

Bacon Bits

Flying Pigs QRP Club International, W8PIG
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E-mail: w8pig@yahoo.com Web Page: <http://www.fpqr.com>

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

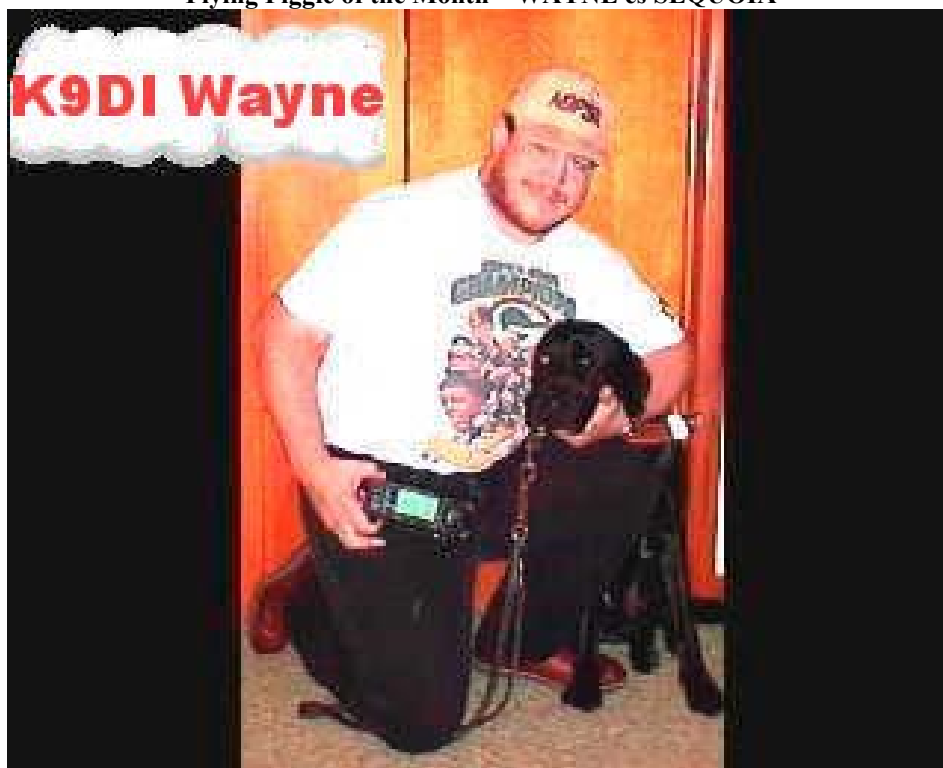
(All days/times listed are UTC)

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

Flying Piggie of the Month – WAYNE es SEQUOIA



Wayne, like all REAL men, worships the Green Bay Packers

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Ramblings

Well gang, one month closer to FDIM in May. I don't know about you but I am ready for winter to come to and end. This month we have a light issue, I haven't been getting the articles we need from YOU the Flying Pigs. You can be famous just by contributing something of radio related interest to the Bacon Bits. Did you have a great QSO this month, or work under different circumstances, or ugly build something for the shack...if so we would love to hear and see about it. The Flying Pigs QRP Club International has a fabulous website at <http://www.fpqrp.com>, don't over look this great QRP resource!

DE KB9BVN – Brian Murrey

Squeezing Every Milliwatt – KC8AON

I just told you how to get on HF inexpensively, now I'm going to tell you a few inexpensive ways to squeeze every bit of power possible out of your system and put in where it belongs - into the wild blue yonder !

And the easiest and cheapest way that I know to do this is to eliminate as much loss as possible from your antenna system and therefore boosting it's efficiency. OK, I know what you're thinking, you're thinking "if I can get my swr down to a 1 to 1, my antenna is doing all it can". Well, are you sure ? Don't get me wrong, a low swr "is" what you want your rig looking into but is not the only way to guarantee that as much of your power is getting to your antenna as possible. Remember, a 50 ohm dummy load has a low swr anywhere you stop your dial but it sure doesn't radiate much power into the atmosphere ! To show you what I mean, lets say you put up a dipole for 75 meters, you trim it till you get a 1.1 match at 3.972 Mhz and you hang it about 35 feet high.

