

The Low Down

Promoting QRP Since 1994

Club

News...

The CQC Picnic - September 18th

Fun and Games picnic meeting at Daniel's Park just southwest of Denver - 11:00 am. See www.cqc.org for details and directions - See you there!

2004 Summer VHF/ UHF QSO Party

Join us on the plains, lakes, mountain tops and trails for our first ever VHF/UHF contest!!
1600 UTC August 22 through 2200 UTC August 22, 2004 (Sunday North America local time)
See Web page for the details.

CQC Logo mugs are back

Don't leave your shack without it!! Vince, our club Secretary, arm-wrestled a half dozen vendors until we got a good deal on a few dozen of these beautiful, cobalt-blue coffee mugs. Get yours while supplies last!!



Photo courtesy Marshall Emm N1FN

\$10.00 (Pick one up at our meeting or other gathering)
\$3.00 (Shipping and handling if we mail one to you...)
Order from our web site using our PayPal secure service.

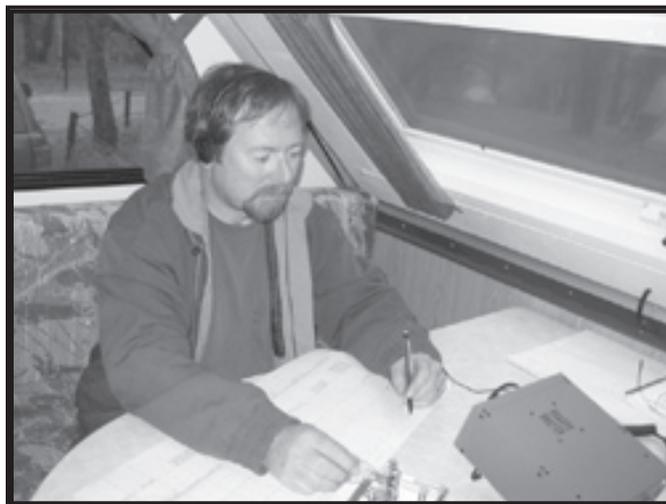


Photo courtesy Roger Wendell WB0JNR

CQC Field Day

By Vince Kumagai CQC #432

The first impression was that the Colorado QRP Club Field Day 2004 would be unremarkable. It was suggested at one point to go as a 1A entry due to the lack of response and anticipated band conditions. By Sunday morning it turned out to be the most interesting in terms of QSO count and weather. CQC ran both a Rampart station and the "Aloha" site. The Rampart site was located on Rampart Range road about 50 miles SW of Denver adjacent to the Pike National Forest at about 8500 feet in altitude. The Aloha site was located at Bear Creek Lake state park in Lakewood Colorado at the base of the foothills. The weather at the Rampart site started out warm and sunny on Friday but ran the complete course of fog, rain, hail, lightning/thunder and back to sunny. Paul Beckett, KF7MD, chairman of the Rampart site chose to operate from the comfort of his minivan with Rich High W0HEP, while Dick Schneider, AB0CD, and Frank Ivan, K0FEI chose to tough it out under the rain fly. KOMF, Mike Furgeson, had the forethought to continued on page 7.



Photo courtesy Roger Wendell WB0JNR

*AB0CD, Dick (right) and K0FEI,
Frank (left) - "Roughing it"*

For more information, visit our website at www.cqc.org

Issue 52 August/September
2004

*KOMF, Mike Fergeson,
working the K2 in com-
fort - who said FD meant
"roughing it" ?*

Inside:

CQC Contest Schedule—	2
Iambic Keying—	3
CQC Top Ten—	7
The Doctor is Destinated—	7
Editor's Coner—	8
Funny Noises—	9



Colorado QRP Club
Post Office Box 17174
Golden CO 80402-6019

The Low Down

Officers

President:	John Hewitt KA3RDZ	303-xxx-xxxx	KI0RB@ARRL.NET
Vice President:	Jim Pope KG0PP	303-366-7864	EJim@aol.com
Secretary:	Vince KUmagai KI0RB	303-341-5320	KI0RB@ARRL.NET
Treasurer:	Roger Wendell WB0JNR	303-285-3481	CQC@ROGERWENDELL.COM

