZ, Douglas 12/24 0841 good o/mess for about 20 sec., then
immediately buried w/no comeback w/local spot. New. (RW-CA)

990 KRKS CO, Denver 12/29 s/on 0915. Jan. s/on should be same. (RHM-WA)

1000 KKIM NM, Albuquerque 12/23 1852 ad for Sandia Peak Ski Area;
"Christmas Traditions," program about a one-time law that
made Xmas illegal; 1869 ID "Inspirational Radio for the Great
Southwest, KKIM Albuquerque." Fair, o/u XEFV/KTOK. (ØW-CO)

1040 WHBO FL, Pinellas Park-Tampa 12/24 0738 good well o/WHO w/"AM 104"
ID. This is turning into a pest, hi. (RW-CA)

1050 KTBA AZ, Tuba City 12/24 1830 ads for Tuba City Laundrymat and
Dairy Queen. Pop mx. Fair. (ØW-CO)

1080 KRPX UT, Price 12/22 0500 on w/annct. of operation by auth. of FCC
for emergency purposes for Utah mine disaster. Thought for a
second their night CP grant was on finally! Good o/KWJ/KRLD.
(RW-CA)

1100 ?KIIIO? CO, Grand Junction presumed topping KFAK 12/28 0005 w/pop mx.
KFAK had same program on as KGNW-1150, but was 3 seconds
ahead. (PT-WA)

1110 WBT NC, Charlotte per recent verie, has been operating u/temp.
authorization of 50kw ND at night while fixing their DA. Don't
know if it's fixed yet, though. (RW-CA)

1150 KIIS CA, Los Angeles 12/25 0309 noted w/ID on hour as KIIS (not
KISS), "Kiss wishes you a merry Christmas," Xmas mx. Call
change, ex-KPRZ/ex-KIIS. Apparently Broadcasting mag. was
wrong about KISS. (RW-CA)

1180 KERI CA, Wasco-Bakersfield 12/27 2330 "California Sunshine" noted
several times on top of KOFI, or at least even w/it. (PT-WA)

1240 KWIK ID, Pocatello 12/25 good o/all, mostly alone w/Christmas mx
at 0530. Jingle ID, ABC nx at 0600, followed by wx. (PM-OR)

KBMY MT, Billings 12/25 0603+ poor u/KWIK most of the time, ID &
N.Y.'s ad, back into Christmas mx. (PM-OR) (I thought this
changed calls to KUUS. How about it John Johnson?--NH)

KFEC WY, Cheyenne 12/24 1500 ABC nx, local wx, Xmas mx & features.
Daytime logging. (ØW-CO)

1250 KKFV/KWSU WA, Seattle/Pullman even 12/26 2020 surprise, since my
jello brain told me they shared time. (PT-WA) (KKFX went
fulltime in late 1970's.--NH)

1320 KXRO WA, Aberdeen 12/20 1137 still in this late o/KGMR thru KFYI-
1310 slop w/ID. Unfortunately, no sign of KQDQ. (RW-CA)

1340 KDOL CA, Mojave 12/20 1056 poor in mess w/ID. (RW-CA)

KPRK MT, Livingston 12/25 fair o/mess w/Talknet, PSA, road report
at 2259. ID into ABC nx. New. (PM-OR)

KLOO OR, Corvallis 12/20 1052 briefly o/u KBBR w/ad for Corvallis
business, then lost immediately. Extremely rare. (RW-CA)

KBBR OR, North Bend 12/20 1050 way on top w/"Country KBBR" ID,
then lost. (RW-CA)

1400 KPMA WA, Tacoma will be moving to Silverdale, WA per verie. Hope to
get on the air by May 1, 1985 w/new call. Address will be:
P.O. Box 1400, Silverdale, WA 98383. (RHM-WA)

1500 (KHTT) CA, San Jose 12/19 0442 totally off. (RW-CA)

1530 KCLR TX, Ralls 12/14 1843 ad for un Baile de Navidad (Xmas dance),
"Jingle Bell Rock," then EE/SS s/off 1846. Ment. 5kw & gave
slogan "Radio Rodriguez." Good signal. (ØW-CO)

1550 KKHI/KVAN/KRGO San Francisco/Vancouver/W. Valley City took turns
between 1648-1708 12/26, w/KKHI dominating. A little early
for this sort of stuff, isn't it? (PT-WA)

1570 KCVR CA, Lodi dominant 12/26 1651 for a surprise. (PT-WA)

KMAY CA, Riverside 12/24 1913 "We wish you a very Merry Xmas and a
Happy New Year from K-M-A-Y Riverside," then into relig. pgms.
Poor in partial XERF null. Haven't hrd for a couple of years.
(ØW-CO)

1590 KSRN NY, Sun Valley 12/28 1018-1038 w/country mx, wx, clear "KSRN"
and "KSRN-AM" IDs--into unID network nx at 1030, ment. of
phone number for tickets to game, local ads. New, hi. O/u
KLIV, KMTI. (RT-CA)

KMTI UT, Manti 12/28 1016 ad for video store, wx, ID, into mx by
Wham. Fair, new, u/KLIV. Was looking for KSRN whrn I got
this! (RT-CA)

KJET WA, Seattle not great nights in Tacoma, but what they lack in
signal strength is nearly made up for in distorted overmodula-
tion. (PT-WA)

1610 KFHD262 WA, Discovery Bay (per PM in 12/29 DXM) 12/19 1400 w/about a 23-second tape loop. Identifies as D.O.T. Highway Advisory Radio. Easy here, call hopefully closed! Discovery Bay is a few miles SSW of Port Townsend, WA, about WSW of my location, so should be able to loop out for any TIS to the south and SE of me. (RHM-WA)

KNHD261 WA, Olympia tape mentioned I-5 road widening, ramp shortening, and delays through Feb. 15. Good level 12/26 1715. Couldn't get 3 letter prefix: Think this is the same one I hrd in Black Butte in July. (PT-WA) (It's KNHD, Pete.--NH)

DX TEST:

890 KBYE OK, Oklahoma City 12/17 0300 special DX test running 1kw and taking calls. Signal was very good at times. Played mx w/ announcements in between. Gave out phone number several times. Hrd this while trying for DX test from Columbus NE on 900, but hrd nothing except for some tones. (FA-ID)

It's great to hear from you again, Frank. We need someone to fill us in with all the news from Idaho & that area. We miss you, Bill Harms! Everyone please report! ♡

EASTERN DX FORUM

RICHARD EVANS
P.O. Box 1294
NORTH WALES, PA 19454

Deadlines: Saturdays

C. M. Stanbury II, RR #1, Ridgeway, Ontario LOS 1N0

The Dec. Popular Communications contains an article by its editor, Tom Kneitel, on the late Dave Thomas' WUMS - possibly America's first pirate station (1560 and other frequencies). The most interesting part of Kneitel's piece is his revelation that in 1963 he was in contact with Thomas: the same year that Electronics Illustrated's editorial staff was messing up my article on the same subject., and equally interesting, our WUMS article appeared in the same issue of EI as did our first article on Radio Americas (aka Radio Swan). Kneitel had a very close professional relationship with EI's chief editor but all of this could still be coincidence. On the other hand, December SW Guide also contains an article, by John Santosuosso, about WUMS. Santosuosso, an associate professor of political science at Florida Southern College, was intricately involved with Pop Comm's predecessor, S9. His WUMS article contains various factual errors: aside from saying that Thomas received a "handsome sum" as a result of his legal action against EI (while in fact Thomas settled out of court for a mere \$1500 which may have been enough to cover his legal expenses), Santosuosso also claims that the last WUMS QSL was issued in 1948 while in fact I received one during the late 1950's. Best.

Ernest R. Cooper, 5 Anthony Street, Provincetown, Massachusetts 02657 (617-487-9337. First, a couple of answers to recent questions in

the Monitor. To Karl Jeter: WKZF-1140 is ex-WIXC, Hazel Green, Ala. To Karl Zuk: WMZQ-1390 is ex-WEAM, Arlington, Va., now playing C&W, AN-6. John Demmitt: That nightly tone on 1580 is CBJ, not WLII - and what is QRT? (Type?--rce) Stan Stanbury: The SSer on 1580 which s/off at 1800 is definitely WTYO-NJ, often heard here about even with CBJ - but try to get a verie out o' them! (Ernie, how about a report in SS--rce) Gardner Smith: I think the SS on 1560 with EZL mx is not Cuba, but WRJS, San Juan. I don't hear a Cuban there, but do catch both a Mexican (XEPAJ) and a Colombian, along with WRJS, on HMs when WQXR is off. They've been making a movie here in Provincetown, and elsewhere on the Cape, "Where are the Children?" There are some scenes in Provincetown's Town Hall, and in Provincetown's FM radio station, WOMR's, studios! The name of the town in the movie is fictional (Adams Port) but the call letters "WOMR" will be used, and you'll be able to see our humble home if you see this movie when it is released. Thank goodness I wasn't on duty the day they filmed at WOMR - they really caused much upset. So that he wouldn't disrupt the filming, one of our classical music deejays had to exit by climbing out the window! (Lucky we're not on the top floor!) A report went to WNSH-1570 (ex-WBVD), and a v/l is in from them. A report also out to S.E.R.-Spain-1584, for what I believe was a group of their synchronized transmitters, all low powered, heard between 0055 and 0125 on both 12/8 and

12/22. MM 12/3 found XEFAJ-1560 in with a fair signal at 01:31 using a slogan "Musica de Pedre" or similar. Sun. 12/16, and WIZY-1580 Ga. was squeaking under CBJ's perennial tone, for a report, at 01:19, plugging a Christmas stocking drive. With the GYs now running 1000 watts at night, these frequencies seem a bit different - different dominants are noted now, except on 1490 where 'tis still WBCB most of the time, and 1240 where WOGB is a semi-local. Sunday afternoon 12/23 was interesting, with Northern signals good as they often are middays at this time of year: reports went to WRPT-1050-NH (u/WHH) and WOZW-710-ME (u.WOK). I hope you've all had great holidays! May 1985 be a great year for you and for the IRCA! Forward - March - into 1985!

