



September 1994

Carolina DX Association

The Pileup

Newsletter of the CDXA

WD4R	Joe Simpkins	President
K2SD	Scott Douglass	Vice-President
W4UNP	Bill Jennings	Secretary-Treasurer
WZ3Q	Don Daso	Editor
AG4L	Bruce Gragg	Net Manager

WD4R will, we hope, return next month. To this newsletter, that is...

Remember the weekly CDXA luncheons. Now at Shoney's on Woodlawn at South Boulevard, every Wednesday at noon. CU there for good food, good conversation, good DX chatter!

Heathkit Stories

K4MQG

Gary's first Heathkit was the ubiquitous VF-1 VFO, which he used to drive a WRL Globe Chief. He spent a lot of time agonizing over how to come up with the \$18.95 to buy the VF-1, finally persuading his folks to let him cash in one of his savings bonds. He was the first kid in town with a VFO. Having worked Peru & Belgium using good old reliable Texas Crystals, Gary felt he was ready for the big time. This was his first Heathkit; he still has it today.

But it's the venerable SB-102 which retains a special spot in K4MQG's pantheon of rigs. Gary built his transceiver in 1964, in what he remembers as "45 easy hours," somewhat less than the manual called for. There were no parts left over; he turned it on and it worked. But like all good things, Gary's SB-102 came to its end, mostly due to the phenolic wafers (used in every multi-pole switch in the rig) simply wearing out. This symptom, which you first noticed as a loss of sensitivity, could be cleared up with contact cleaner--for a while.

Gary remembers having one of the first Signal One transceivers (he was sending it to an overseas amateur) in the shack for a while and making A/B comparisons between this high-dollar rig & his Heath. The old 102 could easily outperform the Signal One on 75M, which Gary attributes to its tube front end. Ahhh...for those good old days.

N4ZC

Rog built his first Heathkit 40 years ago. And he was mighty proud of his AT-1. His Elmer, W8PNX, took one look inside and said, "Dama, Roger, you've got enough solder in here for three transmitters...!" Since PNX was a 75M phone man, he recommended 80M crystals. This meant staying up late or getting up early to work anyone outside the 8th call area. Within a few months, Rog had some 40/15 crystals & he was working outside the 8th district at high noon--heady stuff indeed. His AT-1 cost \$29.50 in 1954 dollars--that would be \$153.40 today.

The AT-1 used link coupling (*doubling in the 6L6 final everywhere but 80M, too*), meaning you didn't get much power out. So Rog bought an AC-1 antenna coupler, for \$14.50 (\$75.40 today) & he was really getting out. Then, he upgraded to General, & had to have a VFO. You guessed it--he also got a \$19.50 (\$98.80 today) VF-1 VFO.

(You can sense where this narrative is going, right?) Roger finally got the workhorse rig of the 50s--that Cadillac of transmitter kits--the DX-100. Shipping weight 107 lbs. & \$189.50 in 1957, which works out to \$947.50 in 1994 terms. Most of those 107 lbs. came from the 16-gauge copper plated chassis, power transformer, choke, modulation transformer, & a hefty cabinet. Remember: 100 watts was high power in 1957. Roger took this DX-100 with him to Puerto Rico in 1958 on his first Coast Guard posting. He jammed some hookup wire into the SO-239, ran the wire out the window, wrapped it around a low tree branch, & his first CQ netted a VQ3. *(Or, 5H3 today)* Soon Rog was really hooked on DX, *(being a little rare himself helped)* which lead to contesting, including the Save 11 Meters Test before that band was given away to CB use.

In 1960, Rog built the HW-30. Better known as a "Benton Harbor Lunchbox," the HW-30 or "Two-er" (as it was also called) was responsible for lots of folks trying VHF & mobile operation. With a 5 watt AM crystal controlled transmitter, super-regenerative tunable receiver, & a cabinet that looked like a schoolkid's lunchbox, the rig usually got hooked to a horizontally polarized halo on the car. *(When's the last time you saw one of those?)* It cost \$44.95 in 1960, which works out to \$178.50 today.

