

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 (Elmer Time starts at 6:30PM)

CLUB OFFICERS

PRESIDENT

Tim Lehman
KB3OZA
(717) 982-8550
KB3OZA@arrl.net

VICE PRESIDENT

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

SECRETARY

Pete Lehman
KB3WIH
plehman0@gmail.com

TREASURER

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

TRUSTEE

Steve Gobat
KA3PDQ
ka3pdq@juno.net

NEWSLETTER EDITOR

Terry Snyder WB3BKN
HRAC.Newsletter@Yahoo.com
Personal Email:
(WB3BKN@DJTerry.com)

Webmaster

Gary Cappello KV3Q
Webmaster@w3uu.org

Harrisburg Radio Amateur's Club Newsletter

From The Desk of The President.....

Well, Field Day is over and the hamfest is over. Now is the time to sit back and take a much needed rest and regroup.

I've been working the 13 Colonies stations this week. It's a lot of fun trying to get all of them and the two special bonus stations. So far, I have 11 colonies and one of the bonus stations. Hopefully, I can work the other two colonies and the UK bonus station. That will be the first year that I've made a clean sweep of this event. We'll see how the propagation gods smile on me tonight. Always a challenge.

We have a few special operating events scheduled for July and August. The Appalachian Trail event and the Mt. Davis outing are this month and the turnpike tunnel event is scheduled for August. All three should be fun adventures and a great way to promote our club on its 70th anniversary and amateur radio in general. It would be nice to have a large turnout of the membership for these events, even if you can only participate for a couple of ours. There will be opportunities to operate as well as talk to curious visitors about ham radio. Please check you schedules and try to set some time aside for one or more of these events.

Once those events are "in the log" it will be time to get ready for the PA QSO Party. We will be the bonus station this year, so you can have a chance to be on the other side of the pile-up for a change. I think the plan is to have stations on the air in every county in which we have members.

And the best part is you don't have to do the whole QSO party as W3UU. You can sign up for as little as an hour or more if you're really into it. Or, if you're REALLY adventurous, you could operate as a rover station and activate multiple counties in the course of the weekend.

Personally, I'm planning on getting a mobile set-up in my truck and doing some traveling. Then plan a route through a few of the more rare counties and really give folks something to look for. It can't get much better than that.

Well, maybe... I just remembered that, since this is July, it's time for our ice cream social meeting. Hope to see everyone at the meeting.

73,

Tim KB3OZA

June Meeting Minutes

The June 8, 2016 meeting of the Harrisburg Radio Amateurs Club was called to order at 1900 HRS by the president, Tim (KB3OZA).

Secretary Report - The minutes of the May meeting were published in the newsletter. Chuck (N3WL) made a motion to accept the minutes seconded by Neil (N3JQM). Motion PASSED

Treasurers Report – Joe (KQ3F) presented the treasurer's report. Rick (K2RBT) made a motion, seconded by Dave (N3DSA) to accept the report. Motion PASSED

Equipment Trustee – No Change

Repeater – No change.

VE Committee – The next test session will be on June 18th.

Membership Committee – No Change.

Newsletter – Please submit articles to Terry (WB3BKN) by the last week of the month

Web page – No Present.

EMCOMM – Terry (WB3BKN) reported that operators will be needed for the Horse Ride at the end of July

DXCC – Glenn (K3SWZ) will do a mailing after the Hamfest.

Entertainment – Terry (WB3BKN) reported that there is nothing scheduled for this month or July.

Hamfest – Tim (KB3OZA) reported that catalogs have been received and will be stuffed into bags at Field Day

Field Day – Preparations are being made.

Elmer Time – Terry (WB3BKN) did a presentation about dB's. Next month will be more dB's.

Old Business –

- The club will be sending in an order for Ed Fong antennas.
- The Mt. Davis event will be July 16th
- The Turnpike event will be August 13th

New Business – None

Good of the Club – The Ham Luncheon will be June 30th.

Adjournment – There being no further business to conduct, Dave (N3DSA) made a motion, seconded by Neil (N3JQM), to adjourn. Motion PASSED

Meeting adjourned at 1955 HRS.

Hello Fellow HAMS:

This is Joe (KC2SFB)

Those of you that know me, know that this is the time of year that I start to BEG and GROVEL. The MS 150 is only 4 months away, and while you may think that it is far off, believe me, it is right around the corner.

It was very unfortunate last year that the event was cancelled due to a "State of Emergency" in New Jersey (the only cancellation in 35 years), because it would have been our best year in a long time. We had 103 HAMS on our roster, which was great, but we need 125 HAMS to cover this event properly. (Not counting the 35 to 40 non-HAMS that we need to assist in non-radio positions.)

