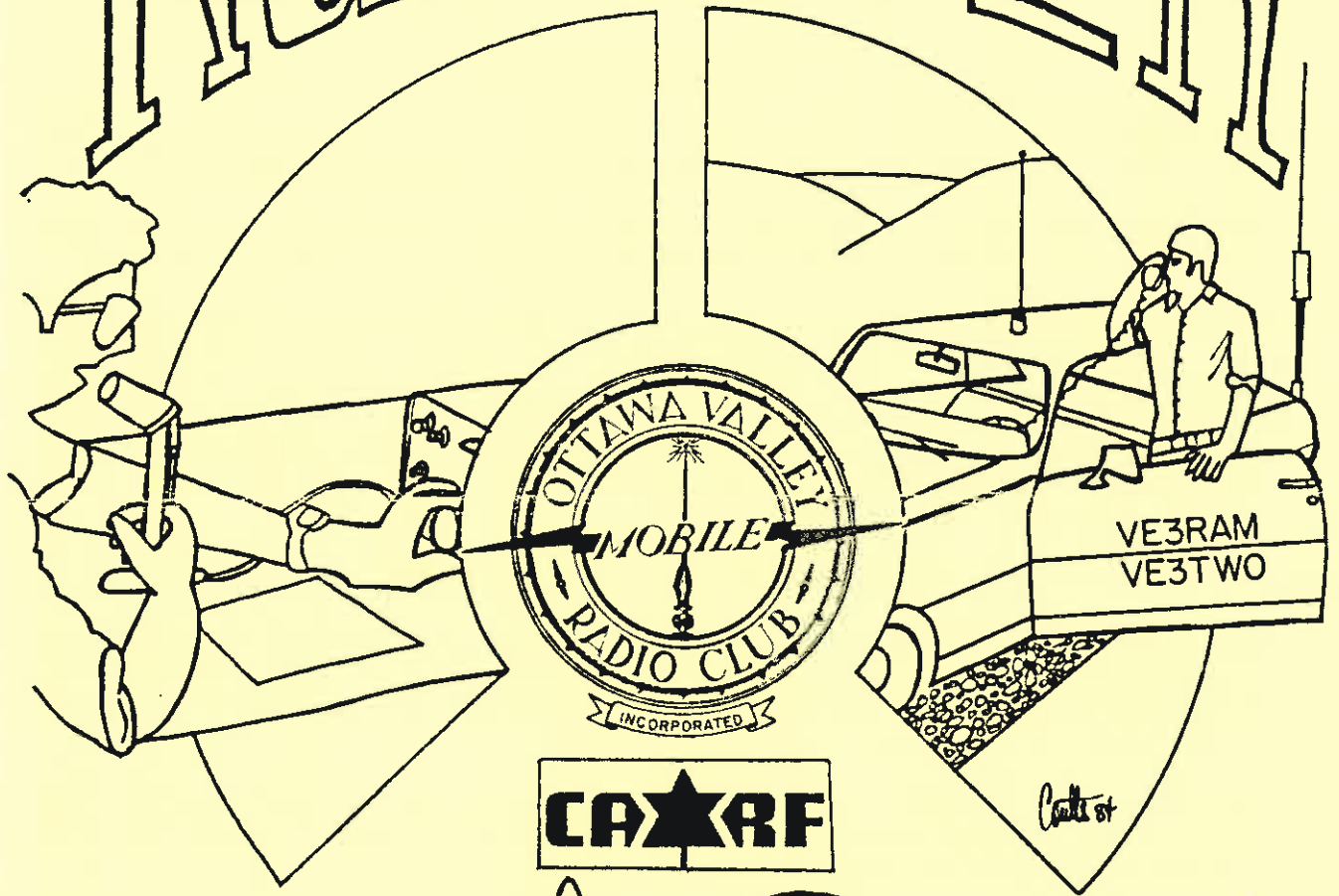


RAMBLER



NEXT MEETING:
Sept 18, 1986

★★ RED DOT ON YOUR ADDRESS LABEL??? YOUR MEMBERSHIP IS DUE ★★

THE OTTAWA VALLEY MOBILE RADIO CLUB INCORPORATED

1986-1987 EXECUTIVE

PRESIDENT	Vance Johnson	VE3OAO	824-9555
VICE PRESIDENT	Bill Seyler	VE3OAI	836-5818
SECRETARY	Kris Anderson	VE3OWE	225-4152
TECHNICAL ADVISOR	Bob Baillargeon	VE3MPG	235-0187
PUBLIC RELATIONS	Bob Brown	VE3JDB	729-6440
TREASURER	Bob Hicks	VE3OSN	745-9392
PAST PRESIDENT	Bob Campbell	VE3KLK	729-7536
EDITOR	Jerry Wells	VE3CDS	225-7374

CLUB SPONSORED ACTIVITIES

POT HOLE NET - OVMRC Net - Every Sunday, 1000 local time on 3760 kHz. SSB. All radio amateurs are welcome to participate.

THE WISE OWL NET - OVMRC Net - Ragchew net every Friday evening at 2000 local time on the club repeater VE3TWO - 147.30/90 MHz.

VE3JW - Amateur radio station of the National Museum Of Science and Technology. The OVMRC helps maintain the station and schedules operators for the station as part of an Amateur Radio public relations display. VE3JW operates on all HF Bands, both CW and phone. Slow scan TV is also demonstrated. For information or if you wish to operate the station, contact the Public Relations Coordinator.

LOCAL AMATEUR RADIO ACTIVITIES

POT LID NET - Sponsored by Ed, VE3GX. An informal slow speed CW net meeting each Sunday (except July and August) at 1100 hrs on 3762 kHz, to provide and stimulate interest and proficiency in CW procedures.

CAPITOL CITY FM NET - Sponsored by the Ottawa Amateur Radio Club Inc. every Monday evening at 2000 hrs local time. Conducted on VE2CRA repeater 146.94/146.34.

SWAP NET - Sponsored and conducted by Ed, VE3GX, each Sunday as part of the Pot Hole Net and each Monday as part of the Capitol City FM Net (except July and August). Ed may be reached at 733-1721 for listings and queries.

THE MILITARY NET - Sponsored and conducted by Frank, VE3MSC, Tuesday at 2000 hrs on VE3TWO 147.30/147.90 MHz.

