



COMMUNICATIONS

by Ken Reitz



SHORTWAVE/AMATEUR RADIO

RCI Shambles/Vatican Radio Cuts

Numerous news outlets reported the nearly total dismantling of Radio Canada International, with what's left as just another Internet radio station. The Ottawa Citizen noted that "The \$10 million cut — from \$12.3 million to \$2.3 million — will shut out access to Radio Canada broadcasts for swaths of the world's population — including China, where RCI's Internet site is blocked, and to millions of people in India and South America — all major Canadian trading partners." It noted too that, "In other developing nations, access to the Internet is either limited or non-existent, with vast portions of the population relying solely on radio for national and international news and information....Thirty of RCI's 45 permanent employees were laid off along with dozens of contract workers and other regular freelancers."

Meanwhile, Thomas Witherspoon's blog swling.com/blog reported an announcement from an Italian news service that "Vatican Radio will end its short and mediumwave broadcasts on 1 July, strengthening its web service. Spokesman of the Holy See and Director of Vatican Radio, Jesuit Father Federico Lombardi, announced: 'From 1 July Vatican Radio will end all its medium wave broadcasts and its shortwave ones to most of Europe and the Americas, which are regions of the world where the rebroadcasting of programmes by the local Catholic radio and internet access are more developed.'"

BBG FM Outlets Cut During Elections

For years the Broadcasting Board of Governors (BBG), the parent organization for Voice of America, Radio Free Europe and Radio Free Asia, has promoted a program of brokered in-country broadcasting via local FM radio stations instead of shortwave broadcasts in those languages beamed directly to the target countries. Shortwave radio supporters have long seen this policy as deeply flawed.

One of the flaws of such a policy is that

locally broadcast programs are subject to being banned or removed from the air by local or national governments that may feel threatened by VOA, RFE or RFA programming content. The first week of June saw just such an example in Cambodia when the Cambodian Ministry of Information forced five VOA/RFA affiliated FM stations to stop airing election programming from RFA and the VOA.

According to a press release from BBG, Khmer-language RFA and VOA programs on Saturday, June 2 and Sunday, June 3, the day of the national elections, were taken off the air without notice. The BBG statement noted that two Khmer Radio programs on June 3 were broadcast as normal on an AM frequency, via shortwave and online.

AM/FM/TV BROADCASTING

New WTC Broadcast Tower Readied

The loss of the World Trade Center (WTC) in the terror attacks of September 11, 2001 also meant the loss of antenna space for New York City TV and FM stations. Many went immediately to the Empire State Building, which had been the site of most broadcast antennas prior to construction of the original World Trade Center.

Now that construction has begun on a new WTC, developers are trying to entice broadcasters to return. A planned 408 foot tower on top of the center would make it the tallest antenna structure in the western hemisphere (and third tallest in the world) at 1,776 feet, according to a report in Radio World Online. The Empire State Building, at over 1,400 feet tall is home to some 19 New York City FM stations and nearly every TV station in the city, according to the report. But, moving is no easy task, as the article notes; it's estimated that it could cost as much as \$1 million to move just one FM station.

ATT&T Presses FCC on New Spectrum

The Telecommunications Industry Association (TIA), a lobbying group for the wireless broadband industry, brought out the heavy artillery in early June during a TIA show in the form of AT&T CEO Randall Stephenson. Stephenson urged the FCC to speed up the broadcast incentive auctions that will ask Over-the-Air TV stations to double-up on channel space so mobile TV interests can get in and start making some serious money. Who watches OTA TV anyway?

According to a report on CNET News, Stephenson warned that the industry is much closer than many think to running out of available spectrum. The online news service quoted Stephenson as saying, "By 2013 demand will outstrip supply... This isn't a problem that is six or eight years away from now. It's happening now."

According to the report, Stephenson also asked local regulators to aid the speed up of the approval process for the rapid build-out of new cell towers. Stephenson apparently didn't mention that one of the reasons demand is expected to outstrip supply is that new mobile devices using AT&T 4G services are "data-guzzlers," outstripping current device usage by many fold. The new data-guzzlers are a huge windfall for AT&T which stands to make billions on increases in individual data usage plans.

ATSC to offer Non-Real Time TV

The Advanced Television Systems Committee (ATSC) is the television industry group that in 2009 brought us the Digital TV (DTV) revolution that allowed Over-the-Air TV (OTA) stations to broadcast stunning HDTV pictures to homes equipped with HDTV sets. The problem now is that, according to industry sources, only 11 percent of the U.S. population actually watch OTA-TV. The rest watch their local TV stations over cable-TV or via the two satellite-TV services DirecTV or Dish Network. Most actually see a standard definition picture, not the full HDTV picture that's broadcast. Still, that doesn't bother ATSC who are busy planning their next revolution.

At the end of May ATSC announced the approval of what it calls the Non-Real Time (NRT) Content Delivery standard, "a backwards-compatible enhancement to DTV broadcasting that provides a framework for the delivery of a broad range of exciting new services," according to an ATSC press release. Basically, NRT will let broadcasters deliver file-based content, including programs, clips and emergency information to fixed and mobile TV receivers for later playback (or not), as the consumer may desire.

ATSC envisages that NRT will let viewers watch news and weather at will, Video-On-Demand content ranging from clips to full length movies and allow music distribution to such sets (mostly portable and hand-held devices). A plan for pay-based content via this system is implied in the announcement but remains a detail to be figured out later, presumably after our appetite for "exciting new services" has been whetted.



