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JOURNAL OF THE QRP AMATEUR RADIO CLUB, INTERNATIONAL
October, 1985 – Volume XXIII – Number 4

QRP QUARTERLY
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VERY IMPORTANT ISSUE

Board of Directors Ballot

Membership Opinion Survey

Technical Achievement Ballot

DESIGN COMPETITION WINNERS ANNOUNCED

NEW
QRP ARCI NET PARTICIPATION PRIZES

OCTOBER

Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Sunday
	1	2	3	4	5	6
WSN-80	SEN	GSN-GLN			NEN-WSN-80	TCN
7	8	9	10	11	12	13
WSN-80	SEN	GSN-GLN			NEN-WSN-80	TCN
14	15	16	17	18	19	20
WSN-80	SEN	GSN-GLN			NEN-WSN-80	TCN
21	22	23	24	25	26	27
WSN-80	SEN	GSN-GLN			NEN-WSN-80	TCN
28	29	30	31			
WSN-80	SEN	GSN-GLN				

NOVEMBER

Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Sunday
				1	2	3
WSN-80	SEN	GSN-GLN			NEN-WSN-80	TCN
4	5	6	7	8	9	10
WSN-80	SEN	GSN-GLN			NEN-WSN-80	TCN
11	12	13	14	15	16	17
WSN-80	SEN	GSN-GLN			NEN-WSN-80	TCN
18	19	20	21	22	23	24
WSN-80	SEN	GSN-GLN			NEN-WSN-80	TCN
25	26	27	28	29	30	31
WSN-80	SEN	GSN-GLN			NEN-WSN-80	TCN

DECEMBER

Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Sunday
						1
WSN-80	SEN	GSN-GLN			NEN-WSN-80	TCN
2	3	4	5	6	7	8
WSN-80	SEN	GSN-GLN			NEN-WSN-80	TCN
9	10	11	12	13	14	15
WSN-80	SEN	GSN-GLN			NEN-WSN-80	TCN
16	17	18	19	20	21	22
WSN-80	SEN	GSN-GLN			NEN-WSN-80	TCN
23/30	24/31	25	26	27	28	29
WSN-80	SEN	GSN-GLN			NEN-WSN-80	TCN

JAN

Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Sunday
	1	2	3	4	5	6
WSN-80	SEN	GSN-GLN			NEN-WSN-80	TCN
7	8	9	10	11	12	13
WSN-80	SEN	GSN-GLN			NEN-WSN-80	TCN

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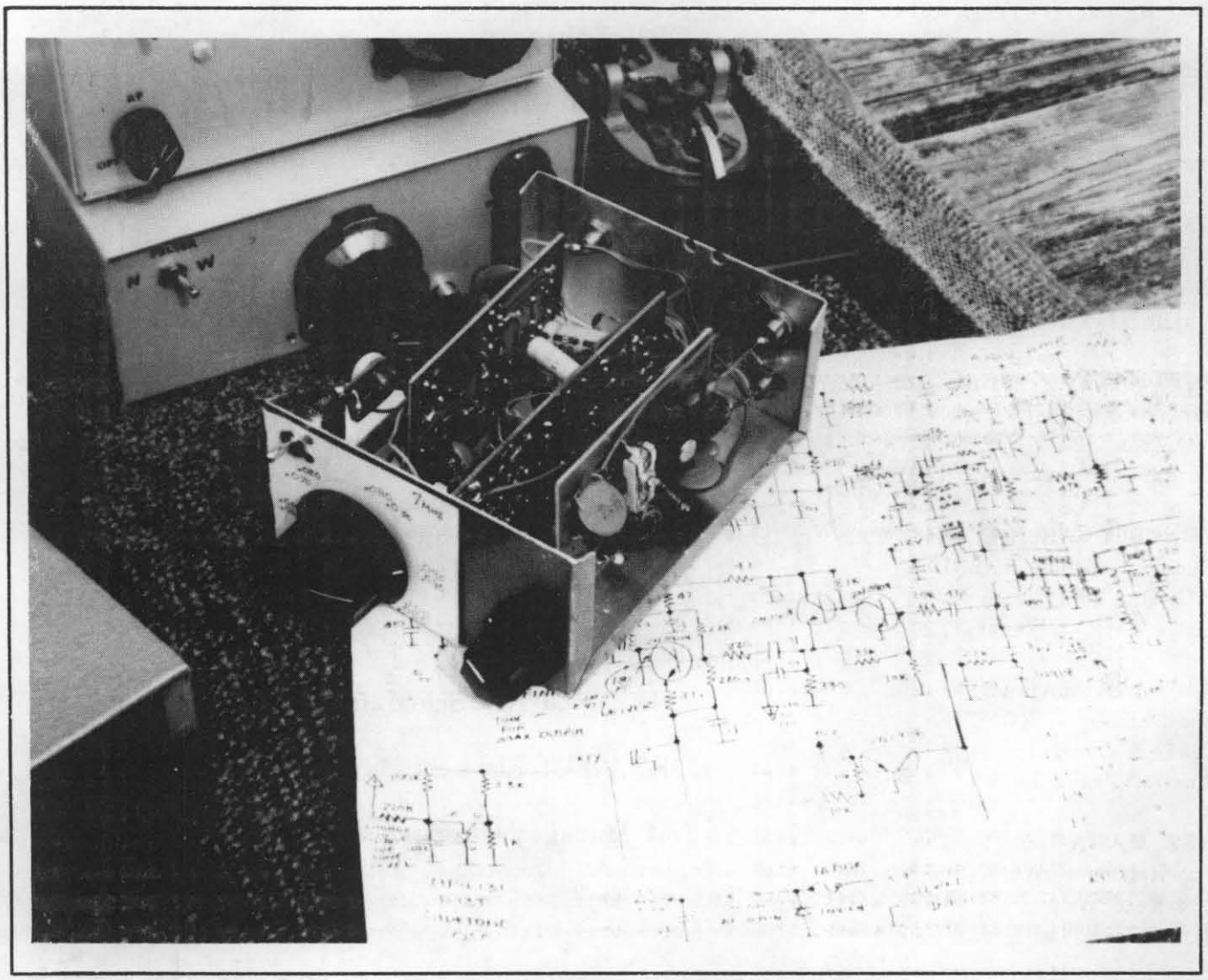

"L'il Tuff Stuff"

One–Watt 40–Meter Transceiver

Photo by W3TS

The **QRP ARCI** is a non–profit organization dedicated to increasing world–wide enjoyment of QRP operation and experimentation (QRP, as defined by the Club, is 5 watts output CW, and 10 watts output PEP).

