



WASHRAGTM



VOLUME 16
ISSUE 09
SEPTEMBER 2014

Wireless Association of South Hills



N3SH WA3SH NP2SH/B www.n3sh.org www.washarc.org



WASHRAG™



VOLUME 16 ISSUE 09

SEPTEMBER 2014

Next Monthly Meeting: Sunday, September 14th, 2014

The next meeting of the [WIRELESS ASSOCIATION OF SOUTH HILLS, INC.](#) will be on **Sunday, September 14th 2014**, at [Outlook Grove, South Park, off of Brownsville Road](#) (map on the back page), starting at 1:00 PM.

Our End-Of-Summer Picnic, Fox Hunt, Pennsylvania QSO Party, and other plans for the rest of the year will be amongst the topics. Bring the family! See you there!

Cover Photo: The former Microwave platform at Mt. Davis. Insert: Glen KE7FD operating during the SOTA operation by him and Bill W3WH on August 8th, as written about in last month's newsletter.

Photo courtesy of & © Copyright 2014 Bill Hill W3WH

WASH 2014 OFFICERS

EXECUTIVE COMMITTEE:

President	Carol Danko KB3GMN
VP / Secretary	Ben Williams KB3ERQ
VP / Treasurer	Mark Stabryla N3RDV

AND WE COULDN'T DO IT WITHOUT:

N3SH Trustee	Larry Comden K3VX
WA3SH Trustee	Rich Danko N3SBF
NP2SH Trustee	Paul Jordan NP2JF
N3SH WA3SH NP2SH/B QSL Manager	Ron Notarius W3WN
NP2SH 2009 QSL Manager	Carl Schroeder K9CS
VE Team Liaison	Ron Notarius W3WN
Webmaster	Sean Sleeman N3NWR
Asst. Webmaster	Ben Williams KB3ERQ
Quartermaster	Harold Rosenberger K3HCR
WASH FM Net Manager	Glen Roberts KE7FD
WASHFest 2015 Committee	Carol Danko KB3GMN, Chairman
	Bill Hill W3WH, Co-Chair
Activities & Operating Events	Rick Bell KB3IAC
Ways & Means	Carol Danko KB3GMN
WASH 2M Contest Chair	Ron Notarius W3WN
Field Day 2015 Coordinators	Larry Comden K3VX
	Rick Bell KB3IAC

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 **Sunday** Night, 9:00 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)**

Published Monthly with occasional Special Editions as warranted.

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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 October 16th

The Next WASH VE exam sessions will be **Thursday, October 16th, 2014, 7:00 PM**, at **WPXI TV Community Room**, 4145 Evergreen Road, Pittsburgh, PA. Talk-in on the 146.955 MHz and 443.650 MHz repeaters. All examiners are ARRL VEC affiliated.

Walk-ins are welcome, although, **pre-registration is preferred** to ensure that we have tests and other materials available for all candidates. If you plan on attending the test session, please contact VE Team Liaison Ron Notarius W3WN:

Telephone (412) 572-6723 or E-Mail: w3wn@n3sh.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)

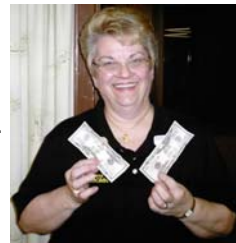
Future test dates: February 22nd, 2015

Location: **WASHFest 2015**

Carol's Comments

Reminder that there will be **NO MEETING** on Thursday, September 11th.

We will have our annual Club Picnic instead. It will take place on Sunday, Sept. 14th at 1pm, Outlook Grove in South Park, with a picnic lunch. We will also have a Fox Hunt.



I need to know if you can make it. Also if you would like to participate in the fox hunt. If there is enough interest in the fox hunt it will take place.

We will have burgers and dogs. If anyone would like to bring a covered dish that would be great. Please let me know ASAP.

See you on the 14th.

— 73, Carol Danko KB3GMN
President, Wireless Association of South Hills, Inc.
N3SH / WA3SH / NP2SH/b

The FCC has adjusted very slightly downward it's proposed Amateur Radio Service vanity call regulatory fee for Fiscal Year 2014.

They originally proposed a vanity fee of \$21.60 for a 10 year license term. The fee will now be \$21.40.

The \$5.30 increase still represents the largest vanity fee hike in many years.

Saturday, August 30th, smack-dab in the middle of Labor Day weekend. And yet, there were are, getting **the WASH Breakfast Gang** back together at **Suzie B's**, Route 910 at the intersection of Route 519 at US 19 in Canonsburg. This month's early risers included N3DFK, WB4GCS, KB3DCO, K3HCR, N3FB, KB3GMU, W3WH, W3WN and N3BPB. Morning topics covered accident recovery, club jackets, PA Toll 43 complete to I-68 in WV, working 10 GHz from the Summit Inn, downtown traffic with both a home Pitt & Pirate game, moving computer files at 10 PM, getting active again, going to Heritage BSA reservation for Pa QSO 2014, EmComm tests & certificates, batteries and generators @ Fukushima, seawalls, dealing with the Veterans Administration, Robin Williams & John Belushi, SW listening to Radio Moscow, General Lemay & the early days of SSB, listening to Skybird on HF SSB in the clear... and much more,

Our next gathering will be on Saturday, September 28th, as usual at **Suzie B's**, Route 910 at the intersection of Route 519 at 19, Canonsburg. Our "usual" tables will be reserved, but please let Jim WB4GCS know ahead of time. See you there?

EmComm Training: "Many of you are aware of our partnering effort with St. Clair Hospital over the past year. St. Clair Hospital and the **WIRELESS ASSOCIATION OF SOUTH HILLS** have entered into a Memorandum of Understanding. From our standpoint, St. Clair will be considered a "Served Agency" and we, to the best of our abilities, will support the hospital by providing back-up communications capabilities and possibly primary communication capabilities when the need may arise. These services could be needed for drills, simulated emergency tests (SET), or actual emergency situations.

If you are not already aware almost of the standard governmental and non-governmental agencies that the Amateur Radio community serves require a communications volunteer to have, at a minimum, a moderate level of training. Things are not as simple as they once were.

To prepare to fill our responsibilities not only with St. Clair Hospital but any organization that we may be called upon for assistance as public service we must endeavor to "Train-Up" to the level expected of us as Amateur Radio operators in these situations.

To that end, if you plan on being part of this public service effort, we need to begin to "Train-Up". I have secured the "Introduction to Emergency Communications Course" 4th Edition, Second Printing. At some point we will hold some training sessions on this. But there are prerequisites that you can complete on-line.

Here is a link to the website that has the required courses:

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

You will need to take IS-100.b or IS-100.HCb. The only difference is that .HCb uses examples and scenarios in the course that are health care related. I suggest you take IS-100.HCb. You will also need to take IS-700.a.

Each of these take about 3 hours. They are not complicated and are not hard. You just need to read the material and absorb the info. You can do this over multiple sessions. There is a test at the end of each course. Please take the test. When you pass, you can print a certificate of completion. We need this certificate.

The best way to approach this is to make a schedule with a completion date as a goal. 15 minutes a night - 30 minutes every other night - one hour 1 night a week. Set your pace and goal and stick with it.

I would like to see everyone complete the IS-100.HCb by the end of September, and complete the IS-700.a by the end of October 2014.

We can then plan to start the EmComm course as a group."

