



The Parasitic Emission

1

On The Air

by Joe Shupienis, W3BC

QRV? ARE YOU READY? This month *The Parasitic Emission* features articles that encourage us to examine our readiness to respond to emergencies. Emergency preparedness is an important part of our hobby. We never know when we may be called to serve the public with our communications skills.



Recently I completed the ARRL Emergency Communications Level I course. The course is comprehensive and very informative. I highly recommend it to everyone who intends to participate in Amateur Radio Emergency Communications in a meaningful way. I strongly feel

that the course is well worth the \$50 registration fee (\$85 for ARRL non-members.)

I had so much fun with the ARRL course, that I also became motivated to take some of the FEMA courses recommended by my ARRL mentor, David Hartnett, K9RDH. The FEMA IS-100.a and IS-700.a NIMS courses cover some of the same material, but from the standpoint of the served agencies. The knowledge I gained of the Incident Command System will permit me to better serve during an actual emergency, and better understand the needs of the served agencies. And best of all, those courses are free!

I'm still taking more FEMA courses, since they will make up the core of the revised ARRL "Advanced Emergency Communications" certification which is still being developed. There are other advantages, too. When I completed the FEMA IS-200.HE course (*Incident Command System for Higher Education*), I shared my results with the Campus Security Director and the Dean at the college where I work. Both were impressed and they encouraged me to continue my studies.

More information is available at the following addresses:

<http://www.arrrl.org/news/stories/2010/02/03/11299/?nc=1>

<http://training.fema.gov/IS/NIMS.asp>

Congratulations to the Punxsutawney Area Amateur Radio Club for their recent success with the Groundhog Day Special Event Station, K3HWJ. Over 300 stations were worked from the club's very nice facility at the Punxsutawney Airport. I brought a couple radios and had a great time – chowing down on the breakfast prepared by Chef Parker, KB3NMK, and socializing with the 20 or so members who stopped by. It was fun to spend a couple hours on the air, handing out a few 20 meter QSOs as well.

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What is SkyWarn? How can **you** participate? Come to your local club meeting this month and find out, thanks to Bryan Simanic, WA3UFN who has kindly volunteered to present a very informative and interesting program about SkyWarn at all the meetings. He stresses the program is "informative only" and does not convey SkyWarn certification.

However, on Wednesday evening, March 10th you can earn **SkyWarn certification** from the National Weather Service SkyWarn Training session to be held at the Christ Lutheran Church Hall in DuBois. See the article later in this newsletter for more details.

In this issue...

- **Club Connections: News from all over**
- **SkyWarn Training Information: March 10**
- **QCARC Trailblazers: Gary Boucher, W3GNR**
- **CQ CQ CQ Contest – Contesting and EmComm**
- **Chasing QSLs Through Space – By WW30**

While we're talking about emergency communication, let's not forget about our local emergency preparedness nets. Every Sunday evening at 7:45 pm the Clearfield County ARES net is held on the 147.315 repeater. On Monday evenings, please check in to the Jefferson County EMA Radio Group net, at 2000 hrs on the 147.105 repeater.

Nets like these provide you with the opportunity to practice tactical net procedures, formal traffic handling and even to serve as net control on a rotating basis.

I'll see you... *On The Air!*



Affiliated Club



Club Connections

2



The Quad-County Amateur Radio Club

Serving Cameron, Clearfield, Elk and Jefferson Counties since 1975

The February meeting of the Quad-County Amateur Radio Club will take place at the Clearfield 911 Center at 7:30 pm, Friday, February 19th, 2010.

After the meeting, Bryan Simanic, WA3UFN will present an interesting presentation about SkyWarn.

Free coffee and donuts will be served after the meeting.

The monthly Breakfast will be at Billy's Burger Land in Clearfield on Saturday, February 13th at 10:00 am. RSVP to Lars, SM7FYW/W3 by Thursday, February 11th.

Minutes of the January Meeting

Jeff Rowles, KA3FHV

The January 2010 meeting was called to order at 7:34 PM by Doug, W3DWR.

The minutes of the previous meeting were approved as read. The treasurer's report was approved on a motion by KA3FHV and a second by W3KWT.

Old business:

We have to check with WB3EQW in the status of getting one of our G5RV antennas mounted on the 911 tower.