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

Happy New Year everyone. As you probably know, I always have a lot to say. I'll try not to load down my column with what I have to say, and put it in its place, here in EDXF. I find it very interesting being an editor of a column. When you are a member, you don't have a great deal of interaction with other members in the club, except through the bulletin. We have a truly diverse group, everything from very serious amateur operators with sophisticated equipment, to very casual listeners with five tube radios. I also find it very interesting that some DX stations periodically become hot to our members. A good case was WJIK-1580 in Camp LeJeune, N.C. I think the entire east coast heard them during Hurricane Diana, and now people will look for them, and it reappears over and over again in the column. I've been trying my heart out for KFI-640 in Los Angeles lately. I have the formats of WHLO in Akron, Ohio and Cuba's Radio Progreso memorized, and have heard some interesting UNIDs, but no sign of The Holy Grail. A friend of mine at work went out and bought a ICOM R-71 and hooked it up to a 135 foot piece of wire pointing E-W and gets KFI every night. He barely hears Cuba! I have tried long wires E-W, terminated long wires, verticals, but no luck. I hear the Caribbean every night on many frequencies with excellent strength, and the midwest and southwest very well, but no long haul signals from over The Rockies. I think my biggest problem, or asset, depending on how you look at it, is living on the Hudson River, which feeds the Atlantic Ocean about 40 miles to the south of me. The signals, I theorize, come right up the water, and I get swamped with stations from the southeastern coast and the Caribbean and South America. The one kilowatt relay in the Bahamas on 810 is no problem almost every night during SSS. Colorado, Texas, Oklahoma are pests! KSL is now fairly blocked with WJJD, so no Utah, at least on a casual listening level. I wonder if anyone else has this effect. Is it the problem of having trouble getting double-hop signals through the slop, or is it related to topography? When I use verticals or helical-wound verticals, which should have very low angles of radiation, especially with the good ground system I use, the town's water pipes, I get different results than the horizontal antennas, but nothing to the West. (Continued next week...)

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

This is the last column to be typed during 1984...I can't help wondering what will wander thru this column in 1985. Club elections will be in just a few months so that leadership of the club may be different in about nine months. Any bets? hi. The Forum report from Karl Zuk will run for probably six weeks--He has some great remarks about AM programs and announcers coming up, one I wish all stations could read. If anyone else out there wants to send in multiple Forums at one time, it's no problem here. Just indicate where to make the weekly breaks or I can do it for you. Or, just send several complete one issue Forums at a time, and, preferably, let me know what order to run them in. Ernie Cooper, for one, has done this several times over the past three years. Glenn Hauser has sent long Forums in, and I've made the weekly breaks. Either way, on the New Year's list of resolutions, make one to report to EDXF and the other columns. I was off this week from my primary job, but I spent most of the time, it seems, sleeping. Was up early one morning just before SRS but conditions seemed to be dead. Caught what appeared to be a St. Johns address on 970 about 0502 ELT 12/26/84, but unable to pull out the ID. My guess would be the Newfie but I'll never know for sure and it won't be in my records. Gotta run, have a great '85...PTL.

 **WLKE**
Lucky 1170
609 Home Avenue
Waupun, Wisconsin 53963

PROMISE
RADIO
1370

WEIR
317 Seventh Street
Moundsville, WV 26041

DX WORLDWIDE EAST

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

TRANS-ATLANTIC DX

- 612 MOROCCO, Sabas-AIoun-0546 12/2: Fair w/chanting. Some "ticking" QRM from Nantucket LORAN-C harmonic was a problem at times. (MC-CC-MA)
- 828 UNID-(Spain?)-0235 12/12: Strong het bearing N42E same time as F377846. Perhaps OC. (Smith-DC)
- 837 UNID-(France?)-0235 12/12: Strong het bearing N44E, same time as 828/846. Perhaps OC. (Smith-DC)
- 846 UNID-0235 12/12: Strong OC bearing N44E indicating Italy. Same time as 828/837. (Smith-DC)
- 891 ALGERIA, Algiers-0602 12/2: V good w/AA tlk by man. +12/9 0311: male a-capella AA chant, xlint. +12/16 0325: xlint w/m AA chnt. (MC-CC)
- 1005 PORTUGAL, Lisboa-0616 12/2: Bits of PP tlk, mx, in WBZ slop. (MC-CC)
- 1062 PORTUGAL, Sao Salvador-0620 12/2: Fair, 2 ancrs in PP. (MC-CC-MA)
- 1116 ITALY, Bari et al-0502 12/2: Poor w/m & w in IL. (MC-CC-MA)
- 1134 SPAIN-0458 12/2: Gd w/rock hits in SS/EE. WKEW phased. (MC-CC-MA)
- 1413 SPAIN, Zaragoza--7-0526 12/2: SS tlk/mx in slop. (MC-CC-MA)
- 1422 ALGERIA, Algiers-0504 12/7: Male AA chant v gd well o/the German. (MC)
- 1440 LUXEMBOURG, Marnach-0501 12/7: GG tlk mixed w/jumble of domestic stns. (MC-CC-MA)
- 1467 MONACO, Monte Carlo-0454 12/7: Superloud (strongest TA)- xlint w/ hymn w/Salvation Army Band type accompaniment, then G3 tlk by m. +2012 12/7: hrd an hour before local sunset w/SS tlk fr/gd. (MC-CC)
- +0402 11/14: Probably them w/weak m singing in UNID lang. (Thomas-FL)
- 1485 UNID-0400 11/14: Fluttery TA carrier, no hope of audio. All listed stns are QRP, so I wonder who? (Thomas-FL)
- SPAIN-0507 12/7: Good w/nx in SS. (MC-CC-MA)
- 1521 SAUDI ARABIA, Daba-0358 11/14: Fr w/moaning-ginging. (Thomas-FL)
- +0302 12/7: Xlint w/AA tlk. creaming WKEW. (MC-CC-MA)
- 1530 VATICAN CITY-0513 12/7: Rlgs mx mixing w/WCKY. (MC-CC-MA)
- 1557 FRANCE, Nice-0440 12/7: Gd w/romantic PF female vocal. (MC-CC-MA)
- 1584 SPAIN-0538 12/2: Gd w/SS tlk, then US soul hit "There's No Stoppin' Us". +0435 12/7: Good w/SS tlk. (MC-CC-MA)

PAN-AMERICAN DX

- 529.9 COSTA RICA, Cartago-0418 12/9: R. Rumbo down a bit from 530. (Thomas)
- 535 GRENADA, Mourne Rouge-0007-0202 12/10: R. Grenada weak w/long nrcast, special effect betw nx blocks. Later w/classical mx, pgm of pop mx at 0115, s/off 0202 w/anmt/anthem. (Rigas-IL)
- +2348-0034 12/13: Gd/xlint w/nx, ID, "Album Spotlight". (Gerardi-IL)
- +2300 12/20: Xlint w/chimes of X-mas mx into ID, "In Depth" nx show. W newswoman Thalma Campbell. Dropped 'Free' from ID, now simply R. Grenada. (Zuk-NY)
- +0145-0200 12/6: 'R. Grenada - much more mx & information. Remember, tomorrow is a working day' after election results in EE, 0200 pop version of Beethoven's 5th. Announced sked - 16 hrs/day. Fr sig, 80% copy, think ancr said 50kw. First logging since we blew it up. Also 2335 12/9: Rolling in w/pgm of choral singing by ladies. Later w/classical mx, glad this outlet's back on. Don't get 990 - local WRWC prevents checking if they're // . (Smith-DC) (Gardner - Niel Wolfish: rptd this one in the 12/22 issue. He says on 535 only they employ the 20kw rig. Who's correct?JH)
- 540 DOMINICAN REPUBLIC, Santo Domingo-HICM-2330 12/9: ID 'R. ABC' using interval sig. using 3 tonic notes A-B-C. "Suave" mx, listened 10min thinking it was XEWA. Alone on channel before CJ5B skip in. New. 19th from D.R. (Smith-DC)
- 580 VENEZUELA, Maracaibo-YVMJ-0038 11/17: SS fr in Mexican stn. null w/ live sports event & ID. (Rigas-IL)

