



HAM HUM

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No. 4

April 1972

NEXT MEETING

WHEN: FRIDAY, APRIL 14, 1972

TIME: 8:00 P.M.

WHERE: RED CROSS CHAPTER HOUSE
432 South 39th Street, Omaha

PROGRAM: TVI PROBLEMS, EXPERIENCES AND SOLUTIONS
By Fred E. Kujawa, KØETA, and
Harold E. McClenahan, Jr., WAØDGA

REFRESHMENTS - EYEBALL QSOs

VISITORS WELCOME

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REPORT ON ANNUAL AUCTION

Looking at the auction from the back side, we find that we did a pretty good job in unloading some gear that was cluttering up our shacks. On the other hand, there were those who went away from the General Motors Training Center with smiles clear across their faces and their arms loaded down, and each could be described as "a little boy with a new toy." Thinking into the future is the main reason many of us run the bidding up so high on items like the Handy Talkies and FM gear in general. We will look forward to many more Hams on the two meter frequency because of the auction!

Our thanks to the auctioneers WAØGEH, Marty and to the "Old Pro" WØRMB, Cecil who did such a grand job in putting so much into the voice department and getting across to the hams and wives who were in attendance. I do believe that at this auction we found a great new

auctioneer in Marty and if he is asked to help next year, we will be assured of a fine time. Cecil, as the "Old Maestro," did himself proud in putting us at ease and in doing his usual good job.

At the check-in table we had two very industrious people in Mr. and Mrs. Charles F. Kelly, WAØUZX and XYL. They not only took care of checking in the loot, but also took care of the money at the end of the auction.

Of course our good President Ed, WAØRDZ was into every phase of the action and can be credited for keeping the items in line of priority coming up onto the stage during the auction.

WAØRDZ and I wish to again express our thanks to KØLYO, Royal Enders and to the General Motors Training Center for the use of the building and other facilities for this year's auction.

Bob Andrus, KØLUG

APRIL MEETING

It may come as a shock to many of us that we could be getting into our neighbor's TV or High Fi equipment not know it. If this ever happens to any of us, we will need to know how to approach the problem.

At our next meeting we will have a very well-informed man who will give us a few of his experiences in dealing with the TVI problem and who will tell us what can be done in case we are affected. KØETA, Fred Kujawa, who has been a Ham for more than ten years, will be our speaker and will tell us what has been done in the past to help not only the Ham but other radio groups who use the airwaves. At a time when the frequencies are getting more crowded and we are fighting to keep the amateur on the air, this talk should be very timely.

Helping out with a sidelight to the talk by KØETA will be our Past President, WAØDGA, Harold McClenahan, who will fill in on the experiences he has had in locating spurious signals from unknown stations. With these two men who have worked together on the TVI problem, we should have a very interesting evening.

Along with this talk we will have a letter of information read and discussed by WAØUZX, Charles F. Kelly, pointing out what the FCC thinks about the amateur and the TVI problem. Come one, come all

Bob Andrus, KØLUG

3900 CLUB

The 3900 Club is an affiliated Club with 104 members. Dues are \$1.00 for life membership. We put on 4 eyeball meetings a year and one is coming up; this is our biggest, and we expect from 125 to 150 or possibly even more. It will be held Saturday, April 15, at the Holiday Inn at Okoboji Iowa, a few miles north of Spencer. Vice President Charles Compton of the ARRL will be there; Dakota Division Director Larry Shima will be there; and we are hoping our own Midwest Director will be there. Ward Jensen, WØTLE, of St. Paul, an enthusiastic booster of the Handy-Ham System, will be there. Of course we are working on other things too, but they have not materialized as yet.

First session will be at 4 o'clock, then dinner, then another session at 7:30. Sessions for the XYLs also. Motel arrangements at any price level will be made upon written notice to Chairman of the event, WAØUVH of Lake Park, Iowa, or by checking into the Morning Net of the 3900 Club any Sunday morning on 3905 at 1500 GMT. For your information, WØSRR of Hartley, Iowa is Club President; WØLX, Al Gowan of Sioux Falls and former Dakota Division Director is Vice President, and yours truly is Sec-Treas and Net Control. Hope you can help us spread the word.

73,

Dick Pitner, WØFZO

A joint checking account is never over-drawn by the wife — it's just under-deposited by her husband.

—Service

FIELD DAY 1972

Field Day is just three months away, June 24th and 25th. The site will be the same as last year, thanks to Norval and Connie Bowen, WAØNPF and WAØMYF. (Map showing location will appear in May issue of Ham Hum.)

We need all the help we can get — operators and loggers plus tents or campers and shacks. We are also in need of rigs for Field Day. We have a few shacks set up so and the following have already volunteered:

15 and 75 meters	Jim Garr, WBØCLU	Phone: 453-1349
40 meters	Bob Serlet, WAØZPW	Phone: 553-0469
20 meters	Lloyd McElhaney, KØDKM	Phone: 451-6851
6 meters	?	
2 meters	?	
Novice	Bob Hendricks, WNØEBA	Phone: 345-6743

We need someone for 6 and 2 meters, so please call as soon as possible to volunteer your services. Also please let us know if you have equipment to loan.