New Business:

A list of things to do in 2010 was presented to the group. Mentioned were: Field Day, club picnic, breakfast in the boonies, swap meet, JOTA, Christmas get-together, and setting up a digital communication position in the radio room.

A motion to adjourn was made by KA3FHV and seconded by W3KWT at 7:46 PM.

Attendance: KA3FHV, W3KWT, SM7FYW, Kay, W3DWR, KB3TAP, W3BC, WA3UFN, K3JE, N3PUQ

Behind the Gavel

by Doug Rowles, W3DWR

ANOTHER YEAR is here, and it is time to think about where the Quad-County Amateur Radio Club is heading. We already have five new members, and a few from last year who haven't sent in their 2K10 dues yet.

At the January meeting I mentioned some items we want to make sure happen this year. Field Day is one. It is so much more comfortable operating with air conditioning and indoor plumbing at the 911Center.

I know the breakfasts at Billy's Burgerland will keep going strong. We want to do at least one "breakfast in the boonies" at Elliot State Park.

Last year's picnic was canceled due to the weather. This year that adventure will have to have an earlier date, perhaps the end of August.

Jamboree On The Air was missed last year due to a lack of time to get plans in the making. Some pizza and soft drinks could make that an enjoyable event for all involved.

Our Swap Meet will make a return, probably in early August if we can team up again Airport Awareness Day at the Clearfield-Lawrence Airport.

Another event is the annual Christmas Dinner. Ethan's Café was the site of last year's meal.

We should also try to get a digital communication position set up in the radio room. All we really need is a computer with a sound card and an interface.

At our February meeting the program is going to be "Introduction to SkyWarn" presented by WA3UFN, Bryan Simanic. He also has a program on Motorcycle safety on the road which is in the works for April or May.

If anyone has information they would like to present to the group, contact me at dwr@penn.com. It could be a new piece of gear, a computer program or a display of unique QSL cards.

...it is time to think about where the Quad-County Amateur Radio Club is heading.

Club Connections

3



Punxsutawney Area Amateur Radio Club

*Serving Punxsutawney
and Jefferson County*

The January meeting of the PAARC will be held at the Presbyterian Church, Findley and Union St, Punxsutawney at 7:00 pm, Tuesday February 9th.

After the meeting, Bryan Simanic, WA3UFN will present an interesting presentation about SkyWarn.

Free coffee and donuts will be served after the meeting.

Punxsutawney Groundhog Day Special Event Station Report by Joe Shupienis, W3BC

“From the Weather Capital of the World, Punxsutawney, Pennsylvania, this is the Punxsutawney Groundhog Day Special Event Station, Kilo Three Hotel Whiskey Juliet...”

I F I SAID it once, I said it a hundred times while running the frequency from the 20 meter position on Saturday, January 30 in the public reception area of the Punxsutawney Municipal Airport. Band conditions were good, and we worked over 300 stations across the country and in several DX locations as well.



Herb, KB3TAP ran QSOs on 75 meters while Doug, W3DWR and Tom, KB3TOY helped out.

All the equipment worked, including the permanently installed Tribander and the Barker and Williamson inverted Vee. Don, KB3LES set up an NVIS antenna for close-in contacts, and 2-meter verticals completed the antenna farm.

On-air operators included W3BC, KA3YCB, KB3FPN, KB3TAP, KA3WSX, KA3FHV, and several others.

In spite of the cold weather, many contacts were made, lots of rags were chewed, and plenty of fun was had by all!



Jim, KA3WSX held down the fort on 2 meter FM, and made plenty of QSOs.



W3BC and KA3YCB man the mics on 20 and 40 in the Punxsutawney Airport Flight Operations area.



Steve, KB3FPN and Denny, KB3SFO take their turn at the controls.

In spite of the cold weather, many contacts were made

Club Connections

4



Elk County Amateur Radio Association

Serving Elk and Cameron Counties

The January meeting of the ECARA will be held at the Elk County 911 Center, US 219 south of Ridgway on Sunday, February 21st at 1:30 p.m.

After the meeting, Bryan Simanic, WA3UFN will present an interesting presentation about SkyWarn.

Free coffee and donuts will be served after the meeting.

