

# W5YI

America's Oldest Ham Radio Newsletter

## REPORT

Up to the minute news from the world of amateur radio, personal computing and emerging electronics. While no guarantee is made, information is from sources we believe to be reliable.

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## WRC-2003 "Preliminary View" of S25 - Amateur Radio Service

The next World Radio Conference (WRC-03) is scheduled to begin in Caracas, Venezuela June 9, 2003, and continue until July 4, 2003. Among the many agenda items being considered by the nearly 300 nations that make up the International Telecommunication Union (ITU) are some important Amateur Radio matters.

The FCC's International Bureau established the WRC-2003 Advisory Committee (WAC) to head its preparations for the WRC nearly two years ago. Under the WAC are various Informal Working Groups (IWG) who draft the initial preliminary views (PVs) and proposals. IWGs are primarily made up of members of the public and industry who are impacted by the various WRC agenda items.

Amateur Radio issues are being handled by Informal Working Group 6 (IWG-6.) Their job is to agree among themselves on what the U.S. position should be on various WRC-2003 agenda items involving Amateur Radio.

### **Industry Working Group 6**

IWG-6 has had several meetings at FCC headquarters in southwest Washington, DC. The Vice Chairman of this committee is ARRL Technical Relations Specialist Walt Ireland, WB7CSL. The objective of these public meetings is to develop a position which leads to a Preliminary View (or PV) being adopted on each Agenda Item (AI) issue. PVs are initiated by the Informal Working Groups and approved and accepted at the WAC level. While

there are others, the two most important amateur radio agenda item are: 1.23 ...the worldwide realignment of amateur and broadcasting 40 meter spectrum and 1.7.1 ...the revision of Article S25.

The U.S. delegation to WRC-2003 takes the recommendations of their advisory organization into consideration (but are not bound by them!) when arriving at a final U.S. position. Then this position is negotiated among the other ITU countries of the world to arrive at a regional or global position or allocation with each nation having one vote.

### **WRC-2003 Advisory Committee**

The second step up the WRC-2003, the WAC takes the output of their industry advisory groups and closely works as a team with the U.S. Department of State (who chair the U.S. delegation to WRC-2003) and the National Telecommunications and Information Administration (NTIA -- the White House advisor on telecom matters), and any other interested U.S. government agencies to develop a "Preliminary View" or "PV." The NTIA is primarily concerned with federal government spectrum allocations - especially military frequencies. The FCC manages non-government spectrum.

Once these documents have been fully coordinated between the FCC, State Dept. and NTIA, they become the U.S. Preliminary Views on the various issues facing WRC-2003.

Creating the U.S. Preliminary Views is the initial step in the preparation for WRC-03. Already

WAC approved "PVs" can be found on the World Wide Web at: <[http://www.fcc.gov/wrc-03/prelimi\\_views.html](http://www.fcc.gov/wrc-03/prelimi_views.html)>.

### Agenda Item 1.23

This WRC-03 agenda item has its roots in a recommendation adopted at the World Administrative Radio Conference held at Malaga-Torremolinos, Spain in 1992. The ITU nations at that conference agreed that it was desirable to have exclusive worldwide amateur and broadcasting frequency allocations at 40 meters and that sharing by these services should be avoided. It was further agreed that the issue would be considered at a future conference.

The preliminary view on Agenda Item 1.23, "...re-aligning of the allocations to the amateur and broadcasting services around 7 MHz on a worldwide basis" has already been approved by the FCC's WRC-2003 Advisory Committee. It agrees with and supports a realigned 40-meter amateur allocation at 6900-7200 kHz on a worldwide primary basis. The PV says that, alternatively, the US could support a 7000-7300 kHz worldwide primary amateur allocation.

Only amateurs in ITU Region 2, which includes North, Central and South America, have access to 7000-7300 kHz. The amateur 40-meter allocation in the rest of the world (Regions 1 and 3) is only 100 kHz wide (7000-7100 kHz.) The upper 200 kHz is allocated for HF broadcasting.

The ARRL would prefer going back to the pre-World War II worldwide 7000-7300 kHz scheme. The International Amateur Radio Union wants 300 kHz allocated worldwide for the Amateur 40-meter band but is flexible as to where it is located. If the world wide allocation is expanded to 300 kHz worldwide, broadcasters -- especially those in Europe, Africa, Oceania and Asia -- would like the 40 meter ham band at 6800-7100 kHz, so they would not have to relocate their 7100-7300 kHz HF operations.

This agenda item is liable to be very controversial. Radioamateurs in the Americas feel more strongly about a 300 kHz wide 40-meter allocation than Amateurs in the rest of the world since they have never had more than 100 kHz at 7 MHz. Administrations other than those in our hemisphere are likely to vote that the worldwide amateur allocation should be 7000-7100 kHz. And these countries will make up the majority of ITU countries attending WRC-03.

### Agenda Item 1.71

WRC-03 Agenda Item 1.7.1 deals with consideration of Article S25. Article S25 of the International Radio Regulations contains the basic rules for the amateur services including the requirement that amateurs operating below 30 MHz demonstrate that they are Morse code proficient. This item was also carried forward from a previous World

Radio Conference.

The PV on Agenda Item 1.7.1 was approved by the WAC on November 15, 2001 and sent it out for public comment on November 30. (See: Public Notice: DA 012764.) Among other things, it said: "The preliminary views and proposals that are attached to this Public Notice may evolve as we approach WRC-03 and during the course of interagency discussions. Therefore, they do not constitute the final national position on these issues." The deadline for comments on the preliminary views was December 14, 2001. Follows is a copy of the PV.

### I. Informal Working Group 6: Public Protection and Other Issues

#### DRAFT PROPOSAL FOR THE WORK OF THE CONFERENCE

Doc. WAC/075(15.11.01)

**WRC-2003 Agenda Item 1.7:** *to consider issues concerning the amateur and amateur-satellite services*

**ISSUE:** 1.7.1 possible revision of Article S25;

#### BACKGROUND:

At WRC-95, one administration proposed to delete from Article S25 the requirement that amateurs demonstrate Morse code capability to be licensed to operate on frequencies below 30 MHz. Instead, a review of Article S25 was placed on the preliminary agenda for WRC-99. At WRC-97, this agenda item was moved to the preliminary agenda for WRC-01. At WRC-2000 the item was confirmed on the agenda for WRC-03.