Come one, come all. Have a lot of fun on Field Day. We want to be on top again this year. For information call any of the shack members listed above or me.

Mike Wilczynski, WBØBMV

Phone: 571-7932

FOR SALE COMPLETE NOVICE STATION

25 February 1972

Globe Chief 90A xmtr with manual, HQ 129X Hammarlund recvr and speaker key, headphones, 3 xtals and 80 mtr folded dipole ant. All for \$95.00.

Fred Fischer, WØEGP

Phone: 391-4193

ANYBODY HELP?

I want to look at Heathkit HO-1Ø Monitor Scope Manual. I need to order some parts and do not have a manual.

KØQVL, Charlie

Phone: 393-9851

Editor, Ham Hum....

Don't know how it came about that I got on your mailing list, but I have enjoyed reading the copies of Ham Hum which have showed up in the mail box. I thought the article on the repeater control set-up was most interesting. The group locally which is interested in FM repeaters will be hoping to see more on that. There is 2-meter activity in the area; the local repeater is on a 3,111 foot hill and gives excellent coverage. We are all hoping to get 440 Mhz set up this summer, if everything works out.

73

W. H. Tilton,

K7OKC/NØAVH

1972 ARMED FORCES DAY COMMUNICATION TESTS

The radio amateur operators' contributions to the field of communications, assistance in promoting international goodwill and military morale and providing emergency services, are recognized by every echelon of the military services. Each year, on the third Saturday in May, the Department of Defense sponsors the observance of Armed Forces Day. This year's observance, the twenty-third, will be held on Saturday, May 20, 1972. As in past years, as one of the many Armed Forces Day Programs, the Departments of the Army, Navy and Air Force will conduct radio communication tests. These tests are designed to be a tangible demonstration of the firm and long-standing Department of Defense policy to encourage and support amateur radio activity and the partnership and mutual respect enjoyed between the U.S. amateur and the U.S. military.

The communication tests will consist of military-to-amateur crossband operations, using continuous wave (CW), voice (SSB) and radioteletypewriter (RTTY) modes of operation and "CW" and "RTTY" receiving tests. Special QSL cards confirming crossband communications will be forwarded to those amateurs who establish two-way contact with participating military stations. Certificates will be awarded to those who aptly demonstrate their operating ability and technical skill by receiving an acceptable copy of the Secretary of Defense originated "CW" and/or "RTTY" message(s) transmitted during the receiving portion of the communication tests. Interception by shortwave listeners (SWL) will not qualify for a QSL card in confirmation of communications. However, anyone who has the equipment and the ability may copy the Secretary of Defense messages and receive a certificate.

MILITARY-TO-AMATEUR CROSSBAND TEST

The military-to-amateur crossband operations will be conducted from 20/1400 GMT to 21/0245 GMT. The military stations, WAR, NSS, NPG and AIR will transmit on military frequencies and listen for amateur stations transmitting in the portions of the amateur bands indicated below. Additionally, consistent with operational and training commitments, a U.S. Navy aircraft using the call sign NSSAM, will conduct crossband operations on frequencies listed below while flying at 21,000 feet over various cities at times indicated. Amateur operators should monitor the frequencies plus or minus one hour.

STATION	MILITARY FREQUENCY	EMISSION	APPROPRIATE AMATEUR BAND (MHz)
	(KHz unless otherwise noted.)		
A.R (Army Radio Washington, D.C.)	4001.5	CW	3.5 - 3.65
	4020	LSB	3.8 - 4.0
	4030	RATF	3.65 - 3.8
	6997.5	CW	7.0 - 7.2
	14405	CW	14.0 - 14.2
	20994	LSB	21.25 - 21.45