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QRP EDITOR

Fred Bonavita, W5QJM

Tucked inside this issue of The Quarterly is a ballot and questionnaire combination, and we urge you to fill out both sides of it, drop it in an envelope now and stick it in the mail to Bill Harding, K4AHK, the secretary–treasurer, whose address is on the page opposite this.

The ballots are for electing four members of the club's board of directors and for picking the outstanding technical article for 1985. The club's directors elect the officers, so you can see how important your vote is on them. And your vote for your favorite technical article gives us a better idea of what kinds of material the membership likes and wants.

The directors decided recently that regular contributors to The Quarterly and club officers are ineligible for the technical achievement awards. Rather, the program is aimed at encouraging the general membership to submit technical articles on a wide varieth of subjects.

The most important item in that combination page may be the questionnaire, and we urge each member to answer it completely and throughly. Use an extra sheet of paper for additional comments, observations, criticism, etc.

This is the first time in many years that a sampling of the feelings of the membership has been attempted, and the greater the response, the more valid the conclusions. The responses to this opinion poll and questionnaire will be tabulated, and the results will appear in the January issue of The Quarterly.

This gives the membership an opportunity to tell the board, the officers and others exactly what members are doing, thinking, and planning for QRP; what are their likes and dislikes; and what directions they want the club to take as it begins its 23rd year of operations. Your feelings are important, so voice them.

The deadline for returning the ballot/questionnaire is Nov. 15, and responses postmarked after that date will not be counted. So, please, mail yours to Bill Harding today.

Finally, a hearty congratulations to the winners of the club's first design competition. Technical Editor Ed Manuel, N5EM, did an outstanding job organizing and judging the contest.

The first–place winners in the three categories appear in this issue, and the runners–up will be published in subsequent editions as space permits.

Volunteers Needed

Fred Bonavita, W5QJM, has submitted his resignation for his positions on the club's board of directors, the editorship of The Quarterly and as net control station for the Gulf States Net.

The positions he held as Quarterly editor and ncs for the GSN Net are available for interested members. Those who would like to submit their name for consideration should send a brief resume to Ed Popp, K5BOT, and Les Shattuck, WB2IPX. Their addresses are on page two.

Deadline for receipt of resumes is November 15, 1985 so that arrangements can be made for the transfer of materials to publish the January, 1986 Quarterly.

Last Issue for Publisher

This will be my last issue as publisher of The Quarterly. It has been an honor and a pleasure to be involved with QRP ARCI for the past two years.

Thank you for your friendship and the many kind words. This was an experience that I will remember with fondness for a long time to come.

If it wasn't for the increased responsibilities at work and an opportunity I have to go into business for myself I would stay on forever.

I'll still be active on the QRP frequencies and in the contests, so listen closely.

Best 73's and 88's to everyone.

Bert Zitek, N5ELM

BOARD OF DIRECTOR CANIDATES

Six candidates are running for six positions on the QRP ARCI Board of Directors -- four for three-year terms and two for the balance of a term vacated through resignation.

Three incumbent directors -- Gary L. Beam, WA9WZV/4; James A Holmes, W6RCP; and Janes Lyons, VE2KN -- are not seeking re-election this year. Christopher Page, G4BUE, is the only incumbent board member on the ballot for another term

Ellicott Valentine, K4JO, has notified the secretary-treasurer he will not seek re-election after his present term expires Dec. 31, 1986, and has indicated he wants to step down early. He and his wife will be traveling extensively, he advises.

Fred Bonavita, W5QJM, has also notified the secretary-treasurer that has resigned from the board of directors for "pressing personal reasons." His term would have expired Dec. 31, 1987.

Elsewhere in this issue of The Quarterly is the ballot for board members, and club members are urged to mark them and send them to the secretary-treasurer, whose address appears on page 2. Deadline for returning all ballots is Nov. 15, 1985, and those postmarked after that date will not be counted. Members are urged also to vote for recipients of the 1985 Technical Achievement Award and to respond to the questionnaire on the reverse side of the ballot.

The four candidates with the highest number of votes will receive the full-term slots on the board, and the next highest vote-getters will serve the balance of the two unexpired terms. Ties will be broken by a run-off election.

Following are biographical sketches of the board candidates exactly as submitted by them. They appear in alphabetical order:

Richard H. Arland, K7YHA, Langley AFB, Va. First licensed in 1963, I joined QRP ARCI in 1965 (No. 2388) and have actively participated in the QRP philosophy, doing my part to reduce QRM on the bands and sharpen my skills. Thanks to the U.S. Air Force, I have been able to operate from the following DX locations: Azores (CT2BH); Japan (KA2AA); West Germany (DA2NE); and England (G5CSU). I have been involved in communications (commercial, military and amateur) for the past 23 years. I hold a degree in communications technology and enjoy building my own gear. I am convinced that QRP operation with homebrew gear is very rewarding and a true test of operating skills, patience and builder's ability. I am an active QRPer and I'm willing to donate my time and abilities to strengthen the club.

I have four goals to pursue, if elected to the board of directors.

First, the club needs to promote interest in QRP operation at the local ham radio club. This can best be accomplished by an active QRP ARCI member presenting a talk to the club. By compiling a slide/script presentation, to be lent out on an as-needed basis, many local clubs could be indoctrinated into the world of QRP.

Second, while the club has an excellent awards program, we need to press forward with the IARU, ARRL, CQ and others to offer QRP endorsements on their respective awards. This will generate more interest in QRP operation among the certificate hunters.

Third, I feel the major contest sponsors should be contacted by the club to offer QRP categories plus multipliers for QRP operating during a contest using batteries, natural power, milliwatt power levels, etc. This will promote QRP operation during contests and help reduce QRM levels on contest weekends.

Finally, the club needs a QSL bureau. I intend to pursue the organization of a members' QSL bureau patterned after the G-QRP Club's excellent bureau. With the ever-increasing costs of postage, it is a rich amateur, indeed, who can afford to QSL direct to fulfill QRP ARCI requirements. A QRP ARCI QSL bureau will help alleviate this problem.

If elected, I will work diligently toward promoting the QRP ARCI and the QRP philosophy.

Con't. next page

B.O.D. Con't.

