





OFFICIAL PUBLICATION OF THE NATIONAL RADIO CLUB

BOX 9 9 CAMBRIDGE, MA. 02138 OCTOBER 16, 1971

NUMBER 2





"I am very happy to see reprints of numerous articles from past issues of DX NEWS being reprinted. This helps us guys who have either thrown away or lost our past issues as well as the newer members." (Walt Breville, Mo.)

IN THIS ISSUE...



CONVENTION REPORT - Big George Kelley
NRC DOMESTIC CONTEST - BGK & GPN
FIRST EDITION OF DXTRAS - Eric DiRicco
RADIO DIRECTION FINDING - Dave Fischer
CARE AND FEEDING OF THE WAVE ANTENN'S - Jerry Starr
BEVERAGE EXPERIENCES IN FLORIDA - Jerry Conrad

NEW NRC MEMBERS THIS WEEK:



- * Wayne Frank, Moose Jaw, Sask. *Thomas Steele, Milwaukee, Wis.
- * A. Scholl, Brant Lake, NY
 - *Wm. Willis, Redding, Calif.
- * Harold Jones, Jr., Elberton, Ga. * Paul Sidney, Sag Harbor, NY
- * Jerry Miller, Bellevue, Nebr.

Welcome to the NRC, people, we hope to be reading of your DXploits often here in DX NEWS. Why not introduce yourself in a Musing?

RENEWALS THIS ISSUE:

Belanger... Fell... Janecko... Entine... Fischer (Bob) McGraw... Dillbeck... Drewes... Nisnik...



"David Solinske of WOKO - 1460 has asked me to pass along to the NRC that he will be verifying reports. If anyone has an old un-answered report, send a duplicate. He's very interested in DX (DiRicco)".

IMPORTANT NOTICE: See page 2 for information on how you can join up with the FLASH ALERT SERVICE to receive immediate information on last-minute Specials and Tests!

*** Another giant 40 page issue this time ... We started off this Volume of DX NEWS with so much fine feature material on hand that the Composition Crew has hard decisions to make each issue deciding what to run and what to hold over... This time we decided to hold over GPN's conclusion to the Auroral article in favor of the Beverage articles so that members who get fired up sufficiently will have time to set one up before the first frosts hit in the North... Among other material held over is a fine article by Jay Murley on DX'ing the Pacific area stations, a balanced FET amplifier by John Tull, and a lot more! *** To the best of our knowledge the final details of the VOA Okinawa test have not been firmed up; our original date, the last week of October (traditionally the best time for Asians in the Eastern part of North America), was washed out because of the persistent solar/auroral disturbances currently occuring every 25 days or so as the sun rotates - and due to hit again at the end of October. The tests will probably be held the first few weeks in November if not later; DX NEWS and join the FLASH ALERT SERVICE (see below) for the latest information! ** Apologies to Glenn Hauser, Don Jensen, and Wendel Craighead for neglecting to credit them for the Swaziland information which appeared in IDXD last issue; a typographical error... *** CREDIT goes to the following Boston area members of the Publishing Committee for the past few issues of DXN: Composition - Big George Kelley, Randy Kane, Cary & Lynn Pall, & GPN; Addressing & stamping - Composition crew plus Ray Moore, Chuck and Jackie Rossier, and Mark Katz; Retyping articles - Cary Pall and Jackie Rossier; Computer mailing updating - Big George; Random HQ work, including moving HQ to its new location - all of the aforementioned plus Margaret Moore. Mark DeLorenzo, and Harriet ... *** We're holding the projected time system referendum over for awhile; talk it up but keep your arguments succinct, please! *** We hope to run pictures of the Convention taken by Russ Edmunds this week; the quality isn't the greatest though, even after two hours of darkroom tinkering by Harriet, Big George, and GPN, so we may end up making a ·last-minute substitution... *** Next week we begin our high-low publishing schedule; instead of running 28 or 32 page issues every week as we have done in previous years, we're going to try to alternate 20 and 40 page issues, thus making more efficient use of postage; the idea is to continue to average about 30-32 pages per issue as in years past but to make use of the fact that we save about \$40 in postage when we run a 20 page issue; above that size we pay the same, be it a 24 or a 40 page issue. Paying 40 page postage rates for smaller issues makes no sense at all and we'll be trying to adjust our page counts this year to optimize the use of the postage we must pay, at least until our currently frozen Second Class permit comes through...

FLASH ALERT SERVICE A REALITY!!

We now have two eager and enthusiastic centrally located members to serve on this most important operation: Carl Junker and Fred Tankersley of Dayton, O. If you wish to participate, do the following: get 10 postcards from the P.O. and address them to yourself. On the last card in the stack make a note to yourself "last card" or somesuch to remind yourself to send in more cards when your first batch runs out. Send the 10 cards to Carl Junker, 1312 Colwick Dr.. Dayton, Ohio, 45420, in an envelope with the "last card" in the back of the stack. When a last minute special pops up too soon to make into DX NEWS. Carl and/or Fred will drop you a note immediately. Telephone FLASH ALERT information to Carl at 513-254-9936; if me and the Fred at 513-253-947 This is for Specials and Tests only! - BGK & GPN

(revisited) 🛴 YUBA CITY DIGGINGS

The 1971 NRC Convention was held at the El Rancho Hotel in West Sacramento, Calif. over this past Labor Day weekend. There was lots of activity at the El Rancho; people drinking and jumpin up and down. lots of yelling and screaming; folks grabbin' and huggin' and having a real fine time. The NRC group almost did as well, radio people being what they

Well now, here's what took place. On Friday night the early arrivers all gathered in the lecture room and went through the process of meeting one another. Nelson wore his Maxwell equations shirt; Erickson planted what was believed to be a bomb in the room; Father Jack freaked everyone with his beard; George Kelley complained about the width of Nebraska; Don Kasky was nowhere to be found. Russ Edmunds, Mark Katz, and GPN drove out from SFO in an insipid Javlin that had a "Desert Only" switch which when activated turned Northern California into a desert! The ERBA crowd was seen walking around with Krishna Mulvaney shirts on; and the new RFS made his debut. On Saturday afternoon most people looked in vain for a good place to eat; others sampled the local variety of vegetables. GPN gave several lectures on Aurora and other such things. On Saturday night the banquet was held; several choice comments were passed on to the chef, Gregory Grok of Grass Valley. After the Alka Seltzer was passed out, the auction got under way. Jay Murley was our inebriated auctioneer. The NRC made money by selling copies of "9 slaves for 6 cents "; Schatz went for 4 mech. filters and nearly had his Santa Monica summons auctioned off. DEE showed everyone that he has a paper fetish by purchasing only useless paper items. Nelson out-bid everyone on the right to toss a fully clothed Erickson into the Piranha infested pool. Then came Sunday! The scheduled VOA group visit was sabotaged by someone at Gibralter Steamship. The business meeting was next on the agenda. The BPC fielded questions; also discussions on Postage increases were brought up, with the majority voting to compensate for the increase by prorating each member's expiration date rather than to raise dues. A time vote showed most favored a switch to GMT; because of this we will hold a referendom in the near future. We formally voted our intent to incorporate the NRC, hopefully in Freneau, NJ.

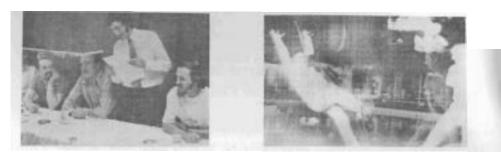
THE MEMBERS IN ATTENDANCE WERE:

Gordon Nelson, Boston... Russ Edmunds, NY C... Mark Katz, Boston... Charles Rader, Hamburg, NY... Andy Kerr, Creswell, Ore... Dave Bennett, Richmond, BC... Father Jack Pejza, San Diego... Duane Giese, Sacramento.. Don Erickson, Sideriver... John Daller, NYC... Ron Schatz, Miami... Glenn Hobbs, San Jose... Clarence Freeman, Auburn, Calif... Len Lockwood. Olympia, Wash... Bob LaMotte, Martinez, Calif... Don Kenney, Santa Monica.. Don Kaskey, THE BAR... Big George Kelley, Mofey, Mass... G. Elston, Santa Clara, Calif... Bill Harang, San Jose... Michael B. Northam, Portland Saralie B. Northam, W. Portland, Ore... Robert Karchevski, Daly City, Ca. Roy (TEX) Varnell, Novato, Calif... Steve Kamp, San Jose... Steve Oster, Los Gatos, Calif... Paul Welka, San Jose... Bruce W. Bacon, Los Gatos, Ca. Ed Krejny, Cleveland... Jay Murley, Newport Beach, Calif... C. H. Draeseke, Vancouver...

..... continued on page 13



NRC CONVENTION AUCTION: IRCA President auctions off Southern Californ motel room key, plus rights to occupant: left to right - Jumpin' Jay Murley, Mike Northam, Randy "Merger" Seaver, his spouse, Father Jack Pejza.



IMPEACH NIXON! The New Ron Schatz, reigning NRC Southerner, reads text of White Citizen's Council Nixon Impeachment petition; 1. to. r.: GPN, Murley, Schatz, Northam,

IN HE GOES! NRC Publication Committee Chairman GPN (right) awards NRC-IRCA interclub harmony award to Don Erickson; DEE accepts award in Piranaha filled pool shortly thereafter...



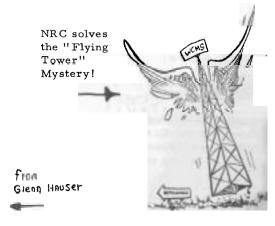
WAITING FOR THE HEARTBURN TO END AND THE SATURDAY NIGHT CONVENTION AUCTION TO BEGIN: left-to-right: Father Jack Pejza, the New Ron Schatz, Chuck Rader, Andy Kerr, Frank Kennedy, Glenn Hobbs, super-patriot Steve Kamp,; back to front on the right: Roy (Tex) Varnell, Don Erickson (cooly watching for unnamed threats to his watertight intregrity), Duane Giese, Len Lockwood, and Bob Karchevski.

Goose Station

Goes On Air

GOOSE AB, Canada (A-FNS) — An American Forces Radio Service station has gone on the air here. Equipment was received from Melville and Stephenville Air Stations, upon transfer of the former to Canadian control and the deactivation of the latter.

The station, staffed by 13 people, inherited more than 20,000 long-playing records.



71-72 DOMESTIC CONTEST

STARTING TIME: 12 AM EST on 10/18/71, ending 12 AM EST on 5/16/72 ENTRY FEE: 50¢

This contest is somewhat similar to the one run by Stewart Drake last year but there are significant changes.

Object: To log the best-point-scoring station on each of the 107 spots on the North American standard broadcast band 3 seperate times during the contest period. The reporting dates that you must have your catches in by are Jan 15, 1972 and March 15; with your final form submitted within 2 weeks after the close of the contest. You may relog the same stations that you listed on the previous form if you actually hear them during the next scoring period. But you cannot 'hold back' on old DX catches for the final form. The day your letter is postmarked will begin your new DX period, so make sure you mail early so you won't miss the deadline (and disqualification).

Points: Each entrant must indicate his location and equipment when he enters; only one receiving setup can be used for the contest. The scaling factors will be mileage, power, antenna, and the Zone that you live in.

MILEAGE		STATION	POWER	ANTENNAS USED
1 - 100 mi.	1	100 watts	20	Antenna built into receiver: 10
101 - 200	2	250 watts	15	(i.e., Transoceanic portable)
201 - 300	3	500 watts	10	Longwire (up to 600 feet) 7
301 - 400	4	1 kw	7	Unamplified loop (external) 5
etc		2.5 kw	5	Space Magnet (all makes) 3
		5 kw	4	FET A.A. or any amplified
		10 kw	3	external loop 3
		25 kw	2	Beverage (any longwire over 600
		50 kw	1	feet in length) 1

Scoring Zones:

Zone A: B.C., Ontario and all provinces East of it. New England, N.Y., N.J., Florida, Washington State, Oregon, Calif. ----- 2

Zone B: PA., MD., Del., VA., N.C., S.C., GA., ALA. Miss., LA., TX, N.M., Arizona, Nevada, Idaho, Montana, Alberta, Sask., Manifolia.

Zone C: All other states

EXAMPLE: You live in Zone B (1.5) and you hear station WTFY 1 kw (7) at 1200 miles (12) on equipment with Unamplified loop (5) gives:

 $1.5 \times 7 \times 12 \times 5 = 630 \text{ points}$

Yes, your totals will be astronomical!

Power factors will be determined by time when a station has different Day/ Night powers (Wesolowski's LSR-LSS charts will be used). Stations heard on FC/ET will be scored on highest power assigned. Mileage will be determined from center of city to center of city.

In submitting your entries you must have the following data: DATE, TIME CALL, FREQUENCY, and STATION LOCATION. You will do your own scoring but each entry may be checked by the contest manager. Send entries to: George Kelley, 118 White St., Belmont, Mass. 02179.

Your final score will be the sum of the 3 contest periods. We will run scores at the end of each period so you will have some idea of where you stand. Prizes will be awarded. Good luck and good DX.

I am sorry to inform the NRC membership of the death of DXer Bill Wortham. Bill passed away July 12, 1971 of a fatal heart attack.

I first met Bill about a vear ago when he first joined the NRC. I was thrilled when he joined because I found that he only lived about a mile from me. In my fourteen years of DXing I had never lived near any DXers. Just having a DXer nearby was a new experience for me. Bill had begun DXing in the middle thirties and had received quite a list of 250 watt stations all over the country during that period. He guit DXing before WW II and had just recently resumed the hobby. His wife had passed away about a year earlier and he had begun to DX again to help him pass the time and relieve some of the oneliness that he was going through. I can remember the frustration he had in trying to build a spiral loop. When the space magnet came out he bought two of them because he was so pleased with it. We didn't get together much because of my busy schedule but quite frequently we would talk over the telephone about DX. Bill worked for Southern Bell and was reaching the age when he would retire. He also helped to keep up his mother in law who lived with him. I don't guess I've ever been as shocked in my life as the night of September 30 when I called him to tell of a new logging. His mother in law answered and told me of his death. Being a preacher I'm not usually lost for words but this time I was overcome from the shock. I think at this time that NRCers who would write a short note to his Mother in law, Mrs. Lytle, would find that their notes of sympathy would mean a lot to her. Her address is 3404 Lexington Rd., Louisville, Kentucky,

Death is never easy for any of us, especially when it is a person whom we share a hobby with, but Bill was a fine Christian man whom I'm sure is in a much better land now. He will be missed here and I'm only sorry that more of you did not get to meet him. Goodby Bill.

