



# 2 Meter Contest!

The start of a new year always brings change to the [WIRELESS ASSOCIATION OF SOUTH HILLS](#), between new officers, new members, new ideas and everything else related to a new year. But for the past six years, it has also brought the return of the [WASH 2 METER SIMPLEX CONTEST!](#)

This year will mark the seventh annual running of the contest. Originally just an FM mode contest, the last few years have included SSB & CW modes for those with the capabilities. It's actually quite a simple event; for 4 short hours on a Saturday evening in the middle of January, try and work as many other stations as you can on 2 meter simplex!

The fun comes into play in trying to work the stations with the most point value. Contacts with non-club members are worth 1 point, club members are worth 2 points (why not, it's our contest!), and contacts with club stations — any club station, not just N3SH, WA3SH or NP2SH — are worth 3 points. Multiply that by the number of different ZIP codes you work, throw in a power multiplier if you're running HT level power, and that's pretty much it! Oh yes, you work anyone you can, once per mode.

How far can you work on 2 meter simplex? Well, that's the challenge, isn't it?

There are no major changes to the rules this year. We've tried to clarify once and for all our position on the "shared use" simplex/repeater frequencies that are unoccupied by repeaters, and logs now got to W3WN at his new QTH. Otherwise, if you've operated in the contest the last few years, you're set to go. If you haven't, consider giving it a try this year!

Complete rules are on Page 6.

And don't forget... we're just over two months away from [WASHFest 2007!](#) More on that in upcoming newsletters!

## Congratulations

to our incoming officers for 2007: President Randy George N3ZK, and Vice President/Secretary Frank Bobro KB3FZU.

**Was Fessenden First? Page 2**

**WASH Christmas / Holiday Party**  
Friday, December 15<sup>th</sup>  
**James Centre, West End**  
Directions at [www.jamescentre.com](http://www.jamescentre.com)

## Next Meeting: January 11<sup>th</sup>, 2007

The next monthly meeting of the [WIRELESS ASSOCIATION OF SOUTH HILLS, INC.](#) will be Thursday, January 11<sup>th</sup>, at the [Peters Township Library](#), 616 East McMurray Road, McMurray, starting at 7:00 PM.

[WASHFest 2007](#), the upcoming 2 Meter Contest, and the Tower Trailer project (Phase II) will be amongst the topics of the evening.

Talk-in on the 146.955(-) N3RNX/R and 443.650(+) KB3FZU/R Repeaters (131.8 PL). All members, guests and interested parties invited!

## Presidential Words

This is my last column as President of WASH and as I think about the last two years, it seems like my first meeting as president was only a few months ago. It has been an honor and a pleasure to serve as club president and I hope you all feel that I have done an adequate job. There has been a lot accomplished over the last two years but I cannot by any stretch take sole credit as it was the whole club working as a team.



Thank you all for helping make [WASH](#) one of the finest clubs in the Western PA Section. I want to wish Randy George, N3ZK well as he takes the reins as president of [WASH](#) and I have every expectation that you all will work with him as you have with me.

We have a very ambitious year of activities coming up in 2007. We need to complete the new mobile tower project and coordinate the upcoming AMSAT Symposium as well as take care of our regular activities like the 2-meter contest, [WASHFest](#), Field Day, and PA QSO party to name a few. Pat Sanford and I will co-chair organizing the AMSAT Symposium in 2007 and I hope to have your cooperation. I already have heard from a lot of you about working on this project so I am feeling very confident of doing a good job for AMSAT.

Before this month is out I will have the various sub committees listed on the website along with responsibilities. At the January meeting I hope to hit the ground running with filling the sub-committees

*(Presidential Words Continued on page 3)*

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## Was Fessenden The First ?

Ron Notarius W3WN

A milestone of communications history is the first voice broadcast on Christmas Eve, 1906, by Dr. Reginald Fessenden. It was one of many achievements of the noted and controversial communications pioneer, the inventor of Amplitude Modulation, champion of Continuous Waves, and who was also the first chairman of Electrical Engineering at the University of Pittsburgh. In celebration of this historic event, the University held a short program discussing the Birth of Radio on November 11<sup>th</sup>; the Panther ARC W3YI ran a Special Event Station, K3F; and the Canadian government authorized special commemorative prefixes to be used in December by Canadian amateur radio operators.

But was he really the first?

A controversial article in *Radio World* magazine's October 2006 issue (which is available on-line at <http://www.rwonline.com/pages/s.0052/t.437.html>) concludes that broadcast never took place, since there was no press coverage for the demonstration, and that the only "proof" of it is a 1932 letter from Fessenden, sent 5 months before his death, over 25 years after the event. The author claims that Fessenden wrongly took credit for the achievement.

Was this possible? Certainly — history is rife with credit wrongly being given to someone who was not the actual discoverer or inventor (do you know who REALLY created the Morse code?) but the person who was in the right place at the right time... and who had the right PR engine. So I did a little checking.

After about 15 minutes of searching the Internet via Google and other search engines, I came across these references:

<http://www.rwonline.com/pages/s.0106/t.502.html> — another take on the Fessenden story from historian and columnist Scott Fybush

<http://www.radiocom.net/Fessenden/BelroseXmas.htm> — A discussion of why Fessenden may have never documented the broadcast by VE2CV. The article includes references to a Harvard lecture by a Westinghouse Vice President referring to the broadcast — in 1928.

<http://www.worldofradio.com/dxld6161.txt> — Glen Hauser's DX Listening Digest discussing the issue, referring to the Ham Radio History group on YahooGroups, and the extensive research by communications historians Christopher Sterling and Donna Halper, which also mentions a 1923 book by a Fessenden employee (who worked for competitor Lee DeForest in 1906) referring to the broadcast. It also refers to a letter from Dr. DeForest (part of the slide show at <http://www.eht.com/oldradio/arrl/2006-02/show/medd-william.html>) in which he states that the first broadcast transmission was by Dr. Fessenden, possibly as early as 1905! Now, one would think that if Dr. DeForest thought that Fessenden's claim wasn't as strong as his, he wouldn't give Fessenden credit, would he?

Anyone who does research today into early broadcast and communications history will come across the name Donna Halper, a broadcast historian, faculty member of Emerson College, and one-time historian for Westinghouse's WBZ. (Just ask her about the KDKA mythology!) She indicates that there was a good reason that there was no press coverage of the Christmas Eve broadcast: It wasn't the first. Actually, it appears that Fessenden may have made the first broadcast as early as December 11<sup>th</sup>, 2006, almost 2 weeks earlier, an event that WAS covered by the press in Brant Rock, MA, at the time! (There's too much information to accurately quote from here, but a quick search will uncover all this and more).

So why didn't Fessenden make a large fuss about it? His research at the time was in point-to-point communications for AT&T. Broadcasting as we know it was thought to be a wasted effort... who'd be interested? He may not have realized the impact of what he accomplished until much later, after broadcasting was established. Thus, while the exact details may be lost or obscured in the mists of time, it appears that the main point is correct. Reginald Fessenden was the first person to make a voice transmission intended for an audience — in short, a broadcast.

