



The Scuttlebutt

yankee clipper contest club

No.32 April 1981

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Presidential Thoughts

John Dorr, K1AR

Another election has come and gone at YCCC and much to my surprise (!?) you selected me to be your President. Frankly, I gave a lot of thought to not running and would not have unless I felt that YCCC was something worth working for. I'm very excited about the future of YCCC in the coming year. We have an excellent slate of officers who I know will do their best to make YCCC something we can all be proud of.

I'd like to bring up some future plans that I would like to see for YCCC this year. First of all I hope most of you can make it to the summer bash at W2YV in July. Ask anyone who has gone before and they will tell you the good time we all have. Second, as most of you know, there is not going to be a NE convention this year. We are giving some thought to holding a contest convention in it's place to be held in Hartford, CT, complete with seminars and an official YCCC meeting. This event will be an all day affair, and is still very much in the planning stage.

If there is any question in anyone's mind, YCCC is going full out in the CQ WW this Fall. Undoubtedly you will hear a lot more about this, but keep it in mind as you put up those 4el 40m beams this summer!

Finally, I'd like to discuss the Ethics Com-

mittee we voted to establish for YCCC. We in YCCC are very proud of our integrity, which may prompt you to ask why we need an ethics committee. As I see it the reasons are as follows:

1. To anticipate and prepare for any future questions of ethics within the club.
2. To develop a set of club guidelines for the style of operating YCCCs should exhibit.
3. To teach new members and inexperienced contesters the YCCC standards.

I am always looking for suggestions from club members on how we can make YCCC even better. We've come a long way in four years, but still have some distance to go. ■

Editorial

Ponderings From The Poop Deck

Bill Myers, K1GQ

Most of you have probably heard that K1KI has left ARRL. In addition to poverty-level wages and flack from anti-contesters (who always seem to want more of something for themselves, be it spectrum or space in QST) Tom endured a more extreme sort of pressure from some sour-grapes types who claim he shouldn't

be allowed to compete. I, for one, believe we've been extraordinarily lucky to have a team of great integrity and diligence at HQ; when someone outscores me in an ARRL contest, I know he truly outperformed me - *especially* if it was KI!

Tom has been even-handed and open in his dealings with YCCC, and hopefully his successor will follow this trend. To this end, a complimentary copy of the **Butt** goes to each of the HQ contest staff members. Tom is remaining in New England and we may see him at our meetings, if not as a member, at least as a friend. Good luck, Tom (and now that you're a civilian, the **Butt** will cost you \$5/year...on special at \$10 with membership).

The unidentified faces (and backs) in the photographs last issue were: page 3 lower left - K1ZM; page 4 bottom - K1VR in back, K1EA poking around inside the MLA-2500; page 5 - K1ZM and W1HNZ. Nobody won the prize; I DQ'd the only guy who correctly identified Bruce (Bruce). Most people thought he was Ken, including K1EA himself! If you have any black and white prints of interest to YCCCs, send them to me along with captions, etc.

Those (few) of you who subscribe to CQ or otherwise obtain a copy may have been amused and/or puzzled by the April editorial. (The author is the same guy who struggled through the presentations of CQ Awards at the Boxboro convention without getting anything right.) Further info on the controversy (which m/m was less unethical, VP2KC or PJ2CC) is available in the National Contest Journal, Volume 9 Number 2. On the one hand, the VP2 group is alleged to have run "export-only" Alphas and an enormous telephone bill, while on the other hand, the PJ2 group is rumored to have produced unreal JA QSO rates, and included the chairman of the CQ Contest Committee among their operators. What, you don't subscribe to NCJ? Send \$6 to Box 79252, Houston TX 77024 for a six-times-a-year injection of 100% pure contest vitamins. ■

Awards Corner

Bill Pedersen, W1HCS

The awards program continues to take shape. Progress is being made in finding suppliers for the plaques and lapel pins/name tags. We guarantee that quality awards will be delivered at minimum price!

PLEASE NOTE: Copies of the summary sheets from the ARRL DX contests can be sent directly to W1HCS or AK1A. Gentlemen, we need these scores to make the initial computer run of the awards program and for listing here in the **Butt**.

Multi-operator stations can forward just the summary sheets, and the awards committee will divide the score by the number of participants to get the individual operator point totals. If desired, multi's can make their own calculations based on a percentage of the total operator hour effort (see example in **Butt** 29).

