



# 2009 Pa QSO Party

Hard to believe that August has already come and gone, and that it's September already. But it has, it is, and we're now a mere six weeks away (as this is being written) from the 2009 Running of the Pennsylvania QSO Party.

Things have started to heat up on the PaQP reflector, as many operators are announcing their preliminary operating plans.

Mike N3LI, Contest Chairman, has announced that the "KQX" Group will be running N3KAE for this year's bonus station (see announcement on Page 12). Mike has also indicated that the bonus stations for 2010 and 2011 have been lined up as well, subject to change.

So, what are your plans for this year's contest?

**WASH** hasn't made a hard core full blown effort as a group since we sponsored the Special Event / Bonus station, setting a high standard that few have yet achieved. But although we've been a little more laid back the last few years, that doesn't mean that the plans aren't being put in place.

Here's what we've heard so far... no word yet on who will be activating the club calls in this year's endeavor...

- Randy N3ZK has announced that his team will once again be representing Venango County, and will once again be looking for a Clean Sweep.
- Bill W3WH & Larry K3VX will be activating Armstrong County.
- Ed N3ZNI plans to go mobile again.
- Ron W3WN plans to run a Multi-Operator Single-Transmitter station again this year from Allegheny County, and already has a few operators committed to help.

Interested? Or do you want to do something else? Let us know, and we'll help get the word out.

It's a fun time for all operators. Don't miss out!

More information in next month's newsletter...

## Next Meeting: September 10<sup>th</sup>, 2009

The next monthly meeting of the **WIRELESS ASSOCIATION OF SOUTH HILLS, INC.** will be Thursday, September 10<sup>th</sup>, at the **Peters Township Library**, 616 East McMurray Road, McMurray, starting at 7:00 PM.

Larry K3VX will be continuing his presentation on fox hunting antennas. Topics for the evening include PA QSO Planning, and more .

Talk-in on the 146.955(-) N3SH/R and 443.650(+) N3FB/R Repeaters (131.8 PL). All members, guests and interested parties invited!

### President's Letter

Here is the parts list and recent prices the 2 Meter 3 element tape measure Yagi:

Home Depot items:

- One - 10' long 1/2" PVC Sched 40 pipe \$1.29. Makes 5 or 6 Yagis so please, share the excess with others
- Two per Yagi - 1/2" PVC Cross @ \$1.07 each,
- One per Yagi - 1/2" PVC Tee @ \$0.52. Use two of these if you want to put a mast in the middle of the antenna
- One bag of 10 1.25" SS hose clamps @ \$7.80. Use six for each Yagi and share the rest ( 3 bags make 5 antennas). You can buy 6 loose clamps at a higher price each.

Harbor Freight item:

- One - 30' 1" wide steel tape measure @\$2.99 (on sale until 9/21). Makes 3 Yagis. This tape is a good deal even if you're not building antennas.

Your Junk box items:

- Short length of RG58 with a connector to fit your HT.
- 5" of stiff wire
- Solder
- Sandpaper or emery or Dremel tool or file to remove paint from ends of driven element.
- Electrical tape to cover the sharp ends of the cut up steel tape.

See you at the meeting. I'll have enough supplies for about 3 yagis.

— 73, Larry Comden K3VX, President,  
Wireless Association of South Hills N3SH / WA3SH / NP2SH

### Inside this issue:

WASH Club News	3
Meeting Minutes	4
WASH Club Agenda	5
The Eagle Has Landed	6
ELF vs KRKO's Towers	7
DX News Briefs	8
WASH Classified Ads	9
FCC News Briefs	9

# "Seen" at the Labor Day Run/Walk



Details on the walk on Page 3



Photos courtesy of and  
 © Copyright 2009 Peg Smith &  
 Kevin Smith N3HKQ



## WASH 2009 OFFICERS

### EXECUTIVE COMMITTEE:

President	Larry Comden K3VX
VP / Secretary	Bob Timmins AB3ED
VP / Treasurer	Mark Stabryla N3RDV

### AND WE COULDN'T DO IT WITHOUT:

N3SH / WA3SH Trustee	Steve Lane W3SRL
NP2SH Trustee	Paul Jordan NP2JF
N3SH / WA3SH / NP2SH QSL Manager	Ed Oelschlager N3ZNI
NP2SH 2009 QSL Manager	Carl Schroeder K9CS
VE Team Liaison	Jacqué Gosselin N3ZEL
Webmaster	Randy George N3ZK
Quartermaster	Harold Rosenberger K3HCR
WASH FM Net Manager	Kevin Smith N3HKQ
WASHFest 2010 Committee	Kevin Smith N3HKQ, Chairman Carol Danko KB3GMN

Activities & Operating Events  
 Ways & Means  
 Field Day 2009 Coordinators

Bob Timmins AB3ED  
 Carol Danko KB3GMN  
 Kevin Smith N3HKQ  
 Randy George N3ZK

### CLUB-AFFILIATED REPEATERS, BEACONS, & DIGIPEATERS:

Mt. Lebanon	N3SH / R	146.955 MHz (-)	PL 131.8
Mt. Lebanon	W3SRL / 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.

This issue is © Copyright 2009 by the **WIRELESS ASSOCIATION OF SOUTH HILLS, INC.**

Editor & Publisher: Ron Notarius W3WN

Permission is granted to other Amateur Radio publications to reprint articles in this issue, provided the original author and "The WASHRag™" are given credit. Comments, articles, and requests for copies of or information about "The WASHRag™" should be mailed to the editor:

Ron Notarius W3WN  
 3395 Rosewood Drive  
 Castle Shannon, PA 15234-2546

e-mail: [newsletter at n3sh dot org](mailto:newsletter@n3sh.org) or [w3wn at arri dot net](mailto:w3wn@arri.net)

"The WASHRag", "The Mariner", SHARCfest, South Hills Hamfest, WASHfest, WASHfest 2009, N3SH Net, WA3SH Net and WASHNet are™ trademarks of the **WIRELESS ASSOCIATION OF SOUTH HILLS, INC.**

The **WIRELESS ASSOCIATION OF SOUTH HILLS, INC.** was founded on August 23<sup>rd</sup>, 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 of both the N3RNX/R Repeater System 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. Special thanks also to Glen Roberts KE7FD of The Internet Guild for his assistance in providing space on-line for our website for back issues of "The WASHRag™" which can be found at [www.washrag.info](http://www.washrag.info)

# WASH Amateur Radio Club News Briefs

## Next WASH VE Test October 15<sup>th</sup>

The Next WASH VE exam sessions will be **Thursday, October 15<sup>th</sup>, 2009, 6:30 PM**, at the **Peters Township Library**, 616 East McMurray Road, McMurray, PA. Talk-in on the 146.955 MHz and 443.650 MHz repeaters. All examiners are ARRL VEC affiliated.

