



Potomac Valley Radio Club Newsletter March 2008 Edition

Visit us on the web at www.pvrc.org
and www.pvrcnc.org
Submissions to [pvrc at his.com](mailto:pvrc@his.com)

*Congratulations to All PVRCers Who Struggled
and Persevered Through the ARRL DX Contests!*

From The President *from Ken K4ZW*

It's been a great month – plenty of contest activity to report on and prepare for, and little PVRC business. Just the way it should be!

We are such a geographically dispersed group that it's virtually impossible to get everyone together in one location without a major coordination effort. Instead, last month the club's officers met via teleconference. Agenda items included dissolving the Virginia DX & Contest Group and merging the Southern Maryland Chapter into the Central Chapter; circle administration; promotion of contesting; and PVRC award programs.

The NA Sprints, WPX RTTY, ARRL DX, and CQ WW 160 SSB contests behind us. Next up is the CQ WPX contest. Those of you who participated in recent contests know full well we are at the very bottom of the sunspot cycle. For a time it looked like the multi-multi team of W3LPL, which I was a part of, would not make a single contact on 10 meters the first day of ARRL CW. We managed 8 QSO's late Saturday afternoon. Despite poor conditions, there is still plenty of excitement to be had if you turn on the radio and spend a little time in the chair. K4EU, for example, decided to run some stations on 1869 kHz during the CQ 160 SSB contest. After working a few stateside stations he was called by none other than VP6DX on Ducie Island. Talk about a great multiplier! At W3LPL, we had about given up hope that we would work 9V1YC on 40 meters during ARRL CW when James suddenly called in, just as we were having a discussion about turning the beam from the Southeast back to Europe. That resulted in a high five between the 40 meter operators!

I'd like to put in a plug for the upcoming CQ WPX contests (SSB-March 29 & 30, CW-May 24 & 25). These contests offer the best of both worlds: both DX & domestic

QSO's count for points and multipliers. Even better, there is no circle restriction on club participation ("Local geographical area"). Here's our opportunity to rally the entire PVRC membership to get on in full force. Mark it on your calendar and put in a couple of hours, or more if you can. Lets show them what we got!

Editor's Musings *from Eric W3DQ*

For all the talk about what shouldn't be happening in the radio-sport world, participation in the ARRL DX contests, with condition as bad as they'll ever be, was amazing. It's been a long time since I've seen such graphic descriptions:

W3ZZ: "A fine introduction to HF DX contesting...No one knows what suffering is until he has operated 20 meter fone during sunspot minimum."

K3ZO: "At least when conditions are like this one can afford to relax a bit and allow a few more creature comforts to intrude, such as eating meals at the dinner table instead of in the shack, and glancing though the Sunday paper when it arrives instead of waiting until the contest is over."

My favorite came from K4XD. "Wow, my ears hurt. It's like trying to hear someone whispering to you from 3 feet away while you're in the fifth row of an Aerosmith concert in full blast. Actually, it's more like being at the junction of several loud concerts going on at the same time. Only problem is that you can't just nod politely, it's really important to understand that whisper!"

But in the end, K4CIA said it all: "**Conditions could have been better, but we have no choice except to turn the rig off.**"

Thanks to this month's contributors. Keep sending those articles and pictures go to your editor at [pvrc at his.com!](mailto:pvrc@his.com)

Enjoy the change of seasons. See you in the pileups!

**Tokyo Hy-Power HL-1.5Kfx
HF/50MHz Solid-State Amplifier–
Additional Notes** *from Bob W3YY*

[Editor's note: Last month's PVRC Newsletter featured a review of this amplifier by W3YY. Here's Bob's follow-up to his review]

In the interest of providing "full-disclosure" I'm sorry to report problems with my HL-1.5Kfx after writing last month's positive review of the amplifier.

After 1100 trouble-free QSO's in the ARRL CW DX contest, one of the MOS-FET's or an associated component apparently failed. After the unit was repaired another failure occurred. The service from HRO and Tokyo Hy-Power can't faulted. They did the initial repair free including all shipping. They've provided a full refund and have offered a new replacement amp. I still want to try the HL-2.5Kfx and may take them up on their offer to try another HL-1.5Kfx.

The Tokyo Hy-Power amps are beautifully built with MIL-SPEC type construction. Hopefully, my experience was the exception rather than the rule.

In any case, I felt a need to report on my latest experience with the amplifier. I will report on any future experiences with either the HL-1.5Kfx or HL-2.5Kfx.

ASUS Eee Review

from Carl K3RV

In the past few weeks, a significant breakthrough has taken place in the PC market. A new generation of low-cost Ultra Mobile PC's (UMPC's) has been introduced by Asus. Similar to the highly publicized "one laptop per child" device, the Asus Eee is a compact, lightweight unit with modest performance at a relatively affordable price.



Shortly after its introduction, upon reviewing the specifications, I purchased an Eee model 4g for a hair under \$400, primarily for use during business trips. The unit measures less than 7 x 9 x 1 inch and weighs only two pounds. It has a 900 MHz CPU

(clocked at 630 MHz) and 512 kb of RAM (upgradeable on some models).

What is unique about this device compared to traditional computers is that it uses a solid state drive (SSD) in lieu of the typical electro-mechanical hard drive. The 4g model is fitted with 4GB of SSD, of which most is dedicated to the operating system and pre-installed applications.

The hardware complement includes a 7" diagonal color LCD display with 800 x 480 pixel resolution, three USB ports, headphone and mike jacks, integral speakers and mike, Ethernet port, a web cam, VGA port, and 802.11b/g wi-fi. There is also an SD card reader to accommodate additional storage needs. The internal battery is rated at about 3.5 hours.

