



The Bug Light

Fireflies QRP Monthly Newsletter

Issue 6

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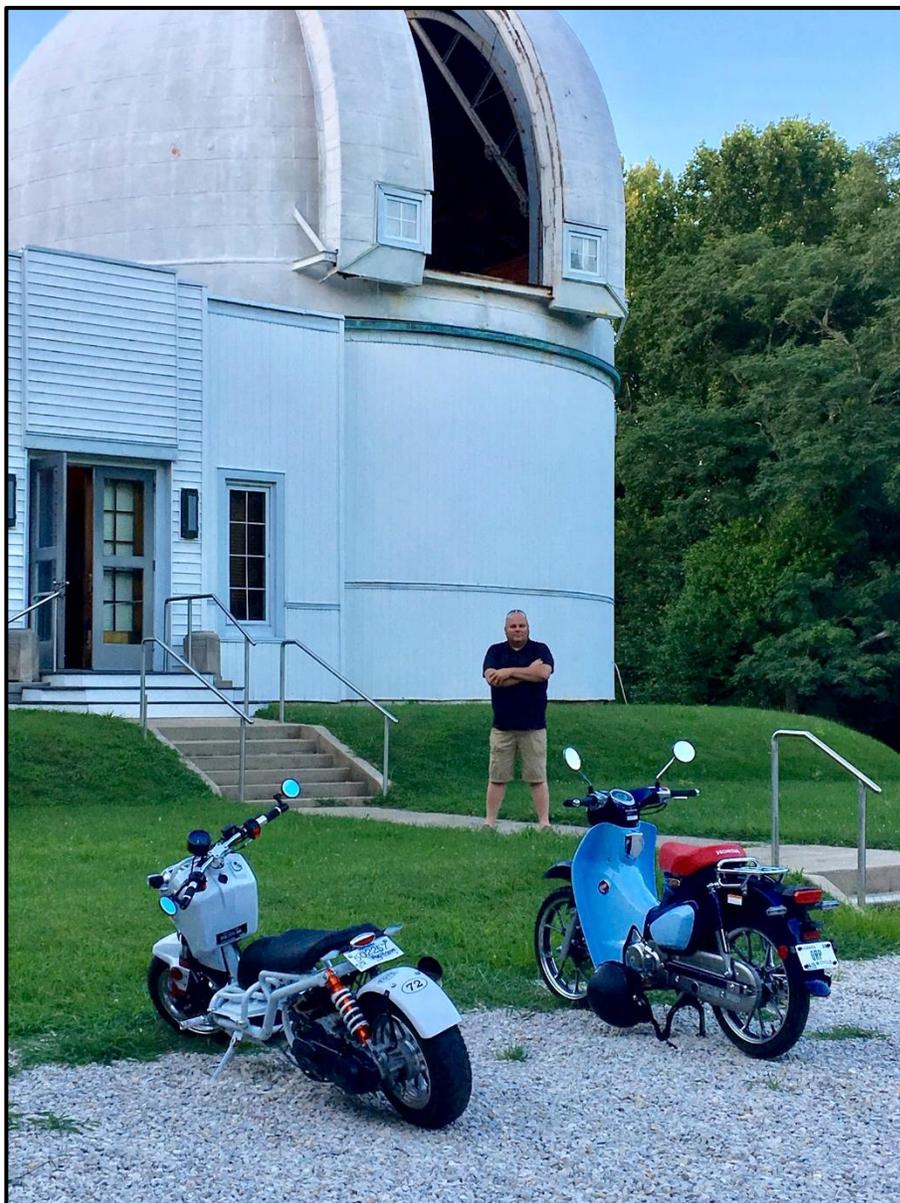
Letter from the Editor

Hello fellow QRP'ers! Summer is almost halfway over, and the days are getting shorter here in Indiana. I hope you that you can make the most out of each day and do the activities that add value to your life.

Last week Ivin W9ILF Firefly #1 and I had the opportunity to go on a "QRP Scooter" adventure. Along the route we had an opportunity to visit the Goethe Link Observatory located just south of Mooresville, IN. The observatory was originally built in 1939. Members from the Indiana Astronomical Society were on-site when we arrived so Ivin and I were able to walk around the entire building. The dome that houses the power telescope was amazing to see. The higher elevation makes this property a great place to want to operate from, maybe even Satellites to go with the space theme?