Membership in the OVMRC is open to all those interested in Amateur Radio. Regular meetings are held on the third Thursday of each month (except July and August) at 2000 hrs unless otherwise posted. Meetings normally take place in the auditorium of the Museum of Technology on St. Laurent Blvd (south of the Queensway)

The OVMRC provides code practice 24 hours a day. Dial 825-0786

Here is news of the OVMRC Administration Officer (QUA VE3OAO)...

Hello! there, all of you radio operators and listeners in the Amateur Radio Spectrum from up and down the Ottawa Valley, and hundreds of miles beyond who are members together in the Ottawa Valley Mobile Radio Club, Incorporated, and anyone else who is reading this September 1986 issue of the RAMBLER. We hope you enjoyed those two weeks of Summer that were scattered out over that two month period that acted more like the Monsoon season....

Field Day this year was inconveniently set in the CANADA DAY week-end which may have resulted in a lighter turn-out of both operators and observers from the general public. But it was a good exercise of gathering and setting up our emergency equipment by many of us who hadn't been in the front line of the battle before. Of course we had the usual seasoned people there to set-up the antennas, power-lines from the motor generators and stations.

Don VE3ATJ and Mike VE3DVH have been sick and in the Civic Hospital. Both seem to be well on the road toward improved health.

As we suppose you will notice, the RAMBLER has a different appearance. The A.B. Dick duplicator was due for a maintenance overhaul and it also needed a belt replaced which wouldn't have been replaced during a simple mtce PM. The cost of the two jobs would have totaled \$300! A survey was made by Russ VE3FSN to see if there were any alternatives. He found a previously-owned Nashua photocopier for the same money that has more capabilities. We were in a bind. We could authorize money to buy the Nashua because there was money in the budget to cover RAMBLER supplies to \$500, but not enough money to cover the necessary associated maintenance contract.

