



# Harrisburg Radio Amateur's Club Newsletter

HRAC meets the  
second  
Wednesday of each  
month  
at 7:00 pm at HACC,  
Shumaker Public  
Safety Center, Gate 5  
on Industrial Road in  
Harrisburg

## **CLUB OFFICERS**

### **PRESIDENT**

Terry Snyder  
WB3BKN  
(717) 896-0256  
terry@djterry.com

### **VICE PRESIDENT**

Nick Rylatt  
AA3T  
(717) 957-4688  
AA3T@arrl.net

### **SECRETARY**

Tim Lehman  
KB3OZA  
kb3oza@yahoo.com

### **TREASURER**

Joe Stepansky  
KQ3F  
(717) 657-9792  
KQ3F@comcast.net

### **TRUSTEE**

Steve Gobat  
KA3PDQ  
ka3pdq@juno.net

### **WEBMASTER**

Matt Kiner  
N3SOZ  
n3soz@arrl.net

### **NEWSLETTER EDITOR**

Shelby Minier  
K3EMT  
shelbyminier@gmail.com

## **The President's Letter.....**

I know that summer is in full swing, and that fall and winter are still a few months away, but HRAC is planning something special for everyone.

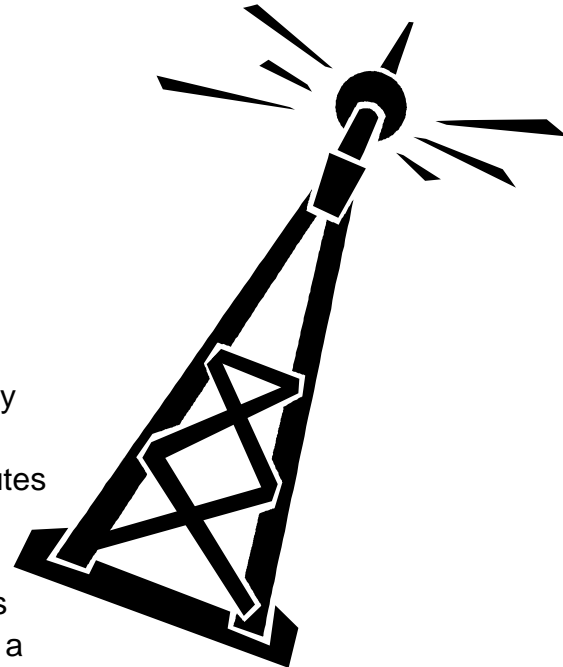
“School” begins in October at the HRAC meetings. Our meetings begin at 7pm on the second Wednesday of every month. However, if you care to learn something new, arrive 30 minutes earlier. We will be having “Tech” time before every meeting, beginning in October. There will be different subjects presented at each meeting. If you have a topic suggestion, let us know. There will also be a chance discuss any problem that you may have with your projects.

For those of you planning to attend a hamfest, I will have some hamfest flyers for next year at the meeting. As soon as we decide the date of the Winter hamfest, those flyers will be available too.

If you have not been to a meeting for a while, you are missing a lot. The new location is GREAT.

I hope to see you there,

Terry WB3BKN



## July Meeting Minutes

The July 2012 meeting of the Harrisburg Radio Amateurs Club was called to order at 7:05 PM. by President Terry (WB3BKN) followed by introductions.

### Secretary Report

Rick (K2RBT) made a motion, seconded by Chuck (N3WL), to accept the minutes of the previous meeting as published in the newsletter. Motion PASSED

### Treasurers Report

Joe (KQ3F) presented the treasurer's report. Rick (K2RBT) made a motion, seconded by Chuck (N3WL), to accept the report. Motion PASSED

Joe also reported that we had a net profit from the ham fest of \$1874.15.

### VE Committee

There were two test sessions in June. The regularly scheduled session was held June 16, at the Dauphin County EMA at 9:00 AM. The second session was held at the Firecracker Hamfest on June 30. This session began at 11:00 AM.

**Trustee Report** – No changes.

**Repeater Committee** – No changes.

**Membership Committee** – No changes.

### Newsletter

Several members complimented Shelby (K3EMT) on her work on the newsletter. There was one paid advertisement in the July edition and there will be two in the August edition.

### Web Page

The July newsletter had not been posted to the web page as of Sunday preceding the meeting.

