

Bacon Bits

Flying Pigs QRP Club International, W8PIG
 1900 Pittsfield St, Kettering, Ohio 45420

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FPQRP [membership](#) is open to all licensed QRP operators who reside within 12,000 nautical miles of Cincinnati, Ohio.

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NETS:

DAY	TIME	FREQ	NCI
Sun	0100Z	7.137	KC8NYW
Mon	0100Z	7.044	WB8ICN
Thurs	0100Z	7.044	KE1LA

CLUB FREQS.

1,814 kHz	3,564 kHz
7,044 kHz	10,110 kHz
14,062 kHz	18,100 kHz
21,064 kHz	24,910 kHz
28,064 kHz	

(All days/times listed are UTC)

ALL FPqrp frequencies are UP 4 kHz
 from the standard qrp frequencies
 except for 20 meters.

K3ESE Lloyd and WB8ICN Mike at FDIM 2003



In this issue:

Ramblings: By Brian KB9BVN
 Milliwatting 101 – George N2JNZ
 QRP BASICS - To the Field – Rick KC8AON
 Cajun Rope Wire Special – Joel KE1LA
 WAP Standings
 June QRP Contests – N2CQ
 Info about the Flying Pigs:

Page 2
 Page 2
 Page 4
 Page 5
 Page 7
 Page 7
 Page 8

Ramblings

June is here, Field Day plans are underway. FDIM 2003 is in the history books. I took last month off. Thanks to everyone that contributed to the BB this month, it is very much appreciated. Lets see some FDIM 2003 stories in the BB next month!

DE KB9BVN – Brian Murrey

Milliwattting 101 – N2JNZ

Milliwattting 101

With the popularity of QRP operation these days some hearty (or crazy) souls take the ball and go a bit further. These are the milliwattters. Using little more power than the common flashlight they seek to have fun in a whole new realm. DXCC , WAS and WAC are now possible with the advent of new rigs having the latest in filtering (DSP). ANYONE with the drive and determination to get these awards can do it !

I started on my chase in 1994 with my first mw station worked as KB2OGW , Carl in Ocean City , NJ. I used 500 mw with (believe it or not) a HW-7 as a transmitter and a DX-302 as a receiver ! All mw contacts back then were on 40 meters novice which was a really wild place to learn !!! The QRM from BC stations is massive! But I progressed and made my first 1000 miles per watt with KE4OFN , Charlie in Richmond , VA with 250 mw on Feb. 10 , 1994 with the same PRIMITIVE setup. The next step was trading up to a Kenwood TS-520 and by turning down the drive under 1 watt QSOs were a major reality !!! I had that wonderful rig till 1998 when I got my recent rig , a Ten Tec Argo 509. The station here has evolved only slightly since the Argo arrived. I have a Ten Tec Model 290 step attenuator and a Oak Hills WM-1 QRP wattmeter that can measure down to 1 mw easily which simplifies the task of serious milliwattting! Antennas are a 51 ft G5RV up 20 ft for 40 - 15 meters and a Cushcraft AR-10 Ringo vertical up 25 ft for 10 meter operation.

HOW TO

The most important thing to learn first is how to turn down the power! I use the drive control on the Argo and for powers under 100 mw I also use the attenuator with the drive control. The attenuator allows you to not turn the drive TOO low which might cause problems. On some rigs turning down the drive will cause the receiver to be less sensitive but with a decent signal from the other station this will not be a problem !! Some rigs require fooling with the ALC controls which I myself would not recommend. Also if you have to use an attenuator you can use the following formulas :

10 db attenuation = 10 X power decrease
 20 db = 100 X power decrease
 30 db = 1000 X power decrease

Example :

500 mw = 0.500 w
 minus 10 db = 0.050 w
 minus 20 db = 0.005 w (or 5 mw)

Propagation

Knowing how each band should behave at a given time is one of the most important facts to know! The old motto " You can't work what you can't hear " is a given with milliwattting! Knowing when the optimum opening for your area is paramount to get under 1 watt. I know that 8 AM EST is good for 10 meters to start to Europe and that 2 PM is when it drops off here. Later at 4 PM the West to Japan and Oceania is good till 8 PM here. For each band a optimum time is needed to get to the area you wish to work so for a while at least LISTEN , LISTEN then LISTEN some more! You will have to be well schooled in propagation to find your niche in the wild world of milliwattting! The numbers you seek are the solar flux and A and K indexes. There is much info written on these numbers by some great authors which is essential reading for the budding milliwattter ! Also remember that conditions that seem great for people running QRO are NOT always the best time for QRPp ! You must find the small time slot for you and anticipate the best conditions for the amount of power you are running.