The Eee is furnished with an Asus-customized variant of Xandros Linux, but drivers are supplied to permit the unit to be converted by the user to Windows XP OS (although the software license is not included). The advantage of the Linux OS is that it is "skinny", fast, and supports a wide range of free open-source applications. The is pre-loaded with Open Office (a suite of apps similar to and compatible with MS Office), SKYPE, and several other business and consumer-oriented programs. Additional Linux applications can be installed from public "repositories" by the user, but some familiarity with the Linux environment is needed. There is an excellent user community support group at www.eeeuser.com with a wiki, forums and other helpful resources.

For the purpose that it was intended, the Asus Eee is excellent. I find it much more convenient to travel with this device than with my previous eight-pound HP 15" laptop. That said, the raw performance of the Asus Eee cannot compete with a "normal" laptop, nor is it intended to. If size is not a major factor, a 14 or 15 inch "conventional" laptop with much better specifications can be purchased for nearly the same price. On the other hand, if portability is truly the primary consideration, the Asus Eee is a fine product. The main operational drawbacks related to the small size are that more scrolling on the display is required to view web pages and documents and the reduced keyboard takes some practice to get used to. However, all things considered, the Eee is very suitable as a traveling companion.

So, what does this have to do with radio contesting? Well, it did occur to me that this unit would be ideal as a DXpedition laptop, where size and weight are major issues. Perhaps the easiest way to accomplish this would be to switch the OS over to Windows XP and run one of the popular Windows logging applications such as N1MM, Win-Test or Writelog. However, there are some Linux-based logging programs that may be compatible with the included OS, but some customization will be required to get them to run properly on this device. A good directory of Linux software for Ham Radio can be found at

(continued on the next page)

<http://radio.linux.org.au> (show "all"). It is only a matter of time, I hope, before some enterprising contesters tailor some of these programs to the Eee version of Linux. I wish I could do it myself, but much more familiarity with the subtleties of Linux is necessary.

For contesting applications, the impact of the small keyboard and display must be assessed further. The compact keyboard (about 80% of a "normal" sized one) could slow down the logging rate or lead to typing errors; the best way to mitigate this is to get plenty of practice with the Eee before using it in a serious contest. One could, of course, plug in an external full-size USB keyboard, but this would detract somewhat from the whole point of the exercise. Likewise, the smaller screen will take some getting used to. While the resolution is quite sufficient, the aspect ratio may not be suitable for some software applications that need lots of vertical screen space.

The Eee is available from mail-order companies such as Amazon and Newegg as well as some "brick and mortar" stores. There are cheaper models of the Eee that have less storage capacity, smaller batteries and no web cam; but I would recommend going for the 4g (or even the newer 8g) configuration if your budget allows. This will provide the most flexibility. I should mention, however, that the marketplace is changing rapidly. Asus is soon releasing some more models with larger screens, more memory and pre-installed Windows XP. In addition, some competitors are expected to introduce similar products in the very near future.

I do not believe that the Asus Eee or similar products will enter the mainstream of contest logging devices, but for DXpeditions or perhaps Field Day, it could possibly fill a niche.

ASUS Eee PC Contest Use

from Henry K4TMC

My Eee PC is the model 701. It has 3 USB ports and the largest battery option (3.5 hour) available from Asus, it has and connections for an external monitor and Ethernet but no webcam. All of the Eee PC's are fully wireless, so you can be the envy of the crowd at your local Starbucks.

Being a 'true' ham with lots of hamfest experience (i.e., haggle for the best price), I purchased my unit used from Brad, AL4T. Brad and I had traded a few e-mails about the Asus unit after he announced his purchase a few months ago. With his upcoming move to OK, he decided to part with some unnecessary items. So, after a brief discussion at the last PVRC-NC meeting we arrived at a deal.

I used the Eee with the Linux OS for a few days, and was quite happy with the performance and the standard software that comes with the unit. As I plan to use the Eee on some business trips and need a clean/smooth running

Microsoft Office suite, I installed Windows XP on the Eee. The installation process was flawless. I followed the instructions exactly as described in the Eee's Users Manual, with the exception of deleting some of the files recommended in the last part of the instructions. The Eee units do not include an internal optical drive (CD/DVD), so I had to use an external drive unit to run the XP installation disc. The conversion to Windows process does take quite a bit of time and attention from the user (like building an Elecraft K3). After XP was up and running, I installed Mozilla Firefox, Acrobat Reader, AOL Ver. 5.0, and Microsoft Word, Excel, Access & Power Point (2003 versions). For the CQ WW 160 SSB, I installed N1MM Logger with all of the current updates.

The Eee Model 701 comes with 512M RAM and 4G hard drive space. I got a 2G RAM upgrade off of eBay and installed that just before adding Windows. Interestingly, the Eee only recognizes half of the extra RAM, so I am apparently only using 1G of RAM.

With all of the above software installed, I still have over 1G of free space in the original 4G hard drive.

XP initiates faster than on my Eee than on my other laptops and desktops which have similar RAM amounts but faster processors. So, as a basic computer, the standard 4G may be all you need. With the 3 USB ports, you can add an external hard drive (I added an 8G SDHC card for \$40 from the local Tiger Direct store), or use those little USB memory sticks, now easily available with up to 8G space.

