



# Scuttlebutt

No. 77 October 1988

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## Captain's Cabin Fred Lass, K2TR

Radio fever - catch it!

This is the time of year when my wife, Renée, says that I am seized by radio fever. This year, increased solar activity adds even more to the anticipation that I always feel in the fall. First comes the antenna plans, then I'm on the phone, as much as my teenage daughter Kim, to arrange operators and coordinate antenna construction. Radio fever really sets in the week before the contest. Nothing is as important as winning. The best cure is simple - win - win big - the bigger the better.

The ARRL DX Contest club competition official results will be in print by the time you read this. **We win again!** The YCCC rose to the occasion and beat back a challenge that was made more intense by our win last year. It is hard to win twice in a row and we did it. Our second win means even more than our first win. Congratulations to each and every participant.

As we await the CQ results let's anticipate a winning strategy for this year:

- Sign up new members.
- Organize multi-ops whenever possible.
- Plan to go on a DXpedition.
- Enhance our packet network.

- Tweak the antenna system.
- Neaten up the station.
- Its 0000Z - go for broke and have fun.
- Maximize operating time.
- Keep the QSO rate high.
- Its 2400Z - report your score on 3830.

Each and every one of us ought to help expand the glory that we have earned in two successive ARRL contests to include this CQ WW.

## Next Meeting Paul Young, K1XM

The next meeting of the Yankee Clipper Contest Club will be at the ARRL New England Division Convention at the Sheraton Boxboro, in Boxboro, Massachusetts, on Saturday, October 1, from 1 to 5. The Sheraton Boxboro is easy to find (although perhaps not easy to park close to); it is visible from route 495, on the east side of the highway. Exit 495 on route 111 (Boxboro-Harvard exit) and go east. The entrance is on the right in about one block. Follow the line of traffic; you won't be able to miss it! There will be a shuttle bus from outlying parking areas.

The meeting dates for 1988 are:

DATE	DAY
October 1, 1988	Saturday
December 4, 1988	Sunday

## Secretary's Report Yankee Clipper Contest Club

The August YCCC barbecue meeting was held on August 6th at Holland Pond State Park, a short drive from our usual meeting place at the Sheraton Sturbridge. 16 members, their families, and many guests attended. This relatively undiscovered state park proved to be a perfect location for the barbecue on a very hot, humid day, with uncrowded shady picnic areas, plenty of parking, and swimming facilities. However, the proposed softball game was scuttled when we discovered that no one had remembered to bring a bat! The club welcomed one new member:

Dave Pascoe, KM3T

The Treasurer's Report showed a much-improved treasury balance of \$1277.82. Bill, N1CQ, reported that plans are continuing for the October meeting at the ARRL New England Division Convention at Boxboro. Respectfully submitted,

Charlotte L. Richardson, KQ1F

Secretary/Treasurer

15 August 1988

## 200 MHz - Going, Going, Gone?

Tom Frenaye, K1KI

YCCC members should re-read the article "Congressional Resolutions support amateur radio" from Page 60 of the August QST. Please call or write both of your senators and your congressional representative and ask that they support senate concurrent resolution 127 and house concurrent resolution 317 which express the "sense of congress" that it supports amateur radio and its frequency allocations as vital for emergency communications and public-safety purposes. As of this writing, YCCC-area supporters are senators Stafford (VT) and Humphrey (NH) and Congressmen Johnson (CT), Rowland (CT), Shays (CT), Gejdenson (CT), Jeffords (VT), and Smith (NH).

(Editor's note - Hey Massachusetts hams! How come none of your senators or representatives are sponsors yet???)

## The TS-930 vs. TS-940: One Contester's Perspective

Ken Wolff, K1EA

As you might expect the TS-930 and TS-940 have more in common than differences. They are both

full-featured HF radios aimed at the high end amateur market. As you read this review bear in mind that contesters are time and motion fanatics. Extra keystrokes or complicated operation are intolerable after 48 straight fun-filled hours of operation. I typically change bands over 100 times during the course of a competition. There have been hours when I changed bands 20 times.

## FREQUENCY CONTROL

Both radios allow direct QSY to another band by pushing a single button. Better yet, the frequency you wind up on is offset from the band edge the same as the band you started on: 14005.1 moves to 21005.1 when you QSY. This makes passing guys real easy. Some competitive radios make you cycle through the bands and don't even put you back where you started when you QSY back. The TS-940 allows direct keyboard entry of a frequency. This is painful to do, involving the ENTER key once if you type the frequency to 7 decimal places and twice if you don't.

These radios have "two" VFOs in the sense that they are digitally controlled synthesizers and have a human interface that appears to be two VFOs, one being accessed at a time. The 930 has a FUNCTION switch with four choices: RX A/ TX B, RX A/ TX A, RX B / TX B, RX B / TX A. The first and last choices are split: RX VFO = A, TX VFO B and RX VFO B, TX VFO A. The middle two are transceive on VFO A and VFO B. The 940 has no switch, but two buttons: A?B and SPLIT. A/B toggles the RX VFO between A and B. When SPLIT is off, the radio is transceive on the RX VFO. When on, SPLIT lights a light and causes the TX VFO to be NOT the RX VFO. Both radios have a A=B button which causes the TX VFO to be loaded with the RX VFOs frequency.