As I said, I am not ashamed to BEG – so: PLEASE PLEASE PLEASE

Dig deep to try to find that weekend (September 24th and 25th) clear to volunteer for the event. We have many route positions available, and we try to make the weekend as active as possible.

Remember, not only are we fulfilling our public service responsibilities, there is food and drink available all day at any of the rest areas, and 2 day volunteers receive dinner in Ocean City on Saturday night, and a room in Ocean city on Saturday night by availability and the earlier that you volunteer, the easier it is to get the room.

Believe it or not, this is a short email. Attached you will find the sign-up form for the event. You can fill it out and email it back, or snail mail it back, or you can sign up on line at : <http://main.nationalmssociety.org/HAMS>

Please email us if you would like to be sent our 2016 Communications Info Package.

Thank you again, and we look forward to working with a lot of you this year.

(Please forward this email to as many HAMS as you know)

With Much Appreciation

73

Communications Operations Team 609.316.8220



Homebrew Headphones

Weekly HRAC Net

The weekly information net is held every Wednesday at 8:00 PM on the 146.760 repeater,, except for the second Wednesday of the month, which is club meeting night.

Please send any articles for the newsletter to hrac.newsletter@Yahoo.com

The next VE Testing session will be on **Saturday August 20, 2016** in the HACC Shumaker building at Gate 5 on Industrial road, Harrisburg, PA. Pre-Registration is required. Please arrive by 8:30am

As a reminder the question pool for Extra Class will change on 7/1/2016

Radio Oriented

I have always believed that I was a radio person. From a young age when my parents bought me my first channel 14 walkie talkies I knew that radio was to be part of my life.

I remember I thought I was a big Deal when I fashioned a power supply to supply DC power to my latest Channel 14 Walkie Talkies. Why did the telescoping antennas never hold up? Anyway I hit adulthood at the same time as the CB craze hit the Country.

I soon found that there was a different class of operators who populated the SSB channel (16). These guys operated differently and I would spend evenings listening, I could not talk to them as I lived in a hollow. Yes really I was in the country along side (2) creeks, and the hills around rose abruptly on all sides. I did talk to York City on evening a distance of about 20 miles and was extremely happy. A local discount store "Collinsville Discount" was the local place to buy CB radios and equipment. One day as I was window shopping I saw a flyer for a meeting to start a REACT Team in Southern York County. I went to the organizational meeting and was hooked. The Team did not last long as the CB craze faded and people moved on to the next thing. I few diehards stayed around and I was introduced to GMRS. I found a group of REACTERS who were doing cool things with HT radios and some thing called a repeater. I attended every class that they were giving. While they mostly used surplus Motorola radios I heard of a company who was trying to market GMRS community systems. I found a dealer in York and bought my first HT. It was a STANDARD GMR2 radio. 2 channel, repeat and direct with "Apollo Burst"

Crystal controlled, which at that time was OK as you could only be licensed for 1 pair.

The nearest .675 repeater was in Cascade MD and I could go to Red Lion and hill top and could actually talk to other REACT people far from my location.

So as you can see I always identified myself as a radio person. Now with the current thinking in government it seems to me that since I always identified as a radio person why should I have to take a test to operate a radio? I should just be able to fill out an application and the FCC should just send me a ticket! Now it's too late for amateur radio however I should be able to get any FCC license I want after all from the story above I have always known I was a radio operator. I think a general radiotelephone operators license with radar endorsement would be real nice. No test needed after all I have always identified as a radio operator.

Once I get all that radio stuff out of the way, let me tell you about my identity as a 18 wheeler driver, or I used to fly gliders and model airplanes as a kid, sounds good enough to me, I am qualified as a multi engine pilot due to my Saturday mornings watching "SKY KING". Would a license to practice medicine be far off? I have my hours in this field too. Ben Casey, Dr. Kildare and ER should be enough.

That's all for now. KA3PDQ

ARRL Programs and Services Committee Expresses Appreciation, Support of NTS

06/20/2016

The ARRL Programs and Services Committee (PSC) will submit a motion to the ARRL Board of Directors expressing appreciation for the work and volunteer membership of the National Traffic System (NTS™). The PSC motion, submitted by ARRL Southeastern Director Doug Rehman, K4AC, during a recent PSC meeting, thanked NTS members, congratulated them for outstanding service, and assured them of an ongoing ARRL public service communication role.