For anyone trying to decide whether to stay with the Linux OS that comes on the unit, I offer the following comments. I am strictly a PC person - period. I have never operated a Mac and have only seen a few in use by others. The founder of Red Hat was my next door neighbor for several years (just before the company became famous). I just never had a desire to try anything different. So, this was my first exposure to the Linux operating system. It was very easy to use, and is faster than XP, even with the original 512M RAM. I would have been happy to keep using it except for the need to run Windows programs. Plus, I did not want to deal with trying to find, install and 'tweak' other unfamiliar programs. So, a lot of you more computer-savvy types may be just as happy sticking with the Linux system.

The keyboard does take some time to master. It is smaller, and the tactile feel is quite different from all of the other keyboards I have used. I find myself making a lot of mistakes when touch-typing. For less experienced typist who do not use all of their fingers, it may not be as big of a problem. For me, this is still a 'work in progress' area.

In the recent CQ 160 SSB effort, I used an external keyboard, the Happy Hacking Lite unit seen in the Yaesu FT-2000 ads. And, to help my 56-year-old eyes, I used a 19-inch LCD monitor during the contest. I was able to easily run N1MM, surf the web, monitor e-mail, and keep

(continued on the next page)

track of eBay auctions, with no problems. The Eee stayed on for the full weekend powered by the charger unit. Since there is no built-in fan, it does get warm after a long period of use.

The 7-inch screen is small. Reading AOL Flash Session e-mail is not a problem, as I can change the font and mail window size for easy viewing. Web surfing has generally not been a problem. So far, the biggest problem I have encountered is with some of the MS Word documents I use often on business trips. The standard font size on these documents is Arial 8, which becomes very small and blurry on the small screen with only 800 X 400 resolution.

I have read that users can improve the resolution on these units; however, I haven't yet explored that area.

I did not try using the 7-inch screen during the contest, so am not sure how some of the additional logging information screens would appear. The main N1MM log screen was usable when I first downloaded and setup the program.

Unlike all of the other laptops I have owned, this unit does not have a box that requires two cords, one to the wall outlet and one to the laptop. The charger assembly has a built-in flip-out male wall outlet connector (no ground terminal). Thus, the only cord is the 6-foot cord that plugs into the back of the Eee. Another nice feature is that the plug is a standard size that you can find at Radio Shack, instead of some 'brand-only' plug. I really like the feature of only one cord to deal with when traveling.

The little internal speakers are quite good considering their size and when compared to some other larger and more expensive laptops. I have used my Eee unit several times to play the internet radio broadcast of the local NHL Carolina Hurricanes games.

Unless you add an external keyboard and monitor, I would not recommend the Eee PC units as your sole solution to computing and internet access.

This is not the machine for you if you want super fast processing and to play video games.

However, it be a great computer to take along on a vacation (DXpedition), business trip, or to the local coffee shop. And, as they come in a variety of colors, get one for the XYL and the kids. I will be using mine a lot when I go shopping with the XYL. I'll be sitting on a mall bench reading e-mails or surfing the web!

The Asus Eee is a cost effective backup to whatever you are currently using, be it a desktop or larger laptop unit. Working at a nuclear power plant, you learn that redundant systems are very important. It's nice to know that if my regular laptop or desktop breaks unexpectedly, I have a backup ready to go.

The TOOLBOX:

March 2008
from Don K4ZA

Poll date: October 19, 2007

Have you performed maintenance on your antennas to get them ready for winter?

Yes		29.2 % (733)
No, but I will soon		26.4 % (664)
No, it isn't necessary		44.4 % (1115)
Total votes: 2512		

Well, when W3LPL handed me the above survey results back in October, I was, in a word, dumb-founded. Surely, I felt, something was amiss, wrong, or simply premature!

Antennas are mechanical in nature—they exist outdoors, facing the elements, and they are often high in the air. (Remember: "It's mechanical. It's not a question of if it fails, it's a question of when it fails.") It's just common sense to consider maintenance, especially preventative maintenance. How or why nearly half the respondents could think such work unnecessary staggers the imagination.

I recommend, to all my appropriate clients, that tower maintenance be performed every six months. Here's what to include:

You start with looking UP the tower, checking to see if it's plumb. If necessary, or you simply don't trust your eye, you haul out the transit.

You walk over and inspect each guy anchor or guy post. You look for things like movement—have the anchors or posts heaved out of the ground due to freezing and thawing?

You measure the guy tensions. Hopefully you have something to COMPARE such readings to, but if not, record them now. (Most ham towers have guys which are way too loose. In all my years of tower work, I have only encountered ONE tower with guys that were TOO TIGHT, meaning the owner had 1/4-inch EHS tensioned to 5/16-inch EHS ratings!) Obviously, during each such inspection you're looking at the hardware for rusted or missing pieces. Take notes for later paint touchups, etc. If necessary, take up the tension and get the tower straight at this point.

Now, you climb the tower; you start at the top and work your way down. Have the antenna oriented North. Check the direction; check the rotator bolts, both those in the clamp and those holding the unit in place. Again, you're looking at all the hardware. Inspect the rotation cable loop.

(continued on the next page)

If you can get to the antenna feed-point, look at the weather-proofing, and so forth. Working your way down the tower, you check the hardware, you look at all the cables, and so forth. At each guy station, you pay particular attention to the hardware, including the thimbles and shackles and bolts. If needed, you can do any touchup painting as you come down.

Within a short period of time, you've worked your way to the bottom, where you examine the ground connections in detail. It's not uncommon to find these fittings will have loosened up over time (not many hams utilize exothermic or CAD-WELD joints). It's also not uncommon for hams to ignore weatherproofing the ground fittings. Inspect the concrete at the base, clearing away any and all debris.

Record your findings in the station notebook. Make those needed corrections or touch ups, as needed. You'll not only be ready to face the winter weather, but probably another six months of trouble-free operation, barring some act of God or other unforeseen circumstances.

