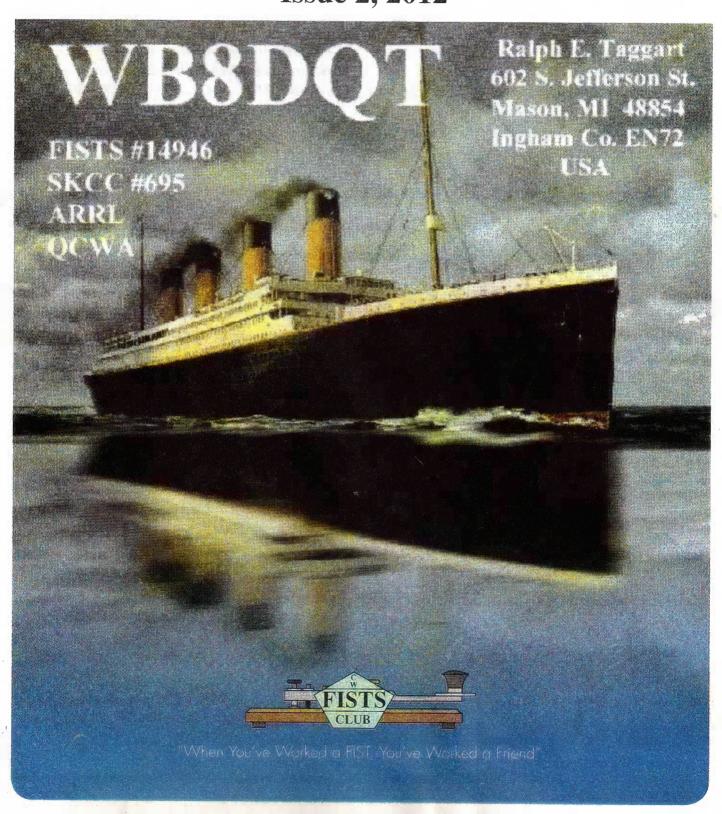
THE KEYNOTE Newsletter of FISTS CW Club - The International Morse Preservation Society Issue 2, 2012





INFORMATION PAGE

When you have a question about FISTS, go to the source for the correct answer.

Posting a question on a chat room or email reflector may result in a lot of opinions, but your best bet is to ask a FISTS volunteer or look in the reference issue.

Please put the word 'FISTS' somewhere in the title of your email.

This will help the volunteer recognize that your email is important and not spam.

For questions about:

Awards and Certificates contact

Dennis Franklin, K6DF, fistsawards@gmail.com 4658 CAPITAN DR, Fremont CA 94536

The QSL Bureau contact

Stan Reas, K4UK, k4uk@rev.net 1020 LONG ISLAND DR, Moneta VA 24121-1952

Our club call KNØWCW contact

Karl Zuege, KB1DSB, hmc.ret.karl@myfairpoint.net: 2176 DRAKE RD, Bomoseen VT 05732

The membership roster, call changes, name changes contact

Ed Hayes, N7CFA, n7cfa@comcast.net 2628 LILAC ST, Longview WA 98632-3525

To get an application or sample Keynote sent to a friend contact

Jim Ranieri, AA9LS, aa9ls@turbotoads.com 33778 REBECCA RD, Kingston IL 60145

Web page changes, getting your personal or club webpage linked, etc contact

Webmaster Dennis Franklin, K6DF, fistsawards@gmail.com

Club presentation packets contact

Joe Spencer, KK5NA, kk5na@kk5na.com 3618 MONTRIDGE CT, Arlington TX 76016

Code Buddy volunteers and buddies contact

Nick Yokanovich, K3NY, & The Historical Electronics Museum Amateur Radio Club, k3ny@cablespeed.com

108 BRENT RD. Arnold MD 21012

Sprints contact

Gil Woodside, 30 Hilltop Ave, West Warwick RI 02893-2825; wallad@cox.net

Get Your Feet Wet Weekend /G3ZQS Memorial Straight Key Contest contact

Lee Hallin, N7NU, hallinl@lanecc.edu 3413 WALTON LN, Eugene OR 97408

Ordering supplies: Irene Kott, WØ8E

44609 North Bunker Hill Dr, Clinton Twp MI 48038 or paypal to fists@tir.com.

Irene has no email capability. Some shirt sizes are sold out — check web page or email Nancy, WZ8C at nancy@tir.com.

All other questions, callsign/email/ postal address changes, (NO we do not get this info directly from the FCC!) renewal dates, membership questions and MOST IMPORTANTLY — articles for the Keynote, contact Nancy WZ8C, nancy@tir.com; PO Box 47, Hadley MI 48440, phone 810-797-2033, fax 810-797-5808.

Please check your label for your renewal month/year — dues are \$15/year. and include award certificates, newsletter and use of the QSL bureau.

l www.fists.org Issue 2, 2012

FISTS CW CLUB

The International Morse Preservation Society



"When You've Worked a FIST, You've Worked a Friend"

North American Memo • Issue 2, 2012

Editor: Nancy Kott WZ8C • PO Box 47, Hadley MI 48440

Email: nancy@tir.com • Phone: 810-797-2033 (leave message if no answer)

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Hi FISTS.

Thanks so much for replying to my plea to help fill the Keynote! It is so hard to come up with 24 pages (minimum) that it can make it a long time between Keynotes. I now have enough for another issue, too, so if your article or story didn't make it into this issue, look for it in the next one. And please keep 'em coming! We can't do it without you.

Just about any format is fine, but the photos need to be separate from the document (not embedded) because they don't always fit in the same place as they were placed in the document, and I can do a "save as" but it often makes them smaller and not as good quality. Jpgs work best. Or send the photo and I can scan it and send it back to you.

It's Hamvention time and we have a new booth. It's NH136 and should give us more room to sit and visit and handle the crowds that gather around the booth. The guys who have the 2 booths next to us on the ramp, Timewave/HRDLLC, wanted to expand so they paid for the new location. If we don't like it, we can move back next year. I'm looking forward to a change of scene!

Webmaster Bill KK4KF has been wanting to step down from his webmaster tasks for a while now, and I've been guilting him into staying...but when Dennis K6DF came forward and offered to do it, I took him up on it. I'd like to sincerely thank Bill for his at least 10 years of service to FISTS. He was our original webmaster and I've lost track of how many years it's been. Check out the web page to see the changes and contact Dennis at fistsawards@gmail.com with suggestions or comments. Let us know what you think!

Keep those cards, letters and renewals coming, 73 33 88 Nancy WZ8C nancy@tir.com 810-797-2033.



WELCOME TO THE NEW FISTS

Member Number	Callsign	First	ST	Member Number	Callsign	First	ST
15703	W4SOG	BOB	FL	15714	W3HI	JOHN	wv
15704	N0GRM	PETER	MN	15715	K3DTC	DOMENIC	PA
15705	К7НЈ	WILLIAM	NV	15716	NU8Z	MARK	MI
15706	N4CCB	CLIFF	TN	15717	KD8AZO	DAVE	ОН
15707	К9НХО	BILL	MI	15718	K5HYL	ROY	TX
15708	K9MIT	CHIP	IN	15719	K9CAD	CATHY	WI
15709	WB6SEL	VIC	CA	15720	K1AUB	BILL	MA
15710	KC9VHM	FRANCIS	IN	15721	KB1WMR	ETHAN	MA
15711	W5SL	JULIAN	TX	15722	WP3Y	LEO	PR
15712	W1SFR	STEVE	VT	15723	W7MTY	VERN	WA
15713	N7ELB	ЛМ	OR			(continued	on next page)

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Member Number	Callsign	First	ST	Member Number	Callsign	First	ST
15724	WAOYEI	russ	TX	15731	KK4BOB	JOHN	FL
15725	AC9BQ	MATT	IL	15732	W2TAC	BOB	NY
15726	WD0EBZ	VIC	CO	15733	KF4HEV	BEN	VA
15727	N0CVB	RANGER	CA	15734	WB0PEO	WAYNE	NE
15728	W2DAB	DAVE	NY	15735	AK4AQ	CHARLES	GA
15729	KC7HOF	DENNIS	WA	15736	W2RJD	BOB	NY
15730	KB1UG	TOM		15737	W3DKV	PETE	PA

FISTS AWARDS

by Dennis Franklin K6DF, Awards Manager

ooks like the activity is pickming up a little on the FISTS frequencies. The number of awards issued are starting to increase.

CONGRATULATIONS to Ian Jones G4MLW for being the first FISTS Member to obtain the new 25th Anniversary Prefix Awards Version One and Two!!! Ian did it within the first two months of this year! Now that's a lot of operating!

Not much more to report in the way of awards activity. I might suggest that you look over the Awards page on the FISTS web site as I have made a few changes there. The rules for the 25th Anniversary Awards are detailed there.

The only other item worth mentioning is that we believe we have the mail problems fixed with the fists org e-mail addresses. Soooo ... if you would now like to use the fistsawards@fists.org e-mail address you may do so. I believe it will work OK now. It might be easier to remember but if not you can continue to use the fistsawards@

gmail.com as I check that one daily as well.

You may use the following e-mail address, (fistsawards@gmail.com) for sending in your award logs. Excel, Word, Open Office, and Text files are the only file types accepted. Please read the e-mail log rules on the FISTS web site for details.

Send in complete logs for awards. That means all of the following information; Call, Date of QSO, Band, FISTS Nr., Point/s claimed for each QSO, Incomplete logs will

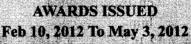
delay receiving your award.

Check the FISTS Web Page for additional information regarding current FISTS awards and how to apply for them:

http://www.fists.org/awards.html
If you have any questions about
the awards that are not answered
on the FISTS awards web page,
feel free to e-mail your questions
to me at... fistsawards@gmail.com

— Keep banging the brass . . . I will C U on the bands . . .

73, Dennis K6DF



On Feb 28th, Ian Jones G4MLW, sent in his qualifying logs for the New PREFIX Awards Version One and Two.

CONGRATULATIONS Ian G4MLW for being FIRST to get the new 25th Anniversary Prefix Awards!

Century VK	.4TJF Platin	um ABOBM :	2 Million	AB0BM
an application of	FDM	WAS	10 Page 10 Pag	G4MLW
	BETR	KF0K ·		KF0K
	OOTT Millio	naire AB0BM	3 Million	WUIE
			4 Million	WB6SZZ
	IOBM	RCC	16 Million	K4UK
Gi	ZOD	WB6SZZ	19, 20, 21, 22, 23, 24 Million	KOLUW
Diamond K0	LUW	NANFA NU7T	17, 20, 21, 22, 23, 24 MIIIIOII	KULUW

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QRP WITH K3WWP — COLUMN #94

by John Shannon, K3WWP

his is an update of material that I first used here in this column some 6 years ago. The material is still applicable today. In fact perhaps even more so as a lot of hams venture into CW these days with no one to guide them in the proper use of this wonderful mode.

This column looks at what you can do to be more successful with QRP (QRO as well). Just read each question and answer honestly. Then explore the explanation and make any necessary adjustments you feel necessary to your station and/or yourself.

