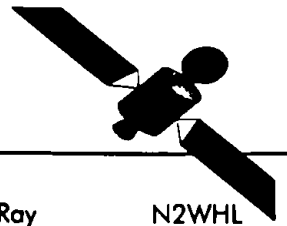




W2MMID



Gloucester County Amateur Radio Club

1995 Officers

President	Marla Bozorth	N2DWR
Vice President	Bob Krukowski	WA2UDO
Treasurer	Al Arrison	KB2AYU
Recording Sec.	Mark Mastrogiacomo	KE2WC
Corres. Sec.	John Fisher	K2JF

Directors

Three-Year	Chuck Colabrese	WA2TML
	Goldie Rosenberg	N2YNB
Two-Year	Joe Wells	N2KLE
	Bill Burbage	N2QEB
One-Year	Walt Seitz, Jr.	KB2JCG
	John Lloyd	KA2EZN

Trustees

Four-Year	Barbara Bielecki	N2SBP
Three-Year	Skip Mawson	KE2SC
Two-Year	Charlie Olinda	N2SRQ
One-Year	Steve Brodhead	KB2RTZ

GCARC Meetings

General Membership:

8 p.m., 1st Wednesday every month, Deptford Elks Lodge, Highland Ave., one block from Egg Harbor Road.

Board of Directors:

8 p.m., 3rd Wednesday every month, GCARC site, Harrison Twp. 4-H Grounds (approximately one mile south of Mullica Hill on Rt. 77).

Club Repeaters

147.780/180 Mhz 223.06/224.66 Mhz
447.100/442.100 Mhz (CTCSS 131.8)

1995 Committee Chairpersons

Advertising	Ray	N2WHL
ARES/RACES	Chick	WA2USI
Awards	Jack	K2ZA
Banquet	Marla	N2DWR
Budget *	Charlie	N2SRQ
Callbook Info.	John	K2JF
Chaplain	Tom	N7GBH
Clubhouse Site *	//OPEN//	
Constitution *	//OPEN//	
Crosstalk	Greg	WN2T
	Don	N2WFM
Data Processing	Skip	KE2SC
DX	John	K2JF
Field Day *	Steve	N2GVR
Hamfest *	John	KA2EZN
	Bill	N2QEB
Heath & Welfare *	//OPEN//	
Help	Ken	KN2U
Historian/Archivist	//OPEN//	
Hospitality *	Glen	N2YIO
Legislation	//OPEN//	
Membership*	Drew	N2UNG
Nets	Steve	N2GVR
Nominations	Marla	N2DWR
Publicity *	Ray	N2WHL
Repeaters *	Chuck	WA2TML
Scholarships	Greg	WN2T
Special Services	Al	N2FJQ
Sunshine	Marla	N2DWR
Technical	Ken	KN2U
Training & Testing	Bill	WA2VQG
TVI	John	K2JF

(* Standing Committee)

NETS

ARES/RACES - Sundays, 2200 Hrs
(147.780/180 & 223.06/224.66 Repeaters)
10 Meter - Sundays following the
ARES/RACES net (28.350 Mhz)



Piano Tuning and Repair

A poorly kept piano - one that is suffering from broken parts, ill adjusted pedals or sticking keys - will discourage any piano student and impede progress in becoming a better player. Call...

T.D. Church - Piano Service
(a.k.a. N7GBH)

Assoc. Member Piano Technicians Guild
(609) 931-2436



Happy New Year

January

Crosstalk 1995

President's Message

I hope that everyone is having a happy and healthy holiday season. Thank you for voting me in as President for the 1995 year. I promise that I will put the club's best interest out front. This is YOUR club, and if there is something that you want changed, or incorporated into the program, please let me or one of the members of the Board of Directors know. Before getting too far into this message, I'd like to thank the past administration for all the work that they did for GCARC in the '94 term. You, the club, has chosen a very fine Board of Directors for the upcoming year, and I feel that with the Executive Board that we have, the club will go far this year. This should be quite an interesting and challenging year, one that I look forward to very much.

