

OMIK TECH-TALK

JULY 2015



<http://www.omikradio.org>

***An International Educational and Scientific Organization
Founded in August of 1952***

OMIK Tech-Talk is a monthly distribution of news and technical articles reviewed and chosen by our technical staff to provide you with timely ham radio-related topics collected from different sources on the Internet and ARRL documentation.

KØMIK

**OMIK Amateur Radio Association –
Net Schedule**

(NOTE: during Daylight Savings Time net times move back 1 hour)

	OMIK Nets meet on Sundays
20 Meter Phone	14.295 MHz from 16:00 - 18:00 UTC
40 Meter Phone	7.185 MHz from 12:30 to 14:00 UTC
75 Meter Phone	3.920 MHz from 12:00 - 13:00 UTC

ARRL News



FCC Announces Enforcement Bureau Field Office Reorganization Plans:

from The ARRL Letter on July 23, 2015
Website: <http://www.arrl.org/>

FCC Announces Enforcement Bureau Field Office Reorganization Plans:

Forced under political pressure to take a few steps back from its initial proposal to eliminate two-thirds of its Enforcement Bureau field offices, the FCC has announced its final, scaled-down plan to reorganize its field resources. In an Order <https://www.fcc.gov/document/fcc-adopts-plan-modernize-field-operations-0> released July 16, the Commission said it would close 11 of its 24 field offices and relocate three others to nearby FCC-owned sites. In slimming down its field resources and upgrading those that remain, the FCC said it was acting in the name of efficiency and economy as well as to modernize a system model adopted 2 decades ago.

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"Since then, technological changes and increasingly limited resources have created the need to take a fresh look at the [Enforcement] Bureau's field operations," the FCC Order said. The FCC said it has completed "a full review" of the field organization and concluded that it needs to concentrate its field resources "in urban areas, where the need for them is greatest." ARRL CEO David Sumner, K1ZZ, addressed the topic of the FCC's planned field office closures in his "It Seems to Us" editorial in the August edition of QST. "The challenges the FCC faces in policing the radio spectrum are greater than ever and increasing every day," Sumner wrote. "Now is hardly the time to reduce its enforcement resources."

Sumner allowed, however, that the success of the FCC's enforcement efforts is not measured in the number of field offices but in the program's effectiveness in deterring bad on-the-air behavior and resolving interference complaints from such sources as power lines and "grow lamp" ballasts. "If FCC enforcement was accomplishing everything we might wish, and the revised plans promised the same results with greater efficiency, we would be the first to cheer. Sadly, that is not the case," Sumner said. He pointed to an interference case in the State of Washington that has dragged on for 2 years since the FCC first documented the interference. Seattle is one of the field offices set to close.

In a news release, the FCC said its field reorganization plan "aligns the field's structure, operations, expenses, and equipment with the agency's priorities," such as RF interference. "It also prepares the field [organization] to address future enforcement needs in an ever more complex spectrum environment, and aligns field operations to support this mission," the statement continued. "Through this plan, the Commission is maintaining a commitment to respond in a timely manner to interference issues anywhere in the nation...within one day."

In addition to Seattle, the FCC is closing its field offices in or near Anchorage, Buffalo, Detroit, Houston, Kansas City, Norfolk, Philadelphia, San Diego, San Juan (Puerto Rico), and Tampa. Enforcement Bureau field offices in or near Atlanta, San Francisco, and Columbia (Maryland) will relocate to FCC-owned sites nearby or in the same metropolitan areas. Columbia is where the FCC's HF Direction Finding (HFDF) facility is located.

The FCC said relocated offices as well as those remaining open in or near New York City, Miami, Dallas, Chicago, Boston, Denver, Honolulu, New Orleans, Portland (Oregon), and Los Angeles "will be staffed and equipped to maintain the Commission's Field program." Rapid deployment teams will be stationed in Columbia and Denver to supplement enforcement efforts of other field offices as necessary and to "support high-priority enforcement actions

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nationwide," the FCC said in a news release.

The FCC did not indicate how many employees were likely to be furloughed.

Read more <http://www.arrl.org/news/fcc-announces-enforcement-bureau-field-office-reorganization-plans>.

Source:

The ARRL Letter

The Amateur Radio Parity Act of 2015
The Amateur Radio Parity Act of 2015 -- H.R.1301 in the US House of Representative and S 1685 in the US Senate -- would direct the FCC to extend its rules relating to reasonable accommodation of Amateur Service communications to private land use restrictions. US Rep [Adam Kinzinger](#) (R-IL) introduced HR 1301 on March 4 with 12 original cosponsors from both sides of the aisle -- seven Republicans and five Democrats in the US House. US Senator Roger Wicker (R-MS) introduced S 1685 on June 26, with Senator Richard Blumenthal (D-CT) as the original cosponsor, into the US Senate. The Amateur Radio Parity Act would require the FCC to amend its Part 97 Amateur Service rules to apply the three-part test of the PRB-1 federal pre-emption policy to include homeowners association regulations and deed restrictions, often referred to as "covenants, conditions, and restrictions" (CC&Rs). At present, PRB-1 only applies to state and local zoning laws and

ordinances. The FCC has been reluctant to extend the same legal protections to include private land-use agreements without direction from Congress.

