



# Scuttlebutt

No. 58 July 1985

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## Captain's Cabin

Bill Santelmann, N1AU

You may recall that last time I urged you to use the summer to get your antennas in shape for the fall contest season. And I stressed that every station's score is important when it comes to winning contests for the YCCC. A corollary to these propositions might be that even a well-equipped station with a yard full of antennas earns no points for the club score if it is not operated during the contest or if a log is not submitted toward the YCCC score!

The YCCC has a special priority for the CQ WW and ARRL DX contests. If your contesting time is limited, please give priority to these weekends -- only four per year -- and contribute to a YCCC victory! Open your date book right now and reserve these dates:

October 26-27, 1985 CQ WW Phone  
November 23-24, 1985 CQ WW CW  
February 15-16, 1986 ARRL DX CW  
March 1-2, 1986 ARRL DX Phone

Not every YCCCer has an operating station, so there are "hired guns" available to help you keep your station on the air and raise your score. If you need such assistance, or a place to operate, send a

note to your Editor, K1XM, for listing in the next "Butt."

The ARRL DX contest requires that a two thirds of the operators be club members, so you can include a non-club operator with two members. The CQ WW contests allow non-members to operate with members, and the score can still count for YCCC.

The YCCC is in the ARRL DX "Unlimited Category", meaning that we may submit an unlimited number of logs from within our 175 mile membership radius. In 1984, the only other such club in this country was the Frankford Radio Club (who beat us 56 to 50 million points). So we can legally "stuff the ballot box" by increasing our club membership and participation. Invite non-member contesters to our next meeting and propose them for membership. Interest other hams in contesting through participation at your station in the WAE, WPX, or other similar contests, and when they are ready sign them up!

For long range planning, and the future of the hobby, get your VE credentials if you haven't already. Organize or assist with license classes or exams. Bring your friends who show an interest in ham radio to the Heavy Hitters Hamfest in Topsfield, MA, on July 20 and 21. Above all, let's not keep this fascinating avocation of ours such a secret! I'm amazed at how many people don't know the difference between us and CBers!

## Floating

Paul Young, K1XM

Last month Bill, N1AU, wrote about the need to encourage small stations to operate in the CQ WW and ARRL DX contests. One thing he noted is that small stations don't win awards. Well, I'm going to change that...

### Introducing the Editor's Award

All you have to do to win an Editor's Award is to make 100,000 points in each of the four major contests: the CQWW phone and CW and the ARRL DX phone and CW. That's right, you have to put in an effort in all the contests. If you are one of those who says "I don't talk with my hands", or "I'd rather gargle razor blades" you will just have to sacrifice. If you operate multi-op then all the operators are eligible, but you must make 100K per operator. If your station is not capable of 100K, you have all Summer to improve it, and if your station cannot be improved to that level let me know and I will find you a station to guest operate from.

100K is not a very big score. You can even do it single band on 80, 40, or 20, maybe on 15, or on 160 if you are Joe Krone. For the CQWW, you can do it with 300 QSOs and 120 multipliers (easy since zones count). On ARRL 350 QSOs and 100 multipliers would put you over.

Needless to say, I will list the winners in the Scuttlebutt (unless I'm fired by then). So give it some thought, I'd like to give out lots of awards next year.

Frequently YCCC articles are picked up by other publications. I don't mind this, but I ask that anyone who prints an article from the Scuttlebutt please include a proper credit.

## K6KPS Fined \$2000

From the ARRL Letter

The FCC has fined James Brantley, K6KPS, 2000 dollars. The FCC had received complaints over a long period of time that Brantley was disrupting amateur communications. On December 19, 1984, commission personnel observed Brantley on several 20 meter amateur frequencies making lengthy CQ calls and calling nonexistent stations. He did not make contact with any station, even though two stations made numerous attempts to respond to his CQ calls. It became obvious that the purpose of these transmissions was to disrupt normal amateur communications. K6KPS ignored the complaints of other stations on the frequencies. Brantley was cited for violating section 97.113 which prohibits broadcasting by amateur stations. The fine was issued June 13, and Brantley has 30 days to respond.

## Clipper's Log

### CQM score rumors

K3EST	1000	?	all band
K1KI	980	203	all band
N2AA	670	56	20m
K1XM	60	24	40m

### CQ WPX CW score rumors

K1XA:	
160	2
80	38
40	306
20	740
15	47
10	1
Total	1134
	3360 x 461 = 1,548,960
	18 hours off time

## Engineering Revisited

Bill Shaheen, N1CQ

The vast majority of articles presented in amateur radio publications deal, naturally, with topics in electrically oriented fields. This upcoming series of articles will diverge from this practice. The mechanical and structural aspects of the hobby will be discussed, not from a rigorous theoretical standpoint, but from an applied standpoint from which one can develop a general understanding.

This writer has compiled a group of topics to discuss which include:

- o Basic mechanics of materials
- o Tower stability considerations
- o Anchor uplift capacity
- o Wind loading on tower and antenna systems
- o Corrosion
- o Tower foundations
- o Antenna mast selection
- o Tower and antenna erection
- o Mechanical considerations in antenna design

In addition to the above mentioned topics, this writer heartily welcomes questions from readers of the *Scuttlebutt* involving problems in the fields of civil or mechanical engineering.

Tentatively, these topics will be presented in upcoming issues of the *Scuttlebutt*, with stress on general understanding and application of the topic at hand. Emphasis on basic, useful equations will be presented along with selected technical drawings and diagrams.

One should bear in mind that these articles are for the reader's information only. No one should attempt a complex analysis or design without the services of an experienced civil or mechanical engineer.

