



Wireless Association South Hills



Next Monthly Meeting: Thursday, May 3rd, 2018

The next meeting of the WIRELESS ASSOCIATION OF SOUTH HILLS, INC. will be on **Thursday**, May 3rd 2018, in the Conference Room at the St. Clair Hospital Outpatient Center, 2000 Oxford Drive, Bethel Park, by South Hills Village & Village Square (map on the back page). The room is available at 6:30 PM. The meeting will be starting at 7:00 PM.

Subjects for the meeting include Field Day and Field Day antenna plans, the 2018 Breezeshooter's Hamfest, and other upcoming plans for 2018.

See you there!

Cover Photo: The WASH club table at the 2018 Two Rivers ARC Hamfest. More photos inside! Cover Photo is courtesy of & Copyright 2Ø18 Ron Notarius W3WN

WASH 2018 OFFICERS

EXECUTIVE COMMITTEE:

President VP / Secretary VP / Treasurer Glen Roberts KE7FD

AND WE COULDN'T DO IT WITHOUT:

N3SH Trustee WA3SH Trustee NP2SH Trustee N3SH WA3SH NP2SH/B QSL Manager Ron Notarius W3WN NP2SH 2009 QSL Manager VE Team Liaison Webmaster Asst. Webmaster Quartermaster WASH FM Net Manager WASHFest 2019 Committee

Activities & Operating Events Ways & Means WASH 2M Contest Chair Field Day 2018 Coordinators

Harold Rosenberger K3HCR Mark Stabryla N3RDV

Larry Comden K3VX Rich Danko N3SBF Paul Jordan NP2JF Carl Schroeder K9CS Ron Notarius W3WN Sean Sleeman N3NWR Ben Williams KB3ERQ Harold Rosenberger K3HCR Chuck Bihun KC3ELA Carol Danko KB3GMN, Chairman Bill Hill W3WH, Co-Chair Rick Bell KB3IAC Carol Danko KB3GMN

Chuck Bihun KC3ELA

Rick Bell KB3IAC

Bill Hill W3WH

CLUB-AFFILIATED REPEATERS, BEACONS, & DIGIPEATERS:

Mt. Lebanon	N3SH / R	146.955 MHz (–)	PL 131.8
North Side	N3SH / R	442.550 MHz (+)	PL 131.8
Canonsburg	N3FB / R	443.650 MHz (+)	PL 131.8
St. Johns, VI	NP2SH / B	28.276 MHz	Propagation Beacon
Canonsburg	N3SH	144.390 MHz	APRS Digipeater

N3SH / WA3SH WASHNet, the weekly on-air net of WASH, meets every Monday Night, 8:00 PM ET, on the 146.955 & 443.650 repeaters. All radio amateurs, WASH members or not, are welcome to join in!

THE LEGAL STUFF

"The WASHRag™" (formerly "The Mariner ™") is the Official Newsletter of the WIRELESS ASSOCIATION OF SOUTH HILLS, INC. (WASH), a 501.C.3 not for profit organization.

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Editor & Publisher: Ron Notarius W3WN

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Ron Notarius W3WN

3395 Rosewood Drive, Castle Shannon, PA 15234-2546 newsletter at n3sh dot org or w3wn at arrl dot net e-mail:

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The WIRELESS ASSOCIATION OF SOUTH HILLS, INC. was founded on August 23rd, 1993, as the original **South Hills Amateur Radio Club**, and operated under that name through 1998. WASH was also known briefly in late 1998 as the N3SH AMATEUR RADIO CLUB. It is not in any way affiliated with the "South Hills Amateur Radio Club, Inc." and is not responsible for that group, it's members, or it's actions in any way, shape, or form.

As always, special thanks to the owners & operators of both the N3SH/R Repeaters and the N3FB/R Repeater System for permitting the WIRELESS Association of South Hills, Inc. and it's members to use their repeaters for club purposes.

WASH Amateur Radio Club News Briefs

Next WASH VE Test July 19th

The Next WASH VE exam sessions will be **Thursday**, July 19th, 2018, 7:00 PM, at the **WPXI Community Room**, 4145 Evergreen Road, Pittsburgh, PA 15214. Talk-in on the 146.955 MHz and 443.650 MHz repeaters. All examiners are ARRL VEC affiliated.

Pre-registration is not required. Walk-ins welcome!

But if you plan on attending the test session, please contact VE Team Liason Ron Notarius W3WN:

Telephone (412) 572-6723 or E-Mail: w3wn at n3sh dot org

Please bring the following to your test session:

Picture ID or other suitable identification (2 forms of ID required) Pen / Pencil / Calculator Original FCC license plus a copy of license (if upgrading) Original CSCE plus a copy of CSCE (if upgrading) Check or Cash in the amount of \$15.00 (payable to: ARRL VEC)

> Future test dates: October 18th, 2018 February 24th, 2019

Glen's Musings

A Tale of Two Events:

It was the best of times, it was the best of times, it was the age of CW, it was the age of sideband, it was the epoch of upgrading, it was the epoch of contesting, it was the season of warm weather, it was



the season of propagation, it was the spring of hope, it was the winter of the southern hemisphere, we had everything before us, we had nothing holding us back....

Spring is here! Hamvention and Field Day are almost upon us, so fire up the radios and the barbecue, it's time to get out and on the air!

— 73, Glen Roberts KE7FD President, Wireless Association of South Hills, Inc. N3SH / WA3SH / NP2SH/b

ARL has announced that registration for their EC-001 "Introduction to Emergency Communications " course has been suspended, due to the impending loss of their online platform provider effective July 1st.

The provider's parent, Charter Oak State College, cites fiscal challenges that the Connecticut state college & university system, and the state as a whole, are facing as the reason for the shut down.

Plans are in progress to moving the course to a new platform, but registration will remain suspended until the move takes place. The last Saturday morning in April, April 28th, brought an interesting group of **the WASH Breakfast Gang** together at *Suzie B's*, 950 South Central Avenue (Route 910a t the intersection of Route 519 at US 19) in Canonsburg. WB4GCS's email reminder pointed out that there would be some further technical discussion on the antenna modeling projects that had recently been under general discussion, so this month's gathering included WB4GCS, N3DFK, N3FB, KB3GMU, K3HCR, W3WH, K3VX, N3IDH and W3WN. Table topics included moving out at the end of the semester, antenna modeling in general, discussion of the proposed Field Day diplexers, "explain this to me in plain English", "we're pretty much not going to blow anything up", "the Softrock 40 will probably <u>not</u> survive", coax chokes for wire antennas, "you've had the seal of approval", "you've had an opinion rendered!", "this is what I get for missing meetings!:, the Kenwood TL -922A amplifier, HOA's and Zoning ordinances, "this is the ARRL. This is not Fight Club!", suggestions on tests to run, discussion of what coax to buy? – LMR400, LMR400 Flex, RG-8X, Pirate's home game attendance, "trading Cutch was the last straw", antenna testing at a South Park Grove, N3FJP vs N1MM+ software, and using an old analog phone docking station for a Raspberry Pi. (See? Told you it wasn't just the usual!)

