

SHORTWAVE BULLETIN

Issue no. 1647 Aug 3, 2008.

Deadline e-mail next issue: 0900 SNT, Aug 17, 2008.

Imorgon börjar kneget igen. Kom hem nu på förmiddagen från en liten tripp i Polen som är ett mycket intressant land att besöka med allt från gamla städer, borgar, museum. Men allra trevligast att skåda var den ohämmade semesteryran som polackerna visar upp utefter hela Östersjön. Så mycket folk och bilar har vi aldrig sett, inte ens vid medelhavet!

Sopot och Utska kan rekommenderas för den som bara vill bada – fantastiska stränder och promenader. Gdansk för den som vill uppleva Gamla Stan. Sedan är de vandrande dynerna i Slowinski National Park utanför Leba helt fantastiskt att beskåda.

Det blev en 60 mil i Polen allt som allt. Turen Karlskrona – Gdynia var bra och billigt på båten. Däremot Swinoujscie-Ystad var dyrt och priserna på båten värre än i svenska butiker!

Keep on

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SWB-info

SWB online på HCDX: <http://www.hard-core-dx.com/swb>

Dateline Bogotá: <http://www.hard-core-dx.com/swb/Dateline.htm>

SWB hot stuff: <http://hem.ektv.nu/~ekt035221/password.htm> (länk till senaste SWB).

SWB member information: <http://www.hard-core-dx.com/swb/member.htm>

Jubileumstidskriften: <http://www.hard-core-dx.com/swb> (html- + pdf-version).

QSL, kommentarer, mm.

Christer Brunström: T8BZ Palau 9965 kHz med kort och dekaler. V/s Ben Chen, Engineering Manager. Det var det gamla Voice of Hope kortet med världskarta - synd att man inte har kort med motiv från exotiska Palau.

Arne Nilsson: Vi fortsatte vår radioexpedition uppe i Vidsele månaden ut, antenner togs ner (med tungt hjärta!) den 26:e. Perioden 11-19/7 bjöd på riktigt dåliga konditioner, höga QRN nivåer och allmänt elände. På amatörradiosidan gick det trots allt ganska bra, vi körde 110 DXCC länder på 20M, vilket får anses som godkänt, med tanke på solfläckar mm. Godbitarna var Jungfruöarna, Afghanistan, Santa Helena, Namibia m.fl. som kördes trots konditioner och pile-ups! Pacific lyste helt med sin frånvaro.

Signalstyrkorna var lägre denna period än under tiden 8-11/7 men en del gick in ändå. Det märkliga är att jag bara hört stationer i BOL, PRU och några i COL. + Brasilien, naturligtvis. Men ingenting från Ecuador, Venezuela, Chile eller Centralamerika. Jag har inte full koll på den antenningriktning jag hade, den gick inte helt rakt..... Jag kommer troligen att åka upp igen och sätta upp ett par bävvar för vintern!

Under tiden 23-25/7 hördes bl.a. R San Miguel BOL, R Eco PRU, R Pio XII BOL, R Santa Ana BOL + några till så gott som varje kväll.

Det var allt för denna gång! Hoppas att det kan bli mer med tiden, från mitt QTH uppe i Vidsele!

Anders Hultqvist: Tack för ännu ett nummer av SWB.

Jag vill berätta om mina fortsatta experiment med min ALA100. Nu har jag monterat den med hjälp av några billiga fiskespön från Biltema, 2 bitar gardinstång 60 cm vardera, vinkeljärn, silvertejp, vulktejp och slangklämmor samt galvaniserad antennmast. Se hemsidan för bilder.

Dom tvärgående bommarna består av de två tjockaste elementen på Biltemas 4-m spö, och masten består av de tre tjockaste elementen på Biltemas 6-m spö.

Det fungerar hur bra som helst. Med hjälp av rotorn blir antennens egenskaper fullt utnyttjade. Testar just nu Mali på 7284,5 och signalen blev markant bättre när antennen riktades åt det hållet.

Inspirationskälla till antenndesignen är Guy Atkins. Han har fixat något liknande.