In the next issue of the *Butt*, an introduction to mechanics of materials will be covered as pertains to tower and antenna systems.

## Solution to a Beyer Headset problem

Jack Schuster, W1WEF

I thought I would respond to Fred Hopengarten's problem with hum in his Beyer's headset in a letter to the *Butt*, since others have experienced the same problem -- including me. I found the problem to occur when the Triad TY-142P matching transformer was in the proximity of a magnetic field from any power transformer in the shack. I originally packaged the transformer in a little Radio Shack plastic box situated near the 803S mic connector, about 12" from the 830 power transformer. I found that was too close, and resolved it by locating the box on the upper left side of my operating desk, about 3 feet from the 830 transformer. By dressing the cables from mic and headphone jacks to the box around the back of the desk, I also avoided the problem of headset cables across the log or dupe sheets! I use shielded cable between the 830 and matching transformer, and have had no further hum problems.

## Excess Cargo

### Miscellaneous amplifier parts

3KVA transformer, 7200VCT dual primary, mounted in 5 foot rack cabinet on casters, includes door and key lock \$70.00  
4PR1000 with SK-500 socket and chimney \$100.00  
Spare 4PR1000 \$50.00  
Filament Xfmr for 4-1000 or 4PR1000. \$20.00  
Pair 4-400s with plate caps and sockets \$30.00  
12 foot steel pipe, suitable for large antennas (from W1ZA's tower) \$40.00  
3 Element 20 meter monobander \$30.00  
Filter Choke, 11 Henrys 500 MA 20.00  
Filter choke, 4/20 Henrys 50/550 MA 15.00  
Misc. meters, including current and voltage  
Misc. variacs, .5KVA and 2KVA  
Chassis, 17x14x6 \$10.00  
Parts for 12 foot dish for 1296 (per K2RIW article) \$50.00  
Misc. 72 ohm hardline

Impending marriage, everything must go!

Bob Clarke, N1RC (617) 232-5470 x 201

## Headsets Revisited

Bill Myers, K1GQ

Some time ago, I recommended the Beyer DT-109 headsets (headphones and boom mic), based on my experience with them using a Collins KWM-380. However, they don't work well with the TS-930S, because the microphone output is too low. One solution (by Fred, K2TR) is to add an audio stepup transformer, which solves the drive problem, but introduces problems with hum. Another solution is the Heil EQ-300 microphone equalizer, which provides both gain and audio shaping for the mic. Recently another Fred, K1VR, borrowed several of the Heil Sound products from Dana, W1CF, and asked me to take a look at them. The remarks below cover the EQ-300, the BM-10 headset, and the HCS headset control system.

### Equalizer

This is the box I was most interested in, since I hoped to make my Beyer headsets useable without digging into the TS-930S. The (\$55) EQ-300 has two mic connectors, a switch and a power connector on the back, and three knobs and a switch on the front. Dana's unit (an EQ-300-4) has 4-pin mic connectors (both male), but Heil also supplies a unit (the EQ-300-8, \$5 extra) with 8-pin connectors identical to the TS-930S mic connector. For some reason, Heil elected not to pass the PTT line through from input to output connector. The unit runs on 9 to 12 volts, but pulls too much current to run on a 9 volt battery for more than a few hours. There is an internal battery, wired to power the built-in two tone generator (a VERY nice feature); apparently the generator needs pure DC. The generator on/off switch is on the back of the EQ-300. The knobs control gain, and low and high equalization (see below). The front-panel switch selects in, out, and off modes.

When I first wired the EQ-300 to my TS-930S, I had considerable trouble with RF feedback, and hum. The feedback was caused by a poor connection between the cable shield and the EQ-300 (my fault). Hum seems to be caused by a ground loop, aggravated by excessive low frequency gain in the TS-930S mic amplifier. The ground loop is unavoidable because the EQ-300 signal common at the output is connected to the case, as is the cable shield.

I ran some on-the-air comparisons (at night on 15 meters) using the EQ-300 and three different mics. The audio critics were K1DG and K1AR. These guys are usually uncivilized when discussing my audio characteristics, but they restrained themselves for

this occasion. I was able to make the Beyer and Heil headsets sound like the D104 crystal mic by cranking in maximum low cut and near-maximum high emphasis. With the controls set at zero, both headsets sounded muffled. Since the Heil headset sounds crisp without equalization, the EQ-300 appears to be tilted towards emphasizing lows. This calibration error is only a minor nuisance -- normally you would set the controls once and forget them.

### Headset

The \$60 Heil BM-10 headset is very lightweight. Dana's set had two 1/4 inch phone plugs (stereo for the phones and mono for the mic). For an extra \$10, you can get the BM-10K, which has the right mic connector for the TS-930S (but, I think, the same phones connector). AK1A bought the BM-10 set and used them at my station during the WPX contest. He found that the mic drove my TS-930S well, but didn't push the Daiwa power meter up to the same level as my D104. Although the transmit audio sounds good, it doesn't seem to match the crystal D104 for raw punch (pun intended).

The headphones can take all the voltage which the TS-930S can deliver, up to the onset of clipping in the 930, without obvious distortion. However, Dick felt that he could dig calls out of the mark on 20 meters better with my Beyer headphones (DT-550) than with his Heil headset.

I don't like lightweight headphones, but this feeling is probably irrational, so long as there isn't any noise around the operating position. The long cord on the headset is good (you can run it under the table), but the separate cables for headphones and mic makes things a bit messier than necessary. Heil sells the boom arm and mic element as a package (B-4, \$35) for mounting on your favorite headphones. Or, you can buy the mic element alone (\$23 for the HC-4) to retrofit an existing microphone or headset.