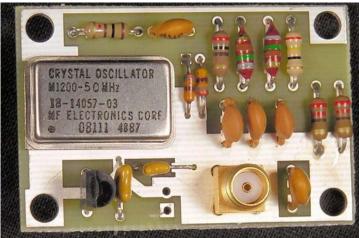
Our next gathering of the Gang will be on Saturday, May 31st, as usual at *Suzie B's*, 950 South Central Avenue (Route 910 at the intersection of Route 519 at US 19), Canonsburg, officially starting at 8:00 AM. Our "usual" tables will be reserved, but <u>please</u> let Jim WB4GCS know ahead of time, so that Suzie & her crew will have enough space available for us. (We really don't want to fight the State Police for seats... we'd lose!) See you there?

Now about the antenna modeling... we simply could not do justice to Jim's extensive documentation to try and make it fit into the newsletter. Sean has posted most or all of Jim's documentation on the N3SH website, so rather than try to cram it in and overlook or accidentally distort something, please head to the website and read everything as Jim wrote it up there. But we do hope to have something next month, as you can tell from our little teaser below...

A reminder from Rick KB3IAC that **2018 W3B Field Day shirts**... yes, we have a 1x1 call again this year, thanks to Bill W3WH... will be available. Please email Rick and let him know if you'd like a FD T-Shirt, what size, and whether or not it will be short or long sleeved. Rick's deadline is May 3rd, which is coincidentally the date of the club meeting. He should have the shirts in time for the June meeting, and you can arrange to cover the cost of your shirt (s) then.

Field Day 2018 is only a few short weeks away. More discussion on the antenna & coax plans for this year and future years will be taking place at the May meeting. Of course, everyone is welcome to Field Day, even so, if you can attend the meeting and join in on the discussions, please do!

Did you notice that the **2018 Breezeshooters Hamfest** is now a 2 day event? (It is also the **2018 WPA Section Convention**) Many have noticed that the price of fleamarket spots went up, but keep in mind that's for BOTH days. (The per-day charge is actually less — if you're going to setup for both days, that is) Ye Editor still plans on a Sunday only trip due to other commitments, but if anyone else is thinking of Saturday or both days, he would like to talk with you. And — the **WASH Picnic at the Breezeshooters** will remain a Sunday event, pending other developments.



Do you know what this is? Well, neither do we, but Jim WB4GCS promises that we WILL find out... next month... Photo courtesy of and © 2018 Jim Sanford WB4GCS

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Join WASH or Renew your Membership Today ! Membership Application on Page 15

Minutes, April 5th Meeting Harold Rosenberger K3HCR, Vice President/Secretary, WASH

Glen KE7FD called the meeting to order at 19:12 hours. There were 14 members and 3 guests present.

- The Pledge of Allegiance was recited, followed by a moment of silence was observed for recent Silent Keys & others deserving, and then introductions.
- Motion to waive reading of the minutes based on the minutes printed in the newsletter by Carol KB3GMN, second by Kathy KA3VXM, & passed unanimously.
- Committee reports:
- Treasurer (N3RDV): Read. Motion to accept by Bill W3WH, second by Ron W3WN and passed unanimously.
- Secretary (KB3ERQ): Minutes in the newsletter
- VE (W3WN): Next exam session in on April 19th at the WPXI Community Room. We have 2 pre-registered candidates. VE's needed as always. Next exams will be on July 19th, October 18th, and at WASHFest 2019.
- Repeaters (N3FB): Jim WB4GCS spoke on Frank's behalf regarding current repeater status: "repeating!".
- WASHNet (KC3ELA): Richie N3SBF spoke on behalf of Chuck KC3ELA, net is going very well.
- N3SH.ORG (N3NWR): No report
- Public Service (AB3ED): Jeff N3NHS spoke about the upcoming Pittsburgh Marathon and the needs for communicators. The event needs about 70-80 hams to man check points and operate as shadows, as of the meeting there are only about 50 signed up.

Race for the Cure will be on May 13th, hams are needed, see NU3Q for more information.

Contests (K3VX): Most are listed in the newsletter,

- WASHFest 2018 (KB3GMN): Final numbers are in. Our net was the best ever by far. Would not have happened without the hard work from all club members! (Applause for Carol) We already have one table sold and paid for in 2019. Hall is already rented and paid for.
- Ways & Means (KB3GMN): Voluntary membership contributions will be accepted after the meeting. Reminder that the Two Rivers ARC Hamfest is this Sunday, and that the club have a table for club members there .

Newsletter (W3WN): Out.

- President (KE7FD): Thank you from Dave N3DFK, regarding the condolence card for his family. Greeted new hams, offered each a VOM. Discussion on the graving of the club, and what we can do... training, for example. Discussion on setting up classes for Prospective hams. Ron W3WN is willing to teach classes, Bill W3WH is going to look into possible sites.
- Old Business: Nothing additional.
- New Business: Bill W3WH talked about what we should consider doing with the club treasury. Discussion covered multiple ideas that were brought up by club members

Bill also discussed possibilities for future Field Days beyond 2018.

- Good of the Order: Jim WB4GCS brought the copy of "The RL Drake Story, A Family To Remember" that he had picked up at WASHFest, mentioned how much he had enjoyed reading it, and passed his copy on to another club member who was interested. Richie is organizing a trip to Tim K3LR's contest QTH and DX Engineering, dates to be determined, but it will most likely be a Saturday trip.
- Motion to Adjourn by Bill W3WH, second by Carol KB3GMN, and carried unanimously.



WASH Spotlight: VE Results



We had two candidates at our April 19th test session, and both passed their Technician class license exams!

Congratulations to Abdul Daniels (call pending) and Matthew Jones KC3LHA.

Thanks again as always to our VE's, Frank N3FB, Rich N3SBF and Ron W3WN, and to WPXI for permitting us to use their Community Room for these test sessions!

Photo courtesy of and © 2018 Ron Notarius W3WN

Every month we're going to feature a WASH club member, something about them, something they're involved in or a club-related activity that we're involved in, in the WASH Spotlight. Submissions for the Spotlight should be sent to Ron W3WN at newsletter at n3sh dot org

Monthly WASH Breakfast Please join us for the next WASH Breakfast! We usually get together on

the LAST Saturday of every month for a chance to informally



coffee, and just have a good time! Join us this month at Suzy B's, Route 910 at the intersection of Route 519 at US 19, 1 mile North of Downtown Canonsburg. .Start time is about 8 AM until ???? Monitor 146.955 & 443.659 for talk-in or any last minute changes.

sit down, shoot the breeze, compare notes, drink lots of

All are welcome, WASH members or not, amateurs or not!

