

A73-2-2

nectors and RG-58U coax (leads are as short as possible). Power is supplied with 5 VDC wall transformer and a DPDT toggle switches the Phase One in and out of the signal line.

Step-by-step construction details are being foregone in this article for several reasons: a) apparent displeasure on the part of some readers for lengthy technical articles; (b) experienced tinkers should have no trouble working directly from the schematic; and (c) the Phase One in kit (with detailed instructions) and assembled form should be available from Radio Plus-Electronics in 60-90 days.

Operation

The Phase One has only three principal controls -- delay range, amplitude, and phase. A single setting of the delay range control covers a large range of frequencies (about 1 MHz at 0W frequencies), so it is not routinely adjusted while DX'ing the BC3. The amplitude and phase controls interact so alternately adjusting each is required for the deepest null. I've found that simultaneously rotating each locates the general null settings quickly then alternately adjusting each for deepest null works best for me. With practice, optimal nulls rarely take more than 10 - 15 seconds to attain. Once a null has been established, it can be "steered" throughout 360 degrees using the phase control and with only minor adjustments to the amplitude pot. Because the bandwidth of the null in this broadband design is also quite large (depending on the spacing of the antennas, etc.), it is often possible to change receiver frequencies several tens of kHz and retain the same nulling effect. As an example, using the Phase One with a dipole and a longwire, I was trying to receive WUOG-600 (a regular receiver sensitivity/selectivity test station of mine). WUOG-600 is located about 150 miles to the west of me and radiates 1 kW. Reception of WUOG is usually bothered by both WNYO-510, a local splasher, and WDLP-530, a messy rocker. Luckily, because both WNYO and WDLP lay roughly in a straight line to the east of me, a single setting of the Phase One was able to simultaneously null both the 530 and 510 pests, and, at the same time, double the signal from WUOG to the west (due to the summing of the in-phase signals on the opposite side of the null). This was my best ever reception of WUOG. This example represents phasing in general, and broadband phasing in particular, at its best. Phasing has its limitations though. In fact, phasing is definitely not guaranteed to null all undesired stations. It can do very well with single mode, one hop signals but if an offending station is "beating" or fading, this usually indicates either a combination groundwave/skywave arrival or a multi-hop skip. In these cases, a single null will remove one signal but the other will remain. (On the drawing board, incidentally, is a two-stage phaser (the Phase Two) to attempt to deal with this situation.... we'll see how it works.)

So far I've used the Phase One with two longwires, a loop and longwire, a loop and dipole, and a longwire and dipole and have had no trouble nulling all of my locals (the strongest is 5 kW WCDR-1370 at six miles) to the noise level. From what I've read, two verticals are the best to phase but I haven't given those a try. Neither have I spent a great deal of time testing the Phase One at frequencies above 1.6 MHz other than to confirm that at least partial nulls (due to the multi-hop nature of SW signals) can be obtained up to about 12 MHz. Much more testing needs to be done at HF frequencies and perhaps some design changes.

Well, that about sums up the Phase One. If you have any questions (or can provide any answers, hi) or if you would like to be notified of the availability of the Phase One in kit or assembled form, drop me a line at RADIO PLUS-Electronics, 3535 Chastain Way, Pensacola, FL 32583. 73's....GT

Radio station gimmick is foul play

GEORGETOWN, Del. — Radio station WSEA-FM may have the USA's only Dead Chicken Report. Sussex County is in the heart of Delaware's poultry industry, so chickens are a big item here. Anyone can get one of the 10,000 Dead Chicken Cards that have been printed and become a member of the Dead Chicken Patrol, which reports to WSEA about dead chickens on roads. It's all in fun, morning disc jockey James McHugh says, and it fills a void. "Big radio stations in the cities, they do traffic reports and pothole reports. But since we don't have too much of a traffic problem and the roads are in pretty good shape, the next problem is dead chickens, and we're here to tell people where they are." The reports allow motorists to "avoid (the dead chickens) or run them over, depending upon their disposition," McHugh said. Dead Chicken Card holders are eligible for prize drawings — conducted while a tape plays the sound of screeching tires and the cackle of an expiring chicken.



KORE AM-1050
FM-93.1

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REPORTERS IN THIS WEEK'S ISSUE:

- (RB-NY) Raymond Bauernhuber, 141-12 243rd Street, Rosedale, NY 11422...Panasonic RF-2800 with shotgun loop.
 (MB-ON) Mike Brooker, 245 Old Forest Hill Road, Toronto, ON M6C 2H5...Panasonic RF-2200
 (JHD-PA) John H. Demmitt, K0848, Box A, Bellefonte, PA 16823 Sony ICF-S5w
 (MH-NJ) Mike Harla, 1337 Norris Drive, Lineland, NJ 08350
 (RCR-PA) Robert C. Ritchey, RD#1, Box 738, East Freedom, PA 16037...Realistic DX-150 with 150 foot longwire
 (GS-DC) Gardner Smith, 1000 Perry Street, Washington, DC 20017...Sony 2010, w9ALZ, Ed:LNCA, graphic artist.
 (WPT-DC) William P. "Bill" Townshend, 4500 Connecticut Avenue NW, #901, Washington, DC 20008...Realistic 12-C60 Portavision.
 (WPT-MD) William P. Townshend DXing outside his office.
 (KJC-NY) Karl J. Zuk, 154 Old Post Road North, Croton, NY 10520...on the road in St.Louis and Lincoln, NE...
 No time to DX this week! Play ball, not radio!