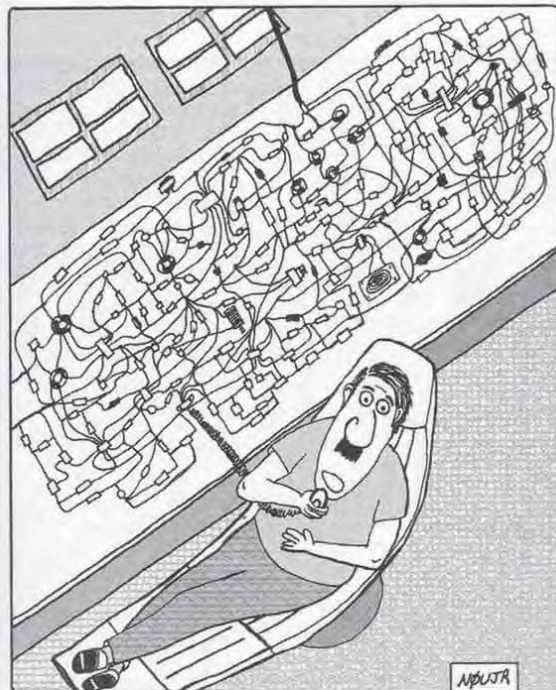
"As Field Day approaches, the ARRL Board's Programs and Services Committee wanted to recognize the continued work of the National Traffic System, especially the dedicated rank-and-file participants who are the lifeblood of this important ARRL program," said Roanoke Division Director and PSC Chair Dr Jim Boehner, N2ZZ, who seconded Rehman's motion. "The ARRL is committed to the NTS as a key component in the League's public service communications plans."

The PSC will submit its motion of NTS support to the full ARRL Board of Directors for consideration at the Board's July meeting.

The resolution points out that the handling of message traffic by early radio amateurs led to the founding and naming of the ARRL in 1914. The National Traffic Plan published in 1949 gave rise to the NTS.

The Committee cited the "countless hours" NTS participants devote "to operate CW, phone, and digital nets spanning both the clock and the continent," and the more than 200 NTS members recognized with Public Service Honor Roll status in the most recent monthly listing.

"NTS plays a vital role in providing a messaging component for Amateur Radio's public service mission, including preparation and training for emergency communications," the resolution asserted. It also noted that the PSC has been working to create the League's Second Century public service communications delivery plan, and, while reviewing the League's current operations over the past several years, "the PSC has seen and has greatly appreciated the valuable contributions of NTS members."



"I'm using a homebuilt QRP transceiver that I soldered together one weekend on the benchtop. I suppose I should transfer it into a chassis sometime--it was a real pain on the last mountaintop DXpedition."

FCC Investigating Amateur Radio, Commercial Application Processing Glitch

The FCC information technology staff is continuing to look into why the Universal Licensing System (ULS) Electronic Batch Filing (EBF) system has stopped processing at least some - and perhaps all - Amateur Radio exam session files and applications. The stoppage, which began on June 28, initially affected the handling of all Amateur Radio Volunteer Examiner Coordinator (VEC) and commercial license applications, said ARRL VEC Manager Maria Somma, AB1FM, who alerted the FCC IT Department. Somma said that by June 30, it appeared that the FCC had corrected the broader problem, and processing of most Amateur Radio VEC and commercial applications and exam session files had resumed.

"The fix for the ARRL VEC remains elusive, however," said Somma. "I assumed the issue would be cleared up quickly as the FCC has done in the past." She added, that the FCC has been unwilling to reveal the extent of the problem, which she believes still could be affecting applications from outside the ARRL VEC.

According to Somma, resolving the problem has been escalated to Priority 1 at the FCC, and resources have been reprioritized to address the issue.

"I have been in contact with the FCC every day inquiring about their progress and will continue to do so until the problem is resolved," Somma said. "I have also asked them to provide us with an alternate filing option as soon as possible."

Somma said that as of July 6, the ARRL VEC had more than 900 applications and nearly 275 exam sessions in the queue and awaiting FCC processing.

"As soon as the FCC staff discovers and corrects the EBF system problem, we will immediately file the backlog, which would take only a day or so to release," Somma estimated.

She said a lot of candidates and volunteer examiners have begun asking why new call signs or license upgrades have not yet been issued, and she is sympathetic with their concerns. "We usually transmit the exam sessions to FCC as soon as possible, which is 24 to 48 hours from the day they are received in our office," she said. "Therefore, questions from the field about the delay are understandable."



HRAC (W3UU) bonus station for the 2016 PA QSO Party

It may seem early, but the 2016 PA QSO Party will be here before you know it. For 2016, the Harrisburg Radio Amateur Club will be the bonus station for the PA QSO Party, which runs October 8-9. We were selected, in part, due to the successfully innovative bonus station(s) we ran the last time we did this.

The significance of being the bonus station is that each contact with you is worth 200 points, *in addition* to the normal 1 point for SSB and 2 points for CW/Digital. So you become not just one of the in-state "hunted", you technically become "super hunted".