— Rick Bell KB3IAC

WASHNet 2014 NCS Schedule

09/07/2014	Sean N3NWR	11/09/2014	Rick KB3IAC
09/14/2014	Carol KB3GMN	11/16/2014	Sean N3NWR
09/21/2014	Fred KB3DCO	11/23/2014	Fred KB3DCO
09/28/2014	Bob AB3ED	11/30/2014	Glen KE7FD
10/05/2014	Bill W3WH	12/07/2014	Bob AB3ED
10/12/2014	Larry K3VX	12/14/2014	Rick KB3IAC
10/19/2014	Harold K3HCR	12/21/2014	Larry K3VX
10/26/2014	Dave N3DFK	12/28/2014	Glen KE7FD
11/02/2014	Carol KB3GMN		

Join WASH or Renew your Membership for 2014 Today! Membership Application on Page 15!

Minutes, August 14th Meeting

Ben Williams KB3ERQ, Vice President/Secretary, **WASH**

Carol KB3GMN called the meeting to order at 19:07 hours. There were 17 members and guests in attendance.

A moment of silence was observed for recent silent keys & other deserving persons.

Motion to waive reading of the minutes based on the minutes printed in the newsletter by Ben KB3ERQ, second by Jan KB3IVX, passed unanimously.

Committee reports:

Treasurer (N3RDV): A balance on the bank account was read & accepted. Anyone with outstanding Field Day receipts need to get them to Mark.

Secretary (KB3ERQ): No report

VE (W3WN): Next VEC session in October at WPXI. See newsletter for the details.

Repeaters (N3FB): "They're repeating."

(KB3IAC): We were successful in securing the government surplus VHF repeater from the Civil Air Patrol, via St. Clair Hospital.

WASHNet (KE7FD): Schedule has been finished for the rest of the year, and is posted to the N3SH web site. Glen is still working on the format for the revived digital net.

Contests (K3VX): Pa QSO is coming up. Rick KB3IAC has secured the Heritage BSA facility in Fayette County for an N3SH portable operation. Carol KB3GMN & Richie N3SBF may only operate one day from Clarion County due to a conflict with another event.

Public Service (N3IDH): Volunteers needed for an upcoming walk in September.

Ways & Means (KB3GMN): 50/50 tonight.

Newsletter (W3WN): It's out.

President's Report (KB3GMN): Skyview Hamfest is coming up on the 24th, followed by the Uniontown and Butler club fests.

Next club meeting will be on Sunday, September 14th, at Outlook Grove in South Park — our annual end-of-summer picnic and fox hunt. Club will be providing hamburgers, hot dogs, etc. Everyone coming, please let Carol know.

Old Business: None:

New Business:

- Tower trailer needs changed from Randy to Club. Motion was taken to move the trailer title and vote was taken. Passed unanimously.
- There was a paperwork foul-up on the club trustee changes. New documentation needs to be resubmitted, which requires signatures.

(Editor's note: N3SH and WA3SH trustee changes have processed and are now shown on the FCC ULS website)

Good of the Order:

- Glen KE7FD asked if anyone is interested in a Summit On The Air operations to Mt. Davis by the end of the summer; contact him if interested.
- Rick KB3IAC said that we have been invited to use Keystone Lodge at the Heritage BSA camp in Uniontown again this year for Pa QSO. Rick will organize that effort. Bill W3WH, Larry K3VX & Harold K3HCR are planning to be on the Franklin/Fulton County Line. Carol KB3GMN & Richie N3SBF aren't sure about Clarion County this year yet.

Motion to Adjourn by Dave N3IDH, second by Glen KE7FD and carried.

Meeting adjourned at 20:05 hours.



WASH Spotlight: Winners



WASH Members have been on "winning streaks" at area hamfests in August. Carol KB3GMN (right) won First Prize, a Begali Key, at the Skyview Radio Society hamfest on August 24th. Gary KB3YCX (left) won Second Prize, an MFJ-259B antenna analyzer, at the Uniontown ARC Gabfest on August 30th. Congratulations, both of you!

(Sorry, we don't have pictures of them holding their prizes, so you'll have to settle for file photos from earlier in the year)

Photos courtesy of & © Copyright 2014 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](mailto:newsletter@n3sh.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 sit down, shoot the breeze, compare notes, drink lots of 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 & 443.650 for talk-in or any last minute changes. All are welcome, **WASH** members or not, amateurs or not!

Wireless Association of South Hills Membership

AB3ED	KB3GMN	N3FB	WASH FL	WASH OH	Silent Keys
AB3EN	KB3GMP	N3IDH	KA3UPY/M	N8DPW	
AB3NM	KB3GMU	N3NWR	W4ZE	WASH SC	AB3KA
AB3PJ	KB3IAC	N3OVO	WASH GA	N3RNX	K3EED
AC4KU	KB3IVX	N3RDV	K3OL	WASH TN	K3LIE
AE3DL	KB3JHR	N3RHT	KB3IJX	KE3XB	KA3NMG
KØLIN	KB3PSB	N3SBF	WASH NE	N3YPB	KB3ENX
K3AIR	KB3WZT	W3LE	NØPEU	WASH TX	KB3FNM
K3GW	KB3YCX	W3RWS	WASH OR	K3LGM	KB3FQT
K3HCR	KB3YKL	W3VFA	NØVLR	Jane Wagner	N3FZ
K3JDS	KC3ANX	W3WH	NØWPV	WASH VI	N3HKQ
K3LGM	KC3BQI	W3WN	KB3NVL	NP2JF	N3KEH
K3SGT	KC4WTT	W4CKR	KB3NVM		N3OBD
K3VX	KE7FD	WB4GCS			N3SKR
KA3ANU	KJ3D	Darryn Sleeman			N3SRC
KA3RXY	N1NCZ				N3ZEL
KA3TWI	N2QIV				N3XFE
KB3DCO	N3BPB				W3ZLK
KB3ERQ	N3DFK				WA3JPP

If your call should be listed here & isn't, please contact Mark N3RDV

Through July 30th, 2014

List compiled by

Mark Stabryla N3RDV, Vice President/Treasurer

2014 /15 WASH Upcoming Events Calendar

Meeting Topics & Other Significant Club Events — Subject to Change

September 7 th	BCARA Swapfest 2014	http://www.w3udx.org/Hamfest.htm
September 13 th -15 th	ARRL September VHF Contest	http://www.arrl.org
September 14 th	<i>WASH</i> Meeting & Family Picnic	Outlook Grove, South Park
October 4 th -5 th	California QSO Party	http://www.cqp.org
October 9 th	<i>WASH</i> Meeting	TBA
October 11 th -12 th	Pennsylvania QSO Party	http://www.nittany-arc.net/PAQSO.html
October 16 th	<i>WASH</i> VE Exams	Community Room, WPXI—TV 11
October 19 th	WPRC Meeting, Altoona	http://www.wprcinfo.org
October 20 th — 24 th	ARRL School Club Roundup	http://www.arrl.org
October 25 th — 26 th	CQ WW DX Contest SSB	http://www.cqww.com
November 1 st -3 rd	ARRL Sweepstakes CW	http://www.arrl.org
November 2 nd	WACOM 2014 Hamfest	http://wacomarc.org
November 8 th -9 th	ARRL EME Contest	http://www.arrl.org
November 13 th	<i>WASH</i> Meeting & Annual Elections	TBA
November 15 th -17 th	ARRL Sweepstakes SSB	http://www.arrl.org
November 29 th -30 th	CQ WW DX Contest CW	http://www.cqww.com
December 5 th -7 th	ARRL 160 Meter Contest	http://www.arrl.org
December 6 th -7 th	ARRL EME Contest	http://www.arrl.org
December 11 th	<i>WASH</i> Meeting	TBA
December 13 th -14 th	ARRL 10 Meter Contest	http://www.arrl.org
December 21 st	ARRL Rookie Roundup CW	http://www.arrl.org
December 31 st	Straight Key Night	http://www.arrl.org
2015		
January 10 th	<i>WASH</i> 2 Meter Simplex Contest	http://www.n3sh.org
February 22 nd	20th Annual <i>WASH</i> Fest 2015	Castle Shannon VFD Memorial Hall Library Rd, Route 88, Castle Shannon