Walk-ins are always welcome, but if you plan on attending the test session, please contact VE Team Liason Jacqué Gosselin N3ZEL:

Telephone (724) 746-9235 or E-Mail: [n3zel@comcast.net](mailto:n3zel@comcast.net)

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: Thursday, January 21<sup>st</sup>, 2010  
 Thursday, April 15<sup>th</sup>, 2010  
 Thursday, July 17<sup>th</sup>, 2010  
 Thursday, October 21<sup>st</sup>, 2010  
 (tentative)

The FCC has announced that the fee for a Vanity Amateur Radio call sign will increase by \$1.10 to \$13.40 effective September 10<sup>th</sup>. This will affect both new and renewal applications for Vanity call signs.

Members of WASH and WACOM provided communications support for this year's **27<sup>th</sup> Annual Labor Day 5K Classic Run/Walk** in Washington PA on September 7<sup>th</sup>. In spite of rain, this year's was still quite busy with over 200 participants.

Pictured (on Page 2) are Kevin N3HKQ, Dave N3IDH and Paul NØVLR. Not pictured is Steve, KB3SVX who was busy schmoozing with Washington County Commissioner Larry Magi, while eating. [Some people have their priorities straighter than others. ;-)] Also pictured is the winner of the run part of the race and the finish line. Tom Carter, organizer of the Run/Walk thanked WACOM and WASH for assisting again and will look for us to help again next year.

Dave DeMotte N3IDH reminds everyone that Saturday, September 19<sup>th</sup> we are providing communications support for the Immaculate Conception (Washington, PA) Mission Race. The race begins at 8:00 AM and we will need to be in place by 7:30 AM. See everyone there.

- 73, Kevin Smith N3HKQ

August 29<sup>th</sup> heralded all the signs that the summer was coming to a close... farmers markets loaded with fresh corn and vegetables, sales for school supplies in full swings, the Pirates on the verge of clinching a record setting losing season, and the more-or-less monthly return of **the WASH Breakfast Gang** to gathered once again at **The Beach House** in Finleyville. This month, the hungry ones included N3DFK, W3WH, W3VFA, W3RJM, K3VX, W9UK, W3SRL, K3SGT, W3WN and fashionably late N3BPB. The morning's table conversations covered repeater news, the G-20, Montserrat, networking problems, relocations, emergency planning and management, municipal & school taxes, flying into GPIA, the Parkersburg repeater, "agitating" on .09, the "need to know" basis, visiting ARRL & the W1AW antenna farm, the North Hills hamfest, Myrtle Beach & the dying air conditioning compressor, and much, much more.

So, what did you miss out on? Find out at the next Club Breakfast will be Saturday, September 26<sup>th</sup>, at **The Beach House**, Library Road, Finleyville, just south of Trax Farm (assuming it survives the G-20 protesters). Come down & share a cup of coffee & a good time with us!

**October Meeting Moved:** As noted in the club minutes, our October meeting date (October 8<sup>th</sup>) coincides with the Peter Township school open house. As we've learned the hard way, parking at the library will be at a premium because of this. So the club meeting will NOT be held at the Peters Township library, but will be a dinner meeting down the road at **Al's Café**, 440 McMurray Road, Bethel Park at the with Clifton Road. A map for those who need it and more information will be in the October newsletter.

**Repeater Update:** Steve W3SRL has indicated that the move of the 146.955 and 442.550 repeaters to their new location has taken longer than he had hoped. Plans are still progressing, and it shouldn't be too much longer. In the meantime, 955 may operate occasionally from Steve's home on a temporary antenna at low power, but it's coverage, well, is the best that can be hoped for under the circumstances. We're hoping by next month that all will be done, and the machines will be back on the air. In the meantime, remember that the N3FB repeater on 443.650 is still with us!

**Congratulations** to former club member Ted Pinsker WA3BOJ (ex KA3COR, WN3BOJ, W3TSP) on his recent upgrade to Extra Class.

**News! We need club news!** This column is for YOUR items of interest as well as general club information. If you don't let Ye Editor know (and yes, Ye Editor knows he doesn't spend enough time on the air as it is, please don't remind him!), instead of hearing about Mark WB3CAI's great job upload amateur radio related PVGP videos to you tube, or K3SGT's trip to Russia and Eastern Europe as part of his anniversary present to his wife, as you did last month... you are going to see pictures & read about how Ye Editor's daughter, Little Miss Field Day, appeared on Baseball Quiz at PNC Park one Sunday & won a player autographed memento! (Yes, we are running VERY thin on material!) *You have once again been warned!*

## WASHNet

### 2009 NCS Schedule

09/06 — Dave N3IDH	11/08 — Bob AB3ED
09/13 — Bob AB3ED	11/15 — Frank N3FB
09/20 — Frank N3FB	11/22 — Dave N3DFK
09/27 — Dave N3DFK	11/29 — Kevin N3HKQ
10/04 — Kevin N3HKQ	12/06 — Special Guest!
10/11 — Bill W3WH	12/13 — Harold K3HCR
10/18 — Harold K3HCR	12/20 — Carol KB3GMN or Richie N3SBF
10/25 — Carol KB3GMN or Richie N3SBF	12/27 — Dave N3IDH
11/01 — Dave N3IDH	01/03 — Bob AB3ED
	01/10 — Kevin N3HKQ

Join WASH or Renew your Membership for 2009 Today! Membership Application on Page 11!

## Minutes, August 9<sup>th</sup> Meeting

Kevin Smith N3HKQ, Acting Secretary, **WASH**

Larry K3VX, called the meeting to order at 19:00 hours. There were 17 members and guests in attendance.

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

A motion was made to accept the minutes of the June 2009 meeting as published in the July & August 2009 newsletters. The motion was voted on and passed.

### Committee reports:

Treasurer (N3RDV): Mark reported the club's account balance.

Secretary (AB3ED): No report.

VE Report (N3ZEL): The result of the most recent VE testing resulted in two new Techs. The next VE session will be in October and as always VE's are always needed and welcome.

Repeaters (N3RNK, W3SRL & N3FB: The N3SH 2-meter and W3SRL 70-cm repeater are temporarily off the air as they have been taken from the former site in Mount Lebanon to Steve Lane's home. They will remain there until final arrangements are complete with the new host. The new location for the repeaters will be revealed once this occurs. Steve is confident that the repeaters will be relocated sooner than later and that the new site is actually better than the old one in terms of location and elevation.

FM Net Report (N3HKQ): The NCS schedule for the last half of 2009 is published. It is my goal to try to have a surprise simulated emergency sometime.

Field Day feedback: Larry K3VX asked for feedback about the South Park location for Field Day. In general everyone had positive opinion about the location although a few members still preferred the Mingo Park location in conjunction with the Astronomy group. Kevin Smith said he would chair the event again next year regardless of where it is held.

Ways and Means (KB3GMN): 50/50, Show me the money!

Public Service (N3RDV): Dave DeMotte N3IDH reminded everyone of the 5K Run/Walk held in Washington on Labor Day. The race begins around 9:00 AM so everyone who wants to provide radio communication assistance should be in place by 8:00 AM. The 146.79 repeater will be used. Also on Saturday, September 19th there will be another 5K run/walk sponsored by the Youth Group of Immaculate Conception Church in Washington and help is requested there as well. Finally on September 27 the Pittsburgh Great Race is scheduled. It is not known what affect the upcoming G20 Summit will have on the race. Stay tuned.