### Headset Control System

This box is useless, as far as I'm concerned. For \$100 you get (quoting the Heil brochure): "... dual channel 2 watt audio amplifier section with a two input mixer -- operating in a dual (stereo) or single (mono) mode. In the stereo mode, VHF radio can be heard in the left phone while the HF contest radio can be brought up in the right phone. An active equalizer is used so the operator can shape the tonality of all audio through the phones. And additional output section allows the operator to disconnect the radios and talk to his logger. A tape recorder output is available at the back panel



so studio type recordings can be made off the air with any tape recorder. This also can be used for feeding a variety of other line level applications."

I don't see how to make that any clearer in a reasonable amount of text. The box has a slew of 1/4 inch phone jacks on the back which connect together two receivers, one transmitter, a tape recorder, and two headsets. It has no provision for (CQing) tape input to the radio (Heil will probably make yet another box for this function, now that Dana has explained what is needed). It has hum, even with the 100 VAC ground isolated, and my receiver sounds less crisp when it is run through the box. The control switch, which chooses stereo, mono, or intercom mode, had poor contacts -- I could listen to my local AM station in the intercom mode. For the same price, you could build the right functions into a smaller box with four times the quality of this unit.

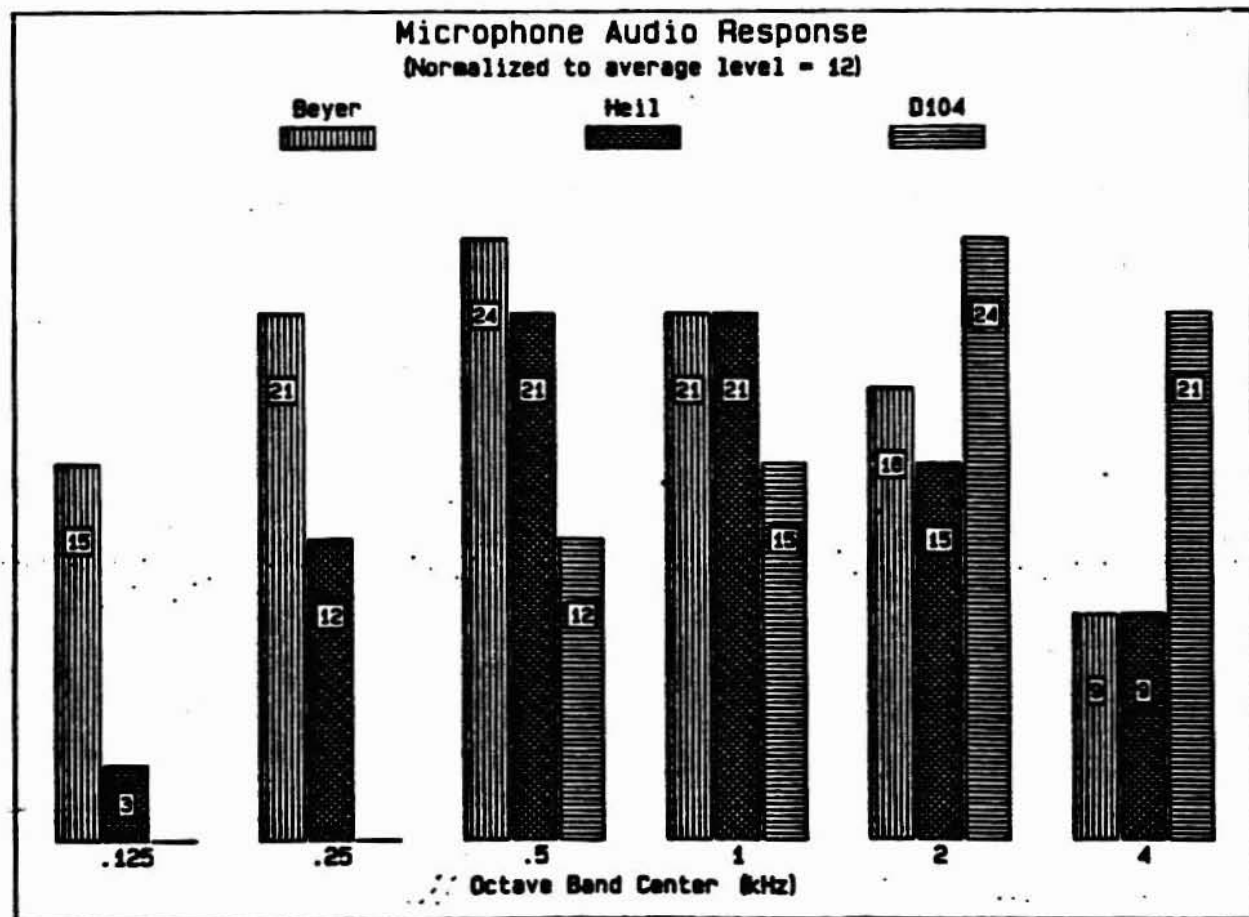
#### Summary

Heil prices seem to scale with the size of the box, rather than the content. The documentation provided with Dana's gear ranged from very skimpy to nil. The brochure which I picked up at Dayton doesn't have many hard facts, such as impedance levels and sensitivities.

The EQ-300 mic equalizer may be worthwhile for checkbook constructors who own Beyer headsets. You could also build your own by copying the circuit from Heil's QST article. I don't like the Heil headset, but you might. Consider buying the mic element and rolling your own (ask Ira, K2RD, how he made out). The headset control box is functionally and operationally inadequate.