Speaking of points, here is something to remember: non-YCCC members who operate our multi's get to keep their share of the points earned. If they then join the club that same year, those points *WILL* count toward YCCC awards. This can be one of the incentives offered while trying to recruit "outside" operators.

Meanwhile, if anyone has any questions or comments about the YCCC Awards Program, feel free to get in direct touch with me. ■

Minutes

YCCC Spring Meeting

An informal report on the events at the April 4 gathering

Bill Myers, K1GQ, Secretary

The Spring meeting was called to order by President K1AR at 1340R. The sign-in sheet showed 74 attendees. Fourteen new members were elected: KA1ACC, N1BBV, AI1E, WB1GZD, W1HD, WB1HJF, W1NHJ, K1KCB, W2NC, KA1O, W2RQ, N8RK, AI1S, and N2WT.

Treasurer N1TZ reported a balance of \$146.70, and \$30 in the Dayton Hamvention fund.

Nominations for next year's officers yielded one candidate for each position. It was moved, seconded and approved that the Secretary cast a single ballot as follows:

President - John Dorr, K1AR
VP/AM - Bob Naumann, WA2OVE
Secretary - Dick Newell, AK1A
Treasurer - Bob Czajkowski, N1TZ

Discussion led to a consensus that the President should establish an Ethics Committee with the general objective to preserve YCCC's reputation for integrity and high standard of operating practices.

Parallel seminars were held on intra-club VHF communications (AJ1I), and HF Yagi Antenna Performance (K1GQ). Both moderators reported well-received sessions, with considerable "audience" participation.

Following the seminars, K1DG and K2VV hosted the Oscar Awards Presentations for outstanding performance in the recent DX contest.

The raffle drawing was won by KA1CEI. K2OY, W1XK and AJ1I collected \$31 more for the Dayton fund.

K1AR led a postmortem on the DX contest, followed by discussion of the YCCC Awards Program by W1HCS.

K1RX showed some of his antenna farm slide collection, featuring K1OX and W2PV.

Meeting was adjourned at 1703R; many YCCers reconvened at Lums after a 15 minute time off. ■

Shanghied

New Crew for the Clipper

Bill Myers, K1GQ

At the Spring meeting we welcomed fourteen new members aboard. Our usual growth at this meeting is 3 to 4; the Area Coordinators are obviously doing a RG job of recruiting.

Dave Jordan, KA1CEI, actually joined at the Winter meeting, but his application form was delayed by higher-priority activities. He's an avid DX'er from deep in the heart of SNEDXA territory (that's Southern New England DX Association for you outlanders), and just passed his Extra exam in March (flash - Dave is now KC1Q). Dave prefers the cw DX contests, and operates from home with SB-300/400 and TS520 into dipoles (35') and a tribander (25'). So far, Dave is two-for-two; at his first YCCC meeting he won the K1AR memorial duping prize, and this meeting he hit the raffle jackpot!

KA1ACC, Tom Carson, is an Advanced Class ARRL member from Amherst, NH (he is president of the Amherst Amateur Radio Club, which also counts K1GW, W1HNZ, W1HCS, W1PH, K1KA, KB1T, and K1GQ as members). Tom pursues DX the hard way - low power phone - but exposure to gain antennas at the KB1T m/s may have modified his plans! Currently, Tom runs a TS120, TS180 and 75A4 into a 65' high dipole on 75m, and a vertical, dipole, or rhombic on 40 through 10. The rhombic is 30' up, with 3 wavelength legs on 20m.

Dan Crites, N1BBV, lives in Merrimack, NH, where he shares radio facilities with his dad (K1WW). He currently holds a General Class ticket - his novice call was KA1DJR. The 160m and 10m tests are his favorites, followed by the ARRL DX test and WPX. The station includes an R4C, TR4C, FT101ZD and Henry 2K-4, driving dipoles at 60' for 160, 80 and 40, and a tribander at 60'. Dan's got a number of contests under his belt already, including the recent K1GW cw m/s.

Bill Carlson, AI1E, lives in Lowell, MA, where he operates cw exclusively, using a Triton IV and homebrew kilowatt. Antennas include G5RV for 80 and 40 and a TA33 at 40 feet (which will soon be transformed into a quad at 52'). Bill's previous call was WB1GIT.

WB1GZD, Ken Adamson, resides in Pittsfield, MA and holds an Advanced Class license. His home station includes a TR-7 and HW-8, with a dipole and tribander antennas. Ken lists ARRL DX/phone as his primary contest interest; he helped at the K1RQ m/m.

