



The Parasitic Emission

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On The Air

by Joe Shupienis, W3BC

MANY organizations these days are developing "Mission Statements." Focusing on who you are and what you do brings you closer to your core values and helps you reach your goals.



It's been a few months since I decided to relaunch this newsletter. I had the time to put a couple issues together and see what happened. The response has been very positive! Having seen that there is indeed a need for such a newsletter, I'm preparing this one, and laying plans for many more.

After mulling it over, I think I've figured out my motivation. To be completely truthful, I'm still passionate about our hobby of amateur radio. I've been licensed for over 43 years, and every time I turn on a radio, I experience the same thrill I did as a kid. My hope is to spread some of this enthusiasm around to inspire you, the reader to get in on the fun!

Today's realities of aging populations, uncertain fuel prices, and economic doubts lead us all to be more prudent in our activities and our spending. Not many of us are inclined to travel great distances simply to attend a radio club business meeting, even though the meetings give us a monthly opportunity to stay in touch with our friends, old and new.

This newsletter can help! By gathering together stories of what hams in all four counties are doing, it allows us to keep in touch with our neighbors and ham radio friends all around the area.

It takes more than one or two people to produce such a newsletter. I am extremely grateful to have the help of a growing number of contributors from across our region. This month, I am delighted to welcome **Pete Carr, WW30**, who authored a great article on amateur satellite operation. Pete points out that it is easier than you think to get started.

Modern publication methods make it possible to include content like photos and drawings that were not possible in the past. Additionally, there

are no postage constraints because it costs nothing to produce and deliver each issue electronically.

Assembling a newsletter from such a wealth of local, original content, is a distinct pleasure. I believe these contributions make the *Parasitic Emission* worthy of a wide audience. The FCC database lists over 400 ham licenses issued in our four counties, and I think every ham could benefit from receiving this monthly mailing.

To this end, I am trying to obtain the email addresses of all hams in our area, so I can email the newsletter to every ham, free of charge. To serve the greater good, as editor I will make every effort to ensure *The Parasitic Emission* includes information about all the activities of all the local amateur radio clubs.

And that brings me back to mission statements. The best ones are short, simple and to the point. *The Parasitic Emission's* is now in our masthead: "**Supporting Amateur Radio Activity in Cameron, Clearfield, Elk and Jefferson Counties.**"

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Lately I've been having a lot of fun working some contests. When I was a kid, I thought you had to

In this issue...

- **Club Connections – News from all over**
- **Christmas Party Announcements**
- **Hearing Voices From Outer Space (by WW30)**
- **Basic Concepts: The 40 Meter Band (by W3BC)**

have a lot of expensive equipment and antennas—things I thought I could never afford. With a very modest station built up from quality, used equipment instead of brand new, entry-level rigs, I find that you can achieve a big score for very little of the long green.

More important, it's a lot of fun to squeeze out 130,000 points in the PA QSO Party, or 50,000 in the CW Sweepstakes with a station that cost less than a D-Star™ VHF mobile setup. Even though I missed two local counties and 4 ARRL sections, I'm still going to try again next time.

I can hardly wait for the Phone Sweepstakes so I once again can quest for that Holy Grail of Amateur Radio: A Clean Sweep.

I'll see **you...** on the air.



Affiliated Club



Club Connections

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The Quad-County Amateur Radio Club

Serving Cameron, Clearfield, Elk and Jefferson Counties since 1975

The November meeting of the QCARC will be held at the Clearfield 911 Center at 7:30 pm, Friday November 20. Free coffee and donuts will be served after the meeting..

Minutes of the QCARC Meeting by Jeff Rowles, KA3FHV

OCTOBER'S meeting was called to order at 7:37 PM by Doug, W3DWR. The minutes of last month's meeting were approved with the addition of Kay Kvant to those in attendance. The Treasurer's report was read, with a motion to approve made by KA3FHV and seconded by SM7FYW.

Old Business

The club picnic was canceled due to inclement weather, and replaced with the monthly breakfast at Billy's Burgerland.

New Business

The nominations for club officers and board of directors were opened. After some discussion, a motion to retain the current slate of officers and board members was made by N3PUQ and seconded by SM7FYW. Nominations will remain open until the November meeting at which time the elections will take place.