As I have said in the past, LET'S GET INVOLVED! This is YOUR club... make it what you want it to be Without you, there would be no GCARC The date for the Installation of Officers/ Banquet will be announced very shortly. Our new Vice President is working on securing a date for us, along with a terrific meeting place!

Don't forget the Casino Bus Trip on January 21. The cost is \$10.00, and you get \$7.00 back. We leave the Deptford K-mart at 3:00 p.m. and return at 11:00 p.m. The Taj Mahal will never be the same !!!!! If you're interested, please let me know A.S.A.P., and I'll need your money to secure a seat on the bus.

I have programs lined up for the first couple of months. If there is a topic you would like hear, please let either Bob

or myself know, and we'll try to accommodate your request. The program for January is "Reintroducing Ourselves." The February Meeting will feature our SNJ Sectional leader, Bruce Eichmann.

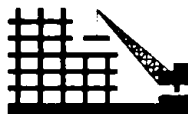
Let's Get Involved ... This is YOUR Club...

In March, we will be having a guest speaker. Look in the next Crosstalk for his name and the topic he's going to speak on. (I can't reveal his name at this

time, because he doesn't know that he's the one!)

Have a safe holiday, and see you at the General membership meeting !!! 73 Marla.

Progress!



If truly the expression, "Many hands make light work..." ever applied, it applies to the work that has been going on Friday evenings at the Club Site! Thanks to the efforts of N2QEB, N2WUP, KB2RTZ, N2KLE, N2YIO, WN2T, N2SBP, and KA2EZN the operating positions are well toward completion!

Good work, folks!



President

Vice Pres.

Treasurer

Rec. Sec.

Corr. Sec.

Directors

(Three-Year)

(Two-Year)

(One-Year)

Trustees

(Four-Year)

(Three-Year)

(Two-Year)

(One-Year)

1995 Club Officers

Marla Bozorth (N2DWR)

Bob Krukowski (WA2UDO)

Al Arrison (KB2AYU)

Mark Mastrogiacomo (KE2WC)

John Fisher (K2JF)

Chuck Colabrese (WA2TML)
Goldie Rosenberg (N2YNB)

Bill Burbage (N2QEB)
Joe Wells (N2KLE)

Walt Seitz (KB2JCG)
John Lloyd (KA2EZN)

Barb Bielecki (N2SBP)

Tom Mawson (KE2SC)

Charlie Olinda (N2SRQ)

Steve Brodhead (KB2RTZ)

In This Issue:

1. A Provocative Essay by Ken, KN2U
2. 5 WPM Code in Five Days -- (You Heard It!)
3. Half-Sloper Swats DX (It's Cheap, Too)
4. New Officers Elected for 1995
5. DX Report (For Those Long Winter Nights)

Why, When I Got MY License.

I... by Ken Bozorth, KN2U

This is a message of many facets -- a history lesson, reminder, pep-talk, thank you, bravo and a moment of **understanding**. To those of you who don't realize it, we, the sometimes frowned upon "hammers" who get run out of town, tarred and feathered and have our homes bought right out from under us, have made major contributions in the advancement (?) of all this very same "crap" we are now accused of interfering with. If I'd ever design such garbage without a few beads or bypass caps, I would be wearing my own sticky down coat. (Rung #1 of the tall ladder up to my soap box just broke..yikes! By the way, I know you already heard this before, but not from me, so read on.)

Way back then there were no Yahoos, I-you-he-she-it-coms or even Kenny-would-or-won'ts. Why, there weren't even any Rangers, Hallicrafters or Knight-kits for cryin' out loud (with). Those poor guys couldn't even find a decent TV chassis in the trash. What the heck did they do for coax?! No such thing back then. Why do you think they were losing their cattle... rustlers? Naah, some darned ham was stealin' fence wire to make coils, connections, feedline, antennas, capacitor leads...Yes, capacitor leads! There were no Radio Shacks or Actives back then either. (O.k., I'll get to the next point.)