STATION	MILITARY FREQUENCY (KHz unless otherwise noted.)	EMISSION	APPROPRIATE AMATEUR BAND (MHz)
NSS (Naval Communication Station, Washington, D.C.)	3385	CW	3.5 - 3.65
	4012.5	RATT	3.65 - 3.8
	4040	LSB	3.8 - 4.0
	6970	LSB	7.2 - 7.3
	7301	CW	7.1 - 7.15
	7350	CW	7.15 - 7.2
	7380	RATT	7.1 - 7.2
	13827.5	RATT	14.1 - 14.2
	14385	USB	14.2 - 14.35
14400	CW	14.0 - 14.1	
NSSAM (Navy Aircraft)	Depart Washington, D.C. 20/1300 GMT; Providence, RI 20/1400 GMT; Buffalo, NY 20/1500 GMT; Indianapolis, IN 20/1630 GMT; Memphis, TN 20/1730 GMT; New Orleans, LA 20/1830 GMT; Tallahassee, FL 20/1930 GMT; Miami, FL 20/2030 GMT; Jacksonville, FL 20/2115 GMT; Spartanburg, SC 20/2215 GMT; Washington, D.C. 20/2300 GMT.		
	2790 KHz	USB	3.8 - 4.0
	49.692 MHz	AM	50.1 - 54.0
	143.820 MHz	AM	144.1 - 146.0
NPG (Naval Communication Station, San Francisco, CA.)	4001.5	LSB	3.8 - 4.0
	4005	CW	3.5 - 3.8
	4010	CW	3.7 - 3.75
	6971.5	CW	7.0 - 7.1
	7301.5	LSB	7.2 - 7.3
	7347.5	RATT	7.1 - 7.2
	7365	CW	7.1 - 7.2
	13922.5	RATT	14.1 - 14.2
	14356	USB	14.2 - 14.275
	14375	CW	14.0 - 14.1
	14389	USB	14.275 - 14.35
	*49.992 MHz	AM, USB, CW, FM	50.0 - 54.0
	*143.7 MHz	AM, USB, CW	144 - 148
**148.41 MHz	AM, AFSK	144.1 - 148	
**148.95 MHz	FM	144.1 - 148	
*222 MHz	AM	220 - 225	

*To be operated from Mt. Vaca

**To be operated from Mt. Diablo

STATION	MILITARY FREQUENCY (KHz unless otherwise noted.)	EMISSION	APPROPRIATE AMATEUR BAND (MHz)
AIR (Air Force	4025	LSB	3.8 - 4.0
dio	7305	LSB	7.2 - 7.3
Washington, D.C.)	7315	CW	7.0 - 7.2
	13997.5	CW	14.0 - 14.2
	14397	USB	14.2 - 14.35

(Ed. Note: With reference to the CW Receiving Test, and the RTTY Receiving Test, information regarding times and frequencies will be sent by Ham Hum to those readers requesting it.)

FELT NO CONCERN ABOUT TOWER - UNTIL NOW

Editor, Courier Times:

I have read so much in your paper about the tower Mr. Funk has in his yard and it really never did bother me one way or another - but now it does.

Not too long ago my phone rang and a Ham radio man in Virginia said, "I have a call for you from your son, please hold on," and he explained to me how to talk to my son in Germany. I just wonder if these people have any idea how my heart filled with joy when my son said, "Hi, Mom." I know Mr. Funk has done the same around here for other mothers and fathers, and I am wondering just what they think about this.

Boys go into service every day and it could be your son who has waited in hours and sometimes two days and nights just to talk home - and it could be Mr. Funk who picks up the call.

God bless the people in Virginia for letting this man have his tower and I

wish I knew who he was. He'd get the biggest, giant card of thanks I could find.

My phone bill was only \$1.95 - just because a Ham radio man was around. God bless them for a few minutes of joy. I wish they were all home.

Mrs. Ilene Harkleroad
Cornwells Heights, Pa.

(From: "X-Mitter," Penn Wireless Association, Bristol, Pa. November 1971, who got it from the Courier Times, November 10, 1971)

WANTED

GALAXY 300 with AC Power Supply or GALAXY COMM 1 with AC Power Supply.

State price and condition.

Bill Boeckenhaupt, WBØBMB
10528 "R" Street
Omaha, Nebraska 68127
Phone: (402) 339-1972

D DAY (Again)

After a short-lived experience (4 years), the mechanical relays and clip-lead connections of WØEQU's 2 meter repeater control unit have been replaced with state-of-the-art integrated circuits and transistors. The "brain" of the Ak-Sar-Ben repeater has taken over control of 34-94 signals (See Ham Hum, February 1972 for details and pictures.)

The events leading up to the replacement of the old control and I.D. chassis by the new one, will be remembered for quite some time. Those FM'ers listening to communications between the gang at the Ak-Sar-Ben repeater site and the stand-by repeater hastily put together (with lots of clip leads) by Leo, KØJIU, in Council Bluffs, will long talk about those 13 hours spent one Saturday afternoon and evening working on the repeater. What started out as a job that was estimated as taking only a few hours turned out to be a nightmare.

The crew, consisting of Jim, WØYCP—operations chief, Bob, WØYSX—chief "brain" technician, Rod, WAØQII—chief interface technician, and finally, Frank, WAØIWF—picker-upper, tool-getter, floor-sweeper, runner-arounder, and Indian (there were already three chiefs, and not enough Indians — Hi! Hi! UGH ##@*#), started the operation at about noon Saturday.

After spending a few short hours removing the old control, and juggling around the rest of the equipment in the repeater cabinet, all was ready for initial hook-up and operation of the repeater with the new unit.

Minutes turned into hours, and the normal technician-like attitudes of the crew degenerated into childlike behavior. The place was a zoo! Time had taken its toll — everyone was bursting into laughter at the slightest thing. KØJIU, who for the past few hours had been getting progress reports, was finally convinced that it would only take "twenty more minutes."

Many problems were encountered, as was expected, and quickly resolved by the able technicians working on the project.