The annual Christmas dinner was discussed. It was decided to hold it on the regular meeting night in December, the 18th. Doug, W3DWR, will check with Ethan's Café. We had a nice gathering there a few years ago.

The next item brought to the floor was the possibility of getting one of our G5RVs installed on the tower at the 911 center. Since Mike, WB3EQW, is sort of our liaison with the "powers that be" there, Doug will email him concerning this project.

A motion to adjourn was made by KA3FHV and seconded by K3JE at 7:58 PM.

Attendance

KA3FHV, SM7FYW, Kay, N3PUQ, K3JE, KA3DWR

Behind The Gavel

Doug Rowles W3DWR

TWO NEW counties have been added to the QCARC Sunday net roster, Westmoreland and Lebanon. Westmoreland isn't that far a jump, but it is a pretty far reach to Lebanon, PA. Rusty, K1BIX, has been checking in for a number of weeks. Before that he had spoken to several hams in the area on 147.315. That frequency happens to be his home repeater, K3LV. He heard our repeater one evening when the band was up. He has a big tower so he put our access tone in his radio, turned his beams our way, and lo and behold there we were! He has also checked in to the PARA net on 146.43.

Our thoughts about adding a G5RV to the 911 tower have been passed on to Mike, who will pass them on to the proper folks at the 911 center.

Plans are almost finalized for a Christmas Dinner at Ethan's Café on the regular December meeting night at 7:00 PM. There will be a choice of baked ham or turkey. Look for full details elsewhere in this newsletter.

Don't forget the elections at the November meeting. The current officers and board members were nominated for another term. Nominations are still open.

QCARC Christmas Party

Doug Rowles W3DWR

THE QCARC December 18th meeting night has been chosen for the Christmas get together. The location is Ethan's Café at 112 North 3rd Street in Clearfield. The time is 7:00 PM. There will be a choice of two entrees:

Roast Turkey
Mashed Potatoes
Stuffing
Vegetable
Salad

Baked Ham
Mashed Potatoes
Vegetable
Salad

The cost is \$10.00 + beverage & dessert for the turkey. The baked ham is \$9.25 + beverage & dessert. We can pay as we leave. Reservations can be made at dwr@penn.com, or by phone at 814-342-3019. The deadline for reservations is Friday, December 11th.

Plans are finalized for a Christmas Dinner at Ethan's Café on the regular December meeting night at 7:00 PM. There will be a choice of baked ham or turkey.

Clearfield County ARES

Paul R. Lowes, W3PRL, Clearfield County
Emergency Coordinator (ARES)



Punxsutawney Area Amateur Radio Club

*Serving Punxsutawney
and Jefferson County*

The December Christmas Party of the PAARC will be held at the Presbyterian Church, Findley and Union St, Punxsutawney at 7:00 pm, Tuesday December 1. Food entrees will be provided.

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Jerry did an excellent job handling the communications, and at one point he had a hard time catching his breath due to the amount of traffic that was being passed.

ON SATURDAY Morning, October 17th, I conducted a surprise SET here in Clearfield County. The SET was a complete success, with approximately 30 stations checking into the net. The net started at approximately 7:45 am, and concluded at approximately 10:20 am.

Once the SET was under way for Clearfield County, several Jefferson and Cambria County amateurs checked into the net. I then asked each of those hams to find me more hams from their county, and report to the 147.315 county repeater. I then asked John from Cambria County to establish an HF emergency net, which he did on 3970. The HF side pulled in approximately 10 amateurs, with at one time a ham from New York became NCS. The following counties participated in the SET: Cambria, Clearfield, Centre, and Jefferson. I also had a total of 4 EC's participating in the net. My thanks to all those EC's and radio operators who participated.



Bryan, WA3UFN and Cliff, WB3GAD discuss the quality of the refreshments at the October PAARC meeting

Net control in Clearfield County was Jerry, N2GUN. Jerry did an excellent job handling the communications, and at one point he had a hard time catching his breath due to the amount of traffic that was being passed. Thanks to Jeff, KA3FHV, for picking up the HF duties on 3970.