#### Postscript

I've got one of those hifi equalizer/spectrum analyzers. For fun, I made three CQ loops, using the Beyer, Heil and D104 mics, straight into an Onkyo cassette deck. I then played each tape into the spectrum analyzer and froze the display on the "wan" in "kilowatt". The crude result is shown in the bar chart, and demonstrates why the Beyer mic sounds muffled. Incidentally, close-talking a mic (a good idea to increase signal-to-background noise ratio) tends to emphasize lows, which makes the Beyer sound even worse. A series capacitor is definitely needed to roll off the lows.



K104 5/85

## TS-940S Notes

George A. Cutsogeorge, W2VJN

(reprinted from The Frankfort Radio Club Newsletter, June, 1985)

This note will cover some of the features and characteristics of the new radio that are not mentioned in the Kenwood literature as well as laboratory measurements for comparison with previous models.

### RF PERFORMANCE

The receiver front end has been improved to lower the noise figure and to raise the third order intercept. The resulting dynamic range is about 5 to 7 dB better than the TS-930S. This level of improvement will not be easily discernable without lab instruments. The noise figure of 7 dB will still require the use of a low noise pre-amplifier on the ten meter band for weak signal work.

The synthesizer has been completely redesigned to reference all frequency determining injection signals to one oscillator at 20 MHz. The VBT and SLOPE TUNE controls vary the divide ratios in phase locked loops. The phase noise performance has been significantly degraded when compared to the 930.

You will be happy to know that the first IF has been moved to 45.05 MHz and the injection frequencies have been rearranged to provide *mupper sideband CW* as most other radios do (except the 930 of course). The CW filters which were designed for the 930 and lower sideband CW are still used however and the offset is obtained in the receive mode. Thus the received signal pitch changes when the radio is switched from USB to CW (unlike other radios).

### OPERATING CONVENIENCES

The four position FUNCTION switch on the 930 has been replaced with SPLIT and A/B buttons. Split operation is indicated with an LED. This should go a long way towards eliminating transmitting on the wrong VFO in the heat of battle.

The T-F SET button has been positioned closer to the main tuning dial.

In the AM and FM modes the tuning reverts to 0.1 kHz steps making SWLing more convenient.

The keyboard frequency entry feature does not function as a contest-oriented operator would like it to. Entering a new frequency with the keyboard

replaces the current operating frequency instead of going directly to a selected memory. One way to enter a new frequency and maintain the current frequency is as follows:

Press M.IN.1 (Stores present frequency in M 1)  
Press ENT, new freq. — (Keys in new freq.)  
Press M.IN. 2 (Stores new frequency in M 2)  
Press VFO/M (Selects M1)  
Press M>VFO (Back to old frequency)

This sequence assumes that memory 1 was previously selected. Also, once a keyboard entry is begun no other buttons are operational. Thus if a mistake is made it must be entered then you must restart.

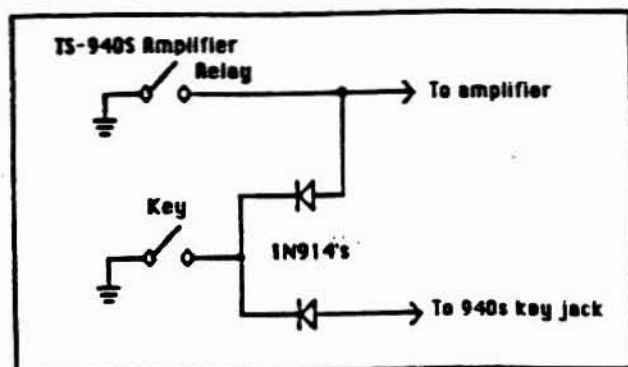
### CONSTRUCTION

Kenwood has done a lot to improve the maintainability of the 940. The underside has three PC boards that are very easy to remove for access to the soldered connections. If you have worked on the 930 you will appreciate this. On the topside a carrier board has been added to accommodate the new PLLs. There are three digital boards. The cabinet is wider by some 1 and 1/16 inches, deeper by 3/4 inch and the wrap around color is darker. The panel color and height are the same as the 930. The 940 is 3.3 pounds heavier.

### QSK with a Slow Exciter Relay

If the exciter relay which is used to switch an amplifier relay is slow it is possible for RF drive to be applied to the amplifier before the antenna changeover is completed. With exciters capable of QSK this is an unacceptable situation which creates keyclicks and destroys the antenna changeover relay. Even with exciters that are normally used in VOX on CW the condition can exist during the first key closure of a transmission. If the polarity of the antenna relay supply in the amplifier is the same as the polarity of the exciter keying circuit a simple 2 diode gate may be used to eliminate the problem. Such a circuit is shown in the figure below for positive voltages.

This circuit is in use with a TS-940S and the amplifier QSK circuit shown in an earlier bulletin.



## TS-940S Test Results

George A. Cutsogeorge, W2VJN

(reprinted from the The Frankford Radio Club newsletter, June, 1985)

### Receiver Characteristics:

#### Sensitivity:

SSB noise floor: -134.0 dBm at 14 mHz  
-133.0 dBm at 28 mHz  
CW noise floor: -140.0 dBm at 14 mHz  
-139.0 dBm at 28 mHz

(This represents a 7 dB noise figure)

#### Selectivity:

Small signal, AGC off

SSB: 1620 Hz at -3 dB

CW: 360 Hz at -3 dB

Large signal, AGC on, -40 dBm

SSB: 1960 Hz at -3 dB

CW: 640 Hz at -3 dB, VBT off

CW: 410 Hz at -3 dB, VBT 12 o'clock

(CW measurements with both 500 Hz filters installed)

#### Blocking:

An S5 signal at 7 mHz is degraded 1 dB by a strong signal as follows:

Spacing:	Level:	dB above noise floor:
5 kHz	-1 dBm	139
20 kHz	+19 dBm	159
>24 kHz	>+20 dBm	160 or more

#### Third Order Intercept:

Tone Spacing:	Intercept:
20 kHz	+2.5/8.5 *
200 kHz	+11.5/10 *

(\* lower and upper intermods, respectively)

#### Phase Noise Degradation of Noise Floor:

14 mHz, CW, VBT off, signal = +100 dB

Offset:	Degradation:
5 kHz	20 dB
10 kHz	10 dB
15 kHz	5 dB
25 kHz	1 dB

#### AGC:

Threshold = 1.5 uV.