We now have 165 members and continuing the grow. I am excited to have new members join us, but I also want to ensure we are doing enough club activities to keep all members active with the club and QRP amateur radio. Don't let the fact that you are new to QRP or amateur radio discourage you, we are here to help you out anytime you need it.

72 de Mike NR9R
Firefly #2



Fireflies QRP Club Events

QRPizza Monthly Gathering

Our QRP club does not have formal meetings. Instead we choose to meet on the first Wednesday night of each month at a local restaurant to swap stories about recent QRP adventures, show off our latest creations, and plan future events. Early on, these gatherings often happened at local pizzerias, so the term "QRPizza" was created.

Our next QRPizza Gathering will be:

Wednesday August 7, 2019
at 5:55pm.

The Knuckle Sandwich at 9500 IN-144,
Martinsville, IN 46151



Fireflies QRP Club Events

Our new QR Pancakes Monthly Gathering

Thank you for all your feedback on our monthly QR Pizza gatherings. Many of you said that you wanted to come join us but the weeknight schedule was hard to do with work schedules getting into the way.

So... we are making a change to our monthly gatherings starting in September. We will then start meeting on the first Saturday morning of each month for "QR Pancakes" ...with ham of course! The format will still be an informal gathering that will allow us to swap stories about recent QRP adventures, show off our latest creations, and plan future events.

The time for these gatherings will be 7:55AM on the first Saturday of each month. If there happens to be a hamfest on that date let me know, we can find a pancake house close to the hamfest to meet at.

I hope this new day and time works out with more of your schedules and allows you to join us.

Don't live in Central Indiana? That's okay, simply host a QR Pancakes gathering in your local area and tell us all about it.



As always, be sure to include lots of photos!

Our next QR Pancakes Gathering here in Central Indiana will be:

Saturday September 7, 2019 at 7:55am

Golden Corral Buffet at 2224 Hadley Rd, Plainfield IN 46168

Fireflies QRP Club Events

QRP “In the Park”

Why wait until Field Day to have fun operating outdoors? We do it every month here! Plus, we invite everyone to come out and join us in the fun.

Our next QRP in the Park event will be on Saturday August 10, 2019 from 7:55am – 1:55pm:

Satellites in the Park

Hummel Park West, Plainfield, IN 46168 from

Use the entrance right off Sugar Grove Rd, directly across the street from the Indiana Law Enforcement Academy just south of downtown Plainfield.

Join us for a morning of fun that will be “out of this world” as Paul W9PDC Firefly #85 demonstrates the excitement of Satellite Communications and how you can have QSOs with stations hundreds if not thousands of miles away using tiny repeater satellites that orbit the earth. You won’t want to miss out on this!



We will also be setting up an HF station for anyone wanting to get on HF as well. I hope to see several of you out in the park!

Have Satellite equipment of your own?
Bring it along with you!



Fireflies QRP Sprint/Contest Manager

Please join me in thanking Dave NI9M, Firefly #127 for volunteering to oversee our Sprints and Contest hosted by the Fireflies QRP Club.

Dave brings a lot of experience from his work with the Straight Key Century Club (SKCC) and the North American QRP CW Club (NAQCC) and I am excited to see what he has in store for us here at Fireflies QRP.

I have shared the story with many of you already about how this club originally started with a group of us here in the Indianapolis Indiana area... but we grew fast! Before I knew it, we had members in several states and we now have members in almost all 50 states and over 10 DX countries. That is so awesome! However, I do realize that with a club like this that is spread out across the globe we must host a variety of events that all of us have the chance to participate in. I'd rather have a club with 200 active members than 20,000 members with only 50 of us participating. I want to make sure we have events that we can all do together.

If you have an idea for a Sprint or Contest you would like to see us do, feel free to reach out to Dave or myself and we'll see what we can do. We are open to just about any idea you might have.

We also both want to help promote other clubs Sprints and Contest as well so plan on seeing more of these announcements in future newsletters as well.

For more information about the Straight Key Century Club visit: www.skccgroup.com

For more information about the North American QRP CW Club visit: www.naqcc.info/index/



DitDit.fm Podcast

Written by Mike Andrus NR9R, Firefly #2

If you are looking for a new podcast to listen to, check out DitDit.fm! This podcast celebrates Morse Code and operating CW over amateur radio. The show is hosted by fellow Fireflies QRP member Bruce Pea N9WKE, Firefly #55. Each episode is filled with useful CW operating tips and encourages us all to get on the air more and operate CW. The stories shared are both funny and very informative.