The point is that the real oldtimers had to (1) earnestly want to know about radio, from the line cord to the tip of the antenna (2) work more long hours to wind up with equipment that they already took great pains to learn about and (3) deal with irate neighbors who sported sidearms and huge wire cutters. (Although I went a little overboard, I didn't lie or even exaggerate.)

Our group is a mixture of the extremely vintage (you figure it out), moderately classical, just-started-shaving (wherever) and still-in-diapers (so to speak). I, myself, shave almost every day and don't cut myself too often any more. I really enjoy the company and stories of the folks who made it a little **easier for me to get my ticket**. One of those folks is my dad, Sid, WB2YHX (formerly WB2ATR). He made it a little easier by making it fun and actually a little harder. You see, we did not buy that Knight-kit until we succeeded in building and operating the 25-watt oscillator **out of the handbook** (6DQ6).

So, it's easy for me to appreciate the old-timers' ideas about how relatively easy it was for me to get licensed. When I took my tests there were study-guides available that included samples of the types of questions asked. I must admit I almost felt guilty, already knowing what I was expected to learn. The book even showed me how to do the problems. In earlier days,

they had to prove they could design and build transmitters, receivers and antennas, not just fill out a multiple choice answer sheet like I did. I honestly don't think I could have passed their exams. Yet they accepted me because I wanted to join their fraternity and was willing to do my homework. (Ok, I'll sum it all up so you can go on with things.)

We should thank the older people who have, in one way or another, forced us to approach our hobby with analytic rigor and the desire to learn how things work. I will be that guy whenever I can, so buy some soldering equipment, a DOS book (or whatever you think you need work on), and set aside some of your own time to do that repair or learn that string. To those of you who do this already, keep up the good work. To those who just can't, you'll have help. If you don't do

code or remember any theory, but are helping in some way to better ham radio (by volunteering for something in your local club or helping to put up an antenna), just keep being nice; you know who you are. You really should learn to solder, though...it makes you look just like a real ham.

Here's another side of the coin...Merely having passed some exams, including 20WPM, 30 years ago doesn't make it right to poo-poo a "no-coder," for he or she may have a degree in computer science or be an expert rigger, and be quite capable of getting you back on the air next Field Day, while you're sitting their adjusting your paddles! If you got your Extra ticket in 1964, don't do code any more and forgot Ohm's Law, then you're in about the same condition as that no-coder, except that you have your extra privileges, right? Aren't you the same as that elderly lady who shouldn't drive any more?

Cont. next page

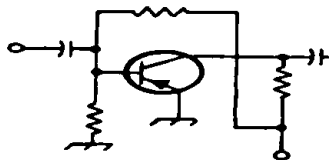


A
P
P
Y
B
I
R
T
H
D
A
Y

KB2AYU	Alan D. Arrison	01/15
KB2EAL	Beth Barnish	01/28
N2MVK	William C. Bates	01/27
WB2YHX	Sidney H. Bozorth	01/16
WA2GFK	Joe DiNovi	01/13
WB2ONY	John J. Fahey	01/19
N3GSD	John S. Ferrari	01/13
KB2EUA	Miriam Kravitz	01/19
KB2COB	Robert L. Layton	01/11
WA2USI	Charles A. Naylor	01/09
N2PKN	Anthony Pitale	01/03
N2QEE	Gary L. Reed	01/24
WA2ZND	Emmett Ross	01/10
N2OMB	Jack Sheppard	01/08
KB2QDC	John T. Todd	01/22
N2SBV	Henry M. Vandenberg	01/16
N2IMK	Francis E. Wallace, Jr.	01/21
N2KLD	Mary Ellen Wells	01/15
N2WFA	Frank J. Steidle	01/17

Well, ya did have to know a lot more theory then, and you weren't allowed to miss one character in a solid minute of copy, pilgrim -- facts which (temporarily) made you a genius in the eyes of your neighbors. (Wait 'til ya hear this!)

Even though I work with RF daily and can fix things, I feel that I fall into the same category. I haven't even worked all states yet, I get all jumbled up on packet and sit on my microphone when I'm not eating it along with my bagel. What kind of ham



am I? What have I actually given to my hobby? (I give most of it to my employer.) Ok, ok, oK! We all can't be technical wizards. If we were, we'd all be arguing about things and not doing anything. The rapidly changing technology and electronic equipment marketing have made appliance-operators out of all of us. (The nickname "appliance operator" has been in use as long as I can remember, so what's new?)