Bill Way, W1HotDog, used to be WA1LNH, Salem, NH. Bill's a co-owner of the K1OX repeater, and spends more time up Ted's towers than anyone other than Ted himself and maybe K1RX. His home station includes 32S-3, 75S-1 and SB220 into 30' high dipoles and a TH6DXX at 45'. Bill favors DX contests, with a slight preference for phone mode, and was a participant at the K1OX m/m this year.

WB1HJF, Mark Olsen, hails from Somers, Ct. but is currently getting more educated at Daniel Webster College in Nashua, NH. His general class ticket and FT901DM have already seen YCCC duty at KB1T. A bad piece of coax took out the finals and a resistor in the cw test (would you believe a \$137.01 repair bill at Tufts?). Mark specifies cw DX, cw SS, and cw FD as his favorite activities, ahead of cw CQ

WW and cw Radiosport. At home, he has a long-wire at 20' and 3el tribander at 50', with a quad at 54 feet in the works.

Shailer Herrick, **W1NHJ**, joins the short list of YCCC elder statesmen - he got his first licence in 1940! He lives in Chesterfield, NH, where he has an 80' tower with a Wilson SY40 and long-wires, fed by a C-line, SB220 and FL2100B. Shailer says he rarely operates phone, and prefers the WPX test over CQ and ARRL DX tests. He was one of the operators at the "voice of Vermont" m/s, K1IK.

Dick Ferland, **K1KCB**, is an Extra Class holder from Franklin, MA. His station includes dipoles at 40' and an ATB34 tribander at 60', with a Tempo I transceiver. Dick rates FD as a 10 on a scale of 1 to 9; otherwise he favors cw DX tests.

W2NC, Bob Rasche, is one of the Albany, NY gang; his Extra Class ticket was put to use at the K2VV cw m/m. The home station includes TS820/R820 and Alpha 76A into an 18AVT/2el quad at 40 feet. Bob's primary interest is the DX contests, with no mode preference. His previous call was WB2FMF.

Greg Papadeas, **KA1O**, lives in Nashua, NH, (and works in Mass, like most southern NH residents). Greg's an Extra Class, has held the calls WN2EBR, WA2EBR, and WA1TLO, and belongs to the Nashua Area Radio Club (NARC?!). His R4A, T4XC and other radios radiate from inverted vee's and a SY33 atop a 55' tower. Greg's contest preferences include either mode in the CQ WW, ARRL DX, and the SS.

Bill Keller, **W2RQ**, drove all the way from Newton, NJ to attend our meeting; he's used to long trips after many "contest expeditions" to Vermont (remember WB2RKK/1?). Bill also belongs to NJDXA, and the Wireless Institute of the Northeast. He goes all out in the WW and ARRL DX tests, SS and FD on both modes, the NA Sprint, and other "minor" contests such as the CD Parties. (Last year, W2RQ/2 set a new QSO record in FD; the year before they set a scoring record.) Radios at RQ include C-line, TS520S, SB220 and Clipperton-L. Bill has collected a few antennas as well: 80m dipole at 80', 40m dipole at 70', 402BA at 80', TH6 at 100', 204BA at 55', 155BA at 45', and stacked Telrex 6el/20m and 8el/15m at 0'.

N8RK, Tim Daniel, has been heard from W2NSD/1 (guess where he works), and

VP5TDX. Tim is turned on by the ARRL DX test (if he's the DX), and also enjoys SS, FD, and the UHF/VHF contests. He is a member of the Indiana UHF and TV Club, and held the call WB8RKA.

Bruce Terrell, **A11S**, has also held the calls WB1AGO and K3OWE. He's a cw man, with WPX, Radiosport and All-Asian contests at the top of his list. His station in Pittsfield, Mass includes an Omni-D, SB201, 18AVT, and ATB34.

N2WT, Bob Gigliuto is another of the NJ contest cadre, from Fair Lawn. Bob's using an FT107M and Alpha 70 into inverted vees at 70', 204BA at 70', 4/4 on 15m at 80' and 46', and 5/5 on 10m at 85' and 50'. He used to be WA2AJN, and definitely prefers the DX tests, either mode, over the domestic brands. ■

Contest Stations Hints

Fred Hopengarten, K1VR

Preserving Your Power Transformer

As everyone knows, I am no engineer, but a recent experience taught me something which I believe the Clipper Crew can benefit from. I loaned K1DG my SB-220 for the ARRL CW weekend, along with a fan, which I had been using to draw air away from the transformer. Doug used the fan to cool the tubes; the transformer cooked during the contest.