Committees

Awards Chm:	Marshall Emm N1FN	303-752-3382	n1fn@mtechnologies.com
Program Chm:	Steve Finch AI0W		AI0W@ARRL.NET
Banquet Chm:	Brad Mugleston KI0OT	303-752-0138	bmug@gwl.com
QSO Party Chm:	Jim Pope KG0PP	303-366-7864	EJim@aol.com
Contest Coord:	Vince Kumagai KI0RB	303-341-5320	
Elmer Coord:	Dennis Edinger W0GD	303-421-6329	dle@chisp.net
Field Day Chm:	Paul Beckett KF7MD	303-670-5837	pbecket@qwest.com
(Rampart Site)	Al Dawkins K0FRP	303-361-0065	K0FRP@ARRL.NET
Field Day Chm:	John Hewitt KA3RDZ		
(Aloha Site)			
Hospitality Chm:	Jim Moravec N0COT	303-422-7908	N0COT@YAHOO.COM
W0CQC Trustee:	Marshall Emm N1FN	303-752-3382	n1fn@mtechnologies.com
Webmaster:	Roger Wendell WB0JNR	303-285-3481	CQC@ROGERWENDELL.COM

The Low Down

Editor Emeritus:	Rich High W0HEP	303-366-3114	rhighaurora@comcast.com
Editor at Large:	Dick Schneider AB0CD	303-758-9519	SCHNEIDERDICK@QWEST.NET
Editor:	VinceKumagai KI0RB	303-341-5320	ki0rb@arrl.net

Newsletter: Some articles in The Low Down are copyrighted. Written permission is required to reprint any article. Articles for The Low Down are encouraged. Articles must be submitted electronically in Word, Word Perfect or ASCII Text format. Email articles to LOWDOWN@CQC.ORG. Graphics or scanned photos should be in GIF, TIF, BMP or JPG format. Photos or graphics may be submitted to be scanned. Material submitted to the Low Down become the property of The Colorado QRP Club and cannot be returned. The Low Down is published bi-monthly in Feb., Apr., June, Aug., Oct. and Dec. The Low Down reserves all final decisions whether or not to publish submissions. The Colorado QRP Club does not warrant any item advertised, reviewed or described in this publication.

QRP Information Net: The Colorado QRP Club also meets on the air every Monday evening at 2000 local time on the 147.225 repeater serving the eastern slope of the Rockies from Cheyenne, WY, to Pueblo, CO, with linked repeaters in Boulder (145.46) and Colorado Springs (145.16). Backup frequency: 145.145. The Club's Denver metro simplex liaison frequency is 146.445.

Meeting Dates: 2004 Meetings: Jan. 10, Mar. 13, May 8, July 10, Sept. 11, Nov. 13 at a location to be determined. Annual Picnic: Sat. Sept 18, 2004. Annual Banquet: To Be Announced. Changes will be announced on the Monday evening Net and posted on the [WWW,CQC.ORG](http://WWW.CQC.ORG) website, if time permits.

Informal Monthly QRP Gatherings: Members meet informally at a local restaurant -- details on the web-site. **Annual Dues:** \$12.00. Join via the internet at WWW.CQC.ORG. Or, send dues and requests for membership applications to: CQC, POB 17174, Golden CO 80402-6019.

Internet: WWW.CQC.ORG. Information, membership, renewals, officers, activities, CQC Swap List and CQC-List subscriptions.

Correspondence: Editor, The Low Down POB 17174. Golden CO 80402-6019.

CQC Contests

2004 Summer VHF/UHF QSO Party

When:

1600 UTC August 22 through
2200 UTC August 22, 2004

Band/Mode:

2 m / 70 cm FM Simplex
On 2 meters, only recognized FM simplex frequencies may be used, such as 144.90 to 145.00; 146.49, .55 and .58, and 147.42, .45, .48, .51, .54 and .57 MHz. The use of 146.52, the national simplex frequency, is prohibited. The CQC "watering hole" frequency of 146.445 is allowed. As always, contest participants must be respectful of use of the frequencies by others.

On 70 cm the use of 446.000, the national simplex frequency, is prohibited. Use only the FM simplex portions of the band. Under the ARRL band plan, the portion of the 70 cm band from 445.00 to 447.00 is used for auxiliary, control links, and simplex operations. Frequencies just above and below 446.000, using 25 khz spacing may be areas where you will find simplex activity, ie, 445.900, 445.925, 445.950, 445.975, 446.025, 446.050..etc. Check your ARRL Repeater Directory for more detailed information.