In 1966, Rog was in the North Atlantic. Pretty romantic, building an SB-200 amplifier as the Coast Guard cutter *Mendoza* plowed through 45-foot seas. But he needed extra power for phone patches home on 20M. In 1967, Roger built the HM-15 SWR meter; in 1969, he built the SB-301 receiver & SB-610 monitor scope. Finally, in 1971, Roger built an SB-220, which was, no doubt about it, the workhorse amplifier for DXers & contesters throughout the 70s. Everybody had one! New 3-500Z tubes were \$38 apiece; that's \$135.70 today--not far off the market price. The 220 would cost you \$1250 today. Roger's last Heathkit was the SB-1000 he built in 1989, kit price \$700. Besides the money saved, the fun & pleasure of putting something together, Roger says he got more than his money's worth from using his old Heathkits. (Indeed, he hopes to resurrect his old SB-220 someday soon.)

CDXA Information Net 147.36
Wednesday 8:30 PM

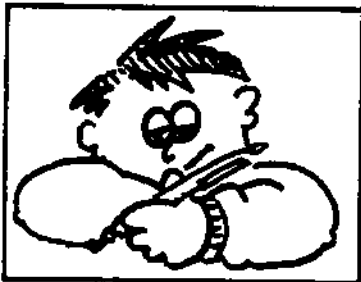
EDITORIAL

I've spent some time recently listening & reading, via PacketCluster, to comments from others. (Nothing unusual in this--my wife's convinced I became a film/video cameraman because I'm basically voyeuristic at bottom....) Anyway, one of the things I encounter is impatience. And little effort at understanding the other fellow's point of view. I noticed this in various ways. From frustration over the other fellow's complete mystery as to why he should be excited over your latest DX conquest or how sunspots work or anger at yet another DL spotted on 14246.

Yet, there's got to be room for all of us, both on the bands & as a group who share a common interest. I think that's the problem. We've all (& I mean ALL) lost a little of our early eagerness & excitement toward our hobby. That's a natural response. Some of us have been licensed longer than some others of us have even been alive. There's a convoluted sentence for you, but one containing the germ of an idea.

Ham radio's a pretty neat hobby. Ham radio remains, in many ways, the most democratic hobby imaginable. It's capable of crossing almost any boundary you can think of. Yet how many of us bother to think about such facts? We tend to take everything for granted, from amplifier power to pileup prowess to code speed to license class to hamfest prices to QSL cards to old radio magazines to tower climbing to soldering to operating to radio clubs to the FCC. Every QSO you make, regardless of mode, crosses (or can cross) a boundary of some kind. Every QSO can potentially be the key that unlocks something intensely special. Whether it's your final country or a unique friendship or just another contest contact, you've crossed some hurdle, leaped across some void, & done something pretty special, something pretty amazing. None of this is true, of course, unless you think about it. Because there's nothing to it anymore. Who needs another DL on 20, anyway? Lo & behold, I found someone who did. Someone new to DXing, someone who couldn't conceive of working every country in the world. At least not yet. Someone who thought his DL contact was pretty special. I wanted to tell him it was, it was...but I didn't. Because I didn't think it was. I didn't think about any of this until afterward. I hope it's not too late to think about it now. For any of us....

--WZ3Q



OUR READERS WRITE

Dear Don: "...It's rover!" --WA4VCC

Don: "I've been silent...& have given you little support, but have read every issue of the newsletter & find it most worthwhile & interesting. I'd say 90% of those who receive (& are silent like me) feel the same way..." --K4BVQ

Dear Don: "I think a continuing article each month on the same subject would be interesting. Such as antennas...with details on how to build or buy the really good ones...you could ask each member to send descriptions...on what works...either wire (preferably) or yagi designs...I like experimenting with new ideas. Then move on to another subject...amps, noise reducers, keys..." --W4FHI

Dear Don: Keep up the great job...I'll try to feed you material as I have time." --WØZV

PacketCluster News

CDXA continues to work toward new bells and whistles to improve our system.

N4MZL now has the net-rom chip in his new TNC. Buddy's station was hit by lightning which forced him to buy a new TNC. A number of CDXA members faced similar storm-damage situations this season. If you are SE of Charlotte, & having trouble connecting to WD4R, give this digi a try. First, connect to DXBUD on 144.91; when you get the connect line back, do a normal connect to WD4R. For instance: cmd: C DXBUD then C WD4R

The new North Carolina 220 MHz backbone system has been built from Wilmington to Charlotte; it will provide a 9600 baud backbone connection to the Eastern NC nodes. A 430 MHz port will be provided for WD4R & N4ZC to connect to the system, also at 9600 baud. We've ordered two Delta 4-10 transceivers, two KPC 9612 TNCs & 11-element beams for this project. This is not a cheap or simple upgrade; this gear cost over \$1500. This upgrade should provide faster, more reliable traffic to the rest of the system.