Fast AGC is not useable with the CW filters due to popping and overshoot (This is correctable by adjustment, more later).

### Transmitter Characteristics:

#### Keying:

Rise and fall times: 3 ms. Slightly slower on QSK.

#### Amplifier relay:

The relay closes about 6.5 milliseconds after the key is pressed and RF begins at 8 milliseconds. This is not enough time for QSK for an amplifier without using a diode gate. The transverter output provides +12 on transmit that may be used for QSK directly.

#### Harmonics:

Band	2nd	3rd
7 mHz	-56 dB	-62 dB
14 mHz	-64 dB	-53 dB
21 mHz	-60 dB	-70 dB
28 mHz	-61 dB	-61 dB

(The builtin tuner has little or no effect on the harmonics.)

#### Spurs:

Largest spur found was -67 dB at 16 mHz with the XMTR on the 28 mHz band.

#### Power Output:

Band:	Output:
1.8 mHz	110 W
3.5 mHz	117 W
7.0 mHz	117 W
14 mHz	113 W
21 mHz	112 W
28 mHz	112 W

(The antenna tuner loss varies from 5 to 12 watts depending on the band.)

Yankee Clipper Contest Club Roster:

CALL	NAME	HOME PHONE	WORK PHONE	STREET ADDRESS	CL	ST ZIP CODE
AKIA	Dick Newell	803/673-8458	817/568-4867	Dupax - Gould	Brookline	NH 03033
KIAFC	Peter Archibald	207/767-2189	207/797-8931	PO Box 2288	South Portland	ME 04106
KIAR	John Dorr	817/863-3452	817/871-2098	30 Champa Road	Billerica	MA 01821
WIARR	Bob Hill	817/847-1997	817/899-5810	71 Beach Street	Sharon	MA 02087
NIAU	Bill Santelmann	817/862-1753	817/892-8000	30 Fairlawn Lane	Lexington	MA 02173
AKIB	Sam Boomer	203/886-1328	203/448-2174	8 Turnpike Park	Norwich	CT 06380
WIBK	Charles McCarthy	817/562-5822		128 Forest Avenue	Hudson	MA 01749
KBIBQ	Steven Holly	817/969-8518	817/964-3434	99 Franklin Street	Newton	MA 02458
WIBR	Roger Prince	817/393-3413	817/798-8578	68 Washburn Street	Northboro	MA 01532
KABRD	Bernice Andersen			Box 11043	Newington	CT 06111
KIBW	Ron Grzelak	203/848-3796	203/886-2000	56 Stebbins Street	Chicopee	MA 01020
AGIC	Ted Goodhue	803/434-0399	803/885-9564	12 Hovey Road	Landenderry	NH 03053
KMIC	Bill Pedersen	803/673-1878		Roberge Drive	Amherst	NH 03031
KACB	David Gerna	803/382-8364		3 Rolling Hill Avenue	Pittsford	CT 06085
KICC	Rich Asarabowski	203/521-3639	203/727-7438	306 Vernon Avenue	Vernon	CT 06086
KACI	Richard Reed	203/742-7008		62 Springdale Road	Conventry	CT 06083
KACILX	Scott Bullock	817/568-1194		13 Erie Drive	Hudson	MA 01749
KICD	Chuck O'Rourke	203/345-6789		Apple Lane	Roxbury	CT 06783
NICQ	Bill Shaheen	413/467-9075	413/785-1918	48 South Street	Granby	MA 01033
NICW	Ray Sheep	817/481-8305	817/467-8892	98 Bigelow Street	Marlboro	MA 01752
WICWU	Jim Tumulty			2 Hickory Lane	Danvers	MA 01923
KIDG	Doug Grant	817/851-7808	817/935-5585	157 Catamount Road	Tewksbury	MA 01878
KADWR	Gordon Durk	817/263-1066	817/935-5956	115 Cobleigh Road	Boxborough	MA 01719
KGIE	Alex Jozsa	817/233-3138	817/223-7520	31 Glendale Avenue	Saugus	MA 01906
KIBA	Ken Wolff	817/458-8272	817/460-2055	RD 1 Box 556	Harvard	MA 01451
KIEB	Gary Firtick	203/274-1248	203/264-4091	588 Hamilton Avenue	Watertown	CT 06795
NIEE	Scott Lieberman	518/863-2589	518/863-2374	260 First Street	Wineola	NY 11501
WALEV	Chuck O'Neal III			Post Office Box 231	Bolton	MA 01740
KATERP	Julie Czajkowski	817/885-3841	817/885-3841	North Brookfield Road	Spencer	MA 01562
KATERS	Karen Poolnitz	817/879-8290		44 Sunset Drive	Framingham	MA 01701
WBIYL	Brian J. Szwedczyk	413/743-5781		74 East Street	Adams	MA 01220
KCIF	Stu Santelmann	817/783-0557	817/882-5278	119 Brooks Street	Brighton	MA 02135/1718
KQIF	Charlotte Richardson	817/562-5819	817/467-7378	11 Michigan Drive	Hudson	MA 01749
KATPB	Albert Kinnon	817/851-9884	817/933-7885	779 Livingston Street	Tewksbury	MA 01878
WIFJ	Al Rousseau	817/598-3744	817/599-7500	180 Den Quarry Road	Lynn	MA 01904
WIFM	John Handwerker	817/862-8742	817/271-2000	17 Pine Knoll Road	Lexington	MA 02173
WIFV	John Kaufman	817/897-5929	817/863-5500	47 Durant Avenue	Waynard	MA 01754
KIFWF	John D. Allen	817/562-3045	817/368-8911	44 Walnut Street	Hudson	MA 01749
KAGG	Bob DeCosta	817/763-5539	817/674-4867	Box 64	Recheater	MA 02770
WIGG	Gary Gaudette	413/443-3404	413/494-4049	21 Westview Road	Lanesboro	MA 01237
WIGNC	John Nelson	203/243-9482	203/666-1541	32 Walker Lane	Bloomfield	CT 06002
KIGQ	Bill Myers	803/465-2673	817/944-6850	Box 501 Laurel Hill Road	Hollis	NH 03049
KIGW	Glen Whitehouse	803/673-6290	803/627-7877	Newbury Drive	Amherst	NH 03031
KBYH	Dick Pechie	203/774-7034	203/269-3361	Box 285	Dayville	CT 06241
KYIH	Dave Robbins	413/655-2714	413/494-6491	Baumann Road	Peru	MA 01235
KIMI	Rex Lint	803/424-5088	803/884-8095	10 Martwood Drive	Merrimack	NH 03054
WIMH	Bert Michaud	817/459-6774		43 River Road	Lowell	MA 01852