 540 CBGA1 PQ, New Carlisle. 10-18 0045 Fair with woman speaking in French introducing song. In null of CJSB, Ottawa, ON. (JHD-PA)
 580 WLES VA, Lawrenceville. 10-22 0002 Sign on by man, weak, into news. (RCR-PA)
 620 WTMJ WI, Milwaukee. 10-22 0715 weather by man, ID "WTMJ" mention of station contest, fair. (RCR-PA)
 640 KFI CA, Los Angeles. 10-5 0c41 Fair to poor, man said "Let's go back to Here Comes The Sun by The Beatles on KFI." weather and invite to write in for T/ game show tickets. (JHD-PA)
 660 WESC SC, Greenville. 10-21 0815 talkshow, ad for Disneyworld, ID "WESC" several times, very good, over WNBC, New York, NY. (RCR-PA)
 690 W1OK AL, Birmingham. 10-1 0638 Good with ID "All New W1OK." Record "Country Road West Virginia" and "Fooled Around And Fell In Love." weather and CBS news followed by local news, sports and weather. (JHD-PA)
 740 WPAQ NC, Mount Airy. 9-28 0303-0317 Equipment test with C&W music, periods of open carrier in between songs, 0317 ID by man with thick Gomer Pyle type drawl. "WPAQ, Mount Airy, NC completing equipment tests" then off. Fair to good with no CBL, Toronto, ON carrier. (MB-ON)
 740 CBL ON, Toronto. 10-18 0830 with ID, News of Canadian events. Good. (JHD-PA)
 750 WBUM MD, Baltimore. 10-18 0036 Good to fair with preacher talking about faith and Jesus walking on water. (JHD-PA)
 800 WIMR NJ, Camden. 10-12 1425 First time heard mid-day. Slogan "Your inspirational radio station in The Delaware Valley." Religious music, on top of three or four others. (GS-DC) (But do they play Madonna?—kz)
 830 CFJR ON, Brockville. 10-21 1730 Music by Carly Simon, ID "830 CFJR," into local news, ex 1450 kHz, very good, station #800. (RCR-PA) (Congrats!—kz)
 900 CHML ON, Hamilton. 10-7 0712 Song title contest answer: "Who's holding Donna Now?" and a bakery ad. (JHD-PA) (This is the right song title, John. When you wrote "who's holding Madonna Now?" it made me laugh—kz)
 920 WNMN WV, Fairmont. 10-7 0703 with net news, weather, ID. In with WVA, Lewistown, PA. Fair. (JHD-PA)
 930 WFMD MD, Frederick. 10-7 0715 with traffic report with many references to the Capitol Beltway. In with WCNR, Bloomsburg, PA. Fair. (JHD-PA)
 950 WPEN PA, Philadelphia. 10-19 1900 ID slogan "The Station Of The Stars" with Music of Your Life type music, news and weather. (RB-NY)
 970 WWDJ NJ, Hackensack. 10-19 1830-1900 with The Pat Boone Show, religious pgm. with Christian songs. (RB-NY)
 1000 WRAR VA, Tappahannock. 10-21 1745 with local ads, mention of Tappahannock, ID "WRAR", good at first but faded into the fray. (RCR-PA)
 1080 WTRC PA, Hartford. 10-19 1800 with pop music, news and weather. Good. (RB-NY)
 1090 CKKW ON, Kitchener. 10-9 0545 with ID, Eagle's "Take It Easy", time check at 0557, then discussion about The Kansas City Royals. Poor. (JHD-PA)
 1100 WWHW OH, Cleveland. 9-26 0020 with "Exotic Moments In Sports." Fair. (RB-NY)
 1110 WBT NC, Charlotte. 9-28 2330 with "Solid Gold Saturday Night". Very Good. (RB)
 1140 WCJW NY, Warsaw. 10-18 0804-0810 UPI network news, local news by woman, mention of Warsaw, sports by man, mention of upcoming game on "WCJW", poor to nil under WRVA, Richmond, VA. (RCR-PA)
 1170 WOBM NJ, Lakewood. 10-19 1745 Sung ID, spots for Tom's River, and Freehold, NJ. Authorized for 1160 kHz, but hasn't moved yet. (GS-DC)
 1170 WBRW NJ, Bridgewater. Listed as Somerville, but gave location as Bridgewater. 10-19 1730. (GS-DC) (I heard the same thing, last week—kz)
 1190 WKDJ PA, Huguesville. 10-12 0715 with sign on moments before WANN, Annapolis, MD. Gave power as 1kW. Slogan "K-1190." A brand new station. (GS-DC)
 1200 WKOX MA, Framingham. 10-19 1710 with light rock, heavy on sports. Sunset skip over local WAGE, Leesburg, VA. (GS-DC)+10-12 0800 with special news announcement asking radio operators to report to town hall to join a rescue party. Regular news followed. Fair to good. (JHD-PA)

There's more where this came from...so keep reading Eastern DX Roundup!..... 17