Bilder på konstruktionen finns att kolla på <http://www.hultqvist.com/winradio.html>



Jag tog printbilder på Mali 7284,5 med två olika antennriktningar. Ganska intressant tycker jag.



Mali 7284,5 med ALA 100 riktad direkt mot sändaren.



Mali 7284,5 med ALA 100 riktad för sämst mottagning

LOGGEN - ALL TIMES ARE UTC

2485			VL8K Katherine NT at 1040 to 1050, playing "Wild Thing" by the Troggs. http://www.youtube.com/watch?v=ZuQS8ujt2VU 31 July [Wilkner]
2850			Korean Central Broadcasting Station , Pyongyang 1040 to 1100 signal improving toward end of July, as Asia slowly returning to southeast Florida tropical bands [Wilkner]
3173v			Radio Municipal , Panao seems off after 30 July, previously was logged 1100 and 0000 some espanol, but poor generally. [Wilkner]
3173.30			Radio Municipal , Panao 0120 to 0135 om en espanol, weak signal on 26 & 27 July. Had been off since May [Wilkner]
3174.53			Radio Municipal , Panao noted 1100 on 25, 26 and 27 July [Wilkner]
drift to .43			
3204.88			Radio West Sepik , Vanimo 1040 to 1115 fade, providing some audio 26; 29 July. 3385 PNG Radio East New Britain Rabaul by far the strongest on ninety meters. 3315 PNG Radio Manus, Lorengau same time under a hammering UTE, om below 31 July [Wilkner]
3310			OID Svag! Spelade folkmusik som lät som Boliviansk. ANE
4699.37	30.7	0100	Radio San Miguel , Riberalta, på spansk. Livligt program. 2 SHN
4716.19			Radio Yura , Yura 1000 sign on, 1 August [Wilkner]
4717A	25/7	22.20	R Yura , PRU. Svag vid denna tid men starkare 1 tim senare. ANE
4747A	25/7	23.30	R Huanta , PRU. 2/2 ANE
4775			Radio Congonhas , Congonhas 1000 to 1020 presumed with Brazilian Portuguese 1 August [Wilkner]
4789.8			Radio Nueva Atlantida seemingly 1015 to 1020 during break in transmission of Radio Vision, Peru. 1 August [Wilkner]
4790.10			Radio Visión Chiclayo 1021 back on, Radio Visión has a distinctive transmitter hum; same as when was on 4385 several years ago. 1 August. [Wilkner]
4795			OID Svag! LA. ANE
4800			XERTA 0900 to 1015 with occasional IDs in English, more often in espanol. "...en Jusu Cristo.... no es corecto..... no es Biblico..." 30 July also "... una programa de Luis Palou.." 25 July [Wilkner]
4905	27.7	2000	Radiodiffusion Nationale Tchadienne åter på 60 meter. 2-3 CB
5010			AIR Thiruvananthapuram 0040 to 0050 strong signal, 29 July [Wilkner]
5870	22/7	2245	LV de Misionara , B. Tidvis CWQRM. 2 ANE
5890			OID spanktalande. Svag. ANE
5995	24/7	2310	ORTM , Bamako, MLI. Anrop: "R Mali". Riktigt bra afrikansk musik. 3/2-3 ANE
5996.34			Radio Loyola , Sucre en espanol 1035 to 1050, possible ID as Radio Loyola. Bolivia continues weak here. 29 July [Wilkner]
6010	23/7	2305	R Inconfidencia , B. 2/2 + QRM. ANE
6055	2.8	2015	Radio Rwanda med ID og fransk udsendelse. Blokeret af Iran kl. 2030. 3 SHN
6104.8v.			Unid possibly Mexico 1040 to 1055 on 1 August. [KM-Cedar Key] report Mexican active here, off an on [Wilkner]
6104.84v			Mérida , "FM de Mérida" 1200 to 1230 on 25 July, with "FM de Merida" ID [KM-Cedar Key] [Wilkner]