(Rev. Dan K. Phillips)

We also regret to announce the passing of BPC member Mark Katz' father in New York following a series of heart attacks. We all extend our deepest condolences to Mark on his tragic loss. JAY MURLEY - 1733 Candlestick - Newport Beach, California

Red news first. "Holiday Inn's successful long-running Dolly Holgdry Show (all-night music on some 37 stations) looks safe, may expand, " accordinto Fred V. Alias, the show's sales and promotion manager. A key format chan'e for listeners in the Best trying to log Western stations in the 1160-1170 range: KV00-1170 Tuls, had been simulcastin, KSL, Salt Lake "Herb Jepko (talk) Show" after midnight. Now it's gone c/w, like WWVA, leaving WBL alone with all-talk. The two Californians on 170 remain unchanged - San Diego's More features bubblegun rr w/occasional underground, and San Jose's KIOK calls itself Contemporary Mail - "The Weaver Sound" w/heavy reliance on oldies from the 50s & 60s. Anyhow, if you need U ah and your at splatters and you live in the E, try to pick up faint traces of a talk show on 1160, 'cause KSL is all alone on the format. Did some signal measurements on Tinuana's XECM - any published rumors that they're running 2,500w are poorly written novellas. Multiply their official power by ten for a closer guess. Interesting MM on 8/30: KMPC-710 & XETRA-690 were both off LA paths weren't decent, but KKUA Honolulu dominated 690. Now if my ouija board is correct, both will meed additional XR maintenance again next 6/19, just in time for thunderstorm seeson back E). I haven't not the new slorans and calls squared eway yet (due to HNIs) but some of the Colombians seem to have switched around. I do trust that Objic or Schetz or Conrad will sort the mess out for us

RICHARD LAUHEAD - 591 W. Co. Road B, St. Paul, Minnesota - 55113

I guess I'm past due for a Musing so here goes. DX is picking up here, helped along by a recently aquired Space Magnet. Best so far was HJTV-1040 on 9/19 w/wH0 off, very strong from 1:43-2 when WHO began testing. ID was given after every record as 'R. Tropical.' Other DX on 9/6- CHIR-730 good © 8:10 pm. 9/11- NKBB-960 feir © 12:15am; KSSS-730 fair © s/off © 1:25. MM 9/13- KGK-1020, fair © 12:24am; CMKV-600 fair © 1:42; CMKP-670, very strong © 2:10; KTAR-620 good © 2:30. MM9/20- WSBA-910, poor © 2:45am; WWSW-970, good © 2:48. Also on 9/20 I heard WN(?(IS on 990 © 2:50 w/UPI NX. I can't find him listed anywhere can anyone help? (WNOX? -ERC) They gave location as North Salina, and time was EDT. A couple of comments on EST vs. CMT. Why EST, why not CST, or NST, or each other time? Really now when a club such as ours has members in many time zones, the only fair time to use and the easiest for everyone to convert to local time if desired is CMT. I say CMT for all sections. 73s & good DX to all.

BRUCE R. HEIMBURGER - 517 Rawlins Street - Fort Euron, Michigan - 45060 Greetings all. First report to Musings for me since member-

ship began about four months ago. I probably would have contributed earlier but as some of you may know, I we EC DX Forum editor for the TRCA. Other vital stats as follows: I am 19, attend the community college in town (which is six blocks away) & have been DXing since 1/69. Current totals are 670/41/6/23. Best foreign catch is a toss-up between Sierra Leone-1205 and ZFB1-960. Best domestic either WPFB-910 or KSOK-1280. I plan on an all-out assault on foreign DX this season, especially since I have that marvelous NRC III log. It appears we're in for a very active season, DX-wise. WCers are already reporting TPs & even the members of the Blue Water Chapter of INCA (myself & three other area IRCAers) experiencing good, lengthy Western openings, w/KUUU & KTIK the best of the BWC catches. Only one disappointment during a fruitful Summer of DX, there wasn't a good Aurorg. I am anxious to DX another one, having read GPN's article. I will be doing a lot of SSS DXing as stations to the S of Michigan tend to make their only appearances of the year from about ten days before the Fall Equinox to about a mouth to 45 days after. 73s for now. (well, welcome to you, fellow Editor) We hope you'll be able to chine in here often? -LRC)

WE'LL SOON BE GOING WEEKLY CHICK AGAIN- DX IS GREAT - HOW ABOUT MUSING, GANCY -ERC

RICH EDDIE - 152 West Rose - St. Louis, Missouri - 63119

Howdy from the Gateway to the West! Iong time no Muse so I decided that I take time to Muse and let everybody know I'm still alive. I just recently added a Navy surplus rig called RHMwhich tunes 200k to 2,000k in four bands w/an IF of 140k, and seems real good. Now to some DX heard on it. Sat. 9/18-WEBQ-1240 Harrisburg, Ill. 5:37-6pm w/rr. Sun. 9/19- KJPW-1390 Waynesville, Mo. 2:12-2:25pm w/up-tempo MoR, WFTW-1390 Feirfield III. 2:26-2:40pm w/Apostolic Faith Droxram. KWRT-1370 Boonville, Mo. 6pm w/ID & NX, KIRS-1360 Mountain Grove, Mo. 6:54-7pm s/off. Tues. 9/21- WLOV-1370 Washington Ga. ending r/c @ 1:20mm. The following DX was heard = Realistic TRF portable: Mon. 9/13- WCIO-1230 Janese ville Wis. w/Mutual NX @ 7:30pm. Thu. 9/16- KTAT-1570 Frederick, Okla. w/f/c. 1:25em tune-in to 1:35 s/off; WHII-1570 Bay Springs, Miss. tune-in 2:26em to tune out @ 2:45 w/DT/ET: WEUP-1600 Huntsville, Ala. 7:58pm @ s/off, KCRG-1600 Cedar Rapids, Ia. w/ABC NX 7:5708; WAPX-1600 Montgomery, Ala. @ 9pm w/NX & the best catch of all, WYRE-810 Annapolis, Md. I heard only one voice announcement & one Morse Code ID during the whole time due to KCMO Kansas City & splatter from WBAP -820 Ft. Worth. So much for DX. I just received my 500th verie award from NRC, and it looks great. During the Summer I did FM/TV DX which wasn't too bad. Lately I've been hearing beacons on IW, only I can't find their location yet, Those who want a list of them just write. Special welcome to John Tull and Randy Stewart and all other new members. Totals: 923/510 45/43 6/5 16/11. I must be nearing 30 lines so I'll say goodbye for now. I have KXOK & KIRL SCs for trade - just write. Good DX & best of everything, fellow members. 73s.

ROBERT EDDY - Box 123 - Newport, Ohio - 45768

I've been a member of NRC for about me year and ame just getting around to my first Musing. Reason for waiting so long: practically nothing worth reporting last season (poor CX) and laziness. By way of introduction, I'm 24, single, and work for an electronics distributor in Marietta, O. I've been DXing SW BCB & TV since 1960. More recently I've been concentrating on FM to the neglect of other bands. BCB totals to date include 38 states, sixprovinces and 42 countries heard. I haven't been keeping an accurate count on total stations logged, since I'm more interested in countries. Best verie to date is 4RK-840. My RX is a surplus BC 453 and crystal controlledconvertors that provide coverage from 540k to 30m in 360k segments. This set-up makes for excellent bandspread on BCB & SW. Antennas include a 50' wire & loop. You should be hearing from me more often this season. Plans include the erection of two beverage wires w/s length of about 2,000'. Orientation will be NE/SW, and NW/SE. Hopefully, T/reception will be much better. 73s & best of DX. (Welcome to the Column, Robert, and please do come in often! -ERC)

ANDREW F. RUCG - 16 Lake Breeze Avenue - Pointe Claire 700, Quebec

I am expecting a very good DX season this Winter. All the early signs are good. I have one new verie: WXRL-1300, PP. Since relocating in the Montreal area the DX has been: 9/17- The TEST Trow WYRE-810 received despite severe slopover from local CJAD-800. The CW IDs helped. Shortly thereafter I heard unn CHIC-580, w/best signals ever, o/u WTAG. w/CFRA seemingly off. CFRA's nighttime signal has been very weak lately. On 9/18 the TAs were extremely good @ SSS w/764 by far the best. Other unns were on 665 755 773 782 1025. I tried to take a log on the Spaniards on 827 & 1097, & Algeria-548, but in vain. Then at 7:26-7:41pm EST I took a report on CFTR-680, for a new call. The evening of 9/20 I copied considerable info from an unID on 1400 & sent a detailed tentative report to WICK-1400. The evening of 9/26 produced a lot of good Caribbean DX: 4VW-1325 "R. Haiti" was very strong 7:07-8:13pm EST & I took another try at a report. Then I tried 830 for 4VEC but instead took detailed copy on a new one, HIJB-83C who ID as "HIJB" & have hard-sell programming. During the evening I also noted HIBE-1180 "R. Mil", YVMA-1070 "R. Zulia" & ZDK-1100. Those three would have been new loggings had I obtained enough info to send a report. When I was on holidays in latter August I noted that WKBH-1410 had switched to its new call, WIZM.

BILL FEIDT - 8708 Contee Road - Apt. 14 - Laurel, Maryland - 20810 CX remain quite good; TAs peaked for me around 9/11 & then deteriorated quite rapidly for some reason; domestic SSS have remained most interesting throughout the period, however. DX: 9/2- WNRV-990 Va. @ 7:29pm s/off way atop. WKBQ-1000 N.C. @ 7:30pm w/tail end of s/off w/"Now the Day is Over" as background mx; no anthem. 9/3- WKYB-1000 S.C. @ 7:29pm w/s/off announcement, power is 10kw rether than 5 listed in NRC Log. WABQ-1540 O. @ 7:45pm s/off. 9/10- Dresden-1043* DDR @ 9:35-9:46pm w/talk by man in GG & light pops; level very good; but modulation a little shallow. 9/12- Tirana-1088*@ 12:10-12:20am w/talk in language, probably Arabic, & into chanting. I may have had traces of Libya-1484 this AM w/chanting; seemed to be //-1124, but was very weak & I couldn't be certain. WTVR-1380* Va. @ 6:58 7:01pm w/ID & into NX. 9/14- WMFM-127-* N.C. @ 7:05 -7:14pm w/NX, sports, WX to s/off; very strong & announced s/on as 6am & 7am SM. WRRJ-910* 0. @ 7:25-7:29 w/c/w format to s/off. WTOY-910* Va. @ 7:30-7:31 s/off just after WBRJ. WAVE-970 Ky.* @ 8:58-9:02pm w/MoR, ID & NX; WWSW nulled. 9/15-WAXU-1580* Ky. @ 7:45pm s/off; mucho QRM. WVKO-1580 O. @ 7:45 s/off just after WAXU. WFUR-1570* Mich. @ 7:59pm s/off & promo for FM; CKIM nulled. 9/16- WIQT-1000* N.Y. € 7:14-7:15pm s/off-SSB & slogen "WIQT Beautiful Music." WTNS-1560 0. @ 7:40 s/off w/FM promo mixed w/much WQXR. WEAW-1330 Ind. @ 7:58-8pm w/'Now the Day is Over" & into s/off. 9/20- WTHB-1550* @ 12:30-12:38em w/r/c & frequency IDs. KOA-850 Col. © 12:50-1:01am w/religious mx, ID & NX for tape. KWLA-1530* La. @ 1:46-2am w/r/c-TT & frequency ID. WSIX-980 Tenn. @ 2:30-2:32 w/HI & local ID. KFAB-1110 Neb. @ 2:55-3am w/soft mx format to brief ID @ 3 for tape. VAAO-1530 Ala. @ 3:15am w/tail end of f/c; said would resumt @ 6:30am. WNIO-1540* O.

@ 7:20-7:23pm w/promo for rr concert & SID; QRM from CHIN. WCTW-1570 Pa. @ 7:28

pm s/off way on top; armounced PSA of 346w - is this a call change? CHIN-1540

so without further ado, 73 & DX. * are new logs; others are new tapes.

Ont. @ 7:29pm s/off w/call pronounced as a single word. I must be close to 30,

DAN K. PHILLIPS - X-2 Seminary Village - Louisville, Kentucky - 40207 On 6/12/71 Franklin McCormick, the AN DJ @ WGN, died. For the past 12 years he had been quoting poetry on his show. He will be missed here. New news is that this Summer I built an FET 1'-square portable Altimul. loop. I used the plans out of March 1971 EI & substituted a loop for the loopstick in the article. In comparing it with Gary Atkins' Space Magnet some interesting conclusions were reached. The general conclusion was that the FMT outperformed the SM from about 540 to about 1000 & the SM outperformed by from 1 to 3 S units up to 1600. The FET is better for nulling in most instances especially with tilt characterisites. It was cheaper to build also, about \$12 in all. One problem w/the FET that consistently shows up is that from 1200 to 1600 w/my transistor portable plugged in the null is not balanced, although it is over the lower portion of the bend. However, when the portable is unplugged the nulling ahmactier stics came back. What gives? Anyone know a cure for that? I took it to Daytona Beach & I did some DX 8/2. The results were that I could hear in the middle of the day the following stations: WQAM WCTO WIOD WPDQ WAPE WGBS WPAL-730. On 790 WYNR/WISE fighting it out. WQIZ-810 WKK0-860 & WEAS-900. That ocean is great for groundwave. New loggings here in Louisville 8/30 WNSL-1260 on @ 1:30am EDT w/fire alert. 9/22 I logged WCIU-1320 & WQIN-1270. Totals now 1,506/561 in 26 countries verified. I am looking forward to the new year. It will be a busy one here. I hope to graduate in May from the Seminary & then who knows where I'll be. 73.

RICHARD CLARK - 4110 Bayview Drive - Fort Lauderdale, Florida - 33308

I am very glad that the NRC Convention will be in Miami next year
I assure you that this will be the best Convention NRC ever had. I hope to see all of you at the NRC Convention. So start making your plans now because a year will go fast. Miami is the gateway to LA DX. Miami in '72! 73s.

LET'S ASK AGAIN FOR MORE MUSERS. AND WHEN YOU DO, PLEASE DOUBLE SPACE AND ALSO PLEASE LIST YOUR DX BY DATE AND GIVE CALLS & FREQUENCIES OF YOUR CATCHES, AND THE TIME (E.L.T.) THEY WERE HEARD. IF IT IS A FREQUENCY CHECK, GIVE THE OPENING AND CLOSING TIMES OF THE CHECK SO IT MAY BE PLACED IN THE N.R.C. FREQUENCY CHECK LIST.

JOHN H. SHANNON - 478 East High Street - Kittanning, Pennsylvania - 16201 Hello gang. Long time no Muse here due to a plain lack of time for DXing. Only a couple of hours per week of serious DXing right now. With the new volume starting, a re-intro is due. I have been pXing since 1963, seriously since mid-168. Totals are 1,480 stations, 49 states, nine provinces, and 60 countries. I don't bother with veries. I do tape some of my DX. I use a completely home-designed and built RX w/four FETs, two ICs, and three bipolar transistors. Antenna is a 6-inch ferrite rod w/an FET preamp. DX goals for this season are reaching 1,500 stations by 1/1, and also studying TA propagation with the idea of increasing my total of 50-some TAs to over 100 this season & next. So far TAS have been heard here almost every night since 8/15. Age here is 26, & I am an engineer/newsman/announcer etc. at WPIT-730 in Pittsburgh. All my serious DXing is done in Kittanning. I do listen in Pgh., but don't really keep serious records there. I am a ham w/an Extra Class ticket, K3WWP/WA3IXO, but inactive at present. I don't have my logs with me at present so I can't list recent DX. It's not much, anyway. I owe several members letters. They will be coming when I can find the time. I am extremely pleased to hear the FCC finally took the NYC bootl ggers off the air. I heard one of them here, but I don't count illegal stations in mulist, although I do note reception of them, and sometimes report them to the FCC if they amnoy me enough. Daytime (10am to 2pm local time) DX is a favorite around here w/some 240 logged in those hours. WPIT ran PoP several nights the week of 7/18. Sorry I wasn't notified in advance about it to let the membership know. The CE told me about it the evening of 7/17, hi. We did get a couple of reports on it. How about some Musings from some more Pittsburgh DXers? After all, I finally Mused again. EDR is about the only active member around here

MARC DeLORENZO - 565 Ocean Street - Hyannis, Massachusetts - 02601 (Note new address -Ed.) Greetings one & all. After visiting California, I can well understand why Jo-Jo left his home in Tucson. But it is great to be back in the Land of Salt Marshes, sand dunes, and water paths. In w new location, I have constructed a 450' longwire which runs due N/S & terminates right on the beach. Needless to say, the signals from the S are fantastic. WOBR is now all alone on 1530 (no more WPNO) & 810, which used to belong to WGY. is now dominated by WYRE, Md. Quter Banks Badio, by the way, was on late 9/29-30 w/ coverage of Hurrican Ginger - noted on past 1 both nights. Last week BCK & I journeyed up to Harvard, Mass. where I purchased a used HQ-180 in excellent condition. George drove the 100 miles in about 80 minutes. Anyway, w/a new LW, a new RX, & recently acquired Space Magnet, I'm all set. In between Auroral disturbances, TAs have been pretty good. From 9/24-26, regulars like 719 737 755 764 782 & 818 were audible just prior to local SSS & of course very loud just after. Rome-845 was exceptional during this period around 7:30 EDT w/light c1 mx. Then, during the Aurora of 9/27 when ALL signals from Europe were being absorbed, I noted a few good West Africans: Algeria-548, Morocco-611-935, & a tentative logging of Canary Islands-953 w/YL in SS; brief piano interludes 7:05-7:15 EDT. They were much louder 9/29 @ 7:0807:20 w/c1 mx. Also on 9/29: HCAW2-975 topping TIRS w/ID "Ondas del Pacifico" @ 11:32pm. On yes, back on 9/14, I finally got an ID out of St. Pierre-1375 @ 7:30pm, country #63. Total heard: 1,196.

any more, I muess. The rest of us are too busy to sit around & twirl the dials.