Well, that dipole is a good antenna and in fact is one that I would recommend if you only want to work one band, but it's not the best you can do. A dipole is only about 77% efficient, and that's only at it's design frequency. If you stray from 3.972 Mhz down to say 3.830 Mhz your efficiency drops to 64% and your swr rises to about a 3:1. With most solid state rigs, the final protection circuit will begin to cut your power back long before you reach such a mismatch, so now you are losing almost half your power ! Ok, now lets say you want to work 40 meters, but you only want to put up one antenna, so you buy an antenna tuner and use it to force feed your 75 meter antenna on 40 meters. With this combo, you will get out, but not to well ! When you use a tuner, your rig does see a near perfect match, but that coax fed dipole still has an swr of about a 10 to 1 and your efficiency has dropped to 11%, so starting with 10 watts, you are now radiating somewhere around the equivalent of 1 watt - that's a BIG loss ! I used a computer program to figure these statistics, so to save space and time, I won't even try to explain how to figure this out.

Well, by now you're wondering how to get around all this loss, and there are a couple of easy ways to do this. One way is to put multiple dipoles, one for each band of interest on one

common coax feed line. But The one that I like to use, and the one that I think is easiest is to just install 450 ohm ladder line between the antenna and the tuner. This stuff is very low loss even when there is a very high swr on it – nuf said. And I'll show you what I mean. Remember the 75 meter dipole with coax feed line and it's 77% efficiency ? Well, just by switching to the 450 ohm ladder line, the efficiency jumps to 82%, now the feed line will show a whopping swr of 50 to 1 but you tune out that reactance with the tuner so that your rig will still see a 50 ohm match. OK, now switch to 40 meters, and the same antenna that shows 11% efficiency with coax, jumps to a very respectable 94% just by using the ladder line ! And the efficiency stays around 94 to 95 % all the way to 10 meters too ! ladder line is cheap to buy folks, so it's one way to work multi band and still not spend a fortune doing so ! And you get a very neat bonus in doing so - MORE POWER OUT !

A QRP Plea! – Arnold C.W. Timm KA0TPZ

A QRP PLEA

By Arnold CW Timm

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To be or not be --- heard,
by less than rusty wrists;
we require a mocking bird,
without encumbered fists!

A receiver floor & piston,
that are decibels below;
a noise reduction system,
to hear our rooster crow!

Nothing but the finest,
bare bones basic brass;
to implore those (kids) behind-us,
Morse Code (is) still a blast!

A little watt in waiting,
riding on the breeze;
proper prop -- no fading,
babble de the keys!

All this alternating effort,
accumulating in the air;
where modulation's separate,
low power (people) share!

KA0TPZ

wdx0awt @juno.com

SWR – Power and Signal Strength By Richard McKee KC8AON

During an SSB net the other night, I was watching for my friend Bob, to check in to see how strong his signal was. Bob has had some antenna problems lately and with the help of another friend Steve, that problem has been eliminated. Steve built Bob a new multi band dipole, and now Bob has went from unreadable to 20 over S9.

Well, Bob checks into the net, and yes his signal is still up to par - near 20 over S9. Then Bob informs me later that he had forgot to turn the heater switch on his rig that powers up the final output tubes, so he was basically running on the raw drive of his rig which is most likely less than 10 watts !

Also, another net member in Toledo has been having output problems with his radio and is only radiating about 4 watts, and has shown almost normal signal strength in my neck of the woods in southern Ohio ! Well, since I like to operate QRP , I decided to do a little research and find out why low power seems to hold it's own with the big guns. First, lets look at something we all learned when we studied for our license. Remember the magical 3dB figure and how a 3dB increase was the same as doubling your power, and a 3dB decrease is like losing half your power.