Wireless Association of South Hills Membership

AB3NM K AE3DL K K3CMU K K3HCR K K3JDS N K3SGT N K3VX N K3VX N K3VXM N KB3DXA N KB3DCO N KB3ERQ N KB3GMN N	KC3ELA KC3GMM KC3KMY KC4WTT KE7FD NØVLR N1NCZ N2QIV N3BPB N3DFK N3FB N3KFD N3RDG N3SBF	NU3Q W3WH W3WN WA3PYU WA3VSS WB4GCS WO3Z Barbara Udren	WASH FL KA3UPY/M W4ZE WASH NE NØPEU WASH OR NØWPV KB3NVL KB3NVL KB3NVM WASH OH N8DPW	WASH TN K3OL KE3XB N3YPB WASH TX NB3C K3LGM KB3IJX Jane Wagner WASH VI NP2JF	Silent Keys AB3KA K3EED K3LIE KA3NMG KB3ENX KB3FNM KB3FQT KB3JHQ N3CZZ N3FZ N3HKQ
	If yo here	N3KEH N3OBD N3RNX N3SKR N3SRC N3SRC N3ZEL			
	Through April 29 th , 2018				N3XFE W3ZLK WA3JPP

List complied by Mark Stabryla N3RDV, Vice President/Treasurer

2018 WASH Upcoming Events Calendar

Club Meetings & Other Significant Events — Subject to Change

May 3 rd	WASH Meeting	St. Clair Hospital Outpatient Center, 2000 Oxford Drive, Bethel Park
May 18 th — 20 th	Dayton ARA Hamvention ®	Green County Fairgrounds, Xenia OH
May 26 th — 27 th	CQ WPX Contest CW	http://cqwpx.com
June 2 nd — 3 rd	Breezeshooter's Hamfest	http://breezeshooters.org
June 7 th	WASH Meeting	St. Clair Hospital Outpatient Center, 2000 Oxford Drive, Bethel Park
June 9 th — 11 th	ARRL June VHF Contest	http://www.arrl.org
June 23 rd — 24 th	ARRL Field Day	http://www.arrl.org
July 5 th	WASH Meeting	St. Clair Hospital Outpatient Center, 2000 Oxford Drive, Bethel Park
July 19 th	<i>WASH</i> VE Exams	WPXI Community Room, 4145 Evergreen Road, Pittsburgh
August 2 nd	WASH Meeting	St. Clair Hospital Outpatient Center, 2000 Oxford Drive, Bethel Park
September 6 th	WASH Meeting	St. Clair Hospital Outpatient Center, 2000 Oxford Drive, Bethel Park
September 6 th	Butler Co ARA SwapFest 2018	Unionville Fire Department, 102 Mahood Road, Butler PA
October 4 th	WASH Meeting	St. Clair Hospital Outpatient Center, 2000 Oxford Drive, Bethel Park
October 6 th & 7 th	California QSO Party	http://www.cqp.org
October 13 th & 14 th	Pennsylvania QSO Party	http://www.nittany-arc.net/PAQSO.html
October 18 th	WASH VE Exams	WPXI Community Room, 4145 Evergreen Road, Pittsburgh
November 1 st	WASH Meeting	St. Clair Hospital Outpatient Center, 2000 Oxford Drive, Bethel Park
November 4 th	WACOM Hamfest	Printscape Arena, 114 Southpointe Blvd., Canonsburg PA New Location

"Seen" at the April Meeting Photos Courtesy of and © Copyright 2018 Ron Notarius W3WN







3HCR, KE7FI







N1NCZ

K3



WASHFEST: 9K Equipment to lend ? COAX Kit: Purchased -GO Kits (2): Cross band repeater: Foun dation/scholorship (Pithburgh Promise)

_ Facility Station at -

- Radio club at a H.S.

- Power gen - 2 MTr RCUR/link to 440



Field Day 2018: I Hope I'm Right BILL HILL W3WH

Chartiers Township, PA, April 28th, 2018 — Every year I try come up with a new idea (to me) to possibly improve our Field Day experience. This year I thought why not apply the N3ZK group's Pa QSO Party success to FD. They separated their antennas by several hundred feet and enjoyed little (not NONE) interference between their several stations.

Sounds simple enough right? WRONG !!!

In assessing our site in South Park, it seems that we can separate our 80/40 SSB antennas from our 80/40cw antennas by at least 400-500 feet. That sounds good until you realize that we'll need a lot of coax to accomplish it. Then we need to acquire diplexers so that we can send and 80 and 40 meter signal in the same piece of coax at the same time. In addition measurements have shown that the band-pass filters (except for one) are not effective and we'll need to buy better filters. Finally we need to use chokes and a common grounding point for all antennas to manage (attenuate) common mode interference.

As our Myron Cope might have said "Yoi! And Double Yoi!

The problems associated with trying this scheme are:

1. It might not work.

. . .

. . .

2. It will cost in the neighborhood of \$1500.

Well, the above sounds pretty negative until you consider that the tech guys among us say it SHOULD work and it's worth trying and we have enough money to purchase the necessary parts an pieces which will last a long time through many Field Days.

One could argue that we have survived many FD's without all this stuff so why do we need it now.? The answer is that we don't need it but the potential improvement to the FD experience is really desirable and in spite of ourselves we may learn something and have more fun. Fancy that.

Looking down the road to a new sunspot cycle, we could erect a triband beam and in conjunction with a triplexer run 20, 15,10 meters at the same time with the same antenna. Wow! Also perhaps we can resurrect a Club Pa QS0 Party effort using a similar setup.

At our last meeting we briefly discussed how to use our money best. Well here's another possibility to consider at the May meeting. I for one think we should roll the dice and try to hit a home run.

The End of the Pa QSO Party? Mike Coslo N3LI

State College, PA, via Facebook, April 29th, 2018 - Two items today.

The first news is just a report that the plaques are still at the engravers. They will be mailed out immediately after they are picked up.

The second and more important PAQSO Party news is that after 17 years, and 13 of them as Chairman, I am retiring. I'd given notice after the party, with few details, but the situation has cleared now, and it is time to move forward. I have other aspects of Amateur Radio I want to experience, and with Mark NK8Q and myself... doing the party work, with Elaine K3ERP doing the financials - it simply gobbles almost all of my time.

In conjunction with the board of directors of NARC, (I am Vice President) we set up a process for other NARC members to take over the administration of the party, with me acting as a consultant. We had a few bites, but after being presented with the scope of the effort, they thought better of it.

In order to provide a timely transfer, a date of April 30th was decided upon as the in-club deadline.

We did have one outside bite, but was not successful in getting their club members to move forward on it.

Since that effort fell through, we move on to the next phase.

