Bacon Bits

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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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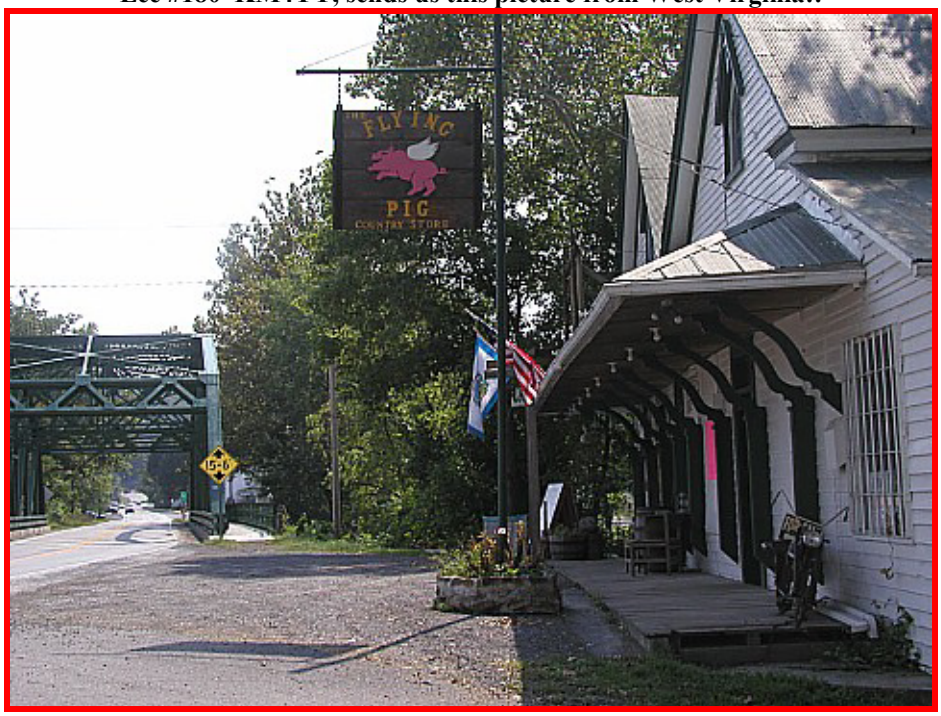
NETS:			
DAY	TIME	FREQ	NCI
Sun	0100Z	7.137	KC8NYW
Mon	0100Z	7.047	WV9N
Thurs	0100Z	7.047	KE1LA

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

Lee #180 KM4YY, sends us this picture from West Virginia!!



Flying Pigs on Route 50, just west of the Capon River Bridge

In this issue:

Ramblings

I can't believe November is here already. Sweeps!!! Yeah bay-beeee! Randall wrote an excellent article for last month, but I didn't have room, so here it is this month. It's about my favorite thing…SCROUNGING PARTS!! YAY!!

I have fewer pictures this month, and more text, due in part to the excellent reports we've been getting from all the Flying Pigs out there. In October we did a QRP Forum at the Hoosier Hills Hamfest in Bedford Indiana. I have a report from there but it'll have to wait for next month.

Thanks to all the contributors this month, keep it rolling in.

DE KB9BVN – Brian Murrey

Parts Scrounging Inside Out! – AB5NI

Where to begin? Quite literally, electronic components can be scrounged from literally THOUSANDS of different pieces of electronic equipment! The list is way to long to mention here, so what I'll do here is tell you what I've done in the past to increase the size of my junk box. Some of the tricks mentioned here will be old hat to the initiated, yet some might be new. Who knows? I only know that they've worked for me in the past, and that my boxes and boxes of parts seem to tell me that I'm probably doing something correctly.

Here are a few important things to note before I get on with this explanation. Before your start stripping a device for its components, make sure the device in question is not worth something to somebody! What I mean is this: go over to www.ebay.com or some of the other auction sites and make sure that there aren't people out there looking for the piece of electronic equipment that you have in your possession. Believe it or, some old TV sets, stereos, and radios – even pocket radios! – can be worth a small fortune! If you should run across something that's rare and collectable, you might want to hold on to it, even if it doesn't work. There are some people out there that are interested in your old, busted piece of equipment, and they'll be willing to purchase it from you at a fair price. Some of them are even actively searching for "throw away" versions of equipment with the sole purpose of stripping it for spare parts for a similar device they are in the process of restoring.

Should your new-found treasure be worth something, you might also want to consider repairing it yourself. If you don't think that you have the skills to do this, you can always ask a local technician (usually a fellow ham in your area) for guidance or help. Most of then will be glad to give you a hand with the repair. Either that or they'll at least put you on the right track by pointing you at a book or two.

Many book stores, such as Amazon, Barnes and Noble, Borders, and Books a Million have books on electronic collectables. If you think you have something worth while, it might be a good idea to purchase one of the many books on this subject, just to make sure you're not getting the short end of the stick should you decide to sell your rare or semi-rare piece of electronic equipment. The best thing about this is that you could use the money garnered from a sale to purchase hard-to-find parts for your projects, reducing your overall costs.

Now let's say that you acquire a piece of gear in some round-about way, and you're absolutely sure it's not collectable and that it's just and old piece of junk that nobody wants, such as an old radio or VCR. Well, you still might be able to make some hard currency for some future part purchases. For instance, I have a local friend who repairs VCRs, computers, and computer monitors, and he sells them to pawn shops for extra cash. So, if you have the necessary skills to repair equipment, if might worth your time and effort and look into repairing and selling your "piece of junk," earning yet more cash for parts purchasing.

Finding Electronic Equipment

If you want to do any of the things I've mentioned above, you first have to lay your hands on a piece of equipment that's worthy of resale, repair, or just worth stripping for parts. What has worked for me in the past is simply letting my friends and family know that I enjoy collecting old electronic equipment that other people throw out. With this tactic alone, I'll usually get a call every few weeks or so from a friend or family member, telling me that they have located an old piece of electronic junk that I might be interested in salvaging for parts. I probably have 5 or 6 pieces of gear waiting to be stripped using this tactic alone!

Another tactic that I've used in the past is to approach apartment managers in "well-to-do areas" of town, telling them that I'm interested in obtaining electronic equipment that is being thrown away by their tenants. I also leave my phone number and e-mail address with the apartment manager. The really great thing about this tactic is that, in a lot of instances, the electronic equipment still functions perfectly! Yep -- the things work! -- and the tenant that tossed the gear out more than likely threw the thing away just to make room for his or her new acquisition. The great thing about this tactic is that, if this piece of equipment is less than 4 or 5 years old, there's a good chance that you can clean it up and sell it to a pawn shop for some quick cash. Yet more money for your parts fund.

Here's another tactic that has also pulled in some equipment worthy of stripping. If you're on your local repeater and someone asks what you do with your spare time, tell them that you really enjoy stripping electronic equipment, using to the parts for your home-brewing experiments. In a lot of instances, some older hams that used to do the same thing will pipe in and *beg* you to come over to their houses and help them clean up their shacks by removing old gear that they've never stripped. What's usually happening here is that their XYLs are upset, and they really, really want all the "junk" removed from the premises. The other side of the coin here is that these previous home-brewers are getting up in age, they have built everything that they ever wanted to build, and they are simply tired of having all of that "junk" laying around.