### DXCC

Glenn (K3SWZ) reported that he completed three applications at the Firecracker Ham Fest.

### Entertainment

July is ice cream month.

Pete (KB3WIH) will be doing a presentation on D-Star.

### Hamfest

- We had over 400 paid admissions.
- Parking – Next year the construction will be completed and the parking lot adjacent to Industrial Rd should be available. Hand-out bags for the ham fest will be set up during FD.
- Both HACC and ARRL were very pleased with the event.
- Due to fiscal constraints, HACC has asked the club for a \$500.00 per year donation for the club's use of their facilities. This would cover meetings, test sessions, field day and the ham fest as well as any other unscheduled activities. Discussion of the matter was tabled until a future meeting.
- There was discussion of possible options for parking at future events.

## July Meeting Minutes, continued

K3DRE made a motion, seconded by Glenn (K3SWZ), to make a \$200.00 donation to HACC for use of the facilities this year. Motion PASSED.

### Field Day

Joe (KQ3F) has our field day log submission ready to send in.

### Old Business –

Terry (WB3BKN) will be running a Halifax on the Air special event station on July 21 & 22. He plans to operate from 9:00 AM – 4:00 PM on 20 and 40 meters. He needs volunteers to operate and to talk to visitors about the station and the event. The station will be operation using the Halifax Radio Club call sign, KA3RKW.

Camp Muckleratz horse ride will be 28/29 Jul. Marty (KB3BAA) still needs operators to support rest stops along the course.

### New Business

There was a suggestion that we should consider doing some sort of technical presentation in conjunction with the meeting. A consensus was reached that presentations should be done before the meeting, from 1830 – 1900. Suggested topics included:

- VSWR
- Call sign prefixes and suffixes
- Smith chart use
- D-Star
- Digital modes
- Propagation
- Logging software
- Radio control software
- CW operations

### New Business

Steve (KA3PDQ) made a motion, seconded by Shelby (K3EMT), to award a lifetime membership to Terry (WB3BKN) in acknowledgement of his significant contributions to the club. Motion PASSED

There being no further business to conduct, Doug (K3DRE) made a motion, seconded by Shelby (K3EMT), to adjourn. Motion PASSED

Meeting adjourned at 2020 HRS.

Tim Lehman, KB3OZA

Secretary



W3UU  
is  
ARRL Affiliated

## Weekly HRAC Net

The weekly information net is held every Wednesday at 8:00 PM on the 146.76– repeater, except for the second Wednesday of the month, which is club meeting night.

Please send any articles for the newsletter to [shelbyminier@gmail.com](mailto:shelbyminier@gmail.com)

## Amateur Operators Provide Communications at Horse Event

The airwaves are buzzing about how much fun amateur radio operators had participating in the Muckelratz Competitive Trail Ride July 28th and 29th. Throughout the two day event, twelve hams provided communications support at three rest stops and the start/stop line for 33 horses that traversed 50 miles each of the two days of the event.

They rode a 12.5 mile "A" route first, followed by medical checkups on the riders and their mounts, followed by the 12.5 mile "B" route. Riders started out at 7 AM each morning and were finished by noontime both days. The weather for the weekend event was nearly perfect, and there were no major problems reported by hams during the event.

Some volunteers camped out with other participants at the lodge onsite also doing some Dxing Saturday evening. Breakfast and lunch was served both days for all event participants. Ham operators assisted in logging riders through the rest stops, and insured that everyone was accounted for. Hams set up their stations and worked using battery power in some cases using base radios and hand held portables, and showed the true spirit of how ham operators can communicate under varying conditions with their equipment.

Plans are already being made to expand the event for next year.

Again, thanks to all.  
Marty Gutekunst

**Editor's Note:** Pictures from the event appear at the end of the newsletter.

**Hams attending:** Marty Gutekunst- KB3BAA, Paul Coleman- KB3NFZ, Tim Lehman-KB3OZA, Joe Ryan- KB3POC, Jim Hoffman-KB3UJF, Pete Lehman-KB3WIH, CJ Ryan-KB3QZA, Shelby Minier-K3EMT, Ralph Brandt-K3HQI, Sandy Goodman-N3CEF, Dick Goodman-WA3USG, Nick Rylatt-AA3T

### Personalized Items Make the BEST Gifts!

(And who says you can't give yourself a gift...)

