



HAM HUM

Published by
AK-SAR-BEN AMATEUR RADIO CLUB, INC.
Post Office Box 291 — Downtown Station
Omaha, Nebraska 68101



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May 1978

OMAHA AMATEUR CENTER

5347 No. 30th Street Omaha, Nebraska 68111 (402) 453-3344

Ray Kydney, WAØWOT

Loretta Kydney, WBØMNL



Larsen Antennas



NMO-150-K



NLA-150-K



JM-150-K



LM-150-K



NMO-450-K

HAM HUM is the official organ of the Ak-Sar-Ben Amateur Radio Club, Inc., of Omaha, Nebraska, mailed monthly to all members and to others upon request.

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New member initiation fee \$1.00
 Regular member \$3.00
 Regular member and spouse \$3.60
 Student member \$1.05

NEXT MEETING

WHEN: TUESDAY, MAY 9, 1978

TIME: 7:30 P.M.

PLACE: JEWISH COMMUNITY CENTER
 333 South 132nd Street
 Omaha, Nebraska 68154

PROGRAM: 11 — 10 CONVERSION

One of the better things to happen to amateur radio in the past year is the availability of lots of low cost H.F. transceivers. These cheap little C. B. rigs can easily be converted from 11 to 10 meters and it won't cost an arm or a leg either. Several of the ham magazines have given articles about the conversion and possible band plans.

Our local hams have been experimenting also. Larry Bailey, WØPYA, and Scott Persson, WBØQPP, will present their findings and a possible demonstration.

Join the fun on 10. See you at the JCC.

73s
 WBØPHP

VISITORS WELCOME — REFRESHMENTS — EYEBALL QSOs

THE PREZ SEZ

Check your pockets! If you do not have a 1978 Ak-Sar-Ben Radio Club membership card, this may be the last "Hum" you will receive. If you were a member last year and have not paid your dues...now is the time. We are readying the roster for this year and must stabilize our list.

Our membership continues to grow, thus keeping WBØTMU, Dick well occupied. Please inform Dick through Box 291 or at a meeting of any changes that apply to the data the Club accumulates on us all. For instance, many upgraded while the F.C.C. was here in April. Congratulations are due to all of you. However, the F.C.C. does not report to us. Please help keep us up to date with member news.

WAØSVO Dave and WBØPDJ Ken are now extras, while KØTHI Tom, WDØADV Virgil, WAØZQG Rich, and WØAUH Lyman have become advanced class licensees. WDØHFP Dale and WD5HKI John attained general and WDØHPK Marci is a novice. Sorry for any omissions, and we still want to know.

The auction appears to have been successful financially and much of the credit goes to the workers who made it go. Through no one's fault, we had many more items this year over last year and it did get a little long. WBØFWB, Joe has contributed suggested improvements, along with the Board, for next year. The date and site are being negotiated now, along with 30-day cancellation privileges.

The Board has allocated some of the money gained by the auction into a fund to be used for Club owned

equipment, placed for use by the A.R.E.S. and ourselves in an emergency. Thus far, 2 power supplies, a 2-meter beam, rotor, and an ICOM 22S have been added to Club equipment. K9BL, Bob says the greatest need is at the National Weather Service.

In conjunction with this "putting our money where our mouth is," we are for the first time, as I know it, soliciting funds from the community for additional gear as above, plus 220 MHz rigs. A letter has been prepared for this purpose and will be mailed to possible contributors. If you know of a prospect that would help the community in this manner, let any Board member know.

The repeater move has encountered a snag, as the FM station occupying the tower site is going through a rating period and must remain undisturbed, according to my information. Economic and equipment evaluations are still underway.

WAØGEH, Marty and I had an opportunity to tour the Omaha Emergency Operations Center after the proclamation was presented to the Club for flood communications by the Douglas County Board of Commissioners. The following evening Marty, KØPQR Tom, and I toured the Lincoln E.O.C. and found the facility very impressive. The Lincoln Club hosted a meeting on the site and presented a fine meeting geared to their weather spotters.