In the past, I've also traveled around in my car, taking the long way home through affluent neighborhoods, examining the curb sides for electronic gear that's being tossed out. Good, repairable gear can be found doing this, and in a lot of cases you find gear that works, which means another very enjoyable trip to the pawn shop.

An important thing to note here is that, in some locations, this can be illegal! That is, you can't just walk up to the curb, pick up other peoples' "trash," and throw it in the trunk of your car. In my area, for instance, you have to ask the home owner if it's ok if you take the thing home with you. The good thing about doing this is that the home owner usually asks you if might be interested in taking some other "trash" off of their hands, and, in a lot instances, some of this "stuff" is capable of being sold at a pawn shop for a tidy profit.

I guess the next piece of info isn't really on topic, but it is worth mentioning. Recently, the FCC started allowing federal and local law enforcement agencies to confiscate illegal citizens band equipment, and this gear is being auctioned off every few months by our state governments. Fortunately for hams, this could be a great way to get to pick up on some cheap gear. A lot of this gear was originally intended for use on the ham bands, and I'd imagine that there are many great deals to be had if you are willing to take a little time to find out where these auctions are being held.

Admittedly, some of this "gear" might leave a lot to be desired, such as poorly- designed, illegal amplifiers and cheap CB rigs. On the other hand, you can always strip this gear and use it in your home-brewing projects, and some of these CB-only rigs could be well worthy of 10 meter conversion.

Yard Sales and Garage Sales are also a great place to look for equipment worthy of collecting and striping. Actually, I've found a lot of collectable radio gear doing this, and I've also found a lot of gear that's just worth stripping. Local auctions are also worth visiting, especially if they are based on "Store and Lock" buyout purchases. What I mean here is this: A lot of people lease additional storage space to store things that they just don't have room for in their homes. Some of them either forget or refuse to pay their bill, so the owner of the storage facility sells all the contents of the store room at rock-bottom prices to an auction house. Every week (usually) the auction house will sell the items they've acquired to the highest bidder, and in many cases the highest bid might be $20.00 on an item that's worth much, much more! If you're wondering if they're auctioning of old, collectable electronic equipment – you bet! Not only that, but a lot of it is worthy of resale on eBay or adding to your electronics collection. The older, less costly items can be stripped, of course.

Ok. We all knew that this was coming. Dumpster diving. There – I've said it! ☺

I've never done this one myself, but I have had conversations with some ham friends that have used this tactic successfully. A local amateur told me about a tactic that he has used successfully in the past that is just as good as dumpster diving, and I'll pass this tactic on to you…

This tactic is kind of bold, but it does seem to work in most circumstances. First, you pick up the phone book, go to the business section, and search for electronic repair shops. Pick the biggest one you can find, and call them on the phone. Ask to speak to the manager or owner. Tell the manager/owner that you are an amateur radio operator and that you are wondering if they have some old, broken gear lying around that they'd like to have removed to "clean up the place." If this person says yes, tell him you'll be willing to get rid of this gear if they'll allow you to keep some it for parts scrounging. You'll be doing him a favor, and he'll be most definitely be doing you a favor, too!

Now, I'm sure some of you are thinking that this could become a real pain in the rump, especially if you live in an area that loves to levee a fine on people for improper disposal of electronic equipment. Well, fear not, my fellow ham, because in this day and age there are a lot of small companies out there that specialize in "precious metal" reclamation. What they're doing is grinding up old pieces of electronic gear, melting it down, and reclaiming the gold, silver, tin, aluminum, lead, and any other metals used in electronic-equipment manufacturing. Municipalities really love to see this happen, because these businesses are keeping a lot of lead and other pollutants out of our land fills.

Removing Parts

There are many ways of removing parts from circuit boards. Some people like to use Solder Wick, while others will only use a de-soldering iron. I guess what's really important here is that you use a technique that's comfortable for you. In the following text, I'll explain the various methods that I've tried and that have worked well for me, and, hopefully, they'll work well for you, too!

Heat Sinks

First and foremost, I highly recommended that you go over to your nearest electronics outlet and pick up a couple of clip-on heat sinks. Basically, they look a bit like a clothes line pin, but they're a bit smaller and are made out of metal. What you'll want to do is clip the heat sink onto the component leg to be de-soldered, and then you can de-solder the component safely. If you don't do this, there's a good chance that you can destroy the device by applying too much heat. This is not recommended. By the way, hemostats used in the medical industry work very well as heat sinks, so if you happen to know a Doctor in your area, ask him if he can sell you a few.

Solder Wick

"Solder Wick" is often used by many people to remove components from electronic equipment. Basically, it looks like the shield on a piece of coaxial cable, and it comes in small plastic re-sealable rolls. Used with a heat sink, components can be removed rather quickly, especially once you get the hang of using the stuff. It is important to note, though, that Solder Wick can age, and once it gets a bit old, it really doesn't work all that well. When it's fresh, though, it's a joy to use. By the way, I highly recommend that if you use this stuff that you keep the container closed when not in use. Also, a great way to store this stuff is to put the roll inside of one of those re-sealable vacuum bags that are used to vacuum pack food. I've done this, and I've

been using a roll of Solder Wick for years with this method. Normally, most people leave Solder Wick out on the bench, thus it's exposed to air, and, eventually, the stuff dries out and quits working. This can be a real pain, especially if this is the only method that you use.

If you happen to run out of Solder Wick, here's a trick that can use until you have the chance to pick up a new roll. What you'll want to do is strip back the coating on a piece of multi-strand wire, scrape the wire clean with a utility knife, and use the wire as Solder Wick. For maximum solder pickup, you'll also want to dip the stranded wire into a can of solder flux. This is not totally necessary, but it does help the solder you're removing to flow into the wire, away from the component you're trying to remove.

De-Soldering Pumps

Solder pumps are an inexpensive way to remove components from PC boards. I should note, however, that it takes a bit of timing and a lot of practice to get proficient with these things, and I should also tell you that I don't recommend that you use them. You have to be rather quick with this tool, heating up the component and then rushing to get the Teflon tip over the molten solder. Then you have to push a release button that causes a gasket-lined cylinder to release, expand, and suck up the solder. Unfortunately, the Teflon tip gets melted over time, and this often causes a bad vacuum seal between the component lead and the PC board. Not only that, but the gaskets wear out after time, and you'll eventually have to make a trip to the parts house and purchase a new Teflon tip and, more than likely, a couple of new gaskets, too.

Personally, I recommend that you stay way from solder pumps. Once the solder is melted, you have to rush to the solder joint to remove the solder, and anytime you're rushing something it's usually not a good thing. On the other hand, they do provide a good vacuum when working properly, so I'll let you be the judge and let you decide if a solder pump is something that you'd like to use.