So how do we intend to implement this bonus station? There are several options:

1. One station with either a single or multiple transmitters. This is the way bonus stations used to operate until HRAC shook things up with a new idea.
2. One station in each HRAC county. This is what we did last time. We had one station each in Dauphin, Cumberland, Perry and York counties, all signing W3UU/county. This means that the Dauphin county station signed W3UU/DAU, the Cumberland county station signed W3UU/CUM, etc, allowing callers to differentiate among the stations. Everyone could contact each W3UU in the different counties and they could also contact each W3UU on different bands/modes. So you could contact W3UU/DAU on 40 CW, on 40 SSB, on 20 CW, etc. Then do the same for W3UU/CUM, W3UU/PER and W3UU/YOR. We also had a mobile station running around eastern PA, using the same W3UU/county callsign as the fixed stations. One condition was that the mobile station was not allowed to transmit from the counties where we had fixed stations operating.
3. Multiple stations in each HRAC county, operating on different bands/modes. This means that any club member who wants to operate as W3UU/county can do so, there just needs to be coordination among stations within a county as to who operates which band/mode. For example, you could have the following scenario:

W3UU/DAU on 40 (CW and/or SSB), another W3UU/DAU on 20, another W3UU on 80, etc. Or...

W3UU/DAU on CW (any band), another W3UU/DAU on SSB (any band), another W3UU/DAU on digital (any band).

Repeat either scenario with the other counties.

Option 3 also involves the trailer operating from counties outside the fixed station counties, and possibly a mobile station (skeptical on the mobile, but it's possible). You can also look at this option as a large distributed multiple-operator multiple-transmitter operation. You can have a station with beams and amps, or a station with wires or a vertical and no amp (barefoot), it doesn't matter. You'll still be popular, just louder with the first station.

I'd like to do option 3. Yes, it's more complicated and will require scheduling and real-time coordination, but I also see it as more fun. Don't want to operate the full 22 hours of the PA QSO Party? No problem. Pick the hour(s) and band(s)/mode(s) you want to operate and we'll do our best to accommodate everyone.

So that's the initial information on this year's bonus station effort. If you don't know what a QSO party is, there's plenty of time for you to find out. Future newsletters will list major QSO parties being held that month, so you can listen in and get a feel for how these things work. You can even make a few contacts, if you like. We'll also list the significant rules for the PA QSO Party well in advance, so everyone understands what's required.

But the key is to have fun, because if we're not having fun, what's the point? I think we can put together an outstanding effort, but that will rely on the membership. You don't have to be a hard core tester, just someone wanting to give out contacts in one of the more enjoyable contests around.

If you have any questions, or want to volunteer your station, email me at kq3f@comcast.net.

W3UU/70

Special Event From the Appalachian Trail
Harrisburg Radio Amateurs Club
40.411845, -76.930531 (FN10mj)
Halifax Township, Dauphin County
Pennsylvania, USA
(Celebrating Harrisburg Radio Amateurs
Club's 70th year serving the community)



FCC Says "No" to Lifetime Amateur Radio Licenses

06/22/2016

The FCC has denied the petition of an Arizona radio amateur, who had petitioned for lifetime Amateur Radio licenses. Mark F. Krotz, N7MK, of Mesa, had filed his *Petition for Rule Making (RM 11760)* with the FCC last November, and the FCC invited public comments in February. Krotz wanted the FCC to revise § 97.25 of its rules to indicate that Amateur Radio licenses are granted for the holder's lifetime, instead of for the current 10-year term. Hundreds of radio amateurs commented on the petition, but the FCC was not swayed by those favoring the idea.

"Based on our review of the record, we are not persuaded that the petition discloses sufficient grounds for the requested rule change," the FCC said in a June 21 *Order*. "Krotz's primary argument is that extending the term of amateur licenses to the lifetime of the holder would reduce the Commission's administrative and personnel costs, but it is not clear to us that the proposal actually would enhance administrative efficiency." That's because the vast majority of license renewals are submitted online and processed automatically by the Universal Licensing System (ULS), "with minimal staff involvement," the *Order* said.

The FCC said it had further reduced its overhead by no longer routinely mailing out paper licenses. "[I]f license terms were extended to the holder's lifetime, we likely would receive more cancellations on account of the licensee's death, which are labor-intensive, because staff must carefully verify the deceased's identity and licenses in order to guard against erroneous cancellations," the FCC said in its *Order*, signed by Wireless Telecommunications Bureau Deputy Mobility Division Chief Scot Stone.

Krotz argued that the General Radiotelephone Operator License (GROL) already is issued on a lifetime basis, but the FCC said that's not a comparable situation, because an Amateur Radio license is both an operator's license and a station license, "and there is no Commission precedent for issuing a lifetime station license."