6105.3			Unid 1050 weak signal 1040 to 1050 29 July; 1045 on 1 August. Bolivia or Brasil? [Wilkner]
9690	25.7	1000	Voice of Nigeria inledde sändning på EE. 3 CB
9720	25/7	0115	R Victoria. Gick starkt denna kväll. Också hörd med sändningar parallellt på 9720, 6020 och 4990, religiöst program. Denna gång 3/3 ANE
9780.06	2.8	1820	Rep. of Yemen Radio, San'a, på engelsk med kvinnelig studievært og lokal musik. 3 SHN
11785	26.7	2130	Rádio Guaíba med fotboll. Jag undrar om de bara är igång på kortvåg i samband med fotboll. 2 CB
11855	26.7	2140	Rádio Aparecida med sertanejamusik. 2 CB
12257.2v	20.7	0945	WR International - pirat fra UK. Jeg sendte en mail til dem og 4 minutter efter blev den læst op i programmet. Stationen sender med ca. 35W fra en halvbølgedipol. Bedst: 4 SHN
21505			Saudi Arabia ARS 1425+ Wk w/mx, AA M ann. N Africa service. Fading, lots of QRN. Usually receive 21460 really well here but not noted lately beyond occasional wk het. Drake TR-7, Mosely CL-33 beam. [Scotka 7/26] [Wilkner]

Stationsnyheter

BRAZIL. RADIO VOZ MISSIONRIA-FLORIANPOLIS-SC-BRASIL, NOVAS FREQUENCIAS --- Hi Glenn, Sobre o seu ultimo boletim DX LISTENING DIGEST 8-084, July 23, 2008, estive acompanhando que as freqncias da radio Voz Missionria esto ainda causando um pouco de confuso. Em 02/07 telefonei para a emissora, conversei com o coordenador da emissora, Sr. Luis Carlos, depois enviei uma mensagem a nossa lista esclarecendo um pouco.

<http://br.groups.yahoo.com/group/dxclub/message/3278>

Um abraço (Marcelo Bedene, DX Clube do Paran, July 23, DX LISTENING DIGEST)

Viz.: A Rdio Voz Missionria, Florianopolis, SC - Brasil, ligada ao sistema Gidees Missionrios da Ultima Hora

<http://www.gmuh.com.br> esto com as seguintes freqncias nas ondas curtas cujo transmissores encontra-se na cidade de Florianopolis-SC

49m - 5870 Khz - 10 Kw

31m - 9665 Khz - 10 Kw

25m 11750 Khz - 1 Kw

As Informaes foram fornecidas pelo telefone 47-3261-3222, sr Luis Carlos, coordenador da emissora.

Endereo de correspondencia: programavozmissionaria @ hotmail.com, Cx. Postal 2004, Rua Joaquim Nunes, 244, Centro - Cambori, SC, Brasil CEP: 88340-000, Telefone: (047) 3261-3232

OBS: Apesar de que na sua pgina na internet ainda consta como Marumby <http://www.gmuh.com.br/radio/sintonia.htm> mas o nome e a identificao da emissora correta Radio Voz Missionria. Breve eles estaro fazendo a correo em suas paginas da internet (Marcelo Vilela Bedene, DX Clube do Paran, <http://www.dxclub.com.br> ibid.)

MEXICO. XERTA 4800 kHz ny adress: Gabriel Guerrero 13, Col. Zona Escolar Oriente, 07239 México 75, D.F., Mexico (Hector García Bojorge via Christer Brunström/WRTH)

USA. Surely you did have **WRNO**, as reported by others with same music at same time; even if no IDs.

EiBi July 20 update shows for 15590:

15590 0900-0930 J NHK Radio Japan E SAs

15590 0000-2400 USA WRNO Tests E NAm

However, WRNO is authorized for 15590 for shorter hours, per Aoki:

15590 WRNO New Orleans 1400-0100 1234567 English 50 20 09007W 2950N which also has Japan at 0900-0930 as the only other station on 15590.