The Podcast for Morse Code and CW Operators

Bruce shares on his website how he came up with the name DitDit... Why DitDit?

At the end of every CW contact you may here two stations sending dits to each other, this derives from the old expression “shave and haircut, two bits”. This sounds like “dit dit-dit dit dit, dit-dit” The first station woud send “dit dit-dit dit dit” and wait for the second station to reply “dit-dit”. This was more popular years ago, but you can still hear it being sent today, most times now being shortened by just exchanging “dit-dit’s”.

I will admit, I’m been guilty of sending “dit-dit” to my ham friends in a variety of different ways including honking my horn as I drive by. The history of Morse Code and CW is awesome to read up on.

Check out more of Bruce and the DitDit.fm podcast by searching your podcast devices for “ditditfm” or by visiting Bruce’s website at: www.ditdit.fm

72 de Mike NR9R
Firefly #2
dit-dit

MDT Ham Radio 40m Transceiver Kit Review

Written by James Hannibal KH2SR, Firefly #76

If you enjoy ham radio kit building, then you are going to want to hear about the MDT DSB QRP transceiver kit from ozQRP. This article will be more of a real-world, operational performance review of this radios' capabilities, not a walkthrough on how to build it.



The 40-meter MDT kit (Minimalist Double Sideband Transceiver) is produced by ozQRP, a company based in Australia. This is an absolutely amazing QRP radio kit for the 40 meter band and is a great option for those ham radio operators who are new to HF and are looking for affordable means of getting on the air, for those looking for lightweight/compact rigs for camping/backpacking, or for those who just love kit building and are looking for their next project.

By making this transceiver Double Sideband (DSB), rather than Single Sideband (SSB), the MDT should be much easier to build than any SSB transceiver kit on the market. I didn't personally build this one, but after opening it up to peek inside, I must agree that this radio would not be that difficult to construct.



Utilizing this DSB design also eliminates the need to align the receiver after building the kit. All that is necessary is balancing the mixer to null out the carrier and setting the microphone gain. All user-installed components are “through hole” type. There is one SMD tuning diode, but luckily, this part comes pre-installed. You will also be winding some toroid’s, but this is not a difficult task.

All these design elements add up to what may be one of the easiest to build voice capable, VFO, HF ham radio kits on the market today, thus making this kit a great option for kit builders who are ready to move a step up from building single frequency CW kits such as the Pixie or Rockmite. If you want the MDT, but don't have any experience with kit building, I recommend finding a local Elmer or ham club that can help you out. With any luck, ozQRP might someday make the MDT available for sale as a fully finished product at a reasonably increased price point.



The MDT kit can cover one of two frequency range options: 7.050 - 7.130MHz or 7.215 - 7.300MHz. I received the 7.215 - 7.300 MHz version since that falls within the voice portion of the USA 40m band plan. Using my frequency counter and a second 40m rig for testing, I found the MDT to be very accurate to its specified frequency range coverage. One thing to keep in mind, however, is that since this is a DSB transceiver that utilizes a ceramic resonator instead of a crystal, you will experience a little bit of frequency drift. This was not much of a problem for me for if the frequency drifted, I just had to compensate a little with the tuning knob.

I also found the MDT to have a very sensitive receiver that did a magnificent job at pulling out those weak signals from all over the world. The audio output jack can easily power a small self-powered external speaker if you prefer not to use headphones. On the transmit side of things, this rig can put out 1.5 - 2 watts when using a 13.8-volt power source. During my tests, I ran the MDT from a 13.6-volt power supply, which registered on my SWR/Power meter as just a little below the full 2 watts max stated by the manufacturer. When tested with my portable 12-volt SLA and lithium ion battery packs, I was able to achieve nearly 1.5 watts of output power.

Now, many of you may be thinking that 1.5 - 2 watts aren't enough power to accomplish anything. Well, I am glad to report that nothing could be further from the truth. Shortly after hooking up the MDT for the first time (and without much effort at all), I easily made multiple contacts up and down the US west coast. I even checked into a few west coast nets as well. So far, the antennas I have used with the MDT are as follows: Carolina Window 40, Alpha EzMilitary Vertical, and even a short MFJ-1840T telescopic antenna. Each time I used the MDT, I found myself pleasantly surprised by its performance.