Contests (K3VX): None mentioned.

Newsletter (W3WN): Another fine effort.

Quartermaster (K3HCR): The tower trailer has been relocated to Carol & Richie's home for storage. A new tarp has been purchased to provide protection from the elements during storage. Thanks to Carol and Richie for offering to provide a home for our trailer.

President's Report (K3VX): Larry has asked about anyone's plans for the 2009 PA QSO Party held this year on October 10 & 11. Preliminary plans include K3VX and W3WH operating from Armstrong County, N3ZK and his usual crowd will again operate from Venango County, W3WN is organizing a multi-op from Allegheny County and N3ZNI is again going mobile.

Old Business: Nothing mentioned.

New Business:

\* Due to the scheduled October meeting night also being the same as Peter's Township School District's open house, and the usual lack of parking that occurs, [a motion was placed to move the October meeting to Al's Café](#), as a dinner meeting. Carol Danko will call to make the arrangements. The motion was seconded and approved by voice vote.

Good of the Order - Larry K3VX asked everyone to make suggestions as to what needs to be done to finish the tower trailer. Please submit ideas to him in time to discuss at the next meeting and put to a vote.

Motion to Adjourn: Made by KB3GMN, and seconded by N3ZNI. The motion was voted on and passed. The meeting was adjourned at 19:30 EST.

Program: Homemade fox hunting antenna projects by Larry K3VX.

## WASH Spotlight: K3VX & TMA



Larry K3VX demonstrating the 3 element 2 Meter tape-measure Yagi antenna at the August meeting, to Glen KE7FD and others.

Photo courtesy of & ©Copyright 2009 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 **The Beach House**, on Route 88 in Fiinleyville, just south of Trax Farms and adjacent to Mineral Beach. 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	KB3IRQ	N3RDV	WB4GCS	WASH FL	WASH VI
AB3EN	KB3IVW	N3SFB	WO3Z	KA3UPY/MM	NP2JF
AE3DL	KB3IVX	N3TIR		W4ZE	<b>Silent</b>
AC4KU	KB3ORR	N3ZEL	Mary Jean	WASH GA	<b>Keys</b>
K3AIR	KB3SRB	N3ZNI	Senk	K3OL	K3EED
K3AVQ	KB3SVX	N9OKM	Jane	KB3IJX	(George)
K3GW	KC4WTT	NU3S	Wagner	WASH NC	KA3NMG
K3HCR	KE7FD	W3LE		N3RNK	KB3ENX
K3LGM	N1NCZ	W3RJM		WASH NE	KB3FNM
K3SGT	N2QIV	W3RWS		NØPEU	KB3FQT
K3VX	N3AWF	W3SRL		WASH OH	N3FZ
KA3TWI	N3BPB	W3VFA		N8DPW	N3KEH
KB3DCO	N3CZZ	W3WH		WASH TN	N3OBD
KB3GMN	N3DFK	W3WN		KE3XB	N3SKR
KB3GMP	N3FB	WA3JPP		N3YPB	N3SRC
KB3GMU	N3HKQ	WA3NB		WASH TX	N3XFE
KB3HFP	N3PN	WA3RVD		K3LGM	W3ZLK
KB3IAC	N3QMV	WB3CAI		Jane Wagner	

Through August 25<sup>th</sup>, 2009

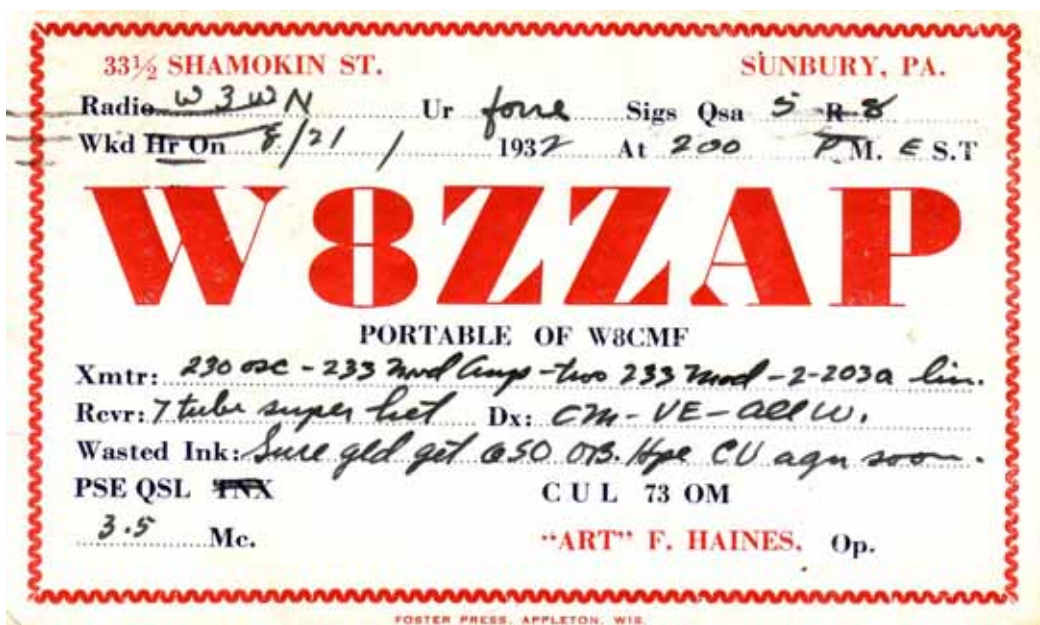
List compiled by

Mark Stabryla N3RDV, Vice President/Treasurer

# 2009 WASH Upcoming Events Calendar

Meeting Topics & Other Significant Club Events — Subject to Change

September 10 <sup>th</sup>	WASH Meeting	To Be Announced
September 12 <sup>th</sup> -13 <sup>th</sup>	ARRL September VHF Contest	<a href="http://www.arrl.org">http://www.arrl.org</a>
September 13 <sup>th</sup>	Butler County ARA Hamfest	<a href="http://www.w3udx.org">http://www.w3udx.org</a>
October 3 <sup>rd</sup> – 4 <sup>th</sup>	California QSO Party	
October 8 <sup>th</sup>	WASH Meeting	Pa QSO Party Preparations
October 10 <sup>th</sup> -11 <sup>th</sup>	Pennsylvania QSO Party	<a href="http://www.nittany-arc.net/paqso.html">http://www.nittany-arc.net/paqso.html</a>
October 15 <sup>th</sup>	WASH VEC Exam	Pre-register via <a href="mailto:n3zel@comcast.net">n3zel@comcast.net</a>
October 17 <sup>th</sup> -18 <sup>th</sup>	Scouting's Jamboree on the Air	
October 17 <sup>th</sup> -18 <sup>th</sup>	New York QSO Party	
October 24 <sup>th</sup> -25 <sup>th</sup>	CQ Worldwide DX Contest SSB	<a href="http://www.cq-amateur-radio.com">http://www.cq-amateur-radio.com</a>
November 7 <sup>th</sup> – 8 <sup>th</sup>	ARRL Sweepstakes CW	<a href="http://www.arrl.org">http://www.arrl.org</a>
November 12 <sup>th</sup>	WASH Meeting	To Be Announced
November 28 <sup>th</sup> -29 <sup>th</sup>	CQ Worldwide DX Contest CW	<a href="http://www.cq-amateur-radio.com">http://www.cq-amateur-radio.com</a>
December 4 <sup>th</sup> – 6 <sup>th</sup>	ARRL 160 Meter Contest	<a href="http://www.arrl.org">http://www.arrl.org</a>
December 10 <sup>th</sup>	WASH Meeting	To Be Announced
December 12 <sup>th</sup> – 13 <sup>th</sup>	ARRL 10 Meter Contest	<a href="http://www.arrl.org">http://www.arrl.org</a>
December 31 <sup>st</sup>	ARRL Straight Key Night	<a href="http://www.arrl.org">http://www.arrl.org</a>



A US 1 x 4 call? Believe it or not, yes, a few once did exist, as alternate "mobile" call signs for existing amateurs.