1. Are your CQs short and to the point? The best CQ pattern is a simple 3X2 with breaks of 4 or 5 seconds to listen for an answer. For example CQ CQ CQ DE K3WWP K3WWP K, listen for 4 seconds. If you don't get an answer, repeat the sequence until you do or until you get tired and go fishing or do something else. Please never call endless CQs before sending your call. How often have you heard someone send a string of 10, 15, or even more COs without identifying himself? Doesn't that turn you off? It does me, and I tune away from that person very quickly. Remember short CQs with frequent breaks to listen for answers are the best way to go about getting a lot of OSOs with your QRP (or QRO) station. Oh, and be sure to tune your RIT up and down a few hundred Hertz to find those stations that are zero-beat challenged. Probably half the stations who answer my CQs are not zero-beat - some not even that close.

2. Is your Morse as near to perfect as possible? The DX stations themselves say it's much easier to copy a weak station whose sending is perfect than a strong station who is sending a conglomeration of dots and dashes that only occasionally form letters. Strive for perfection in your sending. Listen to W1AW or other 'machine sent' perfect code and strive to emulate it when you send CW. I'm sure you've all been forced to try to figure out if that was a Q or the letters MA, etc. As I write this, I just finished listening to someone calling KWA KWA KWA DE xxxxx. I assume he was trying unsuccessfully to send CQ. Another thing — please keep those extra dots under control. If you're stuck with a call having H, 5, 6, S, etc., be sure you're sending the right number of dots in each letter. The problem also happens with dashes but not as often. It's very unprofessional to send 6, 7, or 8 dots when trying to send a 5. Now we all do it once in a while as mistakes are a part of human nature, but it becomes a habit with some hams to send sloppy code.

3. Is your keying free from chirp,

clicks, and drift? The same thing applies here as to sending perfect Morse. It's much easier to copy a signal that is clean and crisp than one that sounds like a canary singing or a cricket chirping. Make it a point to periodically check your signal on the air either by exchanging stations with a ham friend so you can hear your own signals, or having someone you can work who will honestly tell you if your signal is not up to par. If you have a separate transmitter and receiver, it's easy to check yourself. I used to always know just how my signal sounded before I got my new transceiver. Now all I ever hear is how the sidetone generator in the transceiver sounds.

4. Is all (or as much as possible) of your RF being radiated up to the ionosphere? When you are dealing with such a small amount of RF to start with, it is important to waste as little of it as possible heating up your feedline or any of the many other ways it can be wasted. If you use a single band antenna, be sure it is resonant as close as possible to the frequency you use the most. If you use a single antenna on several different bands, use some sort of matching network to get an SWR as



close to 1:1 as possible.

I hear many stations running 100W or more who are much weaker than they should be, and I'm sure there is a mismatch somewhere in their antenna systems I know QRP works great even with simple antennas if you're just sure those antennas are doing their job.

5. Do you use proper procedures in your operating? This covers a multitude of things. I'll just mention a few here. If you DX, be sure to listen to the DX station before jumping in and calling. Find out his pattern. Some stations finish each QSO with their call; others send simply dit dit. Learn what the station you're trying to work is doing before you jump in. Also be sure where he is listening. If he ends with UP, UP 1, etc., never call him on his own frequency. Call 1 (2,3, whatever) kHz higher than his frequency.

Often times the station won't say UP, and then it's up to you to figure out what he is doing with some careful listening. If he's very rare with no pileup on top of him, then it's virtually certain he is working split frequency. Search for the pileup a kHz or two higher in frequency. Otherwise don't do things like ending your CQs with KN, don't call someone at the end of a QSO if they have sent CL. Learn all the procedure signals and what they mean, then use them only in the correct way. A good place to learn is on my web site at http://home.windstream. net/johnshan/. When there, check out a lot of things pertaining to CW and QRP. The specific page for CW procedure is found via the CW link in the left column. That section also contains a wealth of info about Q signals, abbreviations, and the like.

6. If you are calling CQ at 30 WPM, and someone answers you hesitatingly at 20 WPM, do you slow down to answer him? This is a rough one, but generally it is best to match your sending speed to that of the station you are working. There are cases where someone can copy 50 WPM, but just can't send faster than 20 WPM. So as I said this is a hard one to be definite about. However, never answer someone's CQ faster than the speed at which they are sending unless you know them and know they can copy faster.

7. Do you zero beat a station each time you call someone? This is very important, so learn how to zero beat someone with your rig if you don't already know. If the station you're working is running 400 watts, and you call him 500 Hz higher in frequency, it is quite possible that another station will not hear you and jump right on top of you. However if you are on the exact frequency of the 400-watt station, you can pretty much be sure that he will keep the frequency clear for both of you. Even more important, when you zero beat someone exactly; the two of you are only using one frequency instead of two leaving that much more room for other stations.

Finally, if you call off frequency, you are less likely to be heard. The station you are calling will almost always start off listening on his own frequency (except for some DX operations as mentioned previously), and if someone else is zero beat and you are not, guess who is going to get the QSO.

There are many other things that you can do to be successful with QRP. I'd appreciate hearing any suggestions you have. One thing that many ORPers do is to sign / ORP at the end of their calls. I've made around 55,000 QRP QSOs, worked 212 countries, all states many times over, and all continents many times over in the past 19 years or so and have never done that, so... Finally if you operate QRP/CW, and are not a member of the biggest ORP/CW club, the North American QRP CW Club (NAQCC) - Why not? Membership is FREE.

Come on and join over 6,000 members who love to operate QRP, occasionally, full-time or anything in-between. The NAQCC is the perfect complement to FISTS, and the two clubs work together beautifully to promote CW use – FISTS at all power levels and the NAQCC at 5 watts or less. Join at our web site.

The URL is just below here. Contact me in any of 3 ways: John Shannon, 478 E. High St., Kittanning, PA 16201-1304 - home.windstream.net/johnshan or johnshan@windstream.net. Visit our NAQCC site at naqcc.info/73.-30-

l www.fists.org



ON THE AIR

By SAP, NØSAP

mateur Radio is a fun hobby to do some weird experimental things with radio. Every year our trip to Dayton has some off the wall thing to do with radio and this year is no different. This year Amateur Radio Operators Al Gallo WØERE (FISTS # 13318) and David Beckler, aka "SAP" NØSAP (FISTS # 11731) will be operating a 30 Meter Mobile Beacon on 10.129.50. We think this is the first time anyone has attempted a mobile beacon that will give update information with grid squares.

Our trip begins on Thursday, May 17th at approximately 1300 hrs UTC or eight o'clock AM CDST. The rig will be a Yaesu FT-817 running 2.5 watts with a quarter wave trailing wire as we drive to and from Dayton, Ohio. The message will be WØERE/M/B, the MB is for Mobile Beacon, and then the current grid current square, 2-5 W. On our return trip, Monday the 21st, we will be on the air at the same time of 1300 hrs until we reach the QTH of NØSAP in Nixa, MO.

We look forward to having reports on the beacon from your location on SSB at 7.265 and/or 14.265. You can also send us email reports to n0sap@yahoo.com and audio files as we travel to and from Dayton, Ohio.



Set-up for the 30 meter beacon station.

his is an early photo of Ike, N3IK taken on Armed Forces Day of 1956. He is operating one of the CW stations using a BC-610 and Hallicrafters SX-88. From time to time the rig was put on 40 meters where it created quite a stir! His call in those days was W3AZR.







HENDRICKS PFR3A REVIEW



ast fall, I built a Hendricks PFR3A as a replacement QRP rig and have been very happy with the results.

The rig went together with no problems, and worked as advertised from the start. Power output was a little low in the "as built" condition, but, a little tweaking with info found on the pfr3 reflector, (a must for builders and potential builders) I soon had the 5 watts out on all of the three bands, with a 12V 5 Ah gel cel. On the AA batteries, I get about 4.6 watts output. However, that is with Alkaline AA's rather than the lower voltage rechargeable cells, which would have a little less power out. I don't think anyone at the other end of my signal can tell the difference between the 5 watts and 4.6 watts nor even 3.8 watts out with the rechargeable batteries.

The radio is a joy to operate, once the unique method of tuning is used a few times. Tuning of the frequency is accomplished by two small switches. one for up and the other down. Tracking for the frequency is easy on the well lit display. The PFR3A has a builtin BLT (balanced line tuner) for matching a wide range of antennas to the rig. It is very sensitive and requires a

little practice, before one becomes good at tuning the rig to the antenna, but, once you overcome this, you will find that it does match a wide variety of doublets, coax antennas and long wire antennas.

The unit has a built-in keyer and can be operated on either paddle or straight key. It also has a memory for calling CQ, etc.

The unit operates on 8 AA's and draws less than 50 ma on receive and so has very good battery life.

I have compared this receiver to the one in my K3, and honestly, anything I hear on the K3, I can hear on the PFR3A, and only difference is on the K3 I can tighten down the filters so the band pass is less than 100 HZ and the PFR3A band pass is about 600 HZ.

About the only complaint that you will find on the reflector, and

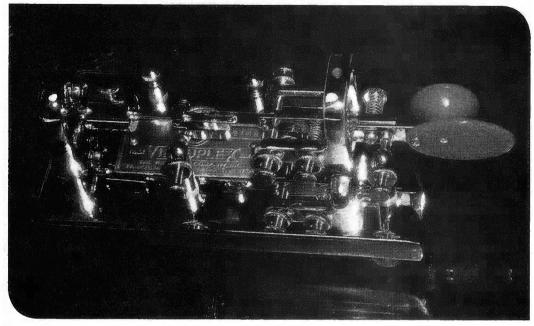
I agree, is that the case comes painted (the bright yellow) but, not labeled. You have to install decals for the controls, and they are not as nice or long lasting as stenciling would be. But, you get a lot of radio for the price, and if you install the decals per the manual, and put several coats of clear finish over them, they standup fairly well.

I use my PFR3A every Saturday morning to check into the QRP-WSN net, and using my indoor 50' doublet can talk to, and be heard by, stations in northern California and AZ and NV, from my QTH in the Los Angeles area. Using the Reverse Beacon Network, I have been heard by stations in Hawaii and on the east coast, as well as the mid-west.

It is a very nice little radio that is just about completely self contained, and easy to take anywhere, and can't be beat for the money, (about \$250.00 USD). It is CW only, can't operate SSB which lets face it, at 5 watts is very difficult, nor does it do Data Modes, But, if you want a CW rig, for three bands, 40, 30 and 20 meters, with keyer, tuner and self-contained batteries, it's hard to beat, in my opinion. I have no connection with, other than as a very satisfied customer, of Hendricks QRP KIts, etc., etc.







Bob's new Vibroplex

A QSO WITH THE PAST

By Bob Stevens, K9ING, FISTS 14969

had been off CW for about twenty years. A year ago, I bought a new Vibroplex bug (see attached picture) and try to make CW contacts on the FISTS 40 meter slow speed frequency every night.

I have met many great hams, many who have been away from CW for years like me, and some who didn't have to take a CW test but who are using code anyway because it's fun.