Myths

Most people that QRP think that HUGE pieces of aluminum in the air are the only way to go!!! This cant be farther from the truth !!! While big antennas can make the under 1 watt job easier it is not totally needed. I have worked all my awards with my dipole and vertical and have not needed 100 lb Yagis blocking out the Sun. Once again , propagation knowledge is the great equalizer when it comes to your signal being heard !!!! Low loss coax , good fittings and taking care when installing antennas is most important. You will see results quickly when you can optimize what you use !!

Contests

People either love or hate contesting. But you will quickly find that contests are the BEST times for miliiwattting !!! When a contest team goes to Outer West Mongolia to run up a big score they bring ONLY the BEST rigs and best antennas and most importantly the VERY BEST OPS !! Local stateside contesters also run super rigs and super aluminum farms and are looking for as many "Q"s as possible. With your tiny signal you are still a target and just as good a point as anyone else !!! When the pileups occur ,and they will , you have to take a clever strategy, you can stand right on the CW frequency and pound away which sometimes will get you through OR you can "slide" a bit plus or minus 1 KC. Sometimes the change in the CW tone will get the DX stations attention. Also listening to when the DX station picks up a call can tell you a lot. If he jumps to the first station that he hears or if he waits for the "buzzing" to calm then picks a call from that. Some DX stations prefer to "tailend" the pileup so they can get the whole call of the station calling

them. Each station has its own rhythm and its best for you to go with what he's giving !!!

A great example of this is the D68C DXpedition. They went to the Comoros with one thing in mind. To work ALL stations of ALL sizes and powers !!! To give out the country to all who needed it. They were very successful to say the least !! I worked them during the 2001 ARRL DX INTERNATIONAL with 500 mw by listening to the OP and determining when he was picking them off in the pileup. Don't be afraid to listen for 5 minutes or so to find his rhythm because odds are he isn't going to go to far for a while !! The OPs were fantastic and they stuck to their game plan as much as possible so the stations calling could count on their consistency.

A good tool to keep in mind for increased success at milliwatting is DX SPOTTING !!! I use DX SUMMIT to keep abreast of stations coming on and I team this up with internet DX bulletins like 425DX or others that will tell the beginning of a DXpedition and their schedule for their stay. Sometimes sneaking in and working DX is possible when you can be near the front of the line by watching the spots !!! But beware of the many spots that may not be from your geographic area !! The DX station "7B7BB" may have 25 people putting it in the list of spots but these 25 may all be from Europe and the propagation might not even be close for you to hear it !!!

Bands

10 meters is the band to milliwatt when conditions are right !!! But with the higher bands on the decline in the next few years you will have to be a bit more creative. My favorites when the solar cycle is low is 30 and 40 meters. With the maximum power on 30 meters of 200 watts it makes a great stomping ground for milliwatters !!! Also 40 meters is quite good and a favorite place for QRPers. When I worked many of my states I used the Novice portion of 40 meters. During the day its quite free from broadcast QRM and all of New England and the midwest is very possible !! At night its a bit tougher but it gives you good training when the 500 KW monsters are on !! Your hearing becomes VERY much more selective and with rigs with DSP filtering its gets even easier !!!

QSLing

I find that many QRO or even QRP stations are VERY interested in receiving a QSL form a tiny milliwatt station !! Once you tell them what your power is they often ask YOU to QSL them! I always QSL as a courtesy to the station that strained its ears to make the "Q". Sometimes I even make special cards for the DX station with the " QSLmaker " QSL card program and manipulate the info fields to put my power in bold letters for the DX station to display proudly !!!