Now, if I could find out all this in 15 minutes of Google searching, how much "research" did the *Radio World* author actually make? He should be ashamed!

And on behalf of myself and Larry Comden K3VX, I'd like to thank the University of Pittsburgh for their fine presentation on Dr. Fessenden on November 11<sup>th</sup>, with special thanks to Dr. Juan Manfredi NAØB, Chairman of the Department of Mathematics, Dr. G. Alec Stewart W3HRK, Dean, University Honors College, and Gerald Youngblood K5SSDR of Flex Radio Systems for their parts in the presentations.

## WASH 2007 OFFICERS

### EXECUTIVE COMMITTEE:

President	Randy George N3ZK
VP / Secretary	Frank Bobro KB3FZU
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
VE Team Liaison	Jacqué Gosselin N3ZEL
Webmaster	Randy George N3ZK
Quartermaster	Harold Rosenberger K3HCR
WASH FM Net Manager	Kevin Smith N3HKQ
WASHFest 2007 Committee	Steve Lane W3SRL, Chairman Carol Danko KB3GMN Bill Hill W3WH Kevin Smith N3HKQ
Activities & Operating Events	Larry Comden K3VX Ted Huf W4ZE
Ways & Means	Carol Danko KB3GMN
Mobile Tower Project	Paul Lusardi NØVLR Randy George N3ZK

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

Mt. Lebanon	N3RNX / R	146.955 MHz (-)	PL 131.8
Mt. Lebanon	W3SRL / R	442.550 MHz (+)	PL 131.8
Canonsburg	KB3FZU / 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)**

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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, its members, or its actions in any way, shape, or form.

As always, special thanks to the owners of both the N3RNX/R Repeater System and the KB3FZU/R Repeater System for permitting the **WIRELESS ASSOCIATION OF SOUTH HILLS, INC.** and its 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 January 18<sup>th</sup>

The Next WASH VE exam sessions will be Thursday, January 18<sup>th</sup>, 2007, 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@fyi.net](mailto:n3zel@fyi.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 **\$14.00** (payable to: ARRL VEC)

Future test dates: (tentative)  
 Thursday, April 19<sup>th</sup>, 2007  
 Thursday, July 19<sup>th</sup>, 2007  
 Thursday, October 18<sup>th</sup>, 2007  
 Thursday, January 17<sup>th</sup>, 2008

It was the last Saturday in November, only two days after Thanksgiving, and we were all still stuffed with leftovers and worn-out from shopping on Black Friday. Nevertheless, a small but hearty band from the **WASH Breakfast Gang** descended once again at **The Beach House** in Finleyville. This month's crew included K3VX, K3HCR, W3WH and W3WN. At least, Ye Editor thinks so, because somewhere in the midst of the "let's get out the decorations NOW" rush, his notes from the breakfast disappeared, no doubt to magically re-appear once this issue goes to press. So please accept his apologies for the missing notes, and we hope to find the info by next month.

Regardless, many topics were discussed, even if we don't remember what they were, the food was good, the coffee was hot, and a good time was had by all. So why not plan on joining us for the last Saturday in December? The next club breakfast will be on Saturday, November 30<sup>th</sup>, 8:00 AM at **The Beach House**, Library Road / Route 88 in Finleyville, just south of Trax Farms and adjacent to Mineral Beach. See you there!

**Meeting minutes** from the November meeting haven't arrived by deadline. They will be printed in the January newsletter.

The **2007 WASHNet NCS Roster** will also be in next month's newsletter as soon as it is available.

**Have you tried the new N3SH forums** over at the club web site at [www.n3sh.org/forum/index.php](http://www.n3sh.org/forum/index.php)? This system gives us another way to communicate within the club, and it lets us organize information into groups, rather than random chance like the reflector does. No, it is not replacing the YahooGroups reflector, it's just an additional tool. But as has been mentioned on the reflector, Yahoo keeps making little "improvements" to the reflector groups and to their email system (for example, messages are now sent in HTML format by default unless you change your settings... which means you have to join YahooGroups if you haven't already, which means you have to give them some personal information... and yes, the ads are now more colorful and more intrusive than ever before), and the reality is that they may force us to make a change to avoid their little changes. The forums give us an alternative.

Keep in mind that the forums are still in development, and tweaking will continue to occur. (For example, it's been suggested that we add RSS feeds to the forums). Nothing is yet set in stone, so to speak. So give them a try, then make your suggestions to our webmaster, Randy N3ZK, and we'll take it from there.

Incidentally, there are now forums that you can use to post articles for the newsletter, and letters to the editor. And if you can think of a forum that isn't listed yet, have a word with Randy.

**2007 Club Dues** aren't officially due until January 1<sup>st</sup>, but as you can see, we already have some "early birds" on the list. The club can't function without your support — without you, there is no club! So don't put it off another moment, sit down and take care of your dues today! Don't forget that you can now pay via PayPal at the website if you'd like.

Incidentally, this is the last month the **2005 Club Members** will be shown in the listing over on Page 4. So if you're on that list, please don't put off your dues paying again! We'd hate to lose you!

Is there any interest in **operating N3SH from WASHFest**? Ye Editor has an HF vertical available to use, and a rig can be arranged. It's just an idle thought...

To all readers of the newsletter, Ye Editor and his family wish you all a happy and healthy holiday season and a happy new year!

## WASHNet 2006 NCS Schedule

12/03	Carol KB3GMN	12/24	Paul NØVLR
	or Richey N3SBF	12/31	Frank KB3FZU
12/10	Michael KB3HFP	Alternates	— Dave N3IDH
12/17	Hank KB3FNM		— Ron WN3VAW

*(Presidential Words Continued from page 1)*

with chairmen (or women). I also want to be more help to Randy with the club website because he will have his hands full being president.

So thanks again to everyone who helped me during my two terms as president and a Merry Christmas, Happy Hanukkah, and Happy 2007 to everyone.

— 73, Kevin Smith N3HKQ, President  
 Wireless Association of South Hills, Inc  
 N3SH / WA3SH / NP2SH

The monthly listing of WPA Clubs, VE Tests, and related activities has been moved to the club web site at [www.n3sh.org](http://www.n3sh.org), as it is easier to keep it up to date, and more room is available. Should we return this info to the newsletter? Should we use a different calendar style? Should we drop the calendar altogether? Make your thoughts known; send an email to [editor@n3sh.org](mailto:editor@n3sh.org)

And... yes, members in good standing can now have [your call at n3sh dot org](mailto:yourcall@n3sh.org) as an email address. Want to know how? Contact our webmaster, Randy N3ZK, for more information. Caution! He's worked very hard on the web site and he wants you to use it!

## Tower Trailer Update:

As of December 11<sup>th</sup>, our tower is back from galvanizing and undergoing it's "finishing touches" (pulleys, cables, etc.) Tashjian Towers has scheduled shipping to Pittsburgh via Roadway on the 13<sup>th</sup>.