This card was recently purchased on eBay by QSL collector Steve Melachrinis W3HF. Steve was kind enough to scan this card for the newsletter.

# The Eagle Has Landed

Steve Katz WB2WIK/6 courtesy of [www.eham.net](http://www.eham.net)

Most hams who are active on HF are familiar with GAP Antennas, of Fellsmere, FL: <http://www.gapantenna.com/>

They have been selling HF vertical antennas for close to twenty years now and have four fairly popular models. I built and installed my first GAP antenna, a model Challenger DX-VI, in 1993 and it worked pretty well for a while, although it did deteriorate with age as I'll explain later. I've also installed a few of the other GAP models over the past decade or more, for other people.

In any case, the two popular "rooftop" GAP models are their Titan DX and Eagle DX. This story is specifically about the Eagle DX model installed at the home of Dr. Kate Hutton, KD6HTN. Kate's a new ham licensed this year, but a full-time scientist and has a scientist's attention to detail so it was fun to work with her and Allen Wolff, KC7O, who I've known for many years but hadn't seen in quite some time. The purpose of our get together was to try to de-bug and troubleshoot the Eagle DX antenna installation performed in early July. The antenna was assembled per the factory instructions and installed properly, but just didn't work, so I was called in to see if I could shed any new light on the problem.

**First visit:** First thing we did is check the antenna both at the bottom of 50' of RG-213/U coax and also right at the bottom of the antenna - one more time - using an MFJ-259B antenna analyzer. And, as had previously been confirmed, the antenna didn't really resonate in any of the ham bands, and its "best case" VSWR was poor in most cases, even where "dips" were found.

We removed the antenna from its mounting over Kate's roof and laid it down. We measured every single piece of tubing (numerous) to assure ourselves we didn't have any rogue components in the mix, and all measurements confirmed the factory supplied tubing dimensions (received additional dimensions from Chris). We double-checked all connections both visually and using a portable Ohmmeter.

[I must say that the GAP assembly instructions are not very good, and weren't very good 16 years ago when I built my first Challenger DX (in fact, they likely haven't changed). The antenna is fairly simple but the instructions make it seem very complex, and include too many words and too few pictorials, and not a single actual photograph of any of subassembly - which would make checking the field assembly so much easier. As someone who has spent years in technical writing, I'm astonished the assembly instructions aren't much better than they are, as they could be drastically improved by any technical writer in a couple of hours. (I like the "IKEA" instructions: They use no words but many clear pictorials, making them universally useful anywhere in the world.)]

In any case, Kate, Allen and I all poured through the instructions once again to confirm the antenna had been assembled 100% correctly, and it was. I remembered the other GAP antennas I had assembled years ago all had a capacitor assembly installed at the top of the upper radiator tubing section, and quizzed Allen about that. "Yes, it's there, inside somewhere." I figured we better fish it out and look at it, since it's the only variable we had not yet explored.

Once the antenna is assembled, the only way to access the capacitor is by taking the top sections of the antenna apart again, so we did that. The capacitor is actually in series with the uppermost antenna connection, so one wire from the capacitor, via an automotive-type "Fast-On" connector, attaches directly to the top of that element. The other connection to the capacitor comes from a length of embedded coaxial cable that feeds up through the tubing.

I removed the capacitor and inspected it visually. The cap is a potted assembly, but the potting is nearly clear so you can see the dipped mica capacitors inside quite clearly. They are a pair of 1200pF units in parallel, which obviously should yield 2400pF total capacitance. The caps looked okay, but we thought it would be a good idea to measure them.

Allen happened to have a handy portable battery-operated capacitance bridge at home, so he took a short ride home, potted GAP capacitor assembly in hand, to make the measurement. When he returned, I asked, "Did you find anything wrong?" and he answered, "I think so." I was hoping he would, as there was really nothing else left to check.

He had brought the portable instrument back to Kate's house with him. We clipped it to the capacitor terminals protruding from the potting compound. Clipped "gently," the unit measured 2200 pF, pretty close to what it seemed it should be. But if we pushed a little bit on one terminal, the reading dropped to 30pF. We repeated this test a dozen times, with the same results. There was an internal intermittent connection!

We inspected the wires in the "Fast On" terminals, and could see only one wire coming through each crimp connection (not two, as we figured we should see, since there are two capacitors in there, each having two leads). The leads are crimped and not soldered. There was an obvious air gap in the "intermittent" terminal, allowing that terminal to either make contact with the capacitor lead, or not, depending upon the pressure applied.

Eureka!

Here's a photo of the original GAP capacitor assembly, with terminals potted, crimped and unsoldered:

**Information exchange:** This started a series of e-mail exchanges with "Chris" at GAP. Kate began that with a description of what we had found, and notifying the company she was Fed Ex'ing the faulty part back to them with expectation of a good replacement unit. She did receive a new replacement and 2 additional caps with the leads twisted together and 2 additional connectors only about five days later, which was reasonable service.

In the interim (during the five days) we had a number of e-mail exchanges with the company. Allen and I strongly recommended the capacitor leads be soldered, since that's the only way to assure a real connection when crimping a solid wire into a connector which is actually intended for use with stranded wire. The connectors used are also actually intended for minimum 16AWG wire, and the little capacitor lead is about 20AWG, so it's undersized for the terminal. Chris replied they only crimp the leads, and never solder them, and they never have any problems with this. I continued to recommend solder, and he replied they wouldn't solder these terminals as the soldering heat could melt the connector insulation.

I did some research on the terminals used to find they are absolutely rated for soldering heat, with a 15 second dwell at 250°C (such as using a solder pot). When Kate received the replacement unit, Allen did solder the terminals to the wire, using heat applied to the sides of the terminals and flowing solder down inside them to reflow. He did a great job, and the insulation still looks brand new, no signs of melting or scorching. So the company's refusal to solder based on that theory doesn't have much merit.

**The second visit, and the fix:** Here's a photo looking "into" the new (replacement) potted capacitor assembly terminals, after Allen flow soldered them: Now, the leads are very well soldered to the terminals, with no damage to the terminal insulation.