- 580 MEXICO, Piedras Negras-XEMU-1118 11/18; Gd w/TCs & many ments of
cont. Piedras Negras in ads. (Rigas-IL)
- 610 MEXICO, Fresnillo-XEEL-1224 11/18; V. poor w/several "R Progreso"
IDs & ments of Fresnillo in ads. SS & Mex. mx. (Rigas-IL)
- 655 EL SALVADOR, San Salvador-YSS-0110 12/9; 'R. Nacional' ID, copy
nearly every night now on Toshiba F-11. (Smith-DC)
+0630 12/2; Fr/gd w/classical mx. (MC-CC-MA)
- 660 HONDURAS-1141 12/12; La Voz de Honduras in SS, v poor in WMAQ slop
w/nx, spts nx, TCs, and one ID. (Rigas-IL)
- 670 VENEZUELA, Caracas-YVLL-0435 12/6; 'R. Rumbos' ID, v strong o/CMBC/
HJPL in null of WMAQ. (Smith-DC)
+0422 12/16; Applause, SS tlk, 'Rumbos' ID -- good. (MC-CC-MA)
- 690 ANGIILLA-0253 12/2; EE preaching by black woman, dominant o/Cuba/
CBF. (MC-CC-MA)
- 700 COLOMBIA, Cali-HJCX-0300 12/2; 'Sutatenza' ID hrd amidst GY-like
pile of SSLA stns. (MC-CC-MA)
t GUATEMALA-0300 12/2; Str w/'Mundial' in ID noted battling HJCK/
others. May have been TGHR. (MC-CC-MA)
- 710 VENEZUELA, Caracas-YVKY-0303 12/2; Totally atop WOR-- Caracas ads,
'R. Capital' reverb. ID, then 'Ghostbusters'. (MC-CC-MA)
- 720 COLOMBIA, Barranquilla-0304 12/2; 'Emisoras Unidas' ID, 5-note
chimes in bad SSLA jumble. +0410 12/16; LOUD w/ID, chimes, accord-
ian mx, SS vocals. (MC-CC-MA)
JAMAICA, Kingston-0552 12/2; Dominant w/"Caribbean Wing Ding" show.
Caribbean/US ston hits played by DJ who used weird sd. effects,
yelled things (thru a reverb. unit) over the records, seemed to
be stoned. (!hi.JH) (MC-CC-MA)
+0745 12/3; Booming in w/WGN silent. Cash giveaway contest promo.
Also 220012/1 w/promo for bottle collecting drive (Keep Jamaica
Bft!) (Smith-DC)
- 740 VENEZUELA, Maracaibo-YVNC-0637 12/2; Festive LA mx, 'R. Maracaibo'
ID o/other SS LAs. (MC-CC-MA)
+0715 12/8; R. Maracaibo, KRMG strong but nulled. Lively mx. (Smith-
Gardner, this is Venezuela - you incorrectly rpted Colombia.JH)
- 745.2 UNID-0020 12/10; Poor w/SS m singing. Looped HC so HCSE4 a
possibility. (Thomas-FL)
- 750 VENEZUELA, Caracas-YVKS-0051 12/7; Poor in partial WSB null w/US
rock & many 'R. Caracas' IDs. In SS. (Rigas-IL)
+0310 12/2; US hits o/HJDK/WSB. (MC-CC-MA)
- 760 COLOMBIA, Medellin-HJDK-0310 12/2; Medellin/Bagota ments, u/YVKS. (MC)
COLOMBIA, Barranquilla-HJAJ-0424 12/2; Dominant w/tlkshow, 'RCN'
mentions. (MC-CC-MA)
- 765 EL SALVADOR, Usulután-0258 12/18; R. Universal w/good carrier but
poor SS audio. (Thomas-FL)
- 770 COLOMBIA, Bagota-HJKH-1047-55 12/14; Good w/WABC nulled w/Latinpops
ads, 'Esta es Colombia R. Cadena Nacional'. (Gerardi-IL)
t+0825 1/1; SSer here w/LA pop & ments of Colombia. Listed wf but
seems to be the one here. (Hall-PA)
- 770.5 UNID-(Probably HJKH)-0558 12/2; SSLA here a bit off chan.- putting
nasty het on WABC. (MC-CC-MA)
- 790 BARBADOS, Boarded Hall-0245 12/13; Topping welter of SSers w/singing
promo for malted milk, weird EE & flat audio. Where do these
Caribs. get their xmtrs? Nearly all are immediately recognizable by
their one-dimensional audio alone. (Smith-DC) (Maybe it's the
moisture and the salty sea-air....JH)
- 800 NETHERLANDS ANTILLES, Bonaire-PJB-0500 12/6; R. Transmundial just
before switch from EE to SS announced their 20th annlv. on air. 1st
logged 3/14/65 - time flies when you're having fun.(!) (Smith-DC)
- 804.9 HONDURAS, Camagaya-0013 12/12; 'Corporacion' almost gd w/nx &
many IDs. (Thomas-EL)
- 830 BELIZE-0500 12/6; S/off ment & NA. OC after 0510. Freq. change
certainly has'nt hurt them any. (Smith-DC)
- 834 UNID-0250 12/18; Still taunts - Intermittent SS m & choral singing
just at noise level. I'm gonna get this boy... (Thomas-FL)
- 860 BRAZIL, Rio de Janeiro-ZYJ459-G601 12/2; Good o/PP m DJ, internat'l
MOR hits. (MC-CC-MA)
- 870 COLOMBIA-0325 12/16; Atop chan w/Barranquilla ads/ments. (MC-CC-MA)
- 890 UNID-0610 12/2; 'R. Superior', ment of Nicaragua, LA mx, thru low-
co-chan growl & massive het and slop from stronger Algeria 891. (MC)
- 910 CUBA, Camaguey-CMHL-0143 11/9; Gd sig, SS songs, nx at 0458, ID at
0504, hrd man say ID to a telephone caller 'R. Cadena Agramonte'.
Had request phone calls. (Wyllie-MA)

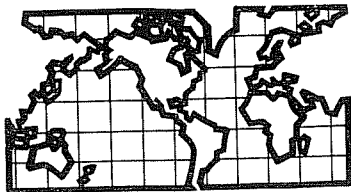
- 960 COLOMBIA, Maganque-HJHN-0058 11/9; SS mx, ID at 0103 'R. Sutatenza'-Colombia. O/CHNS but gone by 0108. (Wyllie-MA)
- 980 CUBA, Bayamo-CMND-0715 12/2; Reloj ticker, new Cuban here, hrd w/ local WWRC silent. Poor copy, only morse 'RR' wsa hrd. (Smith-DC)
- 1010 UNID-Unk SS stn behind WINS at 0420 11/24. (Wyllie-MA)
- 1090 CUBA, Minas de Mata Hambre-CMAW-0835 12/3; ID w/elaborate drum roll and 'R. Guama' in clear w/WBAL silent. Great net, /990/1000/1020/1030, nice mx. Wonder if I can get it on cable? (Smith-DC)
- 1131.7 CUBA-0335 12/18; Not sure which one but did hear the famous "victorio libre..." at 0335. Female DJ in SS, EZL mx. (Thomas-FL)
- 1146 t HAITI, Port-au-Prince-0426 12/9; R. Caraibes presumed w/FF male & LA mx. Looped Carib.. No slogan hrd. (Thomas-FL)
- 1165 ANTIGUA, St. John's-0215 12/21; Caribbean R. Lighthouse w/rigs syndicated pgm from Texas ending 0207. Tlk about other pgms into s/off by m at 0215 w/man DJ and theme. Enormous sigs. (Zuk-NY)
- 1210 UNID-0432 11/3 and on 11/24; Unk SS stn behind WCAU, weak. Also on 11/3 a piano version of "Let It Be". (Wyllie-MA)
- 1223.6 UNID-0200 11/17; In/out SS m & apparant ID which I missed. TIFPJ most likely. (Thomas-FL)
- 1295 UNID-0309 12/23; V weak SS m w/ballad-like vocals. Looped HC. Just at noise level & unreadable. (Thomas-FL)
- 1315 DOMINICAN REPUBLIC, Bani-0340 12/9; R. Bani poor w/LA mx. (Thomas)
- 1383.8 HONDURAS-0357 12/9; R. Constelacion poor nightly around 0300-0400. ID at 0357. (Thomas-FL)
- 1425 UNID (still)-0400 12/9; Remains a mystery here despite occ readable levels. Thought I hrd a 'R. POCO' ID once but not sure. (Thomas-FL)
- 1535 UNID-0355 11/14; SS m & slow LA mx peaking to fair, looped HC. Possibly the low powered HCMH6, but my luck's not that good, hi. (Thomas)
- 1550 UNID-0710 12/3; 'R. Exito' ID, Colombian style accordian/vocal mx. Big sig o/WRHC (SS domestic). OC after song at 0715, no ments. Resumed 5 min later, again no ments. Asleep at the wheel? (Possible - I've conked out with the cans still on!!JH) (Smith-DCO)
- 1555 COLOMBIA, Bagota-HJZI-0900 12/14; S/on then (listed 24 hr) over R. Exito. ID as 'En Sonido Fantasia'. (Smith-DC)
- 1610 CAYMAN ISLANDS, Georgetown-0230 12/21; R. Cayman, woman ancr w/pop mx show - Kaola Bonoff, Prince, Cyndi Lauper, etc. 0300 BBC nx, world serve relay. V Good. (Zuk-NY)
- 1610 ANGUILLA-0345 11/7; Caribbean Beacon w/"...High atop the Caribbean.."
ID, rlgsg pgms. Rev. Right asks for prayer requests to be sent to Mobile, AL. (Demmitt-PA)

HAPPY NEW YEAR

- (Zuk-NY) Karl J. Zuk, 154 Old Post Rd. N., Croton-on-Hudson, NY 10520
GE Superradio, DX-160, SOAR bonzo-Bev. ant
- (Rigas-IL) Christos Rigas, 4832 N. Drake, Chicago, IL 60625
R-2000, ICF 2002, Kowalski loop, longwire
- (Gerardi-IL) Rob Gerardi, 1421 N. Franklin, Benton, IL 628 12
R-71A, 500' # 22 wire coiled
- (Smith-DC) Gardner Smith, 1000 Perry St., Wash. DC, 20017
Toshiba Fl1, HQ 145 X
- (Thomas-FL) Gerry Thomas, POB 2036, Pensacola, FL 32513
R-70/loops and dipole
- (MC-CC-MA) Mark Connelly, 7 Trowbridge Path, W. Yarmouth, Cape Cod, MA
R-390A, ICF 2001, 2 30mwires, phased w/Mini MWDX-3 02673
- (Demmitt-PA) John Demmitt, K0848, Box 4, Bellefonte, PA 16823
Sony ICF-55W
- (Wyllie-MA) William Wyllie, 95 Peck St. Franklin, MA 02038
Sharp GF-450 - indoor antenna
- (Hall-PA) Jim Hall, 240 Eyron Rd. Pgh. PA 15237
R-600, R7A, loops, lws, Palomar loop, etc.

LOST and FOUND DEPT.

- 800 NETHERLANDS ANPILLES, Bonaire-PJB-0329 11/18; Forum: It's better to have loved and lost than to never have loved at all. ID too. (Demmitt)
- 810 COLOMBIA, Bagota-HJCY-0331 11/18; R. Sutatenza in SS, s/off listing freqs., NA, ments of Colombia. (Demmitt-PA)
- 1200 t BRAZIL, Sao Paulo-0510 11/19; R. Cultura? Lots of SS mx, little tlk by m DJ. WCAU slop. (Demmitt-PA)
- 1270 CUBA, Camaquey-CMND-0426 12/28; Reloj audible u/mess, bits of SS ten atively hrd. (Hall-PA)one day the Reloj tickers will all explode and.....