Elk County Amateur Radio Association

Serving Elk and Cameron Counties

The November meeting of the ECARA will be held at the Elk County 911 Center, US 219 south of Ridgway on Sunday November 15 at 1:30 pm. Free coffee and donuts will be served after the meeting.

October 31 SET Info

This Net started at 9am, net control N2GUN. This SET completely focused on traffic handling, and I sent a couple guys to the WPA Phone and Traffic Net Saturday morning for the purpose of passing traffic. We had approximately 8 stations participating. Thanks to all those who participated in the SET. Contact was also made thru the district repeater, thanks Jason.

There was no Red Cross activity for the past few weeks. Great job one and all!

Please volunteer your services to ARES or the American Red Cross. My thanks to Janet from the American Red Cross for their participation.



Members discussing business at the October 2009 meeting of the ECARA in the nicely appointed Elk County Emergency Operations Center

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W3PRL, Paul R. Lowes
Clearfield Co. ARES Emergency Coordinator

Hearing Voices From Outer Space

By Pete Carr, WW30

SATELLITES aren't just for the military or scientists anymore. For over 40 years, hams have been building, flying and working satellites from their shacks and having a great time. Sitting at their stations, these hams use their minds to look up and out into space and see the target of their signals as it circles the planet. They hear voices talking to them from outer space and know that they are not crazy! They test different antennas, radios and computer modes and learn about stuff that would make the actors on *The Big Bang Theory* turn green with envy.

The national organization, AMSAT, offers a lot of information through both their web site, www.amsat.org and their magazine, *The AMSAT Journal*. It is an excellent place to start if you're interested in getting active in space.

freely through the Journal magazine. It's fascinating to see the thought processes of engineers as they work on equipment that has to perform perfectly in the cold and vacuum of space.

Many of the current crop of birds were produced by the cooperative efforts of many universities in different countries around the world. For example, VO-52, a Single Sideband satellite, was built by Dutch and Indian groups. You talk to VO-52 in the 70 CM band and listen to its down-link in the 2-meter band. It acts somewhat like a repeater except that the up and down links are in different bands. This removes the need to have a duplexer on board.

The easiest way to get started on satellites is to visit the AMSAT web page and search for "getting started". There are basically three types of birds flying right now. The first is FM, just like the FM radios we use for base and mobile

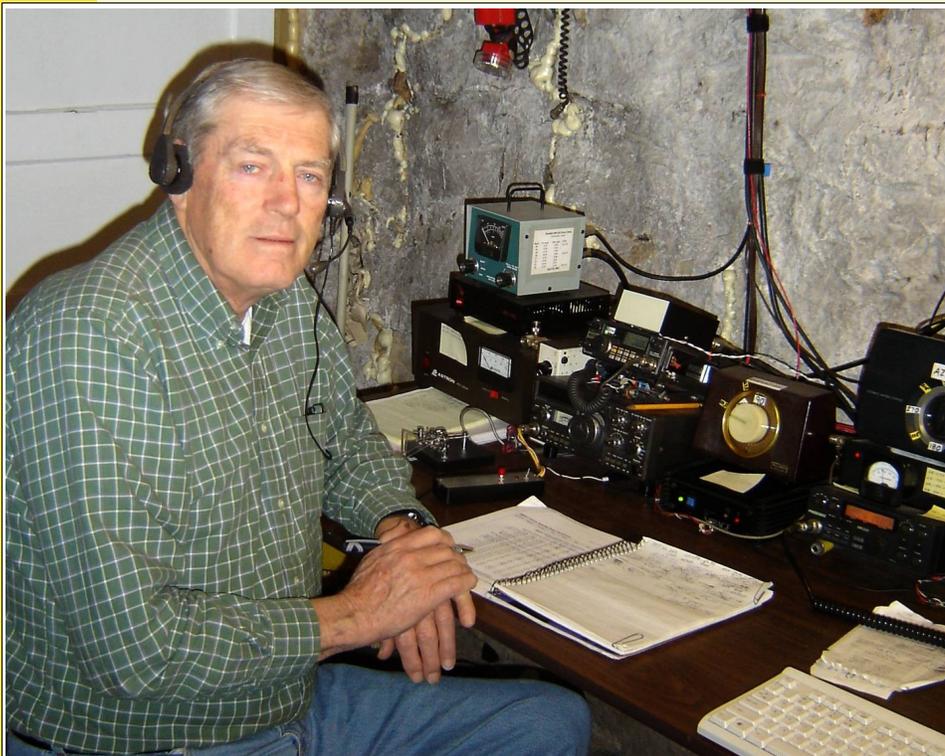
communication. The second is single sideband where you need a SSB UHF/VHF rig to work them. Third are the packet/digital satellites. Many FM birds also carry transponders that support packet or digital formats. Much of the telemetry sent to the ground that tells about the satellite's condition is sent via packet. Most hams have a computer in their shacks. There is inexpensive software that tracks all the satellites and presents a map of the world on the screen with your QTH and the current position of the satellite highlighted. It also gives the azimuth and elevation angle of steerable antennas so you know where to look for the bird. This, coupled with packet software to decode telemetry gives hams the tools to go digital on the birds.