One Wednesday night last August, I heard a K4 who was signing off with the station he was working and I was going to call him...until he sent the call of the other station. It was K9DNH (FISTS number 15497), the guy

who gave me my Novice test 55 years ago.

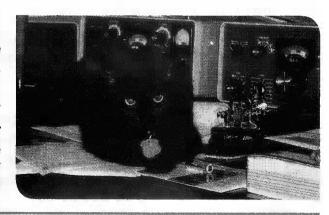
Needless to say, I called him instead. It was a great 45 minute QSO with the past. He had just gotten an old (1935) bug and was getting back on CW after a twenty-plus year layoff, just like me.

You have to realize that when he gave me my Novice exam I was 13 and he was 16 and he had only had his General a few months. Few have ever done that over that length of time. Especially on the mode that we were on then.

Keep pounding the brass.



Bob's cat (with gorgeous blue eyes) says, "So, you thought you'd work some CW, eh? Well, before you pet that bug, you have to catch up on MY petting time!"





WA2VQV ATTIC ANTENNA

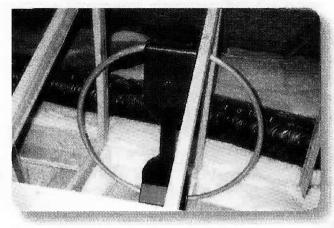
By Russ, WA2VQV, FISTS #3179

t's an old story that deed restrictions and covenants prevent many of us from having outdoor antennas. At my previous QTH, I had 10, 15 and 20 Meters ½ wave dipoles in the attic which served me well not only on those bands, but also on the three WARC bands. There was also a ½ wave 40 Meters dipole in the garage which worked very well.

When I moved to my present QTH, I was faced with a different problem. My second floor condo has an attic which does not lend itself to hanging dipoles as there is very little space to move around. There is no plywood flooring and the space is cluttered with 2" X 4" roofing trusses which must be climbed over to move around. In addition, the furnace and HVAC ducting take up a lot of space.

I had seen a product review in QST magazine about the MFJ 1786 Super Hi-Q Loop, which gave the loop a good review compared to a dipole. I sent for the loop and installed it in the attic, on a 2' x 3' piece of plywood just inside the hatch in a bedroom ceiling. It is fed with 75 feet of RG-58 50 Ohm coaxial cable.

The loop operates on six bands,



MFJ-1786 HI-Q LOOP in attic.

30, 20, 17, 15, 12 and 10 Meters.

It is constructed of one-inch heavy wall aluminum pipe and is three feet in diameter. It can be mounted outdoors on a mast or indoors and either horizontally or vertically polarized. It is recommended that it be vertically mounted if installed less than 21 feet above ground. My

installation is exactly 21 feet above ground (I measured it) and it is mounted vertically.

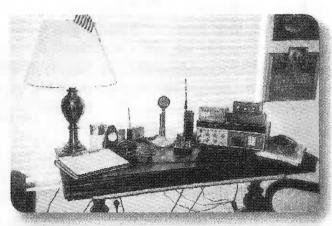
The loop is tuned to resonant frequency with a tuning unit that sits on top of the rig. The tuning unit has cross needles for forward and reverse power. Push buttons on the unit send DC

through the co-ax to a small motor which operates a butterfly capacitor in the loop to tune it to resonance on the desired frequency. A tone sounds when it is near resonant frequency and another push-button fine tunes it. Tuning to any frequency takes only a minute or two.

The loop has enabled me to work a lot of DX on CW, Phone (over 150 enti-

ties), RTTY (all 3 modes at about 75 Watts) and PSK31 (at about 25 Watts) as well as worked all states on CW, Phone and Digital (ARRL Triple Play Award). Although pricey, I think the loop is an excellent choice for the antenna-challenged.





LOOP TUNING UNIT on top of OMNI VI XCVR, left side.



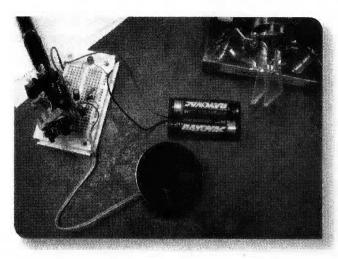
BUILDING THE PICO-KEYER

By Mike, WD9GNX

he Pico-Keyer Plus is sold by HamGadgets on the internet for \$17.99 plus shipping. http://www.hamgadgets.com/

A very well made plastic case is available for an additional \$8.00.

As advertised, it took about



 Ω hour to assemble the circuit board. The audio transducer that is used to generate side tone does not produce a very loud tone. A speaker can be attached, but it also is not loud enough for these 70+ year old ears to hear. The

plastic case mentioned above has some room in it so a small 1/8 in. phone jack was added and an amplified set of computer speakers is plugged into that.

Features include:

 It will key transmitters up to 60 V, positive or negative

- Four 60-character message memories
- Works with any dual lever iambic paddle, single lever keyer paddle or straight key
- Speed adjustable from 5 to 60 WPM via menu OR speed control potentiometer
- Low voltage from as low as 2.5 to 5.5V
- Low current typical sleep current .005 mA, under 1 mA when keying.

This was a fun project and works very well. (The batteries in this photo provided power for a home brew one-transistor amplifier that did not produce the desired results.)



ob, NC6Q, used this key as an attention-getter to draw people to the FISTS display he did at California's Hamcom. It's a very large hand key that was built in 1932 and is owned by the Associated Radio Amateurs of Long Beach. "QLF" is ham slang for someone who sounds like they are sending with their left foot. Some ham events have Morse sending contests with one's left foot! If you know of such a contest, please write Bob at nc6q@arrl.net. When I was at the L'Anse Cruse Michigan Hamfest decades ago, I earned a QLF certificate by sending my name/callsign with my left foot. It was a lot of fun. Maybe one year we will find a huge key and do that at Hamvention in Dayton!





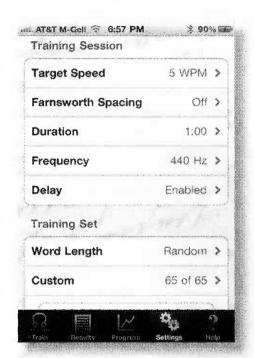


TEACHING KI4OWG (MYSELF) MORSE CODE

think it was in the early 80's when I was a freshman in a small midwestern high school that I met my first ham. He was my age and carried a VHF portable on his belt. The idea that all you needed was that little device to communicate astounded me. (This was waaay before mobile phones.) I learned you needed to pass a test, including morse code, to get a license to communicate this way. These prerequisites and not having a mentor caused more accessible hobbies to eclipse this interest. I learned various electronics, built a Tesla coil in my basement one summer and taught myself various programming languages.

Fast forward thirty years and my childhood love of computer programming has turned into a full-time career on the East coast, family, house, etc, but still no ham license. Fortunately ham resources are more plentiful and soon I was in a small class hosted by W4OVH Ole Virginia Hams, working towards my Technician License. With that license in hand the instructor pointed out several resources for learning Morse Code so I could graduate to a General license. The prevalent method to learn Morse was to listen to CDs... but I never

12



Settings Tab, various parameters which can be adjusted for the Training Session, WPM, Length of Training, etc.

made much headway with this. Eventually I tracked down a Morse code trainer by G4FON based on the Koch method. This technique seemed to resonate with me... so every time I could find myself in front of a computer I'd train a bit. I had been studying for the General Exam and during one of W4OVH's summer Hamfests I passed the written part. Now for the code part. I redoubled my efforts but I wasn't making progress fast and the year seemed to fly by. This was a special

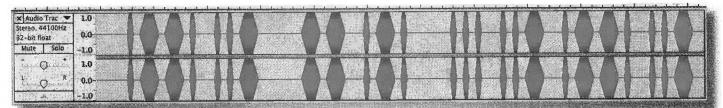
year though... the year the FCC removed the requirement for Morse (for better or worse), so I found a testing center, applied for and received my General License... no code

I was on the air and learning, but always regretted not getting my code. It was the allure of portable, low-power world wide communication that had come to really hold my attention in ham radio. I had to learn code. The W4FON program seemed to be the best tool I had found so far, but I didn't like being tied to a desktop. I had recently started developing software for mobile platforms, iPhone specifically and decided that a mobile trainer was just the ticket. What were the capabilities I needed in a mobile app to teach myself Morse code: Tone Generation, configurable speed, Koch and Farnsworth methods. These handful of requirements along with a mechanism to chart the results of my training and I had the basics for my first app.

When you get down to the brass tacks of implementing a Morse code trainer, there's a fairly involved process that goes into generating those dit's and dah's just right. I learned that the characters that make up Morse Code

www.fists.org Issue 2, 2012





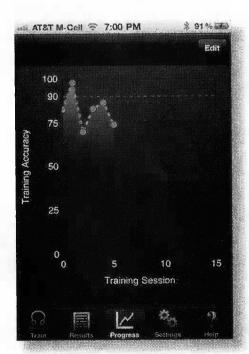
The waveform of the audio generated by Morse Elmer during a training session.

can be decomposed into a series of equal sized units of a given duration. A 'dit' is one of these units long, a 'dah' is three of these units, the silence between dit's and dah's is one of these units. The silence between individual letters is three units long and the silence between words is seven units long. To translate all that knowledge into something useful I needed the last piece... how long was that base unit? for 5 WPM, for 25 WPM... Here's where I learned about the 1865 Paris Standard which was based on the number of times the word "Paris" could be sent per minute, and the current standard which is based on a reference word that is 50 units long. The equation I was looking for turned out to be:

T = 1200 / WPM

where T is the duration of a "unit" in milliseconds for a given WPM. So at 5 WPM a single unit, a dit would be 240ms long and at 25 WPM a dit would be 48 ms long. I initially thought I could get away with stringing together prerecorded dit's and dah's to make a training session. But the inability to precisely time the sequence of playing the snippets made me realize that I was going to have to utilize the lowest

level audio framework the iOS platform provided. This framework sits right on top of the audio hardware and provides the greatest flexibility and responsiveness. Working with this audio framework levied it's own constraints onto my app... the iPhone audio hardware can play stereo audio at a CD quality 44.1 kHz. It accomplishes this by asking my app to supply the next so many milliseconds of audio. Then before that supply of audio runs out, it asks



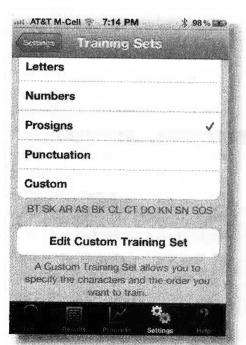
The graph showing your Training Progress. The dashed yellow line marks the goal of 90% accuracy.

for the next small chunk of audio and so on. My task was to write code that would be able to fill this audio buffer request with samples that represented anywhere from 0.005 ms to 23 ms of my Morse code training stream. Wooo... it made my head spin. Down at this level the audio hardware is not very forgiving either... waste too much time responding to the buffer request and the audio hardware runs out of data rewarding the listener with pops and crackles.