In modern linears, there is very little room for air circulation around the transformer, therefore the greatest need is to remove hot air from it. The fan should exhaust hot air away from the transformer, not blow room temperature air toward it. K1EA and I used a fan on the transformer of my MLA-2500 over the same weekend. This is an amplifier notoriously short on airspace around the components, yet the cabinet was completely cool the whole weekend. So, a word to the wise: cool the transformer, as well as the tubes. (Incidentally, the replacement cost on an SB-220 transformer is \$91.06).

How to Keep RF Out of Tape Loops

If you have the problem of RF causing your tape loop to sound like Donald Duck, or the problem of RF getting into an audio system, then you may have resigned yourself to soldering .01 mFd capacitors and small chokes into every

line in sight. K1DG recently faced this problem and did some research into the subject. He found that Joe Reisert, W1JR, had solved his RFI/TVI problems with the application of some toroid cores.

The September, 1978 issue of Ham Radio carries an article by Joe on the use of toroids for baluns on beams, instead of coax loops or the standard commercial baluns. He has subsequently gone on to use them for other purposes, as well. Simply winding a line through a core does a very effective job of choking off RF from getting past the toroid. In contest work, this means winding the tape loop control line, audio output line, and perhaps the AC line through cores.

The problem is finding the cores. W1JR recommends the Indiana General Ferramic cores of their H material. In the Boston area, these are available from stock at Permag Northeast, 10 Fortune Drive, PO Box 17, Billerica, MA 01865. Their phone is (617) 273-2890 (a Burlington number). To get there, take Middlesex Turnpike to Manning Industrial Park.

The F-568-1-H core has an inner diameter of 1.4 inches (33.5 cm) and sells for \$9.65 each. It is large enough to wind a standard 110 volt line cord through the middle. The F-626-1-H is a better deal at \$4.03 each. With an i.d. of 0.75 inches, it is easy to pass RG-174 and calculator-type power supply lines through the core.

At K10X multi/multi (phone), we had a problem with a 10 meter tape loop. It was instantly solved by the application of a toroid. The K1VR shack, using lots of 300 ohm line, has also experienced problems in the past, now considerably reduced. ■

Postmortem

1981 ARRL DX Test

Raw Scores and Comparison with Last Year's Results

Bill Myers, K1GQ

The page full of tiny print elsewhere in this **Butt** contains all the information I have received (much of it by rumors, etc.) about scores for YCCC members inside the 175 mile radius required by ARRL. An asterisk after a call indicates a member ineligible due to failure to at-

tend at least two of the last four meetings (or 50% since joining, for those with less than 1 year's membership). I've totaled the results in terms of points, entries, and participation, as discussed below. Corresponding numbers for the 1980 test are given in parentheses (taken from **Butt** 28). Ineligible members are not included in these statistics.

Our total point production increased enormously, due to a spectacular jump in the points produced on cw:

	cw		ssb		total	
sb	121K	(115K)	11K	(33K)	467K	(648K)
so	11,670K	(5,820K)	10,777K	(6,974K)	22,447K	(12,803K)
ms	8,317K	(6,250K)	12,055K	(10,778K)	20,343K	(17,034K)
mm	18,905K	(6,148K)	21,973K	(19,976K)	40,878K	(26,125K)
total	39,116K	(18,550K)	44,819K	(38,063K)	84,135K	(66,610K)

The total raw score is 49% higher than last year's final score.

The number of entries breaks down as follows:

	cw		ssb		total	
sb	5	(7)	1	(4)	6	(11)
so	16	(16)	21	(19)	37	(35)
ms	7	(6)	11	(8)	18	(14)
mm	7	(3)	5	(3)	12	(6)
total	35	(32)	38	(34)	73	(66)

Although the net increase of 7 entries doesn't seem like much, we increased the point-producing entries by 12 (22%), while dropping 5 entries in the single-band class.