Therefore, a Special Meeting of the membership was called. The following members were canvassed: VE3's ATJ, CDS, FSN, JDB, KJQ, MPG, OAI, OAO, OWW, OWY and PDK. All voted to make the necessary over-budget expenditure, for which the club has adequate funds. RESULTS: 13 FOR and 0 AGAINST. Executive members who voted were: CDS, JDB, KLK, MPG, OAI, OAO and OSN.

The 5th running of the OVMRC Radio School will be having registration Monday night September 15, 1986. If you know of anyone that would like to take a course that has a good record of their students passing the DOC exams and getting on the air, show them the advertisement elsewhere in this issue. Four of the OVMRC executive members both this year and last year are graduates of the OVMRC Amateur Radio School. Three other members of last year's executive were also graduates.

Come and meet the new executive at the September meeting, September 18, 1986, at 8:00 PM EDT.

Vance VE3OAO
President

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OTTAWA ONTARIO
K2C 3M1

LIFE,
THE UNIVERSE
AND EVERYTHING

The summer season has, unfortunately, just about come to a close. All the projects that were to be done during the warm weather, are just as undone as they were at the beginning of the season. The HF antenna is still not up, the 2 metre and 70 cm. antennas are attached to the pole, which is all still in the garage. Oh well, as we all know, these things only work well when installed during the first "It can't be snowing already" storm.

Things have been accomplished on some fronts, however. The backup repeater for VE3TWO is just about completed. The RF portions are tested and all that has to be done is the installation of the control circuitry. The new control circuitry is being tested and if all goes well, mid-September should see a new voice coming from the site.

The course is organized for a change. I'm sure that Pat would argue the point but after four years of last minute panic, we have begun to consider the situation to be normal. After all why get too upset, we all know that there are 36 hours in every day. If you know of anyone who is interested in joining our group of strange people, and I'm referring to the amateur community, let them know about the course.

I understand that there is still interest in the code practice that used to be available on "The Wise Owl" every Wednesday and Friday

evenings. It appears that there were a fair number of listeners. I wonder if there would be someone in the club who would be willing to take on the task. The computer-generated code is on tape. All you would have to do is to provide a tape recorder that we could interface to the club rig and activate it twice a week. Any takers??

Speaking of code, the club's CodeFone will be activated soon for the fall / winter/spring season. During the summer, the line has been used for the BAREF Amateur Radio FIDO. The bulletin board has been getting a goodly amount of use during the summer. With the course coming on, however, the code service has to be activated. I expect to have both the code and computer sharing the line but if there is too much conflict, I will have to find a way of giving the code priority.

That's about it for this month. I have several more things to write so I should disappear. Don't forget to check out the first installment of "The Weekender" that starts this month.

de Russ VE3FSN

THE LEADING EDGE

TRW Incorporated expects to occupy a strong position on the leading edge of semiconductor technology with it's planned line of chips which can pack up to 27.9 million devices on a .14-by-.14 in die. In addition to high density, the chips will have

the ability to bypass failed circuits and reconfigure themselves from redundant circuitry, all under the control of on-board testing programs.

Cray Research Inc. has set out to design a highly automated manufacturing system to build it's next generation of supercomputer. With the density required, the longest wire in the machine will be 3 inches long, resulting in a package that is impossible to be assembled by hand.

For many years, the ionized trails left by meteors entering the earth's atmosphere have been used to bounce radio signals off of. These trails last anywhere from a few milliseconds up to 2 seconds. The "burst" type nature of the resulting communications have made the system excellent for data but not for voice. GTE Corp. has recently demonstrated a system that compresses digitized voice data down from the original 4Kbs to 16bits. Using this technique, GTE reports transmitting about 600 words in a single trail.

Thinking Machines Corp. have developed a computer that can process as many as 65,536 data items simultaneously. With it's 65,536 processors and 32 megabytes of memory, the computer can execute up to 7 billion instructions/second. As an idea of speed, the supercomputer can add 64,000 numbers in 32 microsec. or sort a list of 65,536 32-bit values in only 33 microsec.

Using an argon ion or excimer laser, researchers at General Electric Co. are connecting unpackaged semi-

conductor chips mounted on thermoplastic boards. The chips are mounted to the board using either epoxy or solder and placed in a chamber containing a metal-carrying gas. The laser is then beamed on the board and where it touches, a conductive path is deposited. This technique has great promise for both one-of prototype integrated circuit production as well as commercial runs.