Robert R. Brown, NM7M, Anacortes, Wash. Age 61. First licensed as W6PDN in 1937. Then off the air from '41 to '81. Returned to ham radio in '81 as KA6PTT and then N7DGZ; and now hold extra class license. Served in the U.S. Navy as Japanese language officer, '44 to '46. I received a Ph.D. in physics in '51, served in the National Science Foundation as well as on the faculty of several academic institutions and retired in '82 as professor of physics at the University of California (Berkeley Campus).

Member of QCWA, OOTC and joined QRP ARCI in '82. Now serve as NCS of Northwest Net. Active primarily in CW. Busy with contesting and working toward DXCC/QRP. Awards to date include WAS/QRP and WAC/QRP.

As a board member, I would seek more QRP activities, particularly sprints and QSO parties. This is important because these events serve to stimulate growth in QRP operation; also, with a greater number of events each year, the risk of poor propagation affecting QRP activities would be reduced.

In addition, I would seek annual achievement awards for QRP activity rather than the present system of cumulative awards; this would serve to recognize current accomplishments in a timely manner. Finally, I believe that QRP ARCI should work to establish QRP categories and awards in contests with other sponsorship; this would serve to publicize in other journals just what can be accomplished with low power operation.

Michael Bryce, WB8VGE, Massillon, Ohio. I am married, have one son, Christopher, who is almost 3 years old. I work for the LTV Steel Co., where I operate a metalcut saw.

I hold a Extra Class license, and have been involved in QRPp operation for the past 9 years. First licensed in 1975, I used QRP on the novice bands. I have been a ardent user of natural power for the past 4 years. My station runs off both solar and wind power.

"I think that the time has come for QRP operation to be noticed by the rest of the ham population. The best way that I can think would be to expand the use of the Quarterly, along with the other magazines. With over 5500 members we only send out a little over 700 issues of the Quarterly. I would try and help change that."

"Second, the technical part of our hobby has been changing all around us. We're still building simple two and three transistor projects while the rest of ham radio has PLL! I believe that there is enough "hi-tech" people using low power that would be willing to share their knowledge. This would be my challenge to bring the technical aspect to users of QRP worldwide." **Con't. page 10**

QRP TOUTS

(Editor's note: Mention of the following items is intended as a service to our readers and members. It in now way implies an endorsement, guarantee or warranty of the items or products.)

Two firms are now offering equipment kits of interest to QRPers:

-- RF Kit Co. is selling its T5 CW transmitter kit ($39.95 plus $2 shipping and 7.8% sales tax if you live in Washington state) in an interesting little package that's easy to assemble, operate and modify. Complete with crystal of your choice among five frequencies offered, the T% has an output of five watts. Drop a line (include a $ .22 stamp) to Larry Kezner, N7DVJ, RF Kit Co., Box 27127, Seattle, Wash. 98125, for a brochure.

-- A&A Engineering, 7970 Orchid Drive, Buena Park, Calif. 90620 has a line of kits, including an 11 dB-gain r.f. amplifier for receivers and the direct-conversion receiver by Doug DeMaw, W1FB, in the August 1985 issue of QST -- all at very reasonable prices. A catalog is available for the asking.

Two QRP-related publications are now available from sources in Great Britain. and both are worthy additions to the builder's and experimenter's library.

First is the revised edition of the G-QRP Club Circuit Handbook, the first edition of which sold out quickly. Here are some good circuits from the pages of "Sprat," the fine quarterly of the G-QRP **Con't. page 10**

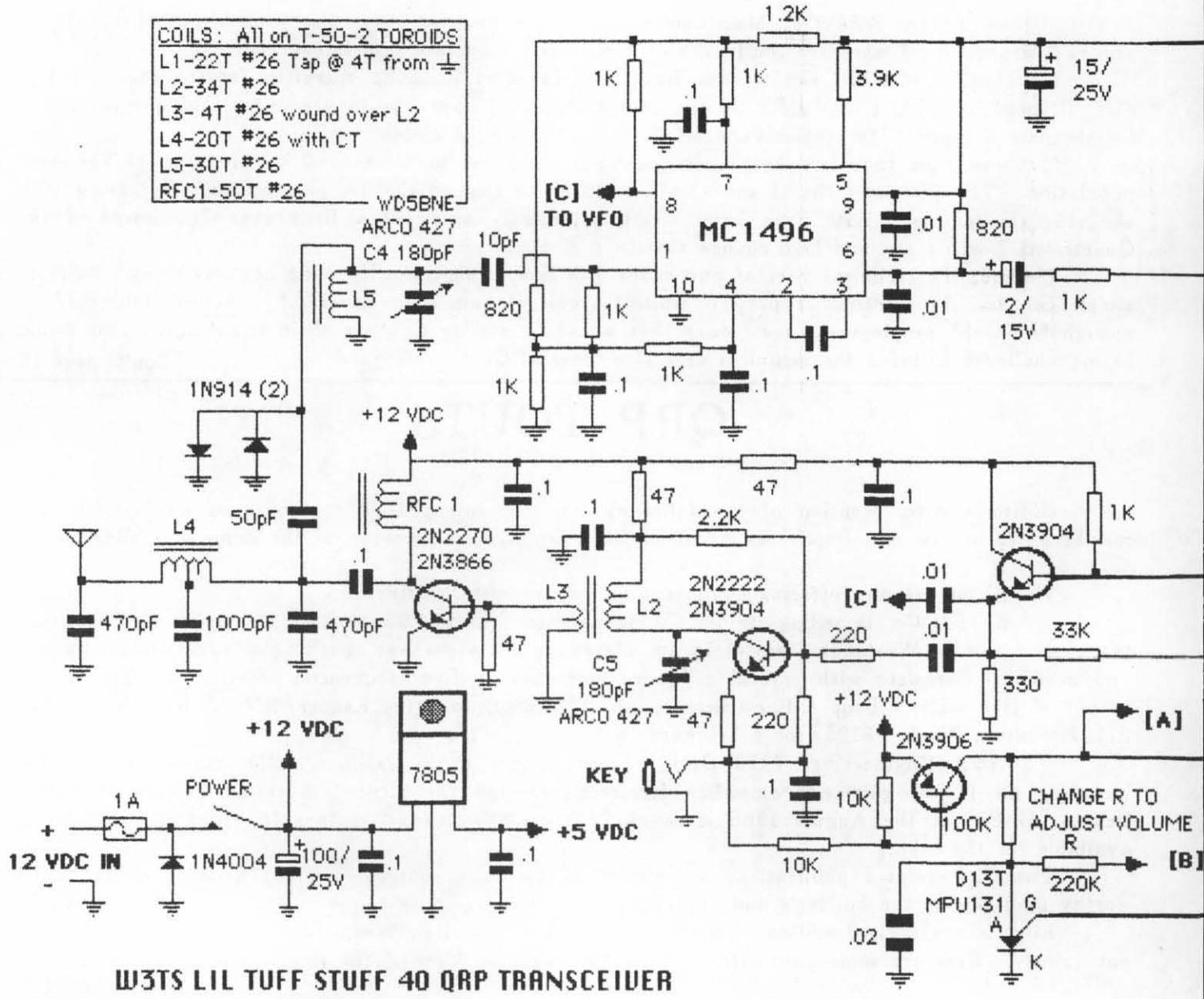
"L'IL TUFF STUFF"