And FCC shows the full authorized schedule for WRNO as:

7355 2200 0400 WRNO 50 20 3-5,9-11,17 1234567 300308 261008

7505 2200 1600 WRNO 50 20 3-5,9-11 1234567 300308 261008

15590 1400 0100 WRNO 50 20 3-5,9-11 1234567 300308 261008

But it looks like they will not be using 7355, and not using the other frequencies to their full extent at first.

(73, Glenn Hauser via DXLD)

Övriga radionyheter

BRACING FOR A SOLAR SUPERSTORM

The August 2008 issue of *Scientific American* has an interesting article concerning solar and geomagnetic activity titled "Bracing for a Solar Superstorm". It begins with a narrative describing a huge space weather event on August 28, 1859, one hundred years prior to twentieth century's cycle 19. This was the fiercest ever recorded, and resulted in shutdown of telegraph traffic and aurora observed in the Caribbean.

The article says a storm of this magnitude comes along every 500 years or so, but reconstructs events and imagines the impact on current technology infrastructure. There are wonderful graphics and numerous sidebars. Included are some web links I wasn't previously aware of, such as <http://solarstorms.org>

Within that site at <http://solarstorms.org/SRefStorms.html> is a history of great solar events, a short primer at <http://solarstorms.org/SPrimer.html> and at <http://solarstorms.org/S23rdCycle.html> downloadable PDFs of the book, "The 23rd Cycle: Learning to live with a stormy star" (QST de W1AW, Propagation Forecast Bulletin 30 ARLP030, From Tad Cook, K7RA, Seattle, WA July 18, 2008, To all radio amateurs, via Dave Raycroft, ODXA yg via DXLD)

TWR Debuts New Web Site

TWR invites you to visit its newly redesigned Web site! For several months, TWR collaborated with Virginia-based design and development firm Journey Group to create a dynamic, interactive online experience for the Mission's Web visitors. Come on in and take a click around. New or improved features include:

- a rotating, Flash-driven theme section with an in-depth look into one specific area of TWR's global ministry.
- more audio and video content, including various language programs on demand;
- a user-friendly program schedule search;
- an integrated site search;
- an opportunity to share your story with TWR;
- daily prayer updates;
- secure, streamlined giving options.

TWR is pleased to unveil this new Web site to longtime friends and supporters as well as new visitors interested in exploring TWR's global outreach and their potential role with the ministry.

Check out the new web site at www.twr.org

(TWR E-snapshots July 2008)

(Alokesh Gupta via DXLD)

Not lost in translation

Editor's Notebook, 07/22/08 -- 05:41 PM, By David Hubler

The online item of Washington Technology this week that In-Q-Tel, CIA's investment arm, made an undisclosed investment in Lingotek, a developer of translation tools in Provo, Utah, brought back memories of my years as an editor working for the agency's **Foreign Broadcast Information Service**. It's also shown me how much information technology has advanced since then.

We did nothing very secret or anywhere near as glamorous as a James Bond escapade; all the programs – and the news agencies we watched – were out there, mostly in the short wave bands for anyone to access if they had the time, the equipment (a Zenith transoceanic radio worked very well) and the language skills needed to glean the information.

In those Cold War days, listening to and translating news items into English from Radio Moscow and satellite states' broadcasts from Prague, Warsaw, Budapest, Bucharest, East Berlin, Sofia, Beijing, Pyongyang, Havana and, yes, even Tirana, proved invaluable to the agency, the White House and the rest of the intelligence community.

President Kennedy learned that the Soviet naval vessels were being turned around and would not attempt to cross the Cuban blockade from a news "flash" on Radio Moscow in 1962. (That near war incident was the inspiration for the hot line that was built between the two nations soon after — a decidedly low tech affair consisting of very slow teletype machines that loudly pounded out English language poetry (lots of Frost and Sandburg) 24/7 for the Kremlin while the Pentagon received passages from Pushkin, Dostoyevsky and Soviet-approved hacks. Both machines were watched constantly for the doomsday message from the other side.