Surprises

Most times before a major contest stations will be on a few days before flexing their muscles to see how things are working. On November 24, 2000 a few days before the 2000 CQ WW CW I came across a VERY powerful station on 10 meter CW signing " OK / OM3BH " He was easily S9 + 40 db to my vertical

antenna !!! So I thought I might try 10 mw, got me on the third call and gave me the usual "599" at 1401 UTC. His name was " Rasto" and was using the station of Jiri, OK2RZ at the Ham Heaven Radio Ranch in the Czech Republic. The antenna was " 6 over 6 over 6 " just for 10 meters ! I then went for broke and at 1422 I called Rasto again with just 4 mw !! It took the tricks I mentioned before but I got through !!! This was my BEST Miles per Watt ever at 1,027,310 mpw ! You can always count on propagation knowledge and a ton of aluminum to get you through in this case ! I cherish this card and the QRP-ARCI certificate hangs proudly on my wall. Having as much knowledge of conditions as possible will often yield MANY surprises !!!! And Lady Luck cant hurt either !!!

Awards

The QRP-ARCI has several nice awards for milliwatters and QRP alike !! They have:

WORKED ALL CONTINENTS
WORKED ALL STATES
DXCC
MILES PER WATT

All of the awards are taken care of by Tom Durfee, WI8W, who has always been very fast in getting awards out to me and getting them to me safely. They all can be endorsed for milliwatt power and are well worth the small sum charged! The best looking QRP awards in my opinion !

The "miles per watt " to me is the most interesting of the bunch !! As an example if you work a station 1000 miles away with 1 watt you qualify, but you need not stop there, my contact to OK / OM3BH was 4 mw over 4000 miles, the possibilities are endless !You could work a station 500 miles away with 500 mw and that would work too !

My stats

As of right now I'm at 127 countries worked and 120 confirmed so the cards are slowly rolling in, I have the WAC and am sending in for the WAS and 1 short of getting 100 mw WAC with a KH6 needed !

Conclusion

If you are looking for a different challenge with a different set of rules you can go for the milliwatts contacts. If I can do it anyone can! Knowledge, and determination to succeed and a true love for the journey will get you to your goals with least amount of frustration and pain !!! The fun is in the realization that people can REALLY hear a signal that low !!!! And that you can be successful with little radios and little antennas !! If we meet on the bands someday don't be surprised if I ask you to "turn down yer power "

72 de George

[Ed. Note – June 28, 29 is QRP-ARCI's Milliwatt Field Day]

QRP Basics – To The Field – KC8AON

Every once in a while, most folks like to just get away from their old hum drum mundane world, go off somewhere and relax. Be it out in the woods backpacking for an extended stay, an afternoon jaunt to the local park, a weekend in a camp ground, or a vacation resort in a motel. And Hams are no different !

But most Hams will leave their beloved hobby at home due to the fact that their equipment is either too big and power hungry, or they just won't have the time to put together any type of antenna system when they get there. Oh, they may have a 2 meter rig in the family SUV, but there's more to ham radio than popping repeaters ! Well, this just ain't so with the happy go lucky QRPer ! Our equipment for the most part is so small, that an entire station could fit in the average automobile glove box !

For backpacking, there are myriad of sub compact rigs in kit form that when finished, will fit in your shirt pocket. Remember, smaller and lighter is better when an extended stay is planned. You don't want to have a five pound rig banging you in the ribs with each step ! Your average backpack rig should consist of a transceiver that has a very low appetite for battery power. Look for something that will draw less than 300 milliamps at full key down, and a set of 8 double A alkaline batteries will give you several hours of on the air fun, plus double A's can be picked up just about anywhere these days making it a snap to replace your power source. Rigs of this type are available in both crystal control and VFO control, and run anywhere from 1/2 watt to 2 and 1/2 watts output.

For a backpack antenna, my personal favorite is the end fed half wave wire (EFHWW). And, the EFHWW is exactly what the name implies - a piece of wire that is 1/2 wavelength long for the band of choice (66 feet for 40 meters for example). Now, the EFHWW will present a load impedance of approximately 4000 to 6000 ohms at it's design frequency - which make the need of some sort of matching device to convert the high impedance down to the 50 ohms that your rig desires.

Yes, another piece of equipment is needed ! But don't get discouraged yet ! All that's needed is a simple circuit called a parallel resonant circuit that can be built in a box that is the same size or smaller than your transceiver ! I won't get into the circuit details here, but if you'll do a web search for "end fed half wave wire tuner", you will find plenty of info to point you in the right direction. Now for the feed line - "forget it - you don't need it !" Except for a very small coax jumper of 2 to 3 feet to connect the rig to the matching device. The good thing about the end fed wire is the fact that the feed point being on the end of the wire puts it close to the rig and eliminates the need for a big coil of coax ! For the wire itself, use plain ole insulated stranded hookup or speaker wire and make end insulators out of some thin sheet plastic. Hang it vertically, horizontally, as an invert "L" or inverted "V" - just hang it, tune the matching device for a good match and you're on the air !