Field Day fast approaches. The Equipment Committee is busy preparing the trailers for use. KØDKM Lloyd and KØJBC Harold have completed work on the generator. WBØPPF Jerry is still looking for Field

Day volunteers. Join in — it will be great fun and we expect to be on top this year barring unforeseen difficulties.

Keep June 3rd open for the 3900 Club activities at the Marina near Sioux City. For further details contact the 3900 Club. Kearney has set the date for their spring convention. It will be over the April 1st weekend in 1979.

Thanks to WØJJK Al for a fine program on antennas. Everyone

enjoyed it and learned from attending. Pictures (by KØZLY Bob) of the award to Zita Tesar, World Insurance Company, for her fine service to the Club; and of Bob O'Brien, Acting Director of Civil Defense, presenting the Douglas County Board proclamation are in this issue.

Looking forward to seeing you at the May meeting.

Jim, WBØGQV



SINCERE THANKS!

I want to say "thank you" to all the people who helped me to get my novice license. I especially want to thank Irene and Tom Mulick for all the hours they put in to help me. I also want to thank all my teachers at the classes. Without Bob Conley's encouragement to keep trying after failing the theory twice, I never would have made it. Thank you all for your help and encouragement.

Marcy Trainer, WDØHPK

AIR FORCE MARS MEETING

There will be a general Air Force MARS meeting on Friday, 12 May, 7:30 P.M., at the NCO Club, VIP Room, Offutt AFB. All Air Force MARS members and interested personnel are encouraged to attend.

Kevin J. Clatanoff
WAØYCC/AFBØYCC

NOTES FROM BOARD OF TRUSTEES MEETINGS

March 28, 1978

New business - Art, WBOMUL, gave a report on the Computer Fair to be held at UNO. AARC was asked to be a sponsor. Because of costs involved, it was thought best to study more detailed information.

Bob, K9BL, was given authorization to spend \$18.00 for folders for ARES. Tom, KOPQR, made motion, seconded by Bob, WOUQJ, to buy 2 power supplies for the Club from Bullet Electronics, to be used at North Omaha Weather Station and Sarpy County Weather Emergency Center. Motion carried. Power supplies will be equipped with cigarette lighter plugs.

Jerry, WBOPPF, gave a summary of his investigation into acquiring consolidated insurance for AARC. To date no commitments are certain.

Jerry's work as Field Day Chairman has just begun. Anyone who can contribute any time to this function, please get involved and help; call Jerry, WBOPPF, 331-1236.

April 11, 1978

A special Board Meeting was held at the JCC to allocate \$200.00 to the Equipment Committee for repairs on the antenna trailer. Motion approved.

April 18, 1978

Suggested by Jim, WBQQGV, to buy a 2 meter rig for the N.W.S. on north 72nd Street. Motion made by Jerry, WBOPPF, to buy the 2 meter rig and approved by the Board.

Jim, WBQQGV, made motion to pay Marty Griffin \$2.50 for the frame he had purchased for framing the award received from the Douglas County Commissioners.

The other item was the discussion of delinquent members. Motion made by WBOLYU, seconded by Tom, KOPQR, and approved by the Board to drop delinquent members. For details please read the Prez Sez column in this issue.

Robert R. Chereck, Sr., WBOTVP
Secretary

ARES

The Platte River flood is now history, but the work done by Douglas/Sarpy County ARES is still being applauded. We wish to thank all those people that helped the operation. In addition to those amateurs mentioned in last month's Ham Hum article, we also want to recognize the following amateurs for their contribution to the flood effort.