We are putting out the call for another club to take over the Pennsylvania QSO Party and administer it, and hopefully do a much better job than I have.

This is a chance to place a club's imprint upon the QSO Party/Contesting world.

The successful candidate will get the copyright to the name, a transfer of the database files, and a certain level of consultation from myself (if any is wanted)

If any group is interested in taking over the Party, get in contact with me. I suggest a certain amount of expediency is important, as the next party is only 6 months away, and preparations must be made.

If no joy on that, the 2017 Pennsylvania QSO Party will have been the finale.

Editor's Note: Bill W3WH informs us that at the WASH Meeting on Thursday, Larry K3VX, and at the WACOM Meeting Bill NY9H, will both be making presentations to each club regarding the possibility of a joint effort by both groups to take over the operation of the Pennsylvania QSO Party.



FOC 80th Anniversary Race for Challenge

In May 2018, members of the First Class CW Operators Club, from around the world will be active on CW, using special call , as part of the 80th Anniversary celebration of the FOC. The challenge is open to everyone, and awards will be made available to non-FOC stations

The event starts at 0000 Z on 1 May, through 2359 Z 31 May. Points are scored by making CW QSOs with FOC members and special call signs, once per band. All bands, 160-10 meters are included.

An FOC Challenge leaderboard will be available on ClubLog. Only the top 800 entrants at any one time will be shown.

A complete list of the rules, including many of the special calls that will be on the air during may, and more information can be found at the FOC website, https:// www.g4foc.org/foc80





Amateur Radio Operators are needed to help provide communications for the 26th Annual Susan G. Komen Race for the Cure on Mother's Day, May 13th, 2018.

Operators are needed for fixed points along the course, and to shadow the race officials.

The race begins at 6:30 AM, and will take place at Flagstaff Hill in Schenley Park.

If you are interested in volunteering, please contact Bob Mente NU3Q at (412) 279-9016, or NU3Q@Verizon.net



"Seen" At the Two Rivers ARC Hamfest



D-STAR ONE Phoenix Delared Lost, More D-STAR CubeSats Planned American Radio Relay League

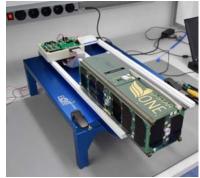
Newington, CT , April 25th, 2018 — German Orbital Systems (GOS) confirmed via Twitter on April 19th that its <u>D-Star</u> <u>ONE Phoenix</u> spacecraft, launched on February 1st, has been lost.

The tweet read, "[W]e're sorry to announce that #DSTAR ONE Phoenix mission was lost. We are currently running the detailed examination regarding the causes of loss. Sorry for the long delay with an answer — we did not want to report unverified information."

D-Star ONE Phoenix and 10 other satellites were launched into orbit from Vostochny Cosmodrome in Russia. Developed by GOS in cooperation with Czech company iSky Technology, D-Star ONE Phoenix carried an <u>Amateur</u> <u>Radio relay payload</u> (call sign DP1GOS). It was to replace the D-Star ONE nanosatellite that failed to attain orbit following a November *Soyuz* launch from Vostochny.

The 3U CubeSat was equipped with four identical radio modules with D-Star capability, operating in half-duplex mode with a power output of 800 mW. Two of the modules were dedicated to Amateur Radio, configured to work as D-Star repeaters.

GOS said a new D-Star mission is planned for late 2018, "and to ensure that it will be successful, we will launch not one, but three D-Star CubeSats." — Thanks to AMSAT News Service via German Orbital Systems



Canadian Radio Amateurs Get New 100 W 60 Meter Allocation American Radio Relay League

Newington, CT , April 16th, 2018 — Radio Amateurs in Canada are poised to join those in several other nations around the world who have access to a new 60-meter band, 5351.5 – 5366.5 kHz, as agreed upon at World Radiocommunication Conference 2015 (WRC-15), but with a maximum power of 100 W effective radiated power (ERP). The updated <u>Canadian Table of Frequency</u> <u>Allocations</u> includes the new allocation, although radio amateurs have not yet been authorized to use it. Canada's radio amateurs will also retain the four Amateur Radio channels that do not fall within the new allocation. These have been authorized under a footnote to the Table since 2014, permitting phone, data, and CW at a maximum occupied bandwidth of 2.8 kHz. The 60-meter allocation and spot frequencies are on a secondary, non-interference basis.



In January 2017, ARRL asked the FCC to allocate a new, secondary contiguous band at 5 MHz to the Amateur Service, while also retaining four of the current five 60-meter channels and current operating rules, including the 100 W PEP ERP limit. The federal government is the primary user of the 5 MHz spectrum in the US. The FCC has yet to act on ARRL's petition.

Canada's regulatory agency, the Department of Innovation, Science and Economic Development Canada (<u>ISED</u>) last August proposed to adopt WRC-15 decisions that included the 15 kHz Amateur Radio allocation. The proposed revisions to the Table would retain the original five 5 MHz spot frequencies with a maximum of 100 W ERP, but restrict the new 15 kHz allocation to just 15 W EIRP, as agreed to at WRC-15, accommodating the concerns of a few countries over possible interference to their domestic communications.

"Radio Amateurs of Canada (RAC) noted in its response to the proposed changes that there had been no reports of interference from Amateur Radio operations on the existing five 60-meter spot frequencies following their use in Canada since 2014 and in the USA for even longer," RAC President Glenn MacDonell, VE3XRA, said. "Further, the rationale for allocating the spot frequencies had been based on the value of 60 meters for emergency communication, and the low power limit adopted at WRC-15 would seriously limit this use."

MacDonnel said <u>comments</u> from the Radio Advisory Board of Canada (of which RAC is a member organization), the Ottawa Valley Mobile Radio Club, the Marconi Radio Club of Newfoundland, and several individual radio amateurs also recommended 100 W.

"The new allocation will be more effective and manageable for domestic SSB communications, and consistent with the existing use of the band on the five spot frequencies now enjoyed by Canadian amateurs," MacDonnel said.

ISED typically authorizes the use of new allocations via a revised document <u>RBR-4 – Standards for the Operation of Radio Stations in the Amateur Radio</u> <u>Service</u>. "Radio Amateurs of Canada will be urging ISED to authorize the new 15 kHz segment as soon as possible," MacDonell said.

FCC Commissioner Mignon Clyburn Stepping



DOWN American Radio Relay League

Newington, CT, April 18th, 2018 — FCC Commissioner Mignon Clyburn is leaving the Commission. She announced at the FCC's April 17 meeting that it would be her last as a commissioner. She plans to leave before the Commission's next scheduled meeting on May 10. Following her 2013 appointment by President Barack Obama, Clyburn served as acting FCC chair, the first woman to head the agency. A Democrat, she is currently serving a second term on the Commission.