This outline represents a simple, common-sense approach to preventative maintenance for the most important part of your station—your tower and antennas. It's very cheap insurance, regardless of how those uninformed 2500 other folks feel!

How Many Contests Do You Enter? *from Scott W4PA*

The Radio Active Award -- awarded to the Tennessee Contest Group member who makes the most QSO's in a calendar year -- was won for 2007 by K4RO, who logged 26,499 (!) contacts in 56 contests in 2007. That's 56 contests in one year. K1GU operated 77 to take the most entries title. Every contest counts -- the rule is any publicly announced contest via Internet or in the ham magazines is eligible so even the state QSO parties, you name it.

The great thing about winning the award is that it will be won by the most active contester, and not the person with the biggest station. You have to operate a lot of contests, CW and SSB, and now you even have to get on RTTY to win it. For example -- I'm an active contester. I've made 5000 QSO's in a weekend a number of times. I've never finished in the top 5 in TCG for the Radio Active Award. Operating 4 to 6 major contests all out plus the Sprints, plus NAQP CW's as a single op like I usually have in a typical year - forget it. That won't even get you within striking distance of winning. You pretty much have to operate full-time in EVERY contest through the year -- all the 160 contests, NAQP's, Sprints, WPX, ARRL, CQ WW, IARU, NAQP, Sweepstakes on both modes plus some RTTY on top to win it.

Tennessee Contest Group Top Ten Participants:

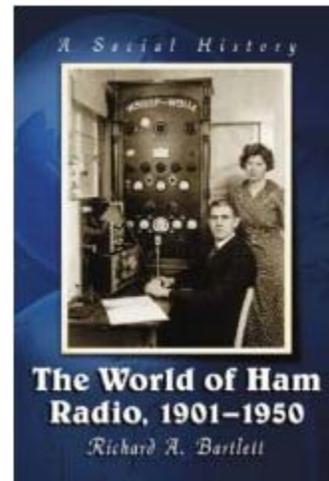
2007 Finish	2007 Tests	2007 QSOs	2006 Finish	2006 Tests	2006 QSOs
1	K4RO	56	~ 4	35	10643
2	N4ZZ	41	~ 1	52	24619
3	K1GU	77	~ 6	50	10102
4	K4LTA	44	~ 3	39	15373
5	W4NZ	70	~ 5	49	10290
6	NA4K	33	~ 10	19	6992
7	W4PA	11	~ 8	10	8588
8	WO4O	23	~ 11	13	6662
9	AD4EB	27	~ 2	33	19010
10	K4AMC	38	~ 20	17	3622

None of those callsigns are likely unfamiliar to active contest operators. All told, TCG reported a total of 269,581 QSO's made by 79 different members in 2007. TNX K4KO for maintaining our list year after year.

The World of Ham Radio, 1901 – 1950: A Social History by Richard A. Bartlett

Reviewed by Steve W3OU

Although not a ham himself, the author is an admitted fan of ham radio, and the book is dedicated to, and



contains content about his brother, Forrest "Bart" Bartlett, W6OWP, who became a silent key in July 2006. A photo we can all hope to emulate shows Bart at the top of his tower at the age of 88. Although spread throughout the book, the author's account of W6OWP's hamming activities come across with the most personal touch.

The first few chapters of the book covers the early period of ham radio's formation in both technology and structure. The pre World War I era comes across as a wild west atmosphere without much distinction between amateurs and commercial operators, and little in the way of regulation, licensing (the ultimate vanity call pick your own program), and frequencies. The use of hams in World War I is recounted, along with the shut down of the service. The author has a good description of the days after WW I where the future of ham radio was iffy and the involvement of the ARRL, Commerce Department, Congress, the military and other interests in the return of a structured and regulated amateur service. The advances of the 20s is covered, and the author does diverge into more general radio related topics such as the establishment of

(continued on the next page)

wireless press services and the broadcasting revolution with the public.

A large portion of the book is devoted to what I would describe as extreme hamming. Bartlett has the stories of expeditions using ham radio in auto equipped caravans to the tip of South America, which didn't make it too far into Mexico, Arctic and Antarctic expeditions in the air and on the sea, record breaking flights and world cruises. Unfortunately, some of these resulted in the death of the ham, with graphic descriptions of going down at the key.

The author divides the World War II period into the home front and at war. Although the shutdown of amateur radio in the US after Pearl Harbor is well known, the author brings up the earlier effects of the war prior to the US entry, which resulted on a total ban on non US contacts in the spring of 1940. Although presented as a substitute for emergency amateur communication during the war, the author details the limitations of the War Emergency Radio Service (WERS). It took many months to get off the ground with VHF only bands allocated for local communications. Licenses were issued to municipal governments, not individual hams, after an involved licensing process. Even at its peak, there were only a few hundred WERS licenses issued, and on the air drill time limited to a few hours one day a week.

Beyond the numbers, tens of thousands of hams in the service and hundreds of thousands of personnel receiving some form of radio training, the author presents a detailed look at radio training in the various branches of the military. The Army, Marines, and Army Air Force had a more tactical training approach, and the Navy and Coast Guard are shown to have more extensive training programs, as would be expected with their long isolated deployments. Some wartime ham gatherings are described such as the wearing of QSL cards at Fort Mammoth; get-togethers; overseas events in Australia, Africa, and the South Pacific; and RSGB sponsored event with over 150 hams in attendance. The book concludes with the return of amateur radio after WW II.