De-soldering Bulbs

I put de-soldering bulbs in the same classification as I put de-soldering pumps. They're somewhat useful, but you'll have to eventually replace the Teflon tip. This can be a real pain, especially when the device is not working properly and you have to make a trip to the electronics-supply store to pick up a new tip. Also, it's a major pain when you need a new tip, it's a Sunday afternoon, and the parts stores are all closed!

De-soldering Irons

Personally, this is my favorite method of removing components. These devices look like a regular soldering iron with a catch, with the catch being that they have a small metal, cylindrical tube that's connected to the tip, and the tube runs on top of the heating element and back to a rubber bulb. The great thing about de-soldering irons are they are pretty cheap, so you can pick up 2 or 3 of them at the local parts stores.

De-soldering Stations

What can I say about these beauties? They're expensive, yet they do the job in a way that's hard to be beat. Not only that, but the also have temperature control, and some models even offer a continuous-vacuum mode. Personally, I'd rather use an el cheapo Radio Shack de-soldering iron, but if you have the cash and want to use the Cadillac of de-soldering, this is surely the item you'll want to purchase!

The Propane Torch Method

Here's an interesting method for removing parts that I've tried recently. Get a propane torch, light the thing, and pass it over the solder side of a PC board. Parts just fall out all over the place very quickly. On the other hand, it stinks something awful, so I suggest that you use this method out of doors. What I usually do is go outside on the driveway, get a cardboard box, and apply the torch to the solder side of the PC board. All the parts fall inside of the box, so I don't have to worry about losing them or having the scattered all over the place. If I have a stubborn part that doesn't want to come off the board, I just simply tap the PC board on the box and the part usually just falls off. Brian, KB9BVN, has recently told me that he uses a small, wooden mallet at taps lightly on the parts that don't want to let loose easily. Any way, the torch method is a very quick way of removing parts; however, don't linger too long on a given area, because you'll probably apply too much heat and ruin some of the devices that you're trying to scrounge.

Another Way to Remove ICs

Recently, I joined Ian's (VK2TIP) Electronics Q&A e-mail reflector (mailing list), and I asked if anyone knew of a good, quick, safe way to remove ICs. One guy came back and told me to just pick up a pair of diagonal cutters, cut the PC board right up next to the IC pins, and that most of the PC board would come away, freeing the pins up nicely. He also said that I'd probably have to do a bit of touching up with an iron, using it to heat up a joint that was stubborn. When complete, the guy told me I'd have a nice, completely useable IC. I haven't tried this particular method yet, but it sure sounds like it would work well. I'll give it a shot and see what gives – one way or the other! :^)

Below is a list of most common pieces of electronic equipment that I've stripped for parts and what I've found in them that's useful for constructing home-brew electronic equipment or for repairing busted gear:

Old AM/FM Stereo Equipment

When it comes to electronic parts, these things are total gold mines! Just about everything can be reused and scrounged. They're loaded with NPN and PNP transistors; Mylar, Electrolytic, and Disc-ceramic capacitors; FETS of all types; voltage regulators; switches of just about every make and model; IF transformers; diodes and LEDs; power transformers and RF chokes; light bulbs; fixed and variable resistors; and some of the older units might even include the ever-illusive air-variable capacitor!

Television Sets and Video Monitors

The older TV sets and monitors are a good source of parts. The last time I stripped a TV set, I picked up the following:

- Many variable and fixed-valued resistors of all shapes and sizes.

- RF Chokes.
- IC regulators.
- Numerous FET and bipolar transistors.
- Fuses and fuse holders.
- Electrolytic, Mylar, and Polyester capacitors.
- Ferrite Beads!

I also picked up a few ICs and other various screws, nuts, and bolts. Keep an eye out for them at the road side and the dumpsters. One word of caution here, folks: The picture tubes used in TVs and monitors can contain LETHAL voltages, even if they've been unplugged from a power source for MANY months! If you've never stripped a TV set or video monitor, then I suggest that you get in touch with a local technician or experienced amateur that is familiar with stripping these things.

For those so inclined, you can pick up a lot of antenna wire by removing the wire from the yokes of TV sets and video monitors. The wire is pretty thin, so it can be used for stealth antennas. Doubling or tripling the wire can provide a good non-stealth antenna that is pretty rugged, too. It is a bit of a pain to remove the stuff, but it is a really cheap source for antenna wire.

You'll also want to be VERY careful with the picture tube!!! They are vacuum sealed, and if you break the picture tube they'll implode and very likely act like a hand grenade, shooting glass in every direction! If you're wondering if these things can be lethal – YOU BET! Now, I'm not trying to scare anybody here, but I am trying to let you know that you should always use extreme caution and respect CRTs and all times, just as you would respect and be cautious around a high-power, linear amplifier. Nuff said.

External Modems
The old 1200, 2400, 9600, and 14400 external modems have some really good components. You'll find LEDs, regulators, switches, and even a few crystals. Don't pass these up at if you see them at a hamfest, especially if you can pick one up for two or three dollars.

Old Portable Phones
These offer about the same components as an external modem, but you get to strip the phone and the base station. Another good thing about this is that the phone and the base operator as a full-duplex, FM-modulated, receiver-transmitter pair. What this means is that both devices contain RF components, such as transistors, bypass capacitors, crystals, and IF transformers.

Old Computer Equipment
MFM Hard drives are a good source of parts. The older 5.25" floppy drives are a good source of parts, too. Old computer XT-class mother boards contain electrolytic capacitors, voltage regulators, and even computer-clock oscillators that can be used in oscillator circuits in amateur radio receivers, transmitters, and converters. ISA cards are a wealth of parts, too. Recently, I stripped a Lab Tech sub-woofer system that garnered voltage regulators, countless resistors and capacitors, and even two LM386 audio amplifiers.

Here's a trick I learned by reading Arnie Coro's "DXers Unlimited" radio program. Go over to a computer repair shop, and ask the manager if he has any old computers he wants to sell for a few bucks or discard. Most of time, he'll just give you the equipment, and doing so makes two people happy. He gets to get rid of his garbage, and you get a piece of equipment that you can strip. In this situation, both parties come out ahead!

Old Medical Equipment
If you're friends with a medical technician, there's a good change the he might be able to put his hands on some gear that's being tossed out. Not only that, but the components used in the construction of this gear are of real high quality.

By the way, almost all MRI machines use high-power tubes, with the most prevalent tube being the ever-rugged Eimac 8877 tetrode! The really wonderful thing here is that the tubes are pulled and replaced on a regular, scheduled basis, and just about all of these "pulls," as they are known in the industry, are still good for many, many years when used in amateur amplifiers! Even if you're not into QRO operation, you can still pick these tubes up either for free or for a good price and sell them at Dayton or some other hamfest. Actually, if you can lay your hands on a few of these tubes, there is a good chance that you could pay for an entire trip to Dayton! So, if you're friends with a medical technician, it's a good idea to stay on his good side, and make sure you take his family out to dinner every once in a while. ☺

Microwave Ovens
These electronic devices don't really have a plethora of components, but the devices they do contain are pretty good. Look for power transformers, heavy-duty momentary switches, large-wattage resistors, and large-value capacitors when striping them.