We re-assembled the antenna with the new, soldered capacitor module and re-installed the Eagle DX the same way it was originally installed, and now found it "dipped" in each of the amateur bands, in some cases down to <1.5:1 VSWR, except for the 15m band, which experiences two distinct dips, one each above and below the ham band. Kate was primarily interested in 20m and 40m right now, since these are the "most open" bands at this point in the sunspot cycle, and the antenna loaded up well on both. (Note the best readings were achieved only



Continued  
on Page 10

# Eco-Terrorists Destroy KRKO Towers

SNOHOMISH, WA, September 4<sup>th</sup> – Federal agents have taken over an investigation into the destruction of two radio towers belonging to Everett radio station KRKO. The towers were toppled early this morning and a group that practices ecoterrorism is laying claim to the act.

The toppled towers looked like a squashed Erector Set sitting in the farmlands of unincorporated Snohomish. About 50 yards away, a cloth banner was on a fence surrounding the towers.

On it was a message, apparently spray painted. "Wassup? Sno Cty?" the sign read. "ELF." ELF is the acronym for the Earth Liberation Front. The sign also appeared to mention by name the Skotdal family, which owns the station.

KRKO General Manager Andy Skotdal was asked what he thought of the message. "Other than the fact they don't know how to spell?" he said.

Skotdal said he is offering a \$25,000 reward to try to catch the people who knocked down his towers.

Local opponents were surprised by the destruction of the towers, which have been in use since July 2008. Two more towers, under construction, did not appear to be damaged by the vandalism.

"It has been a long legal battle and I'm upset to see this kind of violence happen here," said Lee Bennett Jr., president of Citizens to Preserve the Upper Snohomish River Valley. "This is not the way to handle it."

Bennett said he also was surprised that heavy equipment alone could bring the towers down.

"I'm just amazed it came down," he said. "Whether they did cutting before, I don't know."

Some at the scene speculated that one tower was pulled over by an excavator, while the other was pushed down. By mid-morning, the excavator remained entangled in the wreckage of one of the towers, although investigators have yet to confirm that it was used in the vandalism.

"We have every indication to believe that it is in fact a legitimate ELF action," said Jason Crawford, a spokesman for the ELF press office in Washington, D.C.

The radio station's owner has dismissed environmental studies as junk science and been dismissive of opposition, the ELF spokesman said.

Ecoterrorists have a history of operating in Snohomish County. They are blamed for the multimillion-dollar fire that destroyed the Street of Dreams development near Echo Lake.

It doesn't matter if the people responsible for the vandalism were directly linked to ELF or not, said Gary Perlstein, a professor emeritus at Portland State University who has studied the domestic terrorism group.

"If it goes along with their philosophy, then they will claim responsibility," Perlstein said.

KRKO, a family-owned station, has been in a long battle with opponents of an addition to its existing towers east of Everett. Appeals and litigation over the towers have been going on for more than a decade.

On August 14<sup>th</sup>, King County Superior Court Judge Douglass North upheld a February land-use decision by the Snohomish County Council approving two 199-foot AM structures to be constructed next to three existing towers that occupy the site near Short School Road. A 349-foot antenna also occupies the site.

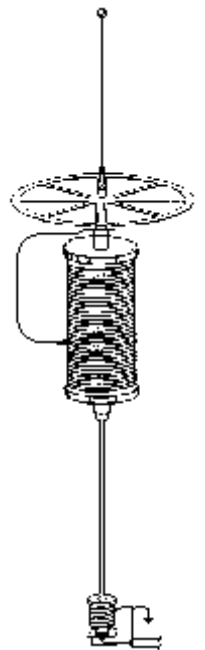
S-R Broadcasting, parent company of KRKO-AM 1380, wanted the new antennae so it can transmit a new, stronger signal at 1520 AM.

Opponents of the towers filed the court appeal in March, claiming the Snohomish County Council did not follow proper procedure when it decided in February to let S-R Broadcasting build the towers. Tower opponents cited a range of studies claiming that AM radio waves have negative effects on people and wildlife -- among them, increased rates of childhood leukemia and destruction of trumpeter swan habitat. People who live near the towers also had complained increasingly of radio signals coming over home phone and intercom lines since KRKO upped its broadcasting power in February.

Skotdal earlier said he hoped the new signal would be on the air by year's end. Today's vandalism likely will just accelerate the timetable, he said.

The station today transferred its radio transmission and remained on the air.

— Reporting by Debra Smith, Jackson Holtz and Andy Rathbun.  
 Courtesy of *The Daily Herald* <http://heraldnet.com/article/20090904/NEWS01/709049802>



Effective October 31<sup>st</sup>, 2009, GLA Systems will cease to manufacture the Texas BugCatcher Antenna. It has been a fun 30 years, but it is time to hang it up.

I would like to thank everyone who has made this experience possible.

I have made many friends (maybe an enemy or two) but overall it has been a great trip down a long road.

All orders received before October 31, 2009, will be filled.

Effective November 1, 2009, only orders for items that are in stock at the time will be accepted.

Effective December 31, 2009, the toll free line, 1-800-588-2841, will be discontinued.

73 and Happy Hamming to all

Good luck and best wishes.

— Henry Allen K5BUG & Tina Allen

## Silent Keys



Anne Sanns, mother of Frank Sanns Jr. N3XI, Scott Township, 82, August 31<sup>st</sup>

# Are Sunspots Disappearing?

Dr. Tony Phillips, NASA [science@nasa.gov](mailto:science@nasa.gov)

The sun is in the pits of the deepest solar minimum in nearly a century. Weeks and sometimes whole months go by without even a single tiny sunspot. The quiet has dragged out for more than two years, prompting some observers to wonder, are sunspots disappearing?

"Personally, I'm betting that sunspots are coming back," says researcher Matt Penn of the National Solar Observatory (NSO) in Tucson, Arizona. But, he allows, "there is some evidence that they won't."

Penn's colleague Bill Livingston of the NSO has been measuring the magnetic fields of sunspots for the past 17 years, and he has found a remarkable trend. Sunspot magnetism is on the decline:

Sunspot magnetic fields are dropping by about 50 gauss per year," says Penn. "If we extrapolate this trend into the future, sunspots could completely vanish around the year 2015."

This disappearing act is possible because sunspots are made of magnetism. The "firmament" of a sunspot is not matter but rather a strong magnetic field that appears dark because it blocks the upflow of heat from the sun's interior. If Earth lost its magnetic field, the solid planet would remain intact, but if a sunspot loses its magnetism, it ceases to exist.

"According to our measurements, sunspots seem to form only if the magnetic field is stronger than about 1500 gauss," says Livingston. "If the current trend continues, we'll hit that threshold in the near future, and solar magnetic fields would become too weak to form sunspots."

"This work has caused a sensation in the field of solar physics," comments NASA sunspot expert David Hathaway, who is not directly involved in the research. "It's controversial stuff."

The controversy is not about the data. "We know Livingston and Penn are excellent observers," says Hathaway. "The trend that they have discovered appears to be real." The part colleagues have trouble believing is the extrapolation. Hathaway notes that most of their data were taken after the maximum of Solar Cycle 23 (2000-2002) when sunspot activity naturally began to decline. "The drop in magnetic fields could be a normal aspect of the solar cycle and not a sign that sunspots are permanently vanishing."