Reading this book brings up comparisons to Kristen Haring's Ham Radio's Technical Culture. Haring's book covers a later period stretching into the 70s, which many of us can remember. Also, Haring's book seems more focused on the average ham; Bartlett's book tends to spend a lot of time on the Martti Laine's of their day which reminded me of reading Kon Tiki in junior high school with its real life ham radio adventures.

For Sale: Foot Rests by W3TMZ



Save your legs with a foot rest from PVRC member W3TMZ. Contact Jack directly at w3tmz@pvrc.org. The price is \$29.50, ready to assemble.

Elecraft K3 versus Ten-Tec Orion 1

Two Reviews Retrieved from

http://www.zerobeat.net/mediawiki/index.php/K3_versus_Ten-Tec_Orion

- from K4IA

Size - the Orion is a suitcase, the K3 is a lunch box -much smaller and lighter. As a result the K3s buttons and knobs are smaller and closer together. The K3 is portable, the Orion is not.

Bandscope- the Orion's may be primitive but it works. The K3's will be a separate unit and is still planned for the future. Someone may come up with a box to attach to a computer monitor.

Price - you'll have to add that up yourself.

Ease Of Use Issues:

- Orion has one button band switching and 4 stacking registers. The K3 cycles through the bands and has memories.

-Orion is 2 button pushes to change mode, K3 cycles through modes.

-Orion has a low power tuning function that makes it easier to pre-tune your amplifier. This is a firmware upgrade planned for the K3.

In my opinion, the K3's bandwidth adjustments are much easier to use. I have never gotten used to the Orion's.

Some functions are not as handy on the K3 because they are in a menu but they are functions you don't tend to change much. Most functions in the Orion are no more than two button pushes and a knob adjustment.

On the other hand, a lot of functions you do change are activated on the K3 by pushing the adjustment knob and that makes more sense and is easier to follow than the Orion's menu selection and multifunction knob.

Firmware: Orion 1 had never been "right." It is better now as the mysterious crashing seems to be cured. The latest versions do not implement NR very well (if at all) and TT may be done with any further improvements. The K3 is very good as it is and Elecraft is working to add features. I feel better being on the edge of an improving product.

Receiver: I think the specs give the advantage to the K3 and I haven't had mine long enough to test it in all conditions. I do think the K3 sounds better. I have the 500hz roofing filter in the K3 and a 600hz in the Orion's 1khz slot (that is to solve another TT design issue that is too complicated to go into here but was fixed in the Orion 2). The K3 seems to resolve close-in loud interference better but the difference is marginal.

(continued on the next page)

Summary: I think they are very close in performance. I give the edge to the K3 but it is slight. I would say the decision between the two is driven more by the "ease of use" issues. Both companies have reputations for good customer service but I would say Elecraft's is superior.

Elecraft K3 versus Ten-Tec Orion 1

- from N1EU

What I like about the K3 (v1.70 fw):

1. Look, feel, user interface are very well engineered with cleverness behind the control interface
2. Resolution of weak cw signals is a bit better (both K3 and Orion main rx are excellent)
3. Receiver generally sounds slightly quieter and "crisper"
4. Weak ssb signals seem to pop out of noise with better readability
5. Flatter passband and steeper sloped DSP cw filters
6. Better organization and accessibility of control menus
7. More bang for the buck (unless you buy used)
8. More responsive firmware support, product is being constantly improved, bugs are quickly fixed
9. Frequency calibration is menu-adjustable
10. Wide (pre-filtering) i.f. output provided for panadapter, "CW Skimmer"
11. Adjustable AGC Slope yields excellent readability of individual signals in a pileup
12. Subreceiver quality equal to main rx

What I like about the Orion I (v1.373b5 fw):

1. Larger display provides substantially more on-screen info (e.g. BW/PBT/Mic/Comp/PWR) all the time
2. Better rx/tx fidelity in normal 2.7-2.8Khz ssb operation (K3 passband won't go below 200hz/250hz in rx/tx yet)
3. Variable ssb tx bandwidth with shift (future update for K3)
4. Superb ssb tx monitor
5. Excellent compressor
6. Wide filters are standard
7. Narrow DSP cw filters don't ring as much (corollary to K3 #5 above)
8. Ability to adjust slope (Taps) of dsp filtering
9. More flexibility in assigning antennas/VFOs/LRaudio to tx/rx/subrx

The only negative I can find with the K3 is the small display, but there should be a software solution to this eventually. The main negatives for the Orion are the marginal subreceiver and the lack of further firmware development by Ten-Tec.

Bottom Line: To me, these are two brilliant radios and it's not easy picking a favorite - I intend on using both for quite a while (in fact, I'm playing right now using the Orion main rx coupled with the K3 rx in stereo diversity

by slaving the VFOs with Ham Radio Deluxe). That being said, the scales are tipping toward the K3 due to four qualities: (1) weak cw/ssb signals seem to pop out of noise slightly better; (2) it's an exciting, rapidly evolving product with an unquestioned commitment behind it; (3) the imminent release of the subreceiver, with identical performance to the main receiver; (4) wide i.f. output and new add-ons to take advantage of it

BBC Ends English Shortwave Service in Europe *from the New York Times*

PARIS — The BBC World Service, which started its scratchy shortwave transmissions to listeners cut off by “desert, snow and sea” 75 years ago, ended its last English-language shortwave services in Europe on Monday.

The British public broadcaster has been reducing its shortwave transmissions over the last seven years, eliminating services to North America and Australia in 2001 and South America in 2005. Last March, the BBC started reducing European transmissions, finally cutting off a transmitter on Monday that reached parts of Southern Europe.

“There comes a point where the shortwave audience in a given region becomes so small that spending money on it can no longer be justified,” the broadcaster said in a statement.