RULES: Colorado QRP Club site on the web at www.cqc.org.

Iambic Keying - Debunking the Myth By Marshall Emm N1FN CQC #154

Iambic or “squeeze” keying is one of the “Great Expectations” in CW operation. Operators will agonize over a huge variety of features in electronic keyers, but support for iambic keying itself is a given. But iambic keying is really of very limited value, and it’s easy to become convinced that it was a BAD IDEA that happened to catch on.

First, Some Definitions...

Keying System A keying system is a switch or switching system used to turn a transmitter on and off. Keying systems range in complexity from simple switches (straight keys and cootie keys) through very complex electro-mechanical or electronic devices including paper tape machines, electronic keyers with paddles, and computers.

Keyer The term “keyer” is generally used to refer to an “electronic keyer,” which is a device that will generate dots or dashes depending on which of the two input switches is closed. Usually a device called a “paddle” is used for input switching (sending). The earliest keys had the same function of a bug, that is, they sent dots automatically but dashes were made by hand. The earliest keyers used vacuum tubes using the RC time constant to control the speed of the dots. In the late 1940s vacuum tube keyers with automatic dots and dashes became available. They were big, power-hungry, difficult to adjust, and expensive.

Finally, with the availability of transistors in the late 1950s, electronic keyers became readily affordable and “iambic” keyers were introduced. An iambic keyer is simply an electronic keyer that can be operated with a dual paddle (see below), and responds to a closure of both levers at the same time by sending a series of alternating dots and dashes. The term “iambic” describes the rhythm of the alternating dots and dashes. It comes from poetry, where an “iambic meter” is a rhythmical pattern of alternating stressed and unstressed syllables. For example, “twas BRILLig AND the SLITHeY TOVES did GYRE and GIMbal IN the WABE.” That line from Lewis Carroll’s Jabberwocky is actually “iambic heptameter” if anyone is counting. Poetry teachers used to vocalize this iambic meter or rhythm as “deDum deDUM deDUM” which sounds a lot like “di-dah di-dah di-dah.”

An iambic keyer will send “di-dah di-dah di-dah.” as long as both paddles are held closed (or “squeezed,” – if the dot lever is pressed a little bit before the dash lever. If the dash lever is pressed first, the keyer will send “dah-di dah-di dah-dit.”, or DUMde instead of deDUM. Those of you who didn’t sleep through English 101 will remember that the latter rhythm is called trochaic, so the “iambic keyer” could just as well be called the “trochaic keyer,” or the “iambic/trochaic keyer.” And yes, before you ask, it doesn’t matter what keying device you are using— an A is always an iamb, an N is always a trochee, and a U is absolutely an anapest!

That’s a lot more information than you need, so just remember that:

1. An electronic keyer can support the iambic sending technique, in which case it is an “Iambic Keyer.” The term Iambic has nothing to do with the paddle!
2. Iambic sending requires a dual-lever paddle.
3. An “iambic keyer” can be driven with a single-lever paddle, and a “non-iambic keyer” can be driven with a dual-lever paddle..

Paddle -- a simple horizontal (usually!) switching device used to control an electronic keyer. It can have a single lever (moved right for dots and left for dashes) or two separate levers. Usually the two levers of a “dual paddle” can be squeezed so that both sets of contacts are closed at the same time, telling the iambic keyer to send iambically. With some dual paddles the levers can be “locked together” so that only the dot OR dash contacts can be closed, making it impossible for an iambic keyer to receive a “squeeze.”

Iambic Keying -- also known as “squeeze keying,” the technique of squeezing the levers together to use the iambic features of the keyer. There are two kinds of squeeze.

True Squeeze: if both paddles are held closed, the keyer will send an alternating string of dots and dashes, starting with whichever (dot or dash) was closed first, if only by a millisecond. For example, to send a period (di-dah-di-dah-di-dah) you would squeeze the levers together, making sure that the thumb or dit lever closes slightly ahead of the dah lever, wait for the keyer to send di-dah-di-dah-di-dah, and release the squeeze.

The second type of squeeze is “character insertion” where one paddle is held closed and the other is tapped to insert the opposite element into the string. For example, to send the letter F (di-di-dah-dit) you would hold the thumb or dot lever closed, wait for the keyer to send the second dit, and “tap in” a dah without releasing the dot lever. Technically it is still a “squeeze” to the extent that both levers are closed for a brief moment, but the student usually learns these as two separate techniques for different types of characters.