Remoting the Antenna Rotor Controller

Jim Sanford WB4GCS

My earlier article on remoting the Icom 706 MK IIG over Ethernet alluded to the ability to remotely control an antenna rotor. I have finally implemented that functionality, and this article describes how.

To review, my remote setup includes three devices: the RemoteRig pair, which controls the IC-706 MKIIG; a WebSwitch, which gives me the ability to remotely control relays capable of handling 16A at 230V and monitor temperatures; and Rotor Control 1216L, which interfaces with the WebSwitch on a 1-wire bus to control any antenna rotor.

The 1-wire bus is a development of Dallas Semiconductor, now part of Maxim Semiconductor. It uses a single conductor (plus ground) to communicate serially. Key to this concept is a master/slave relationship, and unique 64-bit addresses laser hard-coded into each peripheral device. Peripheral devices include memory, inputs, analog-to-digital devices, digital-to-analog devices, relay drivers, and temperature sensors, which the WebSwitch uses. All of this can be transparent to the end user; the web page served up by WebSwitch allows configuration of and display of temperature sensor data, and control of an antenna rotor via the 1216L rotor controller.

The WebSwitch has two 1-wire buses. One must be dedicated to the rotor control, the other can have up to 256 temperature sensors. As discussed in earlier articles, I use one of the buses to monitor heat sink temperature of the switch-mode power supply transistors, the heatsink temperature of the IC-706, and ultimately cabinet ambient temperature and external ambient temperature. The other is (and must be) dedicated to the rotor controller.

The rotor controller has one analog input, to collect actual position, and three relay outputs –brake, left (CCW) and right (CW). These can be interfaced with ANY rotor. The software on the WebSwitch web server, allows for 5-point position calibration, manual control of rotation, push-button automatic positioning to user-defined positions (think “Europe”, “Japan”) and automatic rotation to a user-specified position in degrees.

The ability to preset to a position is an interesting functional ability. I'd have never sought that capability, but it came with my current Yaesu rotor. Serendipitously, I found it *incredibly* useful in Virginia, when I ran a 2m SSB net up and down the east coast from Canada to Georgia. It was very convenient to dial a position, push a button, and make the call, listening from a certain direction when the rotor stopped. WebSwitch and the rotor controller enable that functionality for ANY rotor.

So, here's how I implemented all this. The rotor controller is next to the WebSwitch on the DIN rail, as previously described. It has a relay closure to actuate brake release, a separate relay closure for counter-clockwise rotation and one for clockwise rotation. It also has a ground-referenced analog input for position sensing.

My Yaesu rotor controller was designed for computer control, so it has a buffered analog output and accepts contact closures to ground to command motion. If your rotor is not so setup, the analog input is high impedance, so you can put it across the meter. As for command, the relays are capable of switching 240V at 16 Amps, so they can most likely go across the switches in whatever controller you have.

It is my opinion that, a fundamental tenet of any safety-critical software (burning out a rotor is a safety-critical failure) is to assume that it will fail, in the worst possible way, and to mitigate against that software failure in hardware. (ASK me how I learned this!) To that end, although my rotor doesn't have a brake, I used the brake contacts on the rotor control board in series with the CW and CCW relays. This doesn't guard against all failures, but requires multiple software failures before rotation is commanded to the point of destruction. Another mitigation is to recognize that most rotor controllers are over fused. I recommend that you remove the fuse in your rotor controller, and replace it with progressively lower-rated slow blow (to account for motor starting current) fuses until it won't turn the rotor. Install the next higher-rated slow-blow fuse. (ASK me how I know this!) This gives you *some* confidence that if the software commands your system to destruction, the fuse will act to protect the rotor controller and motors. (ASK me how I know this!)

SO, here's how I pulled all this together. Like everything else in this project, the Yaesu rotor controller sits on its own shelf, with input and output terminals toward the front, to allow easy connection/disconnection and troubleshooting. See the Photo 01 above, and Photo 04 on the next page.

The unlabelled connector toward the rear goes to the rotor, each connection is based on color code. The connector at the front of the shelf goes toward the WebSwitch rotor controller. The terminals are:

- Left (closure to ground)
- Right (closure to ground)
- Analog (positions) input
- Speed input (not used in this application)
- Ground

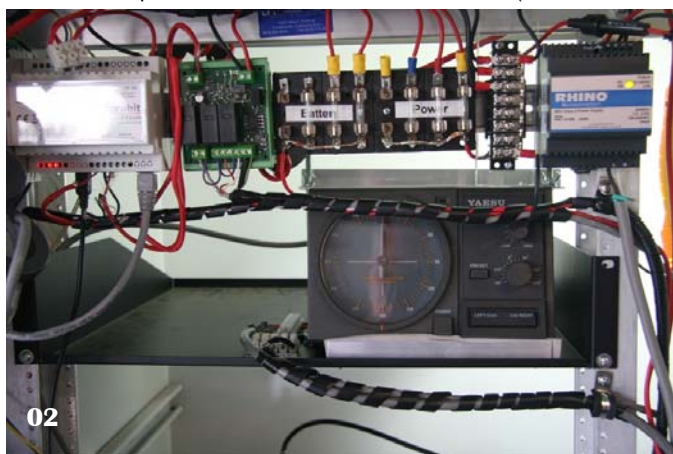
There is space for another controller (offset to the rear or left) in the future for the flyswatter 5 and 10 GHz antenna system.

Photo 02 (Right) shows the rotor controller shelf installed close to the DIN rail. On the DIN rail, you can see the rotor controller, just to the left of the BATTERY fuse terminal block. Power and 1-wire connection to the WebSwitch are at the top, the Brake, CW and CCW outputs and the analog input connections are on the bottom.

Photo 03 shows a close-up of the rotor controller board. On the bottom set of relay contacts, you can readily see how the brake contacts (far left) are in series with both CW and CCW contacts.

In several days of testing, this arrangement worked satisfactorily. Thinking about it though, I was troubled by the idea of having power on the rotor controller any time the cabinet is powered. There will be *enough* heat out on the back hill. With three uncommitted switches on the WebSwitch, I decided to use one to power up the rotor. Pondering that idea, I decided that I didn't want a bunch of high-voltage running around the din rail. So, I used Switch 5 on the WebSwitch to send 12-volts to the rotor shelf. That energizes a 12-volt plug-in relay next to a quad electrical box. The box has one duplex outlet, with the tab between the two outlets on the “hot” side removed, and a flat plate with a fuse holder.