Sandia National Laboratories have devised a method of on-chip repair, using low power lasers. The laser is used to remove the unwanted connection and then another laser is used to lay down a conductive path where desired. Like the GE process, the work is done in a gas filled chamber. However, the process differs in that the conductor laid down is a conductive poly-silicon, not metal.

de Russ VE3FSN



"Here's what I call a real QSL card."

FROM OUR TECH ADVISOR

To all of you welcome back after a terrific summer! I would like to thank all of you for the support in the elections in June. This space will be filled every month (I hope) with a wide variety of articles that will include tips on working that rare DX on the 2 meter band to restoring that beam that you got for a bargain price, but nobody told you it was up a 100 foot tower for 15 years.

The summer has been nothing short of fun at this end. It began with a trip to the U.K. Preparations started several months prior to the departure date of June the 13th. (a Friday)! Approximately 2 months before I applied to The Post Office in Chesterfield England for a British call. The forms may be obtained by writing to CARF. A money order from your local bank branch in the amount of 12.50 pounds Sterling must be included with the application along with a copy of your station license. Converted to Canadian dollars the total is about \$26.00. It takes about six weeks to process the information.

The equipment I took along made it through customs and security with very little fuss. The batteries in the handy talkie weren't even removed as is the custom when I've flown on internal flights. The handy talkie and the base rig came along in a knapsack and a 5/8 magnetic mount was coiled inside one of the suitcases.

We arrived in London on a weekend but did not do any operating until the rented car was picked up three days later. Another point I should add here: those of you considering renting a car in the U.K. should rent it with an agency here in Canada before leaving. Most agencies charge twice as much for auto rentals over there. Once away from the congestion and heat of the city (33C in London) I set up the rig in the car. At least cigarette lighter plugs are universal even in Britain! My main interest was the SSB portion of the band and I quickly found it. At this point in the journey we were only 32 miles north of London. This is farm country and rolling hills. The band had many signals from all over the south of England so I finally made my presence known. "This is GO/VE3MPG calling CQ and standing by." The first station worked was a station in Kent. Quite a haul considering the 15 watts into a 5/8 wave antenna stuck to the side of the car (horizontal polarization for SSB work right?). After that it was a pile-up. They all wanted to work that great opening and work their first VE3 via tropo or scatter. They didn't care. Alas they were a bit disappointed when they found out I was only a tourist from one of the colonies. Nevertheless it was fund and there was a lot of activity all over Britain and Scotland on the SSB portion of the band. I didn't work much FM because of the fact you needed tone burst to access any repeater in the U.K. The British have a no code license for two meters and the level of operating by these fellows was most courteous and professional contrary to what I had heard. Who says a no code license won't work? I worked hams in Wales, Scotland, Ireland and England on the two meter band and it was all good operating. Another point to consider is the crowding they have on the band. The allocation of 2 meters is from 144.000 to 145.000 in the U.K. The no code group may not use frequencies below 144.000.

Driving on the wrond side of the road was no sweat though my wife has a different story. And hakis wasn't all that hard to swallow but the little buggers can really run! 73 and see you next month.

Bob VE3MPG

COMPUTER TIPS FOR YOUR 64

In the next few issues of the RAMBLER, we will be presenting a few hints and tips that may be helpful and increase your equipment of this good old stalwart of the computer world. (Many of the items to be presented were discovered in RUN).

TIP NO. 1:

Modern electronic equipment is such that if a new item is going to fail, it will likely do so early in its operational life. This is equally true of personal computers (of any make). Therefore, a good practice to follow, is to "burn in" new equipment by leaving it in the 'powered-up' mode for some period immediately after acquisition to confirm that it will continue to function normally.

To be certain, it is best to do this yourself. Leave the equipment energized around the clock for about a week. It doesn't have to be doing anything: it just needs to be turned on. Of course it helps if you use it from time to time, to further check out the various functions. If something is going to go 'belly-up', it will likely do so during this 'burn-in' period. There are three very good reasons for forcing the catastrophe if it is going to happen.