What good is Iambic Keying?

It sounds like a great idea, doesn't it? Just squeeze the levers together instead of moving the levers individually back and forth. If you reduce the number of movements that your hand must make, then you are increasing the efficiency of your sending!

It's true, but only up to a point. You really should ask yourself these two questions:

How much more efficient is it?

What price do you pay to achieve that additional efficiency?

It's elementary cost/benefit analysis, but the answers might surprise you.

How much more efficient is it? Not very much.

What price do you pay? Too much.

This is fact, not theory, common wisdom, or the author's opinion! The presumed benefit of iambic keying is that it is more efficient. Fewer movements of the hand are required in order to generate any given piece of Morse code text. Fewer hand movements result in reduced strain on the muscles of the hand and hence easier, more comfortable operation of the keying system. Here's where we get to question one above— how much more efficient is it?

Chuck Adams, K7QO, has done an exhaustive analysis of the keystrokes (hand motions) required to generate code using each of the common devices. You can read his complete tutorial on sending code at <http://www.qsl.net/k7qo/sending.html> . Chuck counted the keystrokes needed to generate the 26 letters of the alphabet and the ten numbers from zero through nine. In the table of his results below please note that Non-iambic Electronic Keyer includes an iambic keyer used with a single lever paddle or otherwise without using the iambic features, and Iambic Electronic Keyer is used with dual lever paddles.

Device	Keystrokes
Straight Key	132
Semi-automatic Bug	87
Non-iambic Electronic Keyer	73
Iambic Electronic Keyer	65

There is a HUGE improvement in going from a straight key to a bug-- and in addition to the reduction of keystrokes the change from vertical to horizontal keying motion went a long way toward relieving “glass fist” as carpal tunnel syndrome was known in the trade. The keystroke count has been reduced by an amazing 34.1%.

There is a SUBSTANTIAL improvement in going from a bug to a non-iambic keyer, again with a side benefit of a fairly light touch on an electric paddle compared with the effort to move a lever attached to a pendulum. The keystroke count has been reduced by a noticeable and beneficial 16.1%

There is a SLIGHT improvement in going from a non-iambic keyer to an iambic one, but no other benefit. On Chuck's numbers, you will use 10.9% fewer keystrokes. Rounding it up, moving from non-iambic to iambic keying will give you an 11% improvement in efficiency.

Or will it?

Looking at these numbers alone is dangerously misleading, unless you are in the habit of sending the entire alphabet and numbers all the time. What you will actually be sending on the air is a variant of “plain English text” in which some letters are sent more often than others. Consider:

1. The benefit of iambic keying is seen only in some of the longer letters and specifically those with alternating dots and dashes.
2. The Morse code was deliberately designed (by Vail, but that’s another story) so that the more common letters are shorter.

Put it another way, Morse code is already optimized for efficiency and the advantages of iambic keying are available only on letters that are less commonly used in plain English text. Referring back to Chuck’s work, here are the letters which can be squeezed, or which offer some reduction in keystrokes when sent iambically:

C, F, K, L, Y, Q, R

There is a standard reference of cryptographers and typesetters called the “frequency table” or “letter distribution table.” This is a table that shows how frequently each letter occurs in ordinary text (there are specialized frequency tables for specialized forms of text, where a different pattern is evident, such as scientific English). Almost all of the tables for English agree through the first four or five letters, E, T, A, O, I, N. The most commonly known frequency table is that used by typesetters, and it begins ETAOINSHRDLU which not coincidentally is the first line of keys on a Linotype machine

Frequency list: E,T,A,O,I,N,S,H,R,D,L,U

Squeezeable letters:

L.....C,F,K,Y,Q,R

A quick inspection shows that ONE of the letters which can be squeezed can be found in the list of the TWELVE most common letters in English. It follows that in plain English text the increased efficiency derived from squeeze keying is much less than the 11% calculated above!