In 2014 the FCC granted lifetime credit for examination elements 3 and 4, but applicants seeking relicensing under that provision still must pass examination element 2. The FCC pointed out in its *Order* that this was done to address the concerns of commenters that a licensee who had not renewed also may not have maintained or expanded his or her knowledge and skills.

FCC Technological Advisory Council Initiates Noise Floor Inquiry

06/17/2016

Radio amateurs frequently complain about increasing noise from a variety of sources, so it should be welcome news that the FCC Technological Advisory Council (**TAC**) — an advisory group to the FCC — is investigating changes and trends to the radio spectrum noise floor to determine if there is an increasing noise problem, and, if so, its extent. The FCC Office of Engineering and Technology (OET) **announced** the TAC study this week in a *Public Notice* and **invited comments** and answers to questions that the TAC has posed in the notice. The comment deadline is August 11. The TAC said it is trying to determine the scope of any noise issues and has invited “quantitative evidence” of noise problems, as well as recommendations on how to perform a noise study.

“The TAC is requesting input to help answer questions about the study of changes to the spectrum noise floor over the past 20 years,” the announcement said. “Noise in this context denotes unwanted radio frequency (RF) energy from manmade sources. Like many spectrum users, TAC members expect that the noise floor in the radio spectrum is rising as the number of devices in use that emit radio energy grows.”

The ARRL representative on the TAC, Greg Lapin, N9GL, co-chairs the TAC Spectrum and Receiver Performance Working Group with Lynn Claudy of the National Association of Broadcasters. Lapin also serves as chairman of the ARRL RF Safety Committee.

The TAC said that its search for “concrete evidence of increased noise floors” has turned up only “limited available quantitative data” to support its presumption of a rising noise floor. The TAC said it wants to find ways to add to the available data so it can “answer important questions” on the topic for the FCC.

The TAC noted that many types of devices generate radio spectrum noise. In the case of *incidental radiators* — devices not designed to emit RF but do so anyway — there is little regulation governing such noise. “Most electric motors, light dimmers, switching power supplies, utility transformers, and power lines are included in this category,” the TAC announcement explained.

Devices designed to generate RF for internal use, or send RF signals to associated equipment via connected wiring, but which are not intended to emit RF energy, are called *unintentional radiators*. This category includes computers and many portable electronic devices, as well as many new high-efficiency lamps. FCC regulations limit the levels of emitted RF energy from these devices.

A third group of devices categorized as *intentional radiators* (unlicensed and licensed) and *industrial, scientific, and medical (ISM) radiators* — are designed to generate and emit RF energy by radiation or induction. Intentional radiators include cellular phones and base stations, unlicensed wireless routers, Bluetooth devices, broadcast TV and radio stations, and radar systems.

Noise Floor Inquiry Continued:

Amateur Radio transmitters also fall into this category. Microwave ovens, arc welders, and fluorescent lighting are examples of ISM equipment.

“Such emitters contribute to the noise floor with emissions outside of their assigned frequencies,” the TAC said. “These are sometimes generated as spurious emissions, including, but not limited to, harmonics of desired frequencies and intermodulation products.” FCC regulations permitting the operation of these devices specify emission limits outside of the device’s licensed or permitted operating frequencies.

The TAC said that responses to the questions it has posed in the *Public Notice* will help it to “identify aspects of a study to determine trends in the radio spectrum noise floor.” The **Public Notice** includes information on all methods of responding to the inquiry. The ARRL is planning to comment.

Two Radio Amateurs Set to Head for the International Space Station

Two Amateur Radio licensees are part of the International Space Station (ISS) crew increment bound for the orbiting outpost this week. NASA astronaut Kate Rubins, KG5FYJ, astronaut Takuya Onishi, KF5LKS, of the Japan Aerospace Exploration Agency (JAXA), and cosmonaut Anatoly Ivanishin of Roscosmos will launch early on July 7 (0136 UTC) from the Baikonur Cosmodrome in Kazakhstan. The trio will spend approximately 4 months on station and will return to Earth in October.

An upgraded Soyuz MS-01 spacecraft will carry Rubins, Onishi, and Ivanishin into space. They will test modified systems for 2 days - 34 Earth orbits - before docking with the ISS on July 9. According to NASA, the modified Soyuz is equipped with upgraded thrusters that are fully redundant, additional micrometeoroid debris shielding, redundant electrical motors for the Soyuz docking probe, and increased power with more photovoltaic cells on the spacecraft's solar arrays. This week's launch will mark the first of at least two missions in which enhanced Soyuz hardware will be tested and verified.