JOHN JOHNSON - 318 Washington Street - Hoboken, New Jersey - 07030

A new FX added here, a Hammarlund SP-600-JX17, military version.

It is quite a set, very sensitive & the selectivity when in the 200-cycle position is really something - sits right ontop of the crystal. I was up MM 10/4 trying it out & had three stations off the BCB coming in @ 1602-1610-1620k. I had three on 640, CMQ Cuba, TGW & a domestic, I believe KFI Cal. The other PM I had 665k coming in 5k away from WNBC-660 using the phasing control, easy to separate. All the above on 8° of wire in vertical position. I would like to hear from some of you fellows who have tried the SP-600-JX17 in comparison with the Collins UR-390 & which they think is best. 73s.

2

RONALD F. SCHATZ - 510 N.E. 158 Street - North Miami Beach, Florida - 33162 Greetings! Your hosts in '72 include myself, Richard Clark, Dave Alpert, Cesar Objio, and we're expecting a few more. So far we're considering an ocean-front hotel in our fair city of North Miami Beach, where LDW rates are under \$10. More on this later. Stand by for a change of address, as I plen to move ewey from this power-line noise. I don't know to where yet, though. A listen to the dial indicates this will definitely be a better DXseason. Speaking of DX and diels, I was looking around for a newRX & discovered that Lafayette and Allied are dropping their communications RXes, including the 4-2515, for lack of a market. The trend in RXes seems tobe moving to portables w/r "non-technical" appearance, like Heathkit's GR-78. The trick is to get a cheed RX w/goodsensitivity an a decent bandspread, then install one of our mech-anical filters. The resultwill be a good challenge to an HQ-180 for a fraction of irs cost. Anyone want to buy a Lafayette HE-30? It's a '64 vintage and contains an MF. It's been my only DX RX for seven years, and it's time for me to move up in the DX World. I will take the best offier. Yes, the ERBA Convention was interesting; we even had a host! My most memorable event was the auction; that was close! It's just as well, as Santa Monica dropped charges. It was interesting to note VOA-1180 on top of the channel while in Denver a few weeks ago; it even wiped out Montana. Sorry to say, I was too busy sightseeing to stop by WWV. which I understand was closed anyway. Did you know that Miami hax four AM, one FM, and two TV stations programming in SS? Habana has moved to Miami! See it all and much more, for it's Miami and U in '72!

Come on Jown - to Miami in 172.

DX under the waving palms - Miami and U in 172.

EVERYONE will be thrown in the pool this time - Miami & U in 172.

Everyone get in the swim- Miami and U in 172.

DAVID GLEASON - Radio Uno, WUNO - Box Q - Hato Rey, Puerto Rico - 00919
Greetings. Isn't it good to know I am still alive? My DXing has been limited of late due to work on a new enterprise, Directorio de Radiodifusoras Latino-americanas, Inc., which is a subsidiary of my IS programming service. More on this later. I am considering the purchase of an SPR4 to complement the R-390 when I move into the new house we ate at present building. I purposely selected the lot in a section where all utility lines are underground, and houses are built of reinforced concrete (guaranteed to deaden the neighbors' pesty TV set before it even leaves his house) and nothing is more than one story high. On top of that, the area is on a hilltop, with no shopping or commercial areas nearby. Welcome to the NRC, Gary Simpson. To all: log the HC splits while they last - new radio law in Ecuador puts everyone on even channels. 73.

CESAR OBJIO - Santo Domingo, Dominican Republic

Hi friends. Just a few lines to make a correction: I have just received issue #32 dated 9/11. In the "Index to Volume 38" the article titled as "Colombian Postal Information" is listed as written by me, this is not the case. The author of this article is Henrik Klematz, a Swedish citizen who lived some years in Colombia. I did not know such information. This correction was not given before as I still haven't received "DX IIII" dated 7/24. See you all.

J. ALEX BOWAB - OI Division - USS Forrestal - FPO - New York - 09501

Items: Sun. 9/26- Local CP, WPMH-1010 Portsmouth, Va. had PoP/OC all afternoon, ID each half hour. Long-delayed RS (CP is about four years old) may be forthcoming. Format will be old standards; four-tower DA throws main lobe E, minor one W. Fri. 10/1- WMBS-740 Williamsburg daytimer stayed on AN this AM for Hurricane Ginger. They used regular format of chicken-rock. This is last Musing from Norfolk - next one from me as a CIVILIAN in Miss. (Congrats, Alex!)

WE ARE NOW ON OUR WESKLY SCHOOLS. WE ASK ALL OF YOU TO CONSIDER MISSIO AND THIS MAKING THIS SECTION THAT MUCH EXTER! INCOMES YOUR DE CATCESS IN YOUR MISSINS, & GIVE DETAILS - STATION, PREQUENCY, DATE, THE, AND PROGRAMMENT - HELP OTHERS!

INTERNATIONAL GORDON NELSON/48/HARD AV WATERTOWN MA COTTO

REPORTEDLY ON THE AIR ...

ALGERIA. A new regional station of the Moroccan radio and TV service recently began transmitting from studios in Agadir (home of 935 kHz); no further details available but they should be heard anytime during the early evening hours if they're on a halfway decent channel. (Editor)

PHILIPPINES. The following Filipino stations are reportedly operating off-channel; some of them might well make it to the West Coast: DXCL on 694, DYHB on 718, DXDV on 1017, DXLM on 1045, DYVM on 1263, and DZCH on 1599. The last station was logged by Wood when he was in Hawaii some years ago if I remember correctly... (ARDXC; Editor)

INDONESIA. The 1334 RRI station, which does not yet exist according to a recent state.nent by an official of RRI, is still being heard in Audtralia; an English language program was recently noted at 1130 and the announcement was "This is Radio Republic Indonesia, Djakarta, Metropolitan Program". Probably too low powered to make it to North America but they might get as far as Truk, BOB BUNDY. (ARDXC; Editor)

CLANDESTINES, PIRATES, AND BOOTLEGS...

Radio Caroline and sister station Channel 70 are not British stations, in spite of the fact that the postal address is 8 Bristol Gate, Kempton, Brighton, England. Both stations are located in Dublin, Ireland. They broadcast after midnight GMT on frequencies between 1320 and 1350 kHz; reception reports have been received from all over the Continent, the majority being fromSweden and Norway, followed by Germany and even Poland. (SCDX) With this much power there's quite a good chance for reception in North America... (Editor)

According to a Dutch newspaper report, Radio Veronica and Radio Nordsee will soon merge and engineers are installing new transmitters on the MEBO II. (SCDX)

PLANS AND RUMORS...

GREAT BRITAIN. The Independent Broadcasting Authority will get 3 channels MW frequencies now used by the BBC in additional to common wave and other channels. (EBU; SDXK)

... convention report continued.

Fred Tankersley, Enon, Ohio... Randy Miltier, San Jose... Randy Seaver. San Diego... Linda Seaver, W. San Diego... Bob Pietch, San Rafael, Calif... Dave Prather, Woodland, Calif... Johnny T. Arthur, San Jose... Frank B. Kennedy, Saratoga. Calif... Ben Veio and son, San Jose.... that's all!



ROBERT FOXWORTH GPO ROX 2III NEW YORK, N.Y. 100001

- All times in IDXD are in GMT. Receptions:
- 555 Nicaragua, YNS (finally) 0234 9/29 good signal, weak modulation, man and (Welcome to IDXD, Carl) YL with Latin songs. (Kocsan, NJ)
- 620 Nicaragua. TRM IDed as Radiodifusora Nacional at 0700 9/19. (Junker, Ohio)
- 6h0 Guadeloupe. Logged 00h6 9/25, very good in French, all alone for 12 minutes when it sank into the channel mix. Cuban was absent: man was giving a lengthy reading. ID at 0059. (Kocsan, NJ)
- ORTF Armonville with records in French & Eng., FF female ancr, 2355 9/18 (RgE) 650 Hawaii, KORL fair 0900 4/10 with ID. "solid gold wx", such originality! (Mauser)
- 650 Dom. Rep. HIAT, Sto. Dgo. R. Universal atop 0022 9/19 w/Latin wx. (Edmunds)
- 655 El Salvador. YSSwith s-9 signals 0330 9/20. (Junker, Ohio)
- 660 unID. Logged 0830 10/4. a LA with wx: clear of QRM but QRNed until WNBC OC
- came on; ID included 2 rising tones on vibraphone. (Hauser, TX) 660 Alaska, KFAR, Fairbanks 0715-0725 9/lli, rock, poor o/u WNBC-talk, (Oldfield)
- 660 Mexico, XERPM 0655 9/15. Spenish, rock, fair; no WNBC or KFAR. (Oldfield, Alta)
- 664.5 Guatemala, TCRT, La Fabulosa in vy well u/WNBC splash, quite readable at 0430 9/29. (Edmunds. NJ)
- @ La Fabulosa noted here 9/20 with local-like signal s-9 + 30. 0330-0400 (Junker) 665 unID. At 0635 10/4. pop wx and talk seemed German, but I would expect Portu-
- gal if anything on this disturbed date. DF was European; very weak. (Mauser) 690 Venesuela, YVMR, R. Barquisimeto hrd o/u Cuban in aurora: Latin mx and fre-
- quent IDs 0030 9/19. (Edwunds)
- 700 Alaska, KEIR, Anchorage poor w/rock 9/12 0800-08h0, AK #12, (Oldfield) (sigh) 710 Mexico. One of the more interesting Mexicans audible here in daytime is XEPQ.
- Músquiz, Coahuila, noted 10/2 at 1911 with CST TC's and ads incl. Alwacen
- Múzquiz S.A. (Hauser, Texas) 719 wnID, 2310 9/26 all in French, Cuban missing, WGN not yet in, WOR splash. A minor het, some fade and pronounced co-channel flutter, or SAH. A variety mx pgm, mostly MoR, IL ancr at 2316, man singing in French 2320, no ID hrd. was covered by WCN around 2340 when latter appeared and gradually gained strength; looping indicated a NE direction. Unless a series of coincidences. this pgm appeared // with 836. Fair signal, high atmos NL. ?? (Kocsan, NJ)
- ** 738.5 Colombia. (note freq-ed) Radio Nacioral de Colombia. good but under-modulated signal in Miami. Not mentioned at 0500 CD. Complete with cl mx. gongs and pips. Frequency and DF lead me to suspect Cali, which was due to appear on 580 kHz. (Schatz, Fla.)
 - 750 Jamaica. JBC. Point Calina hrd with EE mx, ID under WSB 0022 9/19 for country # 65 hrd. (Edmunds, NJ) (putting all the hard ones first, eh Russ? -ed)
 - 764 Senegal. Dakar becoming a regular again. EWas good on 10/4 at 0559, French anmts, 0602 chants; clear of ISKL after latter s/off 0604. Also noted at
 - 0630 10/1 with talk in unID lang. (Hauser, Tx) Venezuela. IVKC Caracas atop channel w/male ancr. nx hrd 9/19 0031. (Edmunds)
 - unID 9/24 2330 to 2400 s/off; no "other" TA yet apparent; good signal with good modulation level, all alone on channel, no intf, looping NE; YL talker and ancr, no mx, no ID hrd, leng was strange to me, somewhat on the slavic but unlike I can recognize by the sound. Reception on this channel is usually Egypt in Arabic, occasionally Andorra in French. (Kocsan, NJ) (Poland?-ed) Spein/umID. Who is the TA that gives the Spaniard fits with cl mx around
 - 2320? Noted 9/11 and 9/21-25-26. (DeLorenzo, Mass) unID 0/22 0532 weak signal, well modulated, slight het, much noise. 2 or 3
 - cps SAN, man with lengthy talk, wx 053h, speech was not German, French. Port, SS or Italian - perhaps some slavic strain? (Kocsan) (Bulgaria? -ed)
 Hawaii. KIKI 0005 9/13 poor, Japanese play u/WCCO. Later, Religion in Eng.
 Had no Hawaiians atall or 0712 or 11. (Oldfield, Alberta)