Of course a CW QSO is a variant of “plain English” and its frequency table is substantially different. It is true that we send the letters CQ a lot (unless we push a button on a memory keyer). We use Q codes, and callsigns are more or less random selections of characters. But the bottom line is that the additional benefit of squeeze keying is considerably less than is commonly thought. It should be possible to derive an appropriate frequency table for QSO text, and work out the actual numbers, but my educated guess would be that the actual efficiency improvement that can be gained with iambic keying is on the order of 4 to 6 percent. The longer the QSO, the more “plain English” you will send, and the lower the efficiency difference!

Let’s use 5% as our benchmark because it is a nice round number that it easy to think about.

How much is Five Percent?

It’s a lot, if you are talking about the price of groceries or gasoline. After all, we’ll drive across town to save 5 cents a gallon on gas, and that might be only TWO percent savings.

It’s not much, if you’re talking about the level of water in your bathtub. Even if you could measure it accurately, you aren’t likely to notice it.

Electronic keying is more like bathwater– you can’t see a 5% change in the level of water in your bathtub unless you are really looking for it. You might aim to fill the tub to the same level every time, but you will be very lucky to get within 5%, and you probably don’t care. Similarly, there is so little effort involved in operating a paddle that you won’t notice an increase or decrease of 5%. How often do send code with a paddle for long enough that your hand gets tired? Of those cases, how often would a 5% difference in the number of keystrokes make a noticeable difference in how tired your hand is?

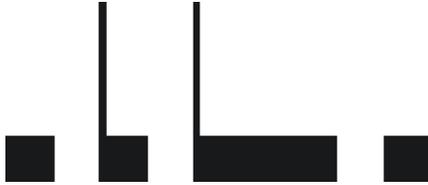
And What’s the Cost?

If you reduce your bathwater by 5% it doesn’t cost you anything apart from remembering to turn the tap off a few seconds sooner. So in this respect, our 5% efficiency gain is more like a 5 cent per gallon savings on gas. If you thought it through, you might realize that it is going to take you half an hour to get to the cheaper gas station and back, during which you are going to burn probably half a gallon of gas, and if you buy 20 gallons of gas you will end up with a total “savings” of a dollar or less. If you force yourself to squeeze every possible character, you will expend more time and effort in learning to do that, than any possible efficiency savings.

It is difficult to learn squeeze keying, and many CW operators give up on it, or use it only on a few characters.

The iambic keyer uses a “timing cycle” to determine what to do and when. There are timing “gates” during which a squeeze is recognized, or during which a dot can be inserted into a string of dashes, etc. The duration of these “gates” is directly related to the sending speed. The faster you go, the narrower the gates are and the more precision you will need in order to place a keystroke exactly where it needs to be. In fact, at very high speeds the gates are so close together that it becomes almost impossible to hit them reliably.

Here’s an illustration of the keystrokes used in sending the letter F.



There are at least three different ways you can send the letter F with a dual paddle and an iambic keyer– (1) with an individual paddle press for each dit and dah, (2) by holding the dit paddle in for the first two dits and then sending the remaining dah and dit individually, (3) “squeezing,” by holding the dit paddle closed and “inserting” the dah between the last two dits. Only method 3 is ‘iambic’ keying, and lets look at what’s involved.

The vertical lines at the beginning of the second dit and the dah represent the “timing gate” during which you can initiate a squeeze (close the dah paddle) to trigger the dash insertion.

For the record, the diagram uses “Curtis Mode B” timing; but more about that later.

For the sake of argument, let’s say that the chart is “calibrated” for a speed of five words per minute. At that speed you can hear what is being sent as easily as you can see the markings in the drawing.

At five words per minute the duration of a single dit and the following space is approximately half a second.

At twenty words per minute, the duration of the dit and the following space is approximately a tenth of a second.

At forty words per minute, the duration of the dit and following space is approximately 60 milliseconds.

In practice, anybody who can send at 5 wpm with a paddle can “squeeze key” effectively. At 20wpm it takes a lot of practice and some people just can’t do it. Above 40wpm the more complicated squeezes are forgotten about, even by operators who “squeeze” everything at slower speeds.

Looking at the timing diagram again, let’s compress the horizontal time axis and see what 50wpm looks like:



In practice, it is as hard to hit those gates with keystrokes as it is to see them in the drawing.

At higher speeds most operators who routinely use squeeze keying will shift to non-iambic keying. In fact, most high speed European operators prefer single lever paddles, non-iambic keyers, or dual paddles with a piece of cardboard jammed between the levers to keep them from squeezing!