First, you will have put on enough hours of operation during the warranty period, to decrease the chance of later failure. Second you will have done so, soon enough after purchase, that you can take it back to the retailer for replacement, rather than send it to the manufacturer's representative or a service center. Third, barring any problems, you will have created a reasonable degree of confidence in the reliability of your computer.

TIP NO. 2:

The 64's power supply is a definite weak link in an otherwise reasonably rugged piece of equipment. Even when the computer itself is turned off, the power supply, not having a switch, continues to draw power and remains unnecessarily warm. Either unplug it, or better still, plug your computer and all its peripherals into a switched multiple outlet strip. Then use the strip's switch to turn the whole system off.

Some of the power supplies get inordinately hot while in use, especially on the ends. To counteract this, I used a good liquid solder to glue two heavy duty heat sinks on the ends. This cured my problem. I further added some self-sticking bumper buttons as feet to raise the supply off the table and create air circulation around the unit. I have since added these little feet to all the parts of my system to improve airflow.

MORE NEXT MONTH.

Bob VE3KJK

NOTICE OF MEETING

The next regular meeting of the Ottawa Valley Mobile Radio Club will be held at the Museum of Science and Technology at 8:00 PM on Sept. 18.

This is our first meeting of the new executive and the start of the Club year. Time to renew your membership! See you there

FROM THE WISE OWL NET....

From September 6, 1985 to June 27, 1986 there were a total of 44 nets and a total net time of 1902 minutes (31.70 hours). During this period, 93 hams check-in for a total of 659 QNI. A special net was run and managed by Sydney, VE3GVI on the 25th of December - thanks Sydney.

Beginning January 24, 1986 to March 28, 1986 a qualifying net was run and there were 5 recipients of CLASS A certificate and 15 recipients of CLASS B certificate. A very successful season and as net manager of the Wise Owl Net I wish to express my appreciation for your support, and thanks to the individuals who so kindly ran and managed the net during my absence on several occasions.

The Wise Owl Net meets every Friday at 20:00 hours on VE3TWO on frequency 147,900/147.300 MKz. The general purpose of this net is to pass news from the OVMRC club, other information that would be of interest to the radio amateur society and to meet other radio amateurs. The net was closed for the months of July and August but has resumed on September 5th, 1986. This is your net, lets make it bigger and better this season.

Leo, VE3NVL
Net Manager

1212 Edgeworth Dr
Montgomery Al 36109
16 July 1986

Greetings from Alabama

Well, we've been here 3 years now and have one more to go. We were supposed to have left yesterday however; I was asked to volunteer for an additional year and I just couldn't convince my XYL that it was time to head home. She has fallen in love with the weather down here. Actually I can't complain. We've had close to 6 weeks with no rain, high 90s by day and mid 70s by night. The humidity stays at 80% or better. The cotton and corn are not doing too well and it is hard to keep green grass in the yard.

I go swimming every noon hour, for exercise, as it is too hot to run or play tennis. I'll play the odd tennis game around 2200 hrs when it's a bit cooler. All tennis courts down here are well lit.

I haven't been on HF very much lately. The band seems lousy from this neck of the woods. I haven't talked to my Dad in Sask. for quite a number of months now. When I came down here, one of my first purchases was going to be a new HF rig but that never came about. I've bought computers, modems, and my latest purchase is a MFJ TNC packet radio unit. I'm on packet a bit but it isn't really active in this state yet. If anyone wants to try, they can send me a message via K4HAL with termination at W4AP-1. They operate on 145.01 down here. VHF activity is not that great right now. Everyone is out enjoying the weather. It usually picks up in Oct/Nov and continues until May. I've been active in many community activities (road runs, band festivals, bicycle marathons, etc). It would have been nice to be back to help with Horse People Inc.

I look forward to the Rambler arriving each month. I can see some activities are changing plus a lot of new calls in the club. It's good to see.

Russ, I'm glad to see you're still active with the classes. I remember when you used to grumble and say they'd never last. You're going to have to start making lots of wine. We haven't been able to get any made due to the warm weather. We'll have to start wine parties at your place next year. Been to any good Mexican joints lately? Don't forget you can still get me at 446-4571.