At first, I found it a little difficult to dial in signals without the use of a fine tune knob. Luckily, within the first hour or so of use, I started getting accustomed to the single tuning knob, and it became almost second nature to me later that evening. I also highly recommend taking the time to properly place numbered marks evenly spaced around the dial from which you can then use to create a frequency chart that you can tape to the top of the MDT's case. That way, you can have a good idea of where you are on the band.

The MDT transceiver doesn't come with a microphone or power supply so you will have to source those yourself. I ended up using an inexpensive 4 pin CB mic (which I had to re-wire to work with the MDT) and a small external 12-volt lithium ion battery pack. Both items can easily be found online.



The MDT measures 5.12"x3.94"x1.97" and, based on my little postage scale, it weighs in at roughly 0.625 pounds (microphone not included). This makes the MDT one of the smallest, lightest, and easiest to build complete HF voice transceiver kits currently on the market.

After inspecting the internal layout, size of the circuit board, and quantity of components, I have concluded that the MDT circuit board and enclosure could be easily re-designed to fit into a taller and narrower handheld/HT (handie talkie) form factor. This would be quite amazing if ozQRP implemented this idea especially considering the category of handheld HF kit radios is essentially extinct and ripe for the picking. (YouKits doesn't offer their TJ2B SSB HT as a kit anymore and DZKit has completely discontinued their single frequency HT-7 40M AM Handie-Talkie). ozQRP could easily and quickly position themselves as the only company on the market to offer a 40 meter DSB handheld ham radio kit.

With more and more young outdoorsy hams filling our ranks, this could be the perfect opportunity for ozQRP to make this move.

I have a few simple modification suggestions for those who are planning to build this kit that other hams have implemented:

1. Add a power on/off switch (switch not included in kit, you will need to drill a hole though part of the case as well).
2. Add a second switch to easily choose between the upper or lower half of the specified frequency coverage. (This is covered in the user manual as well as by other hams on YouTube and the QRZ forums.)
3. Consider adding a small internal loud speaker. (Not included, & you will need to modify the case.)
4. Add 4 little stick on rubber feet to the bottom of the radio so it doesn't slide around. (Probably the most important and simplest mod you can do. This radio is so lightweight that it easily slides around on table-tops.)
5. Another possible improvement would be to attempt to find a battery pack small enough to be mounted inside the MDT against the top of the case.



The MDT DSB 40-meter transceivers small lightweight spartan design is perfect for portable operations such as backpacking trips or SOTA activations (Summits on The Air) where lightweight gear is a top priority. It's also a great option for amateur radio operators who recently earned their General Class License and want an affordable method of getting on the air with HF without breaking the bank.

To sum things up, I love this little rig. Its performance is awesome, it's easy to operate, and it's just plain fun to use. Talking to people hundreds of miles away using a radio that is smaller and lighter than a small box of cookies really brings out the magic in ham radio. I highly recommend the MDT kit from ozQRP for any ham who enjoys intermediate level kit building.

Price: \$83 Australian Dollars (\$63 US Dollars) Plus Shipping

Made in Australia

For more info, please visit the following link: www.ozqrp.com

Features:

1. Size 130mm x 100mm x 50mm.
2. Sensitive Direct Conversion receiver. (Sensitivity 0.4uV for 10dB S+N/N)
3. Up to 2W PEP power output. (Depending on supply voltage)
4. Frequency range 7.050 - 7.130MHz or 7.215 - 7.300MHz.
5. Microphone amplifier accepts standard low impedance dynamic electric microphone with selectable on-board bias resistor.
6. LED transmit power and modulation indicator.
7. 3.5mm stereo headphone connector. Can power external loudspeaker.
8. Carrier suppression up to 50dB.
9. All spurious transmit outputs better than -46dBC.
10. Receive current approximately 50mA.
11. Transmit current approximately 250mA at maximum power output.
12. Reverse polarity protection using a series-diode.

73 de James Hannibal KH2SR, Firefly #76

NJQRP Skeeter Hunt

Information provided by the NJQRP Skeeter Hunt Website

The NJQRP Club is announcing the 8th Annual "Skeeter Hunt". The objective is to get QRPers out of their shacks for the day; and into the fresh air and sunshine, to spread their wings and fill the airwaves with "Skeeters".

While commercial equipment can certainly utilize, bonus points will be awarded for those who personally home brewed their own or kit built their own equipment (equipment not built by the operator would not count as either home brewed, or kit built - it would be considered commercial equipment).