FIRST PLACE
Transceiver Category

D.A. Michael, W3TS
Rd. 1, Box 144 Loyalton
Lykens, Penn. 17048

The "L'il Tuff Stuff" is a one-watt output QRP transceiver for 40 meters that was a club project of the Berry's Mt. Amateur Radio Club. Most of the design information came from Solid State Design for the Radio Amateur and QRP articles by Wes Hayward and Adrian Weiss.

One of the biggest problems with building rigs is the VFO capacitor and dial drive. After looking over other designs using vari-cap tuning, I settled on that approach. If you limit the range to 50 to 75 kHz. you don't need a vernier, and pots are easier to mount than caps. By adding a "Range" switch you can have two or three 50 kHz. segments and cover the cw band on 40 meters.



W3TS LIL TUFF STUFF 40 QRP TRANSCEIVER

Not too much is critical about the unit. Of the ten members sho built copies of the L'il Tuff Stuff, all ten worked on the first try. Just keep the VFO section as far away as possible from the transmitter driver and final – maybe even using some shielding.

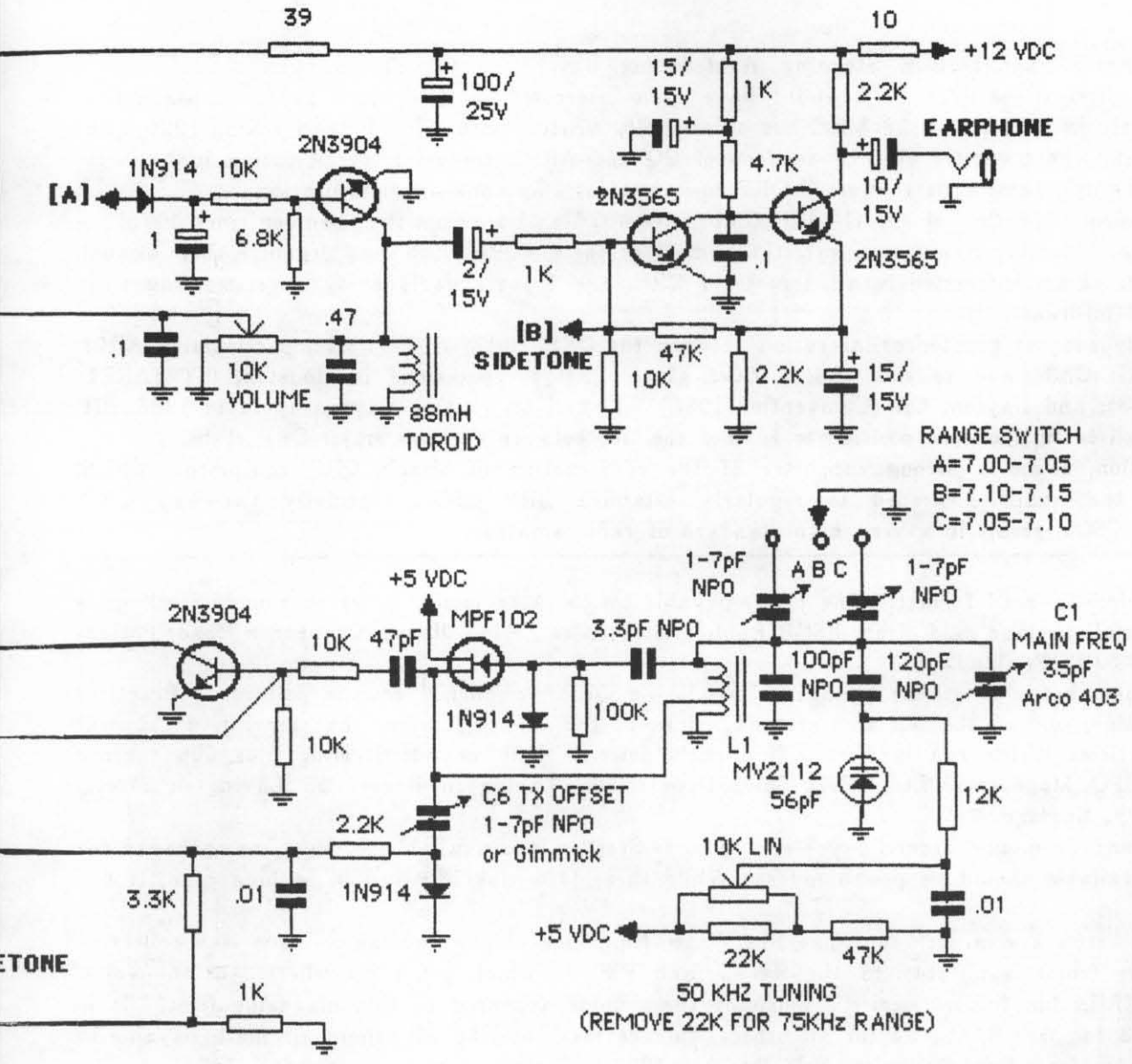
Packaging the unit was easy without the VFO cap and dial drive. I used a Bud CU–300SA Minibox (5"x4"x3") cut down by about three–fourths of an inch. "Ugly" construction of three small boards worked out nicely. (One for the VFO and offset switch, one for the product detector and audio sidetone, and one for the transmitter driver and final.)

To tune–up the L'il Tuff Stuff, get the VFO working, and tune trimmer C1 for the highest frequency range. Then switch to auxillary range caps and trim them for the lower frequency ranges. Peak C4, the receive antenna trimmer, at your favorite frequency (7.040 mHz.) or the center of the band.