I hope the guy at Kenwood who invented the T-F Set button got a raise and a bonus. This almost makes SSB DXing on 75 and 40 fun. On either radio, when in SPLIT mode, holding the T-F SET causes the radio to listen on the transmit frequency, as long as the T-F SET is held. For example, you tune in I5NPH on 7095.2 (40 over 9) while in split mode. Copy his receive frequency (QSX) as 7287, hold T-F SET and spin the dial to 7287. You call him once and he comes back to K2TR. Now you push T-F SET and tune in Fred at 7287.4 (that's where the guy before TR worked him). In my case, he comes right back ... to K1AR, because there is a K, a 1, and an A in the call. Of course, for you he comes back immediately.

I favor the 940 layout for this stuff because the appropriate buttons are right next to the main tuning dial and are easy to see. No wasted motion or time.

## MEMORIES

The 930 has a nice straightforward memory scheme.

Select a memory with a rotary switch and load VFO to MEMORY with the Min button, or load MEMORY to VFO with the MR button. I remember hearing guys wondering what the "Mister" button on the 930 was. That seemed funny at the time. The VFO/MEMO button puts the radio in MEMO mode: main tuning is defeated and the RX FREQ is the frequency of the memory selected. I use this to run through the WWV frequencies, looking for propagation on 2.5, 5, 10, 15, or 20 MHz.

The 940 memory scheme is harder to understand and remember. Memories are loaded by hitting two keys simultaneously, the M.IN key and a memory number key. The VFO is loaded by the M→VFO button. This is fine if the memory you want is the one currently selected. If not, enter the MEMO mode by pushing the VFO/M button, then select the memory number off the keypad, then get back into VFO mode with the VFO/M button, then punch M→VFO to get what you need. I can't speak for other single ops, but I'm generally getting pretty dim by Sunday afternoon in the WW and the procedure is often too much. The net result is that I use the 940 memories for nothing except the WWV on the 940.

The 940 wastes four front panel buttons, located on prime real estate just to the right and above the main tuning knob, on memory scanning functions. I don't know or care how they work, but I'll bet some happy Kenwood customers do.

#### RIT/XIT

The 930 has the RIT knob in a good spot 3 inches to the right and 1 inch above the main tuning knob. The RIT knob on my early vintage 930 is a slightly different color (hooray! remember, no sleep) but has sharper edges and the tips of my left hand get sore on the second day. Turning the RIT knob or pushing RIT CLEAR while transmitting has no effect on the 930. This has annoyed me for 6 years now. Other guys don't seem to care. The 940 RIT knob is 5 inches to the right of the main tuning knob, which is OK. The RIT CLEAR and RIT do work while transmitting. Kenwood has also added XIT (why didn't they call it TIT?). XIT has turned out to be very useful for yelling at the guy 500 Hz away. Just tune him in with the RIT, push XIT and send: QRL QSY QRL QSY go to H-L de W3LPL. Push the XIT button again and you are on your way.

#### CW VBT

CW variable bandpass tuning is wonderful. Both radios have it and it has allowed me to hold otherwise unusable frequencies. This works the same way (narrows the passband) on both radios. I have the stock Kenwood filters in the 930 and the International Radio filters in the 940. It seems to me that the 940 has steeper skirts, but I have never measured them. The

center of the bandpass moves a little when cranking in the VBT on both radios. I have adapted to this and don't notice anymore.

#### NOTCH/AF TUNE

Both radios have them. I don't use them, ever.

#### PITCH

This Kenwood first is, by my standards, required on a contest radio. This shifts the incoming passband pitch to anything you like without shifting the transmit or receive frequency or moving the transmit frequency inside the receive passband. The monitor pitch you hear on CW is in fact your transmit frequency on the air (if RIT and XIT are off). I have a good sense of pitch, so I have no trouble adjusting my frequency relative to the competition in a pileup.

#### NOISE BLANKER

Both radios have two noise blankers. I don't use them, ever.

#### CLOCK

The 930 doesn't have one, the 940 does. Much to my surprise, the clock is a real nice feature. It is in the proper place, right next to frequency display. Any clock external to the radio is in the wrong place. Also, the clock is battery backed-up.

#### EMI

I have tried, on a number of occasions, to use the 930 as an IF transceiver with a transverter to run on 6 and 2 meters. High power VHF energy always gets in and wrecks the audio on both receive and transmit. We run a 5 tower multi-multi on Mt. Wachusett in June and September. This susceptibility has also plagued a number of guys trying to use beverage antennas on 75 too. The 940 doesn't have this problem, but did die for another reason the first time I tried to use it in a VHF test.

#### EXTERNAL RECEIVE JACK

In order to use the 930 with a beverage, most people have modified the wiring to the external receive connector. The 940 is wired that way from the factory.