DX WORLDWIDE - WEST

Pat Martin - Editor

P.O. Box 843, Seaside, Oregon 97138

PHONE: (503) 861-3185

TIME: UTC

TRANS-ATLANTIC DX ROUNDUP

765 SENEGAL, Dakar-0610 on 12/13, poor-fair w/chanting //4890 SW, slop de KOB-770, has been regular all week w/only fair signals at best. New. Africa #2, other stn being Morocco-1044. (CK-Co)

PAN-AMERICAN DX ROUNDUP

570 CUBA, Santa Clara-CMEA at 0648 12/12 SS, poor-fair w/Radio Rejoj ID Typical Radio Reloj format, KRQX QRM (CK-Co)

580 MEXICO, Piedras Negras-XEMU 0146 12/13 SS good w/ranchera mx, "Onda Rancherita" slogan. New XE #110, Stn. #773. (CK-Co)

670 MEXICO, Torreon-XETOR, 0244 on 12/13 SS OM ancr, several Radio Ranchito IDs, good signal WRTH 84 lists s/off at 0200. (CK-Co)

700 COLOMBIA, Cali-HJCX 0300 12/13 SS poor-fair w/WLW QRM, futbol game w/OM ancr, "Gooooaaaal" shouted //5095 SW, but not //720. (CK-Co)

710 MEXICO, Culiacan-XEBL 0135 12/17 SS fair mixing w/KNUS "Radio Bonita" jingle ad for dance, Bev. ant. (CK-Co)

MEXICO, Cd. Cuahutemoc-XEDP at 0154 12/13 SS vy good w/OM nx, ads, call ID, KNUS way underneath, 5KW sig. (CK-Co)

720 COLOMBIA, Barranquilla-HJAN at 0257 12/13 SS loud, futbol game (Cartagena vs Barranquilla, I think) ad for Barranquilla business. Many mentions of Cartagena during game. (CK-Co)

760 COLOMBIA, Barranquilla-HJAJ-0629 12/12 SS festive Colombian mx, "RCN" "La radio de Colombia", into ads. (CK-Co)

CUBA, La Habana-CMBD 0626 12/12 SS, OM nx, typical Reloj format, QRM de HJAJ, vy poor. (CK-Co)

770 COLOMBIA, Bogota-HJKH-0635 12/14 SS fair in KOB null w/festive Col. mx, ment "RCN" and "la radio de Colombia" low growl on freq. new HJ #19. (CK-Co)

810 MEXICO, Cd. Obregon-XERSV 0030 12/17, SS vy good w/ "Radio Alegria" ad for a program of Christmas mx, into rr mx by Pointer Sisters and slop de XEROK-800. Bev. ant. (CK-Co)

825 t ST. KITTS, Radio Paradise-0236 12/13 EE tent. w/OM rel. pgm, severe slop de WBAP poor-fair. (CK-Co)

870 COLOMBIA, Barranquilla-HJSB 0343 12/13 SS, OM w/nx or talk, brief ID as "Mar Caribe A.M. de Barranquilla" mixing w/WWL, good signal. HJ #18 stn. #774. (CK-Co)

890 ECUADOR, Machala-HCRS6 at 0643 12/13 SS vy good w/uptempo LA mx, full ID, two "Radio Superior" IDs power, etc. WLS nulled new. HC #3 (CK-Co)

940 MEXICO, Mexicali-XENW-0130 12/17 SS good w/Onda 94 slogan, into song by Olivia Newton-John (CK-Co)

1130 MEXICO, Nogales-XEHN 0219 on 12/15 SS good signal w/"La Pantera" slogan panther growl, EE rr mx, Bev. Ant. (CK-Co)

1540 MEXICO, Hermosillo-XEHOS, 0251 12/15 SS good o/u KXEL w/"O-S la poderosa" slogans, ads XE mx New XE #111 (CK-Co)

1590 MEXICO, Mexicali-XEYX-0233-12/17 SS, Exc. and alone w/ad for "Frances Boutique" in Mexicali, reg. on Bev. ant. (CK-Co)

TRANS-PACIFIC DX ROUNDUP

738 UHID, 12/14 at 1600. Flute mx, then elec. sounds, fair. Three short low pips and one higher, longer pip on the hour. High pip like N-H-Ks but lower pips were lower pitched and fuller than NHKs. OM said a few words (ID?) seemed CC. Reg. CC outlets off by now, and pips weren't right. Is this like your tent. Taiwan? Or North Korea with Lag. broadcast? (NHP-BC) (Nick: I should have included this last week, but I laid it out and forgot to include it. Sorry about that. The station here doesn't quite sound like Taiwan. I have never heard pips on the hour (Few Taiwan stations use pips I understand). You also mentioned March mx. I have never heard The Fishery stations with March mx. Send me a tape. At least I can tell if the language was Amoy. You have several possible stations here. Changsha China that does broadcast in Amoy, Thailand (Thai sounds somewhat like Amoy). Never hrd North Korea here. The catch does sound very interesting. I would love to hear the tape. Either reel to reel at 7½ or cassette. Most of the time when I have heard Miss Wu on the Fishery station(s) she is just reading reports, Weather, etc, with little or no mx. PH)

- 765 JAPAN, Kofu-J0JF-fair mixing with presumed JOPF, several mentions of Kofu and sounded like YBS was mentioned on the hour at 1200 on 1/1/85. Vy good TP cx, JJ Pops at times and lots of YL/OM talk in JJ. (PM-Or)
- 864 t JAPAN, Fukui-JOPR, presumed the station here w/HBC mention at 1204 on 1/1/85. May have also been JOHE or J0QF, if in //, but QRM from at least one other JJ. (PM-Or)

VERIFICATIONS:

- 936 JAPAN, Akita-J0TF - Sent 4 different QSL cards giving history of station (earlier QSLs on 940 Khz) in 2 months for taped report. JJ #72 QSL'd-5 KW. No v/s. (PM-Or)

THANKS TO THESE REPORTERS:

- CK-Co Chris Knight- Box 7611-Pueblo West, Co. 81007
780 foot SW/NE Beverage, 4 foot Box Loop-R-1000 RX
- PM-Or Yer Editor
SP-600JX receiver, (2) 1500 foot East. Bev, 200 NE term. Ant.

DATABASE SEARCH- LOOP ANTENNAE

1010281 883013822
THEORETICAL ANALYSIS AND SOME EXPERIMENTS ON 2L-TYPE TWIN
LOOP ANTENNAS BY THE MOMENT METHOD
SATO, G.; KAWAKAMI, H.; SATO, M.; ISHII, Y.
SOPHIA UNIV., TOKYO, JAPAN
J. INST. TELEV. ENG. JPN. (JAPAN) VOL.36, NO.2 132-7

FEB. 1982 CODEN: JIJUAT ISSN: 0386-6831

Treatment: THEORETICAL

Document Type: JOURNAL PAPER

Languages: JAPANESE

(13 Refs)

TWIN LOOP ANTENNAS ARE THE MOST COMMONLY USED UHF BAND ANTENNAS IN JAPAN. THE USE OF THE MOMENT METHOD FOR ANALYSIS OF ANTENNAS ESPECIALLY TWIN LOOP ANTENNAS IS EXPLAINED. THEORETICAL ANALYSIS AND DATA ON TWIN LOOP ANTENNAS USING AN INFINITE REFLECTOR PLATE OR A WIRE SCREEN REFLECTOR PLATE ARE SHOWN. DATA ON TWIN LOOP ANTENNA MATCHING CONDITIONS INCLUDING DEPENDENCE OF INPUT IMPEDANCE ON THE LENGTH OF THE PARALLEL LINE; IMPEDANCE TRAJECTORY ON CHANGING JUMPER, LINE DIAMETER, PARALLEL LINE WIDTH AND REFLECTOR SEPARATION; VERTICAL RADIATION PATTERN OF 2-L TYPE TWIN LOOP ANTENNA AND THEIR INPUT IMPEDANCE CHARACTERISTICS ARE SHOWN.

977561 883002670

REACTIVELY LOADED LOOP ANTENNAS WITH REFLECTORS FOR CIRCULAR POLARIZATION

OKUBO, S.; TOKUMARU, S.

FACULTY OF SCI. AND ENGN., KEIO UNIV., YOKOHAMA, JAPAN

TRANS. INST. ELECTRON. AND COMMUN. ENG. JPN. SECT. E (JAPAN)

VOL.E65, NO.8: 507 AUG 1982 CODEN: TIEEDU

Treatment: THEORETICAL; EXPERIMENTAL

Document Type: JOURNAL PAPER

Languages: ENGLISH

SUMMARY FORM ONLY GIVEN. AS FOLLOWS. PROPOSES A REACTIVELY LOADED LOOP ANTENNA WITH A REFLECTOR FOR GENERATING CIRCULARLY POLARIZED FIELD. THE LOADING REACTANCE IS SITUATED AT THE POSITION WITH AN ANGLE OF 45 DEGREES FROM THE FEED POINT OF THE LOOP CONDUCTOR. A STRUCTURE GIVING GOOD AXIAL RATIO IS OBTAINED THROUGH SOME COMPUTATIONS BY VARYING THE LOADING REACTANCE AND THE ANTENNA SIZE AT THE SAME TIME. INPUT IMPEDANCE, CURRENT DISTRIBUTION AND RADIATION PATTERNS ARE CALCULATED TO SHOW GENERAL CHARACTERISTICS OF THIS ANTENNA. THESE COMPUTED RESULTS ARE PROVIDED BY MEASURED VALUES.

964239 A82112941, 882061661

STANDARD MAGNETIC FIELD RADIATED BY TWO LOOP ANTENNAS IN A COPLANE

NAKANE, H.; OBUKI, S.; OMDRI, S.; YOKOSHIMA, I.

SCI. UNIV. OF TOKYO, TOKYO, JAPAN

ALSPACH, W.J. (Editors)

Sponsor: NBS; IEEE; URSI

CPM 82 DIGEST. CONFERENCE ON PRECISION ELECTROMAGNETIC

MEASUREMENTS P/5-7 1982

28 JUNE-1 JULY 1982 BOULDER, CO, USA

Publ: IEEE, NEW YORK, USA

XIV+292 pp.

Treatment: PRACTICAL; EXPERIMENTAL

Document Type: CONFERENCE PAPER

Languages: ENGLISH

(5 Refs)

FOR THE SENSITIVITY TEST OF FIELD INTENSITY METERS, A RF MAGNETIC FIELD GENERATOR WITH TWO RADIATING LOOP ANTENNAS PLACED IN A COPLANE HAS BEEN DEVELOPED. A FIELD GENERATOR HAVING UNIFORM DISTRIBUTION AND UNIFORM FREQUENCY CHARACTERISTICS UP TO 30 MHZ HAS BEEN DESIGNED AND TESTED. THE UNIFORM MAGNETIC FIELD HAS BEEN OBTAINED WITHIN +OR- 0.1 DB FOR THE REGION OF +OR- 2 CM AROUND THE TEST POINT OVER FREQUENCY FROM 10 TO 30 MHZ.