We, the technically-minded post-adolescents bubbling with fische and chips, need to **understand** that fact and guide those who **deserve and need it**. Maybe someday there will be that SuperHam-class ticket that will again launch us into our own semi-private ward. We, the slightly older buildings, whose elevators still go all the way up, and downspouts

that....never mind, should do the same; **understand** the reason for that seemingly-arrogant livewire's over-heated fuse link, as well as what he **should have understood**. He's mad because the system has snuck into his rig and yanked out the narrow filter at the entrance to his hobby. It used to keep out those who don't really share his level of intensity. He should have **understood** that the "intruder" could very well be his next good friend and become better at ham radio than he is.

The new-commer has everything to learn; hopefully something to teach, and the **oldtimer everything to teach, learn and understand**, because he still wants to help and is tickled at all this miniature excellence. He's been through it all, including being stripped of his frequencies because....he did not want to re-learn the same stuff again plus a little. Think about it. He's told he needs to learn more, then they start giving out tickets faster 'n traffic cops.

To the (not by age) young licensees I say, "Have a little **understanding** for the older guy who's checking you out." He has a right to. Be sincere about your hobby and nice to others on the channel...er...frequency you ratchet...er...chat on. A lot of **understanding** is all that's needed to keep faces smiling. By the way, one of my quirps in ham radio is that I do believe in ghosts, and I just heard a voice say, **Handbook?** Why, when I got MY license, I....



Want one of those neat monogrammed Club jackets? Call New Jersey Monogramming (Erial, N.J.) 609-784-2827

Jackets are custom-embroidered; prices vary according to style and quantity. Call for info.

High Tech Santa

Old Saint Nick doesn't just drop in on chimneys, you know. The other night the Old Boy showed up on the "180 Machine" to bring Seasons Greetings to all and to listen to the "wish list" of Billy Bozorth, son of Marla and Ken. "What to my wondering ears doth appear....."



5 WPM in 5 Days - No Problem!

by Kyle Cassidy, KB2RVY

I will admit that although I have always wanted to learn Morse code, it was a desire hidden within the far recesses of my head, in the dusty, disused portions behind things such as cleaning out the garage and going to see a hockey game with my friend, Rocky. It was the FCC's altering of the rules on February 14, 1991 to create the "codeless technician" class of license that finally got me to take the plunge and get a ham ticket. After my new license arrived, I found that a lot of older hams were glad to have me among their ranks, were friendly, enthusiastic and helpful. But just as many, I realized, weren't talking to me because I didn't know the code. I had cheated and taken the easy way in.

Of all licensed hams today, 20% are codeless technicians and in 1994 for the first time, technician class licensees outnumber general class licensees. It is the FCC's desire that once someone gets a class of amateur license, he or she will seek to upgrade it in exchange for greater privileges. This is, of course, known as "incentive licensing".

Although I didn't have any equipment other than the obligatory 2 meter HT, I started thinking more seriously about

learning the code. The only real incentive I had to learn code was more for purposes of social redemption than anything else. I mentioned this at work one day and one of my colleagues, who used to teach code in the navy, said "I can teach you Morse code, 5 wpm, in 5 days, and you won't have to work at it." I thought about this. There was indeed a hamfest that weekend where I could take the test. What the heck, I figured, I'll take the test and if I fail, it's no big deal. Well, I didn't fail. True to his word, Leigh taught me to send and receive Morse code at the rate of 5 wpm in five days and I didn't have to work at it. Here's how you can, too:

Lesson one at lunch that day I learned the letters EISHTMO. These letters are the simplest to learn, (one dit, two dits, three dits, four dits, one dah, two dah's, three dahs, respectively). Inside of about five minutes I had learned a quarter of the letters in the alphabet. If only the rest of them would be so easy.