#### PHASE NOISE

When the 940 first came out, its phase noise characteristics were significantly worse than the 930. Many, many guys looked into this and several very popular modifications are around. Since then, Kenwood has come up with their own engineering change and made the new 940s about as good as the 930. Neither radio is as good as the ICOM 761.

#### UPPER VS. LOWER SIDEBAND ON CW

The 930 tunes CW on lower sideband of the signal. In other words, turning the main tuning knob to a higher frequency makes the pitch of a received signal go up. If you tune the bands from the bottom to the top, signals



start low and get higher until they disappear. The 940 tunes CW on the upper sideband. Signals get lower in pitch as you tune higher in frequency. This drives some guys crazy, but doesn't bother me particularly. I tune the bands both ways, although I prefer to tune from the bottom up using the 930 type lower sideband.

#### THE REAL REASON I BOUGHT MY TS-940

All my contesting is now done using computer logging. When a contact is made, the computer asks the radio for its frequency. The computer never misses a band change. When I want to send a spot to the YCCC DX Spotting System, a keystroke causes the program to read the log and the radio for a frequency to report. When I want to use a spot off the YCCC DX Spotting System (multi-transmitter class), a keystroke sends the radio to the proper frequency. Another keystroke brings it back. I have tried controlling the 940 RIT from the keyboard of the computer. This has turned out to be too slow to be useful.

#### SUMMARY

Ignoring price differences, I would today choose the TS-940. I use the A/B, SPLIT and A=B buttons a lot, and can get then with my index finger while the rest of my hand is on the main tuning knob. I love the fact that the RIT works while transmitting and there is a XIT. Most of all, my scores have been higher (probably due to last year's aluminum crop).

For the record, my 930 was purchased in October, 1982. The 940 was purchased in June, 1987.

### On the Streets Where We Live

Doug Grant, K1DG

A long time ago when there were no sunspots, operators at big multi-multi operations would pass the time during slow times by reading the Callbook, looking for interesting and unusual names and addresses of hams. I don't remember all of them, but Elmo Moist and Merle Glunt stick in my mind.

I guess that's why I can't resist looking at long lists of ham names and addresses, and why I look forward to the annual YCCC roster publication. When I was reading the roster in the last 'Butt, I was impressed by the number of suitable addresses for our members. While we all dream of the ideal QTH, with a salt marsh on a hilltop with a panoramic view and lots of tall trees around, some of our members are not just dreaming anymore. For example...

You can tell the guys with the well-hidden towers and high wire antennas from their addresses - W1BK on Forest Av., K1CLN on Woodland Street, WB1CNM on Elm Ave., KC1F on Larch Rd., K1FWF on Walnut St. (not to be confused with KS1J on Walnut Road),

K1KI on Pinehurst St., KA1MI on Cedar Lane, KA1R on Grove Street, K1SF on Chestnut Street, KC2FD on Linden Street, KQ2M on Balsam Court, and NU0X on Evergreen Road.

A high location is nice, too, with K1TWF on High St. and AA2Z on East High St.

The hilltop gang includes KA1CB on Rolling Hill Ave., K1GQ on Laurel Hill Road, K1MNS on Warner Hill Road, KE2BA on Elmer Hill Road, WA2LGT on Barretts Hill Road, WB2KMY on Hillside Ave., and K2EK on Rushmore Road.

K1GW on Pinnacle Road, and K1RX on Summit Road are even higher.

And you can tell who has the best views from the tops of their towers - W1XX on Broadview Terrace, KA1IDC on Outlook Ave., and the Grandview Gang: KG1D (Grandview Terrace), K1TR (Grandview Road), W1XK (Grandview Ave.), and N2MG (Grandview Lane). W1GG and KA1KRT on Westview Road can actually see KH6 from up there.

The views aren't as good, but the dipoles are higher at KX1F (Pine Hill Road), W1FM (Pineknoll Road), K1RU (Ridgewood Drive), and KA1XN (Knollwood Road).

We've got a QRPer (KA1LR on Battery Road), and, ahem, a QROer (WB1AUW in Kilowatt Alley). Now we know why he's loud.

All the directions are covered - KC1Q on North Street, N1CQ on South Street, NJ1F on East Street (and W2IB on East Drive), and KA1ODA on West Street. And don't forget K2WR on West End Av., and KR1V on SW Parkway.

A lot of our members seem to live in Boxes in the Post Office. Some, like K5NA, KU2Q, WB2Q, and KT1N (who all live in P. O. Box DX) seem to get out OK. But some of those RR and RFD Box dwellers are really loud, like KB1I, W1RT, K1ST, K1ZM, and K2TR. How they get big antennas into little boxes is a mystery to me.

Some guys prefer wide open spaces - like AK1L and KA1X on Hall Farm Road and W1GIH on Nowell Farme Road. K1VUT has plenty of space on Rocky Meadow Street, but the ground conductivity isn't very good with all those rocks.