942422 882053862

ACTIVE LOOP ANTENNAS

HOPF, J.; LINDENMEIER, H.
UNIV. OF THE BUNDESWEHR, MUNICH, GERMANY
Sponsor: IEEE
1982 APS INTERNATIONAL SYMPOSIUM DIGEST. ANTENNAS AND
PROPAGATION 560-3 VOL.2 1982
24-28 MAY 1982 ALBUQUERQUE, NM, USA
Publ: IEEE, NEW YORK, USA
2 VOL. 734 pp.
Treatment: PRACTICAL
Document Type: CONFERENCE PAPER
Languages: ENGLISH
(3 Refs)
OPTIMUM COUPLING BETWEEN THE LOOP AND THE ACTIVE CIRCUIT
PROVIDES MAXIMUM SENSITIVITY AS WELL AS HIGH LINEARITY IN A
BROAD FREQUENCY RANGE.

942353 882053793

**MODELLING HF LOOP ANTENNAS ON THE CHSS-2 'SEA KING'
HELICOPTER**

BAHSOUN, Y.A.; KUBINA, S.J.; TRUEMAN, C.W.
CONCORDIA UNIV., MONTREAL, CANADA
Sponsor: IEEE
1982 APS INTERNATIONAL SYMPOSIUM DIGEST. ANTENNAS AND
PROPAGATION 402-4A VOL.2 1982
24-28 MAY 1982 ALBUQUERQUE, NM, USA
Publ: IEEE, NEW YORK, USA
2 VOL. 734 pp.
Treatment: THEORETICAL
Document Type: CONFERENCE PAPER
Languages: ENGLISH
(4 Refs)
VARIOUS WIRE ANTENNAS HAVE BEEN USED FOR HF COMMUNICATIONS
ON THE CHSS-2 'SEA KING' HELICOPTER, BUT ALL SUFFER FROM POOR
OVERALL SYSTEM EFFICIENCY BECAUSE AT LOWER FREQUENCIES THE
IMPEDANCE OF THE WIRE ANTENNAS RESULTS IN POOR POWER TRANSFER
EFFICIENCY IN THE ANTENNA COUPLER. MUCH HIGHER EFFICIENCIES
ARE OBTAINED FOR LOOP ANTENNAS, AND SO POTENTIALLY A MUCH
HIGHER SYSTEM EFFICIENCY COULD BE ACHIEVED. IN THIS PAPER
RADIATION PATTERNS FOR THREE LOOP ANTENNA LOCATIONS ARE
EXAMINED BY COMPUTER MODELLING.

924029 882047349

HF LOOP ANTENNAS FOR AIR, LAND AND SEA MOBILES

BURBERRY, R.A.
BRITISH AEROSPACE DYNAMICS GROUP, BRISTOL, ENGLAND
SECOND CONFERENCE ON HF COMMUNICATION SYSTEMS AND TECHNIQUES
18-22 1982 LONDON, ENGLAND
15-17 FEB. 1982 LONDON, ENGLAND
Publ: IEE, LONDON, ENGLAND
VII+144 pp.
Treatment: PRACTICAL
Document Type: CONFERENCE PAPER
Languages: ENGLISH
(1 Refs)
THE ANTENNA DESCRIBED WAS ORIGINALLY CONCEIVED FOR
HELICOPTERS AND AIRCRAFT ENGAGED IN LOW LEVEL, NAP-OF-THE
EARTH (NDE) OPERATIONS, BUT ITS APPLICATION TO LAND AND MARINE
VEHICLES IS ALSO DESCRIBED. THE US ARMY HAVE RECENTLY DECIDED
TO EQUIP ALL ITS HELICOPTERS WITH LOOP ANTENNAS FOR WHAT IT
DESCRIBES AS NVIS (NEAR VERTICAL INCIDENCE SKY WAVE)
COMMUNICATIONS. THE ANTENNA CAN PROVIDE SATISFACTORY
PERFORMANCE IN BOTH THE GROUND WAVE AND THE HIGH ANGLE MODES.

843692 882021224

**MEASUREMENT AND CALCULATION OF THE SHORT-CIRCUIT SREMP
RESPONSE OF VERTICAL OSCILLATING HELICAL ANTENNAS AND
OSCILLATING LOOP ANTENNAS**

BUSHELL, M.; MANRIQUEZ, R.; MERKEL, G.; SCHARF, W.D.
US ARMY ELECTRONICS RES. AND DEV. COMMAND, HARRY DIAMOND
LABS., ADELPHI, MD, USA
IEEE TRANS. NUCL. SCI. (USA) VOL.N5-28, NO.6 4495-500
DEC. 1981 CODEN: IETNAE
IEEE ANNUAL CONFERENCE ON NUCLEAR AND SPACE RADIATION
EFFECTS 21-24 JULY 1981 SEATTLE, WA, USA
Treatment: THEORETICAL; EXPERIMENTAL
Document Type: CONFERENCE PAPER
Languages: ENGLISH
(8 Refs)
GENERALIZES THE AUTHORS' EXPERIMENTAL AND THEORETICAL
APPROACHES DEVELOPED FOR LINEAR ANTENNAS (M. BUSHELL ET AL.,
1980) TO OTHER TYPES OF ANTENNAS: (1) LOOP ANTENNAS AND (2)
HELICAL ANTENNAS. THEY HAVE MEASURED THE RESPONSE OF (1) A
HELICAL ANTENNA, AND (2) TWO DIFFERENT RECTANGULAR LOOP
ANTENNAS, MOUNTED INSIDE THE MARK I SOURCE-REGION EMP
SIMULATOR-A 3-M-WIDE AIR TRANSMISSION LINE PROPAGATING AN
EMP-LEVEL PULSE. THEY HAVE BEEN QUITE SUCCESSFUL IN DEVELOPING
EQUIVALENT CIRCUITS THAT PREDICT THEIR EXPERIMENTAL ANTENNA
RESPONSE MEASUREMENTS TO SREMP-LIKE ENVIRONMENTS AND COMPARE
WELL WITH MORE COMPLICATED FINITE DIFFERENCE CODES. OF COURSE,
THEIR EQUIVALENT CIRCUITS, BASED ON FOSTER CANONICAL FORMS,
ARE MODAL AND APPLY ONLY TO ANTENNAS IN SPATIALLY HOMOGENEOUS
MEDIA WITH TIME-VARYING CONDUCTIVITY.

828103 882015780
LOOP ANTENNAS
ZIMA, V.
CSAV, PRAHA, CZECHOSLOVAKIA
SLABOPROUDY OBZ. (CZECHOSLOVAKIA) VOL.42, NO.11 532-6
NOV. 1981 CODEN: SLOZAE
Treatment: THEORETICAL; EXPERIMENTAL
Document Type: JOURNAL PAPER
Languages: CZECH
(9 Refs)

THE FACTORS OF ENERGY COUPLING EXPRESSING THE OPTIMUM REMOVAL OF ENERGY FROM AN AC MAGNETIC FIELD BY A LOOP ANTENNA ARE INTRODUCED. THE DEEP-ROOTED VIEW IS DISAPPROVED THAT THE PROPERTIES OF A LOOP ANTENNA DEPEND PRINCIPALLY ON THE NUMBER OF WINDING TURNS. A METHOD IS DESCRIBED FOR DETERMINING EXPERIMENTALLY THE BASIC PROPERTIES OF AIR AND FERRITE COILED LOOP ANTENNAS. FINALLY FORMULAS ARE DERIVED FOR ESTABLISHING THE TRANSMISSION PROPERTIES OF A COMMUNICATION SYSTEM FEATURING IDENTICAL LOOP ANTENNAS ON THE TRANSMITTING AND RECEIVING SIDE SUITABLE FOR SHORT-HAWK LINKS WITH LOW RADIATED POWER.

828099 882015776
OPTIMUM DIRECTIVITY OF ELLIPTIC LOOP ANTENNAS
CHENG, D.K.; LIANG, C.H.
DEPT. OF ELECTRICAL AND COMPUTER ENGG., SYRACUSE UNIV.,
SYRACUSE, NY, USA
ELECTRON. LETT. (GB) VOL.17, NO.20 736-B 1 OCT. 1981
CODEN: ELLEAK
Treatment: THEORETICAL
Document Type: JOURNAL PAPER
Languages: ENGLISH
(5 Refs)

THE DIRECTIVITY OF AN ELLIPTIC LOOP ANTENNA HAVING A GIVEN PERIMETER AND MADE OF A CONDUCTING WIRE OF A GIVEN RADIUS IS MAXIMISED WITH RESPECT TO THE MINOR-AXIS/MAJOR-AXIS RATIO, χ_1 . IT IS FOUND THAT A CIRCULAR LOOP DOES NOT YIELD A MAXIMUM DIRECTIVITY AND THAT THE VALUE OF χ_1 AT WHICH MAXIMUM DIRECTIVITY OCCURS DEPENDS ON THE PERIMETER.

812361 882010548
CROSS-SPECTRAL DENSITIES OF ARRAY ELEMENTS FOR FOLDED DIPOLE AND LOOP ANTENNAS
MACLEAN, T.S.M.; SAINI, S.P.S.; BARBOZA, Z.
DEPT. OF ELECTRONICS AND ELECTRICAL ENGG., UNIV. OF BIRMINGHAM, BIRMINGHAM, ENGLAND
ELECTRON. LETT. (GB) VOL.17, NO.20 749-51 1 OCT. 1981
CODEN: ELLEAK
Treatment: THEORETICAL
Document Type: JOURNAL PAPER
Languages: ENGLISH
(5 Refs)

WHEN A LOOP OR FOLDED DIPOLE ANTENNA IS PLACED IN A NOISE FIELD THE RESULTANT MEAN-SQUARE NOISE CURRENT IS A FUNCTION OF THE CROSS-SPECTRAL DENSITIES BETWEEN THE DIFFERENT SEGMENTS OF THE ANTENNA. EARLIER WORK ON THE EVALUATION OF CROSS-SPECTRAL DENSITIES BETWEEN THE COLLINEAR SEGMENTS OF A DIPOLE PLACED IN AN ISOTROPIC NOISE FIELD IS HERE EXTENDED TO INCLUDE THE PARALLEL AND ORTHOGONAL SEGMENTS OF RECTANGULAR LOOP AND FOLDED DIPOLE ANTENNAS.