WDOADV	WAQASM	WBOBMV
WDQCBL	WOCKR	KODKM
WAODXI	WDOENH	WQEQU
WDOESN	WBOEVS	WBOEXR
WBOFWB	WAQGQM	KOHPT
WBOHXA	WAQIBV	WBOIEN
KOIT	WQJCP	KOJFN
KOKHZ	WAQORH	WBOOSZ
K5QKT	WBORUS	WAOSTV
WBOUAM	WBOVCZ	WBOVMA
WAQYCC	WBOYGK	WBOYZR
WQYZV	WAQZGY	

73s,

Bob Neben, K9BL



Hon. J. James Exon
Governor

MILITARY DEPARTMENT OF NEBRASKA
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1300 Military Road 402-432-7641
Lincoln, Nebraska 68508

Major General Edward C. Binder
Director



Michael S. Matouks
Assistant Director

12 April 1978

AK-SAR-BEN Amateur Radio Club
P.O. Box 291 - Downtown Station
Omaha, NE 68101

Following an emergency and its recovery actions, there comes a time to recognize those individuals and groups that provided outstanding service to individuals, communities and the State.

It is with honor that the State Civil Defense Agency commend the outstanding manner in which you and your organization assisted in the emergency operation and recovery effort following the eastern Nebraska floods of March 1978.

Thank you for your cooperation. Please extend this commendation to your fine organization.

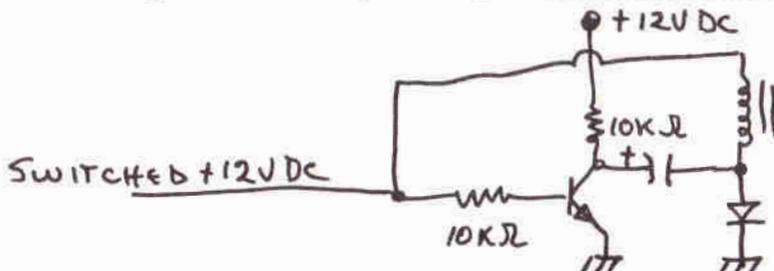
Sincerely,

EDWARD C. BINDER
Major General
The Adjutant General
State Civil Defense Director

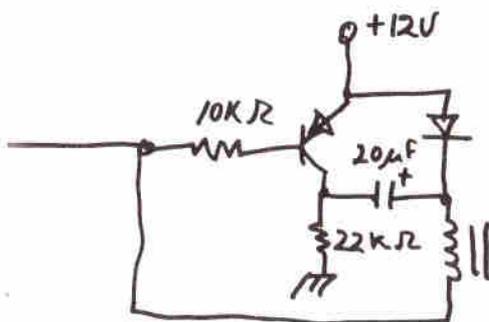
28 VDC RELAYS

Got a box full of very useful relays, but they are all 24 to 28 VDC and you need 12 VCD relays? Need some cheap

T/R relays but all you find at Hamfests are those 24 to 28 VDC ones? Here's a circuit that can help?



No critical components are used. The transistor is a general purpose NPN that will handle three times the current of the circuit under static conditions. The diode I used is a 250 PIV off an old surplus circuit board, but any over 100 mA 50 PIV would be safe. The speed depends largely on the relay, but I have had them go from 10 cps to 45 cps. Using little crystal can 650 ohm 26.5 VDC relays the circuit while energized drew about 24 mA and the speed varied from 25 cps to 40 cps with different relays. This circuit would trigger with less than 12V for switching voltage if a medium gain (>50) transistor was used for those of you thinking of TTL or CMOS devices. An alternate circuit that uses ground to activate the relay is drawn below.



Ed Sullivant, WB5MAP/Ø

The Old Timer



"If you want the world to beat a path to your door, just lie down to take a nap."

AUCTION REPORT

The annual auction was better than ever this year; also it was considerably bigger. Over 300 people attended the auction, of which 267 were registered buyers. This compares with 231 buyers last year. There were almost double the number of pieces of equipment this year; 482 compared with 252 last year. This is why the auction wasn't over at 4 pm as we had planned. All in all though the auction went very well, and I want to thank all those who helped make it a success. We couldn't have done it without you. I hope everyone is pleased with the prices your equipment sold for, and also delighted with your new treasures you brought home. If you have any suggestions on how to make the annual auction run better next year, please let us know.