Now's a good time for a bit of a digression, I've been spending all this time talking about the nuts and bolts of generating audio and haven't mentioned any of the particulars of the training methods used... I'm at the point in my algorithm development where the specifics of the Koch and Farnsworth methods come into play. The Koch and Farnsworth method both train at the desired target speed. You don't start slow and work your way up, you start at the speed you ultimately want to learn. Donald R. "Russ" Farnsworth W6TTB taught Morse by sending characters at target speed with exaggerated space between the characters and words. Ludwig Koch, a German psycholo-

gist, trained at target speed but only with two characters initially. Once those two character could be copied with 90% accuracy another character was added and so on...

So I'm ready to generate data for a training session. I need to randomly create a string of characters drawn from those available based on the Koch method. Since I want to emulate English sentences I want these characters to be broken up into word length groups. English word lengths are not uniformly distributed.... A little research turned up the fact that a Gamma Distribution can be used to model the fact that a majority of English word lengths are clustered around three or four characters, with



One of the views in the Morse Elmer Settings Tab. This one shows the different Training Sets available.



Training Screen for Morse Elmer using a custom Training Set at 5 WPM for 1 minute.

decreasing numbers of shorter and longer words. So a training session for someone just starting out with the first two characters in the Koch training method and training for just one minute, would look something like:

MKMK KK K M KKMK KK MK MMMMKMMMM

Given a training string like this, the next task is to break it into individual units of sinusoidal audio and silence, represented below by 1's and 0's respectively:

1110111 000 111010111 000 1110111 000 111010111 0000000 111010111 ... etc

If the training session is at 5 WPM, then each '1' represents 240

ms of sinusoidal audio and each '0' represents the same period of silence. This stream of characters is used as a guide to decide how to respond to the audio hardware when it asks for a buffer. When the audio hardware asks for, say, 23ms of audio, depending on where we are in the training session if it's a '1' we fill the buffer with sinusoidal data, if it's a '0' we fill the buffer with silence or zeroes. Thanks to the tremendous iOS Core Audio resources on the web I was able to cobble all this together in a weekend and get my iPhone beeping Morse Code. The rest of the app was really just window dressings on these underlying audio algorithms.

I provided ways to select the target WPM, how to add characters to your training set once you were copying 90% or better. How to include, what I call, Farnsworth spacing if you needed additional time to recognize the character you just heard before the next one is sent. I also included the ability to graph the results of your training so you could track your progress.

Finally I had my own hand held Morse Code Trainer that I could take with me everywhere, no more excuses about needing to be in front of a computer to train. I was also able to make this available to other people wanting to learn Morse code, through the Apple iTunes App Store. Once other people started using my app



I got feedback on which aspects could use improvement. My initial audio implementation imperfect and accompanied by clicks and pops as I dropped from a sinusoid to silence in a single sample. I quickly learned about ramping the amplitude of the sinusoid down to silence. While my single training set was appreciated suggestions were made for additional training sets that focused just on numbers, pro signs, punctuation or the alphabet. In the latest version I included the ability to create your

own training set. Initially I didn't provide a method of specifying the audio frequency, this too was a much sought after request. So soon enough I had another version, and then another version of the application, each better than the one before.

My app, Morse Elmer, now at version 1.2 is available on the iTunes App store:

http://itunes.apple.com/us/app/morse-elmer/id414371107?mt=8

I'd like to think that I've provided an inexpensive tool that might help someone learn Morse code.

So you're probably asking yourself if I'm completely proficient at Morse code, given all the effort I've gone to creating tools for myself... sadly no, it's still a work in progress. But with the tools I have available, my membership in organizations like FISTS and a local QRP CW group I think I'm well on my way. Feel free to provide me feed back on this article via: morseelmer@morgman.com or visiting my blog: http://morseelmer.blogspot.com/.





HOW MORSE HELPED ME TO RECOVER FROM A STROKE

By Karl Schulte, WA2KBZ, FISTS 15320

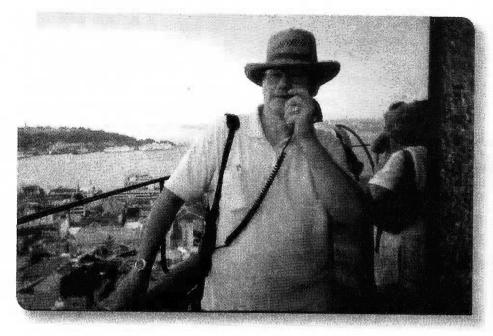
Several years ago, I had a moderate stroke, while my XYL Lena and I were on our way to Chicago from Missouri for a dear friend's funeral. Having stayed at the midpoint in Springfield, I awoke in the morning and felt that my right arm and leg had "gone to sleep". But as I waited, shaking them to help circulation, they did not wake up. I called to Lena, waking her, and said she had to dress quickly, as I had had a stroke. My vision was blurry and this was my second one (the first took out

my left eye) I knew the symptoms. I was speaking funny too. We checked the GPS and luckily, it took us to a big hospital only a couple miles away, which just happened to be the main stroke care center in the state! No "show us your insurance" crap, just several doctors and nurses and emergency action the moment we walked in the door and said "stroke!"

Well after a couple weeks of treatment and therapy, I still could not feel my lower arm (that was progress) or hold a spoon and I walked with a limp, but there was overall improvement. The therapist was at a loss as to why my hand dexterity and control was still unrecovered.

I spoke to him about my radio hobby, and especially Morse code, which I still mostly did using a straight key. He asked me to show how it worked, so I did (with my left hand as the right was useless). From that time on he had me bring a key from my collection and try to use it with the right, saying that there was likely some muscle and nerve memory if I had used it for





Karl, WA2KBZ, is operating (a first for ham radio) on the top battlements of a ancient tower built by an Italian trading enclave in Byzantine times (about 1190) with view of the Bosforus, the Golden Horn and the Marmara Sea behind him. He's using an FT817 with mini-antenna. Karl worked all over west Turkey and the Balkans with 3 watts. (Where's your key, Karl?!)

many years, and that would help my brain remember.

After a week I was able to send at perhaps 5 WPM! Then I was able to hold a spoon weakly, and began to eat with that hand again. Through constant practice, I finally got up to a clean 16 WPM on a J38 or my German Luftwaffe key. That took a year.

I was able to use a keyer and Dod's paddle just fine as well. But, while I am at 18-20 WPM on a key now, I have never regained full 22-24 WPM clean CW that I had before. I used to teach code to USAF operators after my morning classes (10 KW microwave troposcatter school) and could send almost as well as their old paper tape machine, which surprised the other instructors. You see, my Dad, W5EWF (SK) taught high speed Morse to Army and Navy operators

as an extra duty after teaching Signal officers their job. He was even assigned as an emergency measure to the North Sea convoys to bring new operators up to speed in early WW2, until the Navy could ramp up more radio operator schools.

He taught me the secrets of professional Morse sending techniques and how to listen for words, not letters. He said ther was a point, after 30 WPM, beyond which old timer ops no longer heard letters or words, but a voice (his was a sexy woman's voice (Rita Hayworth??) he said speaking to them. He topped out at 55 WPM, and I once watched him sit at a desk with 2 75A3 receivers. a page printer TTY with a full roll of paper, a couple sandwiches and a couple of beers (Lone Star - he was a Texan!) and copy solid both ends (ship and shore, half du 'ex) an entire 8 hour shift of one of the

Houston RCA stations CW channels. This was to be part of an application to work there.

He did this while chatting with me, eating and so on, as though it was a simple task. They are only doing 30 WPM, which is very slow by my standards. Sadly the stroke also took away some of my high end copy ability, and I can no longer copy text or code groups over about 20, but short ham QSOs are OK around 25. I got my Extra class when 20 WPM was required, and it was easy, as all I did in my free time was CW and receive on a poor receiver with my ears as filters.

Although I'll never get back to where I was, the therapist credited my Morse efforts with speeding my use of the right arm and hand, and 20 WPM is just fine considering the alternative!

— 73 and 88 de WA2KBZ







FISTS DOWN UNDER

Newsletter – May 2012

Editor & QSL Manager for ZL: Nigel Hardy, ZL2TX, P.O. Box 15078, Otaki 5542, New Zealand. - Tel: 06-364-6339

Newsletter Distribution & QSL Manager for VK: Chris Thompson, VK2CTN, P O Box 65, Dickson, ACT 2602, Australia

Membership/Awards Liaison: Ralph Sutton, ZL2AOH, 12c Herbert Gardens, 186 The Terrace, Wellington 6011, New Zealand Tel: 0-4-473-0847. Fax: 0-4-473-0848

QSL Manager for ZL6FF: Nigel Hardy, ZL2TX at address above.
QSL Manager for VK2FDU: Chris Thompson VK2CTN at address above

Address e-mails for all persons above to: <<u>fists-down-under@ihug.co.nz</u>> Web site –: www.fistsdownunder.org





FISTS 25th Anniversary

SUGGESTED FISTS CLUB CALLING FREQUENCIES

1.808 MHz (160m) – 3.528 MHz (80m) – 7.028 MHz (40m) – 10.118 MHz (30m) – 14.058 MHz (20m) – 18.085 MHz (17m) – 21.058 MHz (15m) – 24.918 MHz (12m) – 28.058 MHz (10m)

Members are reminded that the above frequencies are suggested calling frequencies. If they are busy, it is suggested that once you establish contact with a station, it may be prudent to change frequency down the band, avoiding other calling frequencies of known clubs.

NEW MEMBERS

This month we welcome **VK3PEU-Chris O'Brien #14139** from Essendon a suburb in *Melbourne*, Victoria, Australia, 10 km north-west from *Melbourne's* central business district. We hope to have a brief profile of Chris in a later issue of FISTS Down Under.

We also welcome **ZL3HA-Grant Rawshorn #14140** who tells us - I have been a licensed amateur radio operator since passing my restricted licence examination as a teenager while attending Christchurch Boys High School in 1971. At that time the school had a radio club, **ZL3BE**, under the instruction of teacher Alec Swan **ZL3NB**. Later, in 1973 I gained my full privileges licence by passing the CW test, and have been on and off air periodically ever since.

Over the years my radio interests have varied and have included homebrew VHF QRP, HF 20M DX, digital modes on the amateur satellites and HF, and organising the Space Shuttle Amateur Radio Experiment for Middleton Grange School in Christchurch (STS-64, Space Shuttle Discovery, September 1994).

While at school my call signs were ZL3TJB and ZL3PA. I then ceased all activity in 1976 due to career and subsequently family commitments. Then in 1984 I re-licensed as ZL3JG, a call I also still hold today.

Today my primary call sign and the one you are most likely to find me using is ZL3HA. The original holder of this call was the late Harry Arnold, an old family friend from many years ago and a well known and respected amateur radio operator. It is a privilege for me to hold his call. My QTH is Wellington with time equally split between Kapiti Coast and Churton Park.

In December 2011 I established my station again after an absence from the air of over 10 years. Finishing full time employment which involved a lot of travel allows me to once again take up this most enjoyable of hobbies. I also now hope to gain a degree of proficiency in CW and to operate CW on a regular basis - something I have never achieved before now. I am practising daily using a very good iPad application called "Ham Morse" by <u>AA9PW</u>. (You can find it in the Apple app store). When in front of the PC I use "CW Trainer" by <u>G4FON</u>.