- 830 Dominican Rep. HIJB, Sto. Dgo was very strong from 0116-0138 9/27. They ID with their call letters. Hard-sell pgmg. Local TCs were GMT - 12. (Rugg. PQ)
- 836 France, Nancy 2331 9/26 with bad sideband splash, very pronounced SAH, s-8 with low modulation and appeared / 719. (Kocsan, NJ)
- 8h0 St. Lucia 2320 9/29 all alone with exc signal, all French, YL talk was lengthy, male singer, no -hourly ID, chamber mx at 23hh, buried in channel mix by 2350. (Kocsan. NJ)
- Castries had atop channel, way over HJBI with French andr and mx. in aurora 9/18 2320. (Edmunds, NJ)
- Mill Gilbert and Ellice I. Tarawa had best het vet 0825 9/13; my most sought Pacific. (Oldfield, Alta.)
- 115 Italy, Rome was tremendous during 9-2h thru 9/26 TA opening with light of mx and was best around 2310-2345. (DeLorenzo, Mass)
- Min Hawaii. KAIM poor 0800 9/13 with ID and religion. No WWL or Cuba. There are few IDs on KAIM when religious pass are on. Touch if fades out at ID.. (Oldf'd)
- 1770 (listed here as this is the expected freq-ed) The Colombian intendency of "Las Islas de San Andrés y Providencia" which qualifies as a senarate DX country, is generally known in Colombia simply as "Las Islas" and the Englishspraking inhabitants are called "islenos". Obviously the name of the country should be referred to by us as ISIAS rather than SAN ANDRES. Note that mail to the place is addressed: "San Andres, Islas". (Schatz, Fla.) ("his way be true for mail from Colombia. but the US most offices would likely be mystified unless the letter were suffixed "Colombia". Inaddition, if this were a precedent, would we not log Germans as "Deutschland" for that is how Germans refer to their land -ed.)
- 175 Costa Rica, Radio Columbia, Liberia in well under WCBS slop (what?-ed) 0345 9/27 in aftermath of a "minor geomagnetic storm". (Edmunds)
- Dom. Rep. HIPJ Santo Domingo. R. Continental hrd with Latin mx and anmts with slogan by male ancr after nearly every record in aurora 2340 9/18, was 10 over s-9. (Edminds) (been adjusting your fullscale set on your S-mtr again?-ed)
- Fig. Alaska, AFRTS Adak Island 0715-0745 9/14 over WLS but poor. No positive ID but was carrying AFRS pgms, soul mx. Also Spanish below, at times. #13(Oldf'd)
- Alaska, KFRB Fairbanks 08h5-0900 9/27 poor under CJVI-OC: concert wx. (Oldf'd) Mexico, During a fantastic Mexico opening, had XEW like a local 9/19. We had
- about a 70% domestic stn blackout 0300-0700. XEW is normally hrd poor under CJVI and CKBI. (Oldfield, Edmonton Alta)
- 900 Barbados. This one finally had with jazz instra, then ID in aurora 9/19 at 0050-0100. (Edmunds)
- ** 915 Guatemala. Radio Emperador. TGKL is now here. Unually runs late, and sometimes AN. (Schatz)
 - @ This one, too weak to ID, here 0353 9/27 looping 2150 or so, Page Taylor hrd ID as TGKL, believed to be in Quetzaltenango, (Edmunds)
 - @ TCKL, nominally 910, is here, 9/22 at 0959, IDs as Radio Emidor and La Empidor ; mx, 1002 full ID break plugging 150th independence anniv; jingle for "Custro de la madrugada" then pem "risas y sonrisas de la Emperador". (Mauser, TX)
- ## 918.5 Colombia, Cartagena, Bol., "Emisoras Fuentes", The correct callsign, as piven at s/off. is HJAF. Most logs are listing it as HJAE which is incorrect. (Schatz, Fla) (Interesting - I remember this controversy from a decade ago-ed)
 - 940 Venezuela. Radio Punto Fijo, YVNN ID atop channel 0110 9/19. Latin wx. (Edmunds)
 - 953 Canary Is. (tentative). TA looping just north of Due East assumed to be this. Had YL in Spanish with brief piano interludes between anmts 2305-2315, man at 2315, then fade to 2330 when came back up with easy listening mx. This was during aurora of 9/27 when the only audible TAs were West Africans. (DeLorenzo)
 - 995 Ecuador, Radio Suceso ir well in minor aurora 03h0 9/27 with LA mx. (Edmunds) 103h umIDs. 0502 9/22. looped 50°, bad SB splash from WHN, fair signal with SAF
 - thru LVEH OC: man speaking in unID lang: at 0503 girl hrd to say "good evening" folo by speech in Eng, gradually feding out to be replaced by another

10:0 Colombia. R. Tropical at 0725 after WHO s/off 9/19. (Junker, 0.)

R. Tropical 9/26 0850 mx, IDs, "vamos adelante con la música para este nuevo día". (Hauser, Texas)

** 1059.4 Cuba. CMKG, R. Revolución, Baracca is the sole cause of the loud het here evenings. A move from announced 1070 kHz. (Schatz, Fla.)

1060 Mexico. La Rora Nacional hrd here 10/h at 0452, soon lost to QRM.
Only stn listed is R. Gobernacion, sometimes appearing as inactive. VJ
lists new call of XESED. (Hauser)

1070 Venezuela. TVMA, Radio Zulia, Maracaibo, IDed 0156 9/27 after lengthy in-and-out reception. (Rugg, Que.)

1075 Costa Rica. Faro del Caribe, TIFC in Eng with news, religion, then a clear ID @50-0305 9/28. (Edmunds)

1088 Albania. Excint 0311 9/25, no RI from WHAL, unid lang, man with news or commentary. (Kocsan, NJ)

1100 Antigua. ZDK, St. John's dominated the freq with s/off and anthem at 0200 0200 9/27. (Rugg, P.Q.)

@ ZDK logged with religion, atop channel after WLBB s/off for new country 2335 9/18. (Edmunds) (Edmunds, 120 item

1120 Venezuela. IVMF Maracaibo atop channel way over KMOX OILO 9/19, aurora. 1115 Honduras. HRON, L.V. del Pacifico. Puerto Cortes with mx. nice ID and

taped news at 0335 9/28 under WRVA splash. (Fdmunds)
1155 El Salvador. YSCF, Ondas Orientales. La Union in extremely well with

taped slow call-letter and slower ID 0230 9/28. (Edmunds)

** 1170 Colombia. HJOK, Maicao (pronounce "my-cow"-rfs), Guajira, "Radio Penin-sula" here ex-1350. Must be running 5 or 10 km. (Schatz)

1180 Dom. Rep. MIBE, Radio Mil, Santo Domingo IDed thru WHAM at 0001 9/27 and faded right after. I had been hearing this one consistently since 1962 and this is the first ID cotten. That's a beginning. (Rugg) @ Radio Mil in well after WHAM s/off 0705 9/19. (Junker)

1200 Venezuela. R. Tiempo, Caracas with pgm of local pops on 9/22 at 0025.

ID at times seemed to be Radio Punto. Could Objio check this? (Alster, NJ)

1295 Sint Maarten, PJD2 hrd 2300-2320 9/15, relig, Fng, asking letters. (Alster)

1325 Maiti. Radio Maiti, hVW, Port-au-Prince had a very good signal from 0006 to 0113 9/27. Cyclical fading from time to time but reception was by far the best I have ever hrd them. Occasional "Radio Haiti" IDs amidst the French pgmg. (Rugg, P.Q.)

1325 Costa Rica/Aruba. TJRG, Radio Columbia Canal 3 in atom all else 10 over s=9 with light Latin mx 0212 9/28, then PJA10 took over with organ mx 0330-0355 abrupt carrier cut with no IDs, etc. Loop, format, s/off all fit Aruba. (Edmunds)

**135 Colombia. Em. Rio-Mar is now 1335 appx, ex-1137. Ohlo 9/29. (Edmunds)

**136 Mawaii. KTOM, Lihue with some KRLC to OR59 s/off 9/13; poor for them,
about s-5. Still well enough to make it to Boston....(Oldfield)

Albania. Tirana 2303-2329 9/14 with man and woman alternating items in Spanish until s/off with "Internationale". (Alster, NJ)

Mawaii, KCCN Honolulu over KTOE AN 9/13 0915-0915, fair, Still "all Hawaiian music" and Eng. ads. 11/25 het is only real QRM here. (Oldfield)

Greenland. AFRTS Thule AFR 000h 0/27. Thule wx was lh above, high 25 and low 10 above. No wind. Into AFRS soul-wx at 0000 (taped show) and no local ID at 000. Had good signal but fades of 30 or 40 sec every 10 minutes. My first good tape, altho QSLed in 1960. (Oldfield)

minutes. My lirst 2000 tape, also constant with ad for "Qué pasa, pussycat?" Mexico. Radio Ele Zeta, XELZ OShi 10/4 with ad for "Qué pasa, pussycat?" on canal IZ 13, TCs, ID as "La Reina de la Música Ranchera", "Radio Ele Zeta, la música de peque". (Hauser)

Lets, is musica de peque . The College of the CST, freq't Mexico. XFIC, Ci. Juarez, Chih. 100 0318 pop mx, IDs, TCs in CST, freq't anmts "gracias por estarnos escuchando" 0600 ad in pesos and dolares, (ctd.)

lli60 (ctd) Consejo Nacional de la Publicidad PSA. Finally decided slogan was R. Ysela (the first name of the owner per FBIS). But at 0555 pave different "La Voz de ---" slogan and, for the first time, call letters. Being about 100 Hz on low side helped separate from QRM. (Hauser)

1166 Monte Carlo. Frequent at 0330 with OC or TT and s/on 0315 with religious Transworld ppm in Fng and s/on is with a few musical tones and a here is

Monte Carlo" in English. (Kocsan, NJ)

1470 Mexico. XESM a powerhouse in XE opening 9/19 with no sign of regulars KSEM, KELA and CFRW, (Oldfield)

1h00 Mexico. Something strange here. At 0620 10/2 an automated stn, with Radio Alegria jingles and the same ads after every selection, TCs, finally at 0702 s/off rave call as XENV and free as 13h0, in Monterrey. Trouble is, XETKR is listed on this (1h00) free for there. (Glenn Hauser)

llikkx unID. spur with much hash, occasional Spanish audio from one or more stns. Probably Mexican. 0530 10/4. (Hauser)

1h87 Costa Rica. TICA, Puntarenas is now here from 1h89 last season and naturally, much easier to senarate. Hrd 0350 9/28. (Edmunds)

1500 Mexico, XERH toppled KSTP during Mexican opening 9/19. Was dashing back and forth on the hour catching many IDs. XERH pave complete calls and slogan. (Oldfield)

** 1538 Guatemala. TGRF, Radio Faro Aviática, Guatemala 10/2 0613 Radio Faro ID in passing, marimba mx. Nomilal 1540. (Hauser)

1538 West Germany. Cologne atop channel despite Geomag. disturtance 030 9/27.

1554 France. Fair 0500-0600 9/20, Is folo by French vocal. First TA. (Junker)

1560 Mexico, XEVIP, Mexico DF 9/22 0306, CBS News ending, ID as VIP Radio, ad for Happy's Pizza at 511-9406, IGM-type MCR mx. Donet tell anybody but it was an s-unit stronger than XERF. (Hauser)

Radio VIP poor to fair, all-English, no Mexican hour had on this one, why? Finally, a new Mexican for me. Had Feg. Lee, Engelbert, etc. (Oldfield)

That's all for receptions. Sorry for the numerous typos this week. This is being done at work, unfortunately on a blurry typewriter, no white-out fluid here.

Odds and ends, now that a civilized mill is at hand....

*I have a number of loggings of beacons and harmonics between 1600 and the 3000 range, if anyone thinks we should carry such material (we ordinarily have made it a point to cover BCB only in DX News) let us know. Anyone desiring these out of band tips, let your Editor know and I will send a copy of them to you. but don't think we can run them here unless there is sentiment for a change. We DO carry longwave BROADCAST items, from time to time. No beacons, though. *Early indications are that this will be the best season I've seen since 1964-1965. It has a very good LA content which reminds me of 1963-64. (Andy Rugg) *Cuban freq info (changes to list) CMKD-1211.3, CMJD-1302.3, CMJS-1331.1 (RFS) *Percy Kesteven had 2YC-660 Labor Day Weekend. I was out of town. We got some TA/s on 9/20, we are still re-running tapes. Will report dates and times. WDR on 1586 came thru, also 1214, 1196 and 881. (Oldfield, Alberta, Canada.) *Congrats to Bill Brubaker joining powerhouse WGBS as sports reporter! (Eye spy) *Welcome to new IDXD reporter Carl Junker, Dayton Ohio. Let's have more reports. *Marc DeLorenzo is now using a HQ-180 and Space Magnet and is pleased with both. He says, "This year has started out just like last-schizophrenic: Good TAs for awhile, then-boom-aurora.

*Ron Schatz has a Panoramic Adapter available for \$15 (Canadian currency). Write him for details, including the name of the ignoble vendor of the merchandise, hi. Hope this section is readable. Especially the words and letters, hi. See youall.



THE CARE AND FEEDING OF THE WAVE ANTENNA

or

GOOD BEVERAGES DON'T ALWAYS COME IN CANS !

-Jerry Starr WHOT Radio

In recent years there has been increased interest in the Beverage or "wave" antenna for BCB DXing. There can be no doubt this antenna is a unique DXing tool that will usually outperform other designs. Being the proud owner of a 1400 foot Beverage I'd like to pass along my observations without getting too technical, such aspects have been previously covered in DXN articles on Beverage theory.

The most obvious difference you will find is the fantastic gain, in my case from 4 to 6 S-units higher than a good loop. With many locals on the air it is not uncommon to measure several VOLTS at the termination point. This can, however, cause some headaches. I have noticed a great deal of receiver overloading on frequencies adjacent to locals. If you construct a Beverage you can expect some overload images. Although I use a Hammarlund HQ180A receiver with excellent image rejection it seems unable to cope with the brute force of RF energy from locals. Example: My nearest local is WFAR-1470 and using the Beverage I get WFAR on 1460 and 1480. It seems nothing will eliminate this aside from attenuation of the signal before feeding the receiver. During rainy weather the problem becomes more severe with other more distant locals causing images also. Une quite interesting aspect of this high gain is that harmonic DX becomes practical. I can hear 2nd and 3rd harmonics from all 14 locals, many times with an S-6. Although I haven't gone looking for any real DX on harmonics, there are many weak carriers which could prove interesting.

Another interesting effect is that the difference in gain between a loop and Beverage seems to become greater the more distant the station. While the difference between the two antennas is about two units on locals differences on distant DX-type stations are as much as six units.

My Beverage is not resistance-terminated at the far end so it is bi-directional, running due North-South. The fabled directional effects are pronounced. Example: As I write this at 0300 with the RF Gain adjusted to show S-9 with the loop peaked on WHO-1040, the Beverage is delivering only S-5. Going the other way WBT-1110 is 20 over 9 when the loop provides S-9. Even one local, WTCL-1570, which is at an exact right angle to the wire, is quite a bit weaker on the Beverage. I usually hear WYTI-1570 right through WTCL on the Beverage while WTCL is good and strong on the loop.

This coming DX season should yield some interesting results, I'll especially be hoping for some rare deep SA stuff.

On the practical side of Beverage construction, here are a few tips. First, PLAN the antenna. It's quite a temptation to buy a few thousand feet of wire and just string it up, but a few minutes spent planning your erection are well worth it. Be sure you get sufficiently strong wire. Usually the smaller the wire the cheaper. Don't try to save a few dollars with smaller wire. especially if it must hang in long spans. If you have some method of supporting the antenna every ten feet or so wire size is unimportant but that seems a bit impractical. The best choice is copper-clad or Copperweld wire. This wire has a core of steel which has much higher resistance to stretching and breaking than solid copper, and is coated with copper so the RF efficiency is equivilent to solid copper due to the "skin effect". I'm using #14 Copperweld and have to repair only two breaks after a severe storm. Solid wire is a better choice that stranded.

Supporting the Beverage seems to be the knottiest problem. It's impossible to just hang out a thousand feet of wire unless you got a good deal on suspension bridge cable. You should strive for supports at least every fifty feet. In my case I am fortunate in having a large stand of trees to the south of my home and have simply hung the wire from tree to tree with nail insulators, fastening it to every tree that falls on the north-south line. Be sure the wire is fastened securly at every support point. But if you use the tree method, allow sufficient droop in each span to compensate for the trees swaying and bending in a strong wind. If the spans are pulled too tight the wire will likely snap, as I found out the hard way.

Although the distance above ground is not critical with the Beverage you should try to get it as high as possible. Using trees, there is no reason why your wire can't be 10 to 15 feet above ground at all points. The reason for this is quite simple. If the wire is 3 or 4 feet off the ground and somebody should walk, run, ride a bicycle, motorbike or snowmobile across your property, the wire is very hard to see and could result in injury, lawsuits, etc. Anyone who has run into a clothesline knows what I mean. If you must hang the wire close to the ground, tear up ribbons of red and white cloth and tie these to the wire every five feet. This will make the wire visible winter and summer and could save a lot of grief later on. The time it takes is well worth it.

If the antenna is strung where you can't see the entire length, it's a good idea to walk it's length periodically to make certain it hasn't sagged dangerously low or broken and become a trip-wire for some unsuspecting hiker or biker.

One more point is lightning protection. The longer the wire, the more likely it will be struck. If you hang it in trees the chances are even greater. Even if the antenna isn't hit directly, nearby strikes can induce voltages that could wipe out your receiver internals. A lightning arrestor or antenna switch offer little protection with the Beverage. the most positive method of preventing damage and/or fire is complete disconnection from the receiver. I feel my method is as safe as any. The downlead is coaxial cable with a PL-259 connector. When not using the Beverage I disconnect the cable, roll it up and hang it on a hook on the first supporting tree. Getting the cable outside makes certain lightning surges won't even get into the house. It only takes a minute to bring the cable into the house if I'm going to DX. Don't go away and forgetfully leave the Beverage connected!