Aside from the many little problems, probably the one deserving mention was the pigeon-coo effect produced by a wrong value of capacitance in the audio section of the control unit. The idea of making this weird sound a function, and thereby giving a control station the option of "punching-up" the "bird" for the benefit of anyone on frequency, can only be credited to Bob, WØYSX.

The operation continued on toward midnight with all the problems, for the most part, being resolved. After a unanimous vote, the crew decided it was much too late to spend any more time, and that it would be a better idea to continue the operation sometime the next day.

Sunday afternoon, Bob, WØYSX, and Jim, WØYCP, finished up and the WØEQU repeater was on the air with a new control unit.

For the following few weeks, bugs kept turning up but were resolved almost immediately afterwards, thanks to the efforts of the fellows who helped get the repeater back on the air.

A total of almost 100 man-hours was spent in the operation. Not

enough can be said for the efforts of the crew. Thanks a lot, fellas! Those of us who use the repeater certainly appreciate the time and work put into this project.

Frank, WAØIWF

NOTES RE WA9ORC REPEATER

I recently took a business trip to Chicago and, of course, the TR22 had to go along. While there I worked the WA9ORC repeater and was very much impressed with it.

The input frequency to the repeater is 146.16 Mhz while the output frequency is 146.76 Mhz.

The coverage of this repeater impressed me most. Chicago is one big town. Omaha would simply be one big suburb in Chicago. To fully cover the Chicago area is a big challenge but their repeater system does a fine job. Many low power mobiles seem to have no trouble getting into this repeater from most anywhere in the Chicago area. I keyed the repeater from a hotel near O'Hare Airport and the boys told me the nearest receiver to me was about 20 miles. Not bad!

I worked many stations while there. Among them are: WA9YZJ, Dan; W9BIU, Fred; and K9TRG, Art. Art called me at the hotel after our QSO and we had one nice visit. He invited me to come to his shack but due to the press of time I was unable to have eyeball QSO, but I told him if he ever gets to Omaha to look me up.

My stay in Chicago was made very enjoyable, thanks to the warm friendship of the WA9ORC gang.

Bob Lockwood, WAØDHU

HOW IS YOUR STANDING WAVE?

Did you ever blow a mica condenser in the PI-output section of your transmitter? That can easily happen if your SWR is too high — you may have 200 watts going out and 180 coming back which heats up the feed line or output tank circuit and causing a breakdown and shortout.

This trouble will be more noticeable when the antenna is too short or the feed line becomes a part of the antenna circuit. In many cases the coax will break down, particularly if you are using old stuff and running more than a few watts of power. Usually a SWR bridge will show the deficiency. That is why it is important that the feed line be exact on short beams or shortened antennas as the feed line is a part of the matching system. Even on "heavy-duty" coax, "hot spots" will show up, especially around the connectors or couplings where RF has a chance to leak out.

Damaged coax will show up on receiving by loss of signal, in some cases, noisy reception. Discoloration of the braid will show that "hot spots" were present. Check your transmission line by "feel" (with rig off) or feel the out-put condensers of the PI-NET — if they are unusually warm, go further in your investigation. This "FEEL" method is not safe practice unless you PULL THE FUSES or disconnect the power input.

We don't want to print any obituaries of some good Minnesota MARS members. Check your SWR nevertheless.

(From Minn. MARS and Fla. Skip)

**RADIO MONITORING ENFORCEMENT (ON CB 11-METER BAND)
AS EXTRACTED FROM FCC Fiscal Year 1970 Annual Report, with comments
added by Will Welsh (W6DDB)**

"Class D Citizens Radio Service"

"This service showed no measurable improvement towards greater rule compliance than in previous years. Non-identifying transmissions continued to present serious difficulties for enforcement personnel. In all areas sampled, business use of the Class D channels was comparatively small, and channel-hopping from the seven inter-station channels to the other 16 channels (as well as to non-Citizens channels) was frequent, in total disregard of the rules. Because there are 800,000 licensees in the service, the majority of whom violate rules, enforcement is a greater problem in this service than in all other services combined."

"Small teams of monitoring and inspection personnel (who can be moved from one locality to another with their mobile monitoring and direction finding facilities) are able to track down violators while they are still on the air and thereby make positive identification. Because of the large number of violators and their existence in every community, and especially because of their disinclination to comply with the rules, the solution to the monitoring enforcement problem is not in sight."

"The number of official notices in the Citizens Radio Service decreased from about 2,400 last year to 1,409 this year. Non-identifying stations and a forced cutback in mobile monitoring were the major hindrances to issuance of violation notices, but there was no

evidence of decreasing violations."

"The preceding paragraphs indicate that the FCC has almost quit trying to clean up the 11-meter mess! The ham goes about his operation in as legal a manner as is possible, yet hams were hit with 2,491 notices of violations.

"It is obvious to me that a "clean" service like the Amateur Radio Service should not be plastered with 1,082 more notices of violation in the past year than the notoriously illegal Citizens Radio Service!