Once you get an idea of which satellites you want to operate, you need to plan a ground station. There is a lot of excellent material in *QST* magazine and also *The Journal* that shows how to get on. You can access the www.arrl.org web site and search for satellite articles from past issues of *QST*. The AMSAT web site also has a list of Area

Coordinators. These are hams in each State that are willing to assist you with advice. I'm the one for this part of Pennsylvania so feel free to contact me at wb3bqo@yahoo.com.

Many hams start with the FM birds since they may already have much of the needed gear. AO-51 is

The easiest way to get started on satellites is to visit the AMSAT web page and search for "getting started".



Pete, WW30 sits at the satellite operating station. A computer with its tracking software is off screen on the right edge of the table. Pete uses a 10 meter rig with a Hamtronics kit down converter to receive the 70 CM band. He uses an FM 2-meter rig for the uplink. Two antennas for these bands share a common boom with azimuth and elevation rotators used to point them at the satellites' position. These are mounted on a 40 foot telephone pole in the back yard.

It seems that the membership of AMSAT is split into two groups. The larger group is made up of satellite users who happily tinker with antennas, rigs and computer software. The other group is made up of missile people, university and industry scientists who build satellites for a living. These two groups share their interests and information

the premier FM satellite now and is always crowded with activity. You can listen to AO-51 on almost any UHF FM radio or dual-bander with a suitable outside antenna. It transmits about .75 watts of RF which doesn't sound like much. However, it has great antenna height and only a small signal loss from the atmosphere, clouds or fog. Once you hear hams having all that fun you'll want to set up the transmit side and get in on it too.

Since the same side of the Moon faces Earth all the time it's natural to want to put a satellite on it. Right now hams bounce signals back to Earth from the Moon which acts like a reflector. An active satellite would make communication far easier and more reliable for hams around the World. AMSAT teams are working on that now. Also, there are plans in the works to send a Ham satellite to Mars. This would give average hams the opportunity to work a bird that is orbiting another world.

It's guys and gals working in their basements and garage workshops that are making this stuff happen. The technology they develop and the skills they learn are the bedrock of future satellite communication. You can join in their fun and hear those voices talking to **you** from outer space!



A Yaesu 2-meter rig is connected to a 12-volt power supply and tuned up on the low end of the band. The signal from the 2.4 GHz antenna is received as 144.025 MHz FM. Once the antenna is peaked for best signal it will be installed on the telephone pole mounted boom with the 2-meter and 70 Cm antennas. Then signals from the new crop of satellites can be received.

[Editor's Note: Pete Carr, WW30 (formerly WB3BQO) is one of the founding members of the Quad-County Amateur Radio Club. He has helped numerous repeaters in the area by giving freely of his tower climbing and antenna rigging skills.

He is an active amateur, and also an expert Radio Control pilot. He uses amateur radio R/C to fly sophisticated gliders and powered aircraft, and is a recognized authority in that area as well.

It is with great pleasure that we welcome him as a contributor to The Parasitic Emission.]

Shorts

Congratulations and welcome to **Tom Sprague, KB3TOY** of Reynoldsville who passed his technician exam to become a new ham at the October VE session held in DuBois.

Also at that VE session, **Tom Robinson, W3KWT** from Mahaffey upgraded to General.