787857 882002184
A NUMERICAL STUDY ON REALIZABLE BROAD-BAND AND EQUIVALENT ADMITTANCES FOR DIPOLE AND LOOP ANTENNAS
STREABLE, G.W.; PEARSON, W.
DEPT. OF ELECTRICAL ENGG., UNIV. OF KENTUCKY, LEXINGTON, KY, USA
IEEE TRANS. ANTENNAS AND PROPAG. (USA) VOL.AP-29, NO.5
707-17 SEPT. 1981 CODEN: IETPAK

Treatment: THEORETICAL
Document Type: JOURNAL PAPER
Languages: ENGLISH
(45 Refs)

SOME REALIZABLE BROAD-BAND EQUIVALENT CIRCUITS FOR STRAIGHT-WIRE AND WIRE-LOOP STRUCTURES ARE DEVELOPED. THE REALIZABILITY OF THE CIRCUITS IS EXPLORED IN TERMS OF THE POSITIVE-REAL (PR) FUNCTION PROPERTIES OF THE CIRCUIT ADMITTANCES. THE POSTULATE OF PR 'TERMINAL EIGENADMITTANCES' AS COINED BY PEARSON AND WILTON (SEE IBID., VOL.AP-29, NO.5, P.687-707, 1981) IS GENERALLY SUPPORTED IN THE NUMERICAL EXAMPLES, BUT A POTENTIAL COUNTEREXAMPLE-THAT OF THE QUARTER-DRIVEN WIRE-OCCURS AS WELL. A 'DOMINANT POLE-PAIR' APPROACH LEADS TO A SATISFACTORY APPROXIMATE SYNTHESIS FOR THE STRUCTURES STUDIED HERE. THE CONDUCT OF THIS APPROXIMATE SYNTHESIS IS DESCRIBED IN THE CONTEXT OF THE BOTT-DUFFIN SYNTHESIS PROCEDURE. THE CIRCUITS DEVELOPED ARE TESTED BY COMPARING THEIR COMPUTED TRANSIENT RESPONSE WITH THE RESPONSE OF ELECTRODYNAMIC MODELS FOR THE SAME STRUCTURES.

772263 881052173
OPTIMUM ESTIMATION OF THE ANGULAR COORDINATES OF AN AIRCRAFT BY MEANS OF MULTICHANNEL RADIO DIRECTION FINDING (NONLINEAR FILTERING METHOD)
BOGACHEV, A.S.
RADIOTEKHNIKA, MOSKVA (USSR) VOL.35, NO.6 28-31 JUNE 1980
CODEN: RATEAD
Trans in: TELECOMMUN. AND RADIO ENG. PART 2 (USA) VOL.35, NO.6 56-9 JUNE 1980 CODEN: TCREAG

- Treatment: THEORETICAL
 Document Type: JOURNAL PAPER
 Languages: ENGLISH
 (8 Refs)
 THE MARKOV THEORY OF NONLINEAR FILTERING IN THE GAUSSIAN APPROXIMATION IS USED TO SOLVE THE PROBLEM OF THE QUASI-OPTIMUM PROCESSING OF CW RADIO SIGNALS WHEN THE ANTENNA SYSTEM OF A RADIO DIRECTION FINDER IS IN THE FORM OF AN ANTENNA ARRAY OF ARBITRARY CONFIGURATION.
- 746239 881039723, CB1029037
 COUPLING BETWEEN SUBMERGED, VERTICALLY ALIGNED LOOP ANTENNAS
 LAYMAN, G.E.
 NAVAL RES. LAB., WASHINGTON, DC, USA
 Sponsor: IEEE
 IEEE SOUTHEASTCON 1981 CONFERENCE PROCEEDINGS 868-72
 1981
 5-8 APRIL 1981 HUNTSVILLE, AL, USA
 Publ: IEEE, NEW YORK, USA
 913 pp.
 Treatment: APPLIC; THEORETICAL
 Document Type: CONFERENCE PAPER
 Languages: ENGLISH
 (7 Refs)
 PRESENTS THE DERIVATION OF A CLOSED FORM SOLUTION FOR THE COUPLING BETWEEN VERTICALLY ALIGNED, COPLANAR LOOP ANTENNAS LOCATED WITHIN A CONDUCTIVE HALF SPACE. THE FORMAL SOLUTION TO THIS PROBLEM IS EXPRESSED AS A COMPLEX INTEGRAL EQUATION FOR WHICH THERE IS NO KNOWN SOLUTION. PREVIOUS APPROXIMATIONS HAVE BEEN CONSTRAINED TO SPECIAL CASES (E.G., LARGE DISTANCES BETWEEN ANTENNA, NEITHER ANTENNA NEAR THE SURFACE). THE AUTHOR DEVELOPS APPROXIMATIONS WITHIN THE INTEGRAND THAT ALLOWS AN ACCURATE SOLUTION TO BE FOUND FOR ANY COMBINATION OF ANTENNA DEPTHS, INCLUDING ONE ANTENNA LOCATED AT THE SURFACE.
- 739709 881041386
 CHARACTERISTICS OF CIRCULAR LOOP ANTENNAS ABOVE A LOSSLESS GROUND PLANE
 SHOAMANESH, A.; SHAFAI, L.
 MPB TECHNOL. INC., QUEBEC, CANADA
 IEEE TRANS. ANTENNAS AND PROPAG. (USA) VOL. AP-29, NO. 3
 528-9 MAY 1981 CODEN: IETPAK
 Treatment: THEORETICAL
 Document Type: JOURNAL PAPER
 Languages: ENGLISH
 (6 Refs)
 THE CIRCUIT AND RADIATION CHARACTERISTICS OF A CIRCULAR LOOP ANTENNA ABOVE A LOSSLESS GROUND PLANE ARE STUDIED. IT IS SHOWN THAT THE GAIN OF THIS ANTENNA IS HIGHER THAN THAT OF A HALF-WAVE DIPOLE ABOVE THE GROUND PLANE. A GAIN AS HIGH AS 17) DB IS OBTAINABLE WITH THIS SIMPLE GEOMETRY.
- 648844 881011906
 RADIATION EFFICIENCY OF SUPERCONDUCTOR LOOP ANTENNAS
 KRIVOSHEEV, E.F.; PAVLYUK, V.A.; TARASOV, A.V.
 RADIOTEKHNIKA, KHARKOV (USSR) NO.48 116-20 1979
 CODEN: RTKHJ
 Treatment: THEORETICAL; EXPERIMENTAL
 Document Type: JOURNAL PAPER
 Languages: RUSSIAN
 (5 Refs)
 THEORETICAL AND EXPERIMENTAL INVESTIGATIONS ARE CARRIED OUT TO DETERMINE THE RADIATION EFFICIENCY AND QUALITY OF SMALL-SIZE SUPERCONDUCTOR LOOP ANTENNAS, TAKING INTO ACCOUNT THE RELATIVE SIZE, FREQUENCY RANGE, AND LOSSES IN THE STRUCTURAL MEMBERS AND INSULATING MATERIALS.
- 634420 881007292
 DIRECTIVE PROPERTIES OF ECCENTRICALLY INSULATED CIRCULAR-LOOP ANTENNAS
 AN, L.N.; SMITH, G.S.
 GEORGIA INST. OF TECHNOL., ATLANTA, GA, USA
 Sponsor: IEEE
 1980 INTERNATIONAL SYMPOSIUM DIGEST. ANTENNAS AND PROPAGATION 713-16 1980
 Part II 2-6 JUNE 1980 QUEBEC, CANADA
 Publ: IEEE, NEW YORK, USA
 XLI+396 pp.
 Treatment: THEORETICAL
 Document Type: CONFERENCE PAPER
 Languages: ENGLISH
 (4 Refs)
 THE ANALYSIS OF THE CIRCULAR-LOOP ANTENNA WITH A CONCENTRIC SPHERICAL INSULATION IMMERSERD IN A MATERIAL MEDIUM IS EXTENDED TO TREAT LOOPS THAT ARE ECCENTRICALLY LOCATED WITHIN THE SPHERICAL INSULATION. IN PARTICULAR, THE EFFECT OF THE ECCENTRIC INSULATION ON THE DIRECTIVE PROPERTIES OF THE ANTENNA IS EXAMINED.
- 581394 880045633
 A SIMPLE ADCOCK-DIRECTION-FINDING SYSTEM BY MEANS OF KEYING CROSSED LOOP ANTENNAS, NOT AFFECTED BY POLARISATION
 ECKART, G.
 ARCH. ELEKTRON. UND UEBERTRAGUNGSTECH. (GERMANY) VOL. 34, NO. 7-8 339 JULY-AUG. 1980 CODEN: AEUTAH
 Treatment: NEW DEVELOPMENTS
 Document Type: JOURNAL PAPER
 Languages: GERMAN
 A DIRECTION FINDING SYSTEM IS GIVEN BASED ON THE ADCOCK PRINCIPLE BY USE OF KEYING CROSSED LOOP ANTENNAS.

580780 B80044875
ON POLYGONAL LOOP ANTENNAS
TSUKIJI, T.; TOU, S.
DEPT. OF ELECTRONICS ENGN. FUKUOKA UNIV., FUKUOKA, JAPAN
IEEE TRANS. ANTENNAS AND PROPAG. (USA) VOL. AP-28, NO. 4
571-5 JULY 1980 CODEN: IETPAK
Treatment: THEORETICAL
Document Type: JOURNAL PAPER
Languages: ENGLISH
(14 Refs)
SEVERAL TYPES OF POLYGONAL LOOP ANTENNAS ARE INVESTIGATED
AND THEIR FUNDAMENTAL PROPERTIES DEMONSTRATED. FOR EXAMPLE, A
WIDE RANGE OF INPUT IMPEDANCES CAN BE OBTAINED DEPENDING ON
THE SHAPE OF THE LOOP. SOME LOOP CONFIGURATIONS EXHIBIT A MORE
BROAD-BAND PROPERTY THAN OTHERS. THIS PROPERTY IS EXPLAINED BY
EXAMINING THE CURRENT DISTRIBUTIONS ON THE LOOPS OBTAINED BY
THE MOMENT METHOD.