Translate everything you see into code. Start out with the letters you know, find them. Stop signs are no longer stop signs to you, they are "dit dit dit, dah, dah dah dah, dit dah dah dit" signs. Your friend Bob is no longer Bob, he is "dah dit dit dit, dah dah dah, dah dit dit dit" (although keep this to yourself, unless your friends are all hams you may weird them out by beeping at them during lunch). It doesn't take any time out of your day to do this and it allows you to turn your whole day into one long study session and still get all your work done.

Get one of your ham friends

to lend you an old straight key and keep it on your desk, or your kitchen table, or by the television or the bed. Whenever you find yourself with two spare minutes, tap out a few words and letters, peoples names, book titles. You can do it while you're watching T.V. or reading the newspaper (don't do it in bed, though, unless you live alone, it might get you into



trouble). You want this to become an unconscious activity. Who cares if your code is sloppy? If your dits and dahs sound somewhat similar, or if your dahs are eight times as long as your dits and irregularly spaced? The point is that you're doing it and the more you do it, the better you will get at doing it.

Keep a sheet of paper in your pocket with the code written down on it. While you're walking around and translating things, if you can't remember a letter, look it up on your sheet of paper. Keep one on your desk at work so you can always reference it quickly. Try to wean yourself from the sheet of paper as quickly as possible.

Get the Gordon West audio tapes, Learning Morse Code. If Radio Shack doesn't have them, one of your friends does. The set includes four tapes, the first two for five WPM and the last two help you get to 13 for your general. A lot of people think

that using Gordon West's stuff is like cheating, and it is. He makes things very easy to understand and doesn't deal with superfluties. Although he's not as funny as he would like to believe, he is not entirely stoic either. Listen to the first two tapes (total running time 3 hours) and if you get a chance, the first side of tape 3 -- Code Building Speed, which is supposed to take you from 5 to 10 wpm. And don't say you can't find three hours over the course of five

days to listen to tapes. You might have to stop watching T.V. for a couple of days, but those are the sacrifices you've got to make.

On your 5 wpm test, you will hear all 26 letters, every digit between 0 and 9, as well as punctuation. The period, comma, question mark, slash (DN), break (BT) and end of message, end of work signs (AR) and (SK) will all make an appearance on your test.

This is a total of 42 characters. Of these, the most common, obviously, will be the letters. You may see the letter "e" 14

times and the comma only once.

One thing you can do to make things simpler for yourself is to ignore the punctuation. The numbers are relatively easy and at 5 wpm you can count dits and dahs (be forewarned, though, this will not work at higher speeds). All the punctuation marks are considerably longer and more complicated than either the let-

ters or numbers and as such, easily recognizable as punctuation. On your test, you can just mark them all down as dashes. Although you probably find punctuation useful for QSO's on HF, on your test you can get by without it.

Pick a testing date and commit to taking the test, regardless of how well you are doing on the code. Having a goal serves to focus you. After all, no one wants to take this test more than once.

Listen to other sources. If you have a computer, you can get programs which will translate text files into code, or give you random characters to copy. You may also have friends with HF rigs who would be more than happy to let you listen to QSO's down on the novice portion of the HF bands where folks routinely chat at 5 wpm. This is quite a bit more exciting than listening to computers or tapes.

Your VE can give the test one of two ways, either looking for one minute of perfect copy (five words in a row with no errors), or by giving you a 10 question multiple guess exam. Take the multiple guess.

Don't worry if you're not copying at 100%. 70% accuracy is more than enough to pass the test.

Don't stop! Just because you've done 5 wpm doesn't mean you can throw in the towel. There is another testing session 30 days away and if you keep at it, you can be at 13 wpm by then. When you pass your 5 wpm test, you can immediately get on the air, which is certainly the best way to learn.