**Hats · Shirts · Jackets**  
**Name Badges · Mugs · Mousepads**  
**Vanity Plates · And More!**



We use embroidery, heat transfer, vinyl or sublimation to put your idea on just about anything!



Visit us online at [www.shopIBD.com](http://www.shopIBD.com) for ideas  
then give us a call at 717-585-9779  
or email [geanne@impressions-by-design.com](mailto:geanne@impressions-by-design.com)  
for quotes and personalized service.

## Harbinger of Doom

New reports and stories reaching my research team had gotten scarce since NASA scientists had released a story saying that they have no reason to believe that December 21, 2012 would be any different than any other day and we would continue our existence on planet earth. (I have been told when the government says everything is FINE it's time to RUN LIKE HELL). Well in recent days I have had a lot of information presented to me from local experts.

As you already know we have had increased solar activity on the bands caused by solar flares. The solar eruptions have an unseen and mostly overlooked effect on good old planet earth. These eruptions release trillions upon trillions of subatomic particles which, for the most part, have gone undetected. These particles are responsible for the much noticed warmer temperatures we have been experiencing this summer. Yes, that's right, it's not MAN MADE global warming but the SUN changing our planet!

These particles bombarding the earth have started heating the earth's core. Some believe this will cause the molten core of the earth to become unstable, causing many natural disasters to occur. This is not the first time for this to occur on Planet Earth.

Remember the dinosaurs? Also the ancient Egyptians were once destroyed by a similar catastrophe. At the time of the pyramids ancient scientists knew of these particles coming from the sun. They ordered the building of the pyramids to preserve their civilization. Even with all their efforts the mighty Egyptians were only able to construct enough shelter (PYRAMIDS) to safeguard a mere 3,800 out of the many thousands of their kind. While the idea of the pyramids being used as shelters from cosmic storms is not widely held it would explain why such effort involving so much time, effort and expense would have been undertaken.

The shape of the pyramids also has an effect on the occupants when we lose gravity for a period of 24 hours! This is caused by the super heating of the earth's core and the sudden and catastrophic movement of the earth's plates and shifting of the continents.

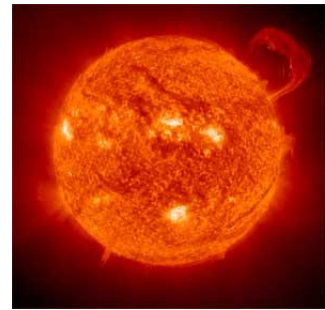
While not much is known about the aftermath of such an event some surmise that this may be the start of the much anticipated rise of the zombies.

As those of us who have prepared for such scenarios realize, the real problems arise when gravity reestablishes itself and all the junk that was not tied down comes crashing back to earth. It seems the smart thing to do is to immediately launch a campaign to tie down everything in sight, things like sheds, automobiles, and every other imaginable item comes back to terra firma.

Of course this all may be an unnecessary concern as some also conjecture that when this all happens the earth's rotation speeds up from the earth becoming oblong and things and people who are not tied down fly into space.

Next why do hams have rocket launchers?

Steven Gobat, KA3PDQ



## Special Event Stations On the Air for 2012 Olympic Games

Beginning Wednesday, July 25, two special event call signs were activated to celebrate the London 2012 Olympic and Paralympic Games: **2O12L** from London, England and **2O12W** from Barry, Wales. Both stations will be on the air for the duration of the Games -- July 25-August 12 -- and continuing through September 9. Organizers hope to make at least 80,000 contacts during the seven weeks that 2O12L and 2O12W are on the air.

- The London station – [2O12L](#) -- will be active on 160-2 meters on all modes. The station is located at the Royal Greenwich District Scouts Activity Centre in Southeast London, in the borough of Greenwich, one of the six “host boroughs” for the Games. A list of planned frequencies is available [here](#). The station will be open to the public from 10 AM to 4 PM each day, and visitors may operate. Follow 2O12L on [Twitter](#).
- The Welsh station -- [2O12W](#) -- will be active on 160 meters-23 cm on all modes, including SSTV and satellite, will be based on the [seafront esplanade](#) at Whitmore Beach, Barry Island, Vale of Glamorgan. The site is located just a few miles south west of Cardiff and the Millennium Stadium, home to the first football match that will open the Games in Wales. The station will be open to visitors. Follow 2O12W on [Twitter](#).