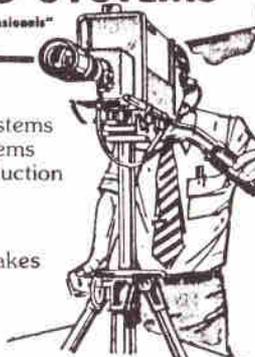
73s,

Bob Neben, K9BL

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John C. Gieringer, WD5HKI
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Offutt AFB, Nebraska 68113

Paul R. Mason
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Bellevue, Nebraska 68005
Phone: 292-5818

W. F. (Mac) McCarty, W0UPY
7823 North 37th Street
Omaha, Nebraska 68112
Phone: 455-9047

Dayton L. Phifer, W0VEA
East Tryon Route
North Platte, Nebraska 69101
Phone: (308) 632-6847

Arlis R. Wyatt, WD0GIK
6423 South 137th Street
Omaha, Nebraska 68137
Phone: 895-6887

RECENT CONTRIBUTORS

Ham Hum Postage
G. H. Byars, W0BNF
Ray T. Howerter, WB0SGB

Repeater 22/82
Ray T. Howerter, WB0SGB
Page 8

Repeater 40/00

Ray T. Howerter, WB0SGB

Thanks to the above and also to the following who donated material sold at the auction, the proceeds to go to the Club: Jack Branstiter, W0GJM; E. W. DeCloedt, WB0LFS; Marty Griffin, WA0GEH; Bob Wichman, WB0YUY; and Les D. Young, K0LHW.

VHF COLUMN

The bad news this month is that the FCC has acted on Docket 21033. The frequencies 144.5 to 145.5 will be the new 2 meter repeater sub-band. Hopefully, 500 KHz will be enough for weak signal work on two meters.

The good news is that the FCC extended the Technician Class privileges to include all amateur frequencies above 50 MHz. This gives Techs all of both 6 and 2 meters.

Both the above are effective May 15, 1978.

The Nebraska SWOT Net (among others) will have to move from the present spot of 145.150 MHz, to a frequency below 144.5 MHz. Possibly 144.150 MHz? Check with K0PAY, NCS, on Tuesday evening at 8:30 PM local time, on 145.150 MHz before May 15th for the new net frequency.

A very large flare and proton event occurred around 0123 UTC, April 8th, which resulted in a very good auroora opening for those few hams who were on the air April 10th and 11th.

W0EKB, John, operating with an ICOM 211, 180 watt amp and a single 14 el beam worked a total of 15 states in some 7 hours on 2 meters via the

aurora, Monday, April 10th, from 2339 UT til 0638 UT the 11th. States included Texas and Louisiana which is unusual. Most were on CW.

The aurora was first noted on 6 at 22 with stations worked in MN, ND, MI, WI, IL, IN, KS, MO, and SD, during the short time I was home the 10th. When I returned, the aurora was still going strong til I pulled the plug at 0700 UT the 11th.

Other auroral openings noted recently on the 4th of April from 2310 til 0150, the 5th, and April 12th, which began locally at 0019 UT on 6

meters but was unable to check further because of the club meeting. Hi.

Unusually, E_s openings on six meters so far this year have been practically non-existent. Hopefully, this will change shortly, and will be able to advise you of what's been going on on 6 in the next month's column. Or better yet, dig out the 6 meter rig, blow the dust off of it and find out for yourself. You might be pleasantly surprised. See you at the club meeting,

John Bruckner, WAØMRH

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BOARD OF COUNTY COMMISSIONERS
DOUGLAS COUNTY, NEBRASKA

Resolved

WHEREAS, the Ak-Sar-Ben Radio club has set forth for themselves a civic responsibility to provide to their community a vital communication link in times of emergencies; and

WHEREAS, during the time of the Platte River flood, this fine organization arrived early at the scene of the flood, and during the days when the flood waters had disrupted all other means of communication, provided one of the only means of communication from the flood devastated area, giving cheerfully of their time and expertise until normal communications were resumed.

