



# COMMUNICATIONS

by Ken Reitz



## AMATEUR/SHORTWAVE

### 60 Meters Gets a Facelift

After waiting five years for FCC approval, the ARRL's petition to change the rules regarding operating in the 60 meter band has finally been approved. Since its debut in 2003, hams have been allowed to use 60 meters on a very limited basis because of their secondary status on the band which is given to Federal and non-Federal use. Earlier restrictions – five channelized frequencies; 50 watts maximum output and SSB mode only (in upper sideband) – have been changed to allow 100 watts maximum output and digital modes including data, RTTY and CW. One of the original channels, 5368.0 kHz (carrier frequency 5366.5 kHz) was changed to 5358.5 kHz (carrier frequency 5357.0 kHz).

The ARRL explains the change in power restrictions on their web site [www.arrl.org](http://www.arrl.org), this way, "The effective radiated power limit in the 60 meter band is raised by 3 dB, from 50 W PEP to 100 W PEP, relative to a half-wave dipole. If another type of antenna is used, the station licensee must maintain a record of either the antenna manufacturer's data on the antenna gain or calculations of the antenna gain."

The reason for these restrictions is that amateurs may still use the band only on a secondary basis, which is to say that they may not cause interference to primary users and must accept any interference such users may cause to amateur activities.

### BBC's "Arab Spring" Bump

Andy Sennitt reports on his [blogs.rnw.nl/medianetwork](http://blogs.rnw.nl/medianetwork) that according to the TradeArabia News Service, "Overall audiences to the BBC's Arabic services have risen by more than 50 per cent to a record high of 33.4 million adults weekly – up from 21.6 million before the 'Arab Spring.'" It's no wonder that Iran is anxious to block Arabic programming that it doesn't control that can be received within its borders (see below).

## AM/FM/TV BROADCASTING

### Radio Seagull Tests 1395 kHz

During a test transmission on 1395 kHz, Euro-broadcaster *Radio Seagull* went to sea for six weeks this past October and November and netted over 600 reception reports, according to their website [www.radioseagull.nl](http://www.radioseagull.nl). The greatest distance was a listener in Canada. *Radio Seagull* normally broadcasts on 1602 kHz from the ship "Jenni Baynton" which is normally moored in Harlingen Harbor in the Netherlands.



*Radio Seagull* tests on 1395 kHz. (Courtesy: *Radio Seagull*)

### 100s of DJs Lose Jobs

*Rolling Stone* magazine reported in December that two of the top radio station chains in the U.S. fired hundreds of disk jockeys, including LA's legendary Jim Ladd who had worked the LA rock radio scene since 1969, and replaced them with syndicated "personalities."

Clear Channel and Cumulus, which together own nearly 1,000 U.S. radio stations, told the magazine the cuts were not about the DJs. "This is about effectiveness, efficiency and giving our listeners what they want." That's what they think.

The story has a happy ending, at least for Ladd who was picked up by Sirius/XM satellite radio where he takes his free-form rock show nationwide. Listeners will also enjoy hearing interviews with rock legends; relationships Ladd built during his many years in LA. Of course, LA listeners can still hear their radio icon, but it'll cost them.

## PUBLIC SERVICE

### Encryption Trouble in Winnipeg

According to an article in the *Winnipeg Free Press*, that city's encrypted digital radio system was switched back to analog just two months after being installed. The head of the Winnipeg Police Association was quoted as saying that, "major gaps in the ability to broadcast and receive transmissions were experienced on the encrypted system." Police had earlier cited reception by criminals as the reason for the switch to the new encrypted system.

### AP Report: Scanning Now All or Nothing

A widely circulated *Associated Press* article from late November discussed the nationwide quandary public safety agencies are

having with regard to the public's right to know about what's happening in their own cities and towns. Paranoid police departments from around the country are irritated by smartphone apps that turn those phones into scanners, citing them as one reason the departments must opt to encrypt all of their transmissions.

Meanwhile, the article explained, the public and press are irritated that public servants are no longer supervised by their paymasters while they perform tasks on their behalf. The article also mentioned that the rush to keep the public out of police business has resulted in many departments' own frustration at poorly functioning digital encryption schemes that leave everybody unhappy.

## SATELLITE

### BBG: Stop Iran Sat-Jamming

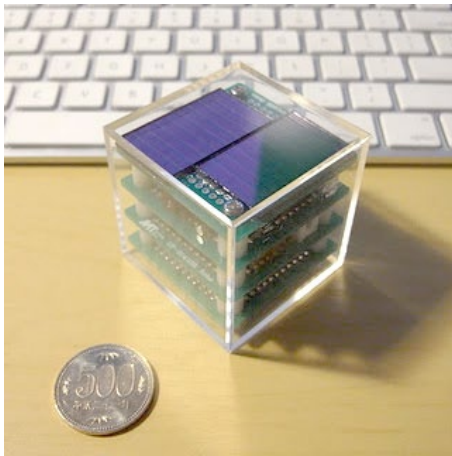
The *Broadcasting Board of Governors* (BBG), the federal agency that oversees international broadcasting from VoA, Radio Martí, Radio Free Asia and the Middle East Broadcasting Networks (Alhurra TV and Radio Sawa), joined with BBC, Deutsche Welle and other international satellite broadcasters to ask regulatory agencies to take action against the jamming of Persian satellite TV and radio broadcasts. The agency issued a statement saying, "We have seen an escalation this year in the number of pressure tactics that have been used on the media being accessed by audiences in Iran and other countries."