If he wants to be louder on the low bands, maybe he should move closer to water, like N1CKN on Canal Street, K1DG on Kendall Pond Road, N1EMG on Black Brook Road, W1IHN on River Road, KA1MP on Woodbridge, KF1V on Riverview, or NQ2D on Sound Beach. And I think VU2MML/W1's corro-

sion problems on BlueBrass Lane are due to salt water spray...

Our low-band gray-line experts are obviously K1MM and KA1ESR on Sunset Drive, and NG1N on Twilight Drive.

But the first guy heard when the band opens, and the last one when it closes is our own KB1WH ... on Beacon Ave.

## Floating

Paul Young, K1XM

I'm following our President's advice: I've arranged a multi-single DXpedition to PJ2X for the CQ WW cw. Work us on 6 bands!

## 160 Meter Receiving Loop

Mark S. Graalman, Sr., WB8JKR

(reprinted from the Mad River Radio Club **Flash**, volume X, number 2, June, 1988)

Here's a compact receiving antenna for 160 meters that works quite well and is simple to construct. It can hold its own against the average beverage, but doesn't require half your friend's backyard plus your own. It features a built-in 30dB gain low-noise FET preamp that can receive its operating voltage thru a coax feedline so a separate power feed is not required. The antenna is built out of 3/4 inch hardline only so it will be self-supporting; it could be made of RG-8, RG-58, RG-59, or anything that has good shielding, but then a frame would be required. The loop is five feet on a side, the preamp is built into a 4x4 box that is at the feed point of the loop, therefore providing a shield for it also. The loop is tuned to resonance by a small trimmer and the tuning is quite sharp. Properly built and installed it will provide good reception + or - approximately 50 kHz from the center frequency.

For ideal operation the loop should be installed approximately six feet off the ground and above a ground screen of chicken wire or window screen approximately ten feet square. The feedline should come straight down to the ground screen and then along the ground to the operating position. Maximum response is in the plane of the loop with a DEEP SHARP null broadside to it.

Figure 1

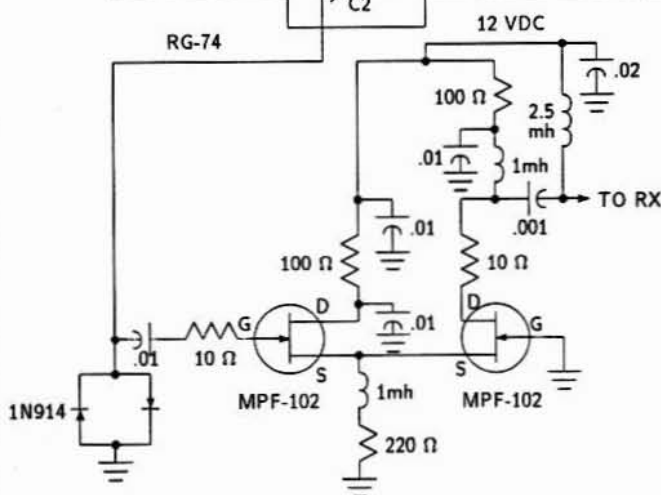
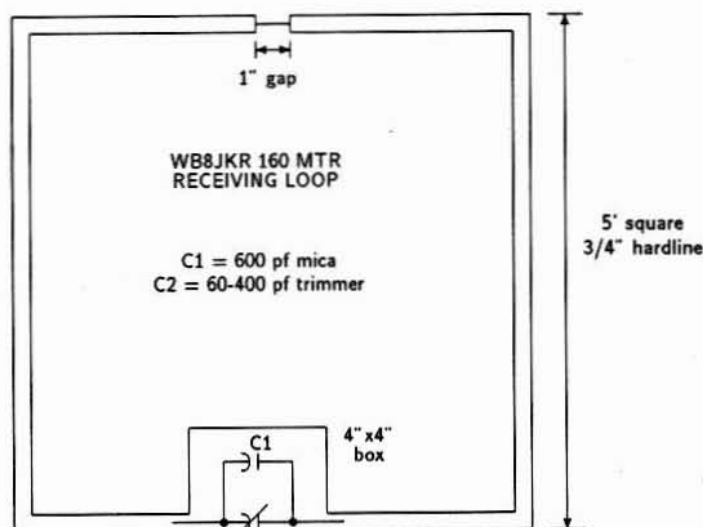
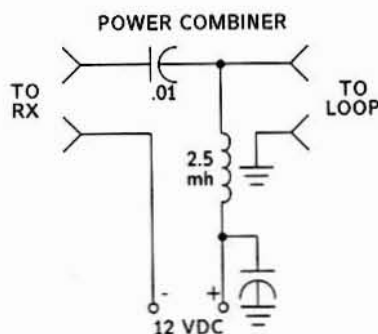


Figure 2



## A Simple Preset Antenna Rotor Control

Randy H. Farmer, W8FN

Soon after I finally put up my first HF beam it became obvious that having to tie one hand up for up to a minute or so while the antenna rotates was not a good thing. It was equally clear that spending over \$200 for a gee-whiz computer controlled rotor box was not

an efficient use of always scarce station improvement dollars. After a couple of months of R&D I was able to come up with a simple circuit which provides a hands-off preset control of antenna position at a modest cost. As a bonus, it also provides an automatic brake delay when the antenna is rotated manually. This little gadget, which has been in continuous use on the rotors at my station for the last five years, has been one of the better investments in station hardware I have made. Although this device was designed specifically for use with the popular CDE/Hy-Gain family of rotors, it should be usable with any rotor which uses a DC position indicating circuit. I have included specific directions for interfacing with the Ham IV or Tailtwister.