Article S25 contains 11 paragraphs, only one of which relates to the Morse code requirement. In 1996, the International Amateur Radio Union (IARU), an ITU Sector Member, initiated a review of the entire Article by publishing a discussion paper and soliciting comment. Several iterations of the paper and discussions at three regional conferences over a three-year period culminated in the adoption of a consensus view in 1998. This consensus view supports the following principles:

- Retention of the requirement that administrations shall verify the technical and operational qualifications of any person wishing to operate an amateur station. The specific qualifications are subject to change over time and more appropriately belong in an ITU-R Recommendation than in a treaty document. Accordingly, Recommendation ITU-R M.1544 was developed in Working Party 8A and was approved by correspondence in August 2001.
- Protection of the non-commercial nature of the amateur and amateur-satellite services.

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## HERB SCHOENBOHM PASSES GENERAL CLASS HAM EXAM

License will not be issued unless he is "sufficiently rehabilitated."

On January 9<sup>th</sup>, the FCC began a proceeding before an FCC Administrative Law Judge to determine whether the General Class application of Herbert L. Schoenbohm of Kingshill, U.S. Virgin Islands should be granted. The Commission is questioning Schoenbohm's character.

Schoenbohm's former Amateur Radio license and call sign KV4FZ were not renewed after it was determined at a 1995 hearing that Mr. Schoenbohm's previous criminal behavior warranted denial of the application. The FCC said Schoenbohm, a convicted felon, "...was found to have misrepresented facts and lacked candor in his testimony in that hearing."

His criminal activity occurred in the 1980's during a period in which Schoenbohm was also the St. Croix Police Chief of Communications. Once indicted, he was placed on paid suspension from the police department.

### Background

Herbert L. "Herb" Schoenbohm, KV4FZ, was convicted at a jury trial held in U.S. District Court in Christiansted USVI on April 24, 1992 for knowingly defrauding a Virgin Islands long-distance telephone service reseller. He was found guilty of using a number of "unauthorized telephone access devices in interstate and foreign commerce" in 1987 to make free phone calls.

The stolen long distance telephone access codes belonged to the Caribbean Automated Long Lines Service, Inc. (CALLS) of St. Thomas, U.S. Virgin Islands. Schoenbohm was convicted of making made more than \$1,000 in unauthorized telephone calls -- although the prosecution said he was responsible for far more. Much of the evidence on the four day trial involved people who received unauthorized telephone calls from KV4FZ during a 1987 period recorded by the CALLS computer.

The prosecution produced 20 witnesses from various U.S. locations, including agents from the Secret Service, the U.S. Marshals Service, Treasury Department and Federal Communications Commission. In addition ham operators testified for the prosecution. Herb had been very controversial and vocal on the ham bands and many did not want him back on the Amateur airwaves.

On February 2, 1994, KV4FZ applied to renew his Extra Class Amateur Radio license. A year later, the FCC designated Schoenbohm's renewal application for a hearing. Schoenbohm fought the conviction and renewal of his ham ticket tooth-and-nail until all appeals were exhausted. His pay from the police department was stopped during the appeals process and he was fired once they were over.

The hearings and appeals lasted nearly five years and Herb maintained his Extra Class license until the le-

gal process was over. On October 30, 2000, the U.S. Supreme Court refused to rehear the case. In the end, the FCC said he was not qualified to remain a Commission licensee. It had taken nearly a decade to strip him of his ham ticket. The legal process is about to start again.

### Schoenbohm passes ham exam

On April 4, 2001, Schoenbohm passed the requirements for a new Amateur Radio Service General Class Operator License. But the Commission did not issue the license. "Absent a demonstration by Mr. Schoenbohm that he now possesses the requisite character qualifications to be a Commission licensee, his pending applications may not be granted," the FCC ruled.

The FCC now (nearly a year after he passed the exam) is in the process of scheduling a hearing to determine if Schoenbohm has been "sufficiently rehabilitated" to the point they could be confident that he could be relied upon to observe their rules and policies and deal with the Commission in an honest and forthright manner.

"There are no facts now before us that would support a finding of rehabilitation," FCC said. "...because we are unable to make a determination that the grant of Mr. Schoenbohm's application would serve the public interest, convenience, and necessity, we hereby designate the applications for hearing...."

The issue of character, which had originally been raised in the context of applications for broadcast facilities has been applied in recent years to non-broadcast matters, such as Amateur Radio license applications.

The FCC has said its *Character Policy Statement* "...provides that violations of the *Communications Act* or the Commission's rules are matters which are predictive of licensee behavior and directly relevant to the Commission's regulatory activities."

The FCC also applied its character policy to the renewal of convicted Los Angeles computer hacker Kevin Mitnick N6NHG and the revocation of unlicensed broadcast FM radio "Party Pirate" Doug Brewer (KC4HAZ) of Tampa, Florida.

"Rehabilitation is generally a factor when misconduct occurred prior to the filing of the application in question. Whether an applicant has been rehabilitated will necessarily turn on the facts of each case. Among other factors, the Commission will consider: (1) whether the applicant has not been involved in any significant wrongdoing since the alleged misconduct occurred; (2) how much time has elapsed since the misconduct; (3) the applicant's reputation for good character in the community; and (4) meaningful measures taken by the applicant to prevent the future occurrence of the misconduct."

The FCC said it is up to Schoenbohm to prove that he has the character qualifications to merit grant of his General Class Amateur Radio applications.

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## **PETITIONS FOR RULEMAKING FILED WITH FCC**

On January 8th, the FCC released a *Public Notice* advising that "Interested persons may file statements within 30 days opposing or supporting the following *Petitions for Rulemaking*."