My other significant interest is photography, including the creation and web hosting of 360 degree virtual tours. Whenever I'm on air you can find me by checking the live details on my website www.zl3ha.com. I look forward to eventually becoming acceptably proficient at sending and receiving CW (unassisted by any computer) and making many new friends in FISTS!

MEMBERS NEWS

We appreciate the donations made by VK1AI - Greg #9604 and VK2KJJ / OZ6YJ - Knud #9689.

VK5BUG-Dvid (Doc) #14136 reports on the operation of VK5MGY the special event station in Adelaide, South Australia for the centenary acknowledgement of RMS Titanic.

311 QSOs were made into 38 countries, 1 x 160m, 21 x 80m, 184 x 40m, 39 x 20m & 66 x 10m - All QSL cards were despatched by 17 April 2012, either direct or via WIA Outwards QSL Bureau.

The station configuration was: Ten Tec Omnj V, Collins 30L-1, Cootie Key, 45m Inverted-L @ 10m with 60 radials (2Km buried copper wire), non-resonant GP @ 4m, 28MHz EDZ loop & Johnson Matchbox coupler.

VI4MGY was the only other special event station heard. VK5MGY was not authorised to operate on the WARC bands.

Thank you to all FISTS operators & others for the contacts.

VK4BCM-Bevan #9053 reports on Titanic commemoration activities in Brisbane, Queensland.

My thanks to all those from the Redcliffe Radio Club (VK4RC FISTS# 9066) who actually rolled up their sleeves and participated in the event. Although these guys were not "CW" ops they saw the opportunity to get involved in something that would promote the amateur radio movement, and in particular their club, providing transport, logistical and moral support and even XYL support with snacks. Without these visionaries the event would not have been the success it was. In spite of battling JA, GC, Russian contests and adverse weather we put up a formidable effort.

Our brightly coloured tent stood out among the old maritime relics in a pristine area on the banks of the Brisbane River. Let's admit it, we were not in the best position for radio communication but we persisted.

Satisfaction was gained from seeing the many families visiting the site (as a result of media advertising) and asking questions about Morse code and the role radio played in the Titanic disaster; actually seeing operators working and having an opportunity to send Morse code themselves.

We had 3 operators until about 1100Z and one from then until we closed at about 2230Z. The result was in excess of 170 contacts including one from the sub Antarctic island of Macquarie. They heard only one other special event station VK5MGY. We are pleased with the result and happy to know we made many children more familiar with Morse code.

Bevan went on to say that he participated in an interview on the Australian national radio service ABC, in which he did give FISTS a good wrap up on ABC, because they asked him to explain about the origin of FISTS, and the interviewer was fascinated. The following six photographs show some of the action!













OTHER MEMBERS' NEWS

G3ZOD-Graham #8385 reports that FISTS Down Under Awards are now tracked by his new Windows FISTS Log converter V.2.4.0. program. Details of the program can be seen at http://fists.co.uk/members/members/lc.html

TRAWLING THE WEB

The ARRL introduces new online procedures for DXCC - https://p1k.arrl.org/onlinedxcc/about.php

Bright "Sparks" The "Wireless Telegraphists" and Their Work: http://www.titanicebook.com/radio.html

An 11 minute video of the erection of a huge tribander mast: http://www.youtube.com/watch?y=Cuk1Q9yaRAw

Go to our website www.fistsdownunder.org to hear an interesting BBC Discovery podcast of a programme about the radio messages exchanged during the Titanic disaster. It can also be accessed direct at http://www.fistsdownunder.org/-%20Additions/discovery_20120409-2006a%20Titanic.mp3

FORTHCOMING EVENTS

These are some of the CW contest/event offerings in May 2012 most of which will be of more interest to our northern hemisphere readers. Thanks to WA7BNM Contest Calendar http://www.hornucopia.com/contestcal/contestcal.html

AGCW QRP/QRP Party	1300Z-1900Z May 1
NCCC Sprint Ladder	0230Z-0300Z May 4
10-10 Int. Spring Contest	CW0001Z May 5 to 2359Z May 6
ARI International DX Contest	1200Z May 5 to 1159Z May 6
7th Call Area QSO Party	1300Z May 5 to 0700Z May 6
ARS Spartan Sprint	0100Z-0300Z May 8
CWops Mini-CWT Test	1300Z-1400Z May 9 and 1900Z-2000Z May 9 and
	0300Z-0400Z May 10
NCCC Sprint Ladder	0230Z-0300Z May 11
EUCW Fraternizing CW QSO Party	1000Z-1200Z May 12 and 1800Z-2000Z May 13
CQ-M International DX Contest	1200Z May 12 to 1159Z May 13
FISTS Spring Sprint	1700Z-2100Z May 12
Sangster Shield Contest – See note below	0800Z-1100Z May15 and 0800Z-1100Z May 16
NAQCC Straight Key/Bug Sprint	0030Z-0230Z May 17
His Maj. King of Spain Contest	CW1200Z May 19 to 1200Z May 20
Baltic Contest	2100Z May 19 to 0200Z May 20
CWops Mini-CWT Test	1300Z-1400Z May 23 and 1900Z-2000Z May 23
	and 0300Z-0400Z May 24
RSGB 80m Club Championship	CW1900Z-2030Z May 24
NCCC Sprint Ladder	0230Z-0300Z May 25
CQ WW WPX Contest	CW0000Z May 26 to 2359Z May 27
QRP ARCI Hootowl Sprint	2000 local - 2400 local May 27
MI QRP Memorial Day CW Sprint	2300Z May 27 to 0300Z May 28

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WELLINGTON RADIO ZLW

Wellington Radio ZLW closed in 1993 after operating from Tinakori Hill (now renamed "Ahumairangi"), for about eighty years. A group of former ZLW operators is planning a commemoration for all those who contributed to maritime safety all those years and the radio operators who were executed in the Gilbert Islands (Kiribati) in 1942.

The site of the radio station has been made into a lookout area with picnic tables. The commemoration is planned to provide an additional table to which is attached a memorial plaque. The unveiling ceremony is planned for 16 September 2013, the 20th anniversary of the station's closure. We will report any developments as we receive them.

Meanwhile, former ZLW and ships' operators who wish to be involved and kept informed of how the plans for the event are progressing are invited to communicate with Barry Allison bazbarbzingizzie@xtra.co.nz

2010 NZART Sangster Shield QRP CW Contest

When: - Saturday, 15 May 2012 and Sunday, 16 May 2012 Times: - 0800 Z until 1100 Z each evening Band: - 80m Mode: - CW only.

The rules for this contest can be found at http://www.nzart.org.nz/activities/contest-rules/rules-sangster-shield/ or in the 2010 - 2011 NZART Call Book, Page 5-6; the latest.

EDITOR'S PRIZES

The winners of the Editor's Prizes for 2011-2012 will be announced in our next issue.

Articles and reviews are eagerly sought and will now be eligible for consideration for the 2012-2013 year's prizes. Pictures and interesting QSL Cards are also welcome. Material can be sent as e-mail attachments or through the post. Items posted will be returned on request. Our contact details are shown at the masthead.

MY TITANIC DAY

David Dunn, VK3DBD #3756

As most of my friends will know, I'm not a contester: the idea of sitting in front of a radio, copying calls and numbers and sending out similar for hours is not my idea of fun, for me one might as well sit by a motorway and write down registration numbers of passing cars........ However, "Each unto his own".

The nearest I get to that is with a big pile up - and in VK one does get those without trying, I try and keep info brief, but not as brief as the 5nn tu I so often hear. Exchange of name qth and report and often a friendly word especially with ops I have met before.

When that situation occurs, with a queue of callers all desperate to make contact it is annoying and time wasting when one of them continues to send details of their weather, their radio, their key and antenna. In a normal leisurely QSO those details can often be interesting and lead to further discussion. After all communication is the name of the game.

I volunteered recently to man the Fists Club (VK2FDU) call for some 5 hours, for the well publicised event of the Titanic 100 years anniversary. The actual times "issued" to me were quite good for my situation as it was one of the few periods when I could be QRV and also having fairly good DX antennas it was obvious that for at least some of that time the world could be my oyster.

Being a Fist club event with a Fists Call, it seemed pretty reasonable that I used the Fists suggested frequencies and somewhat hopefully at 0700z I fired up the K3 on 21058 kcs with a CQ, my 3 el beam pointing LP toward EU. The whole band was dead, but optimistically I called CQ Fists, and also did it in such a way that others were not excluded, i.e. CQ, CQ de VK2FDU. Fists Down under Club call and repeated CQ CQ fists? de VK2FDU. The first taker was a French station, (not a Fists Member) who was only about 539 and sent me a similar report, and it was obvious the propagation on 15m was poor, - there was not a signal elsewhere on the band.

So I abandoned that and changed to 14057 where I was prompty answered by an OK, - still not a Fists member in sight.

After that several stations had noticed my presence (the Cluster perhaps??) G3KOJ replied with a solid 589 signal and his Fists numbers too. I have worked Ray a number of times on various bands and he is a fellow FOC member. After that qso I had to pick a call out of the not inconsiderable qrm of lots of callers. Paul. VK5GX won and I was pleased to log another Fist member.

On completion of the next few qsos more and more joined the racket, some annoyingly sending my call over and over again while I was trying to note a few calls on the pad, but the persistant callers would have done so much better if they had just dropped in their own call just once or twice at the <u>right</u> moment, and I would easily have copied them. Sending <u>my call over and over is pointless</u> I know mine. I just wanted theirs!!

So it went on and among others and operating properly in the next hour or so I had Mick G3LIK, Paul, G4LNA, Mike G4NCU in the log plus a number of non fists stations scattered across the world. Notably, one unusual prefix threw me, I had to ask for his QTH - 7X3WPL. He was in Algeria in Laghouat. A Sahara desert oasis, which I have actually visited and camped there. Not the sort of place one visualises an Amateur Radio club, but it was. The signal was amazingly strong, although certain tonal qualities were somewhat lacking!

I am certainly not the best operator at picking calls out of a pile up. There are several computer programs which generate such conditions and are interesting should one wish to practise that exercise.

Calling into a pile up is another thing and that I usually manage quite well, it is question of <u>listening</u> and getting the timing just right, pop in your call -nothing else- between others, that can only be done by listening. Blind calling continuously will not often succeed, it delays the ultimate QSO one hopes for and annoys everyone else.

The next day (VK day) I had the last two hours session of the Titanic Day 2200z-2359. I was unable to be QRV for the last hour but at 2200z I checked the bands and found absolutely nothing despite a few CQ calls and abandoned the radio for other things. Despite scouring the bands at other times during the 15th April, I failed to even hear any of the MGY stations that were active.

Special call events often show that bands one sometimes considers dead, do have propagation available and the morel of the story is to transmit: Listening is fine, but if no one transmits then you just won't hear a thing!

Give it a go, any time any band, you never know who's listening!