Net Schedules

QCARC	1900 Sunday	147.315
Cifd Co ARES	1945 Sunday	147.315 T 173.8
ECARA	2000 Sunday	147.000
PAARC	1930 Monday	147.390 T 173.8
Jefferson Co.	2000 Monday	147.105 T 173.8

Clearfield County ARES Report

by Paul Lowes, W3PRL

THE CLEARFIELD COUNTY Amateur Radio Emergency Service would like to thank all

those ham operators who participate in the weekly Sunday night 7:30pm ARES net. Over the past few weeks, we have been working on implementing NBEMS, (Narrow Band Emergency Messaging System) which is a digital mode available for use on HF and FM. Quite a few guys on the net were very well prepared to transmit and receive digital tones that included Olivia and MT63. Since the first night we used digital modes, I've had several inquiries from interested hams wanting to get started with the digital modes.

I can certainly say that initially getting the software set properly can be a little confusing, but once configured correctly, it's as easy as typing your message on the keyboard, keying up your ht or mobile rig, and clicking "transmit" in the

software. On February 21st, 2010 Sunday evening net will start off with a check in only, then we'll move to Olivia 8/500 for our round of comments and the rest of the net. The following week I will talk about the results of the digital net. I encourage everyone to get involved in the digital modes. If you want to be involved in the digital net, please call me at 814-762-2060, and I'll guide you thru it all.

Digital modes can be decoded with programs like *FLDIGI* or *HRD (Ham Radio Deluxe)* The standard software that is recommended is *FLDIGI* and it's free software. I've found that *HRD* is a bit more daunting for those of you that have not used *HRD* at all. I have used *HRD* for quite sometime for rig control (CAT), because I can create specific customized screens for HF operation, including a live running DX cluster, logbook, and of course most the digital tone modes out there.

While CCARES was running it's digital net training, a Curwensville ham was traveling back home from State College. W3EOD (Scott) heard the digital tones on the 315 County Repeater and pulled over to boot up his laptop. Scott was able to record the data on his laptop, and then broke into the net and reported that he could record the digital data mostly error free while continuing his drive home. Of course it's NEVER recommended to look at your

laptop screen while driving a vehicle - it's against state law ! However, the scenario proves that properly setup, data can be recorded to a laptop in a "moving" vehicle, for later viewing. Come join the fun with digital modes !!

It's great to see a lot hams participating in the ARES net, and my thanks to the guys in Jefferson County - Elk County - Indiana County for being a part of the Clearfield County ARES net. I am a believer that as

hams, we should all stand together in this unique and wonderful hobby, and to help do our part in time of disaster. We have to be ready to help our neighbors, and that really has been my goal here in Clearfield County.

Come join in on the ARES net and ARES digital net each Sunday - Everyone is Welcome !!



A fully functional NBEMS station with the minimum equipment necessary. (WA3UFN Photo)

I am a believer that as hams, we should all stand together in this unique and wonderful hobby, and to help do our part in time of disaster

SkyWarn Training Scheduled by Bryan Simanic, WA3UFN

Shorts

QST – QST, set aside **Wednesday, March 10** for the Basic SkyWarn training program. A meteorologist from the State College Weather Forecast Office will present the program that will last 1.5 – 2 hours. There is no charge for this interesting and informative training that may someday save your life, the life of a loved one or that of a friend! It is also another way to be able to provide a valuable public service to your community.



A short PowerPoint presentation will be shown at the Punxs'y, Ridgway and QCARC regular meetings in **February**. The PowerPoint presentation is only an introduction as to what SkyWarn is about. In no way will it provide enough information to be considered training.

SkyWarn training will be the Du Bois Christ Lutheran Church Social Hall, starting at 6:30 PM. The social hall is located on Sunflower Dr. Turn north off of Maple Ave. onto South 8th St. The social hall is ahead and left of the church. The church is visible as you turn onto South 8th St.

Just for reference, South 8th St. is the same street the Du Bois Nursing Home is on but you would turn south off of Maple Ave. to get to the nursing home.

Talk-in on the 147.39 repeater (PL 173.8). If your close enough to the social hall and can't access the repeater or don't have PL, use 147.39 simplex.



Congratulations to **Pete Carr, WW30**, for his recently published article in QST.