“Amateur Radio operators everywhere will be able to share in the Olympic experience by making contact with the station and exchanging greetings messages with visitors and Games participants who visit the station,” said [Project Echo](#) Publicity Officer John Warburton, G4IRN. “The team aims to make contact with as many of the Games participating countries as possible. Special QSL cards will be available to stations contacted. The project aims to leave a lasting legacy by encouraging visitors to learn more about radio communications and the social, career and recreational benefits that it brings.”

*Published in the letter for August 2, 2012*

## ESPN has Amateur Radio Club

The Worldwide Amateur Radio Club, WE1SPN, is an amateur radio club located on the campus of the television sports network ESPN, Inc., in Bristol, Connecticut USA. The club membership includes employees and retirees of ESPN. We currently have about 40 members.

More information can be found at: <http://we1spn.org/>

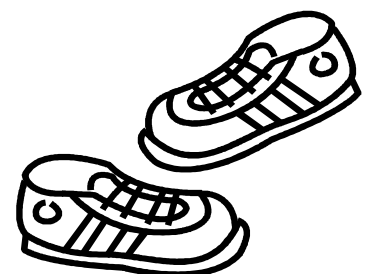
*Submitted by Jim Hoffman, KB3UJF*



## Hershey Half Marathon 2012

Plans are underway for providing amateur radio support for the upcoming Hershey Half Marathon on Sunday October 21st. Operators are needed to staff the command center and four rest stop areas for the event held early Sunday morning.

If interested in helping please contact Marty at [kb3baa@arrl.net](mailto:kb3baa@arrl.net).



# Hams Needed to Help with Training Course



## CUMBERLAND COUNTY SEARCH AND RESCUE

### Team 400

C/o Cumberland County Department of Public Safety  
1101 Claremont Road – Room 101  
Carlisle, PA 17015-8561

### TRAINING COURSE ANNOUNCEMENT

Sponsored by: Cumberland County Search and Rescue

<b>COURSE NAME:</b>	<b>Wilderness Search Responder</b>	
<b>DAY / TIME:</b>	August 25, 2012	0800 – 1630 hours
	August 26, 2012	0800 – 1630 hours
<b>LOCATION:</b>	<b>Class:</b>	
	Emergency Operation Center (EOC)	
	1 Public Safety Drive	
	Carlisle, PA 17013-7300	
	<b>Field:</b>	
	Mt. Asbury Retreat Center	
	1300 Centerville Rd.	
	Newville, PA 17241	
<b>INSTRUCTOR:</b>	John Boburchuk	
<b>PREREQUISITES:</b>	None	
<b>COST:</b>	\$20.00	

**DESCRIPTION:** This course is presented in a combination of classroom and field work to present basic search operation techniques and organizational skills to the first responding units on a lost person incident. Class is open to anyone 16 years or older. **\*\* Students will need clothing appropriate for weather conditions, sturdy work or hiking-type boots, eye protection and a compass. \*\***

**REGISTRATION:** Anyone interested in attending needs to pre-register by **August 15, 2012.** Please contact Steve Orr at : [training@ccsar400.org](mailto:training@ccsar400.org).

**QUESTIONS:** Please contact CCSAR Training Officer Steve Orr at [training@ccsar400.org](mailto:training@ccsar400.org) or you may also contact Team 400 President Chuck Roesner at 717-802-0513 email: [president@ccsar400.org](mailto:president@ccsar400.org).

## Marine Corps Marathon - volunteers needed

We are asking for 136 operators. We put hams at the aid stations, mile markers, half mile markers on the second half of the course, at food stops, at water points and the check in location. We have hams that shadow the division commanders, hams at the Arlington and DC fire/EMS command vehicles, and net control (off the course and accessible during the race).

New hams with HTs only can fit in to some of the positions or be assigned to a team with a fully equipped volunteer. Aid station hams MUST have far more complex portable higher power gear to handle 9600 baud packet and 128kbaud DD data (and know how to set up the equipment). Hams who have experience running traffic or emergency nets are sought for the NCS positions.