Now we need to finish Phase II and acquire the actual trailer!

For up to date information, check out the new club forum at [www.n3sh.org/forum](http://www.n3sh.org/forum)

Want to expedite that harmonic's letter to Santa Claus (or yours asking for a Ten-Tec Orion II?) Make sure you use his postal code! Canadian postal authorities have assigned a special, unique postal code for routing letters to the North Pole. And all letters will be answered. The postal code? HOH OHO [Honest, stuff like this we can't make up!]

**Join WASH or Renew your Membership for 2007 Today! Membership Application on Page 11!**

# Minutes, October 12<sup>th</sup> Meeting

Larry Comden K3VX, Acting Secretary, **WASH**

Called to order at 7:00 PM by Kevin Smith N3HKQ

Moment of silence for recently departed silent keys.

Introductions (special "howdy!" to Dave Wagner K3LGM)

## Committee Reports

Treasurer – Mark Stabryla, N3RDV – Read and Accepted

Secretary – Paul NØVLR in absentia (en-route to MA) – None

Tower Trailer committee report - Randy N3ZK

- Review of **WASH** financial history – N3HKQ; Kevin concluded that it is Not prudent to use general funds to support tower trailer fund – **WASHFest** loss possible
- Recap of \$\$ raised to date by Randy N3ZK. Thanks to additional contributions and fund raising, and a price reduction from Tashjian Towers, goal for Phase I (tower purchase) has been met with no additional funds from the club treasury. Motion to purchase tower by Ted W4ZE, second by Frank KB3FZU, carried unanimously
- Jim WB4GCS asked "How committed are the members?". Complement to Kevin N3HKQ about the analysis of finances.
- What are the plans for Phase 2 (trailer) ? And an offer of help (Dan KB3HVN)
- Other fundraising possibilities discussed .

VE – Jacque, N3ZEL – VEC session October 19<sup>th</sup>. Asks for help. W3RJM volunteers.

QSL manager – Ed, N3ZNI has replied to 5100+ QSOs for our VP2 operations

Website – N3HKQ/N3ZK: Suggests we start to use the new web site forums instead of Yahoo groups. RSS? Email thru website alias? Motion Possible new ISP? FYI ? N3HKQ W3WH second. Fix dues structure to work with PayPal (family members @ \$3 each)

Repeaters, APRS Digipeater, & NP2SH beacon – Pete, N3RNX/Steve, W3SRL/Frank, KB3FZU Power bill. Scenery Hill still down. No access

Club FM Net – Kevin, N3HKQ

Public Service – Mark, N3RDV/Dave, N3IDH

Contests – Ted W4ZE

Activities – Larry K3VX

Quartermaster – Harold K3HCR

Newsletter & PA QSO Party Bonus Station Status – Ron, WN3VAW Pa QSO party last minute details. Details, details

Ways and Means – Carol, KB3GMN

- Christmas party plans; 3 possible locations — Carol will pick one by next meeting. Sign up to indicate attendance.
- 50/50

President – Kevin, N3HKQ:

- October 2007 AMSAT Symposium. 4 hotels to choose from 1<sup>st</sup> or 3<sup>rd</sup> weekend. Convinced the AMSAT board to come to Pittsburgh. Our club has to be committed to this event.
- Tower trailer must be ready before this event.

Nominations for Office:

- For President: Randy N3ZK.
- For VP/Secretary: Larry K3VX and Frank KB3FZU.
- More nominations in November

Old Business Bylaws amendment as printed in newsletter. Moved by N3ZNI , seconded by N3SBF. Passed unanimously.

New Business: **WASHFest** ? Wait for W3SRL's report in November.

WACOM Hamfest on November 5<sup>th</sup> at Washington County Fairgrounds

Good of the order: PAQP Pins advertised on web site. Will be made if sufficient orders are received. \$6 each

Motion to adjourn at 8:20 accepted unanimously

# WASH Spotlight: WACOM Hamfest



Busy "cutting wood" at the 2006 WACOM Hamfest is new club president Randy George N3ZK. Randy has been tireless in his efforts to promote and raise money for the Tower Trailer project, and even with the tower on it's way, we still need a few more shekels towards the trailer itself. It's not too late to order a call sign plaque for a Christmas or Hanukah present! More details on the club web site at [www.n3wh.org](http://www.n3wh.org). Photo courtesy of & ©Copyright 2006 Kevin Smith N3HKQ

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 [editor@n3sh.org](mailto:editor@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

2007	KB3NVL	N3XI	K3JDS	2005	WASH /MM	Silent
AB3ED	KB3NVM	N3ZEL	K3PCF	KA3UPY		Keys
K3WJL	KC4WTT	N3ZK	KA3NMG	WASH GA		
W3VFA	KE7FD	N3ZNI	KA3TWI	K3OL		K3EED
	NØVLR	W3LE	KB3DCO	KB3IJX		(George)
K3AIR	NØWPV	W3RJM	KB3EPI	WASH NE		KB3ENX
K3EED	N2QIV	W3RWS	KB3GUZ	NØPEU		KB3FQT
(Cindy)	N3AWF	W3SRL	KB3IAC	WASH NY		N3FZ
K3HCR	N3CZZ	W3WH	KB3IRQ	KE3XB		N3KEH
K3LGM	N3DFK	W3WN	KB3IWW	N3YPB		N3OBD
K3SGT	N3HKQ	W4ZE	KB3IVX	WASH OH		N3SKR
K3VX	N3IDH	W8LEV	KB3LIX	N8DPW		N3SRC
KB3FNM	N3KFD	WA3JPP	KE8RN	WASH TX		N3XFE
KB3FZU	N3QMV	WA3RVD	NØPEU	K3LGM		W3ZLK
KB3GMN	N3OVO	WA3WMB	N3BSQ	WASH VI		
KB3GMP	N3RDV	WA3YFQ	N3PN	NP2JF		
KB3GMU	N3RHT	WB4GCS	N3RNX			
KB3HVN	N3SBF	WO3Z	N3TBK			
KB3IFR	N3UE		N3VEH			
KB3KOT			N3ZCG			
KB3MRT			W3GEL			
KB3NAF			W3HND			
KB3NSG			W3JAF			

Through December 6<sup>th</sup>, 2006

List compiled by

Mark Stabryla N3RDV, Vice President/Treasurer

# Building Eagle

Jim Sanford WB4GCS

Ron has been after me for several months to write something about my work with AMSAT's newest satellite, Eagle. So, here goes . . .

First some background. Before I was licensed in 1967, my grandfather gave me this stack of QST's. I read every single one, cover to cover, as well as the 1965 *Radio Amateur's Handbook*, much to the dismay of my mathematics teacher and others. Two of the QST articles that I still vividly remember, discussed the first ever 1296 moonbounce (EME, today) QSO between New England and California, and two weeks later, out to Hawaii. These articles were fascinating, and the technical challenges huge – 30 db antenna gain at each end was the minimum. Transmitters were 1KW Klystrons, in a separate building from the receiver, so that the local oscillator would stay within the 30 cps (Hz today) or so receiver bandwidth. I think that's when I got hooked on VHF/UHF/microwave weak signal work, although I wouldn't be able to do anything with it for many years.