This year YCCC had 159 members on the roster within 175 miles of the club's center. Forty of these were ineligible (25%). The percentage of the remaining 119 who participated in producing points for YCCC breaks out like this:

cw	64%	(52%)
ssb	73%	(59%)
both	59%	(44%)
either	79%	(68%)

We are headed in the right direction in all categories except total number of eligible members, which is virtually unchanged from last year. The tally sheet show 3,570K points "lost" due to ineligibility; hopefully, we can entice these known producers back to eligible status through ever-improving meeting formats, and so forth. This won't be enough; we must recruit incessantly - so spread the word: YCCC is the FORCE in the Northeast! ■

Owner's Report

Kenwood TS-830

Comparison with the TS-820

Andy Blank, N2NT

A number of people have expressed interest in my opinion of the performance of the new Kenwood TS-830. After one month of use, side by side with the old reliable TS-820, I offer these results.

General Impressions

The appearance of the 830 is somewhat nicer. The height is slightly reduced, giving the radio a sleeker appearance. However, the controls are also reduced in size, requiring small nimble fingers (e.g., JA fingers). Kenwood has changed the dial mechanism somewhat, with a 10 KHz increment analog dial. There are 1 KHz increments on the tuning knob, but these are hard to read. The digital display has been enlarged and is pleasant to read.

Features

Here is a list of operating features/conveniences found or not found on both radios.

1. Both incorporate 6146 final stage - highly reliable, will tune into various load conditions as opposed to state-of-the-art broadband transistor units which require no tuning, but a constant 50 ohm load (plus might blow up in the contest). The stock TS-830 will deliver well over 100 watts output on all bands, approximately 140 watts on 80 meters, slightly higher than the 820.
2. The 830 will cover all bands 160 - 10, including WARC bands (10, 18, and 24 MHz) missing on the 820. WWV is on 10 MHz (15 MHz on the 820). There is an aux band position on both radios.
3. The 830 VFO will cover approximately 75 KHz above/below the band edges; the 820 covers only 10 to 15 KHz.
4. The 830 includes XIT/RIT controls which are extremely useful for working stations slightly off your frequency, and keeping your frequency clear.
5. There is less flexibility with the fix channel

operation on the 830. There is only one channel available and you must transceive on that frequency (no VFO R, RIT, etc.).

6. The anti-vox control is on the back of the 830. However, I haven't changed its position from its initial setting.
7. The cw wide-narrow receive option on the 830 comes in handy when the band is not crowded.
8. The improved 830 speech processor gives markedly better performance than the 820 when set correctly (added punch, less background noise and distortion, and higher frequency response).
9. The 830 noise blanker includes a threshold control, which is sometimes useful. However, even at the minimum setting, the receiver will overload when the noise blanker is on if the band is filled with loud signals. 20 dB of attenuation will remedy this.
10. No provision is made on the 830 for 220vac operation. You must change taps on the power transformer inside the radio. The 820 has a switch-selectable primary.
11. There is no phone patch input on the 830, which is handy for tape recorder input. Kenwood provides information on installing a circuit for this.

Receiver Comparison

The main attraction of the 830 seems to be the improved receiver performance. The two radios compare favorably on ssb. With the use of IF shift, VBT (variable passband width), and notch controls the 830 offers slightly more flexibility than the 820. With all controls wide open, the 820 skirts seem slightly steeper, but adjustment of VBT compensates for this. The notch seems to be the biggest advantage, providing a deep null in the 455 IF. The IF shift seems to have been improved, with a smoother response. 820 receive audio seems slightly crisper when listening on the internal speakers. The 830 has a tone control for audio, but only seems pleasant at the highest frequency response setting.

CW is where the 830 offers a substantial advantage, through the use of 2 IFs. Kenwood has made provisions for 2 separate cw filters. They recommend (and I have installed) two 500 Hz filters. This results in excellent skirts and greater ultimate rejection. I have a Fox-Tango 400 Hz filter in my 820, but it seems far less selective