The Beverage can be a real boon to your DXing, even the graveyard frequencies yield some real DX catches and foreign DX takes on a whole new flavor. Not all DXers will have the space to put one up but if you're one that does, my advice is......DO IT !

* * * * * * * * * * * * * * * * * * * *



The Florida Beverage *Jerry Conrad

This article does not intend to go deeply into the theoretical nature of the Beverage Wave antenna, rather it will give the results of the antenna constructed in Haines City, Florida and used from October 23 through December 28, 1970. It should give the reader an insight to the workings of this antenna and. also. what might reasonably be expected under similar conditions.

First, a bit about the construction used: the antenna as originally built was 1000 feet long and between 3 and 4 feet above the ground. It was located on a sand ridge in the middle of an orange grove. Later, another 250 feet was added so that it could be terminated in a drainage ditch connecting two nearby lakes. The sand ridge was a minimum of 150 feet deep in the immediate area and much deeper in places. This factor may have had much to do with the success of the antenna. The ground conductivity on this ridge was extremely poor, and nearly nonexistant in dry weather. The termination in the drainage ditch was into an 8 foot ground rod driven into the bottom of the ditch which was very soggy. During the wet season this ditch contains up to 6 feet of water. The termination impedance used was a 330 ohm carbon resistor. This was chosen as just a trial resistor but it worked. Due to the short time the antenna was used, this was the only termination used. Using a carbon potentiometer of. say, 1000 ohms, variable, might give considerable improvement in the performance of the antenna. Hopefully, the pot will be incorporated into the next version of the antenna.

The actual construction time was only 2-3 hours. I used 1"x1" wood 4 feet long hammered into the ground and used line of sight to put the 16 posts in a straight line. The wire was 1000 feet of #16 rubber insulated stranded wire, fixed to the posts by TV stand-off lead-in insulators. Since most of the force of the weight and tension of the wire was directed straight down, no guying of the posts was neccessary. In fact, they were more rigid after the wire was strung than before. I used about 20 feet of RG-174/U as lead-in with the shield well grounded. All of these components were chosen on the basis of availability and others may be used as well. I finished it just at local sunset, and the first station I heard on the antenna was KGTN-1530 in Georgetown. Texas with no sign of normally dominant WCKY. This was to be the pattern for the entire time the antenna was used. A station to the west would dominate over stations normally heard to the north or south. Fortunately, only a very few stations were located to the east. in the Cocoa-Melbourne area, so stations from the west could dominate even without the antenna termination.

Later that same evening, one particular reception condition attracted my attention, the absence of Cubans. Anyone who has ever DXed from Florida knows all too well what these incredible pests do to DXing here. 630 was now dominated by KXOK St. Louis and KHOW Denver with KHOW a bit stronger most of the time. With the main lobe of the antenna almost directly west and about 60° wide, this would be expected since St.Louis (KXOK) is about 50° north of west locally and Denver about 30' north of west. The Cuban was a weak third most of the time. Before, the Cuban was always dominant and KXOK had only been heard under them a few

times. For the first time, KFI could be heard almost nightly. Some of the more unexpected stations that were heard with regularity were KLEI-1130, Kailua, Hawaii, KWOW-1600, Pomona, Calif., KUMU-1500, Honolulu, and KHOW-630, Denver. These were all heard nightly under all but the most severe DX conditions. None had ever been heard on the loop or the 100 foot longwire before.

Other Hawaiian stations heard were KIKI, KPOI, KPUA and KZOO. KORL, the most common Hawaiian heard on the East Coast was audible once even with WSM on regular schedule. It was always audible on Monday mornings but often with considerable static. The most spectacular catch came on November 2, when 4QD-1550, Emerald, Australia was taped from 0430 to past 0500 local time, even with CBE on after 0458. The signal was strong, with a severe het from a Cuban on 1549.6 and splatter from ZNS-1540, Nassau, Bahamas. VSZ1, Tarawa, G&E Islands was a regular but always very weak. It was never as strong as I had expected, but was always there with some audio. The most unusual reception occurred November 1, when WNEW-N.Y., KSDO-San Diego, CKWX-Vancouver, and KLEI-Hawaii were all taped with clear IDs on 1130 kHz. within 5 minutes. Of the four, only WNEW has ever been heard in Florida with anything but the Beverage Wave.

The directionality of the antenna was obvious from the first. The orientation of the antenna was 270°, and the two major lobes were about 60°wide along the axis of the antenna, i.e. east and west. The east lobe was a bit difficult to observe since all stations to the east were within 70 miles or in excess of 5000 miles, in Southern Europe and Northern Africa. The west lobe was a spectacular thing to hear. The several visitors to the antenna all made the same comment, it was as if the location was 600 to 800 miles to the west of Florida. This was particularly true late at night when low powered Mexicans dominated even the graveyard channels.

In an attempt to determine the directional characteristics of the antenna, I also erected a 38 foot vertical antenna to give me a relatively nondirectional antenna as a reference. The first thing I noticed was that the Beverage had to be grounded when the vertical was used, for the Beverage antenna radiated such a strong field that it dominated the vertical otherwise. When this was done. the effects of the Beverage were really spectacular. The following two tables were made in the middle of the day. The readings were taken from the Collins R-390-A and the meter was calibrated from O to 100 dB with the AGC active (the AGC certainly affected particularly the strong readings). In each case, I have noted the general direction of the station from Haines City. The first table is for a 1000 foot wire with no end termination, the second for a 1250 foot wire terminated into a 330 ohm resistor to an eight foot ground rod. The reason for the increased signals in the second table was the replacement of the first RF tube in the receiver which had weakened with age. However, the increases seem to follow the AGC curve, so, for the sake of argument, I have assumed that both the vertical and the Beverage signals behaved the same within the receiver. If interested, you can look up the exact locations of the stations involved. The thing to notice in the second table is what happens to stations to the east which were somewhat grounded by the termination.

NOTE: Due to space limitations, $\ensuremath{\mathsf{HQ}}$ is incorporating both charts into one.

NOTE: In columns 3, 4 and 5, subheading A represents the information in Conrad's first chart, subhead B, Conrad's second chart. All information in these columns are measurements in dB.

INOTIOD III dip							
STATION-FREQ.	VERT	ICAL	BEVE	ERAGE	DIFFE	RENCE	_DIRECTION
	A	В	A	В	A	В	
WILZ-1590	14	39	28	56	14	17	₩S₩
WTWB-1570	52	68	64	77	12	9	W
WTAI-1560	22	45	34	45	12	0	E
WYOU-1550	26	47	40	65	14	18	₩S₩
WGNP-1520	13	35	30	58	17	23	WSW
WWBC-1510	2	28	17	\KPBC\	15		E
					minant	at 356	
₩GUL-1500	1/2	52 52	14	45	13 }	44 2	W
WSIR-1490	38	52	46	64	8	12	SSW
WVCF-1480	20	49	21	51	1	2	NE
WCWR-1470	16	33	34	62	18	29	WSW
WBAR-1460	29	54	39	61	10	7	SW
WABR-1440	26	50	29	46	3	-4	NE
WLAK-1430	43	60	60	72	17	12	₩S₩
WZST-1410	20	49	. 5	40	-15	-9	N
WPAS-1400	. 22	48	40	63	18	15	wn ₩
WAPR-1390	14	45	8	41	-6	-4	S
WLCY-1380	25	50	46	69	21	19 1	₩S₩ S
WINT-1360	45	68	34	69	-11	18	₩ N ₩
WDCF-1350	18	43	32	61	14 20	16	₩SW
WWAB-1330	30	55	50	71	24	10	E E
WRKT-1300	6	4 2	30	WSOL	minant	2+ 54	aB(₩SW)
WIPC-1280	34	63	31	61	<u>-3</u>	-2	S
WORJ-1270	22	55	1	55	-21	Õ	NE
WDAE-1250	20	42	39	68	19	24	WSW
WONN-1230	32	58	51	72	19	14	WSW
WACY-1220	26	59	42	60	16	1	ENE
WAVS-1190	22	35	22	38	Ö	3	SE
WTMP-1150	29	43	48	70	19	3 27	WSW
WPUL-1130	37	62	47	6ž	10	0	S₩
	_	ALCOHOL: NA	منفد	CONTROL OF		or the latest to	

In theory, if the termination impedance matches the impedance of the wire, the lobe opposite the direction is pointing from the receiver should disappear completely. This is under ideal conditions, though, and even the effects of this crude termination shows the effects rather well. It also seemed to narrow the main lobe to the west a bit, though that cannot be verified with only this information. All of the stations listed with the exceptions of WAVS and KPBC were located within 90 miles of Haines City, mostly in the metropolitan Orlando, Tampa-St. Petersburg, and Cocca-Melbourne areas. Varying the terminal impedance with a carbon potentiometer would probably have made a great deal more difference in many cases.

I hope this has whetted enough appetites so that those who have or can obtain the land to erect a beverage will do so. A lot more can be done than was in the short two months the beverage was up in Haines City. I will be glad to answer any questions anyone may have about the antenna I used. I would also like very much to correspond with anyone who decides to build one, to compare results, and to learn of possible improvements for the next one I put up. --- JERRY K. CONRAD, BOX 691, ORLANDO, FLA. 32802

RADIO DIRECTION FINDING: A Practical Approach on the BCB With An Algorithm
For Manual or Computer Evaluation.

C -- de Fish, Ph.Dx

The BCB presents DXers with numerous opportunities to pinpoint distant transmitters by using loop antennas to take local azimuth bearings of such stations when the signal is placed in the loop pattern null. In general, to uniquely pinpoint a distant station requires observations (bearings taken with a loop antenna) from three distinct points on the Earth's surface not lying on a common great circle path. However, on the BCB. considering propagation conditions and other factors, the number of observations in practice can be reduced to two. For example, if a Midwestern DXer takes a bearing on a station and obtains a reading of 135 degrees (or 315 degrees since the loop is assumed ambiguous and thus symmetrical in pattern response) and an Fastern DXer takes a bearing on the same station and finds the angle to be 175 degrees (or 355 degrees), then the signal is more likely to be coming from the Carribean area (determined by the bearings of 135 and 175 degrees) for the other location of the station is in the Indian Ocean several hundred miles southwest of Perth, Australia and there appears to be nothing but water in that vicinity. But the deduction is based upon a more significant fact, viz.. that one can most likely discount signals from that distance in most (but not all!) cases.

Accuracy of bearing is of the greatest importance and here lies the essential difficulty for the BCB DXer. Bearings taken with most loop antennas are subject to errors and limited in accuracy by null width and the compass used (on the loop) to read the bearing. Accuracy required in the azimuth bearing is most dependent upon the distance between the transmitter and the DXer's receivers and the separation between the DXer locations. As a rule of thumb bearings must be accurate to within one degree or less to locate with reasonable accuracy stations more distant than 500 miles. Such accuracy is asking a great deal of a loop antenna! Accuracy to within one degree is the best that can be expected from a given collection of DXers using loop antennas whose patterns are not skewed or rotated -- i.e., patterns whose nulls appear at right angles to the loop plane and are symmetrical in their response. However, it is more likely that most loops have some null skewing due to numerous causes (these causes have been and continue to be discussed at length by the DXing fraternity) so that accuracy of bearing is not sufficient, in general, to allow a single pair of DXers to accurately pinpoint a distant station. This difficulty can only be overcome by the efforts of more than two DXers working together and then calculating from among all possible pairs of these DXers the distance from each DXer to the distant station. With this concerted effort and the information it gives, an area on the Earth's surface can be isolated in which the station can be correctly assumed therein. The geographical distribution of these DXers is significant (i.e., the distance between any pair of DXers) since the more widely separated they are, the more likely the results will be accurate.

To allow the reading of azimuth bearings with a loop antenna, perhaps the simplest and most convenient way to accomplish this si to add a compass (0 - 360 degrees) at the base of the vertical mast holding the loop. Drilling a hole near the bottom end of the vertical mast just above the compass face, will allow a pointer to be inserted in the mast for reading the bearing off the compass. The pointer is most conveniently set in the mast somewhat perpendicular to the loop plane. The compass should be made with great care and should be of sufficient diameter (12" minimum) to allow marks to indicate each degree from 0 thru 359 (clockwise) and

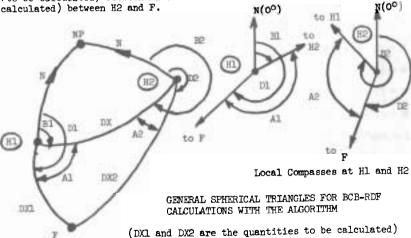
the poniter should be very rigid and not "thicker" than the markings used to show degrees on the compass.

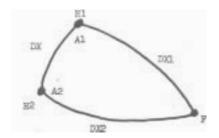
25

A few suggestions on setting up ("calibrating") such a loop: It is not likely that the pointer is exactly perpendicular to the loop plane and even if it were, null skewing will "rotate" the plane again. Also, to use a magnetic compass to line up 0° (on the loop compass) with the North Pole (True North) will not suffice. The only effective way to approach the degree of accuracy desired is to calibrate the azimuth bearings of all your local stations and numerous semi-locals (it is assumed that the correct bearings of these stations are known--See Footnote) by rotating the base compass so that when the null is placed on the known station at the known bearing, the pointer indicates the correct angle on the loop compass. Not all stations will "line up", but by knowing bearings of numerous stations throughout the BCB, re-calibration can be made at various frequencies across the BCB.

Consider now the algorithm that can be used to calculate the distance from each DXer to the distant station. This algorithm is designed to allow only the use of the Sine and Cosine trigonometric functions and is derived from the fundamental identities of the general spherical triangle. (Another approach which offers some advantages but involves additional trigonometric functions can easily be derived from Napier's Analogies) Thus, let F be the far or distant station to be located. HI denote the location of one DXer and H2 denote the location of the second DXer. The great circle distance between H1 and H2 will be denoted by DX. The great circle bearing (azimuth angle) of H2 as measured at H1 will be denoted by B1 and, similarly, the great circle bearing (azimuth angle) of H1 as measured at H2 will be denoted by B2. It is assumed that B1.B2 and DX are known quantitiessee Footnote). For the record, azimuth bearings are taken with the following conventions: 0°=True North, 90°= East. 180°= South. 270°= West and 360° is equivalent to 0°. Thus, azimuth angles are measured clockwise from True North.

Let DI denote the bearing (indegrees) of F as measured at H1; D2 denote the bearing (in degrees) of F as measured at H2; DX1 denote the distance (to be calculated) between H1 and F and DX2 denote the distance (to be





ALGORITHM FOR DISTANCE CALCULATION IN BCB DIRECTION FINDING

Angles Al and A2 of spherical triangle H1,H2,F are calculated from the pairs of bearings (B1,D1) and (B2,D2) respectively. Choose H1 so that A1 is the larger of the vertex angles at H1 and H2.