Penn himself wonders about these points. "Our technique is relatively new and the data stretches back in time only 17 years. We could be observing a temporary downturn that will reverse itself."

The technique they're using was pioneered by Livingston at the McMath-Pierce solar telescope near Tucson. He looks at a spectral line emitted by iron atoms in the sun's atmosphere. Sunspot magnetic fields cause the line to split in two—an effect called "Zeeman splitting" after Dutch physicist Pieter Zeeman who discovered the phenomenon in the 19th century. The size of the split reveals the intensity of the magnetism.

Astronomers have been measuring sunspot magnetic fields in this general way for nearly a century, but Livingston added a twist. While most researchers measure the splitting of spectral lines in the visible part of the sun's spectrum, Livingston decided to try an infra-red spectral line. Infrared lines are much more sensitive to the Zeeman effect and provide more accurate answers. Also, he dedicated himself to measuring a large number of sunspots—more than 900 between 1998 and 2005 alone. The combination of accuracy and numbers revealed the downturn.

If sunspots do go away, it wouldn't be the first time. In the 17th century, the sun plunged into a 70-year period of spotlessness known as the Maunder Minimum that still baffles scientists. The sunspot drought began in 1645 and lasted until 1715; during that time, some of the best astronomers in history (e.g., Cassini) monitored the sun and failed to count more than a few dozen sunspots per year, compared to the usual thousands.

"Whether [the current downturn] is an omen of long-term sunspot decline, analogous to the Maunder Minimum, remains to be seen," Livingston and Penn caution in a recent issue of EOS. "Other indications of solar activity suggest that sunspots must return in earnest within the next year."

Whatever happens, notes Hathaway, "the sun is behaving in an interesting way and I believe we're about to learn something new."

More information at [http://science.nasa.gov/headlines/y2009/01apr\\_deepsolarminimum.htm](http://science.nasa.gov/headlines/y2009/01apr_deepsolarminimum.htm)

# DX News Briefs

There are conflicting reports that **Ukraine amateurs have lost access to 30 meters**, parts of 20 meters, and other bands. Ukrainian amateurs have responded that this is news to them and that the Ukraine ARL is discussing the matter with the government. —G4ILO, UT4UT, [www.qrz.com](http://www.qrz.com)



The upcoming DXpedition to Easter Island (Rapa Nui) set for 31 October - 15 November has received permission to shorten their call from XRØYA to **XRØY**, which was last used by the 1995 and 2000 DXpeditions to Easter. QSL route for North America is via the Radio Club de Chile. More information at the XRØY web site at <http://rapanui2009.org/> — SQ8X

**TX3A** will be active from Chesterfield Islands from 23 November to 6 December 2009. Please note that the actual dates of operation may change due to weather and other variables. TX3A is licensed for only 14 days; should they arrive earlier or leave later than the dates licensed, they intend to operate as FK/AA7JV or FK/HA7RY. QSL via HA7RY or via their Online QSL Request System at <http://tx3a.com/> — HA7RY

WUØI is a US Foreign Service Officer currently stationed in Addis Ababa, Ethiopia. He has been issued **ET3JD** and expects to be QRV by sometime in October, following antenna installation and equipment deployment. He plans to be QRV on multiple bands and modes, but asks DX'ers to "be patient" on his "rusty" CW. More information available on his web site at <http://www.deloach.net/ET3JD.html>. QSL'd direct via his US mail drop, listed on his web site — ET3JD, DX World

CT1GPQ is now QRV as **4W6AL**. He plans to be active in his spare time, mainly CW with some RTTY & SSB, 40—17 meters. — DX World

**K4M** Midway Island is still on track to be QRV 9—19 October. The latest information from their web site at <http://www.midway2009.com/> — K4M

The Uruguay DX Group will be QRV from the Falkland Islands "during late 2009." **VP8BUH** will be their SSB call, **VP8BUG** will be their digi-modes call. QSL via EB7DX — DX World

WB5ZAM will be QRV as **J68WI** 28 September—12 October, using SSB & CW. QSL via home call — WB5ZAM

**JD1BMM** is active from Minami Torishima (OC-073) until 28 September, 2009. He will try EME QSO's also during his stay. Masa has very specific QSL information, which can be viewed at <http://www.qrz.com/db/jd1bmm>. You must follow his specific instructions or you may not get a return QSL card from him — JD1BMM

**ST2X** is the anticipated call of S53R, who has a new work assignment for the UN WFP. He expects to be on the air by the end of September or early October. QSL route TBA — DX World

## QSL Routes

3D2AG/P via FK8DD — TA3J	IL7G via IW7EBE — W3AWU
3XY5M via PA7FM — DO1DXX	JD1BLY via JI5RPT — K6GEP
4L8A via K1BV — K6GEP	MJ/DJ7ZG via DL7AFS — JA1HGY
5KØT via HA7RY — K6GEP	OJØJ via OHØRJ — KZ2I
5K5T via HK3JJH — W3AWU	PX8W via PY2WAS — PY5EW
5R8IC via F6ICX — HAØHW	PZ5WP via PA7FM — DO1DXX
5R8KD via W5KDJ — W5KDJ	RG9A via UA9XC — W4DN
7O1YGF via DJ3XD — WA9YYY	SØ4R via EA5RM — JA1HGY
7P8CF via K5LBU — JA1HGY	S92LX via DK7LX — KRØO
7P8R via UR9IDX — PAØWRS	T47C via W3HMK — JA1HGY
A61Q via EA7FTR — PAØWRS	TO5E via W7XU — PAØWRS
AT9RS via W3HMK — JA1HGY	TS7C via F4EGD — K6GEP
D44TXO via DJ2VO — JA1HGY	TZ6EI via W7XU — PAØWRS
DY1C via VE7DP — DO1DXX	V29JKV via W6JKV — MMØBQN
E44M via IZØBTV — HA1HGY	V63MY via OM2SA — KA3ARF
EU5ROPE via UA3FDX — K6GEP	VC1W via VE3EXY — VE3EXY
FOØCLA via F6LQJ — SV1DPI	VC8B via VE8EV — DO1DXX
H6VA via YN4SU — DO1DXX	ZF2ZB via K9WGH — JA1HGY
HD2M via SM6FKF - K6GEP	ZL7T via ZL2AL — JA1HGY
HZ1FS/P via EA7FTR — JA1HGY	ZY3D2AG/P via FK8DD — TA3J

Thanks to the NJDXA DX News & DX Chat Reflectors, the DX-QSL Reflector, 425 DX News, OPDX News, Diamond DX Club News, 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.**

**HAM RADIO INSURANCE ASSOCIATES, INC.**  
P.O. Box 201  
Canonsburg, PA 15317-0201  
Toll-Free 1-800-545-8881



Fax: (412) 746-5944  
[gallina@usaor.net](mailto:gallina@usaor.net)  
"All-Risk" Amateur Radio Equipment Insurance Plan for:  
Radio Equipment                      Computer Equipment  
Antennas Rotors & Towers          Computer Media & Software  
Cellular Telephones  
Mechanical Breakdown & Electrical Damage Coverage

**OGS Distributing** — Embroidered Apparel, Printed Apparel, Dash Plaques, Award Plaques, Vinyl Graphics, Cyclo Polisher, Car Detailing Supplies. Dan KB3HVN, 6571 Zupancic Drive, Pittsburgh PA 15236, Phone (412) 655-8787, Fax (503) 218-1441, or visit the on-line catalog at <http://www.onlygoodstuff.com>



### Nelson Nemes N3PN

#### Keller Williams Real Estate Professionals

190 Gallery Drive, McMurray, PA 15317  
724-941-9400 x121  
412 443 7010 Cell  
724 941 4969 Fax  
[nelson4u@kw.com](mailto:nelson4u@kw.com)



#### DeRose Marketing International

"Healthy Living Technologies"  
Featuring *Living Air*, *Living Water*, & the new *LaundryPure*. Suffering from Allergies, Asthma, Headaches, Pet Odors, Smoke, or Bad Tasting Tap Water? Call for a FREE in-home demo and 3-day trial of *Living Air* and *Living Water*.