Monitoring radio and press agency news was a time-consuming process with no guarantee of accuracy. We were at the mercy of teams of foreign-language translators, some more news savvy, politically astute and familiar with English than others. One translated news item from Radio Warsaw about an early manned space flight reported that the sun had made the cabin uncomfortably warm so the cosmonaut opened the window. Upon querying the translator, the phrase was changed to "deployed the solar screen."

Translating Fidel Castro's early marathon harangues of eight hours or more against "Yanqui imperialismo" were daunting affairs.

Over the years the CIA and other intelligence agencies have sought better methods to translate foreign-language materials faster and with greater accuracy. At one time it was Russian and Chinese; today the emphasis must be on Arabic, Pashto and especially Farsi. But regardless of the language, one crucial problem has been the inability of a machine to recognize idioms and to translate them so they make sense. For example, we know the term "a hot potato" means a delicate situation.

Students of English learn such terms by rote, but a machine making a literal translation could be way off the mark, a high-temperature tuber, say?

So here's hoping that In-Q-Tel's investment pays off handsomely. One way to increase international understanding is to know the difference between a hot dish and cold cash in any language.

<http://www.washingtontechnology.com/blogs/editorsnotebook/33196.html>

(Via Robert Wilkner)

Probing Galaxies of Data for Nuggets

FBIS Is Overhauled and Rolled Out to Mine the Web's Open-Source Information Lode

---"By the 1990s, the office had fallen on hard times. Some advocated abolishing FBIS, saying it was irrelevant in the age of 24-hour cable news. It survived, but had its personnel slashed 60 percent, according to Naquin. Sept. 11 gave it new purpose, as "open source" became an intelligence buzzword. Across government, policymakers began to debate how to find the nuggets of genuine information hidden in the Internet avalanche."---

By Susan B. Glasser, Washington Post Staff Writer, Friday, November 25, 2005;

In a bow to the rise of Internet-era secrets hidden in plain view, the agency has started hosting Web logs with the latest information on topics including North Korean dictator Kim Jong Il's public visit to a military installation (his 38th this year) and the Burmese media's silence on a ministry reshuffling. It even has a blog on blogs, dedicated to cracking the code of what useful information can be gleaned from the rapidly expanding milieu of online journals and weird electronic memorabilia warehoused on the Net.

The blogs are posted on an unclassified, government-wide Web site, part of a rechristened CIA office for monitoring, translating and analyzing publicly available information called the DNI Open Source Center. The center, which officially debuted this month under the aegis of the new director for national intelligence, marks the latest wave of reorganization to come out of the recommendations of several commissions that analyzed the failures of intelligence collection related to the Sept. 11, 2001, terrorist attacks.

They pointed to decentralized and insufficient efforts to tap into the huge realm of public information in the Internet era, as well as a continuing climate of disdain for such information among spy agencies. "There are still people who believe if it's not top secret, it's not worth reading," said an outside expert who works with government intelligence agencies.

By adding the new center, "they've changed the strategic visibility," said Douglas J. Naquin, a CIA veteran named to direct the center. ". . . All of a sudden open source is at the table." But, in an interview last week at CIA headquarters, he added that "managing the world's unclassified knowledge . . . [is] much bigger than any one organization can do."

Today's Open Source Center began life as the **Foreign Broadcast Information Service** -- FBIS to insiders -- in 1941, when it was charged with monitoring publicly available media and translating it. Its pastel-hued booklets became a familiar presence throughout government. At the height of the Cold War, it was FBIS translators who pored through the latest issues of Izvestia and Pravda from the Soviet Union, providing the little hints such as a word change that might signal something broader for the CIA's Kremlinologists.

By the 1990s, the office had fallen on hard times. Some advocated abolishing FBIS, saying it was irrelevant in the age of 24-hour cable news. It survived, but had its personnel slashed 60 percent, according to Naquin. Sept. 11 gave it new purpose, as "open source" became an intelligence buzzword. Across government, policymakers began to debate how to find the nuggets of genuine information hidden in the Internet avalanche.