Shortly thereafter, I started reading about the OSCAR satellites, and knew I wanted to play. To a kid growing up with *Mercury, Gemini, and Apollo* in Titusville, Florida (a wide spot in US 1, just across the river from the Kennedy Space Center), it was a natural progression. Another dream that the poor kid would have to put off until much later. I read all that I could.

Many years later, I ran across Bill, WA4MMP (SK), who hooked me up with affordable ways to get on 2m and then 6m SSB. After playing with FM for many years, and being very frustrated by the band openings the SSB guys enjoyed on 50.1 while I heard nothing on 50.525 FM, I finally "moved up". One Christmas, I worked all over Europe and South America on 6 – and then realized I was on a 4 foot clip-lead in the shack, and not the outside antenna! A few years after that, I ran across Chas, KM4EM, now W4HFZ, quite by chance on 144.200 SSB. Another nuclear Navy guy, interested in antennas like me, we collectively got a couple of satellite stations on the air – a dream come true, in about 1992 – 25 years after I was first licensed!

I joined AMSAT, enjoyed quite a bit of satellite operations, worked AO-10, worked AO-13, mourned AO-13, and enjoyed AO-40 while it lasted. I tweaked antennas, made my first JA QSO on AO-13 CW, and was very proud of the fact that I could work the bird at apogee (40,000 km away) with only 7 watts to the antenna on 70 cm. Chas and I moved on to the digital birds, and built fully automated digital stations at our shacks, and at the Virginia Air and Space Center in Hampton, VA. At one time, 10 of the 20 fully-automated digital stations in the *world* were located within a 20-mile radius.

Many people were using a \$350 card and software to control their azimuth and elevation rotors in automatic tracking of the satellites. Unacceptable. Chas found a \$79 card with digital inputs and outputs, and an 8-channel analog to digital converter. I wrote the software, some in C, and much in assembly language – as a TSR. (Some of you will recognize that self-immolation is less painful than writing a messy DOS TSR . . .) This stuff ran in DOS, and then in a DOS window within Windows 95, which provided networking services. Amazingly, it all worked. Man, did it work – I could go to sea for 6 weeks, with KC4WTT and KD4SVL monitoring the station for illegal behavior, and come home to find the station still running, nothing smoked, and hundreds of messages to read. (This was before widespread internet and email.) As I said earlier, I was hooked, and proud. About this time I became an AMSAT life member – another exciting story, best left for another time.

I was also developing a bit of frustration over not being able to do more with the satellites, not being able to *contribute*. I wanted to do more, but recognized that the family needed some attention, and they and my Navy career really did come ahead of ham radio.

I left the Navy in 2003. I communicated more with AMSAT folks, and some of them began talking about roles I could play in the organization.

Meanwhile, in 2001 or so, there was a meeting to define the successor to AO-40, then called "JJ-Sat" after two individuals who conceived it. There were a couple of meetings, but alas, not much came of it. In 2003 and 2004, AMSAT leadership began a strategic planning effort, and one product of that was the realization that there was (is) a need for another high earth orbiting (HEO) satellite, providing DX capability. A meeting was convened in Orlando to resurrect this effort in July of 2004. I was invited, with full knowledge that I was being considered as an assistant to the Project Manager – something about my technical and leadership experience in the Navy. We hammered out a lot of things, and for the first time in recent AMSAT history, this meeting was open to anyone who wanted to attend. (There were 3 "members" as I recall.) As things progressed, I took a more active role in expressing opinions and asking hard questions. At the end of the meeting, Rick Hambly, W2GPS, the president of AMSAT made a brilliant move – he walked around the room, asking specific individuals if they would accept certain responsibilities. He got *commitments*. When he got to me, he asked me to LEAD the effort. "What about being the assistant?" "Assistant to whom??" *Gulp!* That's how yours truly became the Eagle Project Manager. It's been an E-ticket ride ever since.

The "doers" within AMSAT are a brilliant bunch of people. They are also some of the nicest people I've ever known. This fact is important, because there are occasional allegations that AMSAT is "elitist", a closed society. Nothing could be further from the truth. I suspect that this mis-perception comes from the simple fact that many of them are brilliant, busy people, who simply may not hear the rest of us. On more than one occasion, I've had to get somebody's attention with a 4 x 4 applied to the cranium at a force capable of generating 4 g's of acceleration. "Slow down and speak English to us Mortals!" Once you get somebody's attention, all is well. They're great people doing great things, and working with this crowd is only matched by my experiences working with some of the great Sailors I knew over the course of a few years in the Navy. Some of you got to meet some of them last year when we hosted the Eagle design meeting in Pittsburgh.

So, to get to the point – what are we doing with Eagle? First, we're working to achieve the AMSAT strategic vision of daily DX coverage, eventually leading to 24 hour DX coverage from a small constellation of satellites. Second, we're trying to simultaneously satisfy two fundamentally different constituencies:

- The designers want to do something new and challenging
- The users want to use the equipment they already have

We're also working to do things "differently." What do I mean?

- We've established formal requirements and processes.
- We're open, like the open source software community. Most everything we do is visible to all our members on a wiki, called Eaglepedia. (If you're not sure what a wiki is, check out [www.wikipedia.org](http://www.wikipedia.org). Then go to [www.amsat.org](http://www.amsat.org) and select the Eagle pages, which include EaglePedia.)
- We've recruited a lot of new people (like me!), including some YOUNG people – the brilliant future of amateur radio.
- We're exploiting new techniques, like software defined radio (SDR), to provide functionality and capability never seen before.
- We're doing some really new things, such as the Advanced Communications Package (ACP), a microwave transponder which will allow digital voice using an antenna system that fits on an apartment balcony, and compressed video with a larger antenna.
- We're developing the ground segment at the same time as the space segment, so that user ACP equipment will be available before Eagle is launched.
- We're exploring innovative energy storage techniques with the goal that failure of a single battery cell (or capacitor) won't kill the entire mission.
- We're looking at a structure and power generation array which will give us enough power that users won't have to worry about what transmitter is on today.

We have been doing what I call *concept definition and refinement* since 2004, and are recently moving into system and module *detailed design*. There is a 70 cm design on the table, and it has been peer reviewed. Construction of a prototype will begin soon, and peer review of the acceptance test plan (ATP) will begin soon. There is a 1269 MHz (L-band) receiver design in progress. The Internal Housekeeping Unit (IHU, or "brain") has been prototyped and is nearly ready for production. We have tested inter-module communications using the CAN bus (used in many modern automobiles) to reduce weight and the

(Eagle Continued on page 8)

# Announcing the Seventh Annual WASH 2 Meter Simplex Contest

This January will mark the Seventh Annual **WASH** 2 Meter Contest. We've already had a lot of interest in it, and this year promises to be even more exciting!