There are now 34 cluster nodes in the SE PacketCluster system. The command TY SYSTEM .115 will show you these SE system nodes & their frequencies. Remember the new bulletin--when it comes out--will have a new number which you can check, using SH/BUL. The current bulletin is a few months old & does not reflect recent changes. These changes are: delete the WB4QNP node & substitute N4XWC; delete the W4CVX node & substitute WA4VTX; add KM4AU as a new node in Danville, VA.

These 34 nodes do not include Northern system nodes. This system connects through KC4YX in Chesapeake, VA. **Remember it's not possible to send one-line TALK messages to this system. We see their spots but cannot TALK to them. Please don't try sending ANN/FULL asking stations to set their home nodes so you can talk with them. We don't share home node info with this system. Even if they do this, you still won't be able to talk to folks up north.**

--N4ZC

DXAC/DXCC News New Country Applications

Balleney Islands. These five islands are in the very southern most part of the Pacific Ocean. Four of them lie inside the Antarctic Circle. They belong to New Zealand, and petitioner W9ARV claims they qualify under DXCC Rule 2(A). This will raise many questions, as most of the territories within the Antarctic Circle have previously counted as Antarctica, with the exception of Peter I. It's conceivable only one island could count--if it's north of the Antarctic Circle.

Austral Islands & Marquesas Islands. This island group currently counts as Tahiti. Both groups are in excess of 250 miles from the parent country of French Polynesia. Petitioner NX1L claims both groups count as separate countries under DXCC Rule 2(B). (Based on data I have at press time, I have responded with a YES vote to this claim.)

The following ballots were voted on by the DXAC during July:

- 1) minimum size for a DXCC country
- 2) Turkish Republic of Northern Cyprus
- 3) contacts by other than the station licensee

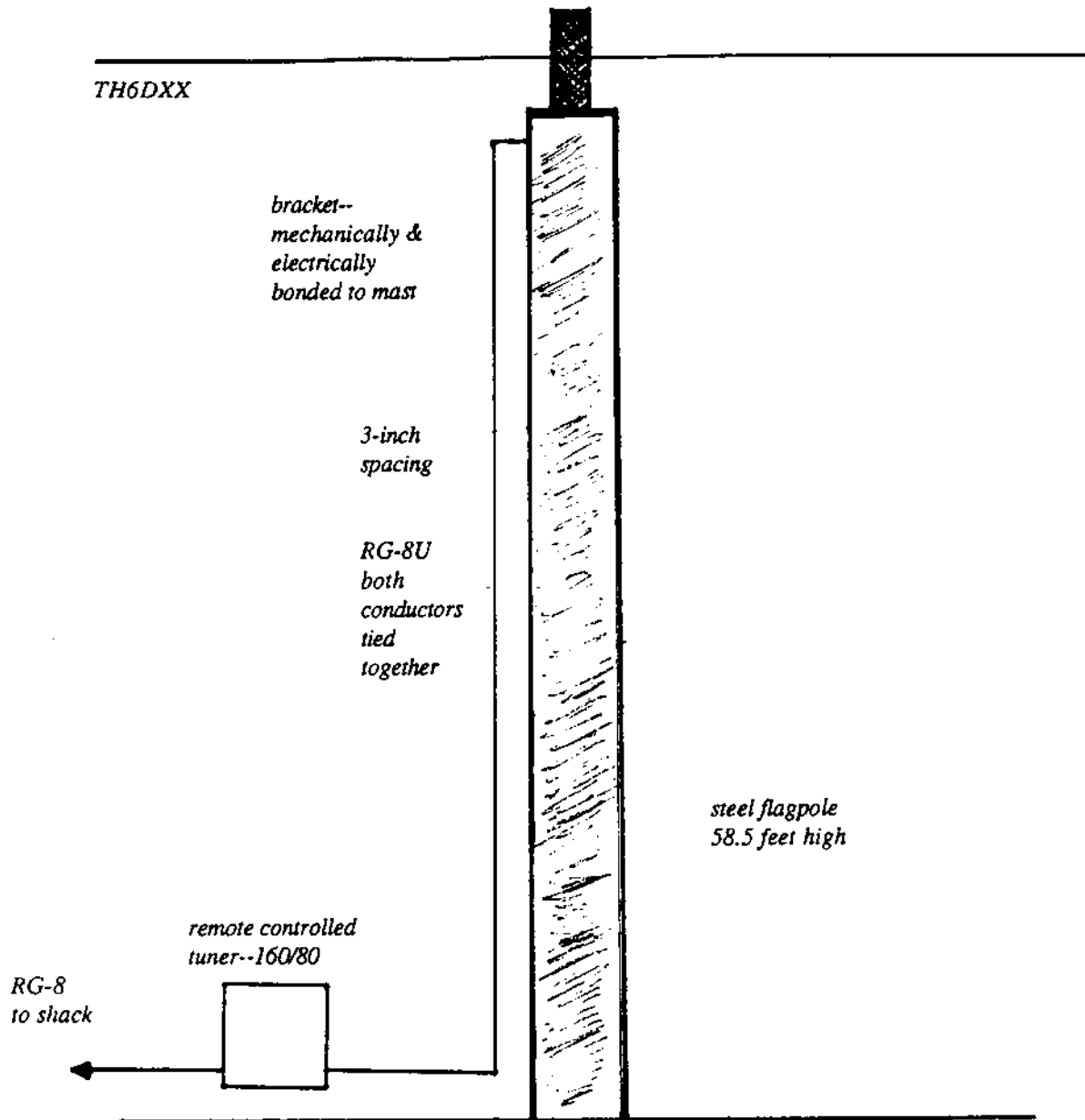
The following issues are pending:

- 1) Pratas Island--ownership of the Island is still unresolved
- 2) Scarborough Reef--in a recent informal PacketCluster poll to which 61 DXers responded, 53 voted NO & 8 voted YES for new country status. The DXAC wouldn't specify a minimum size for any country--each case must be judged upon its own merit.

--K4MQG

DXAC representative Roanoke Division

TH6DXX



W4UW's vertical folded unipole

Dick sent in this 160/80 design to encourage those without lots of real estate--in his case, one half acre. Using his Paragon, a modified SB-220 & this folded unipole, W4UW has managed solid totals on these bands. His receiving setup utilizes designs from *CQ*, December 1987 & August 1989. (Dick, I'm sorry to say I simply cannot just re-print xeroxes out of magazines without written permission. In these litigious times, it's simply too risky!)

Are We QSLing Too Much?

As a letter-sorter for the W4 bureau, I have had hams tell me they didn't want any cards and for me to destroy their cards. Others love to receive QSLs and send envelopes often. Some active contest stations seem to QSL everything and everyone, through the Bureau, of course.

The purpose of the Bureau system is to handle QSL cards from foreign countries for our convenience and economy. I love to get cards, and use the ARRL service to handle my cards, which totals around 1000 out-going cards each year, mainly due to my contest activity. Reading the cards, replying to them, putting them in the computer, sorting and filing them in shoe boxes for storage gives me a lot of pleasure and it's another fun part of the hobby. I know when I become a Silent Key, these cards will be thrown away. A sobering thought, indeed.

Thinking about it, I decided to use my computer and create a data base for my received QSL cards. A secondary use enabled me to know if or when I was sending a second QSL. Compilation was a big job; I had to deal with over 6700 card entries. It was interesting, though, since I was looking at cards that went back over 20 years.

During the entry-making, I noticed I was seeing cards from the same station for different contacts. The program allowed me to sort by calls, so a quick run gave me data on how many cards each amateur had sent. Picking 10 cards as a "top QSLer" I found that 14 stations had sent me 180 cards. One station has sent me 22 cards. A contest op, he apparently sends QSLs for every contact. I do not object in theory, but this process does require lots of handling for bureau personnel.

Just for fun, here's the top ten: HB9AAA, I2MQP, DF9ZP, YU1EXY, F6AOJ, DK2BI, DK5AD, JH4AAG, SP5PWK, and GØMTP.