Old Portable Telephones
What I'm talking about here are the old phones that are used around the household, mentioned a bit earlier. The base/recharge units will usually provide you with some decent parts, and the phones themselves have crystals that can usually be put to good use in a home-brew frequency converter.

Old Cell Phones
Remember the old cell phones that came with a leather carrying case from a few years back? Well, these beauties are well worth taking a look at when looking for parts. The base units can be reused to hold your latest, greatest QRP rig, and, most importantly, they also contain gel-cell batteries that are usually good and only need to be recharged a bit! As far as the rest of the unit goes, you'll find a bunch of different SMT parts here and there that are useable, if you are so inclined to use these microscopic devices. ☺

Old Stereo Equalizers
This is a great source of audio-level transistors and capacitors.

Old Cassette Decks and Players
The older cassette players and recorders can also be a good source of parts. You'll find the usual transistors, capacitors, fuses, and, in some instances, a decent transformer that can be

used in a small power supply for a QRP rig or any other low-current demand project.

Any Old Tube Gear

Before we get into this particular topic, I think a word of caution is in order. Whatever you do, *never, ever* plug in an old piece of tube gear to see if it works without *thoroughly* examining it, folks!!! Remember that we're dealing with high voltages here that can be lethal! I don't think I can expound on this enough!

There can be *many* things wrong with an old piece of tube gear. For instance, transformers can be shorted, wires can be severely frayed, and the old paper capacitors can be gone, leaking out their contents all over the chassis. People have been severely injured or killed by electrical shock by just "plugging it in to see if it works." If you use extreme caution here and do a good bit of investigation, you'll more than likely save your life!

As a matter of fact, I highly recommend that you never scrounge old paper capacitors and use them to restore your old rigs and collectable gear. In the past, they've caused more problems than you can imagine, and even the "good" paper capacitors can let loose and destroy a new project your working on or an old piece of your favorite gear. Take my word on this and just stay away from these things!

Some purist might like to try to reform the old electrolytic capacitors by either using a Variac or the "light bulb" method, and those of you who know what you're doing and or so inclined can certainly do this without too much difficultly. In my humble opinion, however, it's not really worth the effort, and I suggest that you make a trip over to the local parts house or a web site and purchase some new capacitors. The purist might complain that the parts aren't original if you should try to sell a restored item, but at least you'll have something to sell if you just use some new or near-new components when applicable. So, if a potential customer complains too much, just tell him to forget the whole thing and just wait for another buyer.

Ok. Now that we have all of that out of the way, let's get on with this topic. ☺. Old tube gear isn't all that prevalent in this day and age, but every once in a while you'll run across an old piece of tube gear that isn't worth restoring or even selling. If you happen to run across a piece of gear like this and feel like striping it, I suggest that you only remove the components that might be able to be used by you or the people that collect and restore electronic equipment for their collections.

Tube testers are always nice to have around, especially if you scrounge your components from tube gear and use them in your boat-anchor projects. If you don't happen to own one, fear not, because you can always pick one up on eBay or at a local hamfest. Also, if you decide to sell your scrounged tubes, it's always nice to be able to tell someone interested in purchasing them that the tube in question has been tested and seems to be working properly. All scroungers, whether they collect or build boat-anchor type gear or not, should have a tube tester on hand, just for this purpose alone.

Tubes should also be stored in a safe place, and I highly recommend that you test and place them in bubble sheets used in shipping. Just write the tube identification number on the blister sheet with a Sharpie pen and you'll easily be able to pick a particular tube out of a box or other storage container. If you don't need the tubes for one of your projects, you can always sell them at a hamfest, on eBay, or give/swap the things with a local ham. Personally, I usually give most of the tubes that I have no need for away to local hams that restore old radios and such or sell them at a local hamfest.

Old Transistor Gear

Special consideration and interest should be taken if you're lucky enough to run across any old pieces of transistor gear, especially if these pieces of electronic equipment were manufactured in the 50's or 60's. In many instances, these pieces of gear contain old transistors that are getting hard to find, and collectors love to purchase them, especially if they're interested in an "original" restoration.

If it looks like these devices are shot, then by all means strip them; however, you might want to check on eBay or the Usenet groups to see if they're worth anything to anybody. You might think that it's restorable, but they surely could.

Should you decide that you don't want to go through all of this trouble, then by all means strip the thing; however, try to at least keep the old germanium transistors for sale at a hamfest or something, folks. Collectors will notice them and gladly purchase all the transistors you can provide, especially if the price is reasonable. The funds generated from the sale can be used to purchase new or used components at a hamfest, of course.

Well, I could go on and on here, so let's just say that just about any piece of electronic equipment will contain items that are worth scrounging. Just keep your eyes peeled, let your friends and neighbors know that you like to remove electronic parts from old pieces of electronic equipment, make a visit to a garage sale or auction, and soon you'll be knee deep in parts for your electronic projects.

By the way, if you're starting to wonder if scrounging can lead to a bit of monetary income that you can use to purchase new gear or new parts – you bet! At the end of this article, I'll fill you in on just how successful these tactics have been with me, and you can be the judge for yourself.

Storing Components

I usually use just about anything to store parts. Recently, I've been using old Altoids tins, which seem to be popular among the QRP crowd of hams. They'll safely store nuts, bolts, resistors, capacitors, etc. Be warned, however, that you don't want to use metal containers for storing static-sensitive devices, such as MOSFETs and ICs!

I usually use discarded anti-static bags from old computer equipment to store ICs and FETs. Also, if you can put your hands on some anti-static foam rubber, ICs can be inserted into this material and stored safely. Not only that, but the foam will

keep the pins from getting bent, which is a nice added advantage. If anti-static bags and foam aren't readily available, you can always use usually some form of plastic for temporary storage, although I highly recommend that try to avoid this if you live in areas of the country prone to static buildup and discharge.

If you don't already own a couple of commercial electronic-storage bins, then I highly recommend that you at least pick up two or three for your electronics workbench. They can be purchased rather cheaply at larger ham fests, or you might even been able to find a good deal on them on the Internet. Look around, and keep your eyes peeled for them at local auctions and garage sales, too.

I think it's also important to mention here that every scrounger have a good labeling strategy for electronic parts storage. Personally, I like to use masking tape, write the name of the components held within on the tape (using a dark-colored ink pen), and stick the tape to the exterior of the container. Doing this allows you to quickly scan your part containers, finding a particular component rather quickly. Another advantage is that you can always peel the tape off of the container if you decide to store a different part in a given drawer. This particular method works for me, but maybe you've figured out something a bit better. If so, then I suggest that you stick with it and not deviate, because any form of organization is better than none.