Goal is to have everyone registered by mid August so we can assign volunteers to the different teams by 1 Sept. Main teams are the Race A and B, the shadows, the aid stations.

Please consider this and sign up. It is a rewarding event and hams are the eyes and ears on the course for the medics-a critical role. In past years 3G cell phones have been jammed due to the crowds, so hams provide the robust connections.

WD5DBC  
Howard Cunningham, MCP

More details can be found at: <http://www.ncacdc.com/>

---

## WAN repeater system in South Central PA

The WAN - repeater system has two new nodes in our area, 444.250 PL 123 and 146.925 PL 74.4 are two nodes in our area for accessing the net.

Further information about the system can be found at [www.wanrepeater.com](http://www.wanrepeater.com)

I have served as net control for the emergency services net for several sessions. The net is held Sunday evenings at 9 PM. The net uses Allstar technology to link repeaters across a wide area of Pennsylvania and Maryland. It also opens out to many other hams as far away as Hawaii using 2 meters.

Word has it some hams in York County are also working on an Allstar net for several of their repeaters.

Marty Gutekunst, KB3BAA

### Monthly Ham Radio Lunch

The last Thursday of each month there is a Ham Radio Lunch at the "Old Country Buffet" at noon (unless it is a major holiday).

This restaurant is located on Route 22 in Colonial Park in the vicinity of Value City Furniture, K-Mart and Home Depot.

It's a great way to meet new people!

# Long Delayed Echoes.....

*Looking back through the rich history of the Harrisburg Radio Amateur's Club*  
By Mark Robinson (WB3JIS)

## Field Day 1999



Franz N3HFS, Ed WE3G



Don N3OSO, Chuck N3WL(?)



Nick AA3T, Tony N3JDT, Dick N3NJB



Joe NE3H, Tom WU3X



Don N3OSO, Glen K3SWZ



Keith N3TQV, Nick AA3T

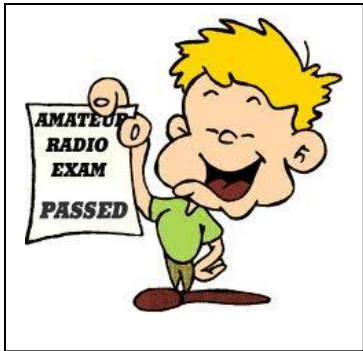
The next **ham radio testing session** will be held on Saturday August 18th at 9:00 am at the Dauphin County Emergency Operations Center.

Please arrive by 8:30 am

The address of the EOC is 911 Gibson Boulevard in Steelton.

.....  
Other tentative testing dates for 2012 are as follows:

October 20, and December 15  
.....



## June Amateur Radio Testing Results

The Results for June 16 test session, held at the Dauphin County EOC are as follows:

- There were 4 Applicants
  - 6 elements administered
  - 4 elements failed
  - 2 successful

Thanks to the following VEs: Rodney (N3QLB), Bill (KE3YC), Doug (K3DRE), Mike (N3HLK), and Tim (KB3OZA)

## Dauphin EOC Certification

KB3BAA and K2RBT were kept very busy during the recent recertification test for Dauphin EOC. Over 20 messages were received from a "simcell" with two hams sending exercise messages from four fictitious EOCs.

The messages represented escalating simulated incidents throughout the county over a two and one-half hour period.

It was emphasized that digital communications would be a great enhancement to the toolbox being used in these situations.

*Submitted by Marty Gutekunst, KB3BAA*

## Call Sign News

The last portion of the KB3 series of call signs is now being used. That means there are 624 call signs or less that remain until the KC3 series of call signs begins.

If you are interested in advertising in the newsletter, please contact Terry Snyder, WB3BKN at terry@djterry.com or Shelby Minier, K3EMT at shelbyminier@gmail.com

## Ham Radio Nets

Adams County Amateur Radio Society  
Tuesday 7:30 145.35 PL 103.5 except club meeting nights.