Hook a dummy load (47 ohm, 2 watt resistor) to the antenna jack. Key the transmitter and, using an RF probe, scope or wattmeter, peak C5 for maximum transmit output (about 1 watt).

To adjust the transmit offset trimmer, listen to the VFO on another receiver or use a frequency counter and set it for about 800 Hz. shift.

This little rig has been built in many different forms and even put on 80 and 30 meters. The name was coined by club member, WB3IDP. Almost all of the parts can be obtained from Circuit Specialists, Scottsdale, AZ. or KCS, Tempe, AZ.



B.O.D. Con't.

John T. Collins, KN1H, Newport, N.H. Occupation: Engineering supervisor, Vermont Educational TV. QRP interests: Homebrewing, Contests and talking to other QRPers. Memberships: G–QRP–C, M–QRP–C. Awards: QRP–WAS, 2XQRP–WAS (39), Milliwatt Achievement, QRP–25 + 100.

I would like the opportunity to serve on the ARCI Board of Directors so that I might make a positive contribution to the group of people that have made Ham Radio so enjoyable to me – QRPers. While at the QRP Forum at this year's Dayton Hamvention I was fortunate enough to meet many club members, and was impressed by their universal enthusiasm for QRP and ARCI. As a Board member I would encourage members' input into decisions that effect our club, and work hard to ensure that ARCI continues to be a growing and vital organization.

George D. (Danny) Gingell, Jr., K3TKS, Silver Spring, Md.

Employed by A.T.& T. as a systems technician on computer telephone systems. Married 19 years, 3 children, son 18, daughter 16, son 13. XYL from Yorkshire, England.

I have been a member of QRP ARCI Int'l. since Oct. 1979. I have been serving as manager of SEN and NCS of NEN for over a year.

I hope to be able to continue my support of QRP Net operations and encourage participation by all members. I believe that we can promote fellowship and increase our membership with the QRP Net System. I further promise to do what I can to assure that all who participate will receive proper recognition.

Christopher J. Page, G4BUE, Steyning, West Sussex, U.K.

Age 41, first licensed in 1973 and I have been interested in QRP since 1976. I am active almost exclusively in CW, 1.8 to 28 MHz, but occasionally venture into SSB. I enjoy DXing (220 QRP DXCC), contesting (Past winner of QRP sections of CQ and ARRL contests), participating in Activity Periods, (ragchewing), home construction of QRP equipment and antenna experimentation.

I have been a member of the G–QRP Club since 1976 and a committee member since 1978. I am the author of "Member News" in Sprat, the journal of the G–QRP Club, and organize their annual activity periods. I am interested in all aspects of QRP, and I particularly enjoy experimenting with very low levels (milliwatting).

I strongly support greater co–operation between the QRP clubs in the world, particularly ARCI and the G–QRP Club, and to this end, I have given QRP presentations in Houston, TX (ARRL Convention 1983), and Dayton, OH (Hamvention 1985). I shall be visiting Dayton again in 1986. If re–elected I shall be in a unique position to further the ties between the two major QRP clubs.

In addition, I am a strong supporter of the construction of simple QRP equipment, which together with the qualities needed to regularly establish QRP QSOs, especially two–way QRP intercontinental QSOs, result in a very high standard of radio amateur.

Touts Con't.

Club, in an easier–to–read format. The price, payable by check or money order in pounds Sterling, is 4.52, surface–mail postage paid, from RSGB Publications (Sales), Alma House, Cranborne Road, Potters Bar, Herts EN6 3JW, England.

Also from that side of the pond is "Introducing QRP," published by the editors of Practical Wireless magazine, one of the top amateur magazines in the U.K. This one has reprints of several construction articles which ran in PW. This one's price is 1.50 pounds Sterling plus 60p surface postage from IPC Magazines, Ltd., Post Sales Department, Lavington House, 25 Lavington Street, London, SE1 0PF, England.

Checks and/or money orders payable in pounds Sterling are available at most major banks for a fee. Also available should be pound notes. While there is a risk involved in sending cash, it has been done.

Finally, here's a reminder that The Hot Water Handbook is now available. This is a collection of HW–8 mods (some applicable to the HW–7 and PM–3) which picks up where Adrian Weiss, W0RSP, left off in his famous series. Some of these mods appeared in this magazine first. It is available for $3 for W/VE/XE; $4 for all others, surface mail; and $5 all others air mail, payable in U.S. funds. Order from Fred Bonavita, W5QJM, Box 12072, Capitol Station, Austin, TX 78711.

30–METER BILATERIAL TRANSVERTER

SECOND PLACE

Transmitters, Receivers, Transverter Category

John Collins, KN1H
10 Walnut Street
Newport, New Hampshire 03773

The local oscillator, Q1, is a third overtone circuit straight from the ARRL Radio Amateur's Handbook. I used it here because I've never had any trouble getting a crystal to work in this circuit. The crystal was in the junk box, and is apparently from an old CB rig as it was marked "Ch. 4 Receive".

The LO injects 10 mW. at 31.3 mHz. into pins 3 and 6 of the double–balanced mixer (DBM). Pins 1, 2, 5 and 7 are connected to ground: pin 8 is for 15 meters in/out; and pin 4 is for 30 meters in/out. On receive, the low pass filter (L1, L2 and C1) is connected to the antenna via S1, a DPDT toggle switch, and the DBM is operated as a receive mixer producing an output at 21.2 mHz. for an input of 10.1 mHz.