The quiet ending for the service was a contrast with its celebrated arrival. Seventy-five years ago, King George V helped promote the new technology from his small study in the British royal family’s Norfolk retreat, Sandringham. In a speech written by the poet Rudyard Kipling, the king extolled radio as a way to reach out to men and women isolated by snow and sea.

“Through one of the marvels of modern science, I am enabled this Christmas Day to speak to all my people throughout the empire,” the king said.

The abdication speech of Edward VIII was broadcast on shortwave, as was news of the Hindenburg airship’s explosion and Hungarian Free Radio’s last anguished call for aid as Russian tanks rumbled into Budapest.

But modern modes of communication have been squeezing out shortwave services in Western countries, where programming is available on FM radio, on the Internet and on iPods with wireless connections.

“Europe is very developed and so is America,” said Michael Gardner, a spokesman for BBC World Service. “Shortwave is not the best way of reaching those audiences there. They all have FM, AM stations close by. Some of them have satellites, or they can pull it down on their TV screens and there are alternatives online. There are lots of ways of interacting with the BBC.”

(continued on the next page)

Simon Spanswick, chief executive of the Association for International Broadcasting in London, said that the move by the BBC “probably sounds the death knell for traditional analog shortwave broadcasting in the developed world.”

Shortwave transmissions remain an important media outlet in Africa and Asia, he noted. Since 2006, the BBC World Service shortwave audience has grown by 7 million people, or 7 percent, to 107 million, about 58 percent of the BBC’s total radio audience.

All of the world’s largest international broadcasters, based in the United States, France, Germany, England and the Netherlands, are cutting back on shortwave or reviewing the deployment of their resources.

Andy Sennitt, a media specialist with the Dutch public broadcaster, Radio Netherlands Worldwide, said that he got his start 30 years ago working on BBC shortwave broadcasts and had mixed feelings about the end of the transmissions.

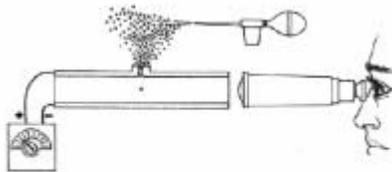
“For die-hard shortwave listeners, this is negative,” he said. “What they don’t understand is the huge cost of powering transmitters. The cost of diesel fuel has doubled.”

‘Much Ado About Almost Nothing’

A Book Review from Radio Weekly, Feb, 2008

“*Much Ado About Almost Nothing: Man’s Encounter With the Electron*” — Hans Camenzind is a consultant in analog IC design who designed the first integrated Class D amplifier, introduced the phase-locked loop concept to ICs and is credited with inventing the semicustom IC.

He wrote this book for the general public; it’s a history of electronic invention through profiles of people like Michael Faraday, Nikola Tesla, Guglielmo Marconi, Lee de Forest and William Shockley. Professing an interest in the “oddballs and eccentrics who tamed electricity,” he walks us through scientific history from the Greeks of 600 B.C. to the era of 1 GB RAM with 8 billion transistors.



Robert Millikan's oil-drop experiment, from which he determined the properties of a single electron. From *‘Much Ado About Almost Nothing.’*

The book suffers from sloppy editing, and my copy arrived with a sheet of subsequent corrections spotted by readers. On page 165, for instance, Camenzind states the date of the attack on Pearl Harbor as Dec. 7, 1939; there are other errors in dates and spelling that are unseemly in a book about science.

The text is not for a serious student; other writers have covered these topics in more depth and with more substance. But I appreciate Camenzind’s enthusiasm for his topic, and it’s a fun essay into the realms of science, including a refreshing focus on more recent innovators like Ted Hoff and Bob Noyce.

Published by BookLocker.com, this 240-page soft-cover retails for \$14.95.

Ham House for Sale

from Ken K4ZW

One of hams at work is selling his house. If anyone is interested, contact me and I’ll put you in touch with him.

For Sale: Five bedroom home in West Springfield VA with established/permitted 60 foot tower and walkout ham shack.

- No home owners association or covenants.
- Home borders park land and has 500 ft beverage to NE.
- Lot slopes away NE/SW with 100 foot drop off to NE.
- Underground electric distribution.

16th Annual Dayton Contest Dinner

The North Coast Contesters proudly announce the 16th Annual Dayton Contest Dinner

CQ Magazine’s Contest Editor, John K1AR will again masterfully and ceremoniously run the show, featuring Riley Hollingsworth K4ZDH, Special Counsel in the FCC Spectrum Enforcement Division as the keynote speaker!

CQWW Director Bob K3EST will announce the CQ Contest Hall of Fame Inductions, as well.

The dinner will be held on Saturday evening, May 17, at 6:30 PM in the Crowne Plaza Hotel.

For tickets and additional information:

<http://www.contestdinner.com>

Everything You Wanted To Know About NVIS Arrays

from Henry K4TMC

Everything you wanted to know about NVIS arrays and more, is captured in a 6-part series of articles (“Some Notes on NVIS Antennas”) on L.B. Cebik’s, W4RNL, web site.

Some interesting tidbits include: arrays for 40, 60, 80/75 and 160 meters; how to get 10+ dBi zenith gain; using ground wire reflectors; and best array for those living near coastal areas.

Here is the link: <http://www.cebik.com/wire/cb.html>

WHERE CAN YOU FIND PVRC MEMBERS?

- **The PVRC NW Region:** [Bud W3LL](#)

Meetings are held on the third Tuesday of each month at the City Buffet, 1306 W. Patrick Street, Frederick, MD. (301) 360-9666. It's in a small shopping center. Most arrive about 6 PM for dinner and informal discussions. The meeting begins at 7:00 PM.