After driving all the way from Roaring Spring, **Reid Ritchey, KB3EVP** earned General privileges as well.

Congratulations to all, and a big thank you to the VEs in attendance: **Bryan Simanic, WA3UFN, Charlie Lindahl, KA3DEO, Scott Mathewson, WA3FFC, Don Dimmick, W3HT, Art Kunst, W3WM and Joe Shupienis, W3BC.**

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To submit material for the newsletter by e-mail, you can use the following address:

submit@parasiticemission.org

Items for the Shorts column can be submitted to:

shorts@parasiticemission.com

It's guys and gals working in their basements and garage workshops that are making this stuff happen.



The newer satellites are using 2.4 GHz links for communication. A antenna-mounted down converter is used to overcome high signal loss in the coax from the antenna to the Ham shack. The down converter is a part of the signal pickup at the center of the antenna. The resulting signal can be received on a 2-meter FM rig.

Basic Concepts of Amateur Radio: Users' Guide to the 40 Meter Band

by Joe Shupienis, W3BC

FORTY METERS could be called “The Band of Many Faces.” It truly has something for everybody. Every licensed ham can operate on at least part of this very popular band, the second-lowest in frequency of the original high-frequency, shortwave bands. Like its eighty and twenty meter neighbors, its history began in 1924 at the dawn of vacuum-tube, crystal-controlled amateur radio transmitters.

Today 40 meters is the most popular band for regional contacts during daylight hours. In the evening, coast-to-coast contacts are the norm, and DX stations move to 40 from the higher bands. It's the band of choice for reliable, year-round CW and digital contacts. Since the end of World War II, the phone portion of the band has suffered from severe interference from foreign shortwave broadcast stations—and still does—but recent ITU actions have limited the broadcasters to frequencies above 7.2 MHz, thus clearing 2/3 of the US allocation from broadcast interference.

In most contests, the quality of operations on 40 meters can make or break a winning effort. With significantly less broadcast interference now than in the previous 60 years, 40 meter phone operations will undoubtedly become even more important than ever.

Engineering Considerations

40 Meters has a lot more good news for antenna builders than its cousin, the 80 meter band. First off, all the numbers are only half as large. A typical half-wave dipole is 68 feet, end to end, and the quarter-wave vertical is a mere 35 feet.

Even DXers with small back yards can find the space to put up a four-square array for 40 meters, and in fact it is a very popular directional antenna on this band. The casual operator who settles for a dipole, inverted vee or full-wave loop at 20-30 feet above the ground will not be disappointed—you will work

the world with such an antenna.

Bandwidth considerations are much less problematic than on the lower bands. Most 40 meter wire antennas present an SWR of less than 2.5:1 across the entire band, presenting an easy match for a pi-network rig or an antenna tuner.

If you're in search of the ultimate 40 meter DX antenna, a short, 3-element 40 meter yagi requires a 38 foot boom, with 70 foot elements, atop a 70 foot tower. With a turning radius of “only” 50 feet, and typically weighing little more than a 5 element tribander, it's still pretty big, but as big beams go, it approaches “practical.”

Most mobile operators consider 40 meters to be the lowest practical band for mobile use. The vehicle's capacitive reactance to ground is half that at 80 meters, while the radiation resistance of the short antenna is higher, resulting in significantly lower loss. Mobile operation using inductive-loaded antennas is the norm, although many mobile operators have good outcomes with eight or twelve-foot, non-loaded whips and a good antenna tuner. The radiation efficiency of a typical mobile installation on 40 meters is still comparatively poor compared to a home station, and averages between 5 and 15 percent. This means your 100 watt mobile signal is the equivalent of 10 watts into a standard dipole.