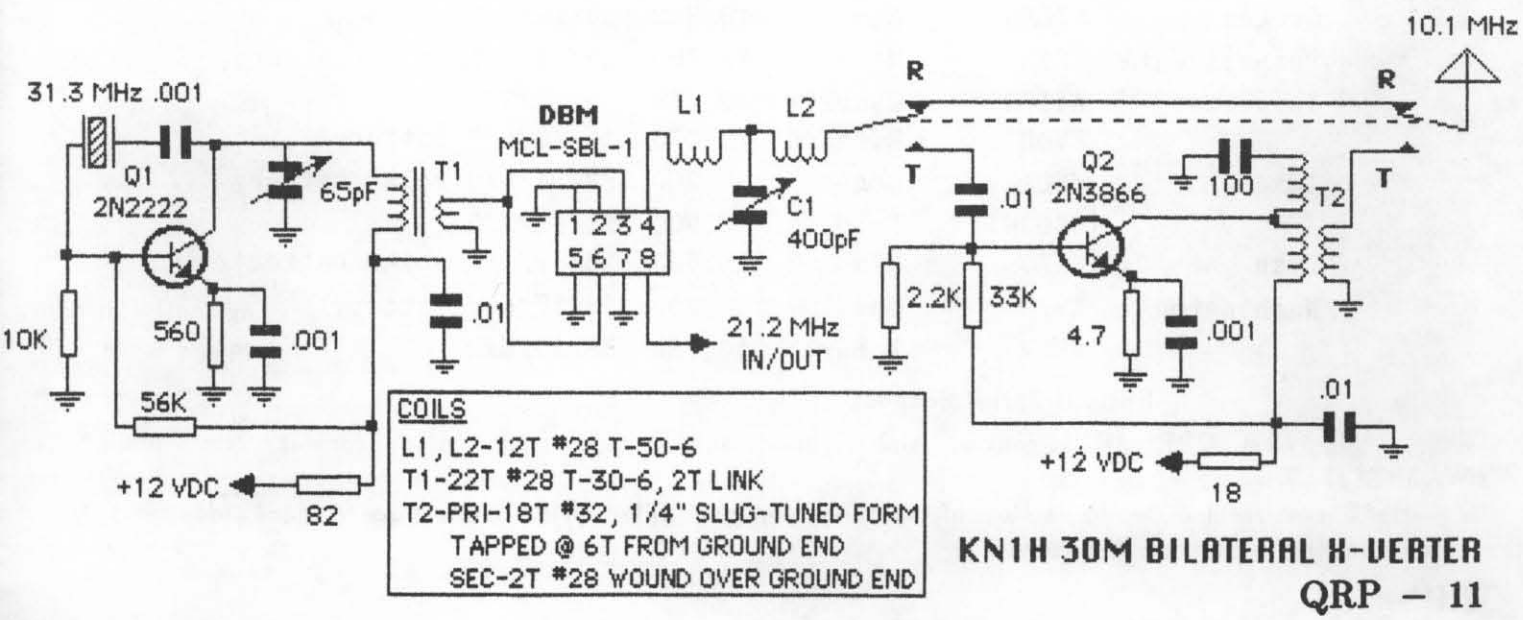
On transmit, nearly the reverse happens. S1 is thrown to include the PA, Q2, in the circuit, and the DBM produces a 10.1 mHz. output with a 21.2 mHz. input. The DBM saturates at about 30 mW. input, so the exciter should be capable of adjusting output down to that level. This is no problem with rigs such as the Argonaut.

The DBM also has a hefty conversion loss resulting in about 1.5 mW. appearing on the base of the PA. Output of the PA as shown is 125 mW. More power could be had by using a two stage PA, but I have a good time making contacts at 125 mW. on this band. Using the Argonaut as an IF, the receive function compares favorably with the Argosy. As an added bonus, this transverter will receive 160 meters when the Argonaut is tuned to 29.5 mHz. with no other adjustments. With a broadband PA and switchable filters, it could transceive on both bands using the same crystal.

As I have no facilities to photograph this project, this is a brief description of how I put it together. This is by no means the only way to do it.

The entire unit is housed in a 2 1/4" x 4 1/4" x 1" cast aluminum Eddystone box using BNC connectors for RF in and out, and an RCA type jack for DC power in. The LO is constructed on a small piece of perf–board, the DBM and low pass filter are put together using point–to–point wiring and stand–offs, and the PA is built on an old PAX–1 circuit board that was in the junk box. (Tech. Editor's note: The PAX–1 was a module manufactured by International Crystal. Current availability is unknown.)

Obviously, any or all of these techniques could be used to successfully build this transverter. A home–brew DBM could be substituted for the store–bought unit, although port–to port isolation would probable suffer, requiring more filtering at the output. The SBL–1X is available from Mini–Circuits Labs, P.O. Box 166, Brooklyn, NY 11235. At this time the price for a single unit is about $6.



KN1H 30M BILATERAL X-VERTER

1985 HOOTOWL SPRINT RESULTS

Eugene Smith, KA5NLY – Contest Chairman

Roger Rose, W5LXS, has done it again, this time the overwhelming winner of the 1985 Hootowl with a total score of 138,260 points, leading by almost 4–to–1 the second place entrant, Jay Sturdivant, KV7X, who posted a score of 38,250 points.

Roger utilized a solar–powered Argonaut 515 running 750 mW into a TA–33 tribander and an inverted vee to make 53 milliwatt contacts on 20 & 40 meters with an s/p/c multiplier of 31. Jay, running 950 mW from an IC–730 into a vertical, worked 20, 40 and 80 for 33 QSO's and 17 s/p/c's.

This was our second annual Hootowl Sprint and the additional publicity along with the growing popularity of our sprint program helped us get a total of 27 entrants, our best sprint turnout to date. The following list provides the scores by state, listing call, name, score and QSO's/s–p–c's/power/number of bands: (m for power indicates milliwatt)

Alabama	KA4LKH	Barry	9,249	15/11/m/2	
Alaska	WA3PTT/KL7	Bill	1,364	12/11/5/2	
Arizona	KA9HAO	Randy	11,880	15/09/m/2	solar/battery
California	W6SKQ	Bob	25,530	45/23/3/2	
	W6YMH	Robert	23,868	27/17/2/3	battery
	W6SIY	Keith	9,792	21/17/3/2	
	NW6A	John	7,749	26/21/5/3	battery
	KA6SOC	Sue	6,388	23/14/2/2	
Colorado	NF0Z	Larry	16,236	32/22/4/3	
Florida	K4KJP	Terry	26,448	29/19/3/2	solar/battery
Idaho	N7FEG	Maurice	10,164	19/11/2/2	battery
Illinois	WB9HPV	Dave	6,240	18/10/2/2	
	N9ANK	Carl	300	5/ 3/3/1	
Michigan	N8CQA	Buck	9,108	16/11/2/2	battery
	K8DD	Henry	1,920	7/ 5/1/1	battery
New Hampshire	KN1H	John	2,400	6/ 5/m/2	solar/battery
New Jersey	W2JEK	Don	168	2/ 2/2/1	battery
	KA2KMU	Ken	56	2/ 2/4/1	
New Mexico	W5TTE	Ed	24,024	34/21/2/2	
Oregon	W7LNG	Bud	18,392	30/19/2/2	
Pennsylvania	W3TS	Mike	25,480	23/14/m/6	solar/battery
Tennessee	K4ICH	Charlie	2,268	9/ 9/2/2	
	KV4B	Richard	2,070	15/10/5/2	battery
Texas	W5LXS	Roger	138,260	53/31/m/2	solar/battery
	W5QJM	Fred	7,200	21/12/3/2	
Utah	KK7C	Jim	15,600	16/12/m/3	solar/battery
Washington	KV7X	Jay	38,250	33/17/m/3	battery
	NM7M	Robert	10,780	58/22/5/2	

Hootowl Sprint Soapbox

"My first QRP ARCI contest and I must say I enjoy this sprint format very much." WA3PTT/KL7

"There seemed to be a lot of activity tonight; this sprint contest is a good idea and I recommend more of them." KA9HAO

CONTEST CHAIRMAN

Eugene Smith, KA5NLY

In this installment I will briefly review the contest activity for the past two years to see where we have been and where we may be heading in the future. Also, I'll skim through a few notes on awards certificates, the North American Sprint, and other contests.