Once the hatches between the Soyuz and the ISS have been opened, Expedition 48 Commander Jeff Williams, KD5TVQ, of NASA, and Flight Engineers Oleg Skripochka, RN3FU, and Alexey Ovchinin of Roscosmos will greet their new crewmates.

The Expedition 48 crew members will continue experiments in biology, biotechnology, physical science, and Earth science.

Rubins, Onishi, and cosmonaut Ivanishin will replace Expedition 47 Commander Tim Kopra, KE5UDN; Flight Engineer Tim Peake, KG5BVI/GB1SS, and Yuri Malenchenko, RK3DUP, who returned to Earth in mid-June after a little more than 6 months in space.

NASA TV will cover the launch and the arrival online at, <http://www.nasa.gov/multimedia/nasatv/index.html#public> .



For Sale (PRICE REDUCED!!)

1986 F350 460CI

ALL RADIOS INCLUDED

Attached is a picture of the inside of the truck.

It is an old picture and lot of equipment has been added.

It has mono band radios for 6,2,220,440 and 1.2 ghz

It has 3 dual band radios, low band for Dauphin County, SGC HF radio and

auto tuner. It has a 440 ATV transceiver and a satellite receiver for 1.2 ghz FM ATV. It has a VHS VCR, a GPS receiver, a small color monitor for use with ATV and the VCR. In the rack there is a GMRS repeater and a two meter repeater. The repeaters are just bolted in the rack and would need re-crystalled and tuned and duplexers if one wanted to try and use them. The truck itself is a 1986 Ford F350 ambulance, with a 460ci engine 4 barrel carb, automatic transmission. The Air conditioning has been removed. The truck gets about 6 miles to the gallon going downhill. It has not been inspected for 2 or 3 years. It is sold as is and includes all the radio equipment.

I hope this answers your questions. The reason we are selling it is the public service events that we once did have all but gone away with everyone having a cell phone in their pocket. We used to provide communication support for 20 events a year. **\$2,000.00** Contact Steven Gobat Ka3pdq@arrl.net
717.439.0090 7am to 9pm REACT Communications Truck



Hamfest 2016 (Firecracker edition)

The Firecracker hamfest was held as it **ALWAYS** is, on the **Saturday next to the First Sunday of July**. It is kind of easy to determine the date by looking at the July calendar, and finding the First Sunday of July. The next step is to back up ONE day and you will see the date of the Firecracker Hamfest and EPA section convention. The reason for spelling it out so clearly is simply because once again, we had people arrive on July 4th. Please remember that for coming years.

Here are a few pictures of the event by Dennis KA3BVJ:



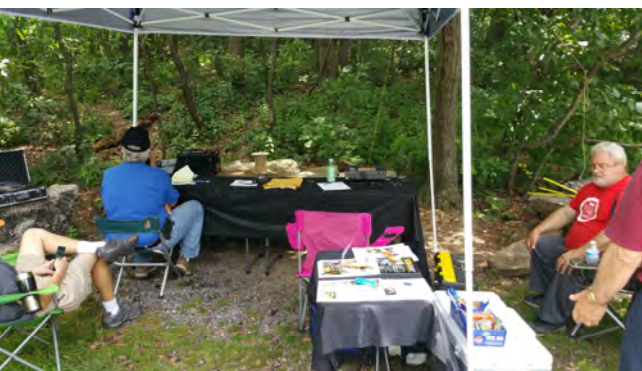
There were no weather problems this year and the crowd continues to grow. We had the opening ceremony with Color gard, and the national anthem sung by John Bowling. We are fortunate to have John, who also sings for the Baltimore Oriels, and Hershey Bears, to mention only a few. Thanks to all who came out and also our great thanks to the FEW who took time to help us pull it all together.

Special Event Stations:

July 1, 2016 marks 70 years since HRAC was formed. To celebrate that, and to get us all out of our basements, we have been planning special event stations for the summer, and into the fall. Our first Special Event was on the Appalachian Trail at the top of Peters Mountain, Halifax Township. This location qualifies as a National Trail and has the designation of TR01. We worked 20 meters, and 40 meters SSB, and were quite pleased with the number of contacts we had, even though the bands conditions were not favorable. All of us learned much about the people who hike, along with some of the folklore that goes along with it.

We met many interesting people hiking the trail. They mostly began in Georgia around April, and made it to central Pa in July. One very nice lady from Switzerland sat and chatted with us for a while. She was one of the older hikers, at 57 years of age. We offered a very welcome "Trail Magic" station for the travelers. Trail Magic is the name given to a surprise rest stop with food and very cold water. (Beer would have been welcomed too).