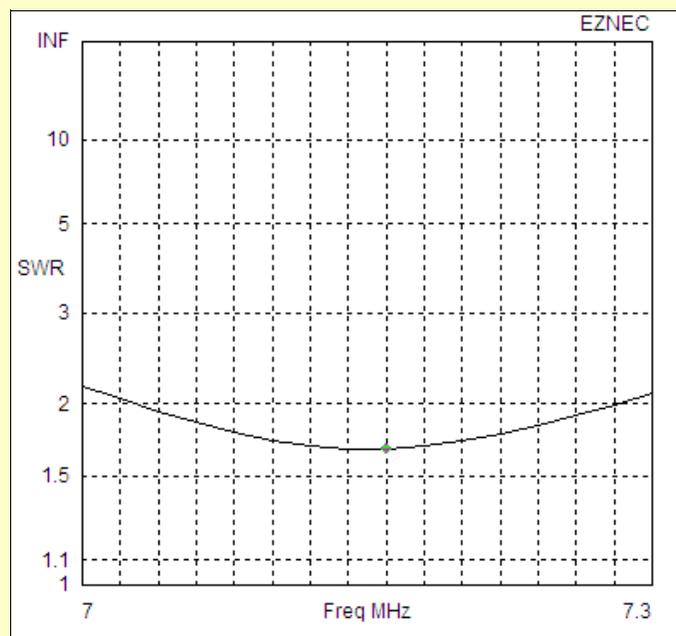
This is acceptable performance for the majority of amateurs, and explains the popularity of mobile nets such as ECARS and MIDCARS on 40 meters.

Long-wire, Beverage and Rhombic antennas each require no more than a mile of wire and can be installed in just one acre of level, cleared, real

estate to be effective. Ground losses and self-inductance at 7 MHz are still relatively high, but are overcome by the high gain and other desirable characteristics of the “wave” antennas.

Feedline loss on 40 meters is higher than on 80 meters, and at lengths of over 100 feet it becomes a factor that must be considered. You have to weigh the theoretical promise of a couple dB of gain in a distant antenna against

the certainty of a couple of dB loss in the feedline required to get the signal to the distant antenna.



40 Meters has a lot more good news for antenna builders than its cousin, the 80 meter band. First off, all the numbers are only half as large.

Propagation

Studying the propagation characteristics of 40 meters is both interesting and challenging. The band is open to a different part of the world every hour of every day in every season of every year throughout the 11/22-year sunspot cycle. Sometimes you can use the band for DX to points on the opposite side of the world with ease. Other times, you'll be hard pressed to work a station across town. To make things even more "interesting," the band conditions can suddenly change from long to short almost in an instant—it can seem as if the Sun flipped a giant switch in the ionosphere.

During contests, I'm fond of telling 40 meter stations too weak for me to work to try again in five minutes. When they do (and if I can hear them), the success rate is 100%! As you can see from this, getting the most out of 40 meters often requires patience. And sometimes, wishful thinking and sheer stubbornness!

Most of the time, the band is either "long" or "short." As the sun excites the ionosphere, different layers become dominant and will either reflect or pass your signals, depending on the angle they are traveling. At times—paradoxically—a low-slung, high-angle antenna works better than a high-flying, low angle one. Five minutes later the reverse might be true!

Since the size of 40 meter antennas is not prohibitive, you might consider having two antennas for 40—one for NVIR and the other either a vertical or way up in the air to provide a low takeoff angle. When the band "goes dead" switching from one to the other might reveal a crowded, busy band with stations you just couldn't hear with the other antenna!

If you have a four-square or other directional antenna, you might find the band is open in one direction but not the others, or that it is "long" one way and "short" another. By mixing and matching, you might find the direction and distance the band wants to work at that moment.

All this is great, if you are just looking for a "random" contact, or are operating a contest. However, if you are trying to keep your 10:00 am Sunday morning schedule with Uncle Floyd in Piscataway, it can pose a problem. When you've tried the high angle antenna and the low angle

antenna, and you've both been waiting five minutes for the past half hour... here's my final advice for 40 meter success: Try it again next week.

When the **D layer** becomes ionized, it attenuates all signals, but is particularly unkind to lower frequencies. If 80 meters is blocked because of a solar flare, 40 is next. The good news is that 40 will recover sooner than 80.

In the summertime, **thunderstorms** within 500 miles can be heard during the daylight hours, and up to 2,000 miles or more at night. Many people find 80 to be "too noisy" in the summer, and migrate to 40 where the QRN is 1 to 2 S-units quieter.