Electrically, 110-volt power comes into the one outlet from the



Continued on
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Amateur Radio Operators Delighted With California City Council's Antenna Decision

The American Radio Relay League



The approximately 450 radio amateurs who live in Poway, California, may erect antenna support structures of up to 65 feet with only a building permit and a courtesy notice to their neighbors. The Poway City Council unanimously approved the new ordinance on August 5th.

According to an August 6th Pomerado News [report](#) by Steve Dreyer, the Council "declined to adopt an alternative ordinance that would have required obtaining a special minor use permit" for structures between 35 and 65 feet.

ARRL General Counsel Chris Imlay W3KD, said the League has been working with Poway's Amateur Radio community for "a very long time" on the matter. Representing radio amateurs' interests in Poway was Felix Tinkov, Esq, whom Imlay described as "a very competent and experienced land use lawyer." Imlay noted that Tinkov is not a ham radio licensee but that he "gets Amateur Radio and did a stellar job of advocating for the hams." ARRL's Amateur Radio Legal Defense and Assistance Committee contributed funding for the effort.

"It represented a big change in well-entrenched attitudes in Poway spanning decades so this is a big win for us," Imlay said.

Members of the Poway Amateur Radio Society (PARS) submitted a technical report to the City Council. The report concluded that antenna support structures of up to 65 feet would represent "reasonable accommodation" for Amateur Radio communication under PRB-1, due to the area's varied topography. The subject of Poway's Amateur Radio antenna ordinance came up at the ARRL Board of Directors January 2014 meeting. ARRL General Counsel Chris Imlay W3KD, reported that

he'd been in contact with attorney Fred Hopengartenw K1VR, on behalf of Howard Groveman W6HDG, of Poway, who sought to install a 59-foot crank-up antenna support structure. At the time Poway's ordinance set a maximum height of 35 feet and required a variance for anything taller, precluding Groveman's proposed antenna system.

According to the Pomerado account, the option that the city council ultimately approved had been tweaked a bit from the version council members had received earlier from city staffers. That option would have required notification only to abutting property owners. This was expanded to a 250-foot radius, Dreyer's report said, adding that applicants would be responsible for mailing the notices. The notices would alert neighbors that an antenna would be erected, but neighbors would have no legal standing to impede or block construction as long as the proposed structure met the requirements of the city's ordinances.

Installing an antenna support structure taller than 65 feet would require a new antenna permit and the approval of City Council. The Council asked for a report in 1 year regarding how the new procedures are working.

The Poway City Council had selected the two possible options following a May 6th public hearing attended by representatives of the city's ham radio population and a few residents who question whether tall antenna structures were needed, and whether they might affect property values.

PARS worked for more than 2 years with the city council to encourage adoption of an Amateur Radio-friendly antenna ordinance.

Remoting the Antenna Rotor Controller

Continued from Page 6

cabinet power switching unit. The neutrals are paired. The unswitched outlet has a lead from its "hot" terminal to a fuse holder, then out of the box to the relay, then back into the quad box where it connects to the "hot" terminal on the switched outlet. The relay coil has the usual commutating diode to protect the contacts sending it power.

The relay is rated at 10 Amps; the rotor needs 2, so I installed an 8 Amp fuse.

The power-control addition is shown in Photo 05.

We'll make an effort to wring it out over the next several weeks. Then we'll move toward a permanent installation at the tower.

There are a few things left before moving to the tower:

Connect and configure the RemoteRig units to allow CW operation. While I don't plan on working CW contests on HF, CW remains the *premier* weak-signal mode on 2m and 70cm.

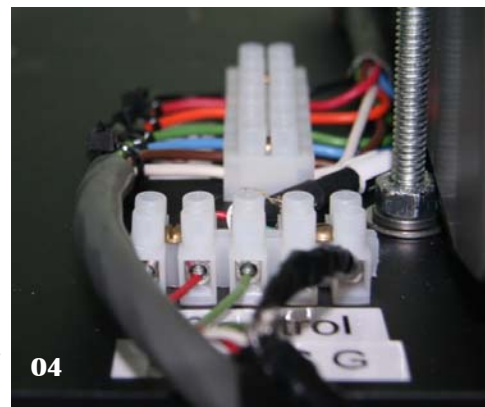
- Connect and configure the RemoteRig serial ports to allow computer control of the Icom through the CI-V interface. I hadn't originally intended to do this, but came to the realization that it would be nice to be able to manage the Icom memories, using some software that Frank, N3FB, pointed out to me.
- Connect the individual shelf grounds to the grounding plate in the cabinet, then prepare a grounding lead to go to the tower's ground system.
- Connect and test the solar arrays and evaluate their ability to keep the battery charged, so the cabinet doesn't need to be on except when in use.
- (The tough one) Trench, and bury in conduit, or run overhead, power and CAT5 from the house to the tower.

As always, your comments, suggestions, criticisms and questions are welcome.

As of September 2014, the three US Antarctic stations — KC4AAA, KC4AAC, and KC4USV — are now using Logbook of the World (LoTW) whenever the operator there sends the QSL Manager an eLog.

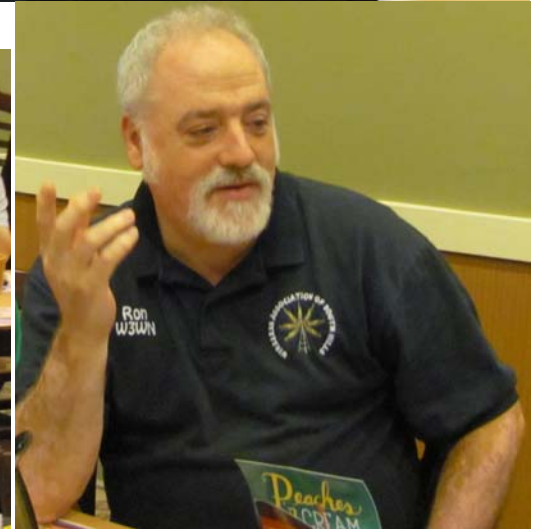
Some of the older logs may be uploaded as time goes on. For now, only about the last two years of complete logs, and some old logs that were logged by the QSL Manager when he was listening in over the years, are on LotW.

— K1IED, QSL Manager



"Seen" at the August WASH Meeting

Photos courtesy of & © Copyright 2014 Ron Notarius W3WN



QRP To the Library!

Bill Hill W3WH

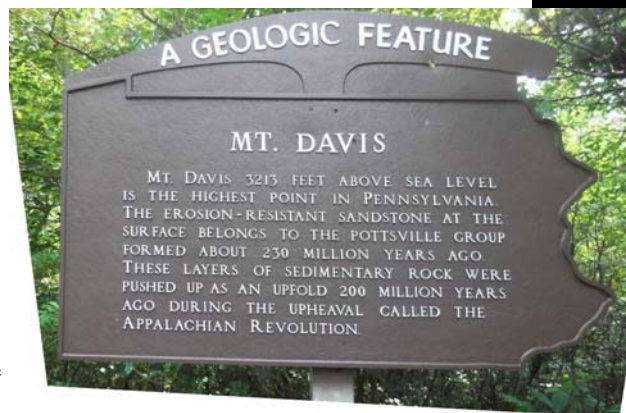
Recently Glen Roberts KE7FD and I spent a day last month at Mount Davis trying out our QRP equipment in the field. We certainly enjoyed our outing but after it was over we realized we need to do some fine tuning before we attempt another Summits on the Air activation.