KIJU	Norman Peacor	413/267-3286		Country Club Heights	Monson	MA 01057
KIJV	Jean Peacor	413/267-3286		Country Club Heights	Monson	MA 01057
KIKK	Al Johnson	802/464-5586	803/863-1167	PO Box 77	West Dover	VT 05356
KIUJ	Jeff Bouvier	401/765-4444	401/274-8850	Jencks Road	Cumberland	RI 02864
KIJX	Clarke Greene	203/346-4308	203/265-8547	92 B Cynthia Lane	Middleton	CT 06457
KIKI	Tom Frayne	203/673-5429	203/275-5118	Box 82	Unionville	CT 06085
KIKJT	Edward J. Peters	817/995-2427		29 Greenbrier Drive	New Bedford	MA 02745
WIKM	Greg Cronin	817/428-4205	817/540-8150	172 Old Mill Road	Marstons Mills	MA 02648
KIKNQ	Jack Kostello	817/442-5301		32 Overfield Road	Greenbury	CT 01545
KAKRT	Jay M. Gaudette	413/443-3404		21 Westview Road	Lanesboro	MA 01239
KATL	Raymond Tabloski	803/893-0206		30 Hall Farm Road	Atkinson	NH 03811
WATLXX	Alexandra B. Pearson	803/362-4297		14 Sawmill Road	Atkinson	NH 03811
WATLXY	Phillip A. Pearson	803/362-4297	817/881-6179	14 Sawmill Road	Atkinson	NH 03811
KIMEM	Jim Dionne	817/443-2345	817/577-4145	31 Demarco Road	Sudbury	MA 01776
KIMM	Bill Poolnitz	817/879-8290	817/864-5400	44 Sunset Drive	Framingham	MA 01701
KAIMOG	Terri Corey	401/765-4444		P14 Jencks Road	Cumberland	RI 02864
KJIN	Daniel Norman	203/378-2177		RPD 1 Parks Road	Norwich	CT 06380
KVIN	Eric St. Cyr	413/863-3291		P. O. Box 1755	North Adams	MA 01247
KATO	Greg Papademas	803/883-7389	803/568-4160	12 Blueberry Lane	Nashua	NH 03062
KTIO	Steve Wedge	817/389-5977	817/475-4700	1385 Main Street	Concord	MA 01742
WIOD	Mike Kaczynski	203/582-7396	203/666-1541	70 Braeburn Road	Bristol	CT 06010
KIOX	Ted Gamin	803/887-4478	803/867-3607	RPD 2 Box 49A	Chester	NH 03036
KMPF	Joseph B. Fitzgerald	203/668-5864		1210 Neagata Road	West Suffield	CT 06093
WIPM	Kurt Pauer	803/673-7201		PO Box 754	Amherst	NH 03031
KCIR	David Jordan	817/868-1609		168 North Street	Walpole	MA 02081
KAIR	Matt Power	817/878-5717		145 Grove Street	Norwell	MA 02061
KRIR	Bill Lunt	413/243-3230	413/243-3230	Main Road	Tyringham	MA 01284
KIRC	Robert Clarke	817/924-8748	817/232-5470	25 Quimby Street	Watertown	MA 02172
KATRE	Robert K. Adamson	413/443-0856		57 Quirice Drive	Pittsfield	MA 01201
WIRM	Peter Chamalian	203/673-4395		81 Severance Lane	Burlington	CT 06013
KIRQ	Dana Cobb	413/655-8096	413/655-2797	East Windsor Road	Peru	MA 01235
WIRR	John Kenny	803/394-7821	817/881-8551	RPD Woodman Road	South Hampton	NH 03827
KIRU	Gene Frohman	203/795-3322	518/270-7501	530 Summit drive	Orange	CT 06477
KIRX	Mark Pride	203/271-3096	203/265-8825	1130 Summit Road	Cheshire	CT 06410
AITS	Bruce Terrell	413/442-6114	413/494-2739	P. O. Box 1922	Pittsfield	MA 01202
KISA	Bernie Cohen	207/773-6589	207/797-3585	194 Craigie Street	Portland	ME 04102
KISF	Bob Archambault	817/885-2704		94 Chestnut Street	Spencer	MA 01562
KAISR	Robert Kozlowski	401/883-9292	401/883-9292	5 Watson Dr.	Portsmouth	RI 02871
KBIT	John G. David			P. O. Box 1015	Amherst	NH 03031
KITO	Dan Street	203/583-4748	203/547-1510	295 Radstone Hill #13	Forestville	CT 06010
KITR	Ed Parsons	803/898-5781	817/881-6298	13 Taylor Street	Salem	NH 03079
KITXM	Betty McCarthy			128 Forest Avenue	Hudson	MA 01749
NITZ	Bob Czajkowski	817/885-3841	817/885-3841	North Brookfield Road	Spencer	MA 01562
WATZV	Jerry Muller	803/635-3890	817/667-7070	4 Garland Drive	Pelham	NH 03078
ABIU	Richard Casey			85 Hacienda Circle	Pittsfield	CT 06479
WUQU	Mort Bardfield	817/734-6678	817/568-8813	16 Addington Road	Brookline	MA 02148
KFIV	Mark W. Olsen			1218 Harvard Drive, SE	Warren	OH 44484
KRIV	Dan Crites	409/893-7826		1700 Southeast Parkway Apt.	College Station	TX 77840
KIVR	Fred Hopengarten	817/259-0088	817/899-1025	Willard Road	Lincoln	MA 01773
KIVSJ	Howard Bromberg	401/884-4952	401/231-1000	152 Red Chimney Dr.	Norwich	RI 02886
KIVUT	David Clemons	817/847-3784		148 Rocky Meadow Street	Middleborough	MA 02346
KBIW	Leonard Bean	413/443-0725	413/494-2577	62 Wellington Avenue	Pittsfield	MA 01201
WIMAI	David S. Allen	817/443-8867		22 Saxony Drive	Sudbury	MA 01776
WIMF	Jack Schuster	203/833-2756	203/565-0046	408 Thompson Street	Glastonbury	CT 06033
KIMW	Ray Crites	803/424-7397	803/472-3911	19 Hutchinson Road	Merrimack	NH 03054
KATX	Shirley R. Tabloski	803/893-0206		30 Hall Farm Road	Atkinson	NH 03811
KCIK	Ken Weinbeck	817/256-8218	817/687-1832	20 Janet Road	Chelmsford	MA 01824
KIKK	Stan Kugler	203/756-8056		147 Grandview Avenue	Waterbury	CT 06708
KIKM	Paul Young	817/582-5819	817/467-7185	11 Michigan Drive	Hudson	MA 01749
KATXN	Bob Wilson	817/739-6369	817/552-5344	179 Knollwood Street	Springfield	MA 01104
WIKX	John Lindholm	203/727-9296	203/666-1541	567 Broadview Terrace	Hartford	CT 06106