Glad to hear the voice from the north (some foreign correspondent!!) is still active. Glad to see you're enjoying your job Dave. Bob (KIK) is keeping his pen active with good articles, and Jerry (CDS) still hanging in as editor. Thought you two guys would have retired from the active role by now.

Keep up the good work gang. See you next summer.

Lloyd, VE3FHC

EDITORIAL:

September 1986, the start of another club year. What lies ahead? First of all we have the new Rambler printing capability. Now we can publish technical articles with schematics, that should encourage club members to submit technical articles. We have a new executive for the coming year and I am sure we will see some new innovations as we have in the past. Elsewhere in this issue you will read about the radio course. If you are interested in helping out, contact Russ VE3FSN. I think each of us should try to do something for the club in the coming year. Maybe just help out in a club activity by participating, a field day operator or a speaker at a club meeting, or a mentor on the radio course. Let's strive for a silent minority rather than a silent majority at the Mobile Club.

If you have any ideas let the executive know about it.

What are your thoughts on programs? Do you have a pet subject you'd like to talk about? Try it on the Mobile Club. What about VE3JW. Do you have any comments regarding operation, scheduling, changes, whatever, let us know.

What do you think of public service functions? We should review our involvement in this type of activity. Some of the recent activities left a bit to be desired in providing the participating hams with some feeling of satisfaction. I have come to the conclusion that many well meaning organizations look upon communications by amateurs as a freebee available for the asking. Let's look at the requests and if we feel that the function requires too much in the way of time, mileage, or overall organization on our part we should say no thanks. Your comments please.

How about our involvement in joint club activities with the other local clubs. Any thoughts?

What do you think of our on air activities? The Pot-Hole net every Sunday AM and the Wise Owl Net every Friday evening. Let us know.

Any other comments on any aspect of Ham Radio will help your executive. Your ideas may not be the best in your opinion, but it may be just what the Club needs in 86-87.

73
Jerry VE3CDS

Welcome to the first installment of The Weekender. Each month this column will present a simple to build project that will, as the title suggests, take no more than a weekend to complete. Every effort will be made to select projects for which the parts may be locally obtained and where that is not possible, suggested sources of supply will be given.

The project for this month is a 13.8 volt DC power supply, capable of 5 Amps continuous output. Unlike the cheap supplies you can find at the local emporiums, this one can handle the load continuously and will not die even if the output is shorted out.