Everyone has a trail name, along with a distinct personality to go along with it. One hiker even named club member Pete, KB3WIH. I will get back to that later. Some of the names that I remember are, Feather, Dude, Dodger, Tater, Smeegle, Gravy Train, and then there was a motorcycle rider who stopped by named Porno Dan and his passenger Lulu (a blow up doll). Now back to Pete. Pete (age 17) is a fun character with a quick wit. Pete is our club Secretary, and will be going away to seek a higher education in the fall. His quick wit caught the attention of the hikers, and during a joking moment with everyone laughing really hard, this hiker gave him a trail name. Pete's trail name is now "Sir Gets His Ass kicked A Lot Royally". Maybe you just should have been there to understand.



Future Special Events

Special events are great for many reasons. You get to operate a station that is a "hunted" station. It is a pretty good way to get practice operating a station and prepare for a DX-Pedition. It is also a public relations opportunity. There are many who think amateur radio is a thing of the distant past. There are others who actually don't know the difference between CB radio and amateur radio. I know, that is hard to imagine. What it is not, is a place for everyone to come out and play with their own radios. Special event stations are usually one or two stations with operators taking turns getting contacts. The time not operating is used to talk with passers by and hand out literature and to answer questions. Here are a few upcoming events that you may want to help with, or listen for. Below is part of something that I posted on Facebook:

This year The Harrisburg Radio Amateurs Club is celebrating 70 years as a club serving the community. That seemed like a great excuse to get out and show off amateur radio to the public, and to have a good time playing with our toys. All special event stations will use the call W3UU/70 and operate at, or near to the frequencies 7.265, and 14.265. The idea of the events is not only to hand out QSL cards to all of those who apply for one, but to greet the community, offer a bit of education on what amateur radio is today, and to hand out information for the on site visitors to take home, Oh, the added benefit is to get fellow amateurs involved in our chosen past time. Those who come along on these ventures will have the opportunity to learn how to use the HF gear and how to set it up to operate in remote locations on battery power. One will also learn how to handle working an event station, and hopefully a "pile-up".

If you do come along, here are some simple things to keep in mind. All of the equipment will be provided, and you may take your turn operating on the air. We will have instructions for you that among other things, cover the exchange that you will use, and some information about the site from which we are transmitting. You are discouraged from bringing your own gear to set up for several reasons. On some of these sites our space is limited, and you will interfere with the real operating stations. Please carpool if you can because some of these places have limited parking.

Saturday July16, 2016, Mount Davis. Mount Davis is the highest mountain in the state of Pennsylvania. Located in the 5,685 acres (2,301 ha)Forbes State Forest near the hamlet of Markleton in Elk Lick Township, Somerset County, it lies on a gentle crest of a 30-mile (50 km) ridge line extending from central Somerset County southward into Garrett County, Maryland known as Negro Mountain.

Departure from Harrisburg will be 7am. on the 16th. We will be meeting at the Boscov's parking lot at the Camp Hill Mall. Meet up frequency is 146.52 simplex. The drive is about 2.5 hours. We will find a place to stop before going to the site for a bathroom break, because public restrooms are not very close to our operating location. We expect to be on the air by 10am. Again, frequencies will be 7.265, or close to it, and 14.265, or close to it. As with all special event stations that we do, you may take your turn operating the stations, and greeting the public as they stop by.

Saturday August 13th, 2016, Sideling Hill Tunnel, along the abandoned Pa Turnpike at Breezwood. We were at another tunnel close to this one last year along the same piece of bypassed turnpike. The 10 mile section along with the two tunnels were bypassed in 1969 because of the tunnels being narrow and could only accommodate one lane of traffic in each direction. The same setup and ideas will be in place at this location as in the above special event station. We will be leaving from the Boscov's parking lot in Camp Hill at 7am, and expect to be on the air by 10am in front of the big old empty tunnel. This is a great attraction for walkers, and bike riders. Bring a bike, and a powerful flashlight if you want to ride or walk through the tunnels. Sideling Tunnel was the longest tunnel on the 'pike. From the middle one can only see a slight speck of light at either end. Often the middle is a bit foggy. The stuff Sci-Fy films are made of. Again operating SSB on 7.265, and 14.265 (or close to it)

Thanks,

If you have further questions contact me at WB3BKN@DJTerry.com

73, Terry WB3BKN

Sun Has Likely Entered New Evolutionary Phase, Say Astronomers

Bruce Dorminey

The Sun has likely already entered into a new unpredicted long-term phase of its evolution as a hydrogen-burning main sequence star — one characterized by magnetic sputtering indicative of a more quiescent middle-age. Or so say the authors of a new paper submitted to *The Astrophysical Journal Letters*.

Using observations of other sunlike stars made by NASA's Kepler Space Telescope, the team found that the Sun is currently in a special phase of its magnetic evolution.