580777 B80044872
ON TWO PARALLEL LOOP ANTENNAS
ABUL-KASSEM, A. S.; CHANG, D. C.
DEPT. OF ELECTRICAL ENGN., UNIV. OF COLORADO, BOULDER, CO.
USA
IEEE TRANS. ANTENNAS AND PROPAG. (USA) VOL. AP-28, NO. 4
491-6 JULY 1980 CODEN: IETPAK
Treatment: THEORETICAL
Document Type: JOURNAL PAPER
Languages: ENGLISH
(13 Refs)
THE PROBLEM CONCERNING THE MUTUAL COUPLING OF TWO PARALLEL
THIN-WIRE LOOP ANTENNAS IN AIR IS ANALYZED BY FORMULATING TWO
COUPLED INTEGRAL EQUATIONS FOR THE CURRENTS ON THE LOOPS WHICH
ARE THEN SOLVED BY A TYPICAL FOURIER SERIES EXPANSION METHOD.
MOMENT FUNCTIONS ASSOCIATED WITH THE MUTUAL COUPLING OF THE
TWO LOOPS ARE COMPUTED USING A DOUBLE GAUSSIAN QUADRATURE
SCHEME. IT IS SHOWN THAT THE RESULTS AS OBTAINED FROM THE
INTEGRAL EQUATIONS AGREE WITH THE CONVENTIONAL MAGNETIC DIPOLE
APPROACH PROVIDED THAT THE LOOPS ARE SUFFICIENTLY SMALL, AND
WHEN THE SECOND LOOP IS A PERFECT IMAGE OF THE FIRST. FOR
LARGER LOOPS HOWEVER THE MAGNETIC DIPOLE APPROACH CANNOT
ADEQUATELY TAKE INTO ACCOUNT THE PROXIMITY EFFECT. SINCE THE
CURRENT IS ASSUMED TO BE UNIFORM, INPUT CONDUCTANCE OF EACH
LOOP IS OBTAINED FOR A WIDE RANGE OF SEPARATIONS AS WELL AS
THE STAGGERING ANGLES BETWEEN THE TWO LOOPS. AS SPECIAL CASES,
RESULTS OF A COLLINER AND A COPLANAR ARE RECOVERED.

474807 B80010615
BEST POSSIBLE THERMAL NOISE SENSITIVITY OF ELECTRICALLY
SMALL LOOP ANTENNAS
DISHAL, M
ITT AVIONICS, NUTLEY, NJ, USA
Sponsor: IEEE
1979 INTERNATIONAL SYMPOSIUM DIGEST. ANTENNAS AND
PROPAGATION 684-7 1979
Part II 18-22 JUNE 1979 SEATTLE, WA, USA
Publ: IEEE, NEW YORK, USA
27+455 pp.
Treatment: PRACTICAL
Document Type: CONFERENCE PAPER
Languages: ENGLISH
DESIGN GRAPHS ARE USED TO OBTAIN THE MINIMUM PHYSICAL SIZE
OF AN ELECTRICALLY SMALL RECEIVING LOOP ANTENNA FOR A
SPECIFIED THERMAL NOISE SENSITIVITY AND ALSO TO OBTAIN THE
BEST THERMAL NOISE SENSITIVITY FOR A LOOP ANTENNA WITHIN A
SPECIFIED PHYSICAL SPACE.

456176 B80005654
DESIGN OF TUNED COAXIAL PARASITIC LOOP ANTENNAS
STRUCKMAN, K. A.
SANDERS ASSOCIATES INC., NASHUA, NH, USA
Sponsor: IEEE
1979 INTERNATIONAL SYMPOSIUM DIGEST. ANTENNAS AND
PROPAGATION 400-3 1979
Part II 18-22 JUNE 1979 SEATTLE, WA, USA
Publ: IEEE, NEW YORK, USA
27+455 pp.
Treatment: THEORETICAL; EXPERIMENTAL
Document Type: CONFERENCE PAPER
Languages: ENGLISH
(4 Refs)
MANY ELECTRICALLY SMALL ANTENNA REQUIREMENTS CAN BE
SATISFIED WITH A PAIR OF SMALL LOOPS. ONE OPERATES AS A
TRANSFORMER PRIMARY THE OTHER OPERATES AS THE TUNED SECONDARY.
THIS ANTENNA COMBINATION EXHIBITS HIGH Qs (COMMENSURATE WITH
THE SMALL ELECTRICAL SIZE) IS EASY TO FABRICATE AND EASY TO
TUNE. THIS PAPER PROVIDES SOME PRACTICAL DESIGN
CHARACTERISTICS THAT WERE THEORETICALLY CALCULATED AND AT SPOT
CONDITIONS EXPERIMENTALLY VERIFIED.

456175 B80005653
IMPEDANCE CHARACTERISTICS OF POLYGONAL LOOP ANTENNAS
TSUKIJI, T.; TOU, S.
FACULTY OF ENGN., FUKUOKA UNIV., FUKUOKA, JAPAN
Sponsor: IEEE
1979 INTERNATIONAL SYMPOSIUM DIGEST. ANTENNAS AND
PROPAGATION 396-9 1979
Part II 18-22 JUNE 1979 SEATTLE, WA, USA
Publ: IEEE, NEW YORK, USA
27+455 pp.

Treatment: PRACTICAL
Document Type: CONFERENCE PAPER
Languages: ENGLISH
(5 Refs)
FOR THE TRIANGULAR LOOP ANTENNA AND RECTANGULAR ANTENNA,
INPUT IMPEDANCE CHARACTERISTICS OF SEVERAL TYPES OF LOOP
SHAPES ARE PRESENTED, AND SIMILAR IMPEDANCE CHARACTERISTICS
WHICH ARE FOUND IN BOTH TYPES OF LOOP ANTENNAS ARE DISCUSSED.

406276 B79039811
SINGLE CHANNEL RADIO DIRECTION FINDING SYSTEM TYPE EP 1650
FOR THE 20 TO 1000 MHz RANGE
ESPRESTER, R.; SCHLICHT, H.
TECH. MITT. AEG-TELEFUNKEN (GERMANY) VOL.64, NO.3-4
149-52 1978 CODEN: TMA7BD

Treatment: GENERAL REVIEW
Document Type: JOURNAL PAPER
Languages: GERMAN
(3 Refs)
COMPARES MECHANICALLY ROTATING AND ELECTRICALLY STEERED
DIRECTION FINDERS. ELECTRONIC ROTATION YIELDS AZIMUTH
INFORMATION. USING ACTIVE ANTENNAE, SMALL VEHICLE MOUNTED
ARRAYS CAN BE PRODUCED. THE NUMBER OF ANTENNAE USED CAN VARY
BETWEEN FOUR AND FORTY-EIGHT. THE APPARATUS CAN DETECT ALL VHF
AND UHF TRANSMISSIONS WITH AMPLITUDE OF FREQUENCY MODULATION.
A TECHNICAL SPECIFICATION IS PRESENTED.

288980 B79001878
RADIO DIRECTION FINDING
GETHING, P.J.D.
1978
Publ: PETER PEREGRINUS, STEVENAGE, ENGLAND
XIV+329 pp. ISBN 0 901223 71 9
Treatment: APPLIC: GENERAL REVIEW
Document Type: BOOK
Languages: ENGLISH
(243 Refs)

THE BOOK IS WRITTEN AT POST-GRADUATE LEVEL AND SOME
KNOWLEDGE OF THE BASIC FEATURES OF RADIO PROPAGATION AND
ANTENNA-ARRAY THEORY IS ASSUMED. THE MAIN EMPHASIS IS ON
DIRECTION FINDING IN THE HF BAND. BUT THE UNDERLYING
PRINCIPLES ARE APPLICABLE TO THE FIELDS OF RADAR, SONAR AND
RADIOASTRONOMY. VARIOUS SOLUTIONS TO THE PROBLEM OF RA,
RESOLUTION ARE DESCRIBED, WITH PARTICULAR EMPHASIS ON THE
METHODS OF WAVEFRONT ANALYSIS. THE COLLECTION AND
INTERPRETATION OF IONOSPHERIC DATA FOR THE PURPOSE OF MODE
IDENTIFICATION ARE ALSO TREATED. THE TEXT IS ILLUSTRATED WITH
COMPUTER PLOTS OF MODEL WAVE-FIELDS AND CONTAINS PREVIOUSLY
UNPUBLISHED RESULTS ON THE LOCI OF CONSTANT PHASE AND
AMPLITUDE, AND ON THE STATISTICAL PROPERTIES OF THE
BEARING-ERROR DISTRIBUTIONS FOR SPECIFIED MODELS.

218355 A78049174, B78031125
IMPROVING CHARACTERISTICS OF MEASURING LOOP ANTENNAS (FOR
GEOPHYSICAL PROSPECTING)
NEDIKOV, N.F.; VORONOV, G.M.; KORABEL'SHCHIKOV, G.V.
IZMER. TEKH. (USSR) VOL.20, NO.5 75-7 MAY 1977
CODEN: IZTEAW
Trans In: MEAS. TECH. (USA) VOL.20, NO.5 728-30 MAY
1977 CODEN: MSTCAL

Treatment: APPLIC
Document Type: JOURNAL PAPER
Languages: ENGLISH
(2 Refs)

152924 B78006713
A STUDY ON LOG-PERIODIC LOOP ANTENNAS
ROJARAYANANT, B.; SEKIGUCHI, T.
FACULTY OF ENGG., TOKYO INST. OF TECHNOL., TOKYO, JAPAN
TRANS. INST. ELECTRON. AND COMMUN. ENG. JPN. SECT. E (JAPAN)
VOL. E60, NO. 8 426-7 AUG. 1977

Treatment: THEORETICAL
Document Type: JOURNAL PAPER
Languages: ENGLISH
(2 Refs)

A LOG-PERIODIC DIPOLE ANTENNA (LPDA) WHOSE ELEMENTS ARE
ALTERNATIVELY EXCITED WITH A TRANSMISSION LINE BEHAVES
FREQUENCY INDEPENDENTLY WITHIN THE DESIGNED BANDWIDTH. IN THIS
PAPER, AN INVESTIGATION OF CHARACTERISTICS SUCH AS BANDWIDTH,
DIRECTIVITY, RADIATION PATTERNS AND ETC. IS MADE FOR THE SAME
STRUCTURE WITH CIRCULAR LOOPS IN PLACE OF DIPOLE ANTENNAS, AND
FUNDAMENTAL DESIGN DATA ARE OBTAINED. THE ANALYSIS IS BASED ON
CARREL'S THEORETICAL WORKS TOGETHER WITH THE THEORY OF
MULTI-ELEMENT LOOP ANTENNA IN WHICH THE CURRENTS IN LOOP
ELEMENTS ARE EXPANDED IN FOURIER SERIES.