Appalachian Amateur Radio Group  
Sunday 8 PM 146.64 PL 82.5 and echolink 149493  
Thursday 8PM 146.64 PL 82.5 NTS traffic net

Berry Mountain Amateur Radio Club  
Tuesday 9PM 147.24 PL 123.0

Cumberland Amateur Radio Club  
Wednesday 9 PM 28.440

Cumberland Valley Amateur Radio Club  
Sunday 9 PM 147.12

Ephrata Area Repeater Society  
Monday 9 PM 145.45 PL 100.0  
Friday 9PM 146.61 PL 131.0 Digital Net

Keystone VHF Club of York  
Monday 8:30 PM 146.97 PL 123.0  
Tuesday 8 PM 146.97 PL 123.0 Keystone Digital Net  
Wednesday 9PM 146.97 PL 123.0 QCWA net

Lancaster Radio Transmitting Society  
Thursday 9 PM 147.015 PL 118.8

Lebanon Valley Society of Radio Amateurs  
Tuesday 8 PM 147.315 PL 82.5

PennMar Radio Club  
Tuesday 8 PM 147.33 PL 123.0  
Sunday 8:30 28.450 Dew Drop Inn net  
Friday 8 PM 28.495 South Central PA net  
Thursday 8:30 146.55 Tri-State Simplex net

Red Rose Repeater Association  
Wednesday 9PM PL 118.8

South Mountain Repeater Association  
Monday 8 PM 146.46 PL 67.0 Capitol Area Traffic net  
Monday 9 PM 145.43 PL 67.0

Tuscarora Amateur Radio Association  
Sunday 8 PM 147.045 PL 146.2

If you know of a ham radio net not listed please e-mail the information to [shelbyminier@gmail.com](mailto:shelbyminier@gmail.com)

We will keep adding to the list.



**Thanks to Dave, N3PRO for compiling the list!**

## Halifax On The Air Statistics

40 meters: Saturday (July 21) there were 36 contacts

40 meters: Sunday (July 22) there were 29 contacts

20 meters: Saturday (July 21) there were 63 contacts

20 meters: Sunday (July 22) there were 22 contacts

The 20 meter rig on Saturday was an ICOM 702 mkIIIG. It developed problems about 10 minutes before quitting time on Saturday, most likely because of the heat. The '706 was replaced on Sunday by a Heathkit SB400 transmitter, and a SB300 receiver. The bands were not really too good on Sunday. Qs picked up after about noon.

The 40 meter rig was an ICOM 737A for both days, and performed with no problems.

The antennas were dipoles in a slightly inverted V configuration. The center pole on each was about 35 feet, with the ends on poles that were about three feet lower. The idea was to gain a little more omni-directional pattern from the antennas.

Contacts were mostly North America contacts, with a few island contacts.

We had a good turnout of amateur radio operators. Thank you to all who helped. I was asked by the England club if we will be doing this next year. They were really keyed up about it. I am checking on a site and community event to use as a tie-in. Duane Good from the Upper Dauphin Sentinel stopped by and took pictures for a future publication.

*Submitted by Terry Snyder, WB3BKN*

**Editor's Note:** WB3BKN Terry, W3CWT Charlie, W3TS Dana, WU3X Tom, KB3NFZ Paul, K3EMT Shelby, KB3UJF Jim, and W3BBT Leroy were the hams attending & helping at the event. Sorry if I missed anybody.



## Swap & Shop

Dale, N3BNA, has the following items:

Drake L7 amplifier w/ manual - \$950 (listed on eham for \$1300 and \$1500)

Dentron MT-3000 high-power tuner – \$400 (recently purchased for \$450)

Contact: [dale.long@prodigy.net](mailto:dale.long@prodigy.net)



Tim, N3RMK, has the following:

Antennas: Rutland Arrays Yagis. (one each): 22 element 432MHz, 22 element 432MHz ATV, 4 element 50MHz, 8 element 144MHz.

Belden 9913 coax, a dual axis rotor, a Bird model 43 inline RF wattmeter with various inserts, a tripod antenna mount.

One multiple output variable power supply that goes up to 400vdc, a signal generator that goes from 20Hz to 200KHz sine and square wave.

Two transformers, one is 20v 20A, the other 28v 15A, and a "grab bag" of small electronic parts - I know there may be some hard to find parts in there.

He would like to do this as a single lot if possible, but will do individual items for someone who would actually use them.

Contact: [tim-626@comcast.net](mailto:tim-626@comcast.net)

---

## Wide Vigilance I V, the South Central Task Force Exercise

We need amateur radio operators in Dauphin County to be available for possible activation for 12 hour shifts starting 1200 hours Thursday September 20 through 0800 Saturday 22.