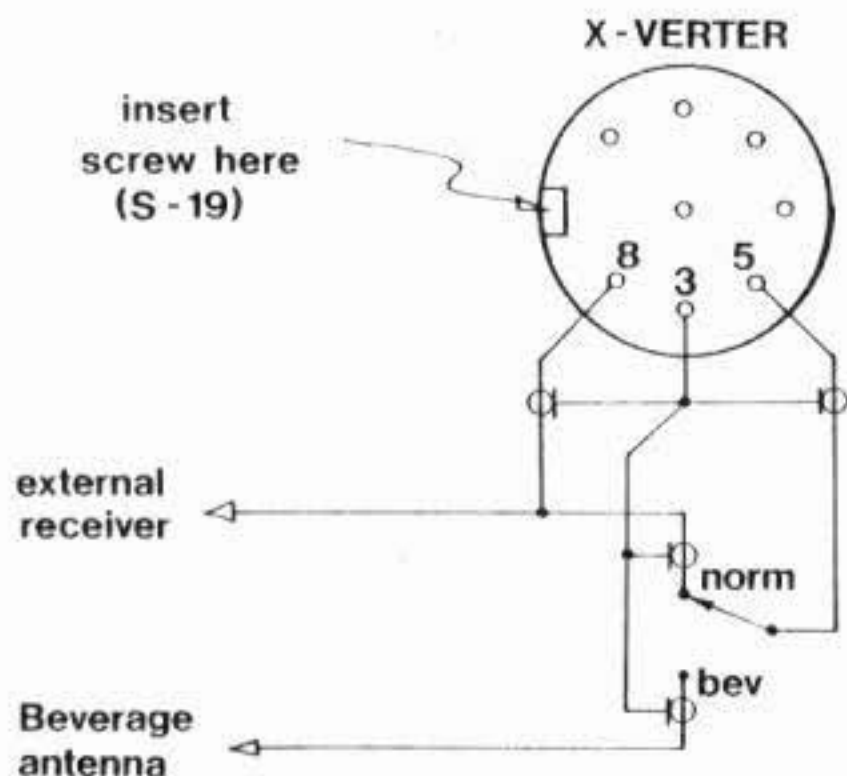
and some leakage is noticeable. Kenwood offers 250 Hz filters, but I feel this would be too sharp. With use of VBT and the 500 Hz filters you can narrow the bandwidth continuously. Together with the IF shift, this makes an effective combination and permits the user to discriminate almost any signal. The cw offset is 800 Hz and produces a pleasant note when properly tuned.

Receiver overload characteristics seem about the same in both radios. Under crowded strong signal band conditions, 20 dB of attenuation may be necessary.

Internals

The 830 is compact and well layed out, with plenty of room to work inside. Owners of 830s should make the following corrections to prevent misalignment. On page 27, under adjustment of RX IF coils, delete L5 from line 3. Under carrier balancing adjustment, change TC2 to TC3. Also, on page 25, second paragraph, change Q32 to Q19.

I found alignment helpful since some adjustments are fairly sensitive, especially the notch alignment. It is straightforward and described in the manual. For those who wish to have a separate receiver or separate receive antenna connected to the 830 - these connections are available on the XVTR DIN plug. This is an 8 pin plug, and is next to impossible to find. I have successfully done it by sticking wires in the holes, but you must engage the switch normally engaged by the DIN plug. This can be done by inserting a small screw in the notch (see diagram).



Options

The external VFO available seems nice, but expensive (list over \$300). Since the 830 will operate with the TS-180/120 VFO, this might be a cheaper alternative.

For those interested, K1EB has Collins mechanical filters available for cw. They are 300 Hz wide and will operate in the 830. The center frequency is 455.0 KHz and will require a 700 Hz IF shift to center the passband. This results in a low frequency audio spectrum, however these filters are very sharp and are worth considering. Also, the VBT circuit is not optimized with only one filter. Contact Gary for more information.

Summary

By the time this is published, I will have put the 830 to the test in the ARRL DX Contest. Stay tuned for results.

Instability Problem

Gary Firtick, K1EB

All 830s develop a 100 to 200 Hz instability after a few months of use. The problem is caused by a poor ground connection under the AF board, which carries a critical voltage regulator. The cure is to install star washers under the board, between the board and the spacers. This fix has been confirmed by Kenwood. ■

Excess Cargo

Stuff for Sale

Bill Myers, K1GQ

Telrex Christmas Tree 20M646, 15M532, 10M523 yagis, A214ORISX rotator with cable, 19' mast, A214RISX pole mount kit. Installed October 1979, cost \$2750. You take it down (it's on an 80' unguyed pole in Brookline, NH.) Ed George, (603) 673-4353.

KLM KT34 4el tribander, 16' boom, 1/2 reflector slightly bent at boom bracket. Works okay; I have no place to hang it. Bill Myers, K1GQ, (603) 465-2673.

Tower Hardware Fred Lass, K2TR, has such ambitious antenna plans that he found it cost-effective to become a distributor for certain hard-to-find components. You can take advantage of Fred's efforts - see the order form for details. ■

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*Logs to be verified