Remember: In response to input from our participants, and in view of the growing popularity of radios like the Ten-Tec 6N2, IC-706 & FT-100, the contest will NOT only be an FM contest but also open to SSB, and CW! (Digital? Maybe next year!)

Everyone who participated in it the last four years had a blast, and we hope to continue the tradition again this year!

There may be some additional "tweaking" of the rules between now and January, so keep an eye on this column in the next few newsletters, and we'll look forward to seeing you on the 13<sup>th</sup>!

**Date & Times:** Saturday, January 13<sup>th</sup>, 2007 from 7 to 11 PM EST.  
(That's January 14<sup>th</sup> 0000-0400 UTC to the purists!)

## Objectives:

- To make as many contacts as possible
- To have fun!

**Band, Mode & Frequencies:** The contest will take place solely on 2 meter band.

- **FM** : FM simplex only, no repeater contacts. The FM frequencies are all standard 2 Meter simplex frequencies, as per the ARRL 2 Meter Band Plan, every **15 kHz**, from **146.535 to 146.595 MHz**, and **147.520 to 147.580 MHz**. The National Simplex Frequency, 146.520 is **not** to be used. Use of simplex frequencies in the "FM Experimental Simplex" band of 145.510 to 145.670 are not recommended. See list of recommended simplex channels at the end of the rules.
- **CW**: 144.05 to 144.1 MHz Only. (See ARRL 2 Meter band plan)
- **SSB**: 144.2 to 144.275 MHz Only. (See ARRL 2 Meter band plan)

*Note: Listen for CW QSO's around 144.1 MHz 15 minutes after the hour*

*Listen for SSB QSO's around 144.2 MHz 30 minutes after the hour*

In the event of accidental QRM with nets and non-contest QSO's in progress, please respect their right to the frequency and QSY.

**Power Limit:** Maximum 50 watts output. No external amplifiers.

**Exchange** : Callsign, contact number, ZIP Code, and whether or not you are a Member of **WASH** or a Club Station.

For the purposes of the contest, the 5 Digit ZIP Code for your location is sufficient — do not use the "Zip +4" code. Mobiles and portables should use the ZIP code of their location as determined to the best of their ability. Canadian stations will use their 6 digit postal code

**Example 1:** "N3ZCG from N3 ZEL, please copy Number 3, 15347, Member."

**Example 2:** "K3VX from K3CM, please copy Number 21, 16801, Non-Member"

**Example 3:** "W3WH from W3OC, please copy Number 7, 15137, Club Station"

**Contacts** : Work as many different calls and locations as possible, giving Exchange as noted above. Work each station **once** per mode, and **once** per ZIP Code — Mobiles can be reworked whenever they change locations. Remember hilltops work best!

**Disqualification:** Remember, this is a friendly "for fun" contest. Stations may be disqualified for infractions of the rules and for unacceptable operating practices. While not an inclusive list, stations may be disqualified for:

- FM signals transmitted on simplex channels 146.52 MHz and below.
- Intentional interference to non-contesters, established nets, and QSO's
- Intentional interference to other contest operators
- The contest committee reserves the right to verify QSO's. QSO's that can not be verified may be removed from the log without penalty, especially if the committee is unable to obtain log information for verification.

**Scoring:** Each Contact, non-**WASH** Member: 1 point

**WASH** Member: 2 points

(\*) Club Stations: 3 Points

Multipliers: Number of different ZIP Codes

Power: Stations running 10 watts or less: 2

Stations running over 10 watts: 1

Final Score: Total Points x Locations x Power

(\*) "**Club Stations**" for the purposes of the contest are those calls assigned by the FCC or Industry Canada or equivalent to **bona-fide** Amateur Radio Clubs. They include **N3SH, WA3SH, NP2SH, WA3COM, W3KWH, N3GC, W3PIE, K3CR, W3YA, K3HKK, W3YI, W3VC, W3PGH, W3EXW, K3MJW, NY3EC, W1AW**, etc. The call **MUST** be assigned as a Club Call to be eligible. [In other words, you can't just claim to be a "club" and pick a call, or use the call of a club member; the call must be assigned as a club call]

**After the Contest:** Fill out all the log information. In the upper left corner check whether "base" or "mobile." In the upper right corner be sure to enter your callsign and club affiliation (or "none" if not a member of any club). Please number all log sheets consecutively. Log sheets can be downloaded from the **WASH** web site, [www.n3sh.org](http://www.n3sh.org), no later than January 1<sup>st</sup>.

**Submit Log Sheets:** Check your log sheets carefully for dupes. Verify that all information is entered.

Send the logs to: WASH 2 Meter Simplex Contest  
c/o Ron Notarius W3WN  
3395 Rosewood Drive  
Pittsburgh, PA 15234-2546

Enclose a SASE #10 for return of results.

Entry Deadline: February 7<sup>th</sup>, 2007

Each log submitted with SASE on or before the deadline will receive a raffle ticket to **WASHFest 2007** on February 25<sup>th</sup>

## Recommended FM Simplex Frequencies:

After the first year of the contest, we found that the limited number of frequencies suggested in the rules were insufficient for the activity level. In subsequent years, we permitted use of any recognized simplex frequency, as per the ARRL recommended guidelines published in the annual ARRL Repeater Directory and other sources, above 146.520 MHz.

You will note that many of these frequencies are listed as potential dual use, with a "local option" for them to be used for repeater inputs and outputs.

We have been notified that the Western Pennsylvania Repeater Council (WPRC) has issued their own "local" band plan for the 2 meter band, and has elected to withdraw most or all of these dual-use or optional-use frequencies in favor of their being assigned to FM repeaters, primarily those on 1 MHz splits. Although we have not heard of interference problems with any repeater (with ONE exception – the contest participant was notified of interference and immediately moved), good amateur practice requires us to take note of the situation and the potential for interference problems in some parts of Western Pennsylvania where these repeaters exist.

The following list of recommended frequencies are recognized as standard simplex channels and should not suffer from co-channel problems with any existing repeaters:

146.535 MHz	147.525 MHz
146.550 MHz	147.540 MHz
146.565 MHz	147.555 MHz
146.580 MHz	147.570 MHz
146.595 MHz	

The National Simplex Frequency, 146.520, may not be used. To avoid interference to other contestants and other users of the bands, please do not operate on 5 or 10 kHz "offsets" from these recognized FM channels.

To be clear, we have no objection to contest participants operating on additional recognized FM "optional" simplex frequencies above 146.520 MHz. Participants who do so run the risk of potential interference with repeaters sharing these frequencies, and therefore do so at their own risk. Again, as per the rules of the contest, if you operate on these frequencies and are notified of actual interference, please exercise good amateur practice and QSY.

We also recognize that the WPRC may continue to be less than happy with this stance. We point out to them that the amateur spectrum is a shared resource. And frankly, if push came to shove, the legality of their "withdrawing" of the frequencies from use by the general amateur population of WPA might be an interesting question before the FCC. (To say nothing of the fact that this change in band plan is probably something most WPA amateurs are unaware of, but that's another story).

Bottom line: Enjoy the contest, but do so responsibly.