Further study of the database gave this information: 54 stations have sent five cards; 86 sent four; 223 sent three; 831 sent 2; and 5344 have sent only one QSL.

When new cards come in, I have an enjoyable time entering the relevant data into the computer: call, name, number of QSLs received, band and date and comments. Now that I'm aware of the multiple reception of cards from stations, I have adopted the following policy on QSL returns. I always QSL: new station requests; new band cards; and second requests for a QSL. Beyond that, I now file redundant cards without sending one in return.

QSLing is an international gesture, to be sure, and one which many hams enjoy, but the efforts bureau workers make to guarantee card delivery must be taken into consideration. I'm trying to do my part to help them.

--N4UH

Some QSL managers handle cards for several stations. A select few folks provide QSLing services that their calls seem synonymous with "QSL Manager." Here are the Top Ten QSL Managers, in terms of the number of call for which they manage cards:

- 1) W3HMK--492
- 2) F6FNU--365
- 3) W2CTN--369
- 4) YASME--225
- 5) W2GHK--223
- 6) WA3HUP--199
- 7) DJ9ZB--167
- 8) IØWDX--121
- 9) KA6V--114
- 10) W4FRU--105.

W2GHK & KA6V are now both Silent Keys, but you get the idea. These are serious numbers. Service of this magnitude represents an awesome responsibility!

--1994 Amateur Radio Almanac

Thoughts on 160

"Top Band" still provides lots of room for antenna design and implementation as well as being a training ground for exercises in temperance, fortitude and patience. It's not a band for everyone.

Many old-timers will remember Stew Perry, W1BB, whose early efforts with letters, schedules and annual newsletters kindled many a fire in 160M operators around the world. Those were indeed the good old days--when you maybe made 40 contacts in 10 or 11 countries including three new ones in a season. Such days (and nights) are faint memories in the minds of a few of those old-timers now....

Today, 160 still presents a challenge to antenna designers and to those who are fond of the midnight oil, ear drums pounding with QRN and the agony of a semi-public defeat in yet another pileup. Propagation is somewhere between 80M and WAPE down in Jacksonville. 160 has its moments though, and they are just that--brief moments. Most openings usually occur prior to sunrise and fall off rapidly as sunlight comes over the horizon. Similar conditions occur at sunset, although the openings are even shorter. Limited longpath openings to 9M2, VK6 and the like can occur in December/January at sunset.

The trick to the band is, of course, receiving--being able to hear through that QRN and the strong local signals. Beverages are nice. But don't rule out low short wires, small loops, dipoles, even that 80M yagi or your vertical transmitting antenna. Try anything and everything. Just don't be disappointed by the lower signal strengths you encounter--that's the norm. Most signals will simply not be as loud as what you're used to from DXing on the higher bands. 160? It's a hobby within our hobby. If you like working (okay, fiddling) with antennas, long operating hours (listening mostly) and have the requisite patience, give 160 a try. As the old commercial said: "Try it...you'll like it..." and that may just prove to be the case.

--N4JJ

Some Thoughts on Tower Maintenance

Most towers we hams encounter & use are steel. Most are protected from environmentally induced corrosion in one of three ways. Paint, hot dip galvanizing, zinc coating or some combination are usually used. Paint is considered the least effective. It depends upon the paint forming a protective coating to seal the steel from moisture & other corrosive agents. If chipped, the steel underneath will begin to corrode. Hot dip galvanizing is the most widely used protective method. You've heard of it--it's been a part of Rohn's advertising for years.

Hot dip galvanizing means thoroughly cleaning the steel, then submersing it in a molten zinc bath. When removed, the zinc forms a thick, abrasion-resistant coating which is metallurgically bonded to the steel. The zinc coating protects three ways. First, the coating is an effective barrier against water & corrosive agents. Second, the zinc dissolves to provide cathodic protection to any exposed steel. Third, over time the zinc forms zinc carbonate which seals over any damaged areas in the coating. It's this cathodic protection which differentiates this coating method from all others. Zinc is more anodic than the steel it covers. Small scratches or cuts in the coating mean corrosion products precipitate on the steel surface. Corrosion will not occur between the zinc & the base steel. (If you remember high school or college chemistry, you know we're talking about a galvanic cell.) In hot dipping, several layers of zinc form--100% zinc at the surface, ranging through various layers of alloys to 100% steel at the base. Hams often attempt painting maintenance on hot dip galvanized towers, with varying degrees of success. Here's why: upon removal from the dip, the zinc coating begins a variety of chemical transformations. The outer layer (the 100% zinc) oxidizes. Zinc oxide, zinc hydroxide & other surface conditions can be present from 48 hours up to several years after galvanizing. In any case, this oxide prevents paint adhering to your tower. Light sandblasting or a high-pressure wash followed by a metal conditioner is required for proper preparation--usually not too practical, regardless whether you've got a 200 or a 50 foot beauty in your yard.