I got things off to roaring start in 1984 by accidently announcing the Spring Contest as a CW test, then was stuck with it when it was too late to correct it back to SSB. The CW operators ate my lunch aver taking CW out of the Fall, so I compromised by making the Fall test dual-mode. That wasn't the most popular thing to do, but we survived it (and the Penn. Party).

The addition of Sprints to our contest program has proven popular and the number of entrants has been growing with each sprint, especially now that we are getting some coverage from the Ham magazines.

What this leads to is the mode, CW or SSB, that we will utilize in future contests. Since the majority of out QRP operators primarily utilize CW and the turnout for SSB contests is correspondingly low, I feel that we have arrived at the point where we should bo with Spring and Fall CW contests and Winter and Summer SSB Sprints. This would recognize the fact that CW is the primary QRP mode while still providing the vehicle to encourage SSB operations.

Any such change would require an examination of the Triple Crowns Award and possible modification of the rules for it, so I am requesting that the board of directors consider this proposal for implememtation in 1986. In addition, you, the membership, should make your views known to the board.

I have run out of award certificates, but hope to have a new batch soon; those of you who are due awards from ths Spring test and Hootowl Sprint will be getting them, possibly by the time this is printed. I was out in California on military duty from May through July, so I'm just now getting caught up on things here at home. NOTE: Illinois entrants were shown under Idaho in last fall's results, so Norman Wagner, K9EIJ, will be receiving an award for first place in Illinois. Sorry about the oversight, Norm!

Last winter I asked for entries from folks working the North American Sprint and subsequently received logs from several brave souls who braved the 4 hours of 25-35 wpm kilowatt madness to make QRP heard. Utilizing one point per QSO and out regular power and alternate power source multipliers, the following results are announced: (call, name, QTH, QSO's/states/power)

KK7C	Jim	UT	4,680	26/12/.95 (battery)
N7DGZ	Bob	WA	4,650	75/31/5
W2JEK	Don	NJ	936	13/9/2
W3TS	Mike	PA	156	13/6/5

The concensus of opinion was that the NA Sprint is a real tough workout for a QRP'er which will really challenge his/her contest operating/pileup busting skills.

I have occasionally received logs from other contests such as Sweepstakes, WPX, CQ WW, etc., but never enougn of them to publish the scores - in any event, it's good to see QRP stations entering them and hope this will continue as a growing trend. We need to be everywhere!!!

Hootowl Sprint Soapbox

"...QRM & QSB on 20m - no activity on 40m - had to QRT early - hope others did better." W2JEK

"Had a good time! Picked up two new states for 2XQRP WAS and worked some guys I haven't heard in a while." W5QJM

"This contest was definately for those stations west of the Mississippi...a large thunderstorm put me off the air for a while...then the band went dead...will do it again, hopefully during better conditions!" KN1H

QRP ARCI MEMBERSHIP

The initial membership fee of $6 ($7 for DX) covers lifetime membership plus the first four issues of the Quarterly. Membership information is available from the Secretary/Treasurer.

QRP QUARTERLY SUBSCRIPTION RENEWAL

Subscription renewals are $5 ($6 for DX) for four issues. Notice of expiration will be stamped on the cover of your final QRP Quarterly. The subscription renewal date appears on the mailing label following the QRP membership number, i.e. 4174–3/85, means that member number 4174's subscription will expire with the 3rd Quarterly (July) in 1985. Renewal and new member applications must be received by the 1st of the month prior to the next months publication to receive that issue, otherwise service will not begin until publication of the next Quarterly.

TECHNICAL ARTICLES

Submit all technical articles to the Technical Editor. They must be typed, double–spaced and all circuit diagrams must be clear and include a complete list of parts and their values. The Technical Editor and the Club are not responsible for testing projects that are published in the Quarterly.

LETTERS TO THE EDITOR

Letters to the Editor, articles of general interest and announcements should be sent to the Editor. Not every letter can be published and the Editor reserves the right to edit letters to conform to space limitations. Photographs of your station, construction projects, antennas, etc. are welcome. Black and white photos are preferred.

Requests for the return of materials submitted for publication must be accompanied by a self–addressed, stamped envelope. If you must write to one of the Officers and request an answer, please include a SASE. Please include your name, call, address and a telephone number on all material submitted for publication and correspondence.

QRP ARCI NET SCHEDULE

TCN*	14060	W5LXS	Sunday	2300 UTC
WSN-80	3558	WD6DMY	Monday	0400 UTC
SEN**	7030	K3TKS	Wednesday	0001 UTC
GSN	3560	W5QJM	Thursday	0200 UTC
GLN	3560	KZ9H	Thursday	0200 UTC
NEN	7040	W1FMR	Saturday	1200 UTC
WSN-80	7040	W6RCP NM7M	Saturday	1600 UTC

* Weekends of major contests TCN will meet one hour later.
** During periods of adverse conditions on 7030 KHz SEN may QSY to 3535 KHz at 0030 UTC.

QRP ARCI FIRST SUNDAY QSO PARTY

UTC	CW	SSB	NOVICE
1400-1600	14.060	14.285	
1600-1700	21.060	21.385	21.110
1700-1800	28.060	28.885	28.110
1800-1900	7.040*	7.285	7.110
1900-2000	14.060	14.285	
2000-2100	21.060	21.385	21.110
2100-2200	28.060	28.885	28.110
2200-2300	7.040*	7.285	7.110
2300-0001	14.060**	14.285	
0001-0100	7.040*	7.285	7.110
0100-0300	3.560	3.985	3.710

* Many foreign countries use 7.030.
** Transcontinental Net – Join Us !