From the middle of May, for a few months, David, VK3DBD will as usual be operating G3SCD from Lincolnshire, "Bomber County " as opportunities permit and will be pleased to work old and new Fists members. Email arranged - Skeds welcome.

VK2FDU – TITANIC SPRINT

Chris Thompson, VK2CTN, Australian Manager.

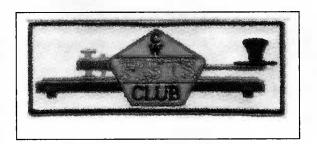
Many thanks to John VK4TJ, Chris VK3CGB and David VK3DBD for putting VK2FDU on the air during the Titanic Sprint. 35 contacts were recorded on 10,15,20 and 40 metres.

Some comments from the operators:

John, VK4TJ: - "I did not exactly set the world on fire. Chris and David had about the same experience, apparently. Did not hear any of the other national FISTS calls – ever! Good conditions to the U.K. on the long path when Chris and David were on so would have heard the U.K. FISTS if they were there...."

Chris, VK3CGB: - "Was a bit slow but worked about 12 stations all over EU including G4 and MW – which is good for me. I was happy with this, even though only a few FISTS members."

David, VK3DBD: - "Worked 13 stations of which 6 were FISTS. 11 QSO's on 20m, 2 on 40m. Very slow and lost several possible contacts due to some stations waffling on about rigs and weather and not understanding the club call, even though I called "CQ FISTS!"





DUES ARE DUE

Below is a list of FISTS whose dues are due for renewal. If your call is on here and it shouldn't be, please let Nancy WZ8C know. Renewals for those 80 and over are free, but you have to let us know you're still interested in getting the Keynote. Hope this list doesn't offend anyone, but as you can see by the number of people due for renewal, sending out postcards gets expensive and we don't have current emails on file for many of the FISTS to send out renewal emails.

To renew, please send \$15 to FISTS, PO Box 47, Hadley MI 48440 or Paypal to fists@tir.com. Thank you.

CALLSIGN	CALLSIGN	CALLSIGN	CALLSIGN	CALLSIGN	CALLSIGN	CALLSIGN
8P6AZ	AF4NW	K3VX				
AAØRI	AF6DM	K3YV	K7CQW K7FPM	KA8AMX KA8CPO	KCØDD	KE6P
AAØXJ	AGØH	K4AAZ	K7IB		KCØGXX	KE7HLS
AA1CR	AG3R	K4AAZ. K4AWI	K7JHM	KA8EDB KA8IMZ	KC1ML	KE7LKW
AAIKS	AG8K	K4BAI			KC2EE	KE8UM
AA1SU	AH8AC	K4CUB	K7LG	KA9HRO	KC2JAJ	KF2JK
AAIUY			K7MOS	KA9IVY	KC2KMI	KF2P
AA2YK	AIIV AI2I	K4CWL	K7NM	KA9JBD	KC2LZX	KF4DPS
		K4DXV	K7ROH	KA9NBU	KC2QWL	KF5JDI
AA3JE AA4HF	AI4BG	K4DZ	K7RYO	KBØBA	KC2WH	KGØYR
AA5CH	AI4C AI4GF	K4FH	K7SCX	KBØPCI	KC2ZSX	KG4FXG
		K4HKK	K7SDW	KBØR	KC3QU	KG4UPO
AA7CG	AI8Z	K4IJA	K7VC	KBØYQY	KC4HNZ	KG6SXY
AA7IR	AJ2K	K4JKL	K7VSC	KB1HSA	KC4VLM	KG6TH
AA7LG	AJ4CG	К4ЈҮВ	K8FE	KBINCD	KC5GB	KG6YSX
AA7VW	AJ4SB	K4LKN	K8GJW	KB1OF	KC5GXL	KG6ZDN
AA8KY	AK3RX	K4ML	K8HUG	KBISXH	KC5RGQ	KG8JK
AA8PB	AK9A	K4RD	K8IG	KB2FJH	KC8TPI	KG9CT
AA9KH	AK9N	K4SEV	K8IJ	KB2KNX	KC8TQP	KH6B
AA9WJ	HK3CQ	K4SPR	K8JER	KB2OC	KC8TVW	KH6BZF
AA9WT	KØBC	K4TXJ	K8JV	KB2XX	KC8UDX	КН6НЕ
ABØSR	KØDBK	K4UNW	K8LJG	KB2YTM	KC8ZKD	KH6LDO
ABØXE	KØDXV	K4VTA	K8ME	KB3APX	KC9ALE	KI3O
AB5RE	KØEB	K4WK	K8MW	KB3DLS	KC9JBU	KI4BXU
AB5TY	KØFS	K5AX	K8NA	KB3FWW	KC9JJQ	KI4DBK
AB7OC	KØHL	K5CTM	K8NWD	KB3LAT	KC9SPW	KI4FFN
AB7WX	KØHLA	K5ECI	K8ORD	KB3QCX	KDØGLN	KI4GAP
AB8EL	KØLC	K5HTE	K8RDN	KB3RBC	KDØJCX	KI4JA
AB8GQ	KØMT	K5JF	K8SG	KB4CMF	KDØMGE	KI4POV
AB8MA	KØPQ	K5RFH	K8SJP	KB4JR	KDØV	KI4VBA
ACØAC	K1BG	K5STZ	K8TEZ	KB5AE	KD2MX	KI5JF
ACØBP	K1CGZ	K5UNY	K8ZBN	KB5MM	KD3AF	KI5MS
ACØCL	K1NOK	K5WAF	K8ZCT	KB6CWO	KD4RXO	KI5XP
ACØE	KINWB	K5ZOL	K9ALT	KB7ID	KD4WGY	KI6SN
AC2K	K1PO	K5ZU	K9BWE	KB7LJP	KD5KJ	KI8DU
AC3C	K1SO	K6BWZ	K9EIS	KB7TTY	KD5MYÜ	KJ4FFG
AC4AF	K2ESE	K6ESE	K9JDC	KB7ZMK	KD6NOF	KJ4NYI
AC5OC	K2GB	K6GTP	K9LNX	KB8DFK	KD7WLR	KJ4UY
AC7NK	K2JF	K6JEB	К9QНО	KB8DIE	KD8A	KJ4VAS
AC7XP	K2LS	K6JPM	K9SQG	KB8GUN	KD8ENT	KJ4VPK
AC8AP	K2MUN	K6JW	K9UTQ	KB8LEF	KD8HOK	KJ6LKP
ADØCW	K2OK	K6OI	K9YF	KB8PGW	KD8OQA	KJ7OX
AD5KV	K2SB	K6OU	KAØEC	KB8VMZ	KE1AZ	KJ8R
AD6HJ	K3CB	K6TT	KA1AIE	KB8WSG	KEILG	KK4DW
AE4RV	K3DON	K6TTE	KAIJNB	KB8X	KE3BJM	KK5J
AE5IN	K3EC	K6TTM	KA1ZQR	KB9BZX	KE3W	KK7IR
AE5KM	K3FL	K6TV	KA2CAQ	KB9IVA	KE4FIG	KK8B
AE5OL	K3FQP	K6VV	KA3THS	KB9KGI	KE4KKR	KK8K
AE6TA	K3MRG	K6WFB	KA3YLZ	KB9LSH	KE5AQD	KL7BS
AE7A	K3MRK	K6YIS	KA5ELD	KB9O	KE5C	KL8DX
AE8M	K3RNK	K6ZCM	KA5Z	KB9RKI	KE5DOQ	KM4CH
AE9G	K3RQ	K7BIY	KA6FBB	KB9SSB	KE5HL	KM4FO
AF2D	K3TC	K7CLK	KA7LHE	KB9VTM	KE5KBZ	KM6XO