SATELLITES

Spy-Sat Crumbs fall to NASA

Last month in this column, the disparity between the satellites of the various U.S. spy agencies and the public interest agencies NOAA and NASA was noted. This month an article in the Washington Post, among others, reported that the ultra-secretive National Reconnaissance Office (NRO) has given NASA a gift of two surplus satellites with onboard telescopes as big and as powerful as the Hubble Space Telescope. Apparently, the NRO, awash in unpublished taxpayer-funded budget surpluses, had kept these birds in storage while even better satellites took their place in the launch schedule.

With the James Webb Space Telescope years away from launch (and gobbling every available NASA dime) and the Hubble Space Telescope growing older each day, you might think these satellites would make a convenient bridge between the two space telescopes. But, according to the article, the satellites aren't exactly finished. While they both feature telescopes nearly eight feet in diameter (just what was the NRO planning to look at here on the ground?), they're really just shells without the instruments, "scientific program, support staff, data analysis and office space" that usually accompany such devices. What will NASA do with the birds? Keep them in storage until they can come up with a scientific program, support staff, data analysis, office space, and, oh yeah, funding to be able to use them.

TECHNOLOGY

Cell Tower Deaths Probed

A documentary titled "Cell Tower Deaths: An investigation into the hidden cost of the smartphone revolution," produced by PBS TV's Frontline and investigative reporting organization ProPublica, aired on public television stations at the end of May. The program detailed the deaths of contractors who climb the towers, sometimes for as little as \$10/hour, in a race to provide faster cell network service.

The program, which had been delayed from its original broadcast date in February, found that such jobs are contracted, subcontracted and further subcontracted to companies other than the cell phone service provider, and that, partly as a result, workers are sometimes poorly equipped and trained. It found that OSHA rules were written for a time when out-sourcing contracts for dangerous jobs were not the norm and that the agency, set up to protect such workers, seemingly can't enforce more stringent safety rules.

With some 10,000 broadcast and cell tower climbers working in the U.S., the PBS program found that, "Since 2003, tower climbing has ranked among the most dangerous jobs in America, compiling an average annual death rate more than 10 times that of construction work. Almost 100 climbers have been killed on the job, 50 of them on cell sites." Cell phone towers grew from 30,000 sites in 1996 to 238,000 sites

in 2011, according to the program.

You may watch the entire 32 minute-long PBS Frontline report here: www.pbs.org/wgbh/pages/frontline/cell-tower-deaths/

Windular: Cell Tower Power

How do you power a remote cell tower or an amateur repeater site with no access to the grid? One company, appropriately named Windular, has a kit that attaches a 5 kW turbine driven generator to any free-standing, guyed, or monopole tower. The company advises grid-tied tower site owner/operators that they can make back the purchase price by charging other tower tenants retail electric prices or selling excess power back to the grid at wholesale prices. There are no details on how the kits are to be attached to the poles, but it's a good bet it will be done with subcontractors.



FCC ENFORCEMENT

Pirate FM: \$10k, Snubbing FCC: \$5k

An FM pirate radio operator in Fort Myers, Florida received considerable attention after his well publicized unlicensed station, operating on 107.5 MHz was shut down. The FCC was apparently irked at the openness with which he operated, giving interviews to local media, for example. This may have prompted the agency to take more drastic steps than usual in closing the station down. Normally, one or two field agents locate the offending unlicensed operation and take signal strength readings on two different occasions (this establishes the fact that the transmissions weren't a one-off and qualifies the pirate for the charge of "willful and repeated" violation of the law).

According to an article in the Ft. Myers News-Press from this past January, the pirate operator, a retired military Air Traffic Controller, watched as "four police cars, a blue sedan and an unmarked SUV" assembled in front of his home. A team for four policemen, two FCC agents and a police detective "swarmed" his home, arresting and handcuffing the accused, and confiscating the transmitter and associated equipment. Radio piracy charges were later dropped. The first week of June, however, the FCC handed the operator a \$15,000 fine; \$10k

for unlicensed operation and \$5k for "deliberate disregard" for FCC rules.

AM Op Blames Computer

It's long been public knowledge, at least to AM band DXers, that many AM radio stations exceed their authorized broadcast limits at night by simply not reducing power and/or switching to directional antenna arrays, as required by their licenses. With thousands of stations on the air and so few FCC field agents to see that the stations are in compliance, it seems that most stations see it as a good bet that they won't be caught.

The owner of radio station WIPC-AM 1280 kHz, a Spanish language station programming regional Mexican music from Lake Wales, Florida, was issued a Forfeiture Order by the FCC June 6 for "failure to operate its station in accordance with the terms of its station authorization." The station, licensed to operate 1,000 watts from a non-directional antenna during the day and 540 watts after sunset with a directional antenna array, was found to have "no significant change in signal strength" at night, according to FCC documents.

The station owner, Super W Media Group, blamed faulty automation equipment used to switch antennas and drop transmitter power. The FCC, citing "willful and repeated," hit the station with a \$4,000 fine. The station in turn cited financial hardship and asked for a reduction of the fine. The FCC examined the station's financial records and agreed to knock \$500 off the fine.

Communications is compiled by Ken Reitz KS4ZR (kenreitz@monitoringtimes.com) from clippings and links provided by our readers. Many thanks to this month's fine reporters: Anonymous, Rachel Baughn, Bob Grove, Norm Hill, Steve Karnes, Doug Smith and Larry Van Horn.

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