NOW, THEREFORE, BE IT RESOLVED that this Board of Commissioners, Douglas County, Nebraska, on behalf of all citizens of Douglas County, do extend the thanks of the entire community, and a "well done", to this civic minded organization that has once again proved their willingness to be of vital service.

Dated this 11th day of April, 1978.



M. L. Anderson

Del. P. H. ...
William ...
...

BOARD OF COUNTY COMMISSIONERS
Douglas County

ATTEST:

Walter B. Spellman
DOUGLAS COUNTY CLERK

MEMBERSHIP NEWS

The computerization of our membership records file is proceeding at a satisfactory pace, which makes it now possible to compile some interesting statistics about the make-up of our club. As membership chairman, I will report to you regularly in HAM HUM.

We now have 194 members, or about half of the total population of the club, who have completed and submitted their membership data sheets. Those who have not yet submitted these forms are urged to do

so; we need the information in order to complete the computer records file.

Incidentally, the present file served as an invaluable tool for the AREC team during the Valley-Elkhorn flood. Using the computerized file, it was quite easy to determine who had access to required emergency equipment such as generators and 4-wheel drive vehicles.

Here are some facts compiled from the current membership records.

1. Membership by license class:

<u>CLASS</u>	<u>NUMBER</u>	<u>PERCENT</u>
Associate member	12	6.2
Novice	25	12.9
Technician	38	19.6
General	50	25.8
Advanced	60	30.9
Amateur extra	9	4.6
Total	194	100.0

I think it is interesting that the returns so far indicate a higher number of advanced class licensees than any other class. I wonder if the

distribution will hold true when all the forms are tallied.

2. Of 194 members, 12 (6.2%) are female and 182 (93.8%) are male. Where are the rest of the ladies?

3. Membership by occupation:

<u>OCCUPATION</u>	<u>NUMBER</u>	<u>PERCENT</u>
Communications/engineering/ electronics	52	26.8
Retired	25	12.9
U.S.A.F.	18	9.3
Student	11	5.7
Computers	10	5.2
Transportation	9	4.6
Sales	7	3.5
Professional	5	2.6
Teacher	5	2.6
Other	52	26.8

4. Hobbies other than amateur radio (some did not report any other

hobbies, some reported more than one):

<u>HOBBY</u>	<u>NUMBER</u>	<u>PERCENT</u>
Sports/camping	49	34.8
Photography	18	12.8
Modeling	11	7.8
Flying	10	7.1
Woodworking	7	5.0
Art/Music	7	5.0
Electronics	6	4.2
Stamps/coins	5	3.5
Computers	3	2.1
Other	25	17.7
Total	141	100.0

5. 26 members (13.4%) have emergency power generators.

6. 58 members (29.9%) are also AREC members.

De Dick Jugel, WBØTMU

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GRANDMA

We thought you would like to know a little bit about a very charming lady known to a lot of hams as Grandma (KØCCD). Here are some things she told me about herself.

She learned code at the age of 16. She was in high school at the time and one of two girls in the class. The girls had to take all the same classes as the boys, one of which was Morse code. However, she did not get her amateur license for a while after that.

Her grandson, Chuck, KØTVD, got his license when he was ten years old. Chuck used to say, "Gram, why don't you get your license so you can talk whenever you feel like it." She did in 1960.

Grandma told me that when she got her license there were only four or five gals on the air in this area that she knew of. She said she is glad more gals are now getting their licenses.

About four years ago she was having trouble with her hearing. Because of this she gave her equipment to her grandson. Her hearing improved recently though, and this past Christmas Chuck and his folks surprised her with a two meter rig.

Grandma told me something she said she has not told to anyone. She is 78 years young. I hope I am still as active as she is at that age. Also, she hopes to get to the Ak-Sar-Ben Radio Club meeting when the weather is better.

I hope you have enjoyed learning a little bit more about this very charming lady.