FCC Chairman Ajit Pai congratulated Clyburn on "her distinguished tenure at the FCC," calling her "a tremendous leader and a committed public servant."

The other Democrat on the FCC, Jessica Rosenworcel, said, "Commissioner Clyburn is a dynamo. She represents the best of public service. I am proud to call her both a colleague and a friend." The majority of the five-member Commission represents the political party of the president.

According to POLITICO, Senate Minority Leader Chuck Schumer has already recommended to the White House Geoffrey Starks, an assistant chief in the FCC Enforcement Bureau, to nominate for Clyburn's seat.





Joe Shupienis W3BC, ARRL Western Pennsylvania Section Manager

Falls Creek, PA, April 13th, 2018 — Volunteers Needed – May 11th in Pittsburgh

Volunteers are needed for the Pittsburgh Komen Race for the Cure on Mother's Day May 11 $^{
m th}$. Contact Bob Mente NU3Q for more information and to sign up to help with communications. His email is <u>nu3q@verizon.net</u>

ARRL Announces 2018 Teachers Institutes On Wireless Technology



Do you know a teacher who is also a radio amateur? Please forward this information to any and all "Teacher/Hams" you know. These courses qualify for PA Act 48 credit. The cost of the courses, travel, lodging and meals are free to qualified teachers. Space is limited and the classes fill up fast, so advise teachers to register now.

As part of its educational outreach to schools through the Education & Technology Program, ARRL will offer three summer sessions of the 2018 Teachers Institute (TI) on Wireless Technology — an expenses-paid professional development seminar. The deadline to apply for this summer's sessions is May 1. Apply online. Teachers Institute

provides teachers at all grade levels with tools and strategies to introduce basic electronics, radio science, space technology, satellite communication, weather science, microcontrollers, and basic robotics in their classrooms. Wireless technology can be a useful tool within a context of science, technology, engineering, and mathematics (STEM) project-based education. The Teachers Institute curriculum is designed for motivated teachers and other school staff who want to learn more about wireless technology and bring that knowledge to their students.

The goal of the TI program is to equip educators with necessary foundational knowledge and — through hands-on learning — generate the inspiration for teachers to continue exploring wireless technology and adapt what they learn to their classroom curricula.

Interested educators can apply online. The \$100 enrollment fee is refunded for applicants who are not selected. A qualified applicant must be an active teacher at an elementary, middle, high school, or community college/university, or in a leadership or enrichment instruction role in an after-school program.

The grant to attend a TI covers transportation, hotel, and a modest per diem allowance to cover meals, instructional resources, and a resource library of relevant ARRL publications.

Graduate credit is available through Fresno Pacific University, which may be applied to satisfy professional growth requirements to maintain teaching credentials. The class is self-contained, and participants are expected to be able to complete all requirements during the class time.

Graduate credit forms may be requested at the end of the Teachers Institute.

For more information, contact Ally Riedel at ARRL Headquarters.

Help Wanted

Providing excellent service to a section as big as WPA simply cannot be done by a handful of people. Our WPA friends deserve the best we can give them, and to do that, we need your help! If you have been thinking about volunteering to help, have a look at the list of Station Level Appointments by visiting the ARRL Website athttp://www.arrl.org/field-organization and scrolling down the page to "Station Level Appointments".

If you're having trouble choosing, take a good look at Technical Specialist. I've often said that everybody is an expert at something, and this appointment gives you the opportunity to share your special knowledge with others. As we all know, a good Elmer can make all the difference to a new ham's enjoyment of amateur radio. The Elmer works with the newcomers to help them get started in the greatest hobby on Earth, which can lead to their lifelong involvement. The Technical Specialist is sort of like an "Official Elmer" and is the go-to person in your club, town or county for all your questions about antennas, radios, grounding, digital modes, and many more topics. If you are that person, why not make it official? Contact me for more information!

Upcoming Events

Our WPA Section always has something going on, and we're already off to a running start!

<u>Date</u>	Location	Event
May 17-20	Xenia, OH	Dayton Hamvention
June 2-3	Butler	Breezeshooters Hamfest and WPA Section Convention
In Conclusion		

In Conclusion

If you're looking for a program for your club meetings, why not put together some activities for new hams and those who are interested in Amateur Radio? Demo the latest entry level radios like the Icom 7300 and the Yaesu 991A (for example), have some Elmers available to answer questions, have a show and tell about DXing, digital modes, SDR, signal location... the list is endless.

Advertise it as much as you can, especially in schools, colleges, on bulletin boards at work, on your nets, and in person to the hams in your communities who recently got licensed. It doesn't have to be perfect - it just has to be done. Who knows, you might make the difference needed to gain some active new members

Above all else, go out of your way to make new hams feel welcome and respected! We want to make good amateur radio friendships in the best 100+ year tradition of Amateur Radio!

Still looking for more ideas for meeting programs? Drop me an invite or a request for a visit by any of our section staff. We are available to travel to your group, and can discuss a variety of

very interesting Amateur Radio topics.

73 and Press On!

Members of the WPA Section Staff at the 2018 Two Rivers **ARC Hamfest**



64th Annual BreezeShooters Hamfest & ARRL WPA Section Convention

Saturday, June 2nd, 2018 9:00 AM to 5:00 PM & Sunday, June 3rd, 2018 8:00 AM to 2:00 PM at the Big Butler Fairgrounds, 1127 New Castle Road (US 422), Prospect PA 16052 \$10 Per Person Admission Donation Good for Both Days

Indoor Tables & Tailgate / Flea Market Spaces Available

Flea Market spaces \$15 per space, Good for Both Days

Fairgrounds open at 5 AM Saturday & Sunday for Vendor & Tailgate Setup

14 Main Prizes

Half Hour Prizes (based on Admission Tickets) Indoor Tables \$25 per table and may be reserved by calling (724) 410-1028 Or mail reservations to PO Box 101018, Pittsburgh PA 15237

Table reservation cut-off date May 20th, 2018

Download directions & the latest flyer from the BreezeShooters Web Site at http://www.breezeshooters.net or email http://www.breezeshooters.net or email http://www.breezeshooters.org



Twentieth Annual WASH Picnic at the Breezeshooter's Hamfest Sunday, June 3rd, 2018

from approximately 11:30 AM to 1:00 PM At the WASH Club Location Somewhere Out in the Flea Market

(We have 3 spaces together, exact location to be determined)

A tradition at the Breezeshooter's Hamfest for over 30 years on & off, and a WASH formal or informal activity for the last 19!

Spend the morning meeting your fellow WPA & Regional Hams, buying or selling stuff & dodging roving golf carts full of Breezeshooters — then join your fellow WASH members and our invited friends for lunch, friendship, bragging rights, and (if set up and operational) operating N3SH/3 from the Flea Market!