Conclusion

Well, that's about it (for now), folks. Hopefully, this article has been able to show my fellow radio amateurs that parts scrounging can be a very nice and easy way of obtaining components for your junk box. As Arnie Coro,CO2KK, likes to put it (paraphrased):

"Remove parts from old pieces of electronic equipment can be very relaxing, Amigos! It doesn't take a whole lot of concentration, and it's a fun thing to do while listening to the ham bands or a shortwave broadcasting station! Not only that, but you'll save a lot of money for your home-brew projects!"

You can't help but get fired up, motivated, and wanting to run directly to your shack to start stripping a piece of electronic gear…and guess what? It's all very, very true! ☺

Also, don't forget that apartment complexes, garage sales, auctions, local electronic and computer shops, and even your neighbors and friends can be excellent sources for finding electronic devices worthy of scrounging or resale at pawn shops, eBay, or directly to electronic collectors on the Internet. With a few hours work on weekends, you can actually make some money and use the additional cash to purchase new parts and new amateur gear! Should you doubt this statement, I'll have you know that my *entire* amateur station was paid for using these tactics, my ham funds are moving in a *positive* direction, and my junk box is literally wall-to-wall electronics in a 20x30 foot ham shack. Hopefully, you'll be able to do this, too, unless, of course, your XYL decides to shoot you or kick you out of the house first. ☺. On the other hand, I'm sure your XYL would love to hear you say, "No, honey, I don't need any money for the next hamfest. That's all taken care of, darling!"

72/73, my friends, and good luck with your own scrounging endeavors!
Randall Jouett, AB5NI

Links to Other Scroungers

Monty, N5FC, has a wonderful site, and he's also an avid scrounger. Here's a link to his scrounging article that I'm sure you'll find most informative:

http://www.io.com/~n5fc/parts.htm

Arnie Coro, CO2KK, is another avid scrounger. Most of his scrounging information is located in his "Dxers Unlimited" scripts that he posts on his web site, and his scripts are also a goldmine of information on antennas, home-brewing, propagation, shortwave listening, and other things that are very useful to today's radio amateurs and electronic buffs. By the way, these are Internet-available copies of scripts that he reads on his ever popular "Dxers Unlimited" radio show, which is transmitted 3 times a week from Radio Havana Cuba. Highly recommended, and here is the link:

http://www.radiohc.org/Distributions/arnie.html

Bibliography

This is a tough one, folks! Basically, I've learned a lot of this stuff on my own, although a lot of this information has come from my Elmers, the Usenet, and the mailing lists and web sites on the Internet. If I listed all sources here, the bibliography would probably be larger than the article! :^)

Personally, I would like to thank Arnie Coro, CO2KK, for his wonderful radio program and for making his scripts available to the world on his web site. This article wouldn't have been near the article it is without his writings and teachings.
Thanks, Arnie!

I'd also like to thank Monty, N5FC, for his wonderful web site. You rock, dude, and keep up the good work! :^)

I'd also like to thank Martin "Marty" Beck, WB0ESV, who has instructed me in the true art of home-brewing, RF design, and general radio amateur operating practices via numerous ham radio and telephone conversations. You've given me the inspiration to learn about electronics and communications, Marty, like no other person in my life, and for that, Sir, you have my sincerest heart-felt thanks and gratitude!

Roaming Piggie Report – AK7D

In July of 2000 I took my Argonaut transceiver and some wire, and my wife, on a trip north into Canada. We took our car on the BC ferry from Port Hardy, on the north end of Vancouver Island, to Prince Rupert. After we spent a day or so there we went via another ferry to Queen Charlotte Islands for a few days. On our return to Prince Rupert we then headed inland to Stewart BC-Hyder AK, two border towns, with Hyder being the southernmost town in Alaska that you can drive to. After a short stay there we returned to Prince Rupert and took the ferry back down to Port Hardy again. I managed to get on the air only one

time during this trip—out on Queen Charlotte Island--and made no contacts.

On our return home, I was already thinking about another trip north. A quick look at my maps and I worked out a circle tour that would take me up to Fort Liard NT, Watson Lake YT, and then back south to Stewart-Hyder again, and on to Prince Rupert and Queen Charlotte Islands, before heading home again on the ferry. I figured that the relatively rare VE8 (NT) and VY1 (YT) locations ought to be great for making contacts, and the other locations would be fun to get on the air from also.

Year 2001 passed with no trip. I thought of going in May of 2002, but decided that the chances of winter weather were still too likely at that time. Eventually, I settled on a September 2002 date, after Labor Day to escape tourist traffic. And, since I now had an Elecraft K2 transceiver, I would take it along instead of the Argonaut. I discouraged my wife from going along, feeling that since she had little interest in ham radio she would get pretty bored, with me trying to be on the air as much as possible. In the end she decided to go along as far as Vancouver BC, to visit her relatives there, and take the train back while I went on north. And later she would go to Boston to visit a sister.

As the date approached I fooled around trying to build a vertical antenna. I don't have an antenna analyzer, nor any great expertise in building a vertical antenna. I just started in and continued until I figured I was finished. As it turned out, I built 2—one of 16-foot height, in 5- and 6-foot sections of 1" ID and 3/4" ID thick-wall pvc pipe, and another only 4 feet high, built on a 5-foot length of 1" pvc pipe. The 16-footer had wire from 5-conductor rotator cable (cheap for a 100-foot coil, giving you 500 feet of wire) running up opposite sides of the pvc pipes, and joined together to make a greater effective wire size. I used some short 2-conductor automotive DC accessory cables (Radio Shack 270-026) to join the wires between sections of pvc pipe. These cables had male/female plugs/sockets at each end and 12-inch wires between them. I cut the wires in two and then also cut the rubber encapsulated plug/sockets in two, giving me 2 jumper sets from each cable. And I added a small capacitance hat at the top. There was no loading coil. I loaded it up with the K2s antenna tuner and it loaded 1.1 to 1 on 40 and 1.4 to 1 on 20. When I tried it out I duct-taped the thing to the railing of our deck, ten feet up, and ran a 50-foot hunk of coax out to it from the K2 and, added two 33 foot radials using clips to hang everything together while I tested it. I got on the air, working a station in Oklahoma on 20 meters. I was able to switch between the 16-foot vertical and my 142-foot loop and he said the vertical was 2 S-units better than the loop. Go figure.

Next I wanted something to put on the car, a Chevy Tracker SUV, so I wired up the 4 footer. It's on a 5 foot hunk of 1" ID pvc pipe. I wound 33 turns of #12 copper house wire, with the insulation left on, starting about a foot up from bottom of the pipe. I used about 1/2 inch spacing between windings and taped it every 6 to 8 inches to the pvc pipe. This took up about 21 inches of space on the pipe. Above this I attached a 2" OD ceramic coil form about 6 inches long (from surplus antenna tuner) that I'd wound earlier with 18 turns (at abt 1/8" spacing) of #12 bare copper wire, so I added this to the antenna above the 33 turns, and then ran #12 wire (with insulation on) from the coil on up to top of the pole (about 20") to an 11-inch capacitance hat of bare #12 wire. It loaded up 1.2 to 1 on 40 and 1.1 to 1 on 20. I set it out on deck, no radials—too lazy to deal with it that day--and got on the air with my K2 on 20. I worked Long Beach CA and Sun City West AZ, with RST of 449 and 549 (their sigs were both 599), I was able to have them compare sigs from the 4-footer with my 142-ft loop and both said the 4-footer had better sig. Then I went down to 40 and worked Spokane (my sigs 559, his 579/later 599) and had a 55-minute QSO with solid copy all the way both ends. He had a K1 running 5 watts and his antenna was 45 feet of rain gutter. He said my loop was about 2 S-units better than the 4 footer. (Go figure again.) I suspect that the K2 antenna tuner makes up for a lot of ignorance in proper antenna design here. As it turned out, I couldn't arrange any way to put this antenna on my car (didn't want to drill any holes) but I took it along with me anyhow, along with the 16-footer. I also took along plenty of wire in various lengths, for radials and for other wire antennas if trees were available.