Like most HF bands, good DX can be worked along the **grayline**. If conditions are just right, and you time it perfectly, your first hop might land on open sea and bounce into the grayline several thousand miles away. The next landfall could be halfway around the world—or even further! Welcome to the occasional world of "long path" propagation. On 40 meters, it doesn't happen often, but when it does, it's pretty impressive.

As night falls over your QTH, 40 meters begins to settle down. The skip zone for nearby stations becomes longer and the band becomes quieter. As the F1 and F2 layers merge into the F layer, the band becomes relatively stable through the night and into the pre-dawn. In the winter months, it is almost as reliable for DX as 20 meters is during the day. High power helps, as as most 40 meter stations don't have beams or other gain antennas, and due to less effective F-layer reflection than on 20, the signals are 2-3 S-units weaker over the same path—but they **are** there, nonetheless.

Rules and Regulations

Novice and Technician licensees may operate CW only, with no more than 200 watts PEP output from 7.025 to 7.125. General and Advanced can operate CW and digital modes from 7.025 to 7.125 with 1500 watts PEP output. Extras can add the bottom 25 kHz to round out their privileges.

Phone privileges for Generals now extend from 7.175 to 7.300 MHz. Advanced and Extra Class licensees enjoy additional phone frequencies from 7.125 to 7.300 MHz.

When the band "goes dead" switching from one antenna to the other might reveal a crowded, busy band with stations you just couldn't hear with the other antenna!

40 Meters	7.000 – 7.025	7.025 – 7.125	7.125 – 7.175	7.175 – 7.300
Novice/Tech	⊘	CW only, 200 w	⊘	⊘
General	⊘	CW, RTTY, Digital	⊘	SSB, AM, SSTV, Wide-Digital
Advanced	⊘	CW, RTTY, Digital		SSB, AM, SSTV, Wide-Digital
Extra	CW, RTTY, Digital			SSB, AM, SSTV, Wide-Digital

In the US, the band covers from 7.0 to 7.3 MHz. In other parts of the world, it's only 7.0 to 7.2, with broadcasting authorized at 7.2 and above. For many DX stations, the noise from the nearby broadcasters is so intense the hams can only hear US stations on frequencies below 7.1 MHz. It is very common to hear foreign phone operators ragchewing in Spanish, Russian and many other languages between 7.040 and 7.200 MHz.

Due to the fact that the band is always open to some other part of the world, considerate 40 meter operators must be aware of the generally agreed bandplans to avoid ruining someone's QSO. What you might think is a clear frequency you can use to tune up your 1500 watt linear for hours on end may actually be in use somewhere else for a QRP QSO. You can't hear them, but they sure can hear you! Better to look before you leap!

40 CW

The CW portion of the band is surprisingly complex. From 7.000 – 7.005 is reserved for “intercontinental DX” use only. Write this down: US to Canada is **not** intercontinental. US to Europe **is**.

Just above 7.025 is an area often used for high-speed CW. Speeds in excess of 30 wpm are regularly heard.

Stations outside North America tend to hang around the lower end of the band for reasons mentioned before. Most CW DX stations will be found below 7.040 MHz. DX QRP activities are centered on 7.030, and the DX digital modes are clustered at 7.035 and above.

The US QRP calling frequency is 7.040. It is a very popular frequency for homebrew, crystal-controlled, “Altoids Can” transmitters. Those guys can't move so you have to!

At 7.050 to 7.060 you can find very slow CW, and many of these stations are QRP as well. This is the closest thing to a “Novice band” these days. If you are new to Morse code, this is the perfect place to give it a try.

US digital modes begin on 7.070 for PSK, and slightly above for other modes. RTTY can be found from 7.080 to 7.100, and also above 7.090 you will find Winlink™ stations burping at each other.

The range from 7.100 to 7.125 is undergoing changing uses, as we are still getting used to not having to contend with broadcasters. This used to be the lower half of the 40 meter Novice band back in the good old days. Many Boatanchor fans have been observed firing up their old crystal-

controlled novice rigs on the frequencies they used when they first got started 40 and 50 years ago. I've done it myself and it makes me feel like a kid again! It's even better now—we don't have to watch the clock to make sure we wrap things up before Radio Moscow fires up their 500,000 watt transmitter on 7.120 and wrecks our QSO!