Pauline, WBØYHX

LADIES ONLY

At the last meeting some well-deserved awards were presented to a lady that none of us talk to on the air (since she is not a ham), but to whom we all owe many thanks. That's right, she's Zita Tesar. If we ever thought that *Ham Hum*, membership mailing files, membership certificates and cards, the roster, QSL Bureau correspondence, and club mail were all handled by magic, we were certainly wrong. All of the club presidents, past and present, tell us how much she does. The following description supports their praise for Zita.

After each club meeting there are new member applications: arrange for certificates to be printed, put new names on file cards for mailing purposes, arrange for new member cards. About a week later copy starts arriving in the mail for the next month's *Ham Hum*: ads, the front cover, articles, items to be swapped, etc, etc. Zita types all hand-written copy and checks over the typed articles before sending it all to the printing department at World Insurance Company. She gets mail from the club's post office box each day and channels it in the appropriate direction. Meanwhile—time for a little Zero District QSL Bureau work: Someone has already opened all envelopes, so Zita begins work on each ham's requests...typing labels, accounting for money sent in to purchase envelopes, stamping envelopes, checking to see whether envelopes are to be held till full or sent immediately, gathering the mail for those hams who are volunteer sorters for the Zero-land

Bureau. Time out: the type is set and it's time to proofread the *Ham Hum*, but is it TR??...or TS??...QSO or QSL??? The printing department has to accept it on Zita's word, and for not being a ham herself, doesn't she do a fantastic job with amateur designations and lingo??? Next it's time to check late membership dues; send reminders. Then time to type the new roster by name alphabetically; re-group, and type all the calls alphabetically. Send it to print, proof the final copy, and mail to members. Back to work for the Bureau...in consultation with Dick Eilers, get money banked that has been received for DX envelopes. Oooops, more mail inquiring about the Bureau....and so it goes. Sound like a lot to keep track of??? And in her "spare time" at work, she is really Dick Eilers' secretary at World Insurance Company. Zita has either worked for Dick or Dick's father since....well, she won't say for sure, but she began working there before she and her husband, Joe, had any children!

By definition amateur radio operators are trained to be able to provide service to the community in a professional manner. Zita certainly does an excellent job supporting the group in that very fashion. What would ham radio in this area do without Zita??!!

Hats off to two other ladies: this time two hams. Marcy Trainer, daughter of Phil (WBOWYE), is the proud owner of a new novice ticket, WDØHPK. Rita Willard, XYL of Tom (WBØZIB), now has upgraded from novice to tech. You may hear her on 2 meters: "this is WDØFOX/interim KC." Congratulations to both of you

and don't stop now because it's more fun the farther you go in ham radio. Till next month.....

33s,
Jill, WBØNYH

PLAIN ENGLISH

By Joe Niemann — WBØFWB

In the April issue of *HAM HUM*, I wrote an article about the use of "Q" Signals," suggesting that in some cases incorrect use of a Q signal can cause confusion. Specifically, I referred to the somewhat common practice of a ham saying, "QRZed the frequency," when he actually means (and should say), "Is this frequency in use?"

Shortly after publication, I received a letter from a Texas reader of *HAM HUM*, Art, W5KR of Brownsville. In his provocative letter, he takes the Q signal usage a step or two further, saying that plain English is "faster and clearer" than Q signals in a voice contact.

In an article in "Off Resonance," a publication of the Texas Southmost Amateur Radio Club, Art suggests the use of "Roger" (or in cw, "R") instead of "QSL." It means the same thing, "Your last transmission (or message) received and understood." He further points out that many law enforcement agencies are dropping the "ten codes," if they haven't already done so. They have found, Art says, that plain English is understood much better, fewer foul-ups are occurring in those areas where the "ten code" has been abandoned.

No one can argue against the use of Q signals on cw. That's where they are supposed to be used. But they are of

questionable value on phone. The "ARRL Ham Radio Operating Guide" mentions Q signals, but only in reference to cw work and cw nets.

We josh our CB friends about their colloquial, "good buddy" terms, but perhaps we are just as guilty.