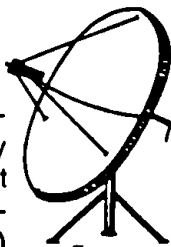
**Don't Worry If
You're Not Copy-
ing 100%!**

There are certainly better ways to learn the code, ones that won't start you out on the road to bad habits (like counting dits and dahs), striving for 100% accuracy, paying close attention to all the characters, etc., but I don't think there is a faster way to learn. The problem most people have with Morse code is actually sitting down to learn it. You have to make a commitment to learn Morse code, but if you actually want to learn it, it's not a problem. 5 wpm is very easy. 20 minutes a day listening to tapes, computer generated code, or actual HF, coupled with practice throughout your normal day, will get you there in under a week. (And if you don't have a computer you probably know a dozen people who do and would be happy to make you a set of study tapes.) It is far easier to learn the code in five days than it is to learn it in five months. For five days, even the least dedicated of us can tuck in our belts, grit our teeth, and work through it. I'll be listening for you on HF.

1994 EME Contest

Last year I reported on my first attempt at EME (earth-moon-earth) during the annual ARRL International EME Competition. I managed to work a couple of the "big guns" in North America on both 144 and 432 mhz. I was using only a 150 watt brick amplifier with a built-in preamp on both bands.

This year I made some improvements to my station and had very good results. I upped my power on 144 mhz to 700 watts and installed low-noise GaAsFET preamps at the top



of the tower on both bands. A Timewave DSP-59+ audio filter also helped dig out the weak signals.

I only operated for 2 hours on the first weekend and 6 on the second. It was great to work my first European, SM4IVE, on 432 mhz! He must have a BIG station because he was LOUD! The best contact of the contest was at the very

end when the moon was almost gone at about 15 degrees above the western horizon. JL1ZCG came out of the noise and I worked him for continent number 3 on 144 mhz!

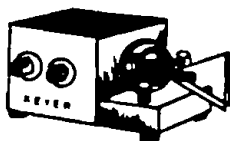
Here is my log for the contest:

SM4IVE	432
W5UN	144
K5GW	144

I2FAK	144
VE3ONT	144
DL9KR	432
KB8RQ	144
SM5FRH	144
K1FO	432
DL8DAT	144
JL1ZCG	144

I'll be ready for next year with more power on 432 mhz and more practice at working them off the moon. 73 de AI, KB2AYU.

DX REPORT



St.Lucia -J6- Number of W9's will operate from St Lucia, Jan 7-13, including an entry in the ARRL RTTY Roundup, Jan. 7-8. Cayman Is.-ZF- Look for ZF2RO from Grand Cayman, Dec 29 to Jan.5. He will be on 75 -10 meters on CW, SSB, running 500 watts to a vertical.

Antarctica -VP8- Eddie, VK4EET, very active as VIOANT from Davis Base. He tries RTTY on 14083 kHz, usually around 01-0200Z and 13-1500Z. He is active on all bands, including six meters, on CW, SSB, RTTY and AMTOR.

Solomons Is. -H44- H44MS, Bernhard (DL2GAC), will be on from mid-January.

SSB Nets: 14226 (1530, 1900Z) - J52AK,XT2/TU5BA, D44AB, AH8A, VR6DB, XF3/K7DBV, 9V1, ZP, PZ5JR, PZ1ZE, EL2PP, 8P9CT, JI7BCD/JD1, JD1BIK, VP3EE, TR8JH --- 14247 (2200Z) -HI8LC --- 21355 (1800Z) -ZS6LF, WH6ASW, AA2CT, ZS8B, V21YA, 9Q5TR, HI8LC

Amateurs on Regularly:



Australia



China



Great Britain



Italy

DXCC Country	Callsign	Freq.	UTC
Hawaii (U.S.A.)	KH6CF	3803+/-	1050
New Zealand	ZL4QY	80 M CW	1100 Thurs.
Argentina	LU7EE	10101	0000
Asiatic Russia	RX9FM	3506	1130
Bolivia	CP8XA	10107	2230
Canary Is.	EA8CN	3510	2330
Falklands	VP8BKT	21291	16-1800
Gambia	C53HG	14024+/-	2115
Ivory Coast	TU2XZ	14021	2030
Korea	HL9DC	14024+/-	23-0100
Minami Torishima	JI7BCD/JD1	3507	1030-1100
Mozambique	C91AJ	21302	14-1500
Paraguay	ZP6CW	10107	2145
Reunion Island	FR5DD	14020+/-	1300
Rwanda	9X5EE	7000 +1	2230
San Andres	HJ0VGJ	7008	0350
St.Helena	ZD7JP	21340	1900
Swaziland	3DA0BK	3506	0245
Zaire	9Q5MRC	14007	2000

C U in the PILE-UPS

All have a very prosperous and good DXing New Year
John K2JF

Try This Compact Antenna!