"Putting CB people on 11 meters was a mistake from the start. This band is good for occasional long distance, even at low power. It is unrealistic to expect CB stations not to call distant CB stations they hear. Since hobby-type operation is not permitted in CB, it's natural that they won't identify. If operating illegally with improper call signs, it is also reasonable to assume that little attention will be paid to restrictions against antennas, input power, improper language, etc.

The FCC created this 11-meter mess and it is long overdue to take action to bring this monster under control. It seems impossible to hire enough people to enforce legal 11-meter operation; that is pretty much like shoveling sand against the tide. These people need to be moved off this band and put back up above 400 Megahertz where the communications are naturally short range. The change could be made by attrition, with no new, renewed, or modified

licenses issued for 11-meter operation. After a certain time span, all licenses would have expired and any CB station heard on 11 meters would be illegal and it should be chased down and put off the air.

Any ham who chooses to ignore the fact that the Citizens Radio Service poses a distinct threat to the Amateur Radio Service is hiding his head in the sand. Ham manufacturers and suppliers are far more interested in the larger (more lucrative) illegal CB market than in the smaller legal ham market. CB people continue to sneak into the ham bands to enjoy a bit of extra illegal operation at our expense. As if that isn't bad enough, CB interests continue to agitate for CB takeover of segments of our bands. Another CB subterfuge is the recurring proposals for code-free and/or reduced theory ham examinations.

I work with many ham students each year and it is normal to have about a dozen CB people start in each course. A few make it all the way thru to their General (or higher) tickets. However, most quit as soon as they realize that one must expend some effort to become a ham. Why should they work to do something legally which they are partially able to do without work? Even those who make the grade frequently require extra instruction to get them to leave their bad CB habits behind them when they go on the ham bands.

Realize the danger which exists and write letters to your Congressmen and the FCC to clean up the 11-meter mess. Get your letters written today because things look worse for tomorrow!

* * *

FCC by Bill Welsh (W6DDB)

The U. S. Supreme Court has agreed to decide if the FCC has the authority to force large cable TV stations to originate their own programming.

The FCC is expected to resolve its interconnection devices dispute with AT & T about the time you get this Bulletin. FCC "type-approval" may be the answer.

C. Fred Heister has retired from the FCC, where he was serving as Chief of Domestic Radio Division.

The Fiscal Year 1970 FCC Report includes a comment that 2,491 violation notices were issued against hams, as compared to 2,464 in Fiscal Year 1969. I wonder how many are ex-CB people? One percent of the American ham population is not bad - but, it should not be that high! Many notices were due to lower-class licensees operating in band segments reserved for higher-class licensees. The Citizens Radio Service had 1,409 notices in 1970, as compared to 2,400 in 1969; seems to me that the FCC is making less efforts than ever to control its 11-meter monster!

The Fiscal Year 1970 FCC Report shows that 44 men have served as FCC Commissioners since 1934; there have been 25 Democrats, 17 Republicans, and 2 Independents. 15 have served as Chairman and 7 of those died in office. 18 of the 44 Commissioners died in office. 19 have served 3 years, or less, of their 7-year terms. The longest years of service were provided by Rosel H. Hyde (23), Paul A. Walker (19), Robert T. Bartley (19 and still serving), and Robert E. Lee (18 and still serving). No more than 4 of the 7

Commissioners can be from the same political party. The 44 Commissioners have been from 29 states and the District of Columbia. We've had 4 from New York, Texas, and the District of Columbia; Illinois and Ohio each provided 3.

At the present time the highest American TV tower listed in the FY 1970 Report is 6,262 feet above mean sea level and it is used by KBIN-TV of Roswell, New Mexico. When it is completed, the highest one will be 6,320 feet and it will be used by KAVE-TV of Carlsbad, New Mexico. By comparison, the highest California TV tower is 1,549 feet and it is used by KCRA-TV in Sacramento.

The recent W6DDB Conditional proposal has been tied to RM-1615. The W6DDB Novice proposal has been associated with Docket 19162. The W6DDB proposal to make Novice bands available to Technicians to provide increased code-practice incentive has been assigned FCC File Number RM-1880. How about a little support for these items? Send your comments to Federal Communications Commission, 1919 "M" Street Northwest, Washington, D. C. 20554. Copies of the proposals are available free at W6LS.

de LARC, Burbank, Ca.

WANTED

Sencore Tube Tester — any model between TC-136 and TC-154.

Anthony G. Klein, WØQOU
Box 218

Snyder, Nebraska 68664

CODE AND THEORY CLASSES

By Bob Lockwood, WAØDHU

The 1972 Code and Theory Classes are coming down the homestret with good prospects for a record-breaking year.

The novice class has about 30 students while the advanced class has about 35. The advanced class lost very few students this year and it looks like most of them will achieve their goals. One member, Doug Summerfield, went for his novice. He said he felt he couldn't get his code speed up by April and that he thought he would have a better chance to pass in July. Also, as a novice he can operate his rig between now and then.