ASTM standard A123 covers hot dip galvanizing. Basically, your inland-Carolinas tower should last at least 30 years, with a typical 3.4-3.9 mil zinc coating. At a minimum, your tower will require touch up after erection. Over time, you may notice rust stains or corrosion. What you're probably seeing is rust from leg bolts or other hardware you've fastened to the tower. Or something may have damaged the galvanized coating in some fashion. What should you do? Touch up those parts or areas of your tower with zinc-rich paint. Read the label to guarantee you're getting good paint; expect to pay more for the proper paint. Read the label again regarding preparation & application. Most of these paints are not designed to be applied in periods of high humidity--usually the time we're thinking about this sort of maintenance. Most experts will tell you quality paint, properly applied, will adhere well & will furnish protection, assuming some zinc remains to provide cathodic coverage to the steel base of the tower.

--WZ3Q

The Back Page

ANNOUNCEMENT

South Georgia Island VP8-DXpedition

WA3YVN (AL Hernandez, co-organizer & op at VP8SSI) & WA4VQD (Jan Heise) have founded the SGI DXpedition Group. Overall, they plan to organize & conduct operations from many low latitude Antarctic Islands. First up will be South Georgia, beginning in early January '95. They plan to operate on all open bands, emphasizing low bands & CW--trying to maximize stations worked. QSL via: W4FRU, INDEXA, POB 5127, Suffolk, VA 23435. And they are still looking for one or two high caliber CW ops to complete their team. WA3YVN may be telephoned at: 407-727-0201 or FAXed at: 407-728-8072. The SGI trip will exceed \$50,000. The usual support is needed from the DX community; CDXA has already helped. Contributions may be sent to: SGI DXpeditions, POB 2235, Melbourne, FL 32902. Club contributions & significant sponsors will be duly noted on QSLs.

N4ZC & WZ3Q have been busy rebuilding. This fall, both Roger & Don hope to return to those thrilling days of yesteryear...when the N4ZC station was competitive in the CQ World Wide DX Contest. Indeed, N4ZC was a consistent call in the "top six" breakdown box during the early & mid-80s. If you'd like to learn something about contesting, help out, or just operate & work DX for 48 hours, keep watching this space! A hail fellow & hearty thanks to the following folks who have recently been out there helping Rog & Don: AB4ZM, AG4L (who found the shorted LP cell we'd all missed), K2SD, K4MQG, N4YGY, WA4UUP, & WD4R.

The CDXA endorses John Kanode, N4MM for ARRL Roanoke Division Director. John's been active in ARRL affairs for over 30 years. He has the experience, & more importantly, the time to serve the needs of active hams (especially DXers & contesters, being one himself) at this critical time in our history. John's work as Director for the past six years proves he can commit the time & effort needed to serve us well.

N4MM's dedication & experience deserve your vote. Please, when your ARRL ballot arrives in the mail, take a moment to actually check the ballot, stamp & mail it. Vote N4MM for Roanoke Division Director!

Repeated efforts to get articles for the outlined publishing schedule of The Pileup have been, well, something less than successful. I still believe in the idea of a Heathkit article; this is one last plea for stories. Based on the W4FHI letter in this issue, let's try to continue with something like the W4UW antenna article in this issue in future Pileups! Send in your favorite design or idea & help generate some interest.

Several readers did comment on this newsletter during a recent Shelby rainstorm. Most mentioned how much they liked reading about other members. If you're one of those members who has not yet replied to my query, please tell me why (just say you're bored, burned out or something to indicate I should stop hoping) or send in the questionnaire.

Please?