The station setup just described will also work great when going to the local park for an afternoon. But most of the

time, you will be traveling in the family car and you have more options of what you can and can't take along. For this type of operation, you can take along a bigger rig and larger battery that allows you more feature packed operation. Just keep the power turned down to the QRP level to assure that your battery stays charged for the duration of the event. And since most public parks have access to large trees, you may even be able to temporarily string up a full size dipole antenna for even better performance!

Now for camp ground camping and motel room operation. For this type of operation, almost any rig will do and you will also have more options as to which type of power source you can use since most camp grounds have AC power, and all motels that I know of do too ! I recently had to be out of town for a week of job related training, and took along my old Yaesu FT-747GX, a 25 amp switching power supply, an MFJ-949 300 watt antenna tuner, and a bunch of rolled up speaker wire. In the evenings, I would throw the piece of wire out the window of my room, string it out across the lawn and up into some trees, connect the other end to the tuner and keep a sched on 75 meter phone with the wife and a friend back home - sure saved on the phone bill !

After chatting with them for a while, I would switch to 40 meters, crank the power down to the 2 watt level and have a blast operating my clandestine CW - QRP station till bedtime ! You can operate pretty much the same way from most camp grounds too ! If you own a nice motor home or travel trailer, you have more options for your antenna also. In this case, you could use any of the available mobile antennas, or even a multi-band trap vertical on a fold over mount that could be raised after you have the rig parked, giving you near base station performance almost anywhere !

You could also have a mobile sized transceiver previously mounted and be ready anytime the urge hits you to hit the road. Before I close, I guess I should mention keys, paddles and keyers for portable operation. My personal favorite portable paddles are ones that I built myself, and even have a leg strap to hold them steady in use. But there are many micro paddles and keys on the market today, and one that comes to mind are the ones from Whiterock Products. Their mini paddle model MK-44 and their micro straight key model MK-11 are very lightweight and affordable, making them great for portable field operation. For keyers, look for the Pic type keyers from Embedded Research and K1EL. The Pic type keyers are usually very small, very affordable, and work really well and are very easy on batteries ! For the most part, when operating portable in the field, think about it first. Will you be traveling by foot, or by automobile, plane, or boat ? Then plan your portable station accordingly. Think about things like: how much room can I allow for my equipment ? How much can it all weigh and still have everything included to maintain operation ?

Look at your antenna options, will there be trees that can be used as supports or will I need some sort of supporting pole ? Look at your power supply options. If I operate from alkaline batteries, do I need to take spares or can I purchase them on site ? If I use lead acid batteries for extended periods,

will I be able to recharge them on site ? You can usually recharge most lead acid batteries from your vehicle charging system ! Can I use a regular AC operated power supply ? You get the picture, just think thing through and plan accordingly. You may not get it all right the first time around, but you can refine your station each time you go out. And, "YES" you can operate amateur radio from almost anywhere ! You just gotta learn to improvise ! Now, go out in the woods somewhere and have some fun – QRP style !

72/73
Rick McKee, KC8AON

The Cajun Wire/Rope Special – KE1LA

High y'all

Here bees the thirty meter antenna what u all ban askin bout....Ah even took some pictures to sheaux nufff confuse the issue...

Ah used number 12 solid wire.. Twin lead or sumthun like that would work just as well ah thinks, probably be easier to work with and all that... anyhow we done got three measurements heah what gots to be close to right, the reflector, what bees 49' 3/4 inches long BUT U CUTS THE WIRE 43' 5 3/4 INCHES LONG AND USE THE TUNING STUB TO MAKE IT A REFLECTOR... TUNING STUB BEES 2' 8" FOR 10.110 mhz,... SHORT CIRCUIT ONE END OF THE STUB

The driven element, what bees 46' 3 1/2" long and the director what bees 43' 5 3/4" long BOTH WIRES ON EACH END OF THE ANT ARE THIS LENGTH SO THE RELAYS CAN SWITCH IN AND OUT THE TUNING STUB...

The spacing what ah used was 20 feet between elements...which be .2 wave at 10.110 mhz. Now u could do 15ft for the reflector and 15ft for the director and that be fine too...