Proof of the pudding-- get a good single lever paddle and see what you can do with it! Seriously, if you set up a dual paddle next to a single lever paddle, you are going to find that you can reliably send the letter F (and other squeezable letters) much faster with the single than a squeeze. There’s another ergonomic factor involved here-- with a dual paddle, in order to generate a “squeeze” you must move your thumb and your fingers independently and very precisely. With a single lever (or a dual that you are not squeezing) you can hold your thumb and fingers still, touching the lever(s), and rock your hand back and forth on the heel of your palm. That particular motion uses the large, strong

Continued on page 8

CQC TOP TEN...

...Signs you might be using more power than you need

10. The power company sends you flowers every month.
9. The streetlight out front goes brown every time you hit the key.
8. You threw some stale bread out for the birds, and it's turned into toast.
7. Your antenna is melting.
6. Your station monitor is your TV. And your phone, and your stereo, and your electric toothbrush.
5. The guy with the CA KW on the other side of town says he can barely hear you (he only works stations that are S9+30dB or more).
4. The neighbors keep asking about that purple halo over your house.
3. You can trigger all the repeaters in a 50 mile radius— at the same time, while transmitting on 20M.
2. The FCC wants you to testify in favor of BPL.

And the Number 1 Sign you might be using more power than you need...

Your RST includes S9 plus anything.

FD continued from page 1

bring his pop up trailer much to the envy of everyone was able to remain warm and dry. Rampart was able to run one tower and several dipoles strung in various directions. John Hewitt, KA4RDZ, and Daniel Hazen, N0BN, ran the Aloha site from the comfort of a yurt at the camp grounds. I was able to visit the site on Sunday morning. Had I known the difference in conditions I would have opted for the yurt over operating out of the back of my SUV. Oh well there's always next year. The Aloha site ran using John's FT-748, a FT-817, and a Ranger AT2970 on a folded dipole with good results. The following totals were reported: total CW QSOs **28**, total Digital total Phone QSOs **6**, total QSO Points **86**, Claimed Score **430 plus** 600 bonus points – Total Score 1030 submitted to ARRL. The story at Rampart was quite different this year with possibly a new record QSO count. Six different operators tallied these results: Total CW/PSK QSO = 1,257, Total SSB QSO = 273, Total QSO Points = 13,935, Bonus Points = 500 - Total Score = 14, 435 submitted to ARRL.



The Doctor is Destinated

Questions & Answers for the New Ham.

Q. Can you explain the difference between capacitive reactance and inductive reactance?

A. Yes.

Q. Is it true that prolonged exposure to electromagnetic fields at radio frequencies can cause brain damage?

A. It's hard to say. There is conflicting evidence, but generally the Doctor would say no, on the basis that in almost all documented cases of brain damage after exposure to RF, there was evidence of brain damage before the exposure. Besides, the President and the FCC would not support BPL if it were harmful.

Q. Is it true that QRP is more than just a three letter acronym?

A. You bet. QRP is a way of life. You could even call it a philosophy, and once you have set foot upon the QRP Road you will see that the underlying principles can be applied to just about any aspect of life on Earth. Note that QRP has three letters, and ZEN has three letters. Coincidence? The Doctor thinks not..

Dr. QRP (pronounced DOCK-ter QRP) will answer questions on a wide variety of topics, except computers. If you don't get an answer right away you can be sure the Dr. will reply as soon as he gets destinated.



Photo courtesy Roger Wendell WB0JNR

Paul Beckett, KF7MD Deep into CW

Iambic Keying from page 6

muscles of the forearm, and it is also a very useful technique for operators who have arthritis or wrist problems.

It would be remiss of me not to add that the dual lever paddle can offer a couple of slight advantages over a single lever paddle, even if the keyer is set for non-iambic operation. First, on many dual lever paddles the spring tension can be set independently for each of the two levers. This is of some advantage where the operator is making the transition from a bug to a paddle because the dit lever movement on a bug is usually a good bit heavier than the dah lever movement. Generally speaking, though, the tension should be equal on both sides, and with a less-precisely made paddle it is often necessary to use spring tension to compensate for a difference in the pivot bearings. In very high speed operation you get some advantage from the fact that one lever can start its motion before the other has returned to the resting position, but this will only be relevant if you are moving your thumb and fingers separately. .