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Bryan Simanic, WA3UFN has been taking a lot of online FEMA and NIMS certification training courses. So far he has completed IS-100.SCa, IS-200.a, IS-242, IS-271, IS-700.a, and IS-704.

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The Quad-County Amateur Radio Club held its first meeting on April 17, 1975. This year, the club celebrates its 35th Anniversary. If you have any photos or stories from the early days, please contact your editor, Joe Shupienis, W3BC at: joe@parasiticemission.com

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If you have photos or stories of interest to hams in our area, please share them with us. Send them to:

submit@parasiticemission.com

If you have questions or comments for the editor, please send them to:

W3BC@parasiticemission.com

Remember the new deadline: The last Monday of the month before publication.

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You don't have to be a “professional” writer to write for *The Parasitic Emission*. We will print whatever you send us. We will be happy to correct and polish your article if you so request.

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If you know of someone who might like to receive a copy, please send their email address to subscribe@parasiticemission.com and we will add them to our list.

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AMATEUR RADIO GPS MYSTERY TOUR. Here's a new feature – every month, we will present a set of GPS coordinates that are somehow related to amateur radio. Some will be immediately obvious, while others will require some head-scratching. We will provide answers sometimes, too...

February ARGMT Coordinates:

41° 36' 07" N, 81° 28' 45" W

Hint: If you go there, take lots of money so you can go home happy!

SkyWarn training will be held at the Christ Lutheran Church Social Hall in Du Bois, Wednesday, March 10, starting at 6:30 pm.

QCARC Trailblazers: Gary Boucher, W3GNR by Joe Shupienis, W3BC

IN FEBRUARY 1966, LBJ was the President, Viet Nam was on the news every night, and I was a very impatient 13-year old kid, listening to my receiver while waiting for that magical envelope from Gettysburg that contained my Novice license. One Sunday afternoon, I heard a strong signal on 20 meters, “K-3-Mike-John-Tare, calling K-3-Mike-John-Tare this is W3GNR-portable-4 on Wallops Island, Virginia...”

Little did I realize at the time that I was hearing a future friend, and the first president of the amateur radio club I would start some 9 years later. At the time, I was fascinated by the ensuing QSO between Gary, an Air Force radar specialist and his Dad, Norris, the owner of the electrical parts store across the street from my dad's printing shop.

After serving in parts of the world both near and far, Gary returned to DuBois to raise a family and play with radios! He was an active DXer, and worked his way up the DXCC Honor Roll. Hardly a major contest went by without him participating in a big way. He was at his best running a frequency, working high speed CW at 35 wpm for hours on end.

From the very beginning of the QCARC, he was a strong supporter of our multi-county club, and believed the “strength in numbers” concept was the best chance for an active, healthy club. As the club's first president, he provided the leadership necessary to build unity and overcome “football rivalry” between the various communities served by the QCARC. He wrote the original Constitution and By-Laws.

When members from one community decided to splinter and form their own club, he convinced all parties involved to remain connected and developed the concept of “Chapters.”

He maintained cordial relations with the CBers in the community, and encouraged them to get ham licenses. Who knows how many hams were

recruited by “WPA?”

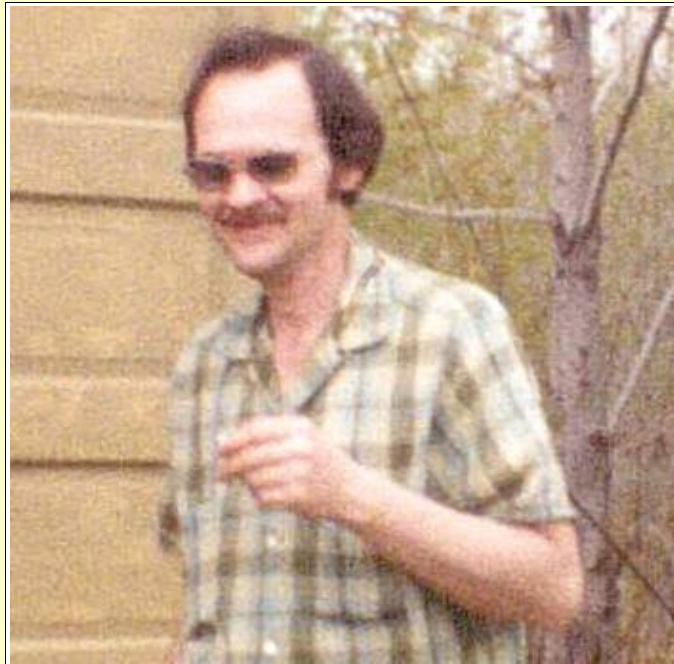
In 1977, he bought the first TRS-80 computer sold at the DuBois Radio Shack store. Using the computer for logging his radio contacts was just one of the programs he and I wrote. He used the *SuperCalc* program to create spreadsheets for a number of ham radio purposes, especially for antenna design.