As to what be the feed point impedeance... ah don't kneaux... ah just use 300 ohm twinlead from the center of the driven element to my tuner and play radio...I'M SURE U COULD DO THE SAME WITH 50 OHM COAX...

Cepin for the ropes to hold it up that bees the antenna and course the relays... oh boy...Ah gots them relays at radio shack for about 7 dollar each...they bees DPDT relays with a 12 VOLT coil and needs about 70 milli amps to pull itself together...(they gots all dat written on the box) the relay contacts say they can take ten amps so ah guess up to 100 watts ah wouldn't worry bout them... course that be at a current node... high voltage of a few hundred volts might decide to jump across the contacts... so kept ur power low or got u self another type of relay, ok?

As the picture shows.. Ah use a hook to measure my wire with... ah connects the wire and the measuring tape to the hook stretch em out equal and make my measurement...for a coupla center insulators ah used an old piece of fiberglass tubing... guess about 3/4 inch round and bout six inches long... and

drilled a couple of holes near the ends to fasten the wire too... be patient ah is gonna got to the relays... ok?



Now half the reflector/ DIRECTOR length gonna be BOUT 22FT 8 1/2 inches and a little bit...so make sure u got that much wire attached to the center insulator on each end...then u can add a piece of wire to got u self from the end of the insulator to the center of the insulator and this wire can be smaller than the element wiring to make hooking up the relay meaux easy.... me ah done it the hard way by measuring the wire what ah done attached to the insulator and left some extra to reach the relay... And after all the wiring was done then I measured the wire ah used to got from the relay to the beginning of each element (about 5 inches) and included that with my element length measurement.... bit of overkill thair...

Also note ah used the egg insulator improperly... yea ah done it wrong, on purpose.... ah puts the wire into each end without going around the whole insulator like what u supposed to do. The reason ah done that is because most of the time, for some strange reason, the wire gets itself loose and then pulls up against the other wire... so I just stop it before it starts... just remember it gonna break easier or bout just before the wire breaks... :-)



One of them pictures gots a close up on the relay and u can see

each pole double throw part be on either side with the coil across the tail end...so here is how u gonna wire it up, hopefully..



THE TWO PINS what be on the back side...just past that big gap between them three other pins... that be the relay coil...so u can hook the wire what u gonna use to switch the relays to them two pins, don't got u self worried about polarity, it don't matter here...now u take that wire, solder it to those two lugs and pull the wire down the side of the relay cover and tape it thair... Next thing is to geaux past the big opening to the other two contacts, they bees the wipers or the part what switches from one connection to the other....one on either side of the relay... and that's whare u gonna connect the ends of the dipole wire too.... one on either side... the next two pins be the normally open pins NOW THIS BEES IMPORTANT.. Iffin this dipole gonna be the reflector then u short these two pins with a piece of wire... so when u throw the 12 to the coil the relay gonna short across these two pins...AND whan u don't got neaux voltage on the relay it gonna connect to the normally closed contacts what have the tuning stub on them.. ok, trust me for now...



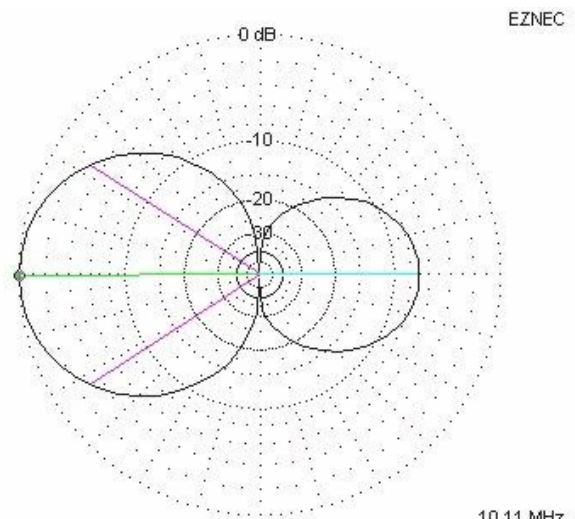
Now the last set of pins (notice we be gong from left to right heah) is the normally shorted pins... they bees the outside pins... so u take ur shorten stub... what be 2' 8" or so of 300 twinlead... and u solder either side to them two onnectors, bend the stub down the side of the relay and tape it securely to the

plastic covering of the relay... Now u take that relay and tape it to the fiberglass insulator real secure...