### **RM-10352 (Petition filed: 9/17/2001)**

Jeffrey T. Briggs K1ZM (Hopewell Junction, NY) and William R. Tippet W4ZV (New London, NC) seek an amendment of Section 97.305(c) to restrict certain types of transmission on portions of the Amateur 160 Meter (160M) band.

Both Briggs and Tippet served on the ARRL 160M Bandplan Review Committee which culminated in the adoption of a new 160M voluntary band plan. It was agreed by the committee that if a request for FCC rulemaking was filed, that it should be made outside the committee's formal work product to the ARRL Board since a Petition was not part of their assigned work.

The Petitioners filed a 21-page petition in which they detailed the history of the 160M band and their recommendations. They basically want a FCC-mandated separation of wideband and narrowband operation at the low end of 160 meters rather than a voluntary band plan. They suggest that 1800-1843 kHz be set aside for narrow band emissions with 1843-2000 being allocated to wider band modes. At present §97.305(c) permits all modes across the entire 160 meter ham band.

Briggs and Tippet basically want the FCC to mandate the revised voluntary band plan that the ARRL Board of Directors approved on July 20-21, 2001.

### **RM-10353 (Petition filed: 12/17/2001)**

The Quarter Century Wireless Association, Gary R. Harrison KBC, President (Bolivar, MO) requests an amendment of Section 97.17(c)(3) of the Amateur Vanity station call sign rules to provide currently licensed amateur operators with the option, under the vanity call sign system to designate a specific amateur radio club as the entity they desire to eventually acquire their call signs in memoriam.

The current rule excludes current licensees from speaking for themselves before death. Rather, it requires their relatives to speak for them post mortem. The new proposed rule would permit a radioamateur to sign a statement "bequeathing" their call sign to a club. The club trustee would use this statement to immediately obtain the call sign for the club upon death of an amateur. The current system omits the single most qualified person to execute such a written statement: the very person who held the call sign that is being requested.

QCWA said "It is awkward at best and painful at worst for the club station license trustee to request such a document from the family of the deceased during the time of bereavement."

### **RM-10354 (Petition filed: 12/27/2001)**

John S. Rippey W3ULS - Novice Class - (Montrose, VA) requests an amendment of the Rules to allow increased frequency privileges for entry-level licensees who have demonstrated proficiency in telegraphy in accordance with international requirements.

The petitioner wants the FCC to grant Novice and Technician Class licensees (with Element 1 credit) new or expanded operating privileges on 80 Meters (CW: 3.650-3.750 MHz), 40 M (CW: 7.050-7.150 MHz), 30 M (CW: 10.110-10.130 MHz), 17 M (CW: 18.080-18.168 MHz; Phone: 18.100-18.168 MHz), 15 M (CW: 21.050-21.200 MHz), 12 M (CW: 24.900-24.930 MHz; Phone: 24.930-24.990 MHz) and 10 M (CW: 28.060-28.500 MHz.)

Comments filed so far are overwhelmingly opposed to this proposal. "Increased spectrum access is a benefit of higher licenses" and "There is already a system in place to obtain additional privileges. It is called 'upgrading.'" are typical filed comments.

### **RM-10355 (Petition filed: 12/27/2001)**

The NASA John H. Glenn Research Center ARC, Glenn L. William (AF8C), Secretary (Cleveland, OH) requests a Part 97 Rule amendment to permit the retransmission of spacecraft communications from the International Space Station (and other manned spacecraft-to-ground communications.) This is in addition to the Space Shuttle which is already specifically authorized by Section 97.113(e).

The Club retransmits the publicly available Space Shuttle communications on amateur radio frequencies during shuttle missions. The Club is concerned that by retransmitting International Space Station audio on amateur radio frequencies that it might be operating in technical violation of the rules, although they believe they "...are operating within the understood spirit of the rules."

### **RM-Not yet assigned (Filed: January 2, 2002)**

Michael C. Trahos KB4PHC (Falls Church, VA) has filed a 43-page Petition seeking amendment of the Part 95 Family Radio Service and Part 97 Amateur Radio Service Rules to permit visiting non-licensed, non-Amateur, non-U.S. resident Foreign Nationals access to the 446-0 to 446.1 MHz band. That band is used in Europe for an unlicensed "PMR-446" radio service similar to our Family Radio Service. The spectrum is part of the 70-cm ham band here in the U.S. The petitioner proposes to legalize the European (ITU Region 1) traveling tourist's use of their PMR-446 radios while visiting the U.S.

Trahos says that such authorization would have a minimum impact on existing Amateur Radio Service operations "...and would further promote international good-will by not subjecting visiting non-amateur foreign nationals to unknown violations of the Commission's ARS rules and regulations."

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## CUTTING EDGE TECHNOLOGY

**You have heard of the new ground scooter ...previously code-named "It" or "Ginger" and now christened "Segway."**

Now comes word of another new scooter invention ...an Air Scooter called the "SoloTrek XFV." The 325-pound personal flying machine is being developed for the Dept. of Defense. You simply step on, strap on and fly away.

The 8-foot-tall SoloTrek Exo-SkeletoR Flying Vehicle has a gasoline engine that drives two large overhead fans, which are surrounded by metal ducts to improve their aerodynamic efficiency. The pilot flies it in a standing position and controls its movement with two joysticks. An ejection mechanism is available in the event of a problem.

The machine is designed to hover for as long as two hours ...or go 80 mph and fly 150 miles on one tank of gas. The U.S. Defense Department is funding SoloTrek's development in hopes that it can help soldiers get in and out of dangerous spots quickly. It is also planned to have a consumer version available which will cost about as much as an automobile.

A DuoTrek two-place VTOL (vertical take off and landing) aircraft is also currently under development that shares much of SoloTrek XFV's technology and components.

A prototype is scheduled to be delivered to U.S. Special Forces by the end of next year. See: <[www.solotrek.com](http://www.solotrek.com)>.