According to BBG, satellite operators indicate that the "interference originates from Iran and is intended to prevent Iranian audiences from seeing foreign broadcasts that the Iranian government finds objectionable."

### Keychain Satellites Swarm Lower Space

There's nothing like competition to hone an edge to a college team. But, these teams aren't likely to end up on SportCenter. Universities from all over the world are building





**Keychain satellite one of many swarming Low Earth Orbit. (Courtesy: KemushiComputer Inc.)**

mini-sats, also known as nanosats, picosats, and now some as small as keychain fobs known as femotosats that provide hands-on experience to would-be NASA or Boeing engineers.

A launch in late October tossed six such U.S. mini-satellites into orbit, including AubieSat-1 (Auburn University), DICE (two dinky satellites from Utah State University), Explorer-1 (Montana State University), M-Cubed (University of Michigan), and RAX-2 (another U of M effort).

It's a great opportunity for monitors around the world to test the capabilities of their listening posts and to provide the universities with much needed data collection. You can track any of the above satellites at [www.n2yo.com](http://www.n2yo.com). Click on "Search Satellite Database" and enter the common name for each. You'll get the NORAD code, international code, orbital status and a link to track the satellite. And, you probably already have all the equipment you need to tune in. Here's a sample: AubieSat-1 transmits 20 wpm CW on 437.475 MHz at just .7 watts while Explorer-1 sends AX.25 FSK 1200 baud on 437.505 MHz at .85 watts.

One Japanese satellite dubbed, "Keychain Satellite," is just five centimeters (about two inches) on a side. You can watch a video of the little bird on a desk dwarfed by an HT here: [www.southgatearc.org/news/december2011/keychain\\_satellite.htm](http://www.southgatearc.org/news/december2011/keychain_satellite.htm).

### **Russian General: HAARP Killed Phobos!**

Since its failed effort to leave Earth's orbit, would-be Russian Mars probe Phobos had been

unable to receive ground commands until late November when the European Space Agency's station in Perth, Australia established contact with the stricken satellite. Now, according to a report on *Russia Today*, a retired Russian General speculates that flying over the High Frequency Active Auroral Research Program (HAARP) site in Alaska, may have damaged the craft. He told *Russia Today*, "The powerful electromagnetic radiation of those sites may have affected the control system of the interplanetary probe." There was no apparent response from HAARP public affairs office.

## **FCC ACTION/INACTION**

### **FCC Revolving Door Cranks Up**

The Federal Communications Commission (FCC) is comprised of five commissioners, appointed by the President and confirmed by the Senate, who each serve a five year term, except when filling an unexpired term. The President designates one of the five as the Chairman and there is a requirement that only three commissioners can be from the same political party. This is supposed to provide a more balanced approach to determining FCC policy which covers everything from cable and satellite TV to amateur radio to terrestrial broadcasting as well as certifying thousands of new products for sale.

The issue of who replaces outgoing commissioners will play a decisive role, regarding the future direction of the nation's communications policy. There are a number of hot topics that will no doubt provide the headlines for 2012. Among the issues are a review of media ownership policy, auctioning off the broadcast TV band (if Congress approves it) and everyone's favorite: what constitutes indecency?

As this is written, two commissioners have yet to be officially replaced. Commissioner Meredith Attwell Baker (Republican) resigned in May to become a senior vice-president at cable giant Comcast, a controversial move, since she had earlier in the year participated in a decision from which Comcast was said to benefit. Commissioner Michael J. Copps (Democrat), whose term expired at the end of 2011 was said to promote public interest in broadcast TV and fought against media consolidation. He was the only commissioner of the current five who did not come to the FCC from the wireless telecommunications industry.

President Obama has appointed Jessica Rosenworcel, a former legal adviser to Copps



**The commissioners: Clyburn, Copps, Chairman Genachowski, and McDowell. (Courtesy: FCC)**

and former communications associate at Drinker, Biddle and Reath, to replace Copps. He tapped Ajit Varadaraj, who had also held previous FCC posts and was a former associate general counsel at Verizon Communications, Inc., to replace Baker.

While both cleared a Senate panel en route to confirmation, final OK could be up in the air as Senator Charles Grassley (R-IA) threatened to put a hold on the nomination of both until he gets satisfactory answers from the White House on whether or not it gave too quick a green light on LightSquared, the company that came under fire from the GPS industry last summer and fall for the potential interference its space and terrestrially based repeaters might cause to consumer's GPS units.

### **Broadcaster Public Files Policy to Change**

The FCC in a late fall meeting has proposed changes to its current requirement regarding public file policy, according to [www.broadcastlawblog.com](http://www.broadcastlawblog.com). Among the proposed changes are that the public file be made available online; submitted to and maintained on servers at the FCC, not at the station's own website. The web-based file would exclude letters from the public in order to protect the privacy of those who write such letters. The online public file would automatically import other files required by the FCC to be in the station's file for public viewing.

### **Gripe, Gripe, Gripe**

As if the FCC wasn't swamped by thousands of documents to process, frequencies to police and policy to decide, it also has to maintain a national complaint department. Well, according to an article in the *Kansas City Star*, the Commission seems to have lost the key to that department. The article reports that the FCC now has a backlog of consumer complaints totaling more than 1 million. And, according to the article, ninety percent of those requests are over two years old with "almost all" of those older complaints having to do with... broadcast indecency.



**HAARP accused of blasting failed Russian Mars probe. (Courtesy: HAARP)**

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