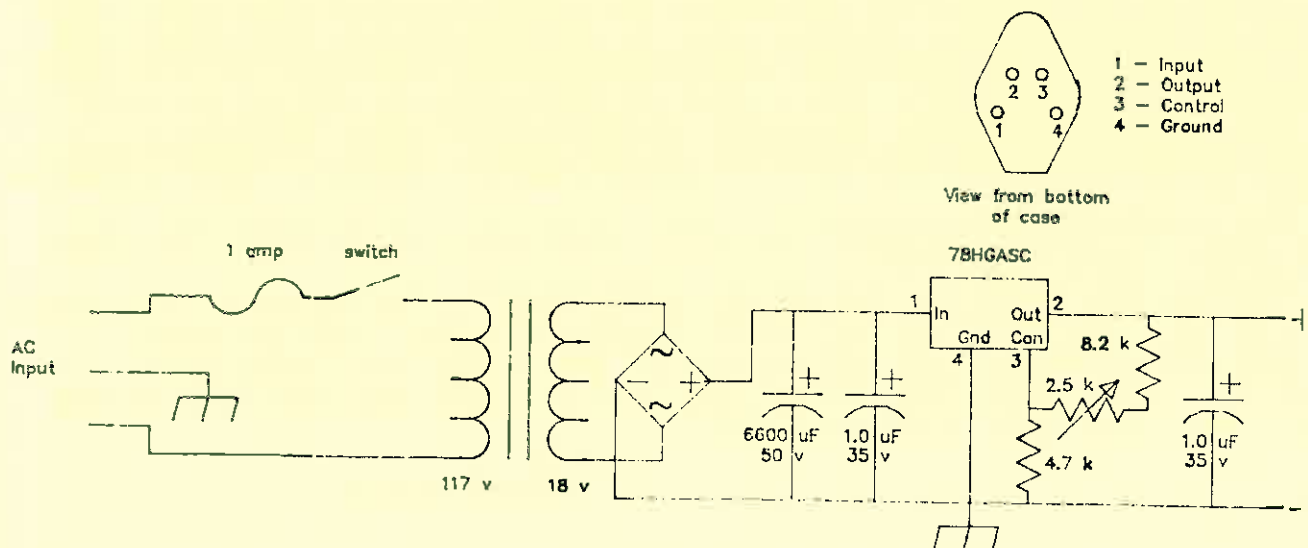
Required Parts

Qty	Item	Source
1	elec cap 6,600 uF/50 volts	K
1	trim pot 2.5 k	K, A
1	resistor 4.7 k, 1/4 watt	K, RS, A
1	resistor 8.2 k, 1/4 watt	K, A
1	rectifier bridge 25A/50PIV	K, RS
2	tantalum cap 1.0 uF/35 volts	K, RS, A
1	transformer Hammond #165P18	W
1	IC 78HGASC	K, A
1	fuse, slow blow 1A	K, RS, A
1	heat sink	K

Misc nuts, bolts, line cord, case, terminal strips, etc. may also be found at the sources listed.

K Kris Electronics
RS Radio Shack

A Active
W Wackid Radio



Substitutions

Capacitors - any capacitance or voltage higher than that given is acceptable. Kris has some 3300 uF/50 volts units, put two in parallel.

Rectifier - you only need 10 A / 50 PIV but the unit given is cheap and easy to mount

Transformer - the Hammond unit is a bit pricey, but it is bullet-proof and I do not recommend a cheapy

Heat Sink - as they say, the larger the better. Kris normally has a good selection, so have words with him, you'll find a suitable one.

Construction

Before beginning assembly, note that the terminals on the rectifier bridge are marked as to the AC input and the + and - DC output. The capacitors are polarity sensitive so make sure you have the terminals properly identified.

Drill your heatsink to accept the IC. It is worth while looking for a heatsink which is already drilled to accept a TO-3 style transistor, as you will then only have to drill two additional holes. Make sure all the holes are deburred so as to not accidentally short one of the IC pins to ground. Place a short piece of insulating tubing on the pins to decrease the chances of shorting the pins to the heatsink. Use heat conducting paste, if you have it, and do not overtighten the mounting hardware.

Mount the tantalum capacitors on the IC pins with the shortest possible leads. These capacitors are there to bypass the input and output leads and the device may oscillate without them.

Mount the rectifier bridge using a single nut and bolt to the heatsink or case. Again do not overtighten.

Use a wire size consistent with the current being drawn eg. #18 minimum on the output.

Use care on the 117 VAC side of the circuit and DO NOT omit the fuse.

Setup/Testing

Check all your wiring for errors. Make sure of all capacitor/diode polarities.

Set trim pot to midrange.

Connect a voltmeter (25 volt range) to the output and momentarily apply power (this means just on-off). Voltmeter should read between 12 and 15 volts. Anything outside this range indicates a problem.

If it passes this test, reapply power and carefully set the pot for 13.8 volts output.

Carefully touch transformer, rectifier and IC for signs of overheating.

Conclusion

If all works as planned, you now have a power supply that will serve you for many years to come.

de Russ VE3FSN

SCHEDULE FOR VE3.IW

*hours are flexible, the museum is open from
10AM to 6PM

Morning 10 AM-2PM

Afternoon 2PM-6PM

Sept 7	Dave 3JTZ & Mark 3OWL	Open
13	Joan 3OSE & Susan 3OSP	Hugo 3KTN
14	Dan 3EBI & Walley 3CBE	George 3PFZ & Dave 3JTZ
20	Bill 3YK & Merv 3CV	Jim 3GJY & Fred 3BAJ
21	Tom 3OFM & Robt 2FPD	Jerry 3CDS & Alan 3LNH
27	Verna 3ASM & Sydney 3GW	Open
28	Bob 3MPG & George 3OWW	Bob 3JDB & Brian 3ELQ

Note: For security reasons please have a club I.D. card from one of the local clubs.

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FIRST CLASS

FIRST CLASS

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