We decided that it would make the most sense to experiment locally and we have chosen the grounds of the Chartiers-Houston Community Library as our guinea pig site.

We like to invite anybody who's interested in spending a morning outside or a morning experimenting with your equipment trying out a new antenna etc. to join us on **September 27th** starting at **9:00 AM**, and have some ham radio fun. We will be using CW and digital modes and I suppose possibly even SSB. There's lots of open space and plenty of tall trees for antenna supports.

The library is located at 730 West Grant St., Houston, PA 15342. The library is one block off of Pike Street, and directional signs are located both East and West bound on Pike Street to assist you in finding the library. I'm also going to post a notice at the library so that anyone who may not be at hand today, but is interested in what were doing or learning more can come and join us.

If you have any comments or questions please send Glen or myself an email or give us a call.



Scrapscatter

Eric Nichols KL7AJ

"WL7AI, KL7AJ. Hey, El Joe, whatcha got up your sleeve besides stale Right Guard?"

"WL7AI fer ID. Funny you should mention that. Why just today I was thinking...."

"That's pretty scary, El Joe. Do I really want to hear this?"

'Just hang on. This could be big. You know all those dead satellites and rocket boosters and socket wrenches they got floating around in orbit up there? Everyone's all worried bout how crowded it is up there. I think they're looking at it all wrong."

"Do tell. No, on second thought, don't."

"Work with me here, E. You know all that stuff is in pretty much a perfect ring around the equator. I think it would make a perfect passive reflector. In fact, I've already come up with a name for it. Scrapscatter."

"Ahh. Of course. What else? What's the Q signal for rolling one's eyes?"

"O, ye of little faith. And, not only that...but I've worked out the math. I have discovered the perfect frequency to take advantage of scrapscatter, taking into account the mass, density, distance, and all that sort of thing."

"Not to mention the current date on the Aztec calendar, no doubt."

"Have I ever misled you, E, old buddy old pal? Anyway, this magic formula is what I call the scrapscatter coefficient or Fscr. And I...only I...have the exact figure for the scrapscatter coefficient. We can be rich, you and me. It's a closely guarded secret, and it will be worth millions. Think of all those geostationary satellites coming to the end of their life all at once. We will have the only solution!"

"Of course. It's all painfully clear now. QRX one...I need to wax my chainsaw."

"Now just hold on a second, E. Remember how they laughed at Edison."

"No, not really. I wasn't there, contrary to rumors."

"Oh all right. I can see I'm casting pearls before swine. Maybe my other brainstorm will impress you more."

"Try me, I'm pretty gullible."

"Okay. Hold onto your hat. You know how when you try rotating your H.F. vertical how those radials keep on getting all twisted up?"

"Uh...no. Why would you rotate a vertical?"

"Well, normally you wouldn't. But after they've been out there a few years, they tend to lean and not be so vertical any more, and that's when a rotator really comes in handy. Anyway....the problem is, most hams have those radials connected directly to the base of the vertical. I have created what I call the "rotomatic" vertical radial bearing, which allows your vertical to spin merrily about without twisting up the radials. It's a stroke of pure genius."

"Well, I'll admit you've had a stroke of some sort."

"Listen, E. I'm letting you get in on the ground floor here. You'll thank me later."

"I can thank you right now if you'll just go away....."



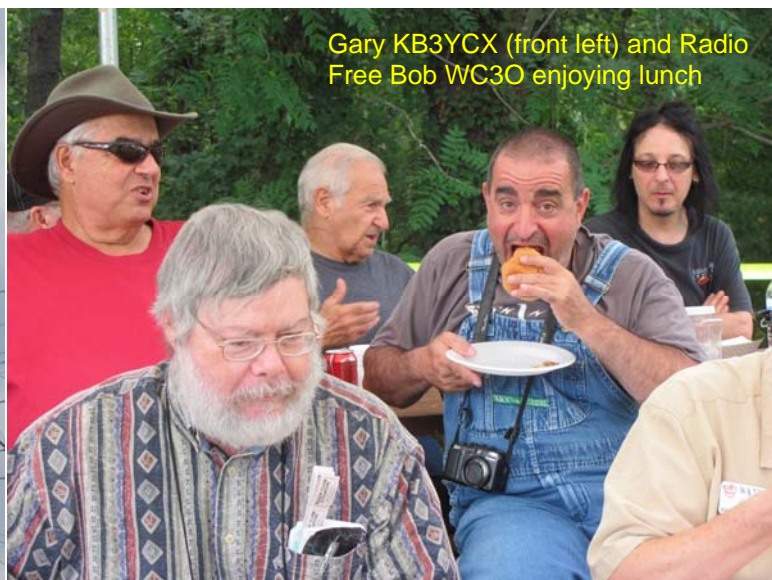
The view from the W3PIE Clubhouse

"Seen" at the W3PIE Gabfest 2014

Photos courtesy of & © Copyright 2014 Ron Notarius W3WN



Now, does Ed N3ZNI have antennas growing out of his head, or is he just happy to see us? (And welcome back to WPA)



Gary KB3YCX (front left) and Radio Free Bob WC3O enjoying lunch



Harold K3HCR and Bill W3WH



Jim WB4GCS



Nick WA3NB



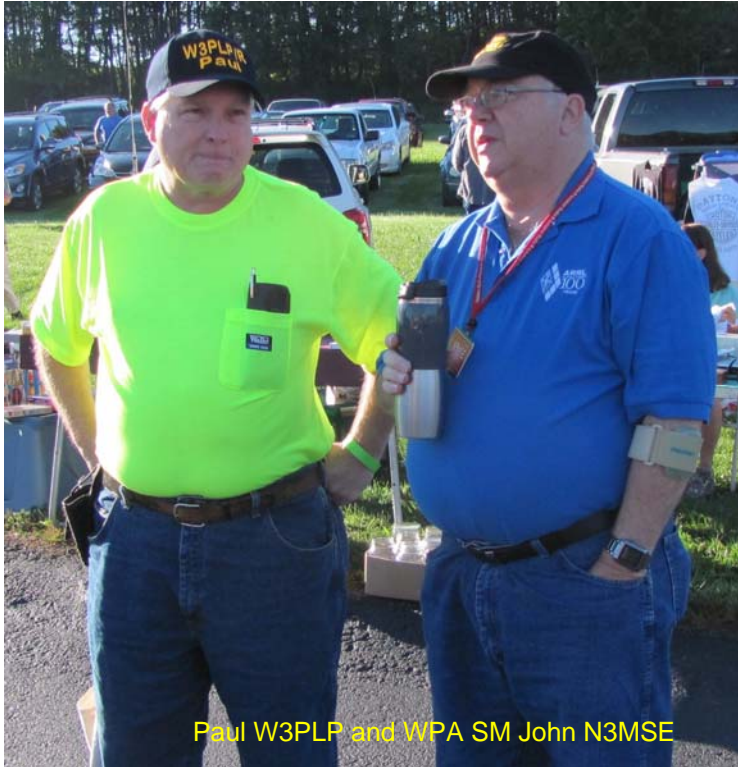
Bob AD3Q & Friend



Frank N3FB, Jim WB4GCS and Lori KB3GMU

"Seen" at the W3UDX Swapfest 2014

Photos courtesy of & © Copyright 2014 Ron Notarius W3WN



Paul W3PLP and WPA SM John N3MSE



Bill W3WH and Nick WA3NB



Radio Free Bob WC3O



Jim KA3KSP



Kent N3KB



Bob N3CVL



W3UDX Talk-In Station
Austin W0AJA



A view of the Flea Market



How can we not have
the obligatory photo of
Nick WA3NB eating?