The preset controller circuit uses two of the four comparator sections of the popular and inexpensive LM339 quad comparator IC in a "window comparator" circuit which looks at the relationship between the actual antenna position, as measured by the DC position voltage that feeds the front panel meter, and the desired antenna position, set by a reference voltage. If these two voltages are not equal one of the two comparators turns on, closing the brake release relay, which is wired across the brake release switch on the control box front panel, releasing the brake and enabling the motor control switches. Depending on whether the position voltage is more or less positive than the reference voltage, the window comparator causes clockwise or counterclockwise rotation by means of relays connected across the corresponding front panel switches. When the antenna position falls within the "window" defined by the slightly different upper and lower limits at the comparator inputs, both comparator sections turn off and rotation is halted. The brake release relay is held on for an additional five seconds or so and then opened, re-engaging the brake and completing the automatic preset cycle.

The width of the window is set by the forward drop of diode D1 connected between the upper and lower reference inputs of the window comparator. This produces a small amount of hysteresis in the position control loop. (The final position will be slightly different if reached from the clockwise direction than if reached from the counterclockwise direction.) For most normal size HF beams this hysteresis is negligible compared to the antenna's beamwidth. If you plan to use this device to rotate a VHF or UHF beam with a very narrow beamwidth it may be necessary to make the window narrower. Tightening the window will decrease the position uncertainty at the expense of possibly inducing a "hunting" oscillation, especially with very long boom antennas.

Power for the control circuit is taken directly from the unregulated +28 VDC supply which is used for the metering circuit in the rotor control box. A three terminal regulator is used to produce the 12 VDC required for

the electronics and the control relay coils. Since the rotor control box chassis is NOT DC common (ground) for the meter circuit, the regulator cannot be fastened directly to the box chassis for heat sinking. Series resistor R12 is used to limit dissipation in the regulator IC to a value that is acceptable for free-air cooling. If the circuit is built on a board of some sort this resistor should be mounted with leads long enough to stand it slightly off the board to allow air circulation around its body.

Layout of the circuit is not critical, although it is a good idea to locate bypass capacitor C3 as close to the power pin (pin 3) of the comparator IC as possible. It is also a good idea to try to minimize the lengths of leads directly to the input pins (pins 6-9). I built my circuits on standard perf board and used point-to-point wiring with short leads. If you encounter RF problems with the circuit try bypassing all control wires to the rotor control box with .01 $\mu$ F ceramic disc capacitors at the box terminal strip. You WILL not be able to sue this device to turn your beam while you are shunt-feeding the tower on another band. The electronics package can be mounted anywhere in the rotor control box and wires run to the necessary connections. On every version of the Ham II type rotor I have seen the entire bottom of the box chassis is unoccupied and there is plenty of room for the preset control board.

There are many ways to control the preset reference voltage. I have used ganged pushbutton switches for my units, but this requires more metal work than most people will want to do. Probably the easiest way to add the preset control without resorting to external switch assemblies is to relocate the front panel calibrate pot to the rear panel of the rotor control box and use the vacated hole to mount a miniature two-pole rotary switch to select the preset. A two-pole switch is required so that the automatic control relays can be disabled to provide a manual mode for odd directions. For each preset position a corresponding miniature potentiometer is set for the appropriate reference voltage and selected by the rotary switch. Since these pots are set and forget controls they can be mounted on the board with the rest of the electronics and buried inside the rotor box. A "bare-bones" preset control could be provided by simply using a single pot and setting it manually to the desired position. The existing pot could probably be used if other provisions were made for calibrating the metering circuit. If a manual control mode is desired, this pot could have a push on/off switch to disable the preset circuitry.

Operation of the preset controller is extremely simple. To rotate the antenna to one of the preset directions simply select the appropriate reference voltage. The brake will release and the antenna will rotate to the preset direction and stop. At the end of the 5 second

brake delay the brake will automatically re-engage. In the manual mode it is necessary to depress both the brake release switch and the desired rotation switch to start the antenna in motion. Once rotation is started the brake switch may be released. When the desired position is reached, simply release the rotation switch to stop the antenna. The brake will automatically hold off for 5 seconds and re-engage at the end of the delay period.