Then u goes to the other side of the antenna The director side... and do ALMOST...the same thing except u connect the tuning stub to the middle contacts... (normally open) and u short out the normally closed contacts together with a small piece of wire... so when u put the twelve volts to the relay it gonna pull in and use the shorting stub to make that director a reflector... while the other relay gonna pull in and do just the opposite... neat huh...

Now how u gonna switch the 12 to the relays is up to u.... ah tied the wire going to the coils in parallel and met that with a third wire in parallel and that third wire went to my shack whare ah puts or takes off the twelve volts what reverses the relays and changes the direction of the antenna...

My loading stays about the same either direction with the antenna and I can see a change of strength plus the other station say ah come in stronger when ah points the antenna to them...with the band noisy like what it is ah done made fine 5 watt european contacts... sum giving me s9 + sum... stateside ah gots a 20/9 at five watts.... now ten watts is almost a certain contact... but 5 watts be meaux fun and when the band gets itself better ah things ah could geaux to 1 watt or maybe 2 and expect to receive a 559 on the other end.... ah likes the antenna...



Azimuth Plot		Cursor Az	180.0 deg.
Elevation Angle	0.0 deg.	Gain	6.91 dBi
Outer Ring	6.91dBi		0.0 dBmax
3D Max Gain	6.91 dBi		
Slice Max Gain	6.91 dBi @ Az Angle = 180.0 deg.		
Front/Back	7.07		
Beamwidth	66.1 deg.; -3dB @ 146.9, 213.0 deg.		
Sidelobe Gain	-0.16 dBi @ Az Angle = 0.0 deg.		
Front/Sidelobe	7.07 dB		

Now the fun part... how does u got it up with ropes.... well ah use a fishing pole to cast into the trees with a small weight and then let the weight work its way to the ground then tie on some Wall Mart braided nylon rope, 70lbs working load... (about 4 or

5 dollar a hundred foot) and then reel the rope back up through the tree.... sure got some strange looks by passerbys.... For this antenna the longest element is 46' 3 1/2 "... that bees the center element or the driven element...so ah ties the ropes directly to the ends of the dipole.. Then ah measures twenty foots and makes a loop to tie the other dipole.... now geaux back to the driven element and geaux the other way 20 foots and tie a loop for the other elements...

Now due to the nature of things the end ropes gotta be a bit longer than the center elements soes ah added about 6 foots to either side of the ref and director elements... then I picked two trees more than 40 foots away from each and the other and threw the rope into these trees and pulled the rope tight...sorta... and I did the same thing on the other side of the antenna... then ah gots back some and looked at the thing....that LOOK is gonna suggest what u gotta do with what ropes to got the antenna reasonably straight and in the direction u want.... And that be all thair bees to it..... gud luck...

KE1LA joel
in maine, freezin
or hunting or fishin

WAP Contest Update

Currently we have 40 Flying Pigs that have posted their ongoing results to the website. (<http://www.fpqrp.com>)

As of 05/29/2003

Rank, QSO #, Callsign

1 76 K3ESE	2 56 K4FB
3 47 KG4FSN	4 46 AF4PS
5 46 W8DIZ	6 32 AC5JH
7 32 KB9BVN	8 28 N0JRN
9 27 AJ4AY	10 25 KC8AON
11 22 WB8ABE	12 20 K9DI
13 19 NN1F	14 18 WN4M
15 16 K8FP	16 15 W9FCC
17 14 N8IE	18 13 KI8JM
19 13 WB0WAO	20 12 KC4URI
21 12 N7MFB	22 9 KB5ELV
23 9 VE3VG	24 8 W0CH
25 8 W0JRM	26 6 VE3CRM
27 6 VE3FAL	28 6 WU9F
29 5 K8PZ	30 5 KJ0C
31 4 K6MMC	32 4 KG4LDY
33 4 W7ILW	34 4 WR5O
35 3 AG4NY	36 3 W9HL
37 3 WB6JBM	38 1 K8ZT
39 1 KC5GXL	40 1 WV9N

Looks like Lloyd and JERRY are going to be tough competition!!

JUNE QRP Contests – TNX to Ken N2CQ

N2CQ QRP CONTEST CALENDAR
June 2003

Summer FOX Hunt - Sunday June 1 through Sunday August 10.