## EMERGING COMMUNICATIONS

**HDTV is coming of age!** It has been five years since the FCC mandated the ten year transition from 1950's analog to movie-quality digital television. The fact is that high definition television has not taken off the way that the FCC had hoped. Less than one percent of all television households have the capability to receive digital television. High cost, customer confusion and lack of programming have been cited as the reason.

It is a classic chicken-and-egg case. Broadcasters have been slow convert much programming to high-definition television since HDTV-set penetration is low. Although approved by the FCC in 1996, the first HDTV sets did not arrive in the mar-

ketplace until 1998.

HDTV sets offer a dramatically sharper picture - about five-times better resolution than analog -- a wider movie-like screen, and 5.1 channels of CD-quality Dolby Digital (AC-3) surround-sound.

Five-point-one channels! How do you get 5.1? Well, you have three speakers in the front ...referred to as LCR (for left, center, right. Two "surround" speakers in back (LS and RS for left and right surround.) The "point one" speaker is the non-directional sub-woofer for bass frequencies between 20 and 200 hertz.. The audio setup is similar to a movie theater.

The 16 x 9 HDTV screen aspect (width-to-height) ratio is also about the same as a movie theater screen and is about a third wider than the 4 x 3 ratio of current analog TV sets.

The most common HDTV format contains 1080 interlaced lines by 1920 pixels. (A total of 2,073,600 pixels.) ABC broadcasts in a 720 progressive line by 1280 pixel format (921,600 pixels.) Broadcasters compress the higher information signal into a standard 6-MHz wide bandwidth in much the same way that a digital photo is compressed so it can be transmitted across the Internet.

There are three levels of television resolution: Conventional TVs display analog (216,000 pixel) signals. Digital TVs display higher-resolution formats - standard (337,920 pixel SDTV) and high definition (one to two million pixels.) So not all digital programming is high-definition.

Today's HDTV sets come in two forms. HD-ready sets have the HDTV receiver/decoder built-in, while HD-capable sets require the addition of an external receiver/decoder to receive digital broadcasts. In an HD-capable set, the TV is essentially a monitor. You buy the receiver separately.

All TV networks, ABC, CBS, NBC, Fox and PBS, are broadcasting some digital television. But Fox's digital signal is not HDTV. There is a new HDNet broadcasting only in HDTV from DirecTV's satellite Channel 199 and another is on the way.

The cost of a digital TV continues to drop ...as much as 50 percent during the past two years. More than 1 million digital TVs were sold last year according to the Consumer Electronics Association ...twice that sold in 2000. Sales are predicted to double again this year.

Today, more than 225 stations in more than 79 markets that include 73

percent of American TV households, are broadcasting a digital signal.

It costs between \$2 million and \$10 million per station to convert from analog to digital technology. Next year, 95 percent of all households are expected to have access to digital programming.

While over-the-air and satellite broadcasters are switching to digital broadcasts, cable companies for the most part only carry analog channels. The jury is still out on when or how cable companies will carry HDTV signals.

Federal regulators have mandated that all U.S. TV stations must make the switch to digital by the year 2006. While that deadline is generally considered to be overly optimistic, most experts agree we're on our way to an HDTV revolution.

## COMPUTERS & SOFTWARE

**Apple Computer Inc. of Cupertino, ACA has completely redesigned its iMac computer.** It has a new radical design ... an easy-to-adjust flat-panel liquid-crystal-display monitor ...and a higher (\$1,300 to \$1,800) price tag. It comes with various pre-installed programs (including photo and movie editing software) and a CD/DVD ROM capable of writing data and transferring video to CDs and DVDs.

The G4 Power-PC (700 to 800-MHz) microchip of the new iMac is housed in a revolutionary domed base 10.5 inches across at the bottom which looks like a white volleyball cut in half. Keyboard hookups and other connectors are hidden at the back of the dome. It has a built in 56K modem, 128 or 256K of memory, and five USB ports.

The 15-inch high resolution (1024-by-768-pixel) LCD monitor connects to the top of the domed base by an adjustable arm. The door to the 40 or 60 Gig disk drive swings out from the front of the dome. It sort of looks like a lamp to us. Initial response has largely been positive. See it online at <[www.apple.com/imac](http://www.apple.com/imac)>.

**You can now walk around and check your email, and access the Internet, listen to MP-3 music, play games and more.** A wearable computer won the Editor's Choice Award From Popular Mechanics Magazine at the recent 2002 Consumer Electronics Show. The Xybernaut (Fairfax, VA) "poma" computer has a lightweight head-mounted one-inch LCD (SVGA 800x600 pixel)

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monitor mounted on eyeglass frames, a handheld optical pointing device and a featherweight computing unit worn on the belt. It operates at 128 MHz, has 32 MB of RAM and a Windows CE operating system. Monitor weighs less than 3 ounces; CPU less than 11 ounces. Retail price is \$1,499. <[www.xybernaut.com/poma](http://www.xybernaut.com/poma)>.

## GADGETS & GIZMOS

**The digital living room is about to become a reality!** One of the most compelling products seen at this year's *Consumer Electronics Show* held last week in Las Vegas is the Moxi Media Center (MC.) Out of 15,000 products exhibited, it took the prestigious "2002 CES Best of Show" award and with it, instant notoriety.

Backed by DBS satellite broadcaster EchoStar, Microsoft co-founder Paul Allen's Vulcan Ventures, Cisco Systems, the Barksdale Group and AOL Time Warner, a new startup company called Moxi Digital, Inc. (of Palo Alto, CA) has unveiled the low-cost set-top box that acts as a do-it-all home entertainment gateway.

The company is so new that its formation was announced at CES. Moxi Digital employs 117 people and has 57 patents pending.

The MC basically combines an HDTV /SDTV tuner, PVR (personal video recorder); DVD/CD/MP3 player; cable, satellite or DSL modem/router; Internet gateway with wireless networking and a home media server in one simple and affordable package. The Wall Street Journal, NY Times, Associated Press, Reuters, Newsweek, CNET, Dow Jones, ZD Net and others have all written glowing reports about the new set-top gadget!