Location HL=	
Location H2 =	
Al = degrees	degrees DX = miles
D = DX/69.052 = degrees	
E = 90 - A1 =degrees	
sin(A1) =	sin(A2) =
sin(D) =	sin(E) =
sin(F) =	sin(G) =
$X = (\sin(Al))(\sin(A2))(\sin(G)) - (\sin(A2))$	
$Y = cos^{-1}(X) = Arccos(X) = $	
$T = (\sin(D))/(\sin(Y)) = \underline{\hspace{1cm}}$	
W = (T)(sin(Al)) =	
V = (T)(sin(A2)) =	
$R = \sin^{-1}(V) = Arcsin(V) = $	
$P = \sin^{-1}(W) = Arcsin(W) = $	
//\/-\	statute miles
DX2 = (69.052)(P) =	statute miles

For those acquainted with FFORTRAN IV, the following is a self-explianatory program constituting the algorithm just presented.

```
// FTC NAME = BCBDXDF
      WRITE(3,532)
      LINES = 0
      1 = 3956,665
      V = 3.14159265/180.0
118 HEAD(1,819,END = 593) H1,H2,DX,F,A1,A2
      XR = ARCOS((SIN(V*A1)*SIN(V*A2)*COS(D/R))=(COS(V*A1)*COS(V*A2))
      DXL = R*ARSIN((SIN(V*A2)*SIN(D/R))/SIN(XR)
      DXR = R*ARSIN((SIN(V*A1)*SIN(D/R))/SIN(SR))
      WRITE(3,431) H1,F,A1,DX1
      WRITE(3,448) H2,F,A2,DX2
     LINES = LINES + 1
      IF(LINES.GT.17) GO TO 997
      GO TO 318
997 LINES = 0
      WRITE(3,532)
      GO TO 318
      STOP 865
     FORMAT('1'
     FORMAT(A4,2X,A4,2X,F9.2,2X,A4,F7.2,2X,F7.2)
431 POMMAT('0', 31X, 'HOME', 3X, A4, 7X, 'FAE', 3X, A4, 7X, 'ANGLE', 3X, FT.2, 7X,
     6'MILEAGE', 3X, F9.2)
    FORMAT(' ', 31X, 'HOME', 3X, AA, 7X, 'FAR', 3X, AA, 7X, 'ANGLE', 3X, FT.2, TX,
     6'HILEAGE', 3X, 19.2)
      HWD:
```

Forthe reader wishing to "practice" a few calculations, the following table

is self-explainatory: 1005 A3 461.06 67 1112.48 1285.46 41 244.0 131 45 244.0 2187.11 2353.65 131 4806.42 244.0 4635.36 45 134 244.0 6132.95 6132.75 135 45

FOOTNOTE: There are several articles relating to the calculation of great circle bearings and distances between given points on the Earth's surface. For a compansion paper and complete development of these calculations please reference: (NRC Monographs)

ON THE DERIVATION OF THOSE SPHERICAL TRIGONOMETRIC RELATIONSHIPS
REQUIRED FOR THE COMPUTATION OF GREAT CIRCLE DISTANCES (GCD) AND GREAT
CIRCLE BEARINGS (GCB) WITH SEVERAL ALGORITHMS WRITTEN IN FFORTRAN IV
FOR EXECUTION ON A DIGITAL COMPUTER --de Fish, Ph.Dx

Complementary articles recommended for reading and study--(NRC Reprints)
HIGH PRECISION DIRECTION FINDING ON THE BCB, Parts I & II

-- G.P. Nelson
LOOP DISTORTION-WHY GET SKEWED -- G.P. Nelson
PATTERN CONTROLLED LOOPS, Parts I & II --G.P. Nelson



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Greetings, once again. First off, announcements: Henceforth, John Lombardo. 23 Grove Terr., Irvington, N.J. 07111, will be compiling all updaters from now on. Anyone who is in the habit of sending groups of updater-only info. (whom we thank for same: Dave Lewis, Kewin Slater, et al.) should send same to John. Items which come in with r/c or regular DDXD info, I'll separate and send on. We'll also not run the updater 'til next issue for that reason and because I've not had time to do it.

new checks: 3rd Sat. 0500-20, WDDY-1420 (Starr, Sept.) 3rd Wed. 0200-15, KVW0-1370 (Sherman, June)

checks hrd: 1st MM: WRMG-1430, KDIM-1340, WPLB-1380, KVOX-1280, KGHL-790, KBUN-1450; 1st Wi: WGRA-790; 2nd MM: KXRA-1490; 4thMM: WTON-1240, WCVS-1450, WXCL-1350; 3rd SU: WLET-1420; all Sept.; and 1st FM: WTTM-920, Oct.

new check: (re-list) 4th MM 0100-15 w/ mx, this may be quarterly. change: 2nd SU: KCCR-1240 SD is quarterly 3,6,9,12.

- + 850 KGOE-CA CP is on + 950 WXLN-MD CP is on, hrd 9/28 w/ OC, ID's 1704, 1733 (Al Merriman, + 1000 WRYZ-FL ex-WJTS Fairfax, Va.) + 1110 WORG-MA CP is on + 1130 KEAR-ND CP is on KWBY-TX CF is on
- + 1230 KSUN-AZ Is operating temporarily w/ 500/250 Ul until CP for 1000/250 UL is ready.
- KOTS-NM CP: 1000/250 Ul (9/22) * 1240 KWJB-AZ CP: 1000/250 Ul (9/22) modification of existing CP for new station
- I + 1230 CFGN-NF CP is on
- * 1100 KHLB-TX ex-KTSL + 1150 KBEN-TX CP: 1000/250 U1
- + 1190 WOHI-OH CP: 1000/250 Ul
- + 1500 KOKN-OK ex-KOSG
- * 1580 WRDI-NJ ex-WNJH

1590 WPIP-TN req. WMSO

```
call applications
730 KDAZ-MM req. KDSE
1170 CP -MN (Waseca) req. KOWO (prev. reg. denied)
1280 KOAG-CA reg. KFYV
1340 KRSD-SD req. KTED
1360 KBTO-KS req. KOYY
1190 KLME-WY req. KOJO
1540 WBFJ-TN req. WBRY
1550 WLUX-LA req. WWOR
     WFCM-NC req. WPGD
```

SPECIAL DX SECTION THIS TIME: EMERGENCY BROADCASTS FOR HURRICANE GINGER. (includes stations on alert 9/29-30/71)

```
740 WBL-NC Hrd on AN both 9/29 & 9/30 (RjE, PT, Boyd)
     WMBG-VA Hrd on AN o/uWMBL 9/30 (RJE, PT)
 860 WEVA-VA Hrd on AB 9/30 (RjE, PT)
             Hrd frequently atop channel 9/29,30, as using NDA pattern
 930 WITN-NC
              (Boyd, RjE, PT)
              Hrd on AN w/ continuous Ginger nx 9/30 (PT)
 970 WRCS-NC
 990 WBTE-NC Same as above (PT)
1070 WHPE-NC Same as above (PT)
1080 WWDR-NC Ditto (PT)
1330 WESR-VA On AN w/ mostly nx for NC area 9/29,30 (PT,RJE)
1470 WPNC-NC On 9/30 for Ginger (PT)
1530 WOBR-NC On 9/29, 39 for Ginger (PT, RjE)
1590 WVOE-NC On AN 9/30 for Ginger (PT)
```

AND. MORE CHANGES HAVE JUST BELT RECEIVED FROM K&E, AND WILL APPEAR WITH THE NEXT UPDATER.

E-1590, both Fla., have been declared bankrupt by their owners. At this time we don't know if they're off or not, but hopefully, one of our Fla. members can check for us.... sunset & evening