The Half-Sloper will cover 160, 80, 40, 30, and 17 meters by using an antenna tuner. This antenna is inexpensive, easy to make, and will fit on a small lot (I live on a 40' x 80' lot with a five-room bungalow and a garage, so you can see I have little space for antennas). The antenna is also great for DX.

The Half-Sloper (or quarter-wave sloper) has a low angle of radiation and exhibits some directivity in the direction of the slope. The antenna is vertically polarized. By using the loading coils described below, a five-band sloper can be constructed to fit in less than 60 feet of yard space.

The 5-band sloper described here was built by Joe Gabor, WA8WEQ. Joe is retired and has built a dozen or so of these antennas for members of the Steubenville-Weirton Amateur Radio Club. Following Joe's basic setup, I constructed one for myself.

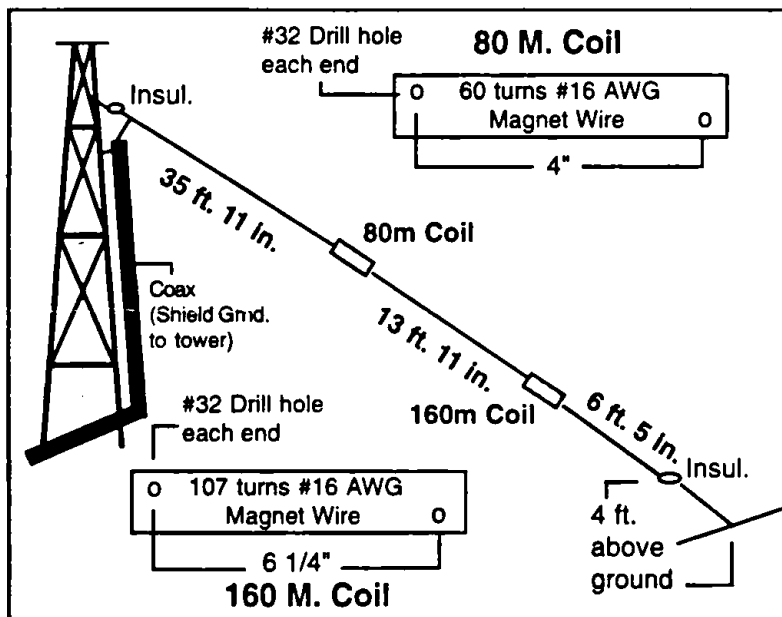
Materials: The antenna is constructed of #14 AWG wire. It may be enameled or insulated. The loading coils are made with #16 AWG enameled magnet wire on one and 1/2 inch I.D. diameter Schedule 40 plastic pipe. Scrap pieces of 1/4 inch-thick acrylic are used for the insulators inside the coils. You can buy these items in most hardware or electrical supply stores.

Building the Half-Sloper: First, make the loading coils by winding the #16 magnet wire. Next fasten the end of the antenna wire coming from the tower to one end of a piece of acrylic that has been cut to fit inside the 80 meter coil. Take the other end of this piece of acrylic and put it through the coil; then fasten it to the beginning end of the 13-foot, 11 inch length of antenna. Solder jumper wires from each end of the coil to the antenna. Now, fasten the 13-foot, 11 inch piece of antenna to the next coil (the 160 meter coil) in the same way, and then fasten the last length of antenna to the other end of the 160-meter coil. Make this last piece of antenna a few feet longer than the specified 6-foot, 5-inch length. This is needed to allow adjustments to the antenna. Solder jumpers to the coil ends as before.