KP1 Navassa Island

The KP1-5 Project

August 29th, 2014 — The KP1-5 Project is pleased to announce that the U.S. Fish and Wildlife Service has agreed to allow an amateur radio operation from Navassa National Wildlife Refuge (KP1). The operation will occur within the next 18 months and will be coordinated with the USFWS work flow.



Over the past year, the KP1-5 Project has had numerous meetings with various levels of USFWS management. Throughout our discussions, their personnel have been courteous, professional and cooperative. We have been treated with sincere interest and respect and believe that amateur radio operators may now be viewed as partners and not adversaries.

As with the Desecheo operation in 2009, and in order to be transparent and fair, the USFWS has requested proposals for the amateur radio operation from those individuals and groups that have already applied for a Special Use Permit in the past. The KP1-5 Project will be submitting a proposal and hoping to be selected as they were for the very successful Desecheo (K5D) operation.

We wish to thank the USFWS for their decision to allow this operation. Navassa Island is ranked #2 most-needed DXCC entity by The DX Magazine and #1 by ClubLog.

Please visit our website for up to date information:

<http://kp1-5.com/>

— 73, The KP1-5 Project
 Bob Allphin K4UEE, President
 Glenn Johnson WØGJ, Vice-President
 Mike Thomas NA5U, Secretary
 Jim Bass K5KQI, Treasurer



Maps and photo below courtesy of Wikipedia



"Aerial photo showing the steep rocky coast that rings the island"

DX News Briefs



Zorro JH1AJT will be in **E3** Eritrea along with other government and sports officials from Japan 15 – 22 September. He will try to be QRV as or if time permits. Current indications are that his available time to operate is becoming more and more limited, due to other obligations. — DX World

ZS1BCE/ZS8Z is expected to be QRV as **ZD9A** from AF-030 Gough Island sometime after he takes over the duties of ZD9M. He will be QRV on HF, his operating schedule present is unknown. QSL via ZS1LS – ZS1LS

ZS1S & G3TXF expect to be QRV as **ZD9ZS** (SSB) & **ZD9XF** (CW) from 10 September – 3 October. QSL ZD9ZS via ZS1S, ZD9XF via G3TXF – ZS1A

N6TQ will be QRV as **A25TQ**, 11 – 18 September, 160 – 6. QSL via N6TQ

An Italian team will activate **TY1AA** 11 – 26 September, 160 – 6. More info at <http://www.i2ysb.com> QSL via OQRS or I2YSB – I2YSB

OH3WS will be QRV as **OJØW** 13 – 20 September, 40 – 10, CW & SSB. QSL via OH3WS – DX World

PP6ZZ will be QRV from Fernando de Noronha as **PYØFF** 18 – 25 September, 80 – 10, CW SSB & Digi. QSL via W9VA – KB8NW

I21MHY will be QRV as **5H1MD** from AF-032 Zanzibar, 28 Sept – 10 Oct, HF, CW SSB & Digi. More info at <http://www.5h1md.tk/> QSL via I21MHY

Reunion Island will have activity from **FR/DJ2CW** 30 Sept – 8 October, and **FR/DJ7RJ** 30 Sept – 30 October. They will be QRV on HF, CW & SSB. QSL via their home calls. — DX World

SP9FIH and SP6AXW will be QRV as **J79L** and **J79X** 18 – 26 October, QRV on HF with special attention towards Asia. They plan to be QRV in the CQ WW SSB contest. More info at <http://j7.dxpedititions.org/>. QSL both calls via SP9FIH – SP9FIH

K7CO & VE4EAR will be QRV as **4W/K7CO** 19 – 31 October, 80 – 10, SSB CW & RTTY. Their license does not permit 160 or 6. More info at <http://www.nielsen.net/4w/> QSL via K7CO, LotW, or ClubLog. — K7CO

DL1NX will be QRV as **PJ4S** from 25 November to 2 December. He will be QRV in the CW WW CW. More Information at <http://pj4s.py2sex.com/> He will then be ARV as PJ2/DL1NX 2 – 9 December. More info at <http://pj2.py2sex.com/> QSL both via DL1NX – PY2SEX

VP2EIM will be activated by JN3NFQ 23 – 30 November, 80 – 10, CW SSB & RTTY. He expects to participate in the CQ WW DX CW contest. More information at <http://qsl.net/vp2eim/> QSL via JA1HGY – K1GI

JA7HMZ and JA7ZP will be QRV as **V63DX** & **V63ZP** 29 November – 4 December. Look for them as **V6A** during the CQ WW DX CW contest. QSL V6A & V63DX via JA7HMZ, V63ZP via JA7ZP – DX World

QSL Routes

4W/N1YC via W5UE — W5UE	JA6TBE/5 via JS3CTA — W3AWU
5R8SV via G3SWH — G3SWH	KC4AAA via K1IED — K1IED
A43HI via A47RS — W4FOA	KC4AAC via K1IED — K1IED
A43MI via A47RS — W4FOA	KC4USV via K1IED — K1IED
A65CA via RV6AJJ — JA1HGY	MJØEXV via F6EXV — JA1HGY
AHØCO via JAØJHQ — KB8NW	PYØFF via W9VA — PP6ZZ
C5II via JA1UII — JA1HGY	PZ5AA via JA1HGY — JH1ROJ
C6AAS via PY2WAS — KB8NW	T49C via K8SIX — K8SIX
C91J via ZS5J — KB8NW	TX4A via VE3LYC — KB8NW
CR3A via EA5GL — KB8NW	UP6P via UN7BPY — KB8NW
E6XG via JA1XGI — JA1XGI	VP9I via WW3S — N1SV
EF8U via EA8URE — WP3A	XT2CML via LZ1CLM — KB8NW
FT5ZM via N2OO — K3BEQ	XZ1J, XZ1Z via JH1AJT — LU2EMH
J6/GØVJG via G4DFI — JA1HGY	YF1AR/6 via N2OO — W3AWU

Thanks to the NJDXA DX News & DX Chat Reflectors, the DX-QSL Reflector, 425 DX News, OPDX News, DX World.Net, ICPO Bulletin, & ARRL DX Bulletin for our DX News information. Thanks also to Bill Moore NC1L / 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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Antenna Zoning or PRB-1 Issues?

Contact: **Michael S. Lazaroff K3AIR, Esquire**

Murrin, Taylor, Flach, Gallagher & May

110 East Diamond Street, Butler PA 16001

Phone: 724-282-3141 mlazaroff@murrinlaw.com

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 www.dashtoons.com!

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



When the ARRL Board of Directors gathers for its Annual Meeting in January 2015, there will be some new faces around the table. ARRL members in the Atlantic Division will elect a new Director and Vice Director, while members in the Great Lakes Division will choose a Vice Director. Two sitting directors have opted not to run for election: Cliff Ahrens KØCA, who was appointed in 2010 to succeed Director, now Honorary Vice President, Bruce Frahm KØBJ, in the Midwest Division, and Bill Edgar N3LLR, who has headed the Atlantic Division since 2006.