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KNAOW N4/LED N9SF WODT W4/TU W8/LMA W4/9WMF	CALLSIGN	CALLSIGN	CALLSIGN	CALLSIGN	CALLSIGN	CALLSIGN	CALLSIGN
KOHO N32ZZ N9TU W0FB W4KRN W4KF W8FD WB0KR KOHO N35F NA6G W0JWR W4LWZ W8YDJ WB0KR KOH N50F NA6G W0JWR W4LWZ W8YDJ WB0KR KOJ N35F NA6G W0JWR W4MBS W9AN WB1CE KREZY N3NA MD4V W0LX W4DNC W9CBT WB2AIV KREZY N5NA ND4V W0LX W4DNC W9CBT WB2AIV KREZY N5NA ND4V W0LX W4DNC W9CBT WB2AIT KREZY N5NA ND4V W6DNW W4LCZ WW6PQ WB2AID KREZY WB2DB KREZY N5NA ND4V W6DNW W4LCZ W6DN WB2AID WB2DB KREZY W6DNW W6DN	KN6OM	N4UED	N9SF	WØDT	W4JTU	W8UMA	
KOOL NSDRV NSPWT W9INF W4LWZ W8TDJ WBDKRI KOOI NSEP NA6G W0IVR W4DIX W900K WB2AIV KROI NSHDX NCSB W6KSD W4OIX W90CC WB2AIV KS4RT NSNE NDDE W0MLZ W4SIG W9CC W2MIC KS4RT NSNE NDDE W0MWO W4UZ W9DEQ W82DEW KT4LIE NSPZS NF7D W0OPY W4VZ W9EWZ W82ERI KT4LIE NSPZS NF7D W0OPQ W4VQ W9EWZ W82ERI KT0ZX NSEM NF7H W0OED W4VIII W0X W82ERI KUUS NSEM NF7H W0OED W4VIII W0X W82ERI KW6AR NSVC NIOC W0SZP W5EEX W0OIV W83ERI KW6AR NSVC NIOC W0SZP W5EEX W0OIV W84BWD KV9ARE NSEX W0OIV	KN8AW	N4ZH	N9TMU	WØEJ	W4JY	W8WY	WA9ZPL
ROPI	KO4D	N4ZZZ	N9TU	WØFBI	W4KRN	W8XP	WBØIYC
KR81	KO4OL	N5DRV	N9WAT	WØHKP	W4LWZ	W8YDJ	WBØKRI
KRBZY NSNA ND4V W40NC W9CET W22AT KS4YX NSNZ NEGH W0MWO W4LCZ W9CCQ W32PDW K74UE NSPZS NF7D W0OVY W4VZ W9EWZ W32PBW K74ZT NSQAB NF7H W0QL W4VQ W9FBO W22DUC K12Q NSRIN NF7R W0QL W4VI W9GW W33BVL K12Q NSSLM NGSW W0RSD W5A1 W9INA W33FO K12Q NSSLM NGSW W0RSD W5A1 W9INA W33FO KWARA NSVC NIOC W0SZP W5EEX W90LY W4HDT KYARE NSKD NIIX W0MX W5ELX W90LY W3HDT KWARA NSC NIOC W0SZP W5EEX W90LY W3HDT KWARE W1C W3A W5ELX W90LY W3HDT KWARA W1C W3A W5ELX W90LY W3HDT<	KQØI		NA6G	WØJWR	W4NBS	W9AN	WB1CEI
KSART	KRØI	N5HDX	NC8B	WØKSD	W4OJX	W9BOK	WB2AIV
KS4VX	KR8ZY		ND4V	WØLX	W4ONC	W9CBT	WB2ART
KSAVX NSNZ NEFID WOMFV W4VZ W9DCQ W32PDK KT4ZT NSQAB NF7H W0PQ W4VQ W9FBO W32UDC KT6DX NSRDN NF7R W0QL W4VIH W9GX W3BBVL KUSQ NSSUM NG8W W0RSD W5AI W9RA W3B3FOJ KUSQ NSSUM NG8W W0RSD W5AI W9RA W3B3FOJ KUSAR NSVC NIGC W0SZP W5EEX W9OUY W3B4FOJ KW6AR NSVC NIGC W0SZP W5EEX W9OUY W3B4WXD KZSD N6DM NITR W1AKN W5EZ W9TFC W3B4WXD KZSD N6DM NITR W1AKN W5EZ W9TFC W3B4AXD KZSD N6DM NITR W1AKN W5EZ W9TFC W3BAAXD KZSD N6DM NITR W1AKN W1CC W3L W9TTC W3BAAXD M0OOK N6GEL				WØMHZ			WB2MIC
KT4UE N5PZS NF7D WOOFY W4VZ W9EWZ W9EWZ W9EWZ KT6DX N5RDN NF7H WOPQ W4WQ W9FBO W8ZUDC KT6DX N5RDN NF7R WOOL W4YIH W9GX W9B3BVL KT6DX N5RDN NF7R WOQL W4YIH W9GX W9B3BVL KT6DX N5RDN NF7R WOQL W4YIH W9GX W9B3BVL KT6DX N5RDN NF7R WOQL W4YIH W9GX W9B3BVL KUSQ N5SUM NGRW WORSD W5AL W9DRA W8B3FOJ KUSS N5TH NF6C WOSN W5CLD W9LW W9B3FOJ KUSS N5TH NF6C WOSN W5CLD W9LW W9B3FOJ KUSS N5RDN NJIX WOWM W5EIU W9GR W8AWXD W5EIU W9GR W8AWXD W9GR W8AWXD W9GR W9AWXD W9GR W9GR W9GR W9GR W9GR W9GR W9GR W9GR	KS4VX			WØMWO		W9DCQ	WB2PDW
KU5Q NSUM NG8W WORSD WSAI W9NA W33FOI KU8S N5TIH NH6IC WORSD WSAI W9NA W33FOI KU8S N5TIH NH6IC WORSP WSCLD W9UW W33FOI KU8S N5TIH NH6IC WOSZP WSEEX W9OUT W44FDT KY4RE N5XED NIIX WOWM WSEUU W9QR W54WXD W54FOT W54F	KT4UE	N5PZS	NF7D	WØOFY	W4VZ	W9EWZ	WB2REI
KU5Q NSSUM NG8W WORSD W3A1 W9NA W33POI KU8S N5TIH NH6IC WOSN WORSD W3A1 W9NA W33POI KU8S N5TIH NH6IC WOSN WORSD W3CLD W9UW WB3IGP KU8S N5TIH NH6IC WOSYP WSEEL W9OUY WB4FDT KY4RE N5XED NIIX WOWM W5EUU W9QR WB4WXD W5ED NIX WSEEL W9QR WB4WXD W5ED NIX W5ED NSQL W9DIC W5AAA N6BGT N6EED NISZ WICC W5IA W9TTC W5AAA N6BGT N6EED NISZ WICC W5IA W9TTT W55CXC N6PE NK8A WICU W5IC W9W W95IWI N6OOK N6HE NK8I WILT W5IP/SK WA6BAG W56ED N6OOK N6HE NK8I WILT W5IP/SK WA6BAG W56ED N6OOK N6HE NK8I WILT W5IP/SK WA6BAG W56ED N6OOK N6FIE N6KY N0OD WIRRP W5RCP WA6DEL W57AVF N6OTT N6MYN N0OD WIRRP W5RCP WA6DEL W57AVF N6OOK	KT4ZT	N5QAB	NF7H	~ WØPQ	W4WQ	W9FBO	WB2UDC
KUSQ NSSUM NGSW WORD WSAIL W9INA W331GP KW6AR NSVC NIGC WOSZP WSEEX W90UV W34GP KW6AR NSVC NIGC WOSZP WSEEX W90UV W34BPDT KY9AE NSXRD NIII WOWM W34WW W35UU W90R W34WWD KZ5D N6DM NITR W1AKN W5FZ W9FC W35AW N6BGT N6EED N1SZ W1CC W31A W9TTT W35AW N6DOK N6FE NK8A W1ICU W5IC W9WU W35DW N6OODK N6FE NK8A W1ICU W5IC W9WU W35DW N6OOL N6IRL NK8V W1MB W50M W30CB W36ED W37DW N6OTU N6MY NN2H W2AGR W35QA W36FW W37OW W37OW N6VA N6MY N0AU W37TW W37TW W37TW W37TW W37TW <td< td=""><td>KT6DX</td><td></td><td>NF7R</td><td>WØQL</td><td></td><td>W9GX</td><td>WB3BVL</td></td<>	KT6DX		NF7R	WØQL		W9GX	WB3BVL
KW6AR	KU5Q	N5SUM	NG8W		W5AI	W9INA	WB3FOJ
KY4RE NSXRD NIIX W0WM WSEIU W90R WHAWND KZ5D N60M N17R W1AKN W5FZ W9TFC WB5AAA N0BOGT N6ED N18Z W1CC W5IA W9TTT WB5CXC N0BOK N6FE N18Z W1CC W5IA W9TTT WB5CSC N0BOU N6FE N18A W1T W51FSK W40BAG W86DA N6OI N6IR N18B W1T W51FSK W40BAG W86DA N6OIT N6KZN NN0D W1RP W50M W30DE W37AF N6VI N6KXY NN0H W2AGD W37AF W40FW W37AF N6VI N6NAX NN4Z W2DH W37YX W40FW W37YX N6WA N6QP NQ4Q W2DHT W37YX W40FW W81FT/SK N6WA N6QP NQ4C W2DH W37YX W41FT/SK W88KKY N1DES N6RET NS1W <t< td=""><td>KU8S</td><td>N5TJH</td><td>NH6JC</td><td>WØSN</td><td>W5CLD</td><td>W9LW</td><td>WB3JGP</td></t<>	KU8S	N5TJH	NH6JC	WØSN	W5CLD	W9LW	WB3JGP
MODE NOED	KW6AR	N5VC	NIØC	WØSZP	W5EEX	W9OUY	WB4FDT
NOBGT	KY4RE	N5XRD	NIIX	WØWM	W5EIU	W9QR	WB4WXD
MODUK N6FIE N.K.B. WILT W.SIFCSK W.A@BAG WB6RDO MODOK N6FIE N.K.B. WILT W.SIFCSK W.A@BAG WB6RDO MODOK N6FIE N.K.B. WILT W.SIFCSK W.A@BAG WB6RDO MOORTU N.6KZN N.N.DD WIRRP W.SRCP W.A@DEL WB7AVF MOFTU N.6AXX N.N.DL W.ZAGCN W.SCQA W.A@F WB7OND MOFTU N.6AXX N.N.DL W.ZAGCN W.SSQA W.A.BF W.B.BCN MOWA N.6CP N.CQA W.ZEDD W.SYXE W.A.BTEV W.B.BCN MOWA N.6CP N.CQA W.ZEDN W.SYXE W.A.BTEV W.B.BCN MOWA N.6CP N.CQA W.ZEDN W.SYXE W.A.BTEV W.B.BCN MOWA N.6CP N.CQA W.ZEGN W.SYXE W.A.BTEV W.B.BCN MIACZ N.GCV N.CQT W.ZEK W.SXXM WAILEND W.B.BKLV NIACZ N.GCV N.CQT W.ZEK W.SXXM WAILEND W.B.BKLV NIACZ N.GCV N.CQT W.SZEM W.A.L.M.D W.B.BTHO NIEZ N.GTE N.S.BF W.ZEM W.G.ETK W.A.B.S W.B.BSTU NIEZ N.GTE N.S.BF W.Z.BK W.G.GAF W.A.Z.B W.B.BDLC NIJK N.7BBQ N.SAQ W.ZLG W.G.GAF W.A.Z.B W.B.BDLC NIJK N.7BBQ N.SAQ W.ZLG W.G.GAF W.A.Z.B W.B.BDLC N.TAGEN N.TGG W.Z.BGY W.G.GAF W.A.Z.BC W.B.SFFU N.ZABC N.THRO N.TGG W.Z.BGY W.G.GAF W.A.Z.DUX W.B.SFFU N.ZABC N.THRO N.TGG W.Z.BGY W.G.GAF W.A.Z.DUX W.B.SFFU N.ZABC N.TAGE N.TGG W.Z.BGY W.G.GAF W.Z.DUX W.B.SFFU N.ZABC N.TAGE N.TGG W.Z.BGY W.G.GAF W.Z.DUX W.B.SFFU N.ZABC N.TAGE N.TGG W.Z.BGY W.Z.DUX W.Z.BGY N.ZABC N.TAGE N.TGG W.Z.BGY W.Z.BGY W.Z.BGY W.Z.BGY N.ZABC N.TAGE N.TGG W.Z.BGY W.Z.	KZ5D	N6DM	NI7R	WIAKN	W5FZ	W9TFC	WB5AAA
NOODK N6FIE NK81	NØBGT	N6EED	NI8Z	W1CC	W5IA	W9TTT	WB5CXC
NOOI NGIRL	NØIWC	N6FE	NK8A	W1ICU	W5JC	W9WU	WB5JWI
NORTU	NØODK	N6HE	NK8I	W1JT	W5JIF/SK	WAØBAG	WB6RDO
NOTTP	NØOI	N6JRL	NK8V	W1MJB	W5OM	WAØCRI	WB6TIX
NOTU N6NAX NN4ZZ W2BEE W5TTW WAGHQQ WBTTOB NØVA N6PF NO3W W2CDO W5VXE WAGTEV WBRICN NØWA N6QP NQ4Q W2DHT W5WW WAILMD WBRKY NIDSS N6RF NSIW W2EK W5XTL WAILMD WBSTHO NIDSS N6RBT NSIW W2EK W5XTL WAILMD WBSTHO NIFZ N6TF NSIS W2KM W6ETK WAILS WBBVED NIJX N7BBQ NS4Q W2LG W6GAF WA2B WBPDLC NIJK N7BBQ NS4Q W2LG W6FBK WA2CJC WB9FUH N2ABC N7HRO N17G W2MGY W6KFW WA2DU WB9FUH N2ABE N7HRO N17G W2MGY W6KFW WA2DU WB9FUH N2ABE N7HRO N17G W2MGY W6KFW WA2DU WB9LC N2ABE N7HRO N17G	NØRTU	N6KZN	NNØD	W1RRP	W5RCP	WAØDEL	WB7AVF
NOVA N6PFI NQ3W W2CDO W3YXE WAOTEV WBBICN NOWA N6QP NQ4Q W2DHT W3WW W1F1T/SK WBBKNY NIACZ N6QV NQ7L W2GZ W5XTL W41K WB8KQJ NIDBS NSBT NS1W W2EK W5ZXM W41LMD WB8THO NIFZ N6GPT NS4D W2EK W5ZXM W41LMD WB8THO NIJEZ N6GPT N84D W2LG W6GAF W42B W8DDLC NIJK N7BBQ N84Q W2LG W6GAF W42B WBDDLC NIJMC N7F0F NS8V W2LOS W6HPK W42CIC W89FDLC NIJMC N7F0F NS8V W2LOS W6HPK W42CIC W89FDLC NIJMC N7F0F NS8W W2LOS W6FDW W42DUX W3DUX W3DUX N2BCD N7MM NY9 W2SH W6RFW W42TUD W3O N2EX N7TAI <td>NØTP</td> <td>· N6MY</td> <td>NN2H</td> <td>W2AGN</td> <td>W5SQA</td> <td>WAØF</td> <td>WB7OND</td>	NØTP	· N6MY	NN2H	W2AGN	W5SQA	WAØF	WB7OND
NOWA N6QP N.04Q W2DHT W3WW WAIFIT/SK WB8KXY N1ACZ N6QV NQ7L W2GZ W5XTL WAIK WB8KQI N1DBS N6RBT NS1W W2JEK W5ZXM WAILMD WB8THO N1FZ N6TF NS3F W2KM W6ETK WAIS WB8VGE NIJX N7BBQ NS4Q W2LG W6GAF W42B WB9DLC NIJMHC N7FCF NS8V W2LOS W6HPK W42CUC WB9FUH N2ABC N7HRO N17G W2MGY W6KFW W42DUX WB9KPH N2ABC N7HRO N17G W2MGY W6KFW W42DUX WB9KPH N2ABC N7HRO N17G W2MGY W6KFW W42DUX WB9KPH N2ABC N7HRO N17G W2SH W6KPH W42CUC WB9FUH N2BZD N7ME NU9P W2SH W6KPH W42TUD WC3O N2DCB N7TAU NV9X W2SR W6STN W42UEM WD6BYH N2EZY N7UH NY2H W2UI W6SV W43GYW WD6FDD N2JDQ N7YY NY4G W2XYZ W6UJX W33MKC W58AFB N2NDJ N8CPA NY5F W3CGR W7CCE W32BU W58Q N2NE N8GKQ NY5J W3EEK W7CSX W4AAN WE8Z N2OH N8GMC NY9A W3ESV W7FKF W4BAM WF3W N2FP N8HGL P43E W3FUO W76M W44FYN WF5K N2UC N8HP V43GRL W3GW W7HWR W44LBN WGTY N2VT N8KC V47OA W31Q W71LM W44MXF WG8W N2WJ N8KV V47REH W31Y W70N W44GH W12C N2ZHF N8KZN V22CW W3KEY W7TEA WA5COD W14E N3AO N8NLK V23GKB W3OFT W3AJS WA6BXV WL7BR N3AO N8NLK V23GKB W3OFT W3AJS WA6BXV WL7BR N3AO N8NLK V23GKB W3OFT W3AJS WA6BXV WL7BR N3AO N8NLK V23GKB W3OFT W3AJS W36BXV WL7BR N3AO N8NLK V23GKB W3OFT W3AJS W36BXV W17BR N3AO N8NLK V23GKB W3OFT W3AJS W36BXV WL7BR N3AO N8NLK V23GKB W3OFT W3AJS W36BXV W17BR N3AO N8NLK V23GKB W30FT W3AJS W36BXV W17BR N3AO N8NLK V23GKB W30FT W3AJS W36BXV W3FT N3AO N8NLK V23GKB W30FT W3AJS W36BXV W37BR N3AO N8NSN V23GKK W30FT	NØTU	N6NAX	NN4ZZ	W2BEE	W5TTW	WAØHQQ	WB7TOB
NIACZ	NØVA		NQ3W	W2CDO	W5VXE	WAØTEV	WB8ICN
NIDBS	NØWA	N6QP	NQ4Q	W2DHT	W5WWW	WA1FJT/SK	WB8KKY
NIFZ	N1ACZ	N6QV	NQ7L	W2GZ	W5XTL	WA1K	WB8KQJ
NIJX	N1DBS	N6RBT			W5ZXM	WA1LMD	
NIMHC N7FCF NS8V W2LOS W6HPK WA2CJC W89FUH N2ABC N7HRO N17G W2MGY W6KFW WA2DUX W89KPH N2AME N7KBJ NU4I W2NN W66HD W42OVT W89LPU N2BZD N7ME NU9P W2SH W6RLF W42TUD W63O N2DCB N7TAU NV9X W2SR W6STN W42UM W69TH N2DD N7TAU NV9X W2SR W6STN W42UM W69TH N2DD N7YY NY4G W2XYZ W6UJX W43GYW W06FDD N2IDO N7YY NY4G W2XYZ W6UJX W43GKC W58AFB N2ND N8GKQ NY6J W3EEK W7CCE W43ZBU W58Q N2ND N8GMC NY9A W3ESV W7FKF W44BA W7SX N2UC N8HP W43GRL W3GW W7HWR W44LBN W67Y N2UC N8HP V43GRL	N1FZ	N6TF	NS3F	W2KM	W6ETK	WA1S	
N2ABC N7HRO N17G W2MGY W6KFW WA2DUX WB9KFH N2AME N7KBJ NU4I W2NN W6QHD WA2OVT WB9LPU N2BZD N7ME NU9P W2SH W6RLF WA2TUD WC3O N2DCB N7TAU NV9X W2SR W6STN WA2UEM WD6PDD N2DCB N7THN NY2H W2UI W6SV WA3GYW WD6PDD N2DD N7YH NY4G W2XYZ W6UIX WA3MKC WD8AFB N2DD N7YY NY4G W2XYZ W6UIX WA3MKC WD8AFB N2ND N8CRA NY5F W3CGR W7CCE WA3ZBU WD8Q N2NE N8GKQ NY6I W3EEK W7CCX WA4AN WE8Z N2OH N8GMC NY9A W3ESV W7FKF W44BAM WF3W N2PKP N8HGL P43E W3FUO W7HWR W44LBN W67Y N2UT N8KC VA7OA	NIJX			W2LG	W6GAF	WA2B	
N2AME N7KBJ NU4I W2NN W6QHD WA2OVT W89LPU N2BZD N7ME NU9P W2SH W6RLF WA2TUD WC3O N2DCB N7TAU NV9X W2SR W6STN WA2UEM WD6BYDH N2DCB N7THU NY2H W2UI W6SV WA3GYW WD6FDD N2IDQ N7YY NY4G W2XYZ W6UIX WA3MKC WD8AFB N2NDI N8CPA NY5F W3CGR W7CCE WA3ZBU WD8Q N2NE N8GKQ NY6I W3EEK W7CSX W44AN WE8Z N2OH N8GMC NY9A W3ESV W7FKF W44BAM WF3W N2UC N8HP VA3GRL W3FUO W7GM W44LBN WG7Y N2VT N8KC VA3GRL W3GW W7HWR W44LBN WG8W N2UI N8KC VA7REH W3JY W7ON W44LBN WG8W N2WI N8KC VA7REH	NIMHC	N7FCF	NS8V	W2LOS	W6HPK	WA2CJC	WB9FUH
N2BZD N7ME NU9P W2SH W6RLF WA2TUD WC3O N2DCB N7TAU NV9X W2SR W6STN WA2UEM WD66PH N2DCB N7TAU NV9H W2UI W6SV WA3GYW WD6FDD N2DQ N7YY NY4G W2XYZ W6UJX W33MKC WD8AFB N2NDJ N8CPA NY5F W3CGR W7CCE WA3ZBU WD8Q N2NE N8GKQ NY6J W3EEK W7CSX WA4AN WE8Z N2OH N8GMC NY9A W3ESV W7FKF W4BAM WF3W N2DH N8GMC NY9A W3ESV W7FKF W4BAM WF3W N2DH N8HB V43GRL W3GW W7HWR W4ALBM WF3W N2UC N8HP V43GRL W3GW W7HWR W4ALBN WG7Y N2VT N8KC V47OA W3IQ W7ILM W4ALB W12C N2VT N8KY V47RH <td< td=""><td>N2ABC</td><td>N7HRO</td><td>NT7G</td><td>W2MGY</td><td>W6KFW</td><td>WA2DUX</td><td></td></td<>	N2ABC	N7HRO	NT7G	W2MGY	W6KFW	WA2DUX	
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N4PD N9MRG VE7IO W4GDC W80KN WA8YCD WY3H N4PHH N9MVO VE7WO W4HH W8PWP WA9LT WY7N N4QDA N9NTC VY2WU W4HZD W8STU WA9RUX WY8C							
N4PHH N9MVO VE7WO W4HH W8PWP WA9LT WY7N N4QDA N9NTC VY2WU W4HZD W8STU WA9RUX WY8C							
N4QDA N9NTC VY2WU W4HZD W8STU WA9RUX WY8C							
N43EU NYKZL WWCC W4ISI W81UU WAYS							WISC
	N43EU	INDICAL	WECC.	W 4131	POLOW	WMZO	