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680 WRNG-JA Hrd @ 9/28 s/off 1945 (Page Taylor, Butler, M.J.)
690 WZAP-VA Hrd 8/28 atop freq. o/wk CBF 1845 (PT)
730 WLOR-GA Hrd w/ local car ad @ exc. level, then c&w 1940 9/28(PT)
780 WCKB-NC Hrd +30/s9 w/ s/off w/ spititual max 9/19 1930(PT)
860 WDMG-GA 2055-2100 ending nx 9/18 (PT)
 900 WAFC-VA Hrd 9/27 s/off loud 1930 (PT)
      MLSI-XY Left after above off w/ relig. to 1945 s/off 9/27(PT)
      NCOR-KY Left after above off to 2000 s/off w/ male vocal of
               "Goodnight" 9/27 (PT)
      MATY-MA
              Simultaneous s/off 2000 9/28 (PT)
      GOK-AL
 910 WTOY-VA S/off w/ detailled annot. 1930 9/28 (PT)
 970 WESO-MA Mx w/ WCSH to 1900 s/off 9/4 (PT)
1080 W/DR-NC Potent 9/28 = WTIC 1840 (PT)
1170 WHLW-NJ Hrd strangely atop w/ s9 sigs w/ nx 1553-1607 o/MLE(RJE)
1270 WHLD-NY Hrd 7/22 1900 w/ nx, WSPR looped (Leo Alster, Rahway, NJ)
               ** Welcome to DDXD, Leo -RjE, -times changed to ELT for DDXD.
              Hrd 9/17 2100 w/ BB w/WFBR looped (Alster)
     VERE-OH
1320 CKEC-NS Nx & wx hrd: 9/17 2020 (Alster)
     WBIS-CT Closest unheard & most wanted unbelievably on top ending a
1/1/10
               PSA 1913 9/28 (PT)
              Pulled cww, ID & bank spot from tape where I'd only noted
11190
     WPOR-ME
               bank spot bli, after PT ID ed loc. of bank from travels, hrd
               9/12 2015. (RJE)
     WKYE-TN Hrd 9/30 L&C w/ nx,wx 1935-45 s/off (Marc DeLorenzo, Hyan-
               nis, Ma) Hrd 1940 w/ ad for local rock show, good 5-10
```

date on that one, Tom - RjE.

mins. 9/5 or 7 (Tom Sundstrom, Willingboro, N.J.) **No

WKBA-VA Hrd @ 1930 s/off 9/11 (Alster) Hrd 1930 s/off w/ loop u/

CBE 9/5 or 7 (Sundstrom) ** Again, no date-RjE MBSC-SC Hrd 1935 ending nx, wx, then mx, in thru 2000 9/7 (Sundstrom) WMOO-AL Hrd © 2000 o/WBSC, CBE w/ s/off 9/7 (TRS = Sundstrom)

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30
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1550 WWW-WA Hrd 1915 s/off 9/5 & nites following (TRS)
      Hrd 1930 s/off w/CBE looped 9/5 (TRS)
Hrd 9/19 s/off 1958, Unid S/off hrd. © 2000 w/ call
              sounding like WJLD, who?? (TRS)** WHLP-TN?? -RjE -I've
              no SR/SS maps here, so mebbe not same time...
     WSSA-GA Hrd 1945 s/off 9/19 w/ new 5 kw in clr. (TRS)
      WYTI-VA Hrd 9/19 1930 s/off buried in SSS (TRS)
      WQTW-PA Hrd 1930 s/off 9/8 o/CKLM (TRS)
      WTOW-MD Hrd w/ local annots & s/off 9/1 1913 (Alster)
1580 KLUV-LA Much-wnated stn s/off hrd 9/28 2015 (PT)
      WORV-LA s/off in/out w/ above 9/28 (PT)
      KPCA-AR S/off 9/28 in/out w/ above 2 (PT)
ONE DAYTIME: (since I'd already included WALW item above, hi)
1000 WHTH-OH Finally got poor log on this 1725-1810 w/ chickenrock
               (** Oops, almost typed something else there...-RjE) &
              UPI nx 9/27 (Wes Boyd, Youngstown, Ohio)
                       midnight to sunrise
 630 WED-NO
              poor 2301-?? u/CM- & WMAL w/ Ginger stuff, think wnet
              off 0007 9/30 (Boyd)
      IMM-IM Hrd w/ ID & CBS nx u/ the mess 2300 9/30 (Boyd) ** Sri,
              Wes, but no chance of anything else here ... - RjE
 690 WZAP-VA Hrd = WELD 0720-32 w/ Mutual net 9/23 (Boyd)
 710 MIN -01 Quite good in WOR's mull 0610-35 w/ c&w, mucho spots(Boyd)
 730 Mall-TN W/ c&w mx all o/wPIT/CHYR/CKAC 0640-51 o/unid c&w
               (WACE?) 9/23 (Boyd) ** Possibly -but also mebbe WPIK.
              WMNA -RIE
 860 MDWG-4A Now s/on 0510 in clr as CBH,CJBC on 0600. Hrd 9/27 w/
               can junk (Boyd)
              Twas the TT killing "Foxy's Friend" 0020-0045+ 9/23(Boyd)
     MERZ-NO
              0241 9/6 in midst of rr w/ ID, wx, good sig atop CKCY
     MMID-FL
              w/loop (TRS) ** What, no WJAR??-RjE
     MONT-WY
              0500-03 SSB s/on annot & relig. pgm. well o/WBEN, WKY,
              WJAX (Boyd)
      MIZH-MY
              0600-04 w/ SSB & nice long annot., & headline nx well atop
              all 10/4. (Boyd)
      W/ c&w all o/WEOL-WBEN 9/23 0620-35 (Boyd) **Is daytime NO
               -RJE
      Believe hrd this one w/ MoR & stories from Hannibal = WKY
              at times 2340-55 9/21 w/ WBEN mulled, no WEOL/NPAT (Boyd)
              ** Hannibal ?? Who's he & what'd he write?-RjE (or should
              I put an "ERC" after that one, hi.
      WWYAT off (**#$#":: -RjE), Cuba under
               (*double that - RjE) w/ MoE 9/20 (PT)
 960 MENUARA Hrd ID 0005 10/4 follo nx, o/u WFIR HI (PT)
              Quite good thru WNOX-WTIG-etc 0705-18 9/23 (Boyd)
     MASA-AV
              W/TT, no breaks hrd 0210-0330 9/6 w/ XYW off. Looped
1060 unID
              roughly e-w. (TRS)
                                                           (9/16 - Boyd)
     On 2335-0115 for local flood warnings w/ Drake-type rr
              © 0230-0330 9/6 w/ relig. to 0300 ID then pop mx. Good sig
              despite looped-out LA. Surprisingly KNX, KFI, etc. mot hrd.
               (TRS) ** Didn't know they wnet on that late -RiE
1190 WANE-TN ET 9/6 w/ mx 0120 (PT)
     Well u/WXYZ-KFJZ & unID MoR, only 2 ID's hrd, faded up
              for both 0135-0155 10/4 (Boyd)
1280 KC32-14 ET-TT 0136-0200+ 9/18, quite strong, mixing w/KCNI r/c
               (Jerry Starr, also of Youngstown, Ohiyo)
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1380	WLCY-FL	ET-OC-mx Ol10-30+ 9/27 (Starr)
	KUDL-KS	= XE- 0235-0303 s/off (MM's) w/ "World Tomorrow" & very
		specific s/off annct. 10/4 (Boyd)
	CKIC-ON	Finally well u/the mess w/ MoR headline nx, s/off and
		anthem 0155-0203 10/3 (Boyd)
+ 11/50	0 MFBS-NC	S/on 0500 9/27 mentioning 0000-0500 MM SP (Starr)
11.60	WIXN-IL	ET/TT 0315-0430+ 9/26 w/ femme annor. (Starr) ** That's
Later	o namo en	why you listened so long???? -RjE
	WHAD-VA	ET/TT 0230-0300+ 9/21 (Starr)
1500	O WDEN-OA	W/another powerful ET-mx-TT 0330-0450+ 9/27 (Starr) **
200		"WDEN is everywhere", right?? -RjE
1510	T.M., REST. O	Noted w/ ET-OC, ID 0226 9/23, musta been day power, still
224	O HILLIAN - INC.	on 0300 (Starr)
1550	O WSHN-MI	
エンノ・	WKBA-VA	
	11111111111111	but this time NDA per annot. (**Their new CP -RjE) and
		said much more testing in next few weeks hrd 9/16 (Boyd)
		** Thought insipid was only Chio stations on 1370, Wes-RjE
157	אַע_דיייעען ס	Killing local WTCL's 135w psa 0600-0615 9/18 (Boyd)
15!	O MITI-AY	William Toogs with a row had been apply that the took a

THUS ENDETH another episode in the continuing saga of DDXD.... 73, RjE

THANK YOU FOR YOUR REPORT OF THE RECEPTION OF WCBS. OUR TRANSMITTER IS LOCATED ON HIGH ISLAND, NEW YORK. THE TRANSMITTER HAS A POWER OF 50 KW ON 880 KC.

Dear Mr. Kelley: Your letter reporting reception of our signals has been forwarded to me. I am sorry but our policy does not permit us to verify reports from pinko com-symps, dips or long-hair freeks. My advice to you is to take a bath and send us another DX report.

WCBS-FM (IDI.ING) TRANSMITTER IS LOCATED
ATOP EMPIRE STATE BUILDING



31

Big Geo Kelley 118 White Street Belmont, Mass. 02179

Strange verifying policy of WCBS. ERC: here's another verie signer.



THIS ISSUE: ERIC DIRICCO 540 GALLION AVE. PITTSBURGH, PA. 15226

Well, here it is. Finally, after all your waiting, DX'tras is finally here. I will be running the DX'tras : East column and my co-editor, Blake Lawrence, will be running DX'tras:West. Each column will appear once a month. That is, two DX'extras a month.

DX'tras will be dedicated to helping every DX'er, whether Domestic or International. The column will run three sections. They are:

- I. Unidentified Stations
- II. Novice Questions
- III. Station Formats

The Unidentifieds section will be sub-divided into two groups:

- a) Suspected Domestics
- b) Suspected International

However, there will be qualifications to run an unidentified catch. For example, who could ID this: ????-1240 Tested 9/17 starting \$000. It could be anybody. To eliminate such difficulties, we have come up with a qualification system. This will apply to all local & regional channels and all crowded clear-channels.

-ALL unlds MUST HAVE DATE, TIME AND FREQUENCY PLUS ANY FOUR OF THE FOLLOWING ITEMS:

- 1) Patial (or suspected) call (2 or more letters)
- 2) Programming
 - a. Music Format
 - b. Gimmicks (Contests, etc.)
 - c. Other regular Details
- 3) ID times & ID Format
- 4) Specific Local Ads (Phone #s, etc.)
- 5) Loop Bearing (And what area this indicates)
- 6) QRM (Call letters, please)
- 7) Sex of announcer
- 8) Acronyms(i.e.: "Radio One")
- 9) News Network
- 10) Names of towns frequently mentioned

That may seem like a lot, and maybe it is, but remember an item need only have four to qualify. These items are the things that can mean the difference between a total unID and a strong possiblity. Also, on frequencies that are uncrowded. like 540, 880 and such, an item need only satisfy 2 of these items. I'll not set definate guidelines as to which clearchannels qualify as uncrowded, but will leave that to your judgement. And unless we get too many "bad" reports regarding that, I probably won't set guidelines. So much for unlbs except to say please indicate whether your unID is a suspected catch of Domestic or International origin.

II. DX'tras will also be running a section on Station Formats. We ask all members to please send the formats of your locals and regulars but try to avoid duplication. I'll use the fol-

lowing abbreviations:

Nx: News Rel: religious

cw: Country (Western) J: Jazz

MoR: Middle-of-Road r&B: Rhythm & Blues

C1: Classical Tk: Ralk

Ft: Feature Programming (Mainly pertaining to the CBC) -Naturally, there will be some variance in "labeling" a format. What some people call MoR another might call rr. But this should give A general reference to the DX'er.

III. Last, but not least, DX'tras will be running a QUESTION CORNER for the novice DX ers. (Who incidentally may request not having their name mentioned in the column) Definately. Blake and I will not be qualified or able to answer all of the questions, but, with GPN's suggestion, we have decided to do one of the following with these questions:

1) Print them unanswered and hope a kind soul will send

2) Re-route them to "experts" who will send back the answers for publication

-Before going into the information I have for this month, I think one more thing should be clarified, who reports where? Well, we will divide it as such: All states West of the Mississippi R. plus Minn, Iowa, Mo & Ark. will report to Blake Lawrence. As for Canada, those in Minatoba or West should report to BL, also. Others go to me. (PLEASE STICK TO DX IN YOUR REPORTS)

-With that accomplished, here's what I have for this month. Credits go to me unless noted as such: JFP -John Pinckney-Va. RH- Robert Hartman-Pa. JS-John Shannon-Pa.

(Report in a similar way)

II. STATIO	N FORMATS			#1
	O-Pa. cw	550		MoR
	-SC MoR(J	(FP) 710	KMPC-Ca1	rr(JFP)
	B-Md MoR	720	WGN-I11	MoR
	N-0. cw	730		cw/rel(JS)
	S-DC cl(J	P)	WPIK-Va	
	C-Cal cw(JI		CHIR-Ont	rr
	A-Ont MoR(IFP)	CKAC-Que	MoR
	HS-WVa cw()		KCBS-Cal	Nx(JFP)
	BS-Pa MoR	*)	CBL-Ont	
	RM-Pa rr(J)	FP)	KCMC-Tex	
	C-Con MoR	750	WSB-Ga	
	OM-O. MoR		WBMD-Md	
	AO-Md rr(J)	FP) 760		
	GO-Cal MoR(JFP) 770	WABC-NY	rr
	JS-NC MOR	780		
	P-Pa rr		KCRL-Nev	el
	OD-Fla tk/n	X	#AVA-V#	Nx(JFP)
	PL-Va cw	790		TT
	AY-SC cw(J	FP)	WMC-Tenr	
	UN-Fla MoR/	rr(JFP)	WSIG-Va	
WH	JB-Pa rr/t	k	WTAR-Va	
	TE-Ten MoR		CHIC-Ont	
WTN	MJ-Wis MoR	HOO	CKLW-Ont	. 11

MORE FORMATS

FORMATS	(Con't);				
	WWNR-WVa	rr	810	WGY-NY	MoR
630	WMAL-DC	MoR(JFP)	0.70	WEDO-Pa	MoR
640	KFI-Cal	MoR(JFP)	0.70		
040		` - /	820	WBAP-Tex	
650	WHLO-o.	rr	830	WCCO-Min	
650	WSM-Tenn	CW	840	WHAS-Ky	MoR(JFP)
660	WIIBC - NY	rr/tk(JFP)	850	WKIX-NC	rr(JFP)
670	WMAQ-III	MoR		KOA-Co1	MoR
680	WISR-Pa	MoR		WJW-O.	MoR
	WPTF-NC	cw(JFP)		WJAC-Pa	rr
690	WNNT-Va	cw(JFP)	860	WAMO-Pa	r&B
	XETRA-MX.	MoR(JFP)		KONO-Tex	rr
	WVOK- Ala	rr		XEMO-MX.	rel/cw(JFP)
	WELD-WVa	CW	870	WWL-La	rr(JFP)
	CBF-Que	Ft:CBCf*	880		` '
700	WLW-O.			WCBS-NY	Nx
		rr M-D	890	WLS-II1	rr
710	WOR-NY	MoR		WHNC -NC	rr(JFP)
900	WLMD-Md	rr/MoR(JFP)	1000		rr
	WNYN-O.	MoR		WIOO-Pa	rr
	CHML-Ont	rr	1010	WINS-NY	nx
	CJBR-Que	Ft:CBCf		CFRB-Ont	
910	WGBI-Pa	rr(RH)	1020	KDKA-Pa	MoR
	WSBA-Pa	rr	1030	WBZ-Mass	MoR
	WORD-SC	rr(JFP)	1040	WHO-Iowa	CW
	WRNL-Va	MoR/rr(JFP)	1050	WQMR-Md	cl(JFP)
	WTOY-Va	rr		CHUM-Ont	
	CBOOnt	Ft:CBC	1060		Nx
	WALV-Pa	rel	0.000		rr(French)
920	KARK-Ark	rr	1070	WIBC-Ind	MoR
	CKCY-Ont	rr	2.01.0	WFLI-Ten	
	WMMN-WVa	rr		CBA-NB	Ft:CBC
	WOKY-Wis	MoR		CHOK-Ont	
930	WFMD-Md	MoR/cw(JFP)	1080		
230	WSLI-Mis	MoR	1000	WEEP-Pa	
	WPAT-NJ	MoR	1090		cw
			1000		
940	WBEN-NY	MoR	1100	WBAL-Md	MoR(JFP)
940	WFNC-NC	rr(JFP)	1100		MoR
	WCPC-Mis	CW	1110		cw/MoR(JFP)
	WESA-Pa	rr	1.44	WBT - NC	MoR
2 = 2	CBM-Que	Ft:CBC	1120		MoR
950	WWJ-Mich	rr	1140		MoR
	WPEN-Pa	MoR (JFP)	1150	WDEL-Del	
	WSPA-SC	MoR(JFP)		WCUE-O.	rr
960	WBRC-Ala	MoR	200000000000000000000000000000000000000	WKPA-Pa	CW
	WFIR-Va	MoR	1160	WJJD-I11	CW
	WHYL-Pa	rr(JFP)	1170	WWVA-WVa	CW
970	WWDJ-NY	rr	1180	WHAM-NY	MoR/J(JFP)
	WWSW-Pa	MoR	1190	WOWO-Ind	rr
	WAVE-Ky	rr	1200	WOAI-tex	cw/MoR(JFP)
	CKCH-Que	rr	1210	WCAU- Pa	MoR/tk
980	WRC-DC	MoR(JFP)	1220	WGAR-O.	rr
500		rr	1240	WGBB-NY	rr(JFP)
990	WAKN-SC	rr(JFP)	1250	WTAE-Pn	MoR
220	CBW-Man	Ft:CBC	1260	WFBM-Ind	
1000	WVOV-Ala	TI	1270	WXYZ-Mich	
1280	CHAM-ONT	TT	1480	WLEE-Va	TT
1400	Sinus ONI				-,-

^{*} CBC-French Net.

	WHVR-Pa	MoR(JFP)	1490	WOHI-O.	MoR
	CJMS-Que	rr(French)	1500	WTOP-DC	Nx
1290	WFBG-Pa	rr		WDEE-Mich	CW
1300	WFBR-Md	MoR(JFP)	1510	WLAC-Ten	CW
1310	WEEL-Va	rr(JFP)		WPSL-Pa	MoR/cw/rr
	CFGM-Ont	CW	1520	WKBW-NY	rr
1320	WJAS-Pa	tk/nx		WTTO O.	rr
1330	WHOT-O.	TT	1530	WCKY-O.	MoR
1340	WOOK-DC	R&B	1540	WPTR-NY	rr
1350	WSLR-O.	CW		WDON-Md	cw(JFP)
1560	WIXZ-Pa	TT.	1550	WOKJ-Mis	r&B
1370	WSPD-O.	MoR		WLOA-Pa	c1
	WSAY-NY	11		CBE-Ont	Ft:CBC
1380	WACB-Pa	MoR/Cw(JFP)	1560	WQXR-NY	c1
1390	WEAM-Va	cw(JFP)		WTRQ-NC	cw(JFP)
1400	WKWK-WVa	rr	1570	WQTW-Pa	rr
1410	KQV-Pa	rr		CHLO-Ont	rr
	WÎKI-Va	cw(JFP)	1580	WSRF-F1a	rr
1420	WHK-O	MoR		WPGC-Md	cw(JFP)
1430	WNJR-NJ	∵ &B		WCCR-I11	CW
	WVAM-Pa	rr		WANB-Pa	rr
	WNAV -Md	rr(JFP)		CBJ-Que	Ft:CBCf
1440	WHHH-O.	tk/cw(JFP)	1590	WTBY-Con	rr(JFP)
	WHIS-WVA	MoR		WETT-Md	MoR/c1
1450	WJPA-Pa	MoR/rr		WZUM-Pa	rr
	WDAD-Pa	MoR		WAKR-O.	rr
1460	WOKO-NY	CW	1600	WWRL-MY	r&B
1470	WJDY-Md	rr(JFP)		WFRC-NC	rr(RH)

I never thought this would run so long this month. I don't expect the entire column to usually run this long. My special thanks to John Pinckney, Doc Hardester and of course Blake, whose help made this column possible. Also tax to you for reading it all, hi.

7315

Eric DiRicco

PS: Please address all mail: Eric DiRicco-DX'tras

tnx again



The next issue of DXTRAS will be edited by BLAKE LAWRENCE, PO BOX 803, CANON CITY, CO. 81212

MORRIES SORGEREN - God's Narrows, Manktoba

On 9/20 I logged what I consider to be my best catch in seven years of DKing - CPTK-1340 Yellowknife, N.W.T. The station was first noted @ 11 pm EDF w/CBC MX followed by a regional WX report and local ID. At that time it was very strong - I even managed to receive it well on a Hilachi ten transistor portable. The signal was later subject to much fading and powerline noise but it continued to dominate the frequency until 1:llam and in fact another teacher here said be heard them quite well around 3am 9/21. There were NO interfering stations. CX seemed highly Auroral with flw stations andible except those on groundwave (e.g. CKY CREM, etc.) This has to be my biggest thrill in DXing. Loggings by date: MM 9/13- MCMR-1130 Mich. @ 1:33am; CHAB-600 Sask. @ 1:40; MPMC-1560 Cal. € 1:54; KANY-1090 Ark. € 11:29pm. 9/14- CFFN-1260 Alta. € 12:56 em; WAKR-1590 S 1:10; CBW-990 Man. @ 1:12 for the record. 9/15- CJVN-1420 Sask. @ 11:50pm; KFSQ-580 Mo. @ midnight. 9/16- CBL-740 Ont. @ 12:05am; KIZ_560 Col. @ 1:07; CJOY=1460 Ont. @ 1:15mm. 9/17- CKBI-900 Sask. @ 1:55mm. MM 9/20- WMED-1470 III. & KTHI-1470 Is. dual logging @ 12:30am. 9/20- CFYK-1340 @ 11pm. Only two veries so far from God's Marrows IX - a very friendly v/1 from CHIM-610, Thomson, Man. & a v/q from CFSL=1190, Weyburn, Eask. 73.