# An Antenna Tale

Ron Notarius W3WN

Castle Shannon, PA, November 10<sup>th</sup>, 2006 — Knowing that we were due for good weather today, and having the day off, I took advantage last night at the club meeting and asked Larry K3VX if he could stop over sometime during the day and lend me a hand.

The primary task? Taking down the Cushcraft AV-4 and replacing it with my Butternut HF-6V.

I've used the Cushcraft on and off for a couple of years now, since it was given to me by Al KA3UPY after he retired, sold his house, and bought a boat (Al is now /MM up and down the East Coast, but that's another story). Larry and a few others have used it from time to time as well, as it was an easy antenna to dis-assemble into sections easy to travel. Overall, it's performed well, but for some reason, it just wasn't playing well here at the new QTH. And it just would not load on 30 meters come rhyme or reason. So, now that I had both my HF6 & HF2 back from storage at Bill W3WH's garage, I was eager to get the '6' back up, and at least regain 30 and 75 meters.

I should mention that the AV-4 was mounted on a mast and tied to the back chain-link fence. The fence is about 4 feet high, with some wild shrubs and Rose of Sharon growing behind it; I'd already trimmed the tops of the thicket to keep it reasonably short above the fence. The mast was about 6', and the feed point on the vertical was just within reach at the bottom (those of you familiar with the antenna know what I mean).

Before Larry arrived, I had already gotten the AV-4 down and the new RG-11 20 meter tuning stub cut and the connectors attached (thanks again to Stew N7RA and Don VA4DB for their help on the measurements, and to Jack K6JEB for offering to get me a small piece from his local vendor). I'd gotten a 20' section last night from another club member, Frank KB3FZU, and spent about a half-hour carefully measuring, cutting, and soldering, since if I made a mistake, there wouldn't be enough left to do another piece. I'd also brought the '6' out of the garage, lightly sanded the mast sections inside & out where they were being re-connected, and checked and tightened all hardware.

Larry arrived around 12:30. We quickly determined that if we were to put the '6' on top of the same mast, the feed points and coils would be way to high to reach, even with a step-ladder, so I dug a 4' mast section out of the garage and we swapped them. This piece was galvanized; the original mast was painted. That may have made a difference right there, since there was now a decent electrical connection between the mast and the fence.

Once the mast was in place, we positioned the antenna so that the bottom of the copper enamel DC coil was located just above the top of the mast. Larry held the vertical steady while I got three U-bolts in place and tightened (no worries about crushing the "section A" aluminum tube, mine's had a Mounting Post Sleeve on it for more years than I care to think about!). We then hooked up the RG-11 section and connected it to some temporary RG-8 I had (more on that in a moment) and checked the SWR in the shack. 1.1:1 or 1.2:1 on 10 - 30 and 40 CW, about 1.7:1 on 3800 kHz. This was amazing, considering that no adjustments had yet been done to the antenna, that it had been dismantled and stored almost 3 1/2 years earlier, and that there were [no radials](#) yet attached... which is why I'm convinced that the switch in masts has given us a better electrical connection and the fence is now acting as a counterpoise. And before anyone says it, yes, I am going to cut and bury radials! The only surprise was the SWR at 3800 kHz -- when last used, the '6' was set for a 1:1 SWR around 3785 kHz (I used to use the HF6 as my 75 Phone & 40 CW vertical, the HF2 as my 80 CW & 40 Phone one. Had to do with how I had my two operating positions set up at the old QTH, but that too is another story).

With this done, we turned our attention to the coax. The RG-8X coax feed to the antennas right now is a temporary one running around the perimeter of the fence. We're planning some major back yard work next spring, at which time I'm going to get some direct-burial RG-213 type to go straight back to the house, under the addition, and from that crawl space direct to the shack, about 15-20 feet shorter of a run. Anyway, the RG-8X was in two sections... a long one of new coax (thanks to Larry K4WLS) down the side fence to a point about 6 feet from the back fence, then a second section from that point, below the back gate, down the back fence to the antenna (roughly half way down the back fence). This was done so that if we needed to shift the vertical, I'd only have one small section of coax to replace; the section break also falls directly under a tree branch about 50' up that may one day hold an inverted "L" on 160 (the tree is my next door neighbors, and I already have permission — he thinks it's fascinating that 100 W can work the world, and yes, I have him thinking of a license...) which would be fed from that point.

I already knew that the PL-259 at the antenna end of the coax section was bad... I often had to go out and fiddle with it when the rig suddenly went quiet. Larry offered to run home and bring over his big 80 W soldering iron and redo the connection. I'm not dumb... I took him up on it.

While I was waiting for Larry to make the round trip, quickly worked VE5UA on 30 CW (1 call) and J37T on 20 CW (2nd call), so already, the Butternut was out performing the Cushcraft! (Also got the extension cord out to where the coax was, and a work table, misc. tools at the ready, and so forth).

Larry returned, and we quickly got back to work. He had planned to re-solder the PL-259's using the "K3LR Method," whatever that is, but forgot that we're talking about 8X so you couldn't do it that way. He made quick work of trimming and tinning the coax. Checked it on the continuity tester... short? Hmm, the other end of the coax was still disconnected. Yup, both ends had failed. No WONDER I lost the antenna last weekend (which cost me my [SWEEPSTAKES](#) budgeted time). Now, I had tested the coax before putting it in place a few weeks back, so I don't know what happened... doesn't matter. Fortunately, I had another PL-259 handy, Larry did his magic, we swapped the temp coax out and this section back in, and everything works. Except that it's now 11+ feet too long (remember the RG-11!), but since this is only going to be temporary to spring, I arranged it along the fence and let it go instead of trimming it. Didn't bother re-burying it by the gate, either, since I won't be mowing the grass back there for quite a few months now!

I'm really looking forward to seeing how well the antenna plays this winter! And once I get a few more radials under it...

Whither the AV-4? It's right now in the garage, next to the HF-2, awaiting future plans. It will probably show up at [WASHFest 2007](#) at the end of February. No, not for sale, but we may just add N3SH on HF in addition to the talk-in station this year! The '2' won't have a home until we start that yard work I mentioned... I have a small drop-off between my house and the other neighbor's that I'm hoping to terrace a little, and if I do so, the HF2 will get a prominent location in the clear all it's own -- and the radials can be put in the same time as the terracing. We'll see. Meantime, it needs the door knob caps replaced (which I have) and some other TLC, but that's the winter project... that and getting the *Swan '3Drifty'* back on the air...

There's a small irony to this tale. How did I acquire this antenna? When I first moved to Pittsburgh, I worked in a small (now defunct) local amateur radio store, [WESTECH ELECTRONICS](#). One day, I had just sold a brand-new HF6V to a local ham, who in turn sold me HIS Cushcraft AV-5 (for about \$25, he just wanted rid of it, and we didn't take used antennas in trade) — I had just gotten married, and I had no antenna at the new QTH. Right after I got delivery of the AV-5 [and frankly, the sad condition it was in, it wasn't worth even \$10], I was on the phone with Don WØDN (founder and original owner of Butternut, and the designer of the HF#V vertical family). Mentioned in passing to him how I had acquired the AV-5; he was disappointed that I didn't buy an HF-6, but understood I couldn't afford one (KQ3T didn't pay me all that well, but at least it was above minimum wage -- "what, and give up show biz?"). Then Don surprised the heck out of me; he made me an offer.