He researched and invented some very useful amateur radio equipment, and patented his antenna innovations. He studied FM voice communications and invented a filtering protocol to improve the signal to noise ratio of weak stations, K3PS incorporated this into the 147.39

repeater, where it “magically” made even the weakest signals intelligible.

In the days when *The Parasitic Emission* was published using *Super Scripts*, he tapped the keys on his fully tricked-out TRS-80 to generate many newsletter articles.

His interests turned to weak-signal VHF operations, specifically VHF Contesting. He recruited new hams and old timers to form the “WIT Team,” (Whatever It Takes) which won a number of awards in the VHF contests of the day.



Gary Boucher, W3GNR at the
Clear Run VHF site, 1984
- W3DWR Photo

Even now, I sometimes talk to VHF contesters throughout the eastern US who remember him with fondness.

Gary was an interesting conversationalist, and told many fascinating stories while soldering together one project or another. I remember his first-person account of his Air Force unit's alert during the Cuban Missile Crisis. Another time, he told of how the radar technicians stationed with him at DEW line radar facilities in the Arctic Circle would warm themselves by standing in the multi-megawatt RADAR beam.

Sadly, those early years of microwave overexposure, and his longtime cigarette habit resulted in a diagnosis of cancer. Fighting aggressively with surgery, radiation and chemotherapy, he regained good health for a few years, but in the summer of 1985, he lost the battle and joined the ranks of Silent Keys.

...he was a strong supporter of our multi-county club, and believed the “strength in numbers” concept was the best chance for an active, healthy club

HAVE YOU EVER wondered, “is contesting really worthwhile”? There have been some incidents that have brought the definitive answer to my mind - YES. It seems to me that contesting is very similar to emergency communications (Emcomm) which makes contesting a very useful aspect of our hobby. I suppose some folks think that the two forms radio operations are too diverse to be related but then you might want to reconsider. There are numerous points to consider that seem to indicate the two operations are similar.

Think about this one, there are virtually unlimited contests throughout the year but there are only limited drills for Emcomm. So you may be thinking, OK that is about the extent of the similarities, nope! Check out the following table for my comparisons.

Contesting	Emcomm
Virtually an unlimited number of contests	Adds to the limited Emcomm drills
Follow a format for the contest exchange and maintain a contact log	Helps you become accustomed to formatting formal messages & keeps your communication skills current
Use the radio and its functions often	You 'll know what to do, without studying the front panel, when you need to get traffic out
If you are a contest rover station, repetitive site set-up	You 'll be practiced in setting up a station at, for example, a remote shelter
Continuous operation in a long contest	Build the stamina for emergencies when there are few operators available
Have the right antennas, radios, cables and connectors for the contest	You 'll know what you need when you have little time to respond
Use a GPS to determine your coordinates and grid squares	You 'll know how to report your location with no ambiguity
Pull out the weak stations to maximize contest points	Enhance your ability to receive messages in poor operating conditions
Locate the best diners while roving from grid square to grid square	Know where the good food is in order to keep operating
Find the best directions and/or locations for the most contacts	You 'll know where you may need additional stations to maintain communications with incident command

So basically, I suppose the adage, “practice makes perfect” applies. As you can see in the table, what you “practice” during contests helps you become more “perfect” during an Emcomm exercise. There are more but time and space limit the extent of the table but I'm sure you get the idea.

I hope this will instill some interest to get you on the air for some of the contests, after all you have to start somewhere! Contesting is fun, it's a great diversion from the everyday hustle bustle of our overly busy lives. While you're having some fun with your hobby you are also developing skills that will assist in training for the public service aspect of amateur radio.