The MC can record four TV shows at once into a 80 GB drive (enough to hold 60 hours of video); download, store and manage your digital music, browse web-pages, send instant messages or e-mail, play games, and provide video-on-demand services. In addition to storing your favorite TV shows and movies, you can store your entire music library on the MC. And in the future, you will be able to store digital photos, home videos, games and any other digital content as well.

It also has "802.11a" (5 GHz) wireless networking capable of 72 mb/sec transmission of video, music and more. (So you can broadcast to other TV's and speakers throughout your house.)

Microsoft is left out in the cold on this one. The MC uses the Linux operating system. But Bill Gates and Company are working on a competing home entertainment hub called "HomeStation." It should be on the market next year.

EchoStar says they will begin deploying the MC later this year. If EchoStar gets to merge with Hughes (which is expected), it could also replace DIRECTV's set-top boxes with Moxi MCs.

But the real prize is cable. Look for Moxi backer AOL to deploy MCs in Time Warner cable systems, creating subscription revenues from HBO on-demand, MusicNet, and the TV version of AOL. If Paul Allen's Charter cable systems sign on, Moxi MCs could become the standard digital cable box by 2004.

The Moxi Media Center (MC) costs only \$425 to cable and satellite operators. The MC will not be sold direct to the public.

The MC is actually a replacement for your current cable or satellite set-top box. If you are currently leasing your set-top box, your cable or satellite company will swap out your old box for the Moxi MC. To get started, you simply connect the MC to your digital cable or satellite dish and then to your TV or AV system.

It was invented by Steve Perلمان, a former Apple Computer hardware designer who also developed WebTV (which he later sold to Microsoft for \$425 million in 1997.) Moxi Digital's business plan is to sell boxes to operators at cost and then charge a monthly licensing fee.

This simple set-top box licensing model leaves operators free to create services like music subscriptions, video-on-demand, and interactive advertising, charging what the market will bear and keeping the profits. See: <[www.moxi.com](http://www.moxi.com)>.

## INTERNET & WORLD WIDE WEB

**Shopping is made easier when you use a price-comparison robot** especially on higher priced items. A 'shop bot' I like is: <[www.PriceScan.com](http://www.PriceScan.com)>. But there are others such as: <[www.DealTime.com](http://www.DealTime.com)>, <[www.MySimon.com](http://www.MySimon.com)>, and <[www.PriceGrabber.com](http://www.PriceGrabber.com)>.

**Nielsen/NetRatings said online retailers Columbia House, FingerHut.com and OverStock.com grew the fastest** during the 2001 holiday

selling season. Columbia House was visited 25.4 million times, up from 7.9 million in November and December 2000. Comparable figures for FingerHut.com were 8.0 million and 3.3 million, respectively, and for OverStock.com, 12.9 million and 6.2 million. But Amazon.com continues to be the online sales leader. More shopping was done there than the next nine fastest-growing online sellers combined this past Christmas.

**According to two nationwide studies, women make up the majority of online shoppers.** Some 29 million Internet users bought gifts online this past Christmas shopping season, and 60% of them were women. AOL said its members spent \$33 billion online during 2001, an increase of 67% over last year.

Comparison-shopping Web site Bizrate.com said online sales during the holiday season reached \$6.6 billion, 36% greater than last year's online sales. The average online shopper's spending increased, from \$112.13 last year to \$126.77 this year.

**Tesco, the number one supermarket chain in the United Kingdom, has been successful** in an online area that has largely failed here in the U.S. That is selling food over the Internet. They are the largest online seller of groceries in the world. Tesco has bought about one third of Safeway's Dallas, Texas-based "Groceryworks" operation (which suspended operation six months ago) and have begun selling food and other goods over the Web. They are starting in Portland, Oregon and Vancouver, Washington. A national rollout is expected later this year. Tesco's system uses local stores' stock to fill online orders, rather than maintaining a separate distribution facility. Delivery fee is \$9.95 regardless of the size of the order. Their new website just opened at: <[www.safeway.com/corp\\_home.asp](http://www.safeway.com/corp_home.asp)>. Also check out <[www.tesco.com](http://www.tesco.com)>. You will find the sites virtually the same!

**The first Internet address created especially for individuals was introduced on January 15<sup>th</sup>.** It certainly will make personal Web site and e-mail addresses easier to remember.

The "dot name" (".Name") TLD (top level domain) was activated for some 60,000 addresses who pre-registered with the Global Name Registry, a London-based company that is administering the ".name" suffix.

It costs \$30 a year to register a

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"firstname.lastname.name" Web site address and "firstname@lastname.name" e-mail address which do not have to be changed when the user signs up with a different Internet service provider.

The ".Name" suffix is one of seven new domains approved by ICANN (the *Internet Corporation for Assigned Names and Numbers*) in November of 2000. It rejected TLDs such as .kid, .xxx, .home, .dot, and .site.

A gTLD (generic top-level domain name) is the top-level domain name of an Internet address that identifies it generically as associated with some domain class, such as ".com" (commercial), ".net" (Internet related), ".org" (non-profit organization), ".edu" (academic), ".mil" (military), ".gov" (government), ".biz" (business) and ".info" (information.) These suffixes are assigned to more than 30 million Web sites.

The new ".museum" and ".coop" (for cooperatives) suffixes are in the process of being activated now. And later on this year ".aero" (for air transport) and ".pro" (for professionals ...doctors, lawyers, etc) will be launched making a total of thirteen officially recognized domain names (that is, other than nearly 200 country codes.)

## Speaking of country codes, Internet Addressing giant, VeriSign, Inc.,

whose Global Registry Services Division already holds the rights to the ".com", ".net" and ".org" registries, paid \$45 million to acquire Los Angeles-based TV Corporation International. TV Corp was the country manager for the government of Tuvalu - owner of the ".tv" extension.

The tiny Pacific island nation of Tuvalu originally sold the management rights of its ".tv" top level domain in 1998 to TV Corp for \$50 million. They used the money to pay for new hospitals, schools and other civic improvements for its 10,000 people. The ".tv" extension has now been resold to Verisign.