Succeeding Ahrens as Midwest Division Director next January 1 will be current Vice Director Rod Blocksme KØDAS, the sole candidate for the position. He has served as Vice Director since 2010, when he was appointed to succeed Ahrens. No candidates stepped forward to run for the Vice Director's slot that Blocksme is vacating, however, so ARRL President Kay Craigie N3KN, will appoint someone to the post, once it is officially declared open.

Two candidates are hoping to succeed Edgar in the Atlantic Division. They are current Vice Director Tom Abernethy W3TOM, and Phil Theis K3TUF, who ran for the office in 2011.

There is a three-way race for the Vice Director's position. Running are Scott Bauer W2LC, who served previously as Western New York Section Manager; Bob Famiglio K3RF, the current Eastern Pennsylvania Section Manager, and John Mueller K2BT, the current Western New York SM.

In the only other contest, members in the Great Lakes Division will choose between incumbent Vice Director Tom Delaney W8WTD, and Steve Putman N8ZR, to fill the Vice Director's chair. Delaney was appointed as Vice Director earlier this year after the former Vice Director, Dale Williams WA8EFK, became Director when Jim Weaver, K8JE stepped down from the Board. Williams is the only candidate for Great Lakes Division Director and has been declared elected.

Ballots in contested races will be counted and successful candidates announced on November 21. Those elected take office for 3-year terms starting at noon Eastern Time on January 1, 2015.

FCC FCC News

Courtesy of the American Radio Relay League

Newington, CT, September 8th, 2014 — The FCC Enforcement Bureau has released *Warning Notice* letters it sent in July to two radio amateur, advising them that it monitored transmissions in which they failed to identify properly. The Bureau [posted](#) the correspondence earlier this month on its Amateur Radio Service Enforcement Actions web page. The two notices from FCC Enforcement Bureau Special Counsel Laura L. Smith, both dated July 21, contain essentially the same language.

In a [Warning Notice](#) to Gary E. Davis, W1IT, of Inman, South Carolina, Smith told Davis that he was monitored on July 15 and 16 at the FCC's High Frequency Direction Finding Center (HFDFC) in Maryland, failing to properly identify while operating on 7.185 MHz. "[Y]ou were heard by a Commission employee operating your Amateur Radio station for 20 minutes without identifying in a timely manner," Smith wrote. "The Commission employee used direction-finding equipment and confirmed the transmissions were coming from your location."

Smith pointed out that Section 97.119(a) of the Amateur Service Rules requires each amateur station to "transmit its assigned call sign on its transmitting channel at the end of each communication, and at least every 10 minutes during a communication."

In a nearly identically worded [Warning Notice](#) to John J. Krajewski, KB3MZQ, of Newark, Delaware, Smith said the HFDFC also had monitored transmissions by him on July 15 and 16, on 7.1 85 MHz, in which he failed to identify properly.

Smith said the FCC had "recorded the offending transmissions" in both instances and offered to make copies available to Davis and Krajewski. She further advised Davis and Krajewski that recurring "operation of this type" after receipt of the warning letters, could subject them to "severe penalties, including license revocation, monetary forfeiture (fines), or a modification proceeding to restrict the frequencies upon which you may operate."

In 2006, in response to a *Petition for Rule Making*, the FCC declined to modify its Amateur Service station identification rules. The petition received some 100 comments. In dismissing the petition the following year, the FCC concluded that the changes requested were "neither necessary nor supported by the Amateur Radio community," and that the failure-to-identify problem "would be better addressed by enforcement of the present rule, rather than a rule change."

Right on the heels of a whopping \$14,000 [proposed forfeiture](#) for a Florida CBER for failing to allow a station inspection, the FCC Enforcement Bureau is recommending a \$22,000 fine for a New York CBER. The FCC issued a *Notice of Apparent Liability (NAL)* in the case of James Engle of Lewiston, New York, on August 28, alleging that he interfered with the communications of other CBERs, operated with an external linear amplifier, operated without authorization, and disregarded earlier FCC warnings.

"Mr Engle was warned repeatedly in writing by the Enforcement Bureau that his actions violated the law, and his apparent disregard for the Commission's authority warrants an increased penalty," the FCC said in the *NAL*.

The FCC said that last October 23, agents from the Commission's Philadelphia office, responding to a complaint from a CB operator on 27.325 MHz, CB channel 32, tracked the interfering transmissions to Engle's station and "heard him repeatedly interrupt ongoing transmissions of another CB operator." The following day, the agents inspected Engle's CB station and discovered two linear RF amplifiers. The FCC said Engle "admitted that he used one of the power amplifiers" the previous night.

The FCC pointed out that while its Part 95 rules do not require individual CB operators to obtain licenses, CBERs who operate "in a manner that is inconsistent with the CB rules" are required to have an FCC authorization. "The Commission will presume an individual has used a linear or other external RF power amplifier, if the amplifier is located on the individual's premises," the *NAL* said, "and if there is other evidence showing that a CB station was operated with more power than allowed by the Rules." FCC rules also prohibit using an external RF amplifier with a FCC-certificated CB transmitter.

Transmitting without FCC authorization merits a base forfeiture of \$10,000, while the base forfeiture for interfering with other communications is \$7,000.

"The fact that Mr. Engle operated with a linear amplifier to cause intentional interference to other CB operators despite being warned twice in writing demonstrates a deliberate disregard for the Commission's requirements and authority," the FCC, in making an "upward adjustment" of \$5,000 in the proposed forfeiture..

Engle has 30 days to pay the fine or file in writing seeking reduction or cancellation of the proposed fine.

Has Roadway found the tower yet?

WACOM HAMFEST 2014

Washington County Fairgrounds

2151 North Main Street, Washington PA

Sunday, November 2nd

8:00 AM to 3:00 PM

Setup at 6:30 AM

Talk-In on 146.790 (No PL)



First Prize:
Second Prize:
Third Prize:

Ameritron 811-H HF Amplifier
Flat Screen Hi-Definition TV
Yaesu FT-8800 Dual Band Mobile

VE Testing at 10:00 AM

Black Box:

What is it? It's a Mystery!

— Only 50 Tickets Sold! —

iPad Drawing:

— Only 2000 Tickets Sold! —

Main Prize Drawing at 1 PM

Winner Need Not Be Present To Win

Check www.wacomarc.org for Updates

Vendors contact:

Bud Plants N3TIR bud@n3tir.com 724-350-6745

WACOM, c/o Norma Plants N3YJJ, 236 Chambers Ridge Rd, West Alexandria PA 15376

Ham Radio Outlet announced a new retail Super Store in Plano, TX. This new store will include a multi-thousand foot retail floor plan, which will stock and have on display a vast selection of amateur radio products and accessories. Included within the facility will be a large demonstration area, which will have many of the current amateur radio products connected to antennas for use and display.

"It's an exciting time for us at HRO," indicated President, Robert Ferrero. "We are extremely proud to have the opportunity to move into Texas and provide a place for Hams to be able to come in and shop. So much is mail order today, however that does not provide the hands on experience. Our new store in Plano will be a new retail model, vast in size, with significant on-hand inventory. If our customer wants an amateur product, I expect to have it in Plano in 2015."