This will be a "Pot Luck/Covered Dish" Picnic — The Club has traditionally provides the burgers and hot dogs; we're asking everyone coming to bring buns, soft drinks, water, a side dish, snacks, fruit, cookies, dessert, ice, or whatever they can. Contact Carol KB3GMN n3sbf@comcast.net to coordinate who's bringing what.

There is <u>no charge</u> to attend (outside of bringing something to share) but the picnic is <u>not</u> open to the general public, only *WASH* members (including their families), friends & invited guests.

VP6D Ducie Island Update

Team Ducie 2018

Fremont, CA, April 16th, 2018 - We are now in the implementation phase of the project; equipment is being consolidated in Fremont, California. Customs brokers in the USA and New Zealand have been selected, and the New Zealand Government issued us an import / export license to ship the equipment to and from the country.

Manufacturers and distributors of amateur radio equipment are critical to the success of DX-peditions to rare entities. We are happy to have received significant support from DX-Engineering. They have furnished coax cable, guy ropes, a 40 meter four square system, coax connectors, ground anchors and other accessories. DX-Engineering has been a long time supporter of our projects and many other DX-peditions to rare entities; we very much appreciate their continued commitment to the hobby.

Joining our list of corporate sponsors is **SteppIR Communications Systems**. We will add to our antenna lineup two 2 element Yagi antennas. These antennas proved to be indispensible during our TX3X Chesterfield Island project; we're happy to have them for VP6D and appreciate SteppIR's ongoing support.

A Garmin InReach Satellite Communicator will be used during the DXpedition. You will be able to follow our journey on the web, details to be announced. This handheld unit also provides 2 way SMS messaging similar to that of a traditional mobile phone, and one way messaging to Twitter and Facebook. We will use this technology to communicate with family, the pilot team and to update you via social media, as required. We'll also have an Inmarsat BGAN terminal for log uploads and e-mail with the pilot team.

Our budget for this project is ~\$175,000(USD). Our current fundraising campaign is underway; you may see the progress at our website. We appreciate the donations and equipment support we've already received. With the final payment for the Braveheart due on September 1st, the next most expensive line item is equipment shipping budgeted at \$20,000. Please remember, we have to pay these expenses whether or not you make a contact. We need your help to keep our DX-pedition team's investment at a reasonable level. You may help by donating at: vp6d.com

KH1/KH7Z Baker Island **Update Dateline DX Association**

Cupertino, CA, April 27th, 2018 - Following a successful Visalia DX Convention, the KH1/KH7Z team met in Cupertino this week to assemble the stations and network in preparation of landing on Baker in 2 months. The DXpedition is now in the final planning stages and this step was the last before packing and shipping our gear to Fiji.



There will be 3 separate tents for CW, SSB, and Digital stations. K6TD and N1DG, and AA7A, K6GFJ, K6MM,

ND2T and N6MZ assembled the stations, activated the BGAN satellite network. interfaced the NUC computers & monitors, and installed N1MM+ in a complete on-island simulation (including generator power). We also successfully simulated making QSOs and uploading sample logs to ClubLog via the BGAN.

Although limited to 43 feet, our 80 and 160 meter antennas are newly designed AA7JV "fat" verticals, which will sit just inside the high tide mark. The SteppiR verticals for 75 through 10 meters will also be mounted just inside of the high tide mark while four 2-element vertical arrays will be mounted away from the water for 15, 17 and 20 meters. In this way, we can maintain a 24-hour presence on 20 meters to maximize the number of unique callsigns and enable the most ATNO contacts. We also intend to install a multi-vertical array for 6 meters at the digital radios.

Testing the SteppIRs and our own design of vertical arrays is all that remains before cleaning and sterilizing our gear to meet the FWS Biological Protocols and sending the gear to our freight forwarder.

Please visit http://www.baker2018.net/pages/pretrip.html to see more pictures relating to our testing activity this week.

As with any DXpedition to the really rare ones, this will be another large budget operation. The operator team will contribute over 50% of the expected budget of \$400,000. You can help make this DXpedition happen by visiting our website, and contributing today. http://www.baker2018.net/pages/donate.html

DX News Briefs

The organizers of the aborted 3YØZ Bouvet trip have announced that they have received a partial refund from gransportation company. They have decided to make pro-rata return of funds remaining in the DXpedition's account, once all remaining bills are paid.



Reimbursements are expected to take "some time." They do not expect to be able to make another attempt to activate Bouvet until the 2019-2020 Austral season at the earliest. - K4UEE

Meanwhile the **3YØI** organizers & "rebel DX;ers" have announced that they are open for applications. They state that their invitation to the 3YØZ organizers have received "absolutely no single word of reply." More information at https://bouvetoya.org/ -- SQ8X, 3Z9DX

VK3HJ posted on eHam last March that VK5MQ was "on his way" to the Macquarie Island Antarctic Research Base for the next winter. Reports at the end of April indicate he is now QRV as VKØAI, initially on 30 & 20 meter FT8. – DX World

S79LD is currently QRV through 31 May, 80 40 2017 and possibly 10, SSB, JT65, FT8, QRS CW. Activity is limited to his spare time as this is a workrelated visit. QSL via VK4EF –VK4EF, OPDX

The Lions DX Team will be QRV as C8T 4 – 14 May, 160 – 10, CW SSB & RTTY, plus some 2 meter EME. http://dxpedition.c8t.cc/ QSL via ON1DX --OT8T

Castres DX Gang & IDRE members will be QRV as TM5FI from EU-095 9-16 May, 80 - 6, SSB CW & Digi. QSL via F5XX - DX World

GR9RW will be QRV 19 - 23 May to celebrate the Royal Wedding. This is the first activation of this prefix in the UK. More information at http:// www.cvrs.org QSL via G4FDI -- CVRS

9H3EE will be QRV from EU-021 25 - 28 May, including the CQ WPX CW contest. 160 - 10 with emphasis on 30 17 & 12, CW only. More information at http://www.oz1bii.dk -- OPDX

7Q7JK will be QRV 20 - 14 July, 40 - 10 SSB only. QSL via WB6OJB -WB6OJB

A team of ops will be QRV as CR5CW from Culatra Island Eu-145 during the RSGB IOTA contest, 28 - 29 July. More information at More information at https://colin739.wixsite.com/cr5cw --DX World

HA5AO plans to be QRV in the 2^{nd} half of September from eSwatini (formerly Swaziland). He has request **3DAØAO**. Look for him 80 – 10, CW, RTTY. FT8 and some SSB. Log search and OQRS will be available at https:// www.ha5ao.com. - K5GS

Veteran QSL Manager Steve KU9C does an annual mailing to "all" QSL bureau. If anyone has a quantity of bureau cards to mail, he will gladly include them. Cost is \$12 per pound, \$11 per pound for over 5 pounds. They must be sorted by country, and a check for the full amount must be included. Please email him at ku9c@yahoo.com to let him know to expect the cards -KU9C, OPDX