The Myth Exposed

The idea that iambic keying is more efficient has been around for a long time, and few operators ever question it, even if they are having trouble doing it. They might blame themselves, or the paddle, and it stops being fun. At first it does seem to have a certain “cool” factor, and no doubt that’s why it was invented to start with. Some computer programmer looked at an electronic keyer, realized that he was looking at logic states (dot is on or off, dash is on or off) and decided to fill in the rest of the truth table– he was using “either a or b,” and he was using “neither a nor b” but he wasn’t doing anything with “both a and b.” In other words there was a third “switch” that wasn’t being used. Not a bad idea on the face of it, and we’ve been paying the price ever since.

Iambic keying became all the rage, and manufacturers got to make a bunch of new-fangled dual paddles. Somewhere in there electronic keyer designers decided to offer “refinements” of the basic principles, giving everybody Iambic A vs Iambic B to argue about, and distracting them from any consideration of whether Iambic Anything was worth bothering with. It’s like saying the emperor has no clothes, but I’ll say it anyhow– iambic keying is clever, and fun, but of very little practical value. Worse, it can impose a speed limit on your sending, and ruin another perfectly good amateur radio myth– the widely accepted notion that anyone can send twice as fast as he can receive. But let’s talk about that one another time.....

Editor’s Corner by Vince Kumagai KI0RB

Welcome to my first issue of the Low Down as the new editor. At the CQC elections in May I requested the post of Editor and was granted the appointment, CQC does not elect the Low Editor. I have been spending the intervening time learning the composition process and the software that CQC uses to build and publish. First order of business is to tell you I am not a writer by trade but I found during my time as CQC President that the real value of the club was the flow of ideas and information between the members. It was for that reason that I wanted to get involved with the Low Down. My promise to you is that I will work hard to produce a quality publication of interest to the QRP Ham community. What I expect from the readers and members is a donation of your ideas and stories. The Low Down exists for YOU. You like to read the stories and articles or the membership would be dying out. It’s NOT. In fact we enjoy a core of old members and a constant stream of new members. This leads me to conclude that we must share our thoughts and experiences in QRP with each other. That is why we ask for short stories, pictures and essays on YOUR ham experiences. These stories need not be long, in fact we are limited to the size of the publication for cost reasons.

Which brings me to my next topic and that is the production and delivery of the Low Down. I wouldn’t harp or plead on the subject but printing and mailing cost have gone up. Sorry, I know you’re hearing this everywhere these days. We have the choice of increasing the dues or reducing the production cost. The choice we are making is to reduce the production costs and we will do this by moving to an electronic format. We would like to begin by delivering the next Low Down as a PDF file via e-mail. We understand that not all of our members are internet capable and so this will phased in over time by reducing mailed copies and increasing “soft” copies. The benefit of this change is that we can then increase the content of the Low Down without the added printing and postage charges. You will still be able to print a hard copy and the quality of the graphics and photos will be increased. We are working on the delivery plan for the first “soft” issue. We would like to e-mail the first issue to members who have provided us with an e-mail address. We will then try to move to a “self-server” distribution off the CQC web site where members can get the PDF at their leisure via a secure server, archives will also be available. I will attempt to harvest e-mail addresses for members from QRZ but if you would like please send us an e-mail to lowdown@cqc.org with your callsign, member number and current e-mail address.

That is the Low Down for now stay tuned for further developments.....

73,

Vince - KI0RB

Funny Noises

Two of my favorite events in Amateur Radio are Field Day and the QRP Fox Hunts. Both events are challenging, educational, and a whole lot of fun. Field Day is a more or less public opportunity to demonstrate what a ham can do under emergency situations, with limited equipment and often uncomfortable working conditions. The QRP Fox Hunts are an opportunity to exercise every last bit of operating skill that you possess, in the comfort of your own shack. If you are lucky enough to serve as a fox, you also get to learn how to handle a big-time pile-up, just like the DXpeditions do!

Sometimes other commitments get in the way of our hobbies, and I was traveling in Europe with my family during the 2004 Field Day, the first Field Day I've missed in my 24 year amateur radio career! But my disappointment at breaking a personal tradition was tempered a bit by the fact that I was scheduled to be The Fox on July 15th. What I didn't know was that through a bizarre set of circumstances, I was going to be able to enjoy the best of BOTH events-- by running my own personal mini-Field Day during the Fox Hunt!