I arrived in Fort Liard on Thursday, September 5, and began my search for a motel, with nearby trees if possible, or a suitable place for one of the verticals. Fort Liard is quite small. There are two small motels, neither of which had suitable nearby trees, and there was some modular housing at a Base Camp complex, built to house natural gas workers and available to others as well. At Base Camp there were no trees nearby, nor any suitable place for a vertical. The 2-story building at one motel, that I'd seen on their web page, turned out to be in the process of being torn down, and the new single story building replacing it was totally unsuitable for my antennas. The other motel wasn't much better, but it did have a vacant field off the one side, where I figured I could safely put a vertical antenna. This motel was in a double-wide module, with 3 rooms w/baths on each side of a central hallway.

I got the 4-footer set up outside. I'd made a platform/holder out of 2x2s, plywood, and two stacked 2x6s drilled out to accept a 1-foot piece of larger diameter pvc pipe and I could then put the bottom of the 1" pvc pipe antenna into it and it would serve to hold the antenna up for me. I clipped on two 33-foot radials and went inside to get on the air. Here I discovered that I was missing a connector. I'd forgotten to bring the cable with the little 1/8" stereo phone plug that connects the key to the K2. I couldn't believe it! I checked everywhere, and double checked and triple checked. I considered using the 1/8' plug from the headphones cable, but it, and other adapters I had on hand, were all nicely encapsulated, so I was unable to open them up and use clips to connect to my power supply cable. A kid hanging around (actually, he was hanging around the young lady who worked at the restaurant nearby) told me there was a Radio Shack back in Fort Nelson BC. Only 110 miles of gravel road and 20 miles of blacktop away. Well, I'm stubborn, if not too bright, so I eventually decided to go back and see if they had the plug for me in Fort Nelson. I stayed overnight in Fort Liard and then drove back next morning, Friday, September 6. There wasn't a Radio Shack in Fort Nelson, but there was a little electronics shop and they actually did have what I needed. It had the 1/8" stereo phone plug on one end of a short cable which split in two and went to two mono phono plugs on the

other ends—just what I needed, since my power cable ended in a phono jack. I got back to Fort Liard in late afternoon and, after figuring out which of the two mono phono jacks was connecting my key to the K2, I set up my 4-foot antenna again and turned on the K2.

I heard very few signals, most too weak to expect to work with my 5 watts. I made a few calls, and called CQ a few times, but no contacts. And to make matters worse, the K2 was acting up. I'd brought along my 1.5 amp power supply, not wanting to lug around the heavy 10 amp supply I also had. The 1.5 amp supply had worked with the K2 at home, but had occasionally caused the sidetone note to go very rough, almost as if it were going into oscillation. At home this had been sporadic, seemed to go away fairly quickly, and didn't seem to hurt anything, and since it was just the sidetone (so I thought) I hadn't worried too much about it. Here in Fort Liard it was occurring all the time. I'd begin keying, but after a bit the sidetone would go rough sounding, and now if I ignored it, it would eventually do something to the receiver that shut down reception entirely. I found that changing bands momentarily would bring back full receiver signals again. I gave up for the night.

After thinking about it, I decided that the most likely culprit here was that the local power voltage was low. Instead of 115 volts it was likely that they were probably getting considerably less. I was, after all, pretty far out in the sticks in Fort Liard.

The next day, Saturday, September 7, I tried running the K2 off my car battery. After all, I'd brought along a plug/cable for tapping into the cigarette lighter. There was a small campground just out of Fort Liard so I went out there and tried my luck from the car. It was a beautiful spot, right on a small lake, and all mine since it was after Labor Day and few tourists were around. I tried the 16-foot antenna here, but had the same problem of the sidetone going rough-sounding, but with an added wrinkle—now, even though I had my earphones plugged in, I was getting audio out of the K2 speaker as well. I was flabbergasted. It didn't seem all that likely that my car battery wasn't providing 12 volts. (I tried operating with the motor running but this resulted in hash blanking out any signals.) I got a 67-foot end fed wire up into a tree and tried it. Same problem. I spent the entire afternoon fooling with antennas, adding radials, etc. And never made contact one. One station, a K0, heard me, but nil copy.

Not only was I having ham radio problems, but to make matters worse, the food available at the only restaurant in Fort Liard (in a single-wide trailer) wasn't all that great either. I decided to move on to my next stop, Watson Lake, in the Yukon province. It was right on the Alaskan Highway and perhaps their voltage would be better.

So on Sunday, September 8, I headed over to Watson Lake. I got in well before dark and found a room at Air Force Lodge, a motel built in a refurbished building that had been put up during the construction of the Alaskan Hwy back in WW2. And there were trees nearby! I put up a 67-foot end fed wire and turned on the K2. At last, success:

- K6CU -- San Diego CA 10m
- VA7DD -- Terrace BC 40m (he was running 350 mw)
- NH6JC -- Kauai HI 20m
- W7SOM -- Seattle WA 20m
- V73GOD -- Kwajalein Island 20m
  (ed note…Fred talked to God?)
- SM5IMO -- Sweden 20m
- ON7GB -- Belgium 20m
- F2GL -- France 20m
- DJ0JE – Germany 20m
- SP2AJO – Poland 20m
- W7TV -- Vancouver WA 40m

I had less problem with the sidetone going rough sounding here. The owner of the lodge was a young guy and a really nice person. On my second night at his lodge, Monday, September 9, he left to go home (somewhere out in the bush) because it was his wedding anniversary, and he had apparently missed some previous anniversaries so--he said--he had to get home for this one. I was the only one at the motel and he put a sign on the front door that he was closed for that night, then left a side door open for me to get in and out, and off he went. It was a bit spooky, being all alone in the motel that night. But apparently there were no resident ghosts because I didn't hear or see any. I only made one contact -- to KB7MBI, and he got my call wrong in spite of my many repeats. The band seemed dead, unlike the night before.