QSL Routes

3B8MB via IW3HVB 5F13SIA via CN8WW 5QØPI via OZ6PI 5U7R via SM7EHU 5WØGC via LZ1GC 6Y6N via DK6PY 8T4I via VU2MLQ 9A/DJ8QP via DJ8QP A52AEF via JH3AEF A52IVU via JA3IVU A52YLM via JR3MVF A61FK via A61BK A71AM via MØOXO DK2ØØMARX via DK5PZ

DLØBX via DK9JI 4Z7ØIARC via 4Z4DX DM8ØFOC via DL5YL EN32U via USØUX EM7U via UR7UT EO32U via UT2UQ GBØBYL via MW1CFN GB1Ø6TBC via MIØMOD **GB4RME via GWØANA** H44R via VE3LYC H44XG via JA1XGI HFØSEA/MM via SP1G IQØNU via ISØFFD IQ3QM via IZ3ZUC IQ3ZL via 9A5URI KH2/NHØN via JA6GLD M2G via MØOXO

MM2N via MMØGPZ OE1ØØXFG/P via OE6FNG **OP18N via ON4CRD** OV1CDX via OZ1GML SPØL via SP7RJI TCØAX via MØSDV TMØCXX via F6FMT TM18PGM via F4FCE TM39ØSR via F4DTO T74AM via WØSA VK9X/N1YC via W5UE VP8VPC via VP8LP W2P via KB2FMH YJØGC via LZ1GC

Thanks to the NJDXA DX News Reflector, the DX-QSL Reflector, 425 DX News, OPDX News, DX Coffee, DX World.Net, ICPO Bulletin, & ARRL DX Bulletin for our DX News information. Thanks also to the ARRL DXCC Desk, & Bernie McClenny W3UR / The Daily DX for confirmations & additional information.



WASH Classifieds

Information shown here is as supplied to the **WASHRag**. Condition as stated, and all sales should be considered "as-is" unless otherwise noted. All subject to prior sale or withdrawal from sale at the owner's discretion. All responsibility for this information lies with the source and not the **WASHRag** or the **WIRELESS ASSOCIATION OF SOUTH HILLS, INC.**

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Fax: (412) 746-5944 <u>bill.hill@hamradioinsurance.com</u> "All-Risk" Amateur Radio Equipment Insurance Plan for:

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Antenna Zoning or PRB-1 Issues?

Contact: Michael S. Lazaroff K3AIR, Esquire Lazaroff & Suhr, Attorneys at Law 277 West Main Street, Saxonburg, PA 16056

277 West Main Street, Saxonburg, PA 16056 Phone: 724-352-4905

The **WASHRag** Masthead is courtesy of Jeff Murray K1NSS, creator of DASHToons & Dash the Dog Faced Ham!!

Find the online cartoons and stories of Dash the Dogfaced Ham & more at https://www/jeffk1nss.com !

Shop for Dash items at his online store on Café Press, www.cafepress.com/shopdash

I'm moving out of the area and that I need two Rohn 25 towers taken down.

- I'll happily give the towers to whoever takes them down. There are partial sections in concrete so what can be taken away are 1) 60 feet (six sections) including a tapered top section with collar and 2) 50 feet (five sections) with a flat top section.
- What I am selling is one heavy duty aluminum Hazer complete with roller sheels, thrust bearing and stainless hoisting cable and one heavy duty steel Hazer with no wheels but with stainless hoisting cable and thrust bearing. I will sell these for \$200 each.
- I have a Mosley Pro-37 triband yagi with two driven element. The antenna is functionally the same as the slightly later Pro-57. I have the manual for it. Price \$100.
- There is a homebrew (I made it) 12 and 17m yagi with two elements on each band. \$50.
- The other antennas, I am taking with me to my new QTH.
- I may be selling some boatanchor radios--receivers and transceivers as well as some accessories.
- I would also like to find a repository for my QSL cards from my operations as J52US, 9L1US, A22MN and 5H3US.
- Age and all the years of driving my XYL back and forth to her job in St. Clairsville have taken their toll. We're moving to Vero Beach, Florida where the trek to the mall is not one hour but five minutes. ;-)
- I need to have the towers down by June 1st.
- 73, Dave Heil K8MN, Cameron, WV 26033 (304) 686-3366

If you've downloaded the *WASH*Rag from the N3SH web site, or picked up a copy from a friend... you can sign up to have the PDF copy sent directly to your email You <u>do NOT</u> have to be a member of WASH!

Just send an email to <u>wa3sh-subscribe@yahoogroups.com</u> and the automation should take care of the rest!





Newington, CT, April 26 th — The FCC released a *Notice of Proposed Rulemaking* (*NPRM*) on April 17, seeking comment on proposals to streamline its rules regarding the deployment of "small satellites." This would include small spacecraft put into orbit for Amateur Radio purposes, as well as small satellites launched by non-Amateur Radio entities, such as universities, but using Amateur Radio spectrum. The *NPRM* primarily addresses satellites launched by the commercial sector, however.

"These types of satellites, which have relatively short duration missions, have been advancing scientific research and are increasingly being used for commercial endeavors such as gathering Earth-observation data," the FCC pointed out in its *NPRM*.

Until now, the FCC has not defined spacecraft categorized as "small satellites." An International Telecommunication Union Radiocommunication Sector (ITU-R) Report focused on satellites having a mass of less than 10 kilograms with a typical mission duration as less than 3 years and deployed in low-Earth orbit (LEO), which would include most CubeSats. The FCC *NPRM* aims, in part, to further refine the definition of a small satellite.

The FCC has authorized small satellites as commercial operations under Part 25 of its rules, as experimental operations — including scientific and research missions for purposes of experimentation, product development, and market trials; under Part 5 Experimental FCC rules, and as Amateur Radio satellites under Part 97. In its wide-ranging *NPRM*, the FCC points out that the "increasingly commercial nature of small satellite missions" makes many unsuitable for Part 5 Experimental licensing, but that obtaining a Part 25 commercial authorization "can be challenging for some small satellite applicants because of the costs and timelines involved."

In any case, FCC authorization is required prior to launch, and ITU Radio Regulations require that no transmitting station may be established or operated by a private person or by any enterprise without a license by or on behalf of the government of the country to which the station in question is subject. This would include spacecraft built in the US but launched in another country.

"Because the type of operations that qualify as Amateur are narrowly defined, an Amateur Satellite authorization will not be appropriate for many small satellite operations," the FCC *NPRM* notes. "Commission staff may also request a document describing the mission of the satellite, in order to facilitate review and verify eligibility for operations in the Amateur Service," the *NPRM* continues.