The Summer Fox Hunts take place on 20M, at 0100-0259Z Thursday evenings, and normally the fox just sits there and works all comers for two hours. But sometimes it isn't that easy. Here's a commented synopsis of my log for the Hunt on July 15th, which didn't go quite according to plan....

0100-0128 Normal fox hunt, albeit with very high noise

level due to thunderstorms in the area and poor propagation. The noise level was fluctuating between S5-S7. I'm using the FT-920 with narrow filter and DSP NR/bandpass, to the Force-12 C4 antenna, which should do a lot of noise reduction on its own through its directionality. Still, the pileup does not seem as dense as usual, and I guess I'm only hearing the strongest third of the hounds who are calling me.

0129 The power goes off while I am sending to N0JRN. Shouldn't be a problem, because I have a Plan B: about 120AH of backup battery power which is available at the flip of a switch. But the batteries are dead. OK, run upstairs to get a flashlight, back down to crawl under the table and see if maybe the problem is in the home-brew charger/controller, which I can easily bypass. Nope-- a faulty charger might have CAUSED the problem, because the batteries are dead flat, and bypassing the charger won't do anything for me. Right, find my little transparent kit telephone whose only virtue is that it doesn't need mains power, and call the power company to see if they have an estimate for when the AC will be back, and they do-- 0530Z or about 2-1/2 hours after the end of the fox hunt. Thinking about giving up and maybe asking for a re-run later, but I'd hate to have wasted everybody's time, and besides, this is a CHALLENGE, dammit. Time for Plan C.

Plan C is simple in theory-- back the car out of the garage into the driveway and continue "mobile." One problem-- my ATAS100 antenna is missing its whip, which got stolen while the car was parked downtown. I had

been dragging my feet because this was the second time that had happened. Well, it's just a 36" piece of stiff wire, maybe I can come up with a q&d replacement. Need to open the garage door for some light, but the button doesn't do anything. Duh. OK, hop in the car and try the remote, which is battery operated.... double DUH. Mildly embarrassing to relate that, but evidence of how focused I was. Got the garage door open and stripped out a piece of 14ga wire from a piece of electrical cable. It fits-- car out of the garage, windows open, hit the tune button and voila!

0210 I'm back on the air, but signing /M and with a far inferior antenna and receiver. Figure I better operate simplex because the FT100D will do split but I don't have time to figure out exactly how. Also sent it all by hand because I didn't think I had time to figure out how to program the keyer. Oddly, the log says I still managed to run about a Q a minute.

0231 I see the motion sensor security lights come on in front of the garage. Hmm... wonder if my little 5W of RF set them off. Duh! The power is back on! Finish up this QSO, close up the car and get back to the basement and back into action-- without the /M

0236 back on the air for the last 25 minutes or so. Rough count has 65 Q's in the log, the last of which was a surprising UU4JM. And boy am I glad I decided not to do my logging on the computer! It would take me a couple days to get around to typing up and publishing the log, but at least there IS one!

The actual final count was 70

QSOs, which is a respectable score for a 20M Fox Hunt. Have to say, this was the most interesting fox hunt I've ever done, and in retrospect the most fun-- I got to exercise ALL my skills, and I learned a thing or two, and it was almost enough to make up for missing Field Day.

Editor's note: CQC is a sponsor of the QRP Fox Hunts, and complete details including rules and schedule, can be found at <http://www.CQC.org/fox>.



Photo courtesy Roger Wendell WB0JNR

N0BN, Daniel (left) and KA3RDZ, John (right). The Aloha site QTH.

The Low Down

Colorado QRP Club
Post Office Box 17174
Golden CO 80402-6019

Forwarding and Address Correction Requested

First Class Mail



Colorado QRP Club

The CQC PICNIC

11 a.m.

Saturday, Sept. 18, 2004

(Location)

Dianel's Park Picnic Shelter

Douglas County

SEE CQC.ORG FOR MAP

PROGRAM

Run for the Tree(s) contest, Left Foot Key Contest, Ham Trivia

BYO Picnic and join in some QRP fun

The Low Down



Photo courtesy Roger Wendell WB0JNR

**WØCQC 2004 Field Day Team
Rampart Range Site**

*The modest sign belies the outstanding performance
from the Rampart Range Crew*