WØDN offered to trade me, even up, the beat-up AV-5 for an HF-6. Not a new one, but one that had been returned. Don told me that they checked out the returned antenna, there appeared to be nothing wrong with it — a case of buyer's remorse? — but he couldn't sell it as new. And, he said, he needed an AV-5 for Butternut's test range. Uh, yeah, right. I didn't believe it either, but you think I was going to argue? Now, I'm many things, but not that stupid. I took him up on it. About a week later, an HF6V shows up at my house. A brand-new one. (Or they boxed the returned antenna up with new hardware and in a new box... either way). That's the antenna that's on my back fence now. Once again, it takes the place of a Cushcraft vertical. Go figure.

My thanks to all who helped in one way or another to get this beauty back up and on the air... W3WH for storing it for me these last three years, K3VX for his support especially today, KB3FZU for getting me the coax stub, K4WLS for the gift of the RG-8X, & as mentioned above, N7RA, VA4DB, and K6JEB for all of their technical and other support.

## Future Club Projects

Larry Comden K3VX

During the November club meeting I asked if there was any interest in constructing accessories for your station as a club activity.

Here are four project descriptions.

1. A simple CW interface between a computer serial port and the rig's key jack Requires a handful of parts. Very useful for sending CW from the keyboard or stored messages. Assumes that your logging program can use the serial port for keying.
2. DC in Coax. Based on a design by AD5X. You can inject up to 14VDC into the coax at your shack and recover it at the antenna end to power a tuner, antenna switch, preamp or brick amplifier. Design proven at K3VX and W3WH stations.
3. Time Domain Reflectometer. Don't let the name discourage you. This is a useful gadget for testing coax cables for impedance "lumps" caused by bad cable, bad connectors, opens, shorts. Can be used to estimate cable velocity factor, too. Requires an oscilloscope to display the results. I built this from a \$15 kit based on a design in QEX.
4. Short Circuit Tester for Printed Circuit Boards. Called the W4ZCB Beeper. It may not be safe to use your ohm meter to probe for shorts on some boards because the meter applies a voltage which can destroy ICs. This gadget applies only 0.1V (100 mV) and uses an op amp comparator to distinguish between a reading of under 60 ohms (maybe a short) and over 60 ohms (probably OK). Great for detecting solder bridges on today's close spaced components.

I'll bring all 4 to the January 11<sup>th</sup> meeting.

Have you checked [www.n3sh.org](http://www.n3sh.org) lately?

(Eagle Continued from page 5)

number of wires in the wiring harness. We have modified the CAN bus to make it more tolerant of single faults.

All of this work is, or will be as soon as people can write it down, publicly visible on EaglePedia. Other things we're doing:

- Formal peer review of each design. I don't release production funds until the design has been documented, peer reviewed, and peer review comments formally resolved. All of this will be visible on EaglePedia.
- Fault tolerant design. We are seeking to design out any single point "mission kills." For any single point failures that we can't eliminate, we will rigorously test and document – our vulnerabilities will be well understood, and as much as possible, mitigation strategies determined before launch.
- We will test *and document* every possible mode of operation, even those which are not intended to ever happen. If I have my way, there will be no surprises on-orbit.
- We will be responsible stewards of our contributors' funds – I authorize every dollar spent on Eagle, and I make sure I understand why and how much and that every expense is justified. No one will be able to allege that we squandered AMSAT member's money, or that we can't justify how we spent it.

So, what does this mean to WASH members? Well, a few of your fellow members are heavily involved in all this. We're presenting an opportunity for you to explore some new aspects of Amateur Radio. We're presenting some new ways of supporting ham radio's emergency communications mission. At the AMSAT Symposium in October 2007, we're presenting an opportunity for you to get a close look at some of this work, and to meet those involved. And we hope you like what you see well enough to join AMSAT, and even contribute toward Eagle, if you find it worthwhile. (Contributions to AMSAT are tax deductible.)

WASH has committed to hosting *Symposium*. I've no doubt that we'll do a nice job; WASH is a class act and I'm proud to be a member. Although *Symposium* will be a lot of work, it is more an opportunity. It is an opportunity to become familiar with and get involved with an exciting, challenging aspect of amateur radio. It is an opportunity to meet some new people from all over the world with similar interests in this part of amateur radio. See you there.

As always, questions to [wb4gcs@amsat.org](mailto:wb4gcs@amsat.org)

## DX News Briefs

The **VU7LP** Dxpediton went QRV on 30 November and are expected to be there throughout December. Each operator will sign VU7LP/home call, as per government requirements, but the ARSI operators request that you do not work multiple ops on the same bands. QSL via W3HMK — ARSI, 425 DX News 813



Members of the F6KOP Provins ARS are heading up a multi-national DXpedition team as **XT2C** Burkina Faso in January 2007. Look for activity on 6 through 160 meters on CW, SSB, RTTY, PSK, SSTV and possibly WSJT for 6 meters. They will have six rigs, two amps, and multiple antennas. Activity is expected between January 6<sup>th</sup> and January 20<sup>th</sup>, 2007. QSL via F9IE — N2WB

"The WPC, Govt. of India, has initiated the process of issuing reciprocal licences to the applicants of **VU7** HAMFEST participants. For more details please check the official VU7 webpage [www.vu7.in](http://www.vu7.in) on regular base since from now on more interesting information regarding dates, callsign(s), planning status will get published there." — DL4KQ

"Some radio amateurs are complaining about not receiving any reply for the QSL cards they had send via bureau. **TRAC QSL Bureau** is doing the distribution in Turkey for the QSL cards that had come for me. Because of different reasons, which do not originated by me, I have not received any QSL cards from TRAC QSL Bureau since April 21<sup>st</sup>, 2006. I recommend my radio amateur friends to send me the QSL cards directly, if they need the cards urgently. Even though I don't receive IRC, Money or SASE, I send my QSL cards directly, if I receive QSL cards direct." — TA3YJ

The following Bureaus are now closed for the ARRL Outgoing Bureau

Service: C6: Bahamas  
C2: Nauru  
ST: Sudan  
HV: Vatican City State  
4J: Azerbaijan  
V4: Saint Kitts & Nevis — Sharon Taratula, ARRL

**3CØM** logs can be found now at <http://personal.telefonica.terra.es/web/ea5yn/> — EA5YN

**5A7A** logs can be found at <http://www.df3cb.com/logsearch/5a7a/logsearch.php?cmd=search>. The on-line log is now complete and shows 112,175 QSO's. QSL via DL9USA — W3WN

Look for **9M2MRS** 1 January — 28 February 2007. QSL via PAØRRS

DJ6SI and DJ9ZB have postponed their trip to the Congo **TN** because of license delays — 425 DX News #813