>From W. Patrick Street, turn up McCain Dr. (the Mountain View Diner is on the corner), then turn right into the shopping center, then turn left and search for a parking place. The City Buffet is tucked back in the left corner of the shopping center behind the Mountain View Diner. You can't see the City Buffet from W. Patrick Street.

- **The Annapolis Crew :** [Bob W9GE](#)

Meetings are held on the 4th Wednesday of each month at West End Grill in Annapolis. We gather at about 5:30 PM and order dinner about 6. We break up usually before 8 PM. E-Mail [W9GE](#) to be put on the e-mail reminder list.

- **PVRCNC-East :** [Jim K4QPL](#)

Meets on the first Thursday of each month. Details are always available on the web site: <http://www.pvrcnc.org>

- **PVRC-NC/West:** [Tom N4IOZ](#)

"The Winston-Salem Courteous Operators Club" (W4WS) meets on the fourth Monday of each month at 7:00 PM in the "Pure Chrome" establishment, 505 Deacon Blvd. Winston-Salem, NC 27105. It's now a biker bar (we came with the building), so feel free to roar in on your Harley. Info at <http://www.w4ws.org>

- **Gaithersburg Area:** [Jeff K3OQ](#)

Several of us get together, much like the downtown lunch group, about every 4 to 6 weeks and visit various restaurants in the Gaithersburg area.

- **Central Virginia Contest Club:** [Ed NW4V](#)

Meets the second Tuesday of the month at The Henrico Doctors Hospital, Parham Campus, located at 7700 E. Parham Rd. Richmond VA. The Hospital is approximately one mile north of the Parham Rd. and Broad St. intersection. The meeting begins at 7 PM in the Hospital cafeteria located on the first floor.

- **Over the Hill Bunch** [Bill W3AZ](#)

The group meets for lunch at noon alternately in Maryland at the College PARK Holiday Hotel Route 1 and the Beltway or in Virginia at the Parkview Marriot near route 50 and the Beltway. Meetings generally are held on the last Wednesday of the month and are subject to change. Meetings are announced by E-Mail.

All PVRC members, non-members interested in membership and guests are welcome. For information contact [Roger Stephens, K5VRX](#), rogerergo(at)netzero.net 703-658-3991 for Virginia meetings; or [Bill Leavitt, W3AZ](#) (w3az at starpower.net) for Maryland meetings.

- **Downtown Lunch Group**

Meets on the 3rd Wednesday or Thursday of the month in the downtown area of Washington, DC. Locations occasionally change, but are always Metro accessible. Details are sent out on the PVRC reflector. Feel free to contact [Eric W3DQ](#) (w3dq at arrl.net) or [Brian WV4V](#) (wv4v at arrl.net) for details and directions.

If you have a group that meets regularly or occasionally, please send details and contact information to [W3DQ](#) for inclusion in the Newsletter!

PVRC Spotting Network

WR3L: telnet://dxc.wr3l.net
W3LPL: telnet://dxc.w3lpl.net
W4ML: telnet://dxc.w4ml.net
K3SKE: telnet://dxc.k3ske.net
NE3H: telnet://dxc.ne3h.net
N3ME: telnet://dxc.n3me.net
WC3J: telnet://dxc.wc4j.net
N2QT telnet://n2qt.no-ip.com

W3LPL Glenwood MD	145.590	441.250
WR3L Baltimore MD	145.610	440.950
N3RR Rockville MD	145.510	441.325
W3TOM Accokeek MD	145.770	
N4OHE Mt. Weather VA	145.710	446.025
NE3H Harrisburg PA	145.630	
N4SR Woodbridge VA	145.630	
N2QT Lynchburg, VA	144.97,	446.075

Information regarding the PVRC reflector can be found at <http://pvrc.org/pvrcfaq.htm> Note that this is simply the REFLECTOR FAQ pull down under main-page REFERENCE).



"Our catalog includes:

UHF Series, N Series, BNC Series, Adapters, F Series, DIN Plugs, Portable Radio Power, DIN Plugs, Hardline Connectors, Audio Connectors, Microphone Connectors, FME Series, SMA Series, Reverse Thread SMA Connectors, MCX Series, MMCX Series, Adapter Kits, Reverse Polarity (TNC, N, SMA), 39 coax types and 5 balanced lines

THE R. F. CONNECTION

"Specialists in RF
Connectors and Coax"

**Tech Support:
301-840-5477**

**24-hour Fax:
301-869-3680**

**Order line:
800-783 -2666**

Email: rfc@therfc.com

**Please visit us at:
[Http://www.therfc.com](http://www.therfc.com)**

Tower Works

Specializing in Rohn guyed towers

Don Daso

515 Withershinn Drive

Charlotte, NC 28262

704-594-9853 704-408-7948 (cell)

E-mail: k4za@juno.com

Call or e-mail for rates and availability

PVRC QSL CARDS

by

L7Z1JZ QSL PRINT



<http://www.LZ1JZ.com>

12 STORE BUYING POWER



HAM RADIO OUTLET

WORLDWIDE DISTRIBUTION

TOKYO HY-POWER



FLASH!

Now with 12m and 10m built-in! Complies with new FCC rules!

HL-1.5KFX

- Fully Solid-state 1 KW HF 650W 6m
- Built-in Power supply (110 or 220V)
- 2 Ant ports selectable
- auto band switched w/ most ICOM/Kenwood/Yaesu tcvrs

CALL for Introductory SPECIAL!!!!!!!!!!!!

KANTRONICS



KAM XL

- DSP modem offers great performance on Packet 300/1200.G-tor,Factor, Amtor,PSK-31
- RTTY, Navtex, ASCII, Wefax, CW, GPS NMEA-0183 and more!