This year, the event is to be held on Sunday August 18, 2019. It will be a four hour sprint - from 17:00 UTC to 21:00 UTC (1:00 TO 5:00 PM EDT).

QRP stations who wish to be designated as "Skeeters" can get a Skeeter number by requesting one by sending an e-mail to w2lj@arrl.net Please let me know if you intend to operate from a state other than your home state as listed on QRZ.

Skeeter numbers will be issued from June 21st (the First Day of Summer) through the day before the event.

To get the 100 Point Bonus for this year's Hunt all you must do is prominently display either one of these two logos somewhere at your operating position. It can't be Photoshopped in, it must be somewhere at your station. Take a photo, submit it with your log summary and the 100 points is yours!

For more information about this very fun QRP event check out their webpage at: www.qsl.net/w2lj/ or email Larry W2LJ, Firefly # 39 for more information at: w2lj@arrl.net

I plan to email Larry this week to get my Skeeter # assigned and hope to hear several of you on the air.

72 de Mike NR9R



QRP Recipes, \$5.00 or less!

Written by Mike Andrus NR9R, Firefly #2

Recently I was at a QRP gathering when we decided to fire up the grill and started discussing what we should eat. Now don't get me wrong, I enjoy a good hamburger or hotdog like the rest of you but after eating so many of them this summer I was craving something "different" ... and that's when the idea came to me, why not grill up some liverwurst burgers on the grill?

If you are not familiar with liverwurst, maybe you have seen a tube of interesting looking meat in your local grocery store called Braunschweiger?



I would be lying if I told you this was the first time, I thought about grilling liverwurst on the grill, but this time it was a reality and I was going to do it! The best part? I was able to serve dinner to all in attendance for less than \$5.00! If you have ever met me, you know anytime something is less than 5, it screams QRP to me, so... I came up with the idea of sharing "QRP Recipes" in the newsletter and hope that you all join me. These recipes should be for a meal or drink that can be enjoyed during QRP activities with the ingredients totaling \$5.00 or less. You will get bonus points for radio themed recipes! 😊

So here it is, our VERY FIRST recipe our soon to be #1 best seller Fireflies QRP recipe book!

Fireflies Grilled Liverwurst Burgers

Ingredients;

- 1 tube of liverwurst \$2.89
- 1 pack of hamburger buns \$1.00
- 1 onion \$0.99
- Mustard from your local fridge \$0.00

Steps;

- Slice liverwurst into 1-inch slices and toss on a hot grill
- Slice or dice onion to your liking and toss them on the grill as well
- Grill liverwurst burgers for 3 minutes over direct heat, flip them over and grill the other side for 3 minutes
- Flip the onions over as well to your liking
- During the last minute of grilling, open your hamburger buns up and toss them face down on the grill
- Once grilling is complete, build your liverwurst burger by piling your grilled meat and onions on top of your grilled bun, cover with mustard and then apply your top bun