Ham Radio Outlet expects the opening of its new facility at 701 E. Plano Parkway, Suite 406, Plano, Texas 75074 in the first quarter of 2015.

HRO, Inc. (dba. Ham Radio Outlet) is a family owned business with twelve (12) stores located throughout the United States.

It appears that the reflectors have been active recently with the news of my resignation (on August 14th) from TEN-TEC.

I have taken a position with Syncro Manufacturing a contract manufacturer and will be their Regional Director, Business Development. This is the industry I was in before I came to TEN-TEC 11 years ago.

With the acquisition of TEN-TEC by RF Concepts a lot of positive things have happened here in Sevierville, as many of you know we had a fantastic response to our latest sale, and we are back at Hamfests with Stan and John Henry at (the recent) Huntsville Hamfest.

Engineering is busy with new ideas. Manufacturing is working very hard acquiring additional material to fill the backlog of radios. We have hired two new people in our production department and are looking for more. The future for RF Concepts looks very bright; the company is and will be a force to be reckoned with.

My decision to leave was entirely my own and a very difficult one to make. TEN-TEC and Alpha are two companies that are made up of lots of great people and one person does not make the company. The two companies are strong and are poised to get stronger. I wish them all the best and will continue to use my Eagle mobile on the nets as I travel the eastern States. I encourage all of you to continue to support both companies as I will and I am sure there will be lots of great products in the future for all of us to enjoy.

— 73, Jim Wharton NO4A





WIRELESS ASSOCIATION OF SOUTH HILLS, INC.

Membership Application/Renewal for 2014



I would like to join WASH!. I am interested in the following type of membership: ☐ **New Membership** ☐ **Membership Renewal**

(check quarter _____) →
(check one) ↓

<input type="checkbox"/> 1st Qtr Jan-Mar	<input type="checkbox"/> 2nd Qtr Apr-Jun	<input type="checkbox"/> 3rd Qtr Jul-Sept	<input type="checkbox"/> 4th Qtr Oct-Dec
<input type="checkbox"/> (F1) Full Membership: \$20.00	\$15.00	\$10.00	\$5.00
<input type="checkbox"/> (F2) Full Membership < 18 or > 65 yrs of age: \$10.00	\$7.50	\$5.00	\$2.50
<input type="checkbox"/> (A1) Associate Membership: \$10.00	\$7.50	\$5.00	\$2.50

☐ (FM1) Family Membership (\$3.00 x No. of household family members): \$ _____

Name(s): _____

Name: _____

Address: _____

City, State: _____

Home Phone: _____

Email Address: _____

New Members Only:

☐ 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

[If you have an Email address, you Will be added to both lists UNLESS you choose to Opt-Out]

Signature: _____

Call Sign: _____

License Class: _____

Expires On: _____

Work Phone: _____

Birthday: _____

ARRL Member? ☐ Yes ☐ No Family ARRL Member? ☐ Yes ☐ No

Date: _____

Amount Enclosed: \$ _____

N3RDV has requested that 2014 membership requests and renewals include an application so that his information is up to date

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.
Please return completed membership form along with check/money order to the club treasurer or mail to:

WIRELESS ASSOCIATION OF SOUTH HILLS, INC.
c/o Mark Stabryla N3RDV, VP/Treasurer
1120 McKnight Drive
Bethel Park, PA 15102-2456



Join the American Radio Relay League or Renew Your Membership through the WIRELESS ASSOCIATION OF SOUTH HILLS, INC.

Members of the [WIRELESS ASSOCIATION OF SOUTH HILLS](#) can start a new membership or renew an existing membership in the American Radio Relay League, the National Organization of Radio Amateurs, through the club.
Benefits for you: Joining and participating in everything the League has to offer, including a QST subscription.
Benefits for the club: A few more shekels for our coffers.

Just fill out the form below, include a check or money order made out to WASH/ARRL, and return all to the club treasurer or mail to:

WIRELESS ASSOCIATION OF SOUTH HILLS, INC.
c/o Mark Stabryla N3RDV, VP/Treasurer
1120 McKnight Drive
Bethel Park, PA 15102-2456

Name: _____

Address: _____

City, State, ZIP: _____

Please Check the Appropriate One-Year Rate:

- ☐ \$39 in US
☐ Age 21 or younger, \$20 in US (only if you are the oldest licensed amateur in your household)
☐ Canada \$49
☐ Elsewhere \$62
☐ Other (including Blind, Life, QST by First Class Postage — please contact ARRL for rate)

Dues subject to change without notice

Call Sign: _____

Date of Birth: _____

Total Enclosed: \$ _____

☐ Additional Family Members at the same address (\$8 per family member)

Name & Call Sign: _____

Name & Call Sign: _____

Name & Call Sign: _____



N3SH September 2014 Picnic

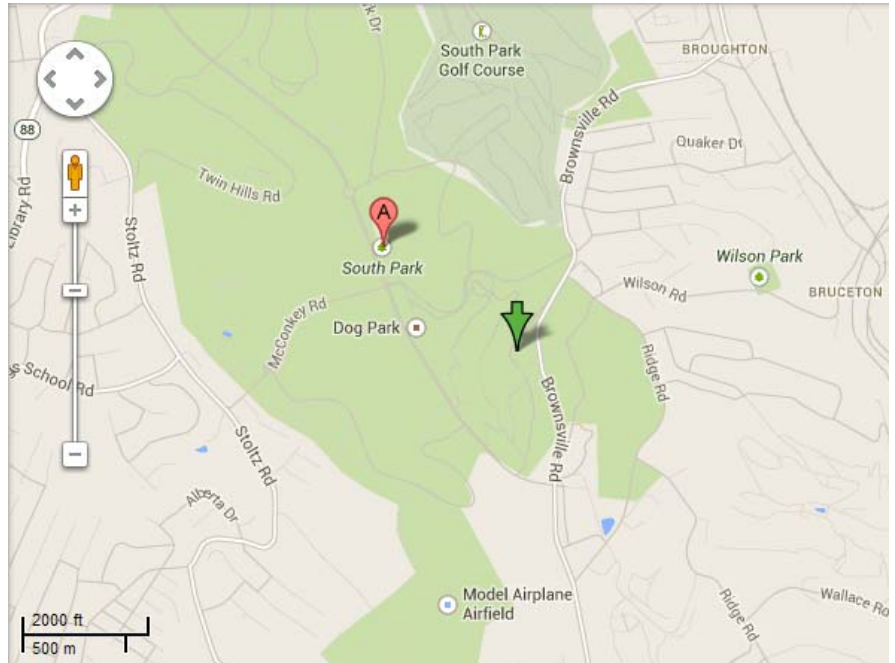
Sunday, September 14th, 2014



Starting at 1:00 PM Until ????

Where: Outlook Shelter/Grove, South Park

The large Outlook Shelter is located off Brownsville Road (see map to the right).



Planned activities include our annual Fox Hunt, and more surprises!

Please let Carol KB3GMN know if you are planning on coming, and how many family members will be with you.

The WASHRag

Wireless Association of South Hills, Inc.

Ron Notarius W3WN, Editor

3395 Rosewood Drive

Castle Shannon, PA 15234-2546



N3SH / WA3SH

NP2SH/B

www.n3sh.org

www.washarc.org