During the day, however, there were men working on the roof, and every time they used their power saws, it wiped out my reception. The first day I just stayed away. I didn't care to be in the middle of a QSO and then have it wiped out by S-9 hash from the saws up on the roof. While I was out and about, however, I found a B&B (Hadwen's Airport B&B) that also had trees available for my antenna, so I decided to move out there that night—Tuesday, September 10. The B&B was located 11 km north on the Campbell Highway, out by the airport. I got up a 134-foot end fed wire there. But sigs seemed to be scarce, and I once again had problems with the sidetone going haywire on me. I worked—

- KC7HCR -- Belgrade MT 20m
- VE7BGP -- Nanaimo BC 40m

--but when the Nanaimo station told me that my signal sure sounded rough, I realized that not only was the sidetone rough sounding, but apparently so also was my signal going out. By now I was pretty demoralized.

It was bad enough that reception was generally poor, other than that first night here in Watson Lake, but now I find out I'm putting out a poor signal as well. I was running way ahead of my original schedule, but I decided to head on out and go down to Stewart BC-Hyder AK the next day, Wednesday, September 11, and try my luck there. The Cassair Highway south has great scenery, and again, because most tourists were gone, I had the road virtually to myself. I checked out 6 or 8 motels and B&Bs in Stewart and Hyder before finally settling on an older hotel in Stewart, 3 stories high and some reasonably suitable trees out back. I asked for a room facing that direction and strung out 67 feet of wire and was back in business. But here also, signals

were few and signal levels were way down. This may have been due to the fact that there are mountains close in on two sides of the towns, and not far away on a third side, and the only really open shot is to SE, out into the Pacific. I didn't stay with it long, and made no contacts.

About this time I was seriously thinking of cutting my trip short. I had ferry reservations to QCI on 16th with return on 19th and then to Port Hardy on the 22nd. I called the ferry to see if I could get on an earlier ferry to Port Hardy, but all I could arrange was to be on standby.

After only one night in Stewart-Hyder I headed out again (Thursday, September 12), hoping to luck out and catch a ferry south, in which case I'd have cancelled my QCI reservations. I stopped in Kitwanga, where the Cassair Hwy (Hwy 37) meets the Yellowhead Hwy (Hwy 16, the road to Prince Rupert). Here I dropped by the Gitksan Paintbrush, a gift store I'd been to on the previous trip in 2000. I'd ordered things by mail since shopping there in 2000 and had become friends with the owner, Willis Fitzpatrick, via e-mail. The shop was closed for the season, but he lived in house just in back a ways so I drove back and knocked on his door, and he came out and opened up the store for me and I proceeded to take advantage of the exchange rate and buy a number of items from him. And then we went back to his home and had coffee and chatted for over an hour. At this point I was still planning to go on to Prince Rupert and try for an earlier ferry, and if that failed I could still use my reservations and go on out to QCI. But after leaving Kitwanga I didn't get very far down the road before I changed my mind again and decided to just forget about Prince Rupert and QCI and the ferry, and drive back home. Since I was having problems both when using the power supply and when using the car battery, it seemed kind of futile to keep on going, especially as the tab for the two QCI ferries would run me $300 CDN. And the cost for gas to drive back was considerably less than the cost of the ferry going south. I called the ferry and canceled my standby, and canceled the QCI and Port Hardy ferry reservations and turned around and was on my way home.

I left Kitwanga about 3 in the afternoon on the 12th, spent the night in Quesnel, and was home the next night, Friday, September 13, just after midnight. The border crossing was a lot less hassle than I thought it would be, though I did cross at Sumas WA instead of at the main border crossing on I-5 at Blaine. And I skipped Seattle's Friday night rush hour insanity by taking the Keystone to Port Townsend ferry and going down Hwy101 to Olympia, where I picked up I-5 again.

So, would I do it again? Sure. I think I'd go a week or so later. Not only would there be even fewer tourists on the road, but you could probably get by without having reservations on the ferry going south, thus giving you added flexibility. But after I packed up the ham gear I'd unpack it again and hook it up just to make sure I didn't forget one lousy little cable or plug or something. And I'd take the heavy duty power supply. Or maybe I'd just take my Argonaut, which runs perfectly off its little 1.2 amp power supply, as well as off my car battery; plus, instead of having 3 different kinds of jacks and their plugs to deal with (BNC, 1/8" stereo, 1.2mm barrel) all I'd need to worry about is 2 kinds (phono and phone) and if I didn't want to use earphones I'd only need one kind—phono.

The K2 is now back home, sucking its 12 volts from my 10 amp supply and there's no trace of sidetone distortion, or speaker audio when earphones are plugged in. I made 14 contacts on the trip, saw a lot of fantastic scenery, and even had some fun at it, between mildly traumatic events of various kinds. For those who may be thinking of going to Fort Liard I'd say try to stay at the campground. Not that the motel was that bad, but at the campground you could do your own cooking. And there'd be some trees for antennas. If I were to go again, and couldn't use campground, I'd try to have some food with me. I can only take so much grease anymore.

I'd definitely stay at that Air Force Lodge again in Lake Watson YT. The showers and toilets are communal. But there are two shower rooms, one for men and one for women, with multiple showers in each, and separate toilet rooms, one for men and one for women, with multiple toilets in each, so you're unlikely to have to wait in line. And the owner, Michael, will go out of his way to accommodate you. I left this time for the B&B, but as it turned out I didn't really gain that much by doing so. Others may prefer the B&B since it's a two-story building, giving you a little extra height for antennas. They have 3-rooms, with shared bath, but if you are going, as I did, after Labor Day, sharing the bath should not be a problem.

As for Stewart BC-Hyder AK, here again a campground might be best. In Stewart they do have one good place to eat--the Bitter Creek Restaurant (though I didn't try all the restaurants in my 2 trips there). And, since I discovered the Bitter Creek Restaurant (during the first trip) I never did get around to trying many in Hyder, across the line—I only ate at a little breakfast place in Hyder. It was passable. Bitter Creek is better.

And if you're going through Kitwanga, stop off at the Gitksan Paintbrush gift store, on Hwy 16 just west of the Hwy 37 junction. It's worth a stop.

The Fort Liard NT-Watson Lake YT-Stewart BC-Hyder AK trip is well worth it. There's opportunity for hamming with two relatively rare calls, VE8 and VY1, plus VE7 and KL7. And Prince Rupert and the Queen Charlotte Islands (VE7) are places not that commonly heard on the air. There's a road out of Hyder that goes up into the mountains past old mines to a glacier, which is actually in BC, and there's room to park by the glacier and it would make a dandy place to try hamming from. If my K2 had been working OK off the car battery I would have gone up there on this trip. The road is primitive, but I never had to use 4-wheel drive when I went up there on the first trip to Hyder.

So that's the perhaps overlong story of my trip. Best scenery was up beyond Prince George BC, from Hudson Hope to the AK Hwy and on up to Ft. Nelson; from Ft. Nelson to Watson Lake; and from Watson Lake down the Cassair Hwy to Stewart-Hyder. Some aspens were already turning yellow; a week or so later and they'd have really turned color. I saw a couple small black bears, some deer and elk and caribou, a few mountain goats--but no moose, though road signs repeatedly warned of

moose on the road. Maybe they'd been tipped off that there was a crazy Yank radio nut around.
Fred – AK7D.