During my research, I found out that a 3dB increase in power will give you about 1/2 an S unit increase in signal strength at the receiving station. And, by quadrupling your power (6dB increase) gives you about 1 extra S unit. So, if you are running a 100 watt rig and a ham tells you that you are giving him a signal strength of S8, and you turn on an amp that boosts your output to 400 watts, which is a 6dB increase or quadruple your original power, you go from a signal reading of S8 to one of S9 which is not much of an increase.

Now you think, I'll pump it up to 1000 watts, a 10 dB increase over your original 100 watts and lightly less than 2 S units on the receive end ! Are 2 S units worth the cost of a 1000 watt amp ? Well, that's up to you to decide, but I think that money could be spent more wisely. Now, you ask, will all this mumbo jumbo work with lower power ? And the answer is, of course it will ! Take that 100 watts you've been running and cut it in half to 50 watts.

That's a 3dB decrease, and if you are giving another station a signal of S9 with the 100 watts, the 50 watts will drop you back to slightly less than S9. If the other guy isn't looking at his meter when you drop your power, he won't even notice ! Now drop back to 25 watts which is a 6dB decrease over your original 100 watts and you're now down to S8, and drop back to 10 watts and you are still slightly above S7 and still very readable on the other end ! Don't buy an amp ! Your TVI won't be messing up the XYL's soap operas - she'll love for that ! And you can save enough money to buy several QRP rigs !

Do more with less !
72 DE KC8AON.

Featured Piggie of the Month – K9DI

Wayne K9DI was born two months premature in December 1968 on an elevator at Freeport Memorial Hospital (Freeport IL) and spent the next six weeks in an isolette. . At eleven (11) months of age a virus attacked and ulcerated the cornea of his left eye. on 17 September 1997 he was involved in a farming accident and an alkaline based dairy pipeline cleaning solution burned his right (good) eye leaving him with only 5% usable vision.

At age six he began to read and hasn't stopped yet. At about

the same time he started reading the Nancy Drew/Hardy Boys mysteries and was exposed for the first time to the idea of Amateur Radio. The seed was planted, and was cultivated by all the old movies he watched with Morse code in the plot.

In 1987, he made friends with a man that would play a pivotal role in shaping his future. Wayne met Tom McMahan (ex-KA9AE) KF9HL and shared a room with Tom and his Leader Dog Cocoa at the Illinois Visually Handicapped Institute (I.V.H.I) in Chicago. Wayne and Tom talked about ham radio and dog guides till the wee hours many a night.

Wayne began his quest to get a ham ticket in 1988 and finally succeeded in getting his (no-code) Technician license in 1992 (N9PSR). He was active on 2M off and on until 17 September, 2000 when he upgraded to a General class license and was unleashed on HF. Wayne spent a bit of time playing with SSB, but gradually grew dissatisfied with SSB and started getting serious about QRP and CW operation.

In February 2001 Wayne upgraded again to an Amateur Extra class license. He got a new sequential call (AB9BM) and quickly decided to get a newfangled vanity call; which is how K9DI became associated with his name. Then he met up with the Flying Pigs and, as they say, the rest is history.

Also, on 10 May, 2000 Wayne was paired up with a big male black lab at Leader Dogs for the Blind in Rochester Michigan. While Wayne was at Leader he got on 2M and passed NTS traffic for fellow students until the school's radio blew up.

72 de K9DI

WAP Contest Update

Currently we have 35 Flying Pigs that have posted their ongoing results to the website. (<http://www.fqrp.com>)

As of 02/02/2003 20:20 UTC

Rank, QSO #, Callsign

1 52 K4FB	2 48 K3ESE
3 39 KG4FSN	4 37 AF4PS
5 35 W8DIZ	6 28 KB9BVN
7 24 AC5JH	8 21 KC8AON
9 19 AJ4AY	10 19 K9DI
11 17 NN1F	12 16 K8FP
13 15 WN4M	14 14 N8IE
15 14 WB8ABE	16 13 KI8JM
17 12 WB0WAO	18 9 KB5ELV
19 8 W0CH	20 8 W0JRM
21 8 W9FCC	22 6 KC4URI
23 6 VE3CRM	24 6 VE3FAL
25 6 VE3VG	26 5 K8PZ
27 4 KG4LDY	28 4 WR5O
29 4 WU9F	30 3 W7ILW
31 3 WB6JBM	32 2 AG4NY
33 1 K6MMC	34 1 K8ZT
35 1 WV9N	

FEB QRP Contests – Thanks to Ken N2CQ

40 METER FOXHUNTS

Fox Hunt - Thursdays - 9pm EST, 8PM CST, 7PM MST and 6PM PST.