The novice class is going great guns with 12 students who have already passed the code exam. Many more will be ready between now and the end of the course. Considering last year's total of 7 novices, we have already surpassed that record.

The last three weeks are devoted strictly to review. All students have been requested to look through the license manual and to mark questions which they feel need review. The instructors will answer as many questions as possible.

Ron Fulkerson, WBØDRT, instructor at R.E.I., volunteered to teach the novice class but after two weeks he found his press of business conflicted. We sincerely thank him for giving it a try. Del Gibson, KØUIV, instructor UNO, volunteered to teach the novice group and will go down the homestretch with the rest of the instructor staff.

The 1972 Code and Theory Classes, sponsored by the Ak-Sar-Ben Club, Inc., are a smashing success. The final report will appear in the May issue of Ham Hum.

The hardest thing about solving some problems is admitting that they exist. Once over the "honesty gap," it gets easier to talk about answers, solutions, formulas for action. —Service

ADDITIONS TO ROSTER NEW MEMBERS

Charles E. Bird, WBØFTU
12037 Barksdale Drive
Omaha, Nebraska 68123
Phone: 292-3597

Robert Carrick, WBØDHR
808 East Washington
Millard, Nebraska 68137
Phone: 333-2167

Duane D. Clausen, WBØDSC
208 West Charles Street
Valley, Nebraska 68064
Phone: 359-2360

Rev. G. Wayne Heck, WB9HJM/Ø
7401 South 33rd Street
Omaha, Nebraska 68147
Phone: 734-4643

Peter (Pete) H. Mahowald, WNØGOM
3347 South 114th Avenue
Omaha, Nebraska 68144
Phone: 334-0818

Donald W. Schmidt, WAØJRZ
1019 Fairfax Road, Apt. 31
Bellevue, Nebraska 68005
Phone: 291-0122

FOR THE XYL ONLY

By Flo Ann, WN4RSM

I've noticed that many XYL's have a negative image of Ham Radio as a hobby for their husbands. They get irritated at their husbands sitting at the squawk box morning, noon and night, weekdays and weekends.

Wives of golfers and hunters have this problem too. It's pretty ego-deflating when your one and only seems to prefer something else to you, whether it's a radio, a bunch of golf clubs or a shotgun.

I'm not going to run Ham Radio into the ground as the great public service hobby that keeps the kiddies off the streets. I'm sure you've had that rammed down your throat often enough.

I'd just like to say give the boys a break.

If you can't fight 'em, join 'em.

Your old man would be pleasantly surprised if you asked him to explain to you how that contraction works.

Code is not so difficult to learn, and you can even cram enough theory into your head, between scrubbing floors and getting the kids off to school, to pass that test. There are a surprising number of YL's and XYL's with licenses.

If you don't feel inclined to go into it deeply enough to get your license, you'll be rewarded by the happy expression on your OM's face when you show some interest in his treasured equipment.

Who knows? You might even learn to like it.

(The Atlanta Ham and Fla. Skip)

AC POWER SUPPLY FOR TR22

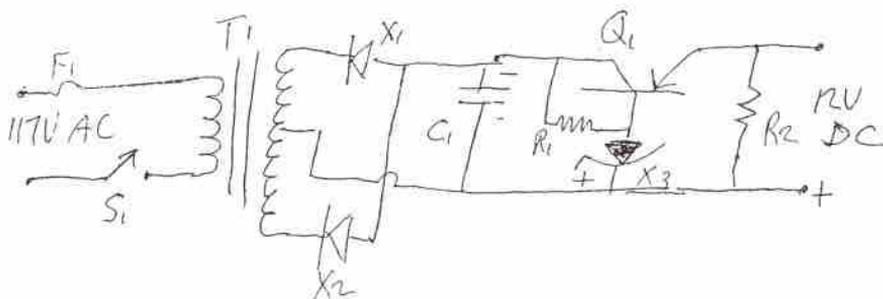
Designed for the following requirements:

AC input 117V 60CPS

DC output 12V

Load requirements – receive 45ma, transmit 450ma.

Voltage regulation .1V change minimum to maximum load.



- S1 Toggle switch
- F1 1 amp slo blo
- T1 117V Pri. 48V CT sec. ½ amp or better sec. rating.
- C1 1500 uf 35V
- R1 680 ohm 2 watt
- R2 1,000 ohm 2 watt
- X1 and X2 2 amp rating
- X3 13V Zenner 1 watt
- Q1 Zenith 121-398

Power supply mounted in small bud box.

I wanted to share this with other TR22 owners or anyone who has a portable rig with similar requirements. The TR22 works good with this supply with a very clean hum-free signal.

Submitted by – Bob Lockwood, WAØDHU

FOR SALE

Globe Champion – 300A–
300 Watts AM – 10M to 160M

John Kisicki, KØOJO
Phone: 731-8154

Best way for a girl to keep her youth
is not to introduce him around.