Issue 2, 2012

For many, the beginning of the proad traditions of wireless. Morse can be traced to the early-morning hours of 15 April 1912, when over 1500 souls were lost with the foundering of the RMS Thanks. Today only a relatively small group of Amateur Radio operators is still true to that tradition. In recognition of that heritage, I declicate each one or my analyth-key Morse contacts to Titanic's Marconi operators "lack" Phillips and Harold Dride.

73 and thanks for a fine QSO. Stan

KCY: X Tilanic Replice: Swedish Pump Paddle Reyboard QSO 2X QRP UR QRP 100Mw Rock-Mile 2X SR CW

CALL	DATE	UTC	BAND	MODE	RST
insplace	15Apr12		40m	്ഷ	599.

100th Annuary of the loss of the Titenic

Stan, K4UK, worked Ralph, WB8DQT, during the Titanic Special Event and received this commemorative QSL card.

The text is hard to read, it says, "For many, the beginning of the proud tradition of wireless Morse can be traced to the early-morning hours of 15 April 1912 when over 1500 souls were lost with the foundering of the RMS Titanic. Today only a relatively small

group of Amateur Radio operators is still true to that tradition. In recognition of that heritage, I dedicate each one of my straight-key Morse contacts to Titanic's Marconi operators "Jack" Phillips and Harold Bride."

If you would like to activate KNØWCW, please do! It doesn't matter if you're a speed demon or enjoy a slow ragchew, it is a lot of fun and helps promote FISTS on the air. Just contact the call trustee and he can set up a time for you to use the call. Don't use it without Karl's permission! He will be more than happy to help you out and even do the QSLing or provide you with the cards. Give it a try — make a Special Event out of it or work at your leisure. You'll be sure to have a pile up and feel like rare DX.



***** NEW BOOTH LOCATION FOR FISTS AT HAMVENTION: NH136 *****