"We weren't going to be just a translation service anymore," Naquin recalled. Now, with the new name, FBIS is "repositioned," he said. "Our definition of open source is anything that can be legally obtained," whether how-to-build-a-bomb manuals or inflammatory T-shirts.

Even before the Open Source Center's debut, the office had retooled its Internet efforts earlier this year. It added a new video database that makes all its archives available online, and it rolled out an upgraded Web site with the blogs and homepages for key intelligence topics, such as Osama bin Laden, Iraq insurgency leader Abu Musab Zarqawi, China and even avian flu.

The center also sees itself as a repository of what Naquin calls "open-source tradecraft" in a self-conscious echo of his clandestine colleagues. It teaches courses to intelligence analysts across the community, with titles such as "Advanced Internet Exploitation."

Michael Scheuer, the former head of the CIA's special bin Laden unit, said he had long believed that "90 percent of what you need to know comes from open-source intelligence." He considered FBIS to be "the crown jewel of the American intelligence community," though he said it was perpetually short of funds and personnel, and often focused on low-priority tasks such as extensive updates on Northern Ireland.

Several outside experts who have dealt with the center said it is still far from offering cutting-edge expertise in how to glean information from the Internet. This is especially so when it comes to a top priority of the moment -- the rapid proliferation of al Qaeda-affiliated Web sites and password-protected chat rooms, and the many creative uses to which the Internet is being put by those who utilize them.

"There's some really hard questions that need to be sorted out" about the role of the Open Source Center, said one outside expert who works with government intelligence agencies. This expert and others noted they often receive complaints from

government officials who say they find out faster about new statements and video coming from Iraq insurgents such as Zarqawi through private services. "It's just hilarious how little these people know," said another outside expert, who spoke on the condition of anonymity because discussions with the agency were confidential.

Naquin acknowledged the complexities of trying to monitor a fast-adapting enemy at a time when many government agencies are lurking about in jihadist chat rooms and may or may not even be aware of the presence of other U.S. officials. The center's piece of it, Naquin said, is "open Internet exploitation" as it monitors 150 to 300 jihadist Web sites it considers most significant. That means "we don't break into sites," he said. "We can sign up with password-protected sites but we don't post as somebody beside ourselves. . . . It's a fine line."

Perhaps the toughest challenge for the new Open Source Center is proving its mettle inside a skeptical intelligence community, in which the stolen secret has long been prized above the publicly available gem. Clearly there are skeptics. Although the center's Web site is unclassified and available across the government, at the moment it has just 6,500 users with active accounts, Naquin said.

"Rarely is there the 'aha!' The 'oh-you-solved-this or you-prevented-this' " moment, Naquin acknowledged.

"The reluctance to use it is astounding to me," Scheuer said. "Nobody wants to go back in response to an assignment and say 'oh, my Open Source Center found this on a server in Belgium.' "

The culture clash isn't likely to disappear anytime soon -- especially with an intelligence community that still takes steps to classify material found easily on the Internet. Not long ago, recalled a former senior government terrorism analyst, he was teaching a class to future CIA intelligence analysts that included a PowerPoint presentation on al Qaeda's post-Sept. 11 evolution, with various images taken from the Internet.

Two men in the back of the class came up to the instructor after the presentation. Where, they asked, did he get a particular image from Iraq? It's classified, they insisted. The former analyst laughed. He had taken it from a gruesome Web site that compiles terrorist atrocity videos along with pornography.

<http://www.washingtonpost.com/wp-dyn/content/article/2005/11/24/AR2005112400848.html>

(Via Robert Wilkner)

Another Interference Source?

I don't think that this article has been in DXLD or on the group; saw it in the St. Louis Post-Dispatch a few days ago; sort of ties in with the recent BPL discussion:

New technology could fill TV's 'white space'. By Kim Hart, THE WASHINGTON POST, Friday, Jul. 25 2008
WASHINGTON

The nation's top technology companies have spent millions of dollars and nearly two years building devices, poring over laptops and working in federal labs trying to come up with a new way of providing high-speed Internet to bandwidth-hungry cities as well as hard-to-reach rural regions.

Last week, the companies moved from lab to field.