NET MANAGER

Jim Holmes, W6RCP

The pleasure of meeting and greeting our friends via the QRP nets has always been ample incentive for me to check into the nets at every opportunity. Our net managers and NCS are working hard to stimulate participation in the nets. In spite of their efforts, activity during the second quarter was 7% below the same period last year. Perhaps a little competition would add some spice. Let's try it.

A point system will be used to keep record of net activity. One point for each check–in to a regional net and two points for checking into the Transcontinental Net. The Net Managers will keep score and his or her decision will be final. In case of a tie the Net Managers will flip a coin. We will start counting January 1, 1986 and run through December 31, 1986. Net Managers will not be eligible for awards.

FIRST PRIZE: Autek Filter, QF–1A
SECOND PRIZE: MFJ Clock or 100 QRP QSL cards
THIRD PRIZE: One year subscription to QRP Quarterly

Six club members have recently qualified for the QNI – 25 award. They are:

TCN – KA4LKH, W3TS, K4KJP; NEN – KZ9H; WSN–80 – NJ7M, W6RCP.

Hootowl Sprint Soapbox

"Most of my ham friends don't know why I have an HW–7, three HW–8's, and an HW–9. What do they know! Hi!" KA2KMU

"It pays to be prepared and get right to work at the start of the test. Twenty meters, early in the contest, was great. Keep them (sprints) comming!" KK7C

QRP ARCI MEMBERSHIP APPLICATION/RENEWAL

Please use this form to renew your subscription, report change of address or call.
Send to the Secretary/Treasurer:

William K. Harding, K4AHK 10923 Carters Oak Way, Burke, Virginia 22015

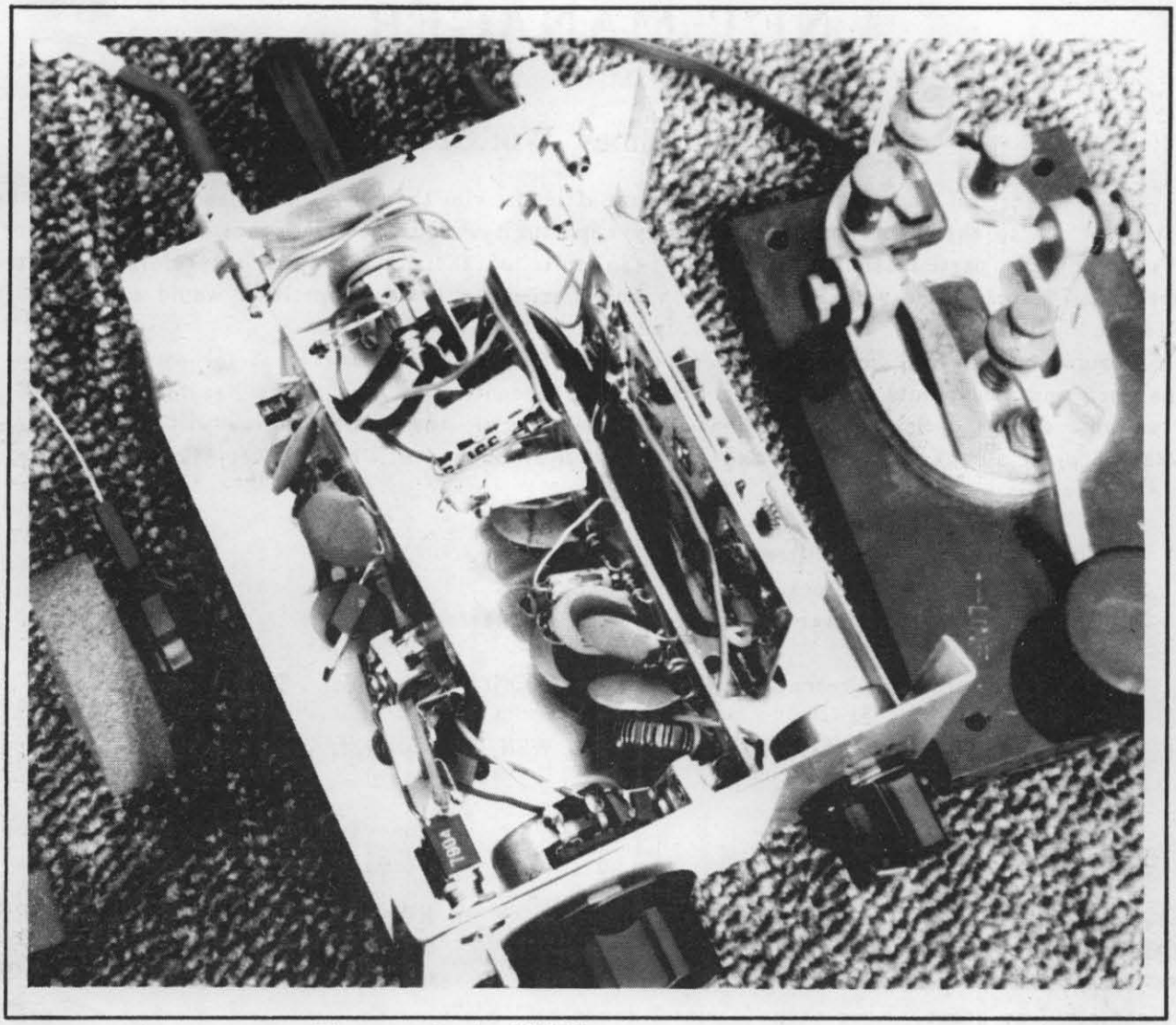
[ ] Renewal for _____ yrs. (U.S. $5, DX $6) [ ] Change of Address
[ ] New Member _____ yrs. (U.S. $6, DX $7) [ ] Change of Call – New Call _____

Amount enclosed $_____ QRP ARCI # _____ Call _____

Name: _____ Address: _____

City: _____ State: _____ Postal Code: _____ Country(if DX): _____

PLEASE MAKE YOUR CHECK OR MONEY ORDER PAYABLE TO:
QRP Amateur Radio Club, International
* * * * * PLEASE DO NOT SEND CASH * * * * *



Photographs by W3TS

Inside view of "L'il Tuff Stuff". The VFO board is on the left, the receiver board in the center and the transmitter board on the right.

See "L'il Tuff Stuff" article on page 6 for construction details.