Info: <http://www.cqc.org/fox>

Truffle Hunt - Thursdays - 30 min before Fox Hunt

Info: http://fpqrp.com/pig_hunt.html

New Hampshire QSO Party (All) ... QRP Category

Feb 1 - 0000z to Feb 2 - 2400z

Rules: <http://www.nhradio.org/NH-QSO/index.html>

Vermont QSO Party (All)

Feb 1 - 0000z to Feb 2 - 2400z

Rules: <http://www.ranv.org/vtqso.html>

10-10 Int. Winter QSO Party (SSB - Ten Meters) ... QRP Category

Feb 1 - 0001z to Feb 2 - 2400z

Rules: <http://www.ten-ten.org/>

Minnesota QSO Party (All) ... QRP Category

Feb 1 - 1400z to 2400z

Rules: <http://www.w0aa.org/>

AGCW Straight Key QSO Party (CW 80M) ... QRP Category

Feb 1 - 1600z to 1900z

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

Delaware QSO Party (All)

Feb 1 - 1700z to Feb 2 - 0500z

Feb 2 - 1300z to Feb 3 - 0100z

Rules: <http://www.fsarc.org>

North American Sprint (Phone) ... QRP Category

Feb 2 - 0000z to 0400z

Rules: <http://www.ncjweb.com/sprinrules.php>

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

Feb 4 - 0200z to 0400z (Monday Evening US/Canada)

Rules:

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

FISTS Winter Sprint (CW of course) ...QRP Category

Feb 8 - 1700z to 2100z

Rules: <http://www.fists.org/sprints.html>

North American Sprint (CW) ... QRP Category

Feb 9 - 0000z to 0400z

Rules: <http://www.ncjweb.com/sprinrules.php>

QRP ARCI Fireside Sprint (SSB) ...QRP Contest!

Feb 9 - 2000z to 2400z

Rules:

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

ARRL International DX Contest (CW) ... QRP Category

Feb 15 - 0000z to Feb 16 - 2400z

Rules:

<http://www.arrl.org/contests/rules/2003/intldx.html>

CQ WW 160-Meter DX Contest (SSB) ... QRP Category

Feb 22 - 0000z to Feb 23 - 2359z

Rules: <http://www.cq-amateur-radio.com/infoc.html>

UBA DX Contest - Belgium (CW) ... QRP Category

Feb 22 - 1300z to Feb 23 - 1300z

Rules: <http://www.uba.be>

FBYO Winter QRP Field Day (CW/SSB) ... QRP Contest!

Feb 22 - 1600z to 2400z

Rules:

<http://www.extremezone.com/~nk7m/fybo2003.htm>

High Speed CW Club Contest ... QRP Category

Feb 23 - 0900z to 1100z

Feb 23 - 1500z to 1700z

Rules: <http://www.morsecode.dutch.nl/hscindex.html>

North Carolina QSO Party (CW/SSB)

Feb 23 - 1700z to Feb 24 - 0300z

Rules: <http://www.w4nc.com>

Colorado QRP Club Winter QSO Party (CW/SSB) ... QRP Contest!

Feb 23 - 2200 Local to Feb 24 - 0359 Local

Rules: <http://www.cqc.org/contests>

Thanks to K3WWP, LA9HW, SM3CER, WA7BNM, ARRL and others for assistance in compiling this calendar.

Thanks to www.njqrp.org for keeping this listing on their website. The NJ QRP Club is a marvelous group.

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