It seems to me that contesting is very similar to emergency communications ... which makes contesting a very useful aspect of our hobby.



Searching for the Contest Pot o' Gold.
 Developing the ability to rapidly deploy an effective contest station into a remote area during any kind of weather translates directly to successful Emergency Communications skill.

- WA3UFN Photo

Chasing QSLs Through Space.

By Pete Carr WW3O

THE DOOR BELL rang and my wife Lolly went to answer it. It was the Postman with the daily mail. He handed her several envelopes with foreign stamps on them and also a package. He then asked what I did for a living and, in a straight face, she said, "Oh, he's a spy for the CIA." The look on the Postman's face was priceless!

In actual fact the envelopes contained QSL cards from foreign countries.



QSL cards are sent by hams to other hams after a radio contact of special significance has been made. These cards are saved toward the achievement of some sort of certificate or award and they make the journey through Ham Radio a very pleasant experience.

Lolly had helped me count QSL cards, one from each state, in 1979 when I qualified for the Worked All States (WAS) award from ARRL. Later I worked all the continents for WAC. Lolly was amazed at the interesting pictures on the face of many of the cards. They depicted scenes of the country or city where the Ham lived and were a small window into life around the world.

About 10 years ago I became interested in Ham satellites and set up a station to work them. Since each satellite has a defined coverage area or footprint there is a limit to the distance between Ham stations working the satellite. The result is a change in focus from sheer distance to the physics of

satellite operation. A good example is a contact with VE7VW in western Canada very close to the Alaska border. As you can imagine, the QSL card for this contact showed a VW Beetle and a VW bus!

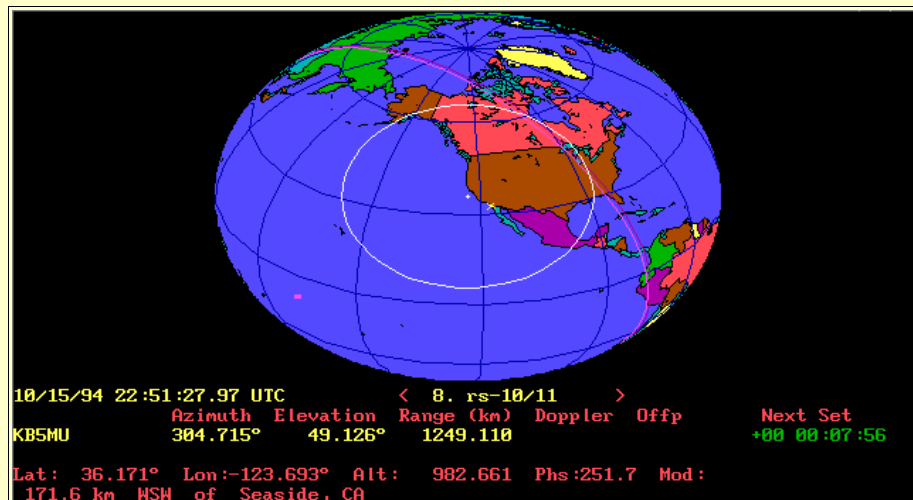
Anyway, I was in State College, PA at the home station early one evening as the satellite passed north and west over Minnesota. I had my station computer set up to display the ground track of the satellite and also to show the footprint. It looked like the northwest edge was very close to Alaska so I added a bit of extra transmit power and listened for stations with KL7 call signs. That's when I heard VE7VW just coming up out of the noise. We exchanged grid square locator identifiers and names and signed off.

A few days later, a QSL card arrived to confirm the contact. It seems that the ham was outside on his back deck with a hand held dual band antenna and a dual band portable radio. He pointed the antenna at the satellite with one hand and ran the radio with the other! He did mention that it was a balmy 21 degrees below zero at the time with a 15 MPH wind thrown in for good measure. I showed the card to Lolly and added that I wasn't the only crazy person on the planet.

Grid squares are used to precisely locate a specific spot on Earth. Some hams live in truly remote locations where geographic references don't mean a lot. This is especially true of Maritime mobile stations operating from the oceans or in places like the Caribbean. So, instead of collecting cards from states or continents, the satellite people collect them from grid squares. In this part of Pennsylvania the grid square is mainly FN01. Since there are not a lot of satellite stations around here, contacts from FN01 are highly prized.