The FCC notes that the International Amateur Radio Union (IARU) "will only <u>coordinate</u> a non-Amateur satellite, if an administration directs in writing that it be operated in an Amateur-Satellite band under an experimental or other non-Amateur license."

The *NPRM* does not propose any specific Part 97 Amateur/Amateur-Satellite Service rule changes, but some more general proposals could affect future authorizations under the Amateur Service. For example, the FCC is proposing that "all applicants seeking to be licensed under the streamlined small satellite process also certify that their satellites will be no smaller than 10 x 10 x 10 centimeters, to ensure that the satellite will be trackable as a space object," the *NPRM* said. "This size is consistent with the CubeSat specification." This subject recently arose in connection with the January launch of tiny, so-called SpaceBEEs by Swarm Technologies, which the FCC said it had not authorized.

Comments on the FCC *NPRM* will be invited 45 days following publication in *The Federal Register*. ARRL is planning to file comments.

Armed Forces Day Crossband Test Set for May 12th

The Military Auxiliary Radio System (MARS) will sponsor the traditional military/ amateur radio communication tests to mark the 67th annual Armed Forces Day (AFD) on Saturday, May 12th. Complete information, including military stations, modes, and frequencies, is available on the <u>US Army MARS website</u>.

Military stations will transmit (USB, unless otherwise noted on the schedule) on selected military frequencies and will announce the specific amateur frequencies they are monitoring. MARS stressed that frequencies used for the test will not impact any public or private communications and will not stray outside the confines of the exercise. An Armed Forces Day test message will be transmitted utilizing the Military Standard (MIL-STD) Serial PSK waveform (M110) followed by MIL-STD Wide Shift FSK (850 Hz RTTY), as described in MIL-STD 188-110A/ B. The AFD test message will also be sent at 0300 UTC in CW

Those who want a QSL should complete the $\underline{\textbf{request form}}$ on the MARS website.



Somerset County ARC 15th Annual Hamfest

Sunday, July 1st, 2018, 8:00 AM—1:00 PM Vendor Setup beginning at 6:00 AM

Somerset County Technology Center

281 Technology Drive, Somerset PA 15501

Talk-in on 147.195 and 443.250 PL 123.0 Admission \$5 More Information at http://www.k3smt.org

Butler County ARA Swapfest 2018



Sunday, September 9th, 2018, 8:00 AM—3:00 PM Grounds Open at 6 AM for Vendors & Tailgaters **Unionville Volunteer Fire Department** 102 Mahood Road (at Route 8 North), Butler, PA 16001 Talk-in on 147.360 PL 131.8 Admission \$5 More Information at http://www.w3udx.org

WACOM HAMFEST 2018

Printscape Arena [New Location!]

114 Southpointe Blvd, Canonsburg PA 15317

Sunday, November 4th

8:00 AM to 3:00 PM Setup at 6:30 AM

Talk-In on 146.790 (131.8 PL)

Vendors contact: Bud Plants N3TIR bud@n3tir.com 724-350-6745 Or WACOM, c/o Norma Plants N3YJJ, 236 Chambers Ridge Rd, West Alexandria, PA 15376

The sale of illegal amplifiers or Adult Material is strictly prohibited









First Prize: Second Prize: Third Prize: Fourth Prize:

ICOM IC-7300 HF & 6 M Transceiver Yaesu FTM-3200DR 65 W 2 Meter FM Mobile Transceiver Yaesu FTM-3200DR 65 W 2 Meter FM Mobile Transceiver Yaesu FTM-3200DR 65 W 2 Meter FM Mobile Transceiver **Other Prizes To Be Announced**

Main Prize Drawing at 1 PM Winner Need Not Be Present To Win

Black Box:

What is it? It's a Mystery! - Only 50 Tickets Sold! -

VE Testing starting at 9:00 AM **Breakfast & Lunch Will Be Available** Check www.wacomarc.org for Updates





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Membership Application, New or Renewal



I would like to join WASH! I am interested in the following type of membership: □ New Membership □ Membership Renewal □ 2nd Qtr (check quarter 1st Qtr □ 3rd Qtr 4th Qtr (check one I) Jan-Mar Jul-Sept Oct-Dec Apr-Jun □ (F1) Full Membership: \$20.00 \$15.00 \$10.00 \$5.00 \Box (F2) Full Membership < 18 or > 65 yrs of age: \$10.00 \$7.50 \$5.00 \$2.50 \$5.00 □ (A1) Associate Membership: \$10.00 \$7.50 \$2.50 (FM1) Family Membership (\$3.00 x No. of household family members): \$ Name(s): Name: Call Sign: License Class: Address: City, State: Expires On: Home Phone: Work Phone: Email Address: Birthday: New Members Only. ARRL Member?
Yes
No Family ARRL Member?
Yes
No I do NOT want to be added to the Club E-Mail Reflector I do NOT want to be added to the Electronic Newsletter Mailing List Date: [If you have an Email address, you Will be added to both lists UNLESS you choose to Opt-Out] Amount Enclosed: \$ Signature: Please make your check or money order payable to the club treasurer, Mark Stabryla. The Wireless Association of South Hills, Inc. reserves the right to accept or reject new memberships or renewals. N3RDV has requested that Please return completed membership form along with check/money order to the club treasurer or mail to: all membership requests and renewals include an WIRELESS ASSOCIATION OF SOUTH HILLS, INC. c/o Mark Stabryla N3RDV, VP/Treasurer application so that his information is up to date

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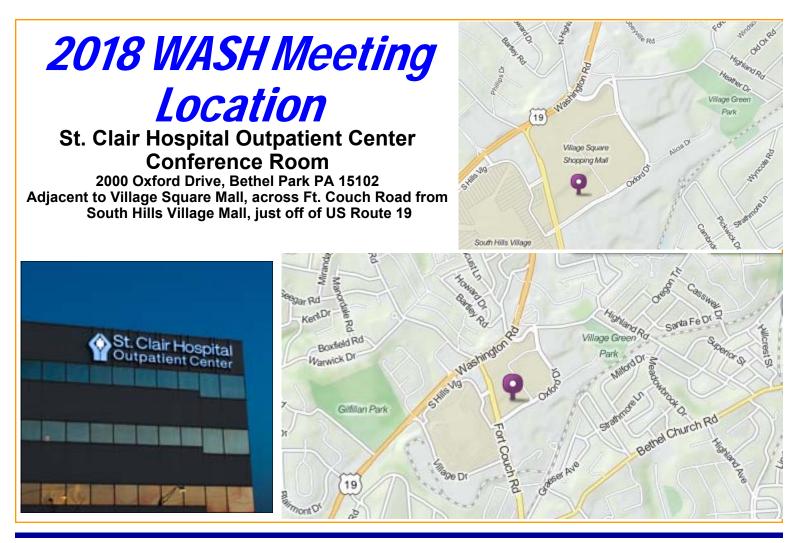
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