A piece of scrap aluminum or other metal can be used to fabricate a clamp that can be fastened to the tower leg to hold the antenna and the SO-239 to which the RG-XX feedline is attached (I used RG-213/U). There will be a jumper from the center of the SO-239 to the antenna, since you will tie the

antenna itself through an insulator to the tower. If you have a 40 or 50 foot metal tower with some sort of beam attached, place your antenna at 30 to 35 feet up from the ground. With higher metal towers, you will have to experiment. The slope should be such that the low end will be at shoulder height - about four feet off the ground.

Operation: The sloper makes for some lively discussions on the ham bands. Some swear by them; others wouldn't own one. But it's a great antenna to experiment with. My sloper is connected at the 30 foot point on a 40 foot tower on which a 3-element tribander and an 11-element 220 beam are attached. I use a tuner with the sloper and find that the antenna tunes well on the five bands (160, 80, 40, 30, and 17). As an experiment, I tried feeding the antenna directly to a TS-930S (tuner off). I found that the VSWR on 1930 khz was about 1.3:1; 1.5:1 on 3850 and 1:1 at 7190 khz. The SWR changes fairly rapidly as you move up and down the band, especially on 160 and 80 meters. I did not try the other bands without a tuner.



With the tuner in the system, received signals in the direction of the slope - the favored direction - were as good and often better than a 40 meter dipole I had at that time. All installations are different. Your results could be totally different from someone else's. Variations in height, grounding, and surrounding objects certainly affect the antenna performance. But try it! Experimenting with antennas in close quarters is fun.

Many thanks to Joseph M. Plesich, W8DYF, at 554 Lovers Lane, Steubenville, OH 43952 and "73 Amateur Radio," Sept., 1987, p. 43, for the information. Tnx K2JF.

Congratulations!

The GCARC extends congratulations and best wishes to Raymond Flanigan, N2UHL, and Edie Clark on their marriage!

Information or a Story for Crosstalk?

Please send directly to WN2T or N2WFM or on Packet to K2JF via KF2AW (address attention: Crosstalk). DEADLINE FOR FEB. is Jan. 18!

January 1 - 31, 1995

SUNDAY	MONDAY	TUESDAY	WEDNESDAY	THURSDAY	FRIDAY	SATURDAY
Jan. 1 20:00 ARES/RACES 20:30; 10 mtr Net - 28.350 Mhz ARRL Straight Key Night	Jan. 2	Jan. 3	Jan. 4 GCARC General Membership Meeting 20:00	Jan. 5	Jan. 6	Jan. 7 ARRL RTTY Roundup 1/7-8 <hr/> W1AW Qualifying Run 35-10 wpm
Jan. 8 20:00 ARES/RACES 20:30; 10 mtr Net - 28.350 Mhz	Jan. 9	Jan. 10	Jan. 11	Jan. 12	Jan. 13	Jan. 14 Hamfests- Harrisburg, PA; Lancaster, PA <hr/> No. Amer. QSO Party-CW 1/14-15
Jan. 15 20:00 ARES/RACES 20:30; 10 mtr Net - 28.350 Mhz <hr/> Hamfest- Yonkers, NY	Jan. 16	Jan. 17	Jan. 18 20:00 GCARC Board of Directors Mtg <hr/> Deadline February Crosstalk	Jan. 18	Jan. 20	Jan. 21 Casino BusTrip <hr/> ARRL Jan. VHF Sweep- stakes 1/21-23 <hr/> No. Amer. QSO Party-Fone 1/21- 23
Jan. 22 20:00 ARES/RACES 20:30; 10 mtr Net - 28.350 Mhz	Jan. 23	Jan. 24	Jan. 25	Jan. 26	Jan. 27 CQ WW 160M DX TEST-CW 1/27-29	Jan. 28 ARRL Novice Roundup 1/28-2/5
Jan. 29 20:00 ARES/RACES 20:30; 10 mtr Net - 28.350 Mhz <hr/> Hamfest- Odenton, MD	Jan. 30	Jan. 31 New Classes! Ham School - Bellmawr 7-9:30 p.m. (General Code and Theory)	