–Service

MORE ON FM. Now that two meter FM is being considered by several of the Valley hams it seems appropriate that items bearing on that subject be included in OFF RESONANCE. The article which follows is by Andy, K4ADL, and appeared in AUTO-CALL, November 1971.

DOES .94 OUT GIVE YOU THE GOUT?

Voiced concern over supposed lack of proper frequency utilization is growing right along with the quantity of repeaters springing up from coast to coast. Most gripes concern repeaters with .94 outputs. We agree, it's disappointing not to be able to work .94 simplex as we travel. But let's look at a few common sense facts.

It's doubtful that any repeater club establishes their machine primarily for transients. Considering the many hours and dollars involved, we can safely assume the prime benefactors are the club's members. Nevertheless, in the friendly spirit of amateur radio, visitors are normally welcomed into the repeater.

Remember, too, that a frequency combination totally impractical in Greater Washington might make a

whole lot of sense to hams in North Carolina, for example.

We feel it is the responsibility of the visiting mobile, should he desire to be a guest user of a repeater, to research and plan ahead for his FM operation. In other words, know the repeater's call, location and frequencies in advance of the trip. Procedures, of course, may be determined in a few moments of monitoring.

A most helpful device is the AAA TripTic, whereby the traveler may plot a course of repeater usage from town to town. Each page of the map might contain a large circle (estimated RPT coverage) plus call and frequencies notated within.

de TSARC, Texas

MEMBER NEWS

For the record: WNØBCB is now WBØBCB - March 16, 1972.

Edward C. Eichler, WBØBCB
Box 357
Valley, Ne 68064

(Ed. Note: Congratulations, Ed!)

FIBERGLASS PRINTED CIRCUIT BOARDS 3/32" THICK

7" x 12" Copper one side \$0.65

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SB-100 Transceiver; HP-23 AC Power Supply; Microphone; Speaker; SWR Meter; 14AVQ 10-40M Vertical Antenna.

Asking \$285.00.

Can be seen on the air.

Joseph G. Ewing
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Omaha, Nebraska 68105
Phone: 553-2374

SIX METER SSB MIXER — EASY!

By Bob Heil, K9EID

If one keeps up with the rapidly expanding market of SSB transceivers, he will discover some tremendous "buys" in single band 20 MTR. units. One starts at \$119.95 and some go for \$1500. Your choice is of no consequence other than the necessity that it tune 14. mcs. and "transceives."

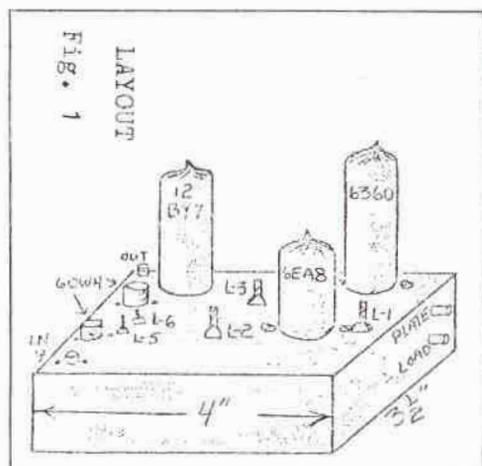
With a transceiver in operation on 20 meters and a few hours with the soldering iron, you can have a compact six meter station. The "transceive" mode of operation is a pleasure.

The unit needed to put the 20 meter transceiver on six meters, (without ANY modifications to the original gear) is built in two pieces; the transmitting converter and the receiving converter. The oscillator of the transmitting section feeds the mixer of the receiver converter, so that the

exact same crystal frequency is used in both transmit and receive, therefore allowing transceive facilities.

The triode section of the 6E8 is used for the oscillator on 36 mcs. The tetrode section is a buffer for this 36 mcs. and is capacity coupled to the transmitting mixer tube, while inductively coupled to the receiving mixer. The 12BY7 is cathode driven by the 20 meter signal. The plate is tuned to 50 mcs. and drives the grids of the 6360. (The class AB1 final amplifier).

The link around L2 is fed to the receiving mixer (6CW4) grid. The same grid is fed by the 50 mc r.f. amplifier, which is in grounded grid. The plate of the mixer, (6CW4) is tuned to 14 mcs. and fed back to the receiver input of the 20 meter transceiver.



Proper layout is important. The frequencies involved must be kept isolated, or unwanted mixing frequencies will result. The layout shown in Fig. 1 will eliminate any trouble.