I'm not advocating that we all immediately throw away our Q signals unless we are on cw and take all of the fun out of ham radio. We must remember, after all, that this is still a hobby. But at the same time, wouldn't this be a good time to review our use of Q signals while on sideband? Sometimes plain English might be just as good in getting the message across.

IT'S MAY DAY, OR IS IT?

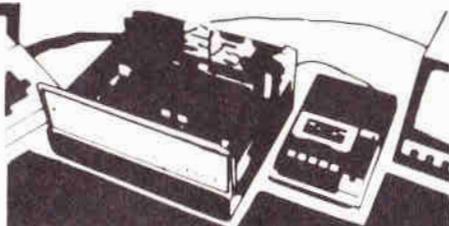
By Joe Niemann — WBØFWB

The final day of April proved to be the real beginning of Spring. The temperature was mild under the bright sun, and for a change there was no wind, only a gentle breeze.

George Morgan pulled himself slowly out of his overstuffed chair, thinking that he never would get back on 75 meters for some rag chewing unless he re-anchored the one end of his dipole to the tall maple in his backyard. That durned storm, he thought. The large branch, under which his dipole was strung, had crashed to the ground under a heavy layer of ice.

He figured the same thing would happen again unless he cut down a second branch which could fall at any time. ➔

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It was frustrating to be kept off the air by the lack of an antenna. He was looking forward to his nets, cw work and just plain rag chewing with his buddies around the state. His wife claimed ham radio was all he thought of around the house.

George entered his basement workshop, picking up a pair of gloves along the way. A few minutes later his extension ladder was propped against the tree and George was climbing the first few steps, carrying the crosscut saw in one hand. He spotted his neighbor, Cliff, raking his yard.

"You should have done that last fall," George called.

"Sure, but it's a lot warmer now," his neighbor replied. "What're ya doing with that ladder? Puttin' up another aerial, huh?"

"No," returned George. "I'm cutting down that other big branch first, so I won't have to put up my antenna a second time."

George inched step-by-step past the lower branches to a height of about 25 feet. Placing the saw against the branch about an inch from the trunk, he began the long put off job.

"This is going to be a breeze," he muttered, as the teeth began biting into the hard maple.

After pushing and pulling the saw for several minutes, George decided he needed better footing. Looping his left arm over the branch, and propping his left leg on a lower limb, George thought he had better move back onto firmer territory.

Suddenly there was a snap as the long branch peeled off about a foot of bark before making its downward descent.

George felt the wood brush against his leg, and then he was tumbling backward. The rush toward the ground came to a shocking halt when his pants leg snagged on a short branch. He blacked out for a few seconds when his head grazed the trunk of the old maple.

Slowly regaining his senses, but still somewhat dazed, George began to shout, "S-O-S. No No. MAYDAY, MAYDAY!"

Cliff, who was still raking, heard the limb crash to the ground, and then George's shouts of "May Day."

That darn fool, Cliff thought. Tomorrow's May Day. He laughed and figured George would be silly enough to come around with a May basket, too.

"Tomorrow's May Day," Cliff yelled at his neighbor. "Don't ya even know what day it is?"

Then it dawned on George. Cliff didn't know what he was saying. "Help, help," he finally shouted. "I'm caught in the tree."

Cliff peered over his shoulder and saw George suspended from the tree. Throwing down his rake, he ran to his house and telephoned for the fire department and rescue squad. Minutes later, George was down and enroute to a hospital.

The following day, George was back in his overstuffed chair with a badly bruised leg propped up on a hassock. His head still ached.

The doorbell awakened George from his painful thoughts. Cliff walked in, carrying a May basket. Having finally learned what George was shouting from the tree, he said, "Happy May Day, George. Or is it S-O-S Day?" he chuckled.

TEN METER PROJECTS

"The antenna here is... .." is a common phrase heard today on all of our bands. Many times the antennas that are described are commercially manufactured types that only require assembly. How many times have you had the opportunity to say that the antenna at your QTH is home-brew? To say it gives the operator a sense of pride, especially when his signal report is 5-9!