Nov. Special Events – From ARRL Web – Need WAS? This might help!

Robbins, NC: Mid Atlantic Star Party 2002, W4A. 2200Z **Nov 1**-2200Z **Nov 2**. Mid Atlantic Star Party 2002. 21.032 14.310 14.032 7.032. QSL. Chris Waldrup, 4713 Meadow Lake Dr, Apex, NC 27539.

Shiloh, IL: Scott Air Force Base Amateur Radio Society, AA9ZI. 1500Z-2100Z **Nov 2**. Scott AFB Radio Club's 1st Anniversary. 146.405 28.410 14.285 7.250. Certificate. Suzanne Horn, KB0OMB, 988 Jacks Rd, Troy, MO 63379.

Stuart, FL: Martin County Amateur Radio Association, K4ZK. 1300Z-2100Z **Nov 2**. Celebrating 100 years of the historic Stuart Feed Store. 28.365 21.365 14.265. Certificate. Jeff Kirsch, 43 Seminole St, Stuart, FL 34994.

Sioux City, IA: Sooland Amateur Radio Association, K0TFT. 1600Z **Nov 2**-0000Z **Nov 3**. New Lewis and Clark Interpretive Center. 21.325 14.250 7.250. Certificate. Jim Rhodes, K0XU, 429 E 26th St, South Sioux City, NE 68776.

Burley, WA: Burley Amateur Radio Club, N7W. 1800Z **Nov 5**-1800Z **Nov 15**. 10th Anniversary of Burley ARC. 28.380 21.040 14.040 7.260 7.040. QSL and certificate. W7JQ, PO Box 262, Burley, WA 98322.

Mountain View, CA: Mountain View ARES, K6MTV. 1600Z **Nov 7**-0200Z **Nov 8**. Centennial of the founding of the city of Mountain View, CA. 28.380 14.280 7.270 3.970 146.535 MHz FM. QSL. K6MTV, Mountain View ARES, PO Box 617, Orinda, CA 94563.

Whitefish Point, MI: Stu Rockafellow Amateur Radio Society, N8F. 2300Z **Nov 8**-2300Z **Nov 10**. Remembering the Edmund Fitzgerald and crew lost in 1975. 21.270 14.270 7.270 3.870. Certificate. Richard Barker, W8VS, 264 N East St, Brighton, MI 48116. http://www.qsl.net/w8njh/.

Toms River, NJ: Holiday City Amateur Radio Club, W2HC. 1400Z-2200Z **Nov 9**. Henry Hudson's 1609 Jersey Shore discovery. SSB 21.273 14.273 CW 21.040 14.040 PSK31 14.070. Certificate. Don Smith, W2III, 9 Tahoe Ct, Toms River, NJ 08757.

Salt Lake City, UT: Utah Amateur Radio Club, W7SP. 1500Z **Nov 9**-1500Z **Nov 10**. 75th Anniversary of the Utah Amateur Radio Club. 28.450 21.350 14.250 7.250. QSL. Mark Richardson, W7HPW, 11361 S 5825 W, Payson, UT 84651-3622.

San Marcos, TX: Austin Amateur Radio Club, W5CAF. 1200Z **Nov 9**-2300Z **Nov 10**. Gathering of Memories Airshow. 28.350 21.350 14.250 7.250. QSL. Jeff Schmidt, c/o AARC, PO Box 4763, Austin, TX 78765-4763.

Arlington Heights, IL: Armored Force Amateur Radio Net, KA9NLX. 1800Z **Nov 9**-2200Z **Nov 11**. Honoring military veterans and what they sacrificed for us. 21.375 7.283 7.040, 20 and 10. Certificate. Armored Force Amateur Radio Net, 1423 North Ridge Ave, Arlington Heights, IL 60004.

Burley, WA: Burley Amateur Radio Club, N7W. 0000Z **Nov 9**-2359Z **Nov 12**. In honor and remembrance of all US Veterans. 28.380 21.040 14.040 7.260 7.040. QSL and certificate. W7JQ, PO Box 262, Burley, WA 98322.

Albuquerque, NM: Albuquerque Amateur Radio Club, N5VA. 1600Z **Nov 10**-0300Z **Nov 11**. Veterans Day. 28.350 21.375 14.260 7.250. QSL. Thomas R. Lea, 1009 Clancy Dr NE, Albuquerque, NM 87112.

Baton Rouge, LA: USS *Kidd* ARC/Baton Rouge ARC, W5KID. 1500Z-2300Z **Nov 11**. Honoring Veterans Day. SSB: 10 15 17 20 m inside General band and above RTTY subband CW: QRP sub bands. QSL. W5KID, 305 River Rd, Baton Rouge, LA 70803.

Bellevue, NE: Strategic Air Command Memorial Amateur Radio Club, K0GRL. 1200Z-2400Z **Nov 11**. Veterans Day and Gen Curtis E. LeMay's birthday. 28.347 21.347 14.247 7.247 3.947. QSL. SACMARC, PO Box 1292, Bellevue, NE 68005. http://www.sacmarc.org/.

Nutley, NJ: Robert D. Grant United Labor Amateur Radio Association, N2UL. 1200Z-2300Z **Nov 11**. CQ Veterans Day, Fort Monmouth NJ US Army Post. 28.420 21.375 14.260. Certificate. RDGULARA, c/o WA2VJA, 112 Prospect St, Nutley, NJ 07110-1716.

McLean, TX: Sponsored by Control Operator, K5BAQ. 1400Z **Nov 15**-0500Z **Nov 17**. The centennial of founding of McLean and Gray County, Texas. 50.165 21.265 14.265 7.265. QSL. Mike Nicholson, PO Box 26, McLean, TX 79057.

Edmond, OK: Edmond Amateur Radio Society, K5EOK. 1400Z-1800Z **Nov 16**. Oklahoma's Statehood Day. 28.350 21.350 14.250 7.250. QSL. Edmond Amateur Radio Society, PO Box 48, Edmond, OK 73083.

Hackensack, NJ: NJ Naval Museum and 10-70 Repeater Association, NX2ND. 1400Z-2100Z **Nov 16**. USS *Ling* Submarine SS297 Second Anniversary NX2ND, Veterans Day. 14.260 14.043 7.260 7.043 40-2 m. Certificate. Bill Stagg, KC2BLN, 38 Rutgers Dr, Oakland, NJ 07436.

St Augustine, FL: St Augustine Amateur Radio Society, K4L. 1600Z **Nov 23**-2000Z **Nov 24**. Annual Christmas "Nights of Lights." 28.370 14.270. QSL. Wilson Smith, W7GAM, 3612 Crazy Horse Trl, St Augustine, FL 32086.

Franklin, TN: Williamson County Rescue Squad ARC, W4F. 1200Z **Nov 30**-2300Z **Dec 1**. Anniversary of Civil War Battle of Franklin. 21.325 14.280 7.280 2 m. QSL. W4SQD, PO Box 408, Franklin, TN 37065.

About the Flying Pigs QRP Club

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