## RESISTORS:

R1-R4	10K	5% 1/4W
R5, R6	1M	5% 1/4W
R7, R8	4.7K	5% 1/4 W
R9, R11	47K	5% 1/4W
R10	330K	5% 1/4W
R12	120 $\Omega$	10% 1W
R13-Rx	10K	10% miniature ceramic pot
(Option)	10K	panel mount pot with switch (RS271-1715 & 271-1740)

## CAPACITORS:

C1, C4-C8	.001 $\mu$ F/1KV	disc ceramic
C2, C9	10 $\mu$ F/50V	electrolytic
C3, C10, C11	.1 $\mu$ F/50V	disc ceramic

## SEMICONDUCTORS:

D1, D6-D8	1N914
D2-D5	1N4003
Q1-Q3	VN10KM or BS170 VMOS (RS276-2074)
U1	LM339 quad comparator (RS276-1712)
U2	7812 12V positive regulator (RS276-1771)

## MISCELLANEOUS:

K1-K3	SPDT 10A relay with 12V coil (RS275-248)
S1	2 pole 6 position rotary switch (RS275-1386)

## Thank You!

Dear Fellow YCCC Members:

I would like to say thank you to all of you for voting to allow the club to sponsor me in my application for several scholarships from the Foundation for Amateur Radio. As some of you know, I am entering my last semester for my B.S. degree this fall. However, I am also expecting to enter graduate school immediately in January and will therefore be dealing with tuition bills for some time to come!

Sincerely,

David Clemons, K1VUT

## Movers and Shakers

Please update your club roster to include the following changes:

New mailing address for Art, W2IB:

Arthur F. Wildblood, W2IB

P. O. Box 1981

Kingston, NY 12401

His new work phone number is (914)686-3925 (White Plains, NY).

Jim, AD1C, has moved:

James J. Reisert, AD1C

22 Chandler Street

Watertown, MA 02172-1010

Dave, KC1Q, has returned to graduate school; his new address is:

Dave Jordan, KC1Q

Box 154, U-200

Graduate Resident

445 Whitney Rd. Ext.

Storrs, CT 06268

Ken Loynes, ex-N1EMG, is now NS1M.

Rus, NJ2L, notes that he now has an unlisted home phone number and is best reached at work. New work phone number for Bill Myers, K1GQ, is (617)492-2000 x 2116. New work phone number for Mike, WA1UAR, is (508)692-0207. New home phone number for Howie, K1VSJ, is (401)273-8035. **NEW AREA CODE REMINDER:** Since this July 16th, many members in the East Mass. section of the club who were in area code 617 are now in area code 508. Check the club roster to see who was affected.

## New Crew

Please welcome the following new member who joined at the August picnic meeting:

Dave Pascoe, KM3T

26 Meeting House Path

Ashland, MA 01721

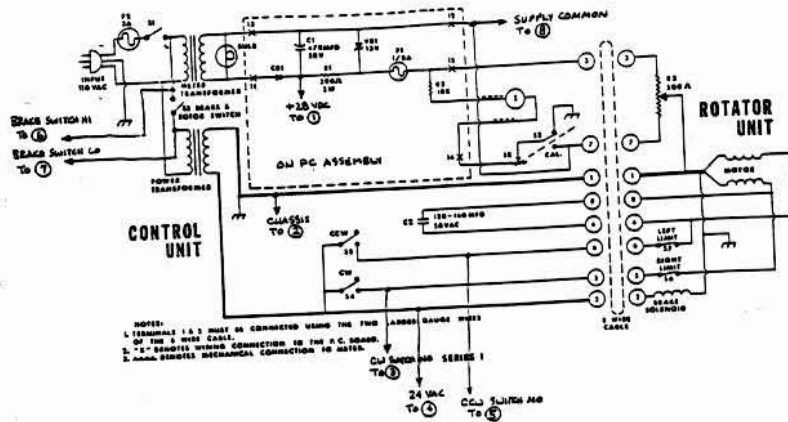
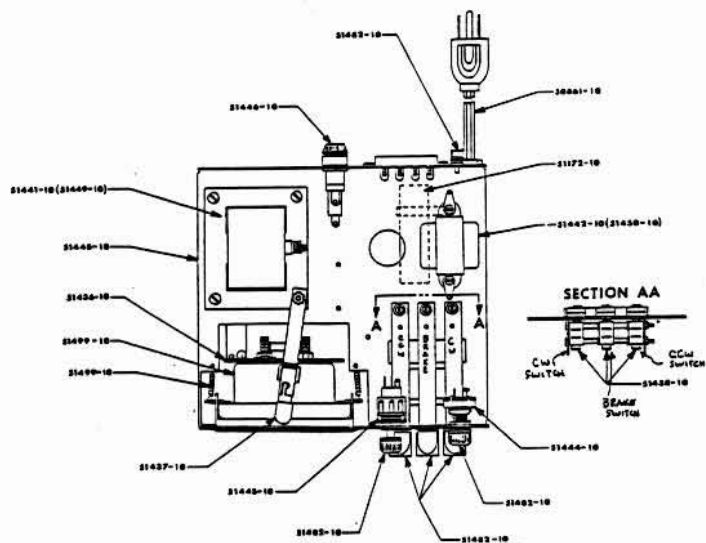
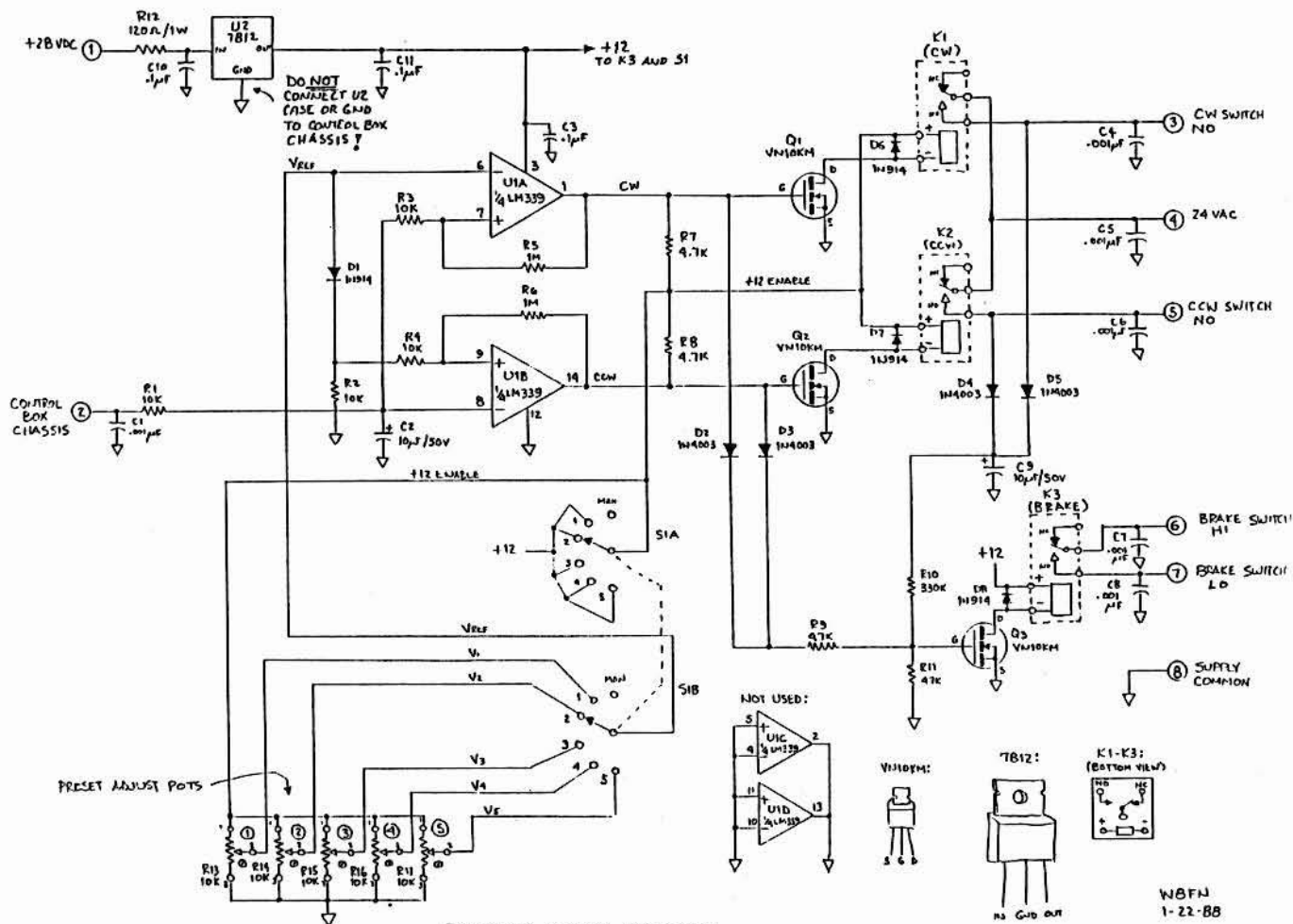
Home Phone: (508)881-8720

Work Phone: (617)455-5704

## Excess Cargo

For sale: Cushcraft 20-4CD 20 meter yagi - \$250, Cushcraft 40-2CD 40 meter yagi - \$275, 99 feet of Rohn 25 tower (will not split up) \$400. Contact Dave, K1VUT, at (508)947-3784.







## THE CLUB RESOURCES PAGE

### THE Place to Find Club Information

**DUES** are due at the April election meeting, which begins our club "contest year", with a grace period until the end of June. Membership in the club will lapse at the end of the grace period if dues are not paid up. In order to re-join the club, a lapsed member must attend a meeting, like any new member, and be welcomed back into membership, or may become a subscriber to the *Scuttlebutt* by paying up (see below). Club members who move out of club territory and so are not eligible to contribute to club aggregate scores automatically become subscribers. New members who join at the last meeting of the club's contest year (February) are credited with dues for the following year (that is, the contest year beginning that April). You can tell if you owe dues by checking your *Butt* mailing label. Only paid-up members are eligible to contribute to the club score in contests.