A simple antenna for ten meters is the ground-plane. It has good low level radiation and efficiency when mounted at least a quarter wavelength above ground. The antenna the author used was Radio Shack (It's really not that bad) \$14.95 ground plane. Mounted only a mere 22 feet above ground, many 5-9 reports have been achieved with about half of those from DX stations.

The problem that was first encountered was how much to trim the elements. A quick measurement produced a radial measurement of 106¼", and a driven element length of 105½". Now, by the formula:

$$\text{radial} = 234 \text{ divided by } 26.965 = 104.12''$$
$$\text{d.e.} = 234 \text{ divided by } 27.115 = 103.56''$$

But wait, the measurements by the formula are shorter than the actual measurements. A problem? Not really.

The way the antenna is designed and matched dictates the use of longer elements. But still, how much should be cut off?

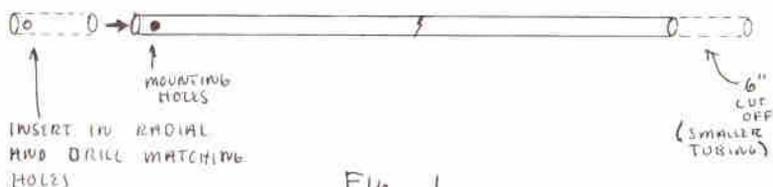
A little juggling of figures, trial and error math, and luck arrived at 6 inches. That's it. Just cut 6 inches off of all elements, put it up and it will be resonant somewhere around 28.75 MHz. The antenna has a great bandwidth and should cover the whole band (cw portion included) without too great an SWR.

The antenna is rated at 80 m.p.h. wind survival. It will sway quite a bit in moderate winds, but don't fear, the prototype has survived 50 to 60 m.p.h. winds without even a permanent arch or bend in any of the elements.

Another thing that can add to the strength of the radials to reduce drooping is to take the pieces of tubing that were cut off of the elements and insert them into the ends of the radials where they are fastened to the bracket. (Fig. 1.) Drill holes through the inner tubing and install the antenna normally. It greatly adds to the wind survival of the radials.

If you wish you can also pound the top of the driven element closed to prevent water getting in. I have found that caps don't stay on.

73 - Scott Persson, WBØQPP



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THE FCC VS AUTO & PHONE PATCHES

by Ed Gable, K2MP, President

Recent literature prepared by the FCC and the League has indicated a renewed and intense interest in the use and abuse of Amateur privileges concerning Autopatches and Phone-patches.

The FCC, which regulates the use of the entire radio spectrum, hears complaints and comments from all sources. These include: 1) Telephone companies who feel any loss of revenue will adversely effect their massive capital equipment investment, 2) The Commercial Communications people (RCC) who complain competition from a non-commercial service is a threat to their livelihood, and 3) Governments of certain nations which prohibit Amateurs from handling third party traffic internationally in competition with government owned telecommunications services. This factor alone could carry significant weight during 1979 WARC.

The question facing Amateurs is this: Should phone patches and autopatches be subject to serving most of our traditional flexibility, or should risk forcing our government to define for us specifically what we can and cannot do? Experience has shown very clearly that when specific regulations are established, both

innovation and flexibility are likely to suffer.

Therefore, it is urged that all Amateurs look closely at their activities concerning auto and phone-patching. As guidelines, consider the following: 1) International phone-patching (and formal traffic) must only be made with countries having third party agreement with the U. S. 2) Phone or autopatches involving the business affairs of any party must not be made. 3) Calls to place an order for a commercial product or service must not be made, nor is the calling of one's office to leave or receive messages permitted. However, calls in the interest of highway or personal safety are permitted. 4) Phone and autopatches are solely to avoid toll charges, or when normal telephone service is available, should never be made. Last but not least, if you have any doubt as to the legality or advisability of a patch, don't make it.

Our interconnection privileges are unique to most of the world and are of the utmost in convenience on a personal, non-commercial basis, to say nothing of the tremendous impact these devices have had on our public service postured. Let us not lose these facilities through abuse.

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