Kevin F. DeRose N3KFD  
1-866-754-1331 Toll Free Overview  
1-724-348-6892 Office  
[kfderose@ecoquestintl.com](mailto:kfderose@ecoquestintl.com)  
[www.ecoquestintl.com/kfderose](http://www.ecoquestintl.com/kfderose)



Antenna Zoning or PRB-1 Issues?

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

The Ferry Building, 127 S. McKean St., Butler, PA 16001  
Phone: 724-431-0400      Fax: 724-431-0401  
[lazaroff@murrinlaw.com](mailto:lazaroff@murrinlaw.com)

Custom Decals, Signs, Plaques and Woodworking from **Randy George N3ZK**

More information at his web site, Randy George Woodworking <http://www.randygeorgewoodworking.com/>

See his eBay store for special deals at [http://stores.shop.ebay.com/Randy-George-Custom-Signs\\_W0QQ\\_armrZ1](http://stores.shop.ebay.com/Randy-George-Custom-Signs_W0QQ_armrZ1)



## FCC Calls for More Freq's

Bill Ray courtesy of [The Register](#)

The FCC has noticed there just aren't enough radio frequencies, and if the USA wants national broadband it's going to have to find more space in which to put it.

If the USA is going to have a National Broadband plan, then it's going to have to speed up the audit of radio spectrum usage, in the hope of discovering large swathes of it aren't being used, or are at least being used very inefficiently.



Blair Levin is the FCC official trying to put together the National Broadband plan, and told industry executives on Wednesday that: "A key input is spectrum". Continuing this remarkable insight, Mr Levin continued: "There is consensus in the record; there is not enough of it."

Just as in Europe, it's the military who are being accused of hoarding spectrum against possible future use. While the UK is well on the way to understanding who uses which frequencies and for what, industry lobbyists the CTIA reckon that the USA is over a decade away from such an understanding.

It is much easier to just take bands away from the amateur radio crowd, such as 2360-2400MHz (just below the wi-fi bands) which GE Healthcare has been trying to get reallocated for a while now (FCC consultation PDF).

Hoping for more insight on Mr. Levin's remarks, we headed over to the FCC blog, but no-one's had the chance to explain where the additional spectrum might come from (or, more importantly, what happens when it becomes clear there isn't going to be any).

The FCC Twitter feed was, needless to say, equally unhelpful on the matter.

Michigan farmers have failed in their attempt to block the introduction of RFID tags for cattle, despite arguments about the cost and the risk of upsetting an otherwise benevolent deity.

The case was bought by the catchily-named Farm-to-Consumer Legal Defense Fund (FTCLDF), representing small farmers in Michigan as well as a group of six Amish farmers: the former concerned about the cost of the tags, while the latter were more worried about eternal damnation brought on by applying numbers to God's own cattle.

The US Department of Agriculture (USDA) tried to get the case dismissed back in November last year, but only now has it managed to have the case thrown out on the basis that it is a Michigan ruling and thus subject to state laws, rather than part of any agenda being set by the USDA as part of the National Animal Identification System (NAIS), against which the plaintiff's case was based.

Even in Michigan the law is intended to be voluntary, but the plaintiffs clearly believe that the voluntary status is just a ruse under which a mandatory ruling can be later implemented, which would threaten their livelihoods, or eternal souls, as appropriate. It's worth noting, as the Judge did, that even Amish cattle already have numbered metal ear studs, so the contention that numbering cattle is against God's law was already in shaky ground.

As for the USDA agenda, RFID Journal covers the case in some detail including quotes from a Michigan representative explaining:

"We implemented this program nearly 10 years ago... This was done pre-NAIS. Michigan is the only state with a mandatory electronic animal-tracking program, but it is also the only state with documented bovine TB cases"

Electronic tracking, in this instance, doesn't necessarily mean RFID tags. The same thing can be, and is, achieved using the existing metal studs, with the data gathered electronically whenever the cattle are moved. But such assurances aren't going to dent a good conspiracy theory about federal control.

Has Roadway found the tower yet?

# The Eagle Has Landed

continued from Page 6

after experimenting with the transmission line earthing point as discussed at the end of this article.)

During our e-mail conversations with Chris at GAP, he continued to claim this problem really doesn't happen so our experience was an anomaly. However, in reviewing the Eagle DX "product reviews" on the popular website eHam.net, I found this antenna has a user review rating of 3.7 (out of a possible 5.0) and 13 out of 51 reviews stated the antenna worked very poorly, didn't work at all, wouldn't load up or resonate, or some similar problem. That's 25.5% of the reviews, which can be found here: <http://www.eham.net/reviews/detail/452>

I brought that to Chris's attention and he replied these are users who did not assemble the antennas correctly, or did not install them properly, or some similar problem. I agreed people sometimes make mistakes, but I doubted 25% did. In researching some of the reviewers who gave the antennas bad marks, I found half of them were very experienced amateurs, some had engineering degrees, and most reported they were perfectly satisfied with some other vertical antenna they had chosen to replace the GAP, installed at the same location.

As such, I speculated that these users, or at least some of them, very likely had exactly the same problem we experienced with Kate's antenna. Chris pushed back on this and didn't accept that hams do things properly, and I replied that in our case, we did: And while he was dealing with a neophyte ham in Kate, she's a Ph.D. scientist, and was assisted by two graduate engineers in Allen and myself, so I didn't think we were all idiots. I didn't receive any more correspondence after that, but Kate did get a new replacement part, and it did work.

**Finally, it works!** Photo of the finished, installed Eagle DX atop Kate's roof (the guy lines are just lightweight ropes, recommended by GAP to prevent wind damage):

Hopefully this piece will help resolve some other hams' issues with GAP antennas, which are all of similar design. If the capacitor is open or intermittent, that does create many problems - and you can't really tell if the cap assembly is good or not just by looking at it: It must be measured.

A last bit to add: GAP's instructions call for making a coaxial RF choke current balun of the transmission line, and bonding the outer conductor of the transmission line where the choke attaches to the coax supplied with the antenna (short pigtail out the bottom of the lower tubing) by strapping that UHF "barrel" adapter directly to the very bottom of the antenna (prior to weatherproofing that assembly). We did that, then we "un-did" that, to see if it made any difference. It does, but not a lot. However, this isn't the end of the story...