Volunteers are also need to help by being able to support three hospitals in Dauphin County on Saturday September 20 from 0800 1200 hrs.

Hams with incident command system (ICS) training preferred. Digital experience using FLDIGI also preferred.

Please contact Marty (KB3BAA) at 652-3702 or 439-8971 or at [kb3baa@arrl.net](mailto:kb3baa@arrl.net) with your availability.

*Submitted by Marty Gutekunst, KB3BAA*

## Field Day Statistics

QSOs				
CW	Band	Digital	SSB	Total
	80 meters		106	106
	40 meters	103	54	157
	20 meters		103	103
	15 meters	21	1	22
	10 meters	---	1	1
	6 meters		1	1
	2 meters		1	1
	Other		1	1
<b>0</b>	<b>Total QSOs</b>	<b>124</b>	<b>268</b>	<b>392</b>

POINTS				
CW	Band	Digital	SSB	Total
	80 meters		106	106
	40 meters	206	54	260
	20 meters		103	103
	15 meters	42	1	43
	10 meters	---	1	1
	6 meters		1	1
	2 meters		1	1
	Other		1	1
<b>0</b>	<b>Total Points</b>	<b>248</b>	<b>268</b>	<b>516</b>

*Submitted by Joe Stepansky, KQ3F*

### Local Repeater Information

146.76 (100) W3UU Blue Mountain

147.075 (123) W3UU Ellendale (Dauphin County)

146.79 (114.8) KB3TWW Reeser's Summit

145.11 (123) W3ND Ellendale

145.29 (123) W3ND IRLP NODE 7060 Blue Mountain

145.47 (123) W3ND Blue Mountain

224.18 (123) KA3RKW Blue Mountain (Halifax Radio Club)

444.45 (123) W3ND Blue Mountain

444.55 (123) W3ND Newport

446.425 (123) W3ND Reeser's Summit

448.075 (123) W3ND Ellendale

147.24 (123) KB3VDL Elizabethville (Berry Mountain Amateur Radio Club)

## Colorado murder case coverage stresses cellular video transmission

*The following article, submitted by Terry Snyder, WB3BKN, is just one example of how communications can break down if a system is overtaxed. This is just one example of how amateur radio operators play a vital role in emergency communications.*

For all of those skeptics that feel that cellular technology is not ready for primetime ENG, the recent coverage of the Colorado shooter's first day in court provided a striking example for the argument.

When it was announced that alleged gunman James Holmes was to appear before a judge in Colorado on Monday, July 23<sup>rd</sup>, every network and local station in the country (and many worldwide) wanted to be in that room. But, of course, space being limited, the judge allowed only one camera—with minimal wires or cables attached to it. He was allegedly concerned about the camera and its accessories interfering with the proceedings.

KUSA, the NBC affiliate in Denver, Colorado, was the only camera crew chosen to provide pool footage of the event. Seeking to be as unobtrusive as possible and to calm overall security concerns, the station used a [LiveU wireless \(WiFi and 3G/4G\) transmitter](#), mounted inside a backpack with one cable attached to the camera, which was set on a court bench aside the camera's tripod. The camera sent signals to the backpack, which in turn transmitted those images via a wireless public network to broadcast microwave trucks waiting outside. Due to wireless bandwidth restraints imposed by a number of mitigating factors, the resulting video froze up a number of times—apparently due to a dropped and then resumed cellular signal.

The station's reporter, Brandon Rittman, who was in the courtroom and working with 9NEWS cameraman Brian Willie, began getting text silent messages on his phone that the outgoing video was not "broadcast quality" and it wasn't stable. In a post online Rittman wrote, "It was not going well. I could sense the expletives being hurled at us from every control room and newsroom across the face of the globe. A few minutes in to the court hearing, the video and audio froze—a little bit at first—and then so much you couldn't make sense of what was happening."

Indeed, this technical uncertainty caused many networks to cut away from the live images at unpredictable intervals, yet they appeared unanimously grateful to have any video at all.

"... as the director of the [NBC] network special, I can tell you we were not cursing you. We have seen the limitations of LiveU before but [we were] never were quite so riveted to its content or limited in our options," wrote Brett Holey, director/senior broadcast producer for NBC Nightly News, in a tweet. "For what it is worth, we're all singing the praises of your station's work through this crisis and are thinking of your community during this tough time."