F6CXJ is not the manager for **TZ9A** — F6CXJ

## QSL Routes

4L8A via DJ1CW — K3WI	OX3XR via OZ3PZ — W2IRT
4O3B via OH2BH — OH2BN	P29NI via G3KHZ — W2IRT
4O3T via PA5O — WØDM	P29VCX via SM6CVX — K3WI
4W/CU3FT via CT1EEB — CT1EEB	SU9FL via WD9DZV — W2IRT
4W6EB via CT1EEB — CT1EEB	T96Q via T93Y - KE3D
5R8GZ via G3SWH — W2IRT	UAØAZ via W3HMK — K5AQ
5WØDP via KT8X — K3WI	UK8IZ via IK2QPR — W2IRT
5WØTR via KT8X — W2IRT	UN7QX via W7BO — W2IRT
8Q7GL via IKØXIH — IZ8CCW	VK4UC via N3SL — K3WI
9Q1D via SM5BEJ — W2IRT	VK8CS via CT1EEB — CT1EEB
AH2J via JR1VAY — W2IRT	VK9CGG via WØYG — W8GC
C33IU via GØOYH — W2IRT	VP6UU via NØUU — W2IRT
DT8A via HL2FDW — K3WI	VR2MY via VR2KW — K3WI
FT5XP via F4EFI — K3WI	VU3MCV via ON7LX — K1NU
GTØSTH via G4DIY — W2IRT	VYØICE via VE2AWR — DE1DXX
J7R via N1DL — K3WI	XU7TZG via ON7PP — W2IRT
KG4DX via W4WX — W2IRT	YT6A via YU1FW — OH2BN
LU8XP via WD9EWK — K3WI	YU6AO via YZ1EW — KA2BZS
LY6A via LY2BM — K3WI	Z22JE via K3PD — KZ2I
LZ8A via LZ2BE — KE3D	ZX2B via PY2MNL — K3WI

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

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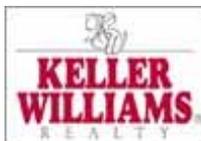
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## FCC News

ARRL Web Extra & ARRL Letter, courtesy of the American Radio Relay League

Newington, CT, December 6<sup>th</sup>, 2006 — The ARRL has called on FCC Chairman Kevin J. Martin and his fellow commissioners to employ "a more even-handed approach" when promoting new broadband technologies. In a December 6 fax to Martin and the other four FCC members, ARRL CEO David Sumner, K1ZZ, faulted the chairman for using broadband over power line (BPL) deployment data from the BPL industry when speaking at Georgetown University November 30. Martin's presentation included a slide of a map from the United Power Line Council (UPLC), a BPL proponent, purporting to show current BPL deployments in the US.

"This slide is taken from a biased industry source and fails to note that a large percentage of the deployments shown on the map have been shut down and no longer exist," Sumner told Martin. His letter included a list of five systems shut down as much as two years earlier. In several instances, utilities announced they had abandoned their BPL pilot projects because they proved to be uneconomical or were unable to compete with existing broadband technologies.



Sumner said the ARRL "respectfully requests" the FCC cease using the UPLC as a source for illustrating BPL deployments. He further faulted the chairman for failing to include slides on the other two new technologies in the early stages of deployment he'd mentioned -- wireless broadband and fiber-to-the-home.

That omission occurred despite the fact that the FCC Report, *High-Speed Services for Internet Access: Status as of December 31, 2005*, showed 448,196 fiber lines and 256,538 fixed wireless "lines" compared to just 5859 for "Power Line and Other," Sumner pointed out. "Your prepared remarks do not even mention satellite broadband, yet the same report shows 426,928 satellite 'lines,'" he added.

Sumner also said BPL, as a technology, doesn't warrant the kind of partiality it's been getting from the FCC. "As you know, the ARRL's concern is with the still-unresolved radio interference issues that uniquely plague BPL and not with BPL as such," he noted in conclusion. "However, it is evident that the technology does not deserve the favored treatment the FCC continues to bestow upon it, especially when its inherent shortcoming, that it is a radio spectrum polluter, escapes mention."

Sumner said the UPLC BPL deployment map Martin used when speaking at the Georgetown University McDonough School of Business Center for Business and Public Policy November 30 also was on display at the FCC open meeting last August at which the Commission adopted its BPL *Memorandum Opinion and Order (MO&O)*. The *MO&O* dispensed with various reconsideration petitions, including one from ARRL, asking the Commission to reconsider its October 2004 BPL *Report and Order (R&O)*.

Martin's excessive emphasis on BPL as a "new" technology when other new technologies, "are vastly more successful and promising according to the FCC's own reports" belies the chairman's impartiality, Sumner commented.

"The ARRL remains highly dissatisfied with the Commission's handling of the BPL radio interference issue," he continued. "There is nothing evenhanded about the Commission's continuing favoritism of BPL over other broadband technologies that do not share its unique shortcoming of causing radio spectrum pollution."

In October, the ARRL notified the US District Court of Appeals -- DC Circuit that it would seek review of the August *MO&O* as well as the October 2004 *R&O* on the ground that they exceed the Commission's jurisdiction and authority, are contrary to the Communications Act of 1934, and are arbitrary, capricious, an abuse of discretion, and otherwise not in accordance with law.

The League will request that the court "hold unlawful, vacate, enjoin and set aside the orders." A court filing detailing the League's specific objections to the two FCC orders is pending.

Sumner has said the League decided to go forward with its appeal only after considering the effect on licensed spectrum users of letting the BPL rules stand. He addressed a number of ARRL's concerns with the FCC's BPL rules in his "It Seems to Us . . ." editorial in October *QST*.

The FCC has ordered that David Edward Cox, W5OER, of Pride, Louisiana, be stripped of his Technician class Amateur Radio license. In October 2005, the FCC sent Cox an *Order to Show Cause* to initiate a hearing proceeding to determine if Cox, who's serving time on several felony convictions, possessed the requisite character to remain an FCC licensee or should face license revocation. Over the past several years, the FCC has been applying its so-called "1990 Character Order," initially intended to apply to Broadcast Service licensees, to Amateur Radio licensees and applicants.

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# Inside This Issue:

- **WASHFest 2007** Is Coming!
- Congratulations to our 2007 Officers!
- So exactly how did WB4GCS end up running the Eagle project for AMSAT
- An Antenna Tale
- Was Fessenden the first?

**All this & much more... waiting for you right inside these pages!!**

## **Power Line Noise? No Problem! Have Ax, Will Travel!**

Paul KB3KOT at N3SH Venango, in preparation for the 2006 Pa QSO Party Shameless Plug:  
More pictures from the various N3SH operations during the Pa QSO Party can now be found at the new club web site at [www.n3sh.org](http://www.n3sh.org)



Photo & caption courtesy of & Copyright ©2006 Randy George N3ZK

## The WASHRag

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**Annual 2 Meter Contest Next Month! Complete Rules Page 6!**