Installing the antenna, Allen did a great job of using a high quality lightning arrestor bonded directly to an 8' ground rod at the base of the antenna support mast, before the coaxial feedline enters Kate's home. That, of course, introduces a second "shield" grounding point, directly to earth. When we first measured the "repaired" antenna, VSWR readings still weren't great, as measured "inside the shack," at the rig end of the coax, which was 50' long from the lightning ground point to the radio.

We disconnected the lightning arrestor ground by bypassing the arrestor entirely and isolating the coax from earth where it had been previously tied. Bingo! Now, the match across the bands was greatly improved and we enjoyed the results discussed above. Re-grounding the outdoor splice point, with or without the arrestor, brought it back out of resonance again, with higher VSWR readings in most places.

This obviously indicates the transmission line is not well isolated, and still very much "part of the antenna." Kate e-mailed this information to Chris at GAP, and he responded that, "Yes, we find it's best to use more than 50 feet of coax..." I don't doubt that, and he's probably correct - but this indicates a design deficiency. Any time your feedline is part of your radiation system, this becomes an uncontrolled element that cannot possibly be optimized across multiple bands. This, too, could explain some of the "bad results" by hams reporting low grades for the antenna on eHam.net: They just didn't use the right length of coax!

I mentioned earlier that my original GAP Challenger DX had "deteriorated" over time. This is anecdotal and may be of help to someone: My Challenger DX, installed in 1993, actually did work fine when first installed. Some time later (I think about two years), I was on 80m CW operating with a kilowatt during a contest and noted my output power had dropped significantly, and SWR rose from normal to very high. I stopped transmitting on that antenna and switched to something else.

Inspecting the antenna from the ground the next morning, I could see at least one, maybe two of the interconnection wires that come from the center "gap" feed point to the parallel elements that serve for the higher bands appeared to be broken. I had to take the antenna down and lay it on the ground for better inspection. The wires were not just broken, they were "burned" clean through. Hmm. I started disassembling the antenna and ultimately retrieved and removed the capacitor located at the top of the main upper radiating element. It also looked burned, and had failed.

I ordered a replacement and installed that a couple of weeks later, repaired the burned wires, and the antenna was up and running normally again. Over the ensuing years (I moved from that house in '99 and removed the antenna at that time), the antenna failed again, but this time it was evident that birds had been pecking away at those wires for some reason - maybe they tasted good? In any case, the external wiring used by the GAP antennas is a weak point and if I were to redesign for longer life, I'd replace them with solid aluminum straps that won't fall prey to local wildlife.

**Finale:** Kate's antenna now works, but she's just getting started on HF and in ham radio, so it will take some time to tell how well it works. At least it resonates, and with time...and propagation...she should enjoy many contacts. To her benefit, although Kate's a new "no code" ham, she did take it upon herself to learn code and her very first contact with the new Eagle DX was on 40m CW!

## ADDITIONAL COMMENTS FROM ALLEN WOLFF KC7O FOLLOW:

The original "bad" cap had two 1200 pf caps and measured 2200 pf when working. The new caps consisted of two 1100 pf caps and measured 2200 pf.

When I did the rework to the "new" cap, I Dremeled away the insulation, (see picture).

That exposed the crimp, which I tinned. With a thin piece of solder slid into the exposed crimp hole at the spade end, I heated the tinned crimp area and the solder flowed into the hole.

Once both lugs were soldered and cool, shrink sleeving was placed over the encapsulated cap, heated and formed a dam. Epoxy was then poured into the dam filling it and covering the solder on the lower end of the space lug.





# WIRELESS ASSOCIATION OF SOUTH HILLS, INC.

## Membership Application/Renewal for 2009



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

(check quarter \_\_\_\_\_ →)  
(check one )

**1st Qtr**       **2nd Qtr**       **3rd Qtr**       **4th Qtr**  
**Jan-Mar**      **Apr-Jun**      **Jul-Sept**      **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: \_\_\_\_\_

Call Sign: \_\_\_\_\_

License Class: \_\_\_\_\_

Expires On: \_\_\_\_\_

Work Phone: \_\_\_\_\_

Birthday: \_\_\_\_\_

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]

ARRL Member?  Yes  No Family ARRL Member?  Yes  No

Date: \_\_\_\_\_

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.  
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: \_\_\_\_\_

Call Sign: \_\_\_\_\_

Address: \_\_\_\_\_

Date of Birth: \_\_\_\_\_

City, State, ZIP: \_\_\_\_\_

Total Enclosed: \$ \_\_\_\_\_

Please Check the Appropriate One-Year Rate:

- \$39 in US  
 Age 65 or older, \$36 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

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

Name & Call Sign: \_\_\_\_\_

Name & Call Sign: \_\_\_\_\_

Name & Call Sign: \_\_\_\_\_

Dues subject to change without notice

# KQX Group Named Bonus Station for 2009 Pa QSO Party

The KQX Group is has been named the Bonus Station for the 2009 PA QSO Party. We will run an "old school" Multi-Multi from Wyoming County (WYO) using the call sign N3KAE. Our group has submitted the highest scores for the past two Pa QSO Parties (2008 and 2007). We intend to give plenty of opportunities for you to add bonus points to your score this year.

Our focus will be HF CW and SSB 160m to 20m due to the lack of solar activity. We will be on 15m and 10m CW and SSB for, at least, both high-band activity periods. We hope to devote more time on these band-modes.

RTTY and PSK is planned for 80m-20m. 20m RTTY/PSK 1800z-1959z Saturday and Sunday (14.090 +/- RTTY). 80m RTTY/PSK 2300z-2359z Saturday ONLY (3.590 +/- RTTY). 40m RTTY/PSK 2000z-2059z Sunday ONLY (7.090 +/- RTTY). PSK will utilize the standard band frequencies. RTTY starts the top of each hour and PSK follows at the bottom of each hour.

6m SSB/CW and 2m FM stations will run throughout the contest. We will CQ and monitor 50.135 SSB and change to CW on that frequency. The 2m station will CQ and monitor 146.55 FM.

The KQX Group: AI N3KAE Scott KA3QLF Joe N3XLS Joe N3PKC John WC3Z

As the primary CW operator on this team, I have set a goal of 1000 CW qso's. Please look us up and help us obtain that goal. Thanks, and we'll catch you on the bands

— 73, Scott KA3QLF

Remember: The dates for the 2009 Pennsylvania QSO Party are October 10<sup>th</sup> and 11<sup>th</sup>, 2009.

This is the 2<sup>nd</sup> weekend in October, one weekend after the California QSO Party, and one weekend before the New York QSO Party and Scouting's Jamboree on the Air.

Full Rules, records, history, and more can be found at the Pa QSO Party web page on the Nittany Amateur Radio Club's web site, and can be found at <http://nittany-arc.net/pagso.html>

## 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](http://www.n3sh.org)  
[www.washarc.org](http://www.washarc.org)  
[www.washrag.info](http://www.washrag.info)