VeriSign also has bought the company that operates the ".cc" Internet domain registry, the country code assigned to the Cocos Islands. It plans to make the ".tv" and ".cc" suffixes available to the public.

A well known user of the ".tv" suffix is Turner Network Television. Their Web site address is simply: <www.tnt.tv>

There are also hundreds of TLDs that exist outside the authority of ICANN. Those domains, however, are only viewable on the Internet if special DNS configuration settings have been added to users'

computers.

**Yahoo has an excellent online Finance Tax Center.** It contains IRS instructions, printouts of state and federal tax forms, tax calculators and online filing for a fee. You can even try it out free. (You don't pay until you print or file.) Yahoo's online filing option is provided by Intuit and its Quicken TurboTax software. Taxpayers who file online and request direct deposit of their refund can get it in as few as 10 days. More than 40 million taxpayers are expected to file electronically this year. <taxes.yahoo.com>

## WASHINGTON WHISPERS

**A new experimental lie detector may soon join the fight against terrorism.** A thermal camera is apparently able to detect lying in real time without any contact whatsoever with the subject. The device, a high-definition thermal imaging camera lashed to a computer, detects an increase in blood flow and a sudden warming around the eyes which is associated with lying.

A Dept. of Defense Polygraph Institute research team at Fort Jackson, S.C. had 20 volunteers participate in a mock crime and then claim innocence. Eight volunteers stabbed a mannequin and stole \$20 from it, while the rest had no knowledge of the crime. The device accurately detected lying roughly 80 percent of the time, a precision level comparable to standard lie detecting polygraph tests performed by experts.

**State driver's license are set to become the "National ID" card.** The Bush administration says it is opposed to a federal identification card for all citizens. But a form of it is on the way anyway.

The Associated Press reports that the U.S. government is working with the states "...to develop a new generation of drivers' licenses that could be checked anywhere and would contain electronically stored information such as fingerprints for the country's 184 million licensed drivers."

Congress is requiring the Dept. of Transportation to develop guidelines for states to store data onto drivers' licenses to prevent criminals from using them as false identification.

Already, 37 states store information on licenses electronically, often using bar codes or magnetic stripes, but few are known to have included fingerprints or

imprints of retinal or facial scans.

National ID cards could also be used to track undocumented workers, so-called "deadbeat dads" and to monitor health insurance information.

## AMATEUR RADIO NEWS

**Right now there are nearly 1,600 pending Vanity call sign applications going back to those filed on October 16, 2001.** The FCC had been granting about 25 Vanity call signs a day with the average wait being 18 days after being accepted by the FCC. The program has been popular. More than 41 thousand radioamateurs have a Vanity station call sign.

But that all came to a screeching halt on October 30 when, due to the anthrax scare, the FCC made a decision to sterilize all incoming paper documents. Actually the mail slow-down affected all federal agencies not just the FCC. All mail had to be shipped out-of-state to be electronically irradiated (decontaminated) by a U.S. Postal Service contractor.

The FCC routinely processes all electronically and paper-filed Vanity call signs containing the same receipt date together so as not to give one filing means an advantage in obtaining a specific available callsign over another. Most Vanity call signs are filed electronically and they were all held up until the paper-filed applications could be scanned for anthrax spores and returned to the FCC for processing.

It appears that once scanned, return of the "cleaned" paper-filed Vanity call sign applications to its Capitol Heights, Maryland facility was delayed and many (believed to be around 100 received between October 15 and November 1, 2001) were lost somewhere in the USPS's sterilization process. No one knows where they went to. The FCC licensing staff has been trying to get new replacement applications from the applicants. Until they are received, no electronically-filed applications are being granted.

The FCC knows how many paper-filed Vanity applications were received since they must be sent by the applicant to an FCC address in Pittsburgh, PA (actually the Mellon Bank, the FCC's payment receipts contractor.) The Mellon Bank has a record (on the Form 159 Remittance Advice) of all received \$12.00 Vanity call sign payments.

Only a small amount of mail was received in the initial delivery from the decontamination service. On January 9<sup>th</sup>, the FCC granted its first Vanity call signs in nearly three months. They matched the electronically-filed and paper-filed applications that were received on October 15<sup>th</sup> and twenty-seven vanity call signs were issued.

The FCC still does not have all of the missing receipts so the wait continues for most Vanity applications. But it appears the log jam has been broken and the flow of granted Vanity call signs is once again about to start. We will keep you posted.

**I received a note from Dave Patton, INT1N (Special Assistant to the ARRL Executive Vice President)** saying that I may have misled some readers in our year-end summary. He said the ARRL Board has not endorsed elimination of mandatory Morse code testing.

The ARRL Board "...declared that deletion of the Article S25 international requirement at WRC-03 'should not automatically or immediately mean a similar removal of the Morse Code from Part 97 of the FCC rules.'" Dave added "A recommendation from the ARRL to the FCC regarding Morse testing in the USA will be for a future Board to develop."

Okay, but the fact remains that the IARU publicly adopted a resolution that requiring Morse code proficiency as a prerequisite for HF operation. "...is no longer relevant to the healthy future of Amateur Radio." and that the IARU will "...support the removal of Morse code testing as an ITU requirement for an amateur license to operate on frequencies below 30 MHz." (*Resolution 01-1, IARU Administrative Council, Guatemala City, October 2001.*)

The current IARU president (Larry Price, W4RA) and Region 2 leader (Rod Stafford, W6ROD) are both ex-ARRL presidents and the IARU Secretary (Dave Sumner, K1ZZ) is the ARRL Executive VP. Furthermore, the ARRL is the controlling society ("international secretariat") of the IARU.

**The Radio Society of Great Britain (RSGB) advises that some 600 "Foundation" Amateur Radio licenses were issued** during the first week of availability. The new UK 10 watt RF-output ham ticket became available on January 1, 2002. The Foundation license provides access to most of the amateur bands (136 kHz to 440 MHz ...except 10 meters.) Only one watt output power is

permitted at 136 kHz. Transmitting equipment must be commercially manufactured transceivers or "properly designed" commercial kits.