Call Now For Special Pricing!



KPC-3 Plus/KPC-9612 Plus

High-performance, low power TNC. Great for packet, and APRS compatible.

Call For Special Low Price!

ICOM

IC-R20 Wide Band Receiver

- Wide RX .150-3304 mHz*
- SSB, CW, AM, FM, WFM
- 32mb digital recorder
- 1,000 memories
- VSC • 100 ch/sec. scanning

NEW!



IC-R5 Wide Band Receiver

- Wide RX .150-3309 mHz*
- 1250 memories
- Alphanumeric labels
- DMS scan
- AM, FM, WFM

IC-R3 Wide Band Receiver

- 500 kHz - 2.45 GHz*
- 450 Alphanumeric Memories
- CTCSS w/Tone Scan
- 4 Level Attenuator
- Telescoping Antenna w/BNC Connector
- Lithium Ion Battery
- 2" Color TFT Display
- Audio/Video Output
- Four Way Action Joystick
- PC Programmable w/Optional Cable & Software

*all bands blocked
*816-901 995 MHz blocked; unblocked versions available to FCC approved users. FM video range for the IC-R3 is 900-1300 MHz & 2250-2450 MHz



Detailed illuminated map shows time, time zone, sun position and day of the week at a glance for any place in the world. Continuously moving - areas of day and night change as you watch.

- Mounts easily on wall. Size: 34 1/2" x 22 1/2".

Reg \$1595. SALE \$1099.95

US1 TOWER

MA-40

40' Tubular Tower

Call For Latest Pricing!

MA-550

55' Tubular Tower

Handles 10 sq. ft. @ 50mph
Pleases neighbors with tubular streamlined look

Call For Latest Pricing!

TX-455

55' Freestanding Crank-Up
Handles 18 sq. ft. @ 50 mph

No guying required
Extra-strength const. Can add raising and motor drive access.

Towers Rated to EIA Specifications
Other Models at Great Prices!

Call For Latest Pricing!

Buy From HRO, World's Largest U.S. Tower Dealer

All US Towers shipped by truck; freight charges additional

ANAHEIM, CA

(Near Disneyland)
933 N. Euclid St., 92801
(714) 533-7373
(800) 854-6046
Janet, KL7MF, Mgr.
anaheim@hamradio.com

BURBANK, CA

1525 W. Magnolia Blvd., 91506
(818) 842-1786
(800) 854-6046
Eric, KA6IHT, Mgr.
Magnolia between S. Victory & Buena Vista
burbank@hamradio.com

OAKLAND, CA

2210 Livingston St., 94606
(510) 534-5757
(800) 854-6046
Mark, W17YN, Mgr.
I-880 at 23rd Ave. ramp
oakland@hamradio.com

SAN DIEGO, CA

5375 Kearny Villa Rd., 92123
(858) 560-4900
(800) 854-6046
Tom, KM6K, Mgr.
Hwy. 163 & Claremont Mesa
sandiego@hamradio.com

SUNNYVALE, CA

510 Lawrence Exp. #102, 94085
(408) 736-9496
(800) 854-6046
Howard, W6HOC, Mgr.
So. from Hwy. 101
sunnyvale@hamradio.com

NEW CASTLE, DE

(Near Philadelphia)
1509 N. Dupont Hwy., 19720
(302) 322-7092
(800) 644-4476
Rick, K3TL, Mgr.
RT.13 1/4 mi., So. I-295
newcastle@hamradio.com

PORTLAND, OR

11705 S.W. Pacific Hwy., 97223
(503) 598-0555
(800) 854-6046
Leon, W7AD, Mgr.
Tigard-99W exit from Hwy. 5 & 217
portland@hamradio.com

DENVER, CO

8400 E. Iliff Ave. #9, 80231
(303) 745-7373
(800) 444-9476
John, N5EHP, Mgr.
denver@hamradio.com

PHOENIX, AZ

1939 W. Dunlap Ave., 85021
(602) 242-3515
(800) 444-9476
Gary, N7GJ, Mgr.
1 mi. east of I-17
phoenix@hamradio.com

ATLANTA, GA

6071 Buford Hwy., 30340
(770) 263-0700
(800) 444-7927
Mark, KJ4VO, Mgr.
Doraville, 1 mi. no. of I-285
atlanta@hamradio.com

WOODBRIIDGE, VA

(Near Washington D.C.)
14803 Build America Dr. 22191
(703) 643-1063
(800) 444-4799
Steve, W4SHG, Mgr.
Exit 161, I-95, So. to US 1
woodbridge@hamradio.com

SALEM, NH

(Near Boston)
224 N. Broadway, 03079
(603) 898-3750
(800) 444-0047
Mgr. N1UC, Mgr.
sales@hamradio.com
Exit 1, I-93;
28 mi. No. of Boston
saalem@hamradio.com

CALL TOLL FREE

Phone Hours: 9:30 AM - 5:30 PM
Store Hours: 10:00 AM - 5:30 PM
Closed Sun.

Toll free incl. Hawaii, Alaska, Canada; call routed to nearest store; all HRO 800-lines can assist you, if the first line you call is busy, you may call another

West.....800-854-6046
Mountain.....800-444-9476
Southeast.....800-444-7927
Mid-Atlantic.....800-444-4799
Northeast.....800-644-4476
New England..800-444-0047

Look for the HRO Home Page on the World Wide Web

<http://www.hamradio.com>

AZ, CA, CO, GA, VA residents add sales tax. Prices, specifications, descriptions, subject to change without notice.