152909 B78006698
COMMENTS ON 'CALCULATION OF THE RADIATION RESISTANCE OF LOOP
ANTENNAS WITH SINUSOIDAL CURRENT DISTRIBUTION'
ADACHI, S.
DEPT. OF ELECTRICAL ENGG., TOHOKU UNIV., SENDAI, JAPAN
IEEE TRANS. ANTENNAS AND PROPAG. (USA) VOL. AP25, NO. 6
900-1 NOV. 1977 CODEN: IETPAK

Treatment: THEORETICAL
Document Type: JOURNAL PAPER
Languages: ENGLISH
(3 Refs)

RICHTSCHEID'S PAPER (SEE IBID., VOL.24, P.889-891, NOV.
1976) USED THE FAR ZONE POINTING POWER TO DETERMINE THE
RADIATION RESISTANCE. THE SAME CALCULATION HAS BEEN CARRIED
OUT USING THE CONVENTIONAL INDUCED EMF METHOD (SEE SCI. REP.
RITU B, VOL.9, P.9-10 (1957) AND P.79-103, SIMILARLY ELECTRONICS
AND COMMUNICATIONS IN JAPAN, VOL.52-B, P.73-80 (1969)).

062421 B77022050
PRECIPITATION STATIC NOISE AND SHIELDING IN AIRCRAFT ADF
LOOP ANTENNAS

GRABOWIECKI, A.; KUNACHOWICZ, K.
INST. LOTNICTWA, WARSZAWA, POLAND
Sponsor: INTERNAT. UNION OF RADIO SCI.: INTERNAT. SPECIAL
COMMITTEE ON RADIO INTERFERENCE; IEEE; ET AL.
PR. NAUK. INST. TELEKOMUN. AND AKUST. POLITECH. WROCLAW
SER. KONF. (POLAND) VOL.27, NO.7 232-7 1976
3RD WROCLAW SYMPOSIUM ON ELECTROMAGNETIC COMPATIBILITY
22-24 SEPT. 1976 WROCLAW, POLAND
Treatment: APPLIC; PRACTICAL
Document Type: CONFERENCE PAPER
Languages: ENGLISH
(7 Refs)

A NOISE-PRODUCING MECHANISM ASSOCIATED WITH THE IN-FLIGHT
CHARGING OF AN AIRCRAFT AND ITS EFFECT ON THE PERFORMANCE OF
AIRBORNE MF AUTOMATIC DIRECTION FINDERS ARE CONSIDERED. THE
PRECIPITATION STATIC NOISE IS PRODUCED IN ANTENNAS MOUNTED
UNDER PLASTIC RADOMES. IN THE PRESENTED MODEL OF A FLUSH
FERRITE LOOP ANTENNA, THE SPARK DISCHARGE BETWEEN THE RADOME
AND THE SURROUNDING METALLIC SURFACE IS PREVENTED BY COATING
OF THE ANTENNA SURFACE WITH A CONDUCTING FILM OF EPOXY-CARBON
BLACK GEL MEASUREMENTS SHOW THAT THIS SHIELDING DOES NOT
AFFECT ADVERSELY THE SIGNAL PICK-UP CHARACTERISTICS OF THE
LOOP WINDING.

009278 B77003973

THE NEAR FIELD OF LOOP ANTENNAS IN THE COUPLING ZONE
SHVARTS, E. A.; KAGANSKIY, A. M.
RADIOTEKHNIKA, MOSKVA (USSR) VOL.31, NO.1 93 JAN.
1976 CODEN: RATEAO
Trans in: TELECOMMUN. AND RADIO ENG. PT. 2 (USA) VOL.71,
NO.1 126 JAN. 1976 CODEN: TRERBS
Treatment: THEORETICAL
Document Type: JOURNAL PAPER
Languages: ENGLISH
(2 Refs)

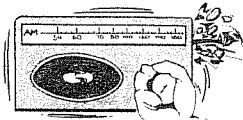
CURVES PLOTTED FROM COMPUTER CALCULATIONS OF THE VALUES OF
THE VERTICAL COMPONENT OF THE FIELD SHOW THE BEHAVIOR AS A
FUNCTION OF THE GRAND CONDUCTIVITY $\Sigma = 3 \cdot 10^4 / \text{SUP} - 2$,
 $1 \cdot 10^4 / \text{SUP} - 2$, $1 \cdot 10^4 / \text{SUP} - 3$ SM/M FOR THE OPERATION OF A
CIRCULAR HORIZONTAL TRANSMITTING LOOP WITH A RADIUS OF 30 M AT
HEIGHTS OF ZERO AND 5 M ABOVE THE GROUND AT WAVELENGTHS OF
2000, 3000 AND 7500 M. THE OBSERVATION POINT IS AT A HEIGHT
1.2 M IN THE COUPLING ZONE-UP TO 90 M FROM THE LOOP WIRE AT
THE SPACINGS USED IN PRACTICE. THE GRAPHS ARE PLOTTED FOR A
CURRENT OF 1 A IN THE LOOP.

000754 B77001053

CALCULATION OF THE RADIATION RESISTANCE OF LOOP ANTENNAS
WITH SINUSOIDAL CURRENT DISTRIBUTION
RICHTSCHEID, A.
TECH. HOCHSCHULE DARMSTADT, DARMSTADT, GERMANY
IEEE TRANS. ANTENNAS AND PROPAG. (USA) VOL.AP.24, NO.6
889-91 NOV. 1976 CODEN: IETPAK
Treatment: THEORETICAL
Document Type: JOURNAL PAPER
Languages: ENGLISH
(3 Refs)

LOOP ANTENNAS WITH DIMENSIONS COMPARABLE TO THE WAVELENGTH
ARE SOMETIMES OF PRACTICAL INTEREST. IN ORDER TO USE SUCH
ANTENNAS, DESIGN ENGINEERS WOULD NEED SIMPLE FORMULAS OR DATA
ABOUT THE RADIATION RESISTANCE OF SUCH ANTENNAS. FOR THE
REASON, THAT NOTHING ELSE HAS BEEN KNOWN, THE RADIATION
RESISTANCE HAS BEEN CALCULATED BY MEANS OF A DIGITAL COMPUTER.

**TOP
END**



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

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

●JANUARY 1985...So begins the third year of the column. Not much happening,
mid season doldrums I guess.

Lots of noise over the KPF-941 station in New York. It is a legally licensed
remote pickup station, therefore not a pirate. It isn't operating under the
terms of the RPU assignment, though. The FCC Rules & Regulations state that
the intended purpose of a RPU station is for getting program material from an
outside location back to the studio for broadcast. It does not specifically
prohibit "broadcasting" use, but the FCC operates on the opinions of it's
leaders and is not quite as cut-and-dried as other government agencies. It
usually takes the approach that "We know what we mean, therefore you should
too." Most decisions are reasonable logical. There are some glaring excep-
tions but I won't get into that here. Many thanks to the half dozen people
that sent clipping from different sources on this.

On a similar note, the WATD station in Marshfield was put on long term hold due to tower construction problems. We may, or may not see this built. Sorry if I raised expectations on this. I should have taken a more conservative approach in publicizing it. I did offer to go and build it for them, hi.

Just a few loggings this time around, all mine:

1646 NORWAY?? 0506 12/18 LGB TLX noted here, ex-1644. New home or drift?
1655 ??? 0440-0444 12/3 Unid RTTY, poor.
1655 ??? 0448, 0452 12/3 KA81190, fair.

Some BCB harmonics heard by Dave Beauvais in Amherst, MA:

1800 (from 900) WKXA Brunswick, ME	1860 (from 930) WREB Holyoke, MA
1900 (from 950) WYWY Barbourville, KY	1940 (from 970) WXQK Spring City, TN
2020 (from 1010) WTGC Lewisburg, PA	2260 (from 1130) WCBX Eden, NC
2300 (from 1150) WYNS Leighton, PA	2380 (from 1190) WKOX Framingham, MA
2480 (from 1240) WCOU Lewiston, ME	2480 (from 1240) WGBB Freeport, NY
2500 (from 1250) CHWO Hamilton, ON	2500 (from 1250) WARE Ware, MA
2520 (from 1260) WPHB Philipsburg, PA	2560 (from 1280) WBRX Berwick, PA
2580 (from 1290) WQIN Lykins, PA	2620 (from 1310) WVPI Mount Kisco, NY
2640 (from 1320) WCVR Randolph, VT	2660 (from 1330) WASA Havre de Grace, MD
2680 (from 1340) WGAW Gardner, MA	2700 (from 900) WOTW Nashua, NH
2760 (from 1380) WNRI Woonsocket, RI	2800 (from 1400) WXAM Charlottesville, VA
2860 (from 1430) WTTT Amherst, MA	2860 (from 1430) WNAV Annapolis, MD
2920 (from 1460) WBUC Buckhannon, WV	2980 (from 1490) WGCH Greenwich, CT
2980 (from 1490) WCDO Sidney, NY	2980 (from 1490) WXIT Charleston, WV
2980 (from 1490) WSTP Salisbury, NC	2980 (from 1490) WLOE Eden, NC (tent.)
3100 (from 1550) WXVA Charles Town, WV	3140 (from 1570) WYTI Rocky Mount, VA
3200 (from 1600) WLNG Sag Harbor, NY	3200 (from 1600) WJSA Jersey Shore, PA
4920 (from 1230) WBME Belfast, ME	

Dave also had unids on 2460, 2540, 2640 2780 and 2900. He also had an odd spur from WVFC-1540 on 1870. Seemed to be FM modulating, he said.

Top End Yearbook will be available towards the end of January. Send a 20 cent stamp (not SASE) and a logging or two, and I'll send it out as soon as they're ready. Foreign readers send a few loggings, and I'll pay postage. Pretty tough when I have to BUY loggings. How about it folks, anyone listening?

IRCA WANT ADS

EDITOR: TIM O'HARE
20023 84th W.
EDMONDS, WA 98020

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98277 OR CALL PREPAID 206-675-5263 6-10 PM PLT

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IN ORIGINAL CARTON WITH MANUAL, ETC. \$ 430 PLUS POSTAGE AND
INSURANCE UPS. FRITZ MELLBERG - 1505 CENTRAL - HAWAHDEN, IOWA
51023 - OR CALL PREPAID 712-552-2458

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