KV1Y	David Goonan	617/769-0541		323 Prospect Street	Norwood	MA 02062
K1VL	Claire Bardfield	617/734-6678		16 Addington Road	Brookline	MA 02146
W1VN	Ed Goodhue	617/947-2342	617/678-5800	17 Parkhurst Drive	Lakeville	MA 02346
K1VQ	Ivan Pagacia	617/924-3132		1157 Common Street	Watertown	MA 02172
K1VR	Louis Cohen	203/393-1473		50 Bethridge Road	Bethany	CT 06525
K1VRP	Robert Garceau	203/428-7029	203/565-4020	110 Bessett Street	Putnam	CT 06260
KE1Z	John C. Olapurath	603/888-4389	603/881-7088	6 Woodfield Street	Nashua	NH 03062
W1ZAM	Ed Landry	413/683-8126		140 Cliff Street	North Adams	MA 01247
K1ZM	Jeff Briggs	914/221-2450	212/808-0173	R.D. 6 Box 72	Hopewell Junction	NY 12533
W1ZM	Gerald Scarano	203/464-2723	203/464-2723	31 Tanager Lane	Gales Ferry	CT 06335
KK2A	Bruce Hamilton	914/838-2842	914/483-5980	RD 4 Tyrell Road	Pleasant Valley	NY 12589
KAZAEV	Michael Samanka	212/326-2792		6407 72nd Street	Middle Village	NY 11378
N2AIF	Seymour Miller	518/286-1328	518/457-2540	Miller Road RD 1	Rensselaer	NY 12144
KB2CR	John Fritze	518/889-0809	518/889-7880	1859 Central Avenue	Albany	NY 12205
K2EK	Bill Gioia	914/221-1672	212/888-2102	RD 7 Rushmore Road	Hopewell Junction	NY 12533
N2QC	Michael Musitano	518/741-6876		93 Reelyn Road	Wineola	NY 11501
KB2HP	William Herwerth	518/874-2522		RT 43 PO Box 586	Averill Park	NY 12018
W21B	Art Wildblood	914/331-2864	914/383-7742	RFD 7 East Drive	Kingston	NY 12401
KR2J	Bob Neumann	201/427-8881	201/884-1400 x	Box 8265	Maledon	NJ 07508
KV2J	Robert G. Michie		914/385-0404	4-5 Fairview Gardens	Kingston	NY 12401
N2JJ	Jim Jenack	518/882-9218		RFD 2 Box 44	Galway	NY 12074
KQ2W	Bob Shonet	518/828-2446	518/873-5888	P. O. Box 743	Stony Brook	NY 11790
KB2WG	Mark Russell			Route 81	Climax	NY 12042
KR2H	Gene Sales	518/288-5290		318 Jamaica Avenue	Medford	NY 11763
NA2H	Greg Becker	914/758-1131		23 Albion Road	Red Hook	NY 12571
W2HC	Bob Rasche	518/489-8239	518/452-2725	950 State Street	Albany	NY 12203
N2HT	Andy Blank	718/436-8503		648 Ocean Parkway	Brooklyn	NY 11230
KV2O	Doug Robbins	201/489-0363	201/580-7129	1797 Woodfield Road	Martinsville	NJ 08836
K2OV	Bruce Robideau	914/677-5717	914/483-9222	PO Box 311	Millbrook	NY 12545
KV2P	Scott Robbins	201/489-0363		1797 Woodfield Road	Martinsville	NJ 08836
KH2Q	William F. Michna	518/283-2692	518/445-8138	RD 2 Box 146	Averill Park	NY 12018
K2QP	Mike Kardos	518/482-2821	518/767-8591	1 Fiddlers Lane	Martinsville	NY 12144
KB2R	Leonard Kay	617/484-0299	617/935-5565	24 Maple Terrace	Rensselaer	MA 02178
NC2R	Robert Barry	518/788-2220		27 McCulloch Ave.	Ravena	NY 12143
K2RD	Ira Stoler	518/439-5804	518/445-8474	62 Brightonwood Road	Glenmont	NY 12077
W2RQ	Bill Keller	201/383-6875	201/849-8551	Rt. 7 Box 378	Hewton	NJ 07860
KZ2S	John Golomb	201/449-3811		107 Bailey Corner Road	Wells	NJ 07719