Heretofore, the Sun was thought to have been just a more slowly rotating version of a normal yellow dwarf (G-spectral type) star. These results offer the first real confirmation that the Sun is in the process of crossing into its magnetic middle age, where its 11-year Sunspot cycles are likely to slowly disappear entirely. That is, from here on out, the Sun is likely to have fewer sunspots than during the first half of its estimated 10 billion year life as a hydrogen-burning star.

"The Sun's 11-year sunspot cycle is likely to disappear entirely, not just get less pronounced; [since] other stars with similar rotation rates show no sunspot cycles," Travis Metcalfe, the paper's lead author and an astronomer at the Space Science Institute in Boulder, Colo., told me.



The Sun has likely entered into a long-term period of magnetic inactivity, say Astronomers. (Photo credit YASSER AL-ZAYYAT/AFP/Getty Images)

Metcalf says this transition takes a few hundred million years, but once the Sun completely crosses this Rubicon of middle age, it will remain magnetically inactive for the rest of its hydrogen-burning life.

We now understand that every star goes through this phase, says Metcalf, and that the Sun has a peculiar magnetic cycle for its rotation rate because it is in the middle of the transition to a less magnetically-active state. And he notes that this new realization does help explain why the Sun's current surface activity doesn't jibe with patterns seen on many other sunlike stars.

What sort of long-term impact will such a shift in the Sun's magnetic evolution have on Earth's climate?

The brightness of the Sun changes by about a tenth of one percent from minimum solar activity to maximum solar activity, says Metcalf. And given current levels of heat trapped by manmade pollution, even if the Sun transitions permanently to a minimum state, he says, the cooling effect on Earth's climate would still be negligible.

The team was able to draw such conclusions because for the first time, they observed a range of some twenty older solar type stars using astroseismology, or the photometric measure of a given star's surface. Thus, they were able to more accurately determine their rotation rates; their masses; and ages.

Conventional means of measuring a star's age used to be linked largely to measuring its rotation rate by tracking its surface starspots as they rotated in and out of view. Previously, it was thought that the faster a star's rotation, the younger its age.

But clearly there are stars a bit older than the Sun that rotate faster; suggesting rotation isn't so good as an age indicator after all, David Soderblom, a staff astronomer at the Space Telescope Science Institute who was not an author on the paper, told me. "This paper is an attempt to account for this behavior," he said.

"For years, it has appeared that solar-type stars spin down and converge to a common spin rate by the time they are roughly half a billion years old," said Soderblom.

The Sun itself, for example, has long had a 25-day rotation period which Metcalf says will remain roughly constant until the Sun begins expanding into a Red Giant, some six and half billion years from now.

But as stars age, their magnetized winds carry away angular momentum — or the quantity of its rotational momentum, says Metcalf. And their rotation, he says, slows via a process known as "magnetic braking." "This has been the standard picture of [stellar] magnetic evolution since the 1970's, and it was thought to continue over the entire life of a star," said Metcalf.

But our paper's new hypothesis, he says, is that around middle-age, magnetic braking stops and the star's rotation rate stays roughly constant for the rest of its life.

In our paper, we are trying to identify the mechanism that is responsible for turning off magnetic braking in middle-aged stars, says Metcalf. We find evidence, he explains, that the geometry of the magnetic field changes in exactly the way that would explain the disappearance of the star's global magnetic field.

Sun Continued

As a result, the star's characteristic surface spots also disappear, not unlike what is currently happening to our Sun.

The future Sun, the authors note, is expected to not only have few if any sunspots, but also less coronal mass ejections of the sort that can wreak havoc on satellites and electronics on Earth.

Metcalf thinks that there may even be a link to the onset of our Sun's middle age and the evolution of life on Earth. "The Sun started the transition to a less magnetically active state in the past few hundred million years," said Metcalfe. "[This] created a less hostile environment in the solar system right around the time land-based life emerged on Earth."



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!

From the Editor's Desk

Keep those cards and letters coming in. Take pictures of things that you do and share them with us.

Tnx 73

Editor: Terry WB3BKN (AKA Perry White)

Proofer: Jim WF3J



Great Cesar's Ghost!! Where are all of my reporters??

HRAC MEMBERSHIP APPLICATION

MAIL TO:
Tim Lehman (KB3OZA)
PO Box 453
Hummelstown, PA 17036
717-982-8550

Make checks payable to HRAC—Membership is \$15.00 (\$7.50 if over 65) per year.
Family Membership is \$25 (Hams must reside in the same household)
Dues end December 31st.

NAME _____ CALL _____

ADDRESS _____

CITY _____ STATE _____ ZIP _____

PHONE _____ E-MAIL _____

ARRL Member: Y _____ N _____ * YEAR FIRST LICENSED _____

SIGNATURE _____

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