40 Phone

The phone band for Extra and Advanced licensees now begins at 7.125 MHz, and since lower sideband is in use on 40 meters, the dial frequency should be at 7.128 or higher to keep all of the signal within your authorized subband. Generally it is bad form to use any frequency below 7.130 because some DX stations will operate “split,” transmitting below 7.125 and listening above 7.125 for US stations.

It is also quite common to hear DX phone stations operating between 7.125 and 7.200 MHz. They seem happy to finally be free of the shortwave broadcasters.

The Extra and Advanced subband is from 7.125 to 7.175, and is relatively quiet. There are few organized nets here, since we are still trying to figure out how to use our newly broadcast-free band! There are a few frequencies that are listed for specific purposes. 7.171 MHz is the home for Slow Scan TV nets and QSOs.

Generals can operate from 7.175 to 7.300 MHz, again, just remember to set the dial to 7.178 or above to stay within your operating privileges.

QRP phone operations are centered around 7.285, and the AM calling frequency is 7.290 MHz.

Due to the regional coverage of 40 meters, and its utility for mobile operators, there are several nets throughout the day that operate in support of mobiles, and serve as meeting places for schedules. **ECARS**, the East Coast Amateur Radio Service meets on 7.255, and **MidCARS** the Mid-Central Amateur Radio Service operates on 7.258 MHz. If you're looking for a signal report, or you have a schedule with a distant friend these serve as “moderated calling frequencies,” and are of much use.

So there you have it. Every licensed ham can operate somewhere on 40 meters. And it's relatively easy to talk to the entire country and even the entire world with simple radios and antennas.

It's my favorite band, and once you try it it will be yours, too!

See you there!

Due to the fact that the band is always open to some other part of the world, considerate 40 meter operators must be aware of the generally agreed bandplans to avoid ruining someone's QSO.

November 2009

Regional Amateur Radio Activities

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
01 2:00am» Set clocks back 1 hour 8:00am» Washington (PA) Hamfest 7:00pm» QCARC 2-meter FM Net 7:45pm» Clearfield County ARES Net 8:00pm» Elk Co ARA Net	02 7:30pm» Punxsutawney ARC 2 Meter Net	03 Election Day	04	05	06	07 4:00pm» ARRL Sweepstakes - CW
08 12:00am» ARRL Sweepstakes - CW (cont.) 7:00pm» QCARC 2-meter FM Net 7:45pm» Clearfield County ARES Net 8:00pm» Elk Co ARA Net	09 Parasitic Emission Submission Deadline 7:30pm» Punxsutawney ARC 2 Meter Net	10 7:00pm» Punxsutawney Area ARC Meeting	11 Veterans' Day	12	13	14 10:00am» QCARC Breakfast
15 1:30pm» Elk County ARA Meeting 7:00pm» QCARC 2-meter FM Net 7:45pm» Clearfield County ARES Net 8:00pm» Elk Co ARA Net	16 7:30pm» Punxsutawney ARC 2 Meter Net	17	18	19	20 7:30pm» QCARC Meeting	21 4:00pm» ARRL Sweepstakes - SSB
22 12:00am» ARRL Sweepstakes - SSB (cont.) 7:00pm» QCARC 2-meter FM Net 7:45pm» Clearfield County ARES Net 8:00pm» Elk Co ARA Net	23 7:30pm» Punxsutawney ARC 2 Meter Net	24	25	26 Thanksgiving Day	27 7:00pm» CQWW CW	28 12:00am» CQWW CW (cont.)
29 12:00am» CQWW CW (cont.) 7:00pm» QCARC 2-meter FM Net 7:45pm» Clearfield County ARES Net 8:00pm» Elk Co ARA Net	30 7:30pm» Punxsutawney ARC 2 Meter Net	01 7:00pm» Punxsutawney Area ARC Christmas Party	02	03	04 5:00pm» ARRL 160 m	05 12:00am» ARRL 160 m (cont)

Visit www.parasiticemission.com for back issues, current issues and more. The current online interactive version of this calendar, which contains events in upcoming months may be accessed at calendar.parasiticemission.com. You may use that calendar to enter amateur radio events of interest to local amateurs which are intended for publication, subject to review and approval.

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