Engineers from the technology heavyweights including Motorola and Philips lugged their laptops, antennas and other equipment to parks, houses and high-rises around the Washington area, hoping to prove to the Federal Communications Commission that the unlicensed airwaves between television stations, known as white spaces, could provide a new form of mobile Internet service.

Using white spaces "will provide a way to provide broadband across long distances at much faster speeds than cell phone networks and Wi-Fi," said Jake Ward, spokesman for the Wireless Innovation Alliance, which includes Google, Microsoft, HP and Dell. The group is trying to convince regulators that using the airwaves will provide broadband to rural schools, beam high-definition online video to low-income households and let consumers stream music while sitting in highway traffic.

First out of the gate was a team from Motorola. On a recent steamy day in the middle of Patapsco Valley State Park about 10 miles west of Baltimore, Dave Gurney, an engineer for the company, set up shop in a parking lot surrounded by dense forest.

A large black box the size of a suitcase hooked up to a laptop sat near the base of a tree-covered hill. An antenna perched on a tripod rested a few feet away. A group of engineers stared intently at the contraption, as if it were about to spring to life.

"It's done!" Gurney said. He held his breath as the men leaned in further and quickly jotted down a cryptic list of numbers. Then he ran the test again.

The stakes are high for this mysterious black box. Tech giants and Silicon Valley startups are betting that using white spaces could extend the Internet's reach. They also hope it will spark a new wave of portable devices.

But the idea faces big hurdles. Broadcasters use adjacent airwaves to beam TV shows to viewers, and they say the technology could interfere with over-the-air signals. Wireless microphone users, from pop stars to mega-church ministers, say using white spaces could blot out their sounds.

White-space backers say their devices will be able to detect and avoid frequencies being used by broadcasters and wireless microphones. Critics say the devices are not reliable enough.

The FCC is trying to settle that debate. For more than a year, the agency has been testing prototypes with mixed results. An early prototype built by Microsoft failed to operate in the FCC's lab. Microsoft later determined the device was broken. The FCC is now testing other prototypes built by Philips and Motorola as well as Silicon Valley startup Adaptrum and Singapore-based Institute for Infocomm Research. The Motorola device connects to a database of TV stations operating

within 120 miles and scans the airwaves nearly every second for other signals that may pop up unexpectedly, such as a wireless microphone.

If the device senses that it is within or close to a TV station's coverage area, it is supposed to avoid that station's frequency. It then ranks empty frequencies by their proximity to existing signals. If a new signal suddenly appears, the white-space device should automatically switch to another open channel.

Gurney ran the scan twice and recorded the results. He then covered the machine in bubble wrap, rolled it across the parking lot and ran the test again. Signal strengths can change by location, depending on how many trees, hills and people are nearby.

"We're testing multiple times to make sure the results are consistent," he said.

But the results can be hard to decipher. At the first location, Motorola's device indicated that Channel 51, for example, was open and available. At the second location, the device picked up a weak signal on the channel, suggesting that it was already in use.

Motorola's engineers say that means the signal changed slightly between locations, and the device would be able to avoid that channel as soon as it was detected. But Bruce Franca, vice president of policy and technology for the Association for Maximum Service Television, a broadcasting industry group, is skeptical.

"The results of every single test were different," he said. "The device failed to recognize that certain channels are actually being occupied by TV signals. ... Clearly this is not ready for prime time."

Shure Inc., which makes microphones and other audio equipment used in Broadway shows and sports games, argues the tests have not proven that the prototypes can consistently detect TV signals, let alone wireless microphones that hop on frequencies without notice.

The FCC plans to test the white-space devices at an entertainment venue in the next few months. The National Football League has offered the Baltimore Ravens'

stadium or the Washington Redskins' stadium as possible venues. And the Recording Academy, which puts on the Grammy Awards, has offered up the Lollapalooza music festival in Chicago next month for testing.

"That's where the rubber will meet the road," said Mark Brunner, senior director of brand management at Shure.

(William Martin [wgmartin @ hotmail.com via DXLD]