My QTH (station location) is alongside a mountain called Boot Jack which blanks my signals to the south. This would normally mean that contacts to places like Florida and South America wouldn't be

QSL cards... make the journey through Ham Radio a very pleasant experience.



The Postman's' daily visit is less painful when the usual stack of bills is peppered with QSL cards.

possible. Well, as any good pool player knows, the way from here to there can also be by bouncing the ball off the pool table rail. In this case the rail is the satellite.

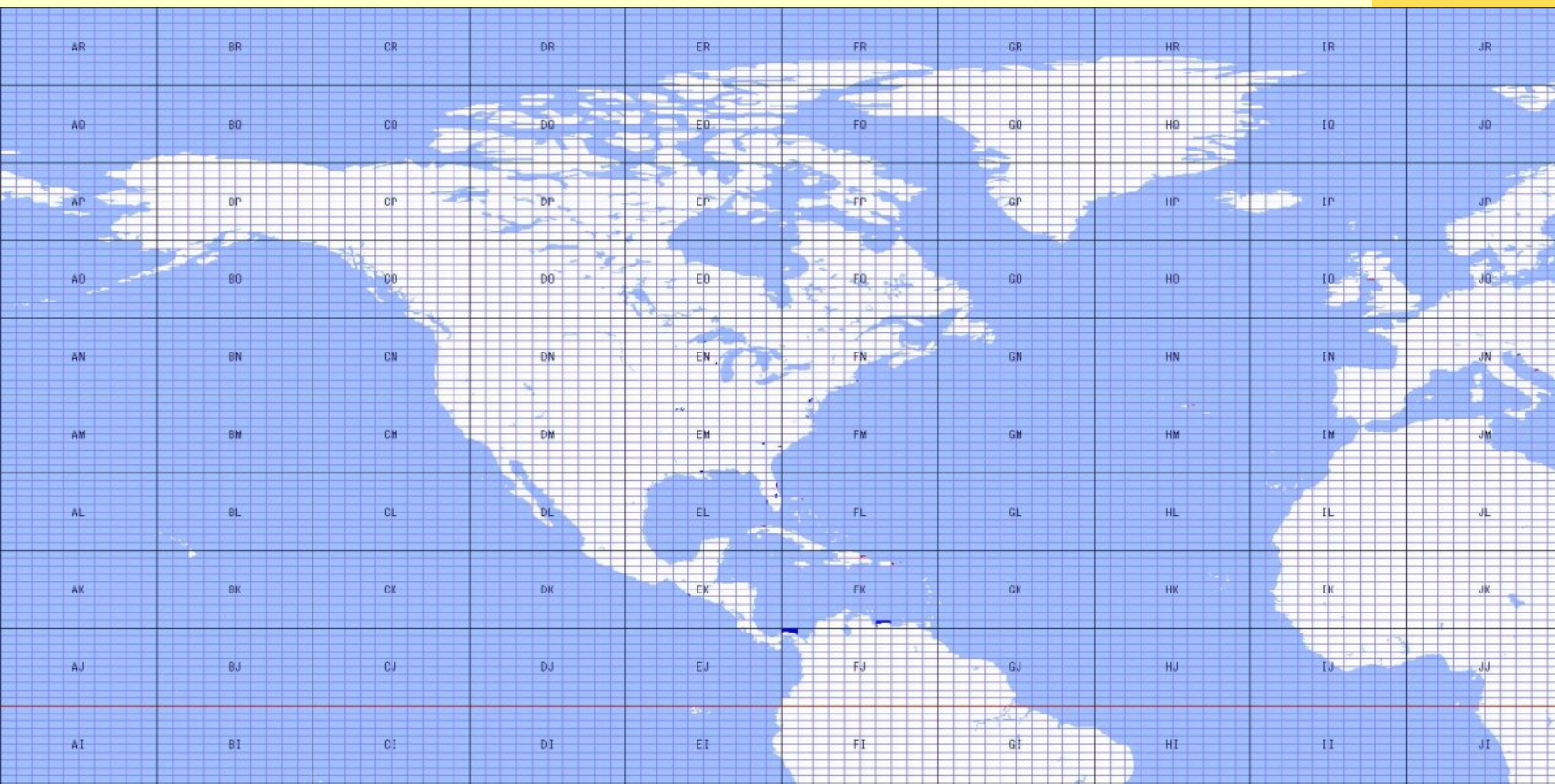
For example, I worked an evening pass where the satellite was coming up from the south and was out over the central Mississippi River. This put the bird due west of me and its footprint still covered northern Mexico. I heard a XE1 call sign and worked him just as the satellite moved north of him and contact was lost. I had watched the display on the computer for just this opportunity and was lucky enough to make the contact.

Some hams set up stations in their cars and trucks and drive to rare grid squares to

America. For each additional group of 25 grid squares there is sticker to be attached to the certificate. I'm at 112 and counting.

Both the ARRL (www.arrl.org) and AMSAT (www.amsat.org) offer awards and certificates for satellite operation. There is a wealth of information about starting up a satellite station, computer software and particulars of each award. Each site has a program that converts longitude and latitude to a grid square. For local questions please feel free to e-mail me.

The Postman's' daily visit is less painful when the usual stack of bills is peppered with QSL cards. Lolly is right there looking over my shoulder at the cards and their pictures of life



operate. They will identify themselves as mobile and then give the grid square. Obviously they are mobbed by stations wanting a contact and it must be quite satisfying to be the center of all that attention. This is great in helping satellite operators increase their totals.

I recently qualified for VUCC on satellite which requires 100 different grid squares and the QSL cards to prove it. In addition to stations from all across the USA, I have cards from 7 Canadian provinces, and several Central American countries and one from South

in distant places. The senders are sharing the common interest in Ham Radio and satellite operations but also a little bit about themselves. It's one of the best aspects of our hobby and one that I can share with Lolly.

Pete resides in Elk County, and is a very active VHF enthusiast. His activities include Amateur Satellite operations, aircraft remote control systems and high-performance repeater system design and installation. He can be reached at wb3bqo@yahoo.com

February 2010

Regional Amateur Radio Activities

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
31 12:00am» CQWW 160m CW (cont.) 7:00pm» QCARC 2-meter FM Net 7:45pm» Clearfield County ARES Net 8:00pm» Elk Co ARA Net	01 7:30pm» Punxsutawney ARC 2 Meter Net 8:00pm- Jefferson Co. EMA Group Net	02	03	04	05 7:01pm» 10-10 Winter - SSB	06 12:00am» 10-10 Winter - SSB (cont.)
07 12:00am» 10-10 Winter - SSB (cont.) 7:00pm» QCARC 2-meter FM Net 7:45pm» Clearfield County ARES Net 8:00pm» Elk Co ARA Net	08 Parasitic Emission Submission Deadline 7:30pm» Punxsutawney ARC 2 Meter Net 8:00pm- Jefferson Co. EMA Group Net	09 7:00pm» Punxsutawney Area ARC Meeting	10	11	12 7:00pm» CQ WW RTTY WPX	13 12:00am» CQ WW RTTY WPX (cont.) 9:30am» QCARC Breakfast
14 12:00am» CQ WW RTTY WPX (cont.) 7:00pm» QCARC 2-meter FM Net 7:45pm» Clearfield County ARES Net 8:00pm» Elk Co ARA Net	15 Presidents' Day 7:30pm» Punxsutawney ARC 2 Meter Net 8:00pm- Jefferson Co. EMA Group Net	16	17	18	19 7:00pm» ARRL International DX Contest (CW) 7:30pm» QCARC Meeting	20 12:00am» ARRL International DX Contest (CW) (cont.)
21 12:00am» ARRL International DX Contest (CW) (cont.) 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	22 7:30pm» Punxsutawney ARC 2 Meter Net 8:00pm- Jefferson Co. EMA Group Net	23	24	25	26	27
28 7:00pm» QCARC 2-meter FM Net 7:45pm» Clearfield County ARES Net 8:00pm» Elk Co ARA Net	01 7:30pm» Punxsutawney ARC 2 Meter Net 8:00pm- Jefferson Co. EMA Group Net	02	03	04	05 7:00pm» International DX Contest - Phone	06 12:00am» International DX Contest - Phone (cont.)

SUBMISSION DEADLINE IS THE LAST MONDAY OF THE PRECEDING MONTH.

submit@parasiticemission.com

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