H.R. 1301 has been referred to the House Energy and Commerce Committee. Rep Greg Walden, W7EQI (R-OR), chairs that panel's Communications and Technology Subcommittee, which will consider the measure. **S 1685** has been referred to the Senate Commerce, Science and Transportation Committee's subcommittee on Communications, Technology, Innovation and the Internet, which is chaired by the bill's sponsor, Wicker. ARRL members are urged to contact their members of both the House and the Senate, asking them to sign on to the bill as a co-sponsor. Route letters for your member of Congress to:

ARRL

Attn HR 1301 grassroots campaign
225 Main St
Newington CT 06111

ARRL Board Approves HF Band Plan, National Parks Event, Award Winners:
from The ARRL Letter on July 23, 2015
Website: <http://www.arrl.org/>

ARRL Board Approves HF Band Plan, National Parks Centennial Event, Award Winners:

Meeting July 17-18 in Windsor, Connecticut, the ARRL Board of Directors

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adopted amendments to the ARRL HF Band Plan -- with some tweaks; approved a National Parks On The Air (NPOTA) operating event in 2016 to celebrate the National Park Service centennial; authorized the filing of a rule making petition with the FCC seeking changes on 80 and 75 meters; initiated the search for a successor to ARRL CEO David Sumner, K1ZZ, who will retire next May, and named several ARRL award recipients.

ARRL HF Band Plan

The Board adopted amendments to the ARRL HF Band Plan that were recommended by the HF Band Planning Committee, with one major change from the proposals as outlined in the April 2015 issue of QST and summarized <http://www.arrl.org/news/arrl-seeks-member-input-on-draft-hf-band-plan-proposals> on the ARRL website. That change was to set the upper RTTY/data limit for 20 meters at 14.125 MHz, consistent with the IARU Region 1 band plan.

Rule Making Petition to FCC

The Board authorized the preparation of a rule making petition to the FCC, seeking changes in the 80 and 75 meter bands that are consistent with majority opinion among more than 1000 responses to an online membership survey. The petition would seek to shift the boundary between the 80 meter RTTY/data subband and the 75 meter phone/image subband from 3600 to 3650 kHz. It also would restore privileges in the

3600-3650 kHz segment to Advanced, General, Technician, and Novice licensees. In addition, the League will ask the FCC to shift the automatically controlled digital station (ACDS) band segment from 3585-3600 kHz to 3600-3615 kHz, consistent with the IARU Region 1 and Region 2 band plans, and authorize Technician and Novice licensees to use RTTY/data emissions in their 15 and 80 meter band segments, the latter change contingent on expansion of the 80 meter band.

CEO Successor Search

Additional details are forthcoming, but the Board set into motion its search for a successor to ARRL CEO David Sumner, K1ZZ, who has set a target retirement date of May 1, 2016. By then, Sumner will be 67 and will have been on the Headquarters full-time staff for 44 years. He was named Secretary and General Manager in 1982, with a change in title to Executive Vice President in 1985, and the additional title of Chief Executive Officer in 2001 (the title of Executive Vice President was phased out in 2011).

ARRL Award Recipients

The Board named several recipients of ARRL awards:

- Anna Veal, W0ANT, is the recipient of the prestigious 2014 Hiram Percy Maxim Memorial Award for youth, in recognition of her involvement, service, and leadership throughout the Amateur Radio community.
- David L. Hershberger, W9GR, was named to receive the 2014 Doug DeMaw, W1FB,

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Technical Excellence Award for his work in reducing audio distortion in SSB transmission, as described in his article "Controlled Envelope Single Sideband" in the November/December 2014 issue of QEX.

- The Board recognized the principals and developers of Broadband-Hamnet for their contributions to microwave mesh networking with the 2014 ARRL Microwave Development Award.

- Randy Thompson, K5ZD, was named the winner of the 2014 Philip J. McGan Silver Antenna Award for outstanding volunteer public relations success over many years -- and especially for achieving national media coverage of the 2014 World Radiosport Team Championship.

Dues to Rise in 2016

The Board approved a \$10 increase in the League's annual dues rate, effective January 1, 2016. In so doing, the Board adopted a recommendation of the Administration & Finance Committee. ARRL basic dues have been held at \$39 a year since 2001. ARRL CEO David Sumner, K1ZZ, said the League has done as much as it can to hold off a dues increase for more than a decade, but now it's a necessity, not an option.

"One of the most difficult decisions a membership organization faces is a dues increase," he said. "Over the past 14 years we have managed to hold the increase in expenses to just 19 percent, against a US inflation rate of 32 percent over the same

period," he continued. "We have implemented operating efficiencies that allowed reducing the staff by 15 percent while expanding the range of services to members and to Amateur Radio as a whole. We created a development program, offering to those members who have greater financial capacity an opportunity to support their national association at a higher level." Enhanced membership services since 2001 include inauguration of Logbook of The World (LoTW <http://www.arrl.org/logbook-of-the-world>); a digital edition of QST at no additional cost; expanded QST and video product reviews; upgraded public service support including the Ham Aid <http://www.arrl.org/ham-aid> program, Emergency Communications Training , and the ARES E-Letter <http://www.arrl.org/ares-e-letter>; the Education & Technology <http://www.arrl.org/education-technology-program> program and Teachers Institutes on Wireless Technology, and the Amateur Radio on the International Space