It was first announced by Great Britain's *Radiocommunications Agency (RA)* last summer and pilot courses began in October to evaluate the syllabus and training material. Station call signs are from the M3-by-3 call sign block. The objective of the Foundation license is to compete for the attention of young people who now have Internet chat facilities with no exams, no restrictions and at practically zero cost.

An 80-meter 'QSO Party' for Foundation licensees took place on the 1st of January at midnight and about 100 M3 stations were active, the RSGB reports. Many M3 stations were heard working DX on the other HF bands.

The Foundation license requires that beginners pass an easy 20-question multiple choice exam after completing a 10-hour weekend class on "need-to-know" operating procedures, rules, licensing requirements and safety. The training program was developed by the RSGB.

To encourage the practical aspect of amateur radio training, unlicensed trainees attending a registered training course may be supervised by other licensed ham operators to operate a station and contact other U.K. licensed amateurs.

The Morse code exam can be completed earlier and it is basically no exam at all. It is administered by ham clubs around the British Isles. The "Morse Assessment" part of the Foundation license consists of "...successfully decoding a short piece of Morse code into text and successfully sending a short piece of text in Morse. There are no speed requirements and the use of supporting information (otherwise known as a "crib" sheet containing the alphabetized dot-dash sequences) to aid in coding and decoding is permitted."

The use of the "Morse Assessment" code recognition exercise is to make it legal under international law for Foundation licensees to operate on the HF bands.

The United Kingdom is also in the process of transferring their entire Amateur Radio testing program from the City & Guilds Institute to the RSGB and a new Amateur Radio structure is expected to be in place by January 2004 (not long after WRC-2003.)

**The first of four external ARISS (Amateur Radio aboard the International Space Station) antennas** has been successfully installed. The new

antennas are designed to cover HF, VHF, UHF, and the 1.2 and 2.4 GHz bands.

The first antenna was installed on a handrail at the end of the Zvezda Service Module during an EVA (spacewalk) by Cosmonaut Yuri Onufrienko, RK3DUO and Astronaut Carl Walz, KC5TIE on January 14<sup>th</sup>.

The "WA3" VHF-UHF flexible tape antenna is planned to be used on a second 70-cm ham station that will be set up in the Service Module, the crew's living quarters. More information is available at the ARISS Web site: <ariss.gsfc.nasa.gov>.

### **FCC Amateur Radio Enforcement**

**David E. Merrell, Wichita Falls, TX** had been issued a "NAL" (*Notice of Apparent Liability for Forfeiture*) last September in the amount of \$10,000 by the Dallas, Texas FCC District Office. He had been charged with operating a radio station on an amateur frequency without a license.

On December 20<sup>th</sup>, the FCC affirmed the fine since Merrell had not responded to the NAL. He was ordered to pay the \$10,000 by January 26 or risk having the case turned over to the Dept. of Justice.

**Ted R. Sorenson KC6PQW, Agoura Hills, CA** had been accused of broadcasting, playing music and one-way phone patching over the infamous "non-traditional" W6NUT repeater in the Los Angeles area in February 2001. It wasn't his first brush with the Commission. On 1999, the FCC required Sorenson to retake the Technician Plus class amateur examination elements under the supervision of FCC personnel.

Invoking Sec. 97.27 of the rules, the FCC modified Sorenson's license last year to preclude operation on all repeaters on the 144, 222, or 440-MHz bands for the next three years.

Sorenson did not dispute the allegations and suggested that a "fair punishment" would be suspension from operating on the W6NUT repeater for a year.

George L. Lyon, Jr., Sorenson's Washington, DC attorney, had previously advised the FCC that it lacked authority to arbitrarily modify his Amateur Radio license without "due process" and the right to a hearing.

On December 20, 2001, the FCC agreed to accept Sorenson's settlement of the matter. Since he ceased operation on the repeater last fall, the prohibition against operating on the W5NUT repeater will expire at midnight September 15, 2002.

## WRC-2003 Preliminary View -- Continued from Page 2

- Inclusion of specific provisions to recognize the disaster communications role of the amateur service and to facilitate global roaming by amateur stations.
- Relief from the existing prohibition on transmitting international communications on behalf of third parties.
- Elimination of the provision forbidding radiocommunications between amateurs of different countries if the administration of one of the countries has notified that it objects to such communications.
- Elimination of redundant provisions that simply repeat regulations that apply generally to all radio services.

By applying these principles the IARU was able to redraft Article **S25**, reducing it from 11 to just six paragraphs. The IARU draft of Article **S25** does not include the Morse code requirement (present No. **S25.5**). The following USA proposal, while not identical in all respects to the IARU recommendation, is consistent in all major respects.

In the following WRC-2003 preparation document, SUP means SUPPRESS or eliminate; ADD means new ADDition; MOD means a MODification to existing regulatory text; lined out wording is eliminated and underlined text is added new wording.

### Proposal:

#### ARTICLE S25 Amateur services Section 1 - Amateur service

SUP USA/xxx/xx

**S25.1** § 1 Radiocommunications between amateur stations of different countries shall be forbidden if the administration of one of the countries concerned has notified that it objects to such radiocommunications.

*Reasons:* No longer required. An administration has the necessary authority to determine the points of communication of amateur stations it has licensed.

ADD USA/xxx/xx

**S25.1** § 1 Administrations shall verify the technical and operational qualifications of any person wishing to operate an amateur station.

*Reasons:* To renumber and editorially simplify No. **S25.6**.

MOD USA/xx/xxx

**S25.2** § 2 1) ~~When~~ Transmissions between amateur stations of different countries are permitted, they shall be made in plain language and shall be limited to messages of a technical nature relating to tests and to remarks of limited to communications incidental to the purposes of the amateur service or of for which, by reason of their unimportance, recourse to the public telecommunications service is not justified a personal character.

2) Except with the authority of the rele-

vant administration granted to meet a particular operational need, transmissions between amateur stations shall not be encoded for the purpose of obscuring their meaning.