**FAMILY MEMBERS** Members of the same family living at the same address may elect to receive only one copy of the *Butt*. One member of the family must pay full dues, enabling the rest of the family to join as family members. Being a family member is currently free.

**STUDENT MEMBERS** Full-time students are eligible for dues at half the regular rate.

**SCUTTLEBUTT SUBSCRIBERS** Anyone may subscribe to the club newsletter, the *Scuttlebutt*. A subscription currently costs \$10 per year. At the present time, overseas subscriptions cost the same as domestic (we have very few overseas subscribers). The subscription period begins at the beginning of the club year, in April. New subscribers who begin their subscriptions after the December issue are considered to have paid for the following year (that is, they receive as many issues as new members joining at that time do). You can tell if your subscription is current by checking your *Butt* mailing label. The grace period for late subscriptions is the same as for late memberships.

**SCUTTLEBUTT ARTICLES** should be sent to the *Scuttlebutt* editor, Paul Young, K1XM, 11 Michigan Drive, Hudson, MA 01749, home phone (508)562-5819. The deadline for each issue is three weeks before the next meeting.

**CLUB JACKETS** are available through Ed Kritsky, NT2X, 580 East 17th Street, Apt. 2F, Brooklyn, NY 11226, home phone (718)284-4493.

**CLUB QSL CARDS** are ordered through John Dorr, K1AR, 2 Baldwin Street, Windham, NH 03087, home phone (603)434-5661.

**CLUB QSL CARD BADGES** are available from Tom Frenaye, K1KI, 23 Pinehurst Road, Box 62, Unionville, CT 06085, home phone (203)673-5429, by sending him a club QSL card. The cost is \$1 payable to the club treasurer on receipt of your badge.

**PACKET NET** information is available from Dick Newell, AK1A, 8 Golden Run Rd., Bolton, MA 01740, home phone (508)779-5198, or Dave Robbins, KY1H, Baumann Road, Peru, MA 01235, home phone (413)655-2714.

**CONTEST SCORES** are sent to the club scorekeeper, Jeff Detray, NK1F, P. O. Box 524, Troy, NH 03465, home phone (603)242-7995.

**CLUB ROSTER** appears in the summer issue of the *Scuttlebutt* every year. Updates are published when members move or change callsigns. If you want a new copy of the club roster, contact the club secretary/treasurer, Charlotte Richardson, KQ1F, 11 Michigan Drive, Hudson, MA 01749, home phone (508)562-5819.

**CONTRIBUTIONS** The YCCC welcomes your contributions, be it money to help offset the cost of the *Scuttlebutt* and club operations, scores for the club aggregate score, time spent helping other members, articles for the *Scuttlebutt*, or presentations at club meetings.

**DXCC LIST** The club maintains a one-page version of the ARRL DXCC Countries List. To get a copy, send an SASE to the club secretary, Charlotte Richardson, KQ1F, 11 Michigan Drive, Hudson, MA 01749. Complete DXCC rules are only available from the ARRL.

**ARRL LIAISON** For ARRL matters, contact Tom Frenaye, K1KI, 23 Pinehurst Road, Box 62, Unionville, CT 06085, home phone (203)673-5429.

The **Scuttlebutt** is the newsletter of the **Yankee Clipper Contest Club** and is mailed six times per year to all paid up members. Dues are \$15 per year, payable 1 April with a grace period through 30 June. Non-members may subscribe to the **Scuttlebutt** by sending \$10 to the Treasurer: Charlotte Richardson, KQ1F, 11 Michigan Drive, Hudson, MA 01749. Subscribers who subsequently become members will be credited as having paid dues.

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The **Yankee Clipper Contest Club** (an ARRL Affiliated Club) holds six official meetings per year, on the Saturday or Sunday afternoon of the first full weekend of every even month, usually in the Sturbridge, Massachusetts, area. The deadline for article submission to the **Scuttlebutt** is three weeks before the next meeting date. The next meeting will be at the ARRL New England Division Convention on Saturday, October 1, 1988. Attendance at an official meeting is *required* in order to become a member. Club members congregate on 3830 KHz after contests. The packet frequency is 144.95 MHz.

Rosters are mailed to all paid members each summer. For more information and/or assistance, contact the area manager nearest you on the following list:

Area	Call	Name	Home	Work
CT/RI	K1RU	Gene Frohman	(203) 393-1772	(203) 386-6137
EMass	N1AU	Bill Santelmann	(617) 862-1753	(508) 692-6000
WMass	KY1H	Dave Robbins	(413) 655-2714	(413) 494-2023
VT/NH	K1GW	Glen Whitehouse	(603) 673-6290	(603) 627-7877
ME	K1SA	Bernie Cohen	(207) 773-6589	(207) 797-3585
NNY	K2TR	Fred Lass	(518) 355-4813	(518) 346-6666
SNY/NJ	K2EK	Bill Gioia	(914) 221-1672	(203) 964-3554

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