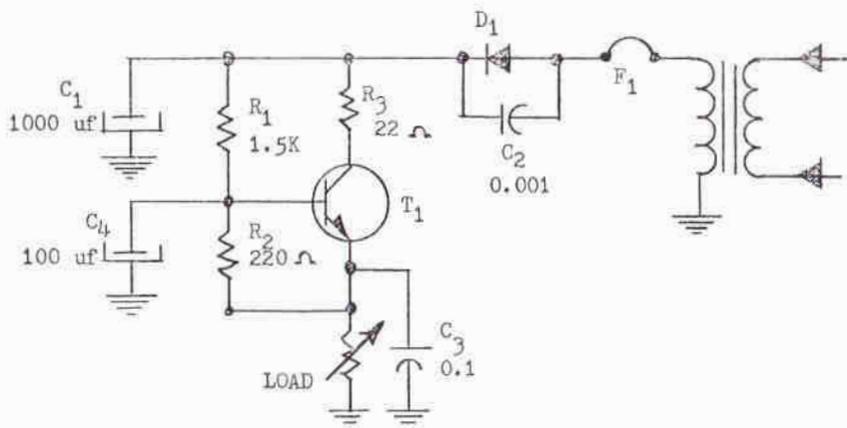
Proper voltage is important. The bias voltage on the 6360 should be -22 in the transmit position. In the

UNDERSTANDING TRANSISTORS

By — Jim White, Associate Member, M.E.M.E. (WB6RAG)

LOW VOLTAGE REGULATOR and ELECTRONIC FILTER POWER SUPPLY

The purpose of this particular circuit is to provide a relatively constant output voltage under varying load conditions and at the same time filter the half wave rectified DC pulse.



The signals fed into the transistor T1 collector are half wave rectified DC pulses. The output signal taken from the emitter is a filtered regulated DC voltage. The AC supply is half wave rectified by D1 and filtered by C1; F1 is a fuse normally formed by a chemical composition designed to protect transistor T1 in event of a short developing on the load side of the transistor. C2 is a radiation preventive measure placed across the half-wave rectifier whose value is normally .001 micro-farad.

Transistor T1 obtains its bias from two resistors R1 and R2 and its action is that of a class A amplifier and its action is such that the hundred micro-farad (100 mfd) in the base circuit of T1 is effectively multiplied by the beta or DC current gain of the transistor. Thus if the beta of T1 equals 100, the effective filtering capacity of this circuit would be 10,000 mfd.

Regulation is obtained to some degree due to the fact that the load of the circuit is the emitter resistor of the transistor and as the load resistance decreases, the emitter tends to go negative, thus causing increasing forward bias and heavy current thru T1 which tends to stabilize the voltage across the load. C3 acts as a radio frequency ground return which is normally required, since the inductive reactance of the electrolytic capacitors C1 and C4 do not provide good AC ground at high frequencies.

de Fresno Skip

RECENT REPEATER CONTRIBUTORS

Thanks for cash contributions to:

Maurice W. Costello, KØYWY
 Robert C. Lockwood, WAØDHU
 Russell A. Minks, WAØVEE
 William G. Oswald, WAØDVK

Thanks also to the following who
donated articles which were sold at the
auction, the proceeds going to the
repeater fund:

James C. Anderson, KØDNE
 Robert D. Andrus, KØLUG
 Rick Brown, WAØZQX
 Lynn A. Blesh, WAØODH
 Chuck Conner, WØNGG
 Robert C. Lockwood, WAØDHU
 Jack R. Powley, WAØSAQ
 Frank Taylor, WØGOJ

Guess they call them window en-
velopes because they contain bills that
give us a pane. —Service

FOR SALE

Heath fone patch — \$20.00
2 3-400Z's — \$30.00
40-80 Hy-Gain ant. traps — \$20.00
Vox for Swan Xceiver — \$20.00 new
Hy-Gain Balun — \$15.00
W2AU Balun — \$7.50
Tri-Band Hy-Gain Beam — \$25.00
I still have the Drake L4 linear —
50.00 minus the spare pair
3-400Z's.

Doug Burghardt, WØWR
Route 1, Valley, Ne.
Phone: 359-2302

NOTES FROM READERS

Please accept the enclosed check to
help expenses of Ham Hum. We both
enjoy it and learn from the paper.
Keep up the good work.

We don't have a club back here that
we belong to as we did when in Cal.

73s

Bob and Martha Bevard
W8HEG & W8GOH
P. O. Box 671
Hudson, Ohio 44236

(Ed. Note: We appreciate the check.
Sincere thanks!)

* * * * *

Hi: Visiting the Rio Grande Valley.
The boys in the most southeast part of
Texas in the Brownsville area are really
organized in emergency work. Lots of
pep and enthusiasm.

73,

S. Piotrowski, WØEWF
(Imperial, Nebraska)

What Is It?

• It is more powerful than the
combined armies of the world.

It has destroyed more people than
all the wars of the nation.

It is more deadly than bullets; has
wrecked more homes than the
mightiest of guns.

It brings sickness, degradation
and death; it destroys, crushes and
maims;

It gives nothing, but takes all;

It is everyone's worst enemy—but
too few seek to avoid it—

It is CARELESSNESS!

Service

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On A 5 BAND
MOBILE ANTENNA
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FREE!


(A)


(B)


(C)

(A) HY-GAIN BDYF Body Mount
(B) 25' RG58/U Coax
(C) Whip-Clip

WORTH \$10.07

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