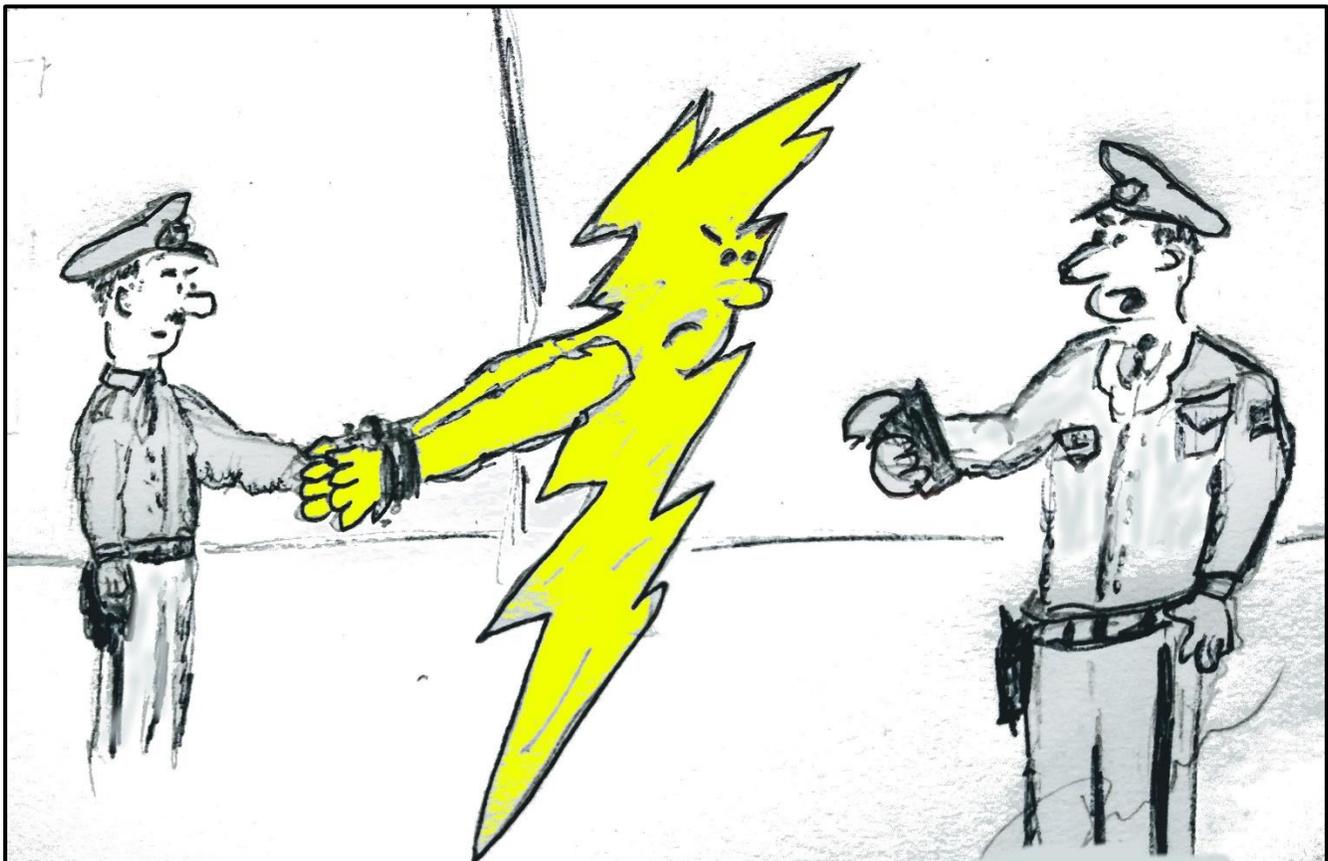
Mmm mmm mmm! I'm hungry just typing this up. Who wants to join me at the grill? Try this recipe out for yourself at your next QRP gathering and you won't be disappointed! Send me your photos and I'll include them in the newsletter.

Do you have a QRP recipe to share and have included in our Fireflies QRP Recipe Book? Please send it to me with photos included. Remember, the ingredients must total \$5.00 or less.



Amateur Radio Funnies

Hamtoons by Tom Newcomb N9YO, Firefly #150



As a new Ham, Tom wasn't sure how a Lightning Arrestor would really work.

You can find N9YO on YouTube at Ham Radio CQ and on Twitter @HamRadioCQ

Do you have something funny to share in our newsletter? Send it to firefliesqrp@gmail.com

Upcoming QRP Sprints and Contest

4 State QRP Club Second Sunday Sprint

Sunday August 11, 2019 | 7:00pm – 9:00pm CDT

For more information visit www.4sqr.com

NAQCC Monthly QRP Sprint

Wednesday August 14, 2019 | 00:30 – 02:30 Zulu

For more information visit www.naqcc.info

Flying Pigs QRP Run for the Bacon

Sunday August 18, 2019 | 9:00pm – 11:00pm EDT

For more information visit www.fqrp.org

NJQRP Skeeter Hunt

Sunday August 18, 2019 | 17:00 – 21:00 Zulu

For more information visit www.gsl.net/w2lj/

If you have a contest or sprint you would like to add to our list, please email the information to us at firefliesqrp@gmail.com

Thank you for reading!

Email Reflector/Group

We have an email reflector/group setup with groups.io ...simply do a search for "FirefliesQRP" or email us at firefliesqrp@gmail.com for an invitation to join.

Follow us on Twitter

Are you a tweeter? 😊 Follow us on Twitter @firefliesQRP

Share your adventure

Do you have a QRP related story to share in our newsletter? Please send all stories to firefliesqrp@gmail.com and don't forget to include lots of photos.

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Until next month, 72 de Mike NR9R Firefly #2