*Reasons:* To eliminate obsolete restrictions while retaining the non-commercial nature of the amateur service and to update the "plain language" requirement by replacing it with "not encoded for the purpose of obscuring their meaning."

SUP USA/xx/xxx

**S25.3** 2) It is absolutely forbidden for amateur stations to be used for transmitting international communications on behalf of third parties.

*Reasons:* No longer required. Privatized telecommunications services do not require protection from bypass. The cost of telecommunications services is now so low that the amateur service is not an attractive alternative except in rare cases of isolated stations. Other regulations are sufficient to protect the non-commercial nature of the service.

ADD USA/xx/xxx

**S25.3** § 3 Administrations are urged to take the steps necessary to allow amateur stations to prepare for and meet communication needs in the event of a natural disaster.

*Reasons:* To recognize the disaster communications capability of the amateur service consistent with Recommendation ITU-R M.1042-1, which recommends that administrations encourage the development of amateur networks capable of providing communications in the event of natural disasters and that amateur organizations be allowed to exercise their networks periodically during normal non-disaster periods.

SUP USA/xx/xxx

**S25.4** 3) The preceding provisions may be modified by special arrangements between the administrations of the countries concerned.

*Reasons:* No longer required. To eliminate the administrative burden of the necessity of making special arrangements between countries.

ADD USA/xx/xxx

**S25.4** § 4 An administration may, without issuing a licence, permit a person who has been granted a license to operate an amateur station by another administration, to operate an amateur station while that person is temporarily in its territory, subject to such conditions or restrictions it may impose.

*Reasons:* Article **S18** requires that all transmitting stations be licensed but provides for special arrangements in certain circumstances. None of these special arrangements applies to the amateur and amateur-satellite services. The proposed addition makes it clear that administrations are authorized and encouraged to permit visiting amateurs to operate without being required to issue them a licence while protecting the prerogatives of administrations.

SUP USA/xx/xxx

**S25.5** § 3 1) Any person seeking a license to operate the apparatus of an amateur station shall prove that he is able to send correctly by hand and to receive

correctly by ear, texts in Morse code signals. The administrations concerned may, however, waive this requirement in the case of stations making use exclusively of frequencies above 30 MHz.

**Reasons:** To eliminate the requirement to prove Morse code ability and to leave this matter to administrations.

**SUP** USA/xx/xxx

**S25.6** 2) Administrations shall take such measures as they judge necessary to verify the operational and technical qualifications of any person wishing to operate the apparatus of an amateur station.

**Reasons:** To renumber and editorially simplify as No. **S25.1**.

**SUP** USA/xx/xxx

**S25.7** § 4 The maximum power of amateur stations shall be fixed by the administrations concerned, having regard to the technical qualifications of the operators and to the conditions under which these stations are to operate.

**Reasons:** Redundant. See No. **S15.2**, which provides that "Transmitting stations shall radiate only as much power as is necessary to ensure a satisfactory service."

**SUP** USA/xx/xxx

**S25.8** § 5 1) All the general rules of the Constitution, the Convention and of these Regulations shall apply to amateur stations. In particular, the emitted frequency shall be as stable and as free from spurious emissions as the state of technical development for such stations permits.

**Reasons:** To simplify the Regulations by eliminating a redundant provision.

**SUP** USA/xx/xxx

**S25.9** 2) During the course of their transmissions, amateur stations shall transmit their call sign at short intervals.

**Reasons:** Redundant. See Nos. **S19.4** and **S19.5**.

### Section II - Amateur-satellite service

**MOD** USA/xx/xxx

**S25.405** § 65 The provisions of Section I of this Article shall apply equally, as appropriate, to the amateur-satellite service.

**Reason:** Consequential renumbering.

**MOD** USA/xx/xxx

**S25.446** § 76 ~~Space stations in the amateur-satellite service operating in bands shared with other services shall be fitted with appropriate devices for controlling emissions in the event that harmful interference is reported in accordance with the procedure laid down in Article **S15**. Administrations authorizing such space stations shall inform the Bureau and shall ensure that sufficient earth command stations are established before launch to~~

~~guarantee ensure that any harmful interference which might be reported can be terminated by the authorizing administration (See No. **S221**.) caused by emissions from a station in the amateur-satellite service can be immediately eliminated.~~

**Reasons:** Consequential renumbering and simplification of provision. First sentence is redundant (see No. **S22.1**). Procedures for notification to the Bureau are given in Resolution 642 (WARC-79).

The following is the IWG-6/WAC Preliminary View of the new wording of S25 of the International Radio Regulations covering the Amateur Radio Services.

### Section I - Amateur service

**S25.1** §1 Administrations shall verify the technical and operational qualifications of any person wishing to operate an amateur station.

**S25.2** §2 (1) Transmissions between amateur stations of different countries shall be limited to communications incidental to the purposes of the amateur service or of a personal character.

(2) Except with the authority of the relevant administration granted to meet a particular operational need, transmissions between amateur stations shall not be encoded for the purpose of obscuring their meaning.

**S25.3** §3 Administrations are urged to take the steps necessary to allow amateur stations to prepare for and meet communication needs in the event of a natural disaster.

**S25.4** §4 An administration may, without issuing a licence, permit a person who has been granted a license to operate an amateur station by another administration, to operate an amateur station while that person is temporarily in its territory, subject to such conditions or restrictions it may impose.

### Section II - Amateur-satellite service

**S25.5** §5 The provisions of Section I of this Article shall apply equally, as appropriate, to the amateur-satellite service.

**S25.6** §6 Administrations authorizing space stations shall ensure that sufficient earth command stations are established before launch to ensure that any harmful interference caused by emissions from a station in the amateur-satellite service can be immediately eliminated.

It appears that the above Preliminary View will be approved and published by the WRC-Advisory Committee when it next meets at the FCC on January 30, 2002. The entire process leading to the U.S. position is totally public and can be followed at the FCC's WRC-03 website at: <http://www.fcc.gov/wrc-03>.

The various pages are worth a look at least once a week. The entire process to create the U.S. position for WRC-03 is to be completed by late 2002.