Sunday July 6,- BYE weekend.
2200-2330Z late Sunday afternoon.
Info: <http://www.cqc.org>

Great Lakes QSO Party (Ph/CW/Digital) ... QRP Category
May 31 - 0000z to Jun 1 - 2400z

Rules: <http://www.mdxa1.org/laglpq.html>

AGCW Activity Week (CW) ... QRP Category

Jun 2 - 0000z to Jun 6 - 2400z

Rules: <http://www.agcw.de/>

(Not really a contest but activity instead)

Adventure Radio Spartan Sprint (CW) ... QRP Contest!

Jun 3 - 0100z to 0300z (Monday evening US/Canada)

Rules:

http://www.natworld.com/ars/pages/spartan_sprints/ss_rules.html

IARU Region 1 Fieldday (CW) ... QRP Category

Jun 7 - 1500z to Jun 8 - 1500z

Rules: <http://www.sk3bg.se/contest/iarur1fd.htm>

QRP TACTical Contest (CW) ... QRP Contest!

Jun 7 - 1800z to 2400z

Rules: <http://www.n3epa.org/Pages/TAC-Contest.htm>

Portugal Day Contest (SSB)

Jun 14 - 0000z to 2400z

Rules: <http://www.sk3bg.se/contest/portday.htm>

ANARTS WW RTTY/Digital Contest

Jun 14 - 0000z to Jun 15 - 2400z

Rules:

<http://www.users.bigpond.com/ctdavies/Rules%202003.txt>

Asia-Pacific Sprint (SSB)

Jun 14 - 1100z to 1300z

Rules: <http://jsfc.org/apsprint/>

West Virginia QSO Party (SSB/CW)... QRP Category

Jun 14 - 1600z to Jun 15 - 0200z

Rules: <http://www.qsl.net/wvarrl/>

ARRL June VHF QSO Party QRP Portable Category

Jun 14 - 1800z to Jun 16 - 0300z

Rules: <http://www.arrl.org/contests/rules/2003/june-vhf.html>

All Asian DX Contest (CW)

Jun 21 - 0000z to Jun 22 - 2400z

Rules: <http://www.jarl.or.jp/English/0-2.htm>

SP QRP Contest (CW) ... QRP Contest!

Jun 28 - 1200z to Jun 29 - 1200z

Rules: <http://www.sk3bg.se/contest/spqrp.htm>

Marconi Memorial Contest (CW) ... QRP Category

Jun 28 - 1400z to Jun 29 - 1400z

Rules: <http://www.qsl.net/ik6ptj/marconi.htm>

ARRL Field Day (CW/SSB/RTTY)... QRP Category

Jun 28 - 1800z to Jun 29 - 2100z

Rules: <http://www.arrl.org/contests/rules/2003/rules-fd-2003.html>

QRP ARCI Milliwatt Field Day (ALL)... QRP Contest!

Jun 28 - 1800z to Jun 29 - 2100z

Rules: <http://personal.palouse.net/rfoltz/arci/mwfd.htm>

Thanks to SM3CER, WA7BNM, N0AX(ARRL), WB3AAL and others for assistance in compiling this calendar.

72 de

Ken Newman - N2CQ

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<http://www.njqrp.org/data/contesting.html>

<http://www.n3epa.org/Pages/Contest/contest.htm>

<http://www.qsl.net/cqrp/contests.html>

About the Flying Pigs QRP Club International

OUR MISSION:

- 1: Have Fun.
- 2: No rules.
- 3: Have a group of Friendly Hams who enjoy Amateur Radio, and sharing their skills with their fellow Hams.

CLUB EMAIL POLICY:

These are not rules, just common sense.

Club email is not moderated, as we are not a stuffy group. You can send off topic messages about most subjects, but please keep it clean and in good taste. We do like good-natured ribbing and joking with each other, but we will not tolerate flaming other members or spamming the group.

We will remove offenders who abuse our open policy.

CLUB WEB PAGE:

The club web page is our forum for sharing projects, and information about us. You are encouraged to submit your ideas and projects to be added to the web page.

PROBLEM REPORTING:

If you are having problems with email, the web page, or a fellow club member, please report this to either:

Diz, W8DIZ at w8diz@cinci.rr.com

Rick, WB6JBM at ripowell@mpna.com

Dan, N8IE at n8ie@who.rr.com

We welcome all to join the Flying Pigs QRP Club, and we hope you have fun! Ω