HROCE WINCELMAN - 1404 Alumni Place - Lawrence, Kansas - 66044

Greetings once again. DX in this den has been absolutely putrid the last month. What with a busy sked here at school coupled with the worst building in the world to DX from as living quarters, DX can be summed up in one word - milch? But I'll relate some of my DX late this Summer: (from Silimwood) 8/21- CKIM-300 G 6:36am w/wX; WFIA-900 G 6:49am w/goopel mc; KFAL-900 G 7:03am s/on-55B; KEMS-940 S 7am s/on w/mo SSB; KUPD-1060 G 7:26am w/rr & IDing as "Kupid." This was my first real try at SES & it was well worth getting up early for. I did Log the new local on 1190, KAYQ, w/lkw. To much for smother goo? "Cohannel! Totals now up to 326 stations. My goal for the Summer was to reach 325 by the time I left for school and KFAL & KUPD put me over the hump on 8/21. Summer was real good to me DX-wise. I hope the rest of the members had a good DX Summer. 73 & good DX to all.

EURNE S. ALLEN - 134 Bret Harte Way - Vallejo, California - 94590

I am sorry to have missed the Sacto. Convention but I was on a
month's 11,000 mile auto trip through French Canada to Gaspe and via New England
& Washington, D.C., and back to California. Veries stand at 2,759 with no reports out as no EXing. Specials arranged before 3 a.m. Eastern time are N.O. for
WC EXers as all channels are covered here until then. I am still using the HQ129X but it has several weak 6887 tubrs in B.F. & I.F. stages. This metal tube is
unobtainable and is no longer listed in the ECA Tube Manual or in Lafayette or
Allied catalogues. I may have to give up EXing because of this problem. A new or
used HQ-180-X is beyond up "radio budget" as I am now retired and on a fixed income in an inflationary economy? 73. (I'm sure some NBCer can locate those tubes
for you, Gene - how about it, boya? "ERC)

PAUL KILROY - 2100 Brooks Drive - Suitland, Maryland - 20038
Next to nothing in DKing has been done this Summer; only a few as

follows: WENC N.C.-890 w/ET 7/5 & 1:32am. 8/1- UnID, I think RJR-770, 8 %:10am w/WABC off. 8/2- Strong unID OCs on 1475 & 1485 & 2:30am. An unID SS play or "scap opers" on 650 & 2:57am. Nil on veries. A long-planned trip to EPC in September had to be canceled and postponed until schetime this Spring. So, I'm lookinh forward to this. The Space Magnet is hooked up now and works well, although it does not null like expected. But it is much better than my old box loop which has since been dismantled.

"AN" STRUATION

OPFS: 970 K A U S Now s/off @ 2:05em 1180 W H A M Now off Sun & Fri AMS AS THEY SAY IN ADSTRONCE COMMUNICATION "AND M.

AS THEY SAY IN WESTPORT, COMMECTICUT, "WOM." "WE'LL MAKE our MUSIRUS MEANINGPUL" and we'll give our DK catches by date, call, and frequency, so it might be of help to other members. Remember, we are on our weekly schedule and we need your help!

FRANK MERRILL - 3632 North Detroit Avenue - Apt. 61 - Toledo, Chio - 43612 It has been something like two years since I've last Mused. I have been almost exclusively a TV/FM DMer over the past several years, while my interest in BCB has been just about mil. My Milan logs have been "retired" & a final tally of my Michigan totals has been made. Total logged was 2,686, which includes 105 call letter changes, 27 frequency changes, two changes in state of license, six Cuban call changes (which, however, I have not kept very close tabs on), five Cuban frequency changes, and one call-and-frequency change. My "active" log streethes over about ten years, from 10/15/60 to 10/25/70, with at least one new catch in every month during the stretch. Best catches were 20E-950 Sydney (63) Beyrouth-836 (65), the old Coroline-1520 (65), MEDO-1210 (63), 4GM-630 (*64), Frestown-1200 (*65), 200-1020 (*64). Best Cuban and best GY catch both were CMAD-1230; KDMX-1450 (250v f/cing in Summer '62) another of my best. Best date was the severe Auroral date of 3/14/66 when I added 44 to the log (mostly Cubans, including CMAD) even though my totals were already past 2,000. KMAK-1280 undoubtedly my best catch of the AM however, because it shouldn't have been coning in at all? After moving to Toledo, I started DKing anew, and got my log up to 488, where it's been stalled since June. I heard WCER-1110 since but forgot to mark it down and can't remember when I had it. I consider myself a "retired" BCB DKer, but will probably get the ole logup to 500 before I officially retire it for good. I do not plan to renew my MRC membership, because my almost total lack of interest does not warrant membership in two clubs (I don't deserve it, really) and many many more of my current acquaintances are in "the other club" & not in the NRC. It's doubtful I can make the Missi Convention in '72 because a projected June trip to California will all ut drain my vacation time. I collect SCs after over eight years and have 2,753 of them: 73s, all. (The best to you and "that other club", Frank - we'll miss you, but that's NNRC's gain, hall

DIOM TRUAX - 5101 Tamarock Drive - Charleston, est Virginia - 25312
Evidently my last Muse mailed in p enty of time for 9/11 D he mails. But not real
he mails. But not real

RICK EVANS - Box 2,146 - East Chicago, Indiana - 46312

Greetings. I have been rather inactive here lately with only four reports out since mid-May - two in Sept. and two in Oct., hi. Clad to hear this year will be better than the past several. Last season, save for a couple of Sessions, was a disaster! WYRE-BIO TEST was in Faintly on 9/17 12:42-lnm w/CW The and anatches of jingles. QRM furnished of course by KCMO WEJC & mostly by HJCY. 10/4- WHAY-1360 Wis. s/off-SSB @ 2:59 leaving 1360 completely clear except for one faint signal sounding like WIX2 Pa. just above the moise level. I thought I heard those calls given, but not positive enough to put it in the books. WAIN-1270 My. bombed in here on their TEST from 1:26-2am when I tuned out. They ran TT until 2, then into mx. WSMR-970, my local South Helland, Ill. verified on their own letterhead & said they run about 15-20 watts input to the astenna. They are a post here on Sat. evenings, even though they have some decent ax (i.e., no said rock). Totals here a puny 1,190/662. I gope to be over 1,400/800 by the end of the season. Andres Robins, welcome to the NRC. Drop me a line with your address & phone number and I'll contact you the next time I'm up in the Mall City to see my parents. I sure wish the BPC would show street addresses for the new members. I guess that's about it for this time. Still looking for a c/w station. Erniel I understand WOOR is up for alle! 73.

"Bout time for another Musing. I moved back to Maryland in July & m now announcing for WTTR AM/FM in Westminster. Still no apartment in that town to be had so I'm commuting. Some DX this Summer: 7/20- WHIW-1170 8:30pm s/off. MM 8/30- Germanic language on 1457, believed to be Romania - fadeout before lam & ID. 8/31- WEEF-1430 TT & ID @ 3am. WFBR-1300 noted on, probably AN-6. Their secretary says AN-6, off SM 2-6am. (She probably meant Sunday night, Joe, as they're off MMs -ERC) It was only a latter of time before they went AN. Daytime DX has been interesting with the SM-1; first time I've DXed with a directional antenna so the "Loop" was never attempted. WIIX-540 u/WIMV, WHPI-610 w/WIP looped, same w/WHON-1440 o/WGCB & finally, big 100w WIHU o/WOI-1450. These stations never logged before without the SM-1, & they should have been semi-locals! I hope the Convention was what everybody thought it would be and everybody had a safe trip home. All CM traders, please write. 73.

BOB SHAW - 10 Williams Drive - Delaware, Chio - 43015 The large bulletin delivered today has inspired this "old standby" (I think I am - my RX should be) to Muse for this issue. However, the period I will cover is that of a fairly active, DX-wise, four weeks, & since many of my new loggings were r/cs & ETs, I have ambitiously sent them to DDXD. All times are EDT. SM 8/15- WCND-940 w/WX for Shelbyville & two other towns, 6:15am. WILA-1580 s/on-SSB @ 6:33 u/WPGC/WAFI-1560 w/promos @ 6:35. 8/17- 3:07 ID from WPAY-1400, later discovered to be AN-rr, for U.S. logging #1,000. 8/18- I think, although the official call missed my ears, that the "Radio VIP"-1560, w/EE announcements of record titles between MoR vocal selections of the Bennett-Sinatra-Monro ilk, between 1:15-1:45, mjst be XEVIP. KPMC &Cuba heard there too, w/no sign of Paducah's Pest. Can anyone tell me that XEVIP either does or does not currently sound like this, or broadcast at this time (Verily, thou hast said it -ERC) 8/24- ID from WAGN-1340 @ 12; interesting because I swear they said "70w". 9/5- WSAL-1230, finally, w/clear ID & promo, atop the mess @ 11:53pm. MM 9/6-KTIK-1280 rr, way u/CJMS, ID during latter's dead air @ 3:35am. After 4, unn WEAW-1330 noted w/interesting ET; c1 mx & poetry selections. No, I don't know whose poetry. Furthermore, I don't care. But the mx included some Brahms, so there. 9/9- WPCF r/c & then there was DT on 1410 immediately after but it was cut off @ 2:18 & didn't return. I'm sure WONS waits for WPCF but no way of knowing for sure if it was they, this time. 9/13- XERCN-1110 weak u/KFAB w/jingles & Mexican mx, 1:34. WRVA had OC till 1:30 or so & there were two signals u/KRAK on the slop-free channel till 1, one SS, one EE. Could one be KOEM? (I got CKXI In 2/70 w/WNEW-1130 off -ERC) KTOE-1420 AN, usually stronger than WHSM; tentative KIUF also. 9/16- WSIR off & I was able to log WXCL @ 1:43, & WKIX for call change ANing. Those are 1350k. 10/4- Kindlu forevarned by Don Erickson, I was able to catch the WAIN-1270 IRCA TEST. It was an hour later than sked, reception was not helped though as KFJZ/WXYZ stayed right on. A friend of a friend is working on my Hammarlund but I'm not optimistic. Inside the chassis is a note apparently made by a Navy man "This radio is no dam good" (sic). This may be my last report for some

GEORGE KELLEY - 118 White Street - Belmont, Massachusetts - 02179 DX has returned (almost). 9/16- Morocco-701 way o/WIW @ 7:250m w/MoR, new here. Algeria-548 & Morocco-611 also noted strong. Regulars Portugal 719-755-782-1578 & Spanin-737 all noted strong around 7:30, Spain-638 also good @ 7:36 w/SAH very noticeable. 9/24- CBNM-740 Nfld. logged w/good signal 11:10pm w/ MX; this was on a Realistic TRF portable that did a remarkable job nulling CHL. 9/27- WAWZ-1380 NJ s/off good @ 7:30 at which time WENX took over. WOWW-1380 Com heard for first time weakly @ 7:31 mixed w/WENX on this Auroral eve. 9/29- Canary Is.-953 most likely, on tip from Marc BeL EAJ-50 w/goodsignal @ 7:21pm w/c1 mx & opera. No Iberians or any Europeans were heard at this time, only W. Africans: that, plus loop bearing seems to indicate C.I. 10/1- Libya-1124 w/great signal & chanting @ 6:46pm unn. 10/2- Algeria-890 good but briefly @ 6:50pm w/FF announcer & MoR, WIS faded in @ 7. 10/49 unID 00-1110 12:30-12:56 tuneout, breif TT @ 12:40 u/KFAB & an LA, looped SE/NW, which r7les out WHT Spain-584 very strong w/folk mx @ 1:09am, local WEEI-590 off. Costa Rica-575 heard w/perfect "R. Musical" ID @ (con'd on DX Calendar Page)

time, as I may well not spend the Fell at home. 73. (Have fun, hi -ERC)

(George Kelley, con'd from last Mucles page) several calls listed for this one. BBC-1457 noted w/fair signel ■ 1:26; previously heard on 9/16 € 7:48pm w/great signel. KLIF-1190 Tex. good 1/WWO OC w/Hotline sports how € 1:30em. Hey Jay Muley, your remarks in the 10/2 DX NEWS got me suspended for two weeks at Gibralter Steamship; thanks! Well, I/ve got to go before the clam cakes get cold.

SPECIALS

							Info
		kc	/ <u>-</u>	Watts	A. M.		1111
		KC	/S	980	1.05 - ????	EDT	IRCA
Mon.	Oct. 25	WAMB 11	90 Donelson, Tenn.	250	1.00	EST	NRC
Δ	0-4 21	II AOV	78 Okinawa 1,	.000.000bet	3:30 & 4:30	EO.T.	
: bun.	oct. 31	γ O μ 1.1	70 Okinawa	1 000	2:30 - 4:30	EST	NRC
Ont.	31 or No	ov. 1 WYDK 14	80 Yadkinville, N.C.				IRCA
			90 Donelson, Tenn.	250	1:05 -	EST	INCA
Mon.	Nov. T	WAMB 11	90 Done Tooms	1 000	0.30 - 3.00	EST	NRC
	3	WRAY 12	50 Princeton, Indian	18 1,000	2.30 - 3.00		
		77 0 1 11	78 Okinewe 1	.000	3:30 & 4:30	EST	NRC
? Sun.	Nov. 14	V O A I I	10 OKIHSWS		2:15 - 1:00	EST	VDXA
Page 1	Nov. 26	1.1 V D D 2	10 Annengijs, Mervij	and Elo T	L. L) - L. C		
LTT.	1101. 20		20 West Yellowstone	Mt.1000	3:45 - 4:00	EST	IRCA
Srt.	Nov. 21	KWYS 9	50 Mest lettowarche	- 000	2:05 - 2:20	EST	NRC
	Nov. 28		50 Les Cruces, N.M.	1,000	2:05 - 2:20	LOI	
Sun.					1:00 -	EST	NNRC
Mon.	Dec. 6		50 Juene Diez, P. R.	-,,,			
		WOBR 15	30 Wenchese, N. C.	250	4:00 -	EST	NRC

NOTES: WAMB-1190. They'll test both Monday 10/25 and Monday 11/1, starting at 1:05 EDT on 10/25, end 1:05 EST on 11/1, with WOWO expected to be off. Reports to Mr. William O. Barry, G.M., WAMB, 1617 Lebenon Road, Nashville, Tenn. 37201. Info from IRCA's Deve Faulkner.

VOA-1178 Ross Hansch has arranged these two DX-Tests which will run for 2 hour between 3:30 and 4:30, indefinite. We have no details nor address, and copied this info from DX Monitor, of IRCA, so evidently our mail is still going astray here. We believe 1180 is clear of everything but XEFR and PRE3 at this time - WHAM & KOFI and off! And that power is right - one million watts, so get 'em, tigers!

WYDK-1480. They were asked to test on a Sunday night-Monday morning, & seid they'd be testing on October 31, so this is taken to mean Sunday night 10/31, or in reality, Monday morning, Nov. 1, but try both dates. They will use country/western music for modulation on this test, and many IDs. Write to Mr. Herry D. Dunnagen, Mgr., and Darrell Smith, C.E., WYDK, Route 1, Yadkinville, N.C. Box 51-B, 27055. Most all-nighters on this 1480 spot use rock-n-roll, so watch for the country music? WES BOYD.

WRAY-1250. This station will be testing for a half hour, 2:30-3:00 a.m. EST. We do not know what the modulation will be, whether music or tone. A couple of All-nighers here, too, to make it somewhat difficult in some localities. Send reports to Mr. Jack Mauck, C.E., WRAY, Box 8, Princeton Indiana - 47670. Info from NRC's Ton McCorneck.

HEARD SINCE LAST ISSUE

 850
 K G O E
 Thousand Oaks, Cal. *
 1310
 W S L W
 White Sulphur Spgs WVa.

 940
 W E C O
 Wartburg, Tennessee *
 1430
 K C L K
 Clarkston, Wash. *
 *

 1090
 XEPRS
 EX-XERB
 1470
 K O L I
 Calinga, Cal. (back on) *

 1240
 C K B X
 100-Mile House, B.C.*
 1490
 W M P X
 Ex-WMDN
 *

 1300
 K P T L
 EX-KRWL * (*-IRCA)
 1550
 W T B J
 Parsons, Tennessee
 *

 1550
 W R B J
 St. Johns, Michigan
 *

ERNEST R. COOPER - 438 East 21 Street - C.Route 56- Brooklyn, N.Y. 11226

Nice v/1 w/CM from WOBR-1530. As for me, I collect CMs, but
only of stations I have verified, and they're filed along with the verie. Some
DX, ps follows: MM 9/27- TCKL-915 heard s/off @ 2:03sm, assigned to 910, & use
slogen "R. Emperedor", and heard again on 9/30. Unns noted: WPRW-1460 ET @ 1:11,
w/wompn ennouncer. WPRR-1300 w/AXR ET @ 1:27 w/MoR, WAFC-900 TT 2:07-2:13. WHK1420 off, & WABC-770 ET/OC. WDEN-1500 ET c/w @ 3:07. Is R. Fuentos-660 XERPM?