KZSHZ	John W. McCann	518/371-6247	518/457-2119	8 Linden Ct.	Clifton Park	NY 12065
WAZSPL	Joe Krone	518/279-9401	518/561-5555	RR#1 Box 271	Cropseyville	NY 12052
K2TR	Fred Lass	518/355-4813	518/346-6666	RD 1 Box 301	Altamont	NY 12009
K2VV	John Yodia	518/843-3897	518/370-4200 x	P. O. Box 460	Hagaman	NY 12088-0460
K2WR	Rich Gelber	212/580-1075	212/887-3674	205 West End Avenue	New York	NY 10023
N2WT	Rob Gigliuto	201/794-0089	201/529-4800 x	Q-147 Hill Hill Avenue	Fair Lawn	NJ 07410
AG2X	Fred Miller	518/885-9685		RD 5 Arnold Street	Ballston Spa	NY 12020
K2XA	Saul Abrams	518/439-5700	518/474-7579	RD 1 Maple Road	Slingerlands	NY 12159
W2XL	Robert Schenk	914/331-0437	914/331-0437	133 Clifton Avenue	Kingston	NY 12401
W2YV	Dave Horbachuk	914/471-4785	914/483-0571	RR 1 Box 304	Pleasant Valley	NY 12569
AA2Z	Mark Wilson	203/267-2179	203/666-1541	229 East High Street	East Hampton	CT 06424
WB3ANE	Hope Smith	203/686-3445		294 Ridgewood Road	West Hartford	CT 06107
W3AZD	Don Search	203/686-3445	203/686-1541	294 Ridgewood Road	West Hartford	CT 06107
A13E	Dwight Sipler	617/897-5996	617/881-3045	493 Great Road	Stow	MA 01775
K3UA	Phil Koch	412/262-2739	412/777-7076	122 Lang Drive	Coraopolis	PA 15108
SWJH	2. McNeill-Bennett	617/344-7160	617/298-0180	52 Dady Street	Stoughton	MA 02072
K5NA	Richard King	914/687-9700	914/385-1122	PO Box DX	Cattskill	NY 12419
K5ZD	Randy Thompson	617/339-5182		P. O. Box 571	Manfield	MA 02048
WB8BTH	Jeff DeTray	603/242-7995	603/924-8471	PO Box 524	Troy	NH 03485
K8MYT	Mal Offutt	203/855-2837	212/637-9985	25 Libby Lane	Darien	CT 06820
WB8TDA	Kitty Hevener		203/686-1541	225 Main Street	Hewington	CT 06111
K8HI	Phil Temples	617/327-5986	617/459-5000 x	7900 50 Catherine Street	Realdale	MA 02131

The **Scuttlebutt** is the newsletter of the **Yankee Clipper Contest Club** and is mailed about nine times per year to all paid up members. Dues are \$10 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.

The **Yankee Clipper Contest Club** (an ARRL Affiliated Club) holds four official meetings per year, on Saturday afternoons in March/April, October (at the New England Division Convention when possible), November/December, and January/February. Attendance at an official meeting is required in order to become a member. Club members congregate on 3830 Khz or 1900 Khz Monday evenings; many routinely monitor these frequencies other evenings as well.

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	K1RX	Mark Pride	(203) 271-3096	(203) 265-8825
EMass	W1FJ	Al Rousseau	(617) 598-3744	(617) 599-7500x173
WMass	K1RQ	Dana Cobb	(413) 655-8096	(413) 655-2797
VT/NH	KM1C	Bill Pedersen	(603) 673-1678	
ME	K1SA	Bernie Cohen	(207) 773-6589	(207) 797-3585
NY	K2RD	Ira Stoler	(518) 439-5804	(518) 445-8474
NY/NJ	K2EK	Bill Gioia	(914) 221-1672	(212) 888-2102

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