It's not as if the station is not technically up to the task, and it had an HD-capable microwave truck at its disposal that was sitting on the street outside. "It's not because 9NEWS doesn't know how to provide good video," Rittman wrote, in defending his station, "It's because we used some newer cellular-based technology to provide the feed." He said many veteran news directors at his station couldn't remember another time where a live signal from inside an Arapahoe County courtroom was allowed or even attempted. So, clearly any video was better than none at all. "... the feed, imperfect as it was, was unusual, if not historic," Rittman wrote. Some veteran broadcast engineers and online second-guessers were writing all kinds of "solutions" for how to get the video out under such technically limiting conditions.

*Continued from the previous page*

“Clearly, the broadcast industry has adopted fiber optic technology as the most reliable means of covering large scale news events,” said Rich Cerny, founder of IP-based bandwidth startup Backbone Networks. “However, if fiber or hard wire connections aren’t allowed for whatever reason, then you have to deal with alternative wireless technologies. While 3G and 4G are convenient, they are less reliable than having your own dedicated WiFi link to the site.”

Other engineers suggested that a microwave hop to the satellite uplink truck would’ve worked better. Well, KUSA has both available but couldn’t get the RF signals to penetrate the courtroom walls. Others said a secure IP connection would have solved the problem of “no wires” while ensuring the quality of the feed (using a wireless transmitter). The station thought of that too, according to Willie, who set up the LiveU system and ran the camera.

“We did have the LiveU unit connected to the courthouse Internet system via Ethernet [as well as to a cellular network, reportedly AT&T],” Willie wrote back. “Pulling from cell towers and the Ethernet still just was not powerful enough once everyone saw the suspect and started tweeting, texting and emailing information out to the world. We will be working hard and did learn some things for the next time.”

Within the newsgathering community there is some real concern about covering a monumental news story like this while relying on public (although bonded) cellular networks. It makes traditional “it has to work” video guys nervous. In this case the large amount volume of data usage in the area quickly depleted the bandwidth that was critical to the one live feed everyone (worldwide) wanted to see in the first place.

The naysayers had their day, but, to Willie’s point, the technology will get better with time and experience.

The fact that KUSA is using it for such a major news story is monumental in and of itself. It’s certainly more convenient to use and the results (remember, content is king) are more than adequate.

“As with any newer technology there will be glitches,” said Paul Kamp, an IP industry proponent working with Internet radio broadcast provider Backbone Networks. “The faster they are identified and dealt with the faster the adoption curve [among TV stations].”

*Written by by Michael Grotticelli for broadcastengineering.com*

---

## **Police Radio Failure During Presidential Visit**

A major portion of a \$18-million police radio system in Oakland, California failed during President Barack Obama’s visit during the last week in July. The failure lasted approximately 30 minutes.

More about the incident can be read here: <http://www.ktvu.com/news/news/crime-law/oakland-police-radios-failed-during-obama-visit/nP4TK/>

*Submitted by Terry Snyder, WB3BKN*



## Muckelratz Competitive

### Trail Ride

July 28th and 29th.

Pictures taken by Ralph Brandt (K3HQI) can be seen at the following link:

<https://plus.google.com/photos/113412664960722679060/albums/5773305561763618305?banner=pwa&gpsrc=pwr1#photos/113412664960722679060/albums/5773305561763618305>

# MEMBERSHIP APPLICATION

MAIL TO:  
Tim Lehman (KB3OZA)  
PO Box 453  
Harrisburg, PA 17108-0453  
717-982-8550

Make checks payable to HRAC—Membership is \$15.00 (\$7.50 if over 62) per year.  
Dues end December 31st.

NAME \_\_\_\_\_ CALL SIGN \_\_\_\_\_

ADDRESS \_\_\_\_\_

CITY \_\_\_\_\_ STATE \_\_\_\_\_ ZIP \_\_\_\_\_

PHONE \_\_\_\_\_ E-MAIL \_\_\_\_\_

ARRL Member: Y \_\_\_\_\_ N \_\_\_\_\_

SIGNATURE \_\_\_\_\_ DATE \_\_\_\_\_

I agree to abide by the guidelines of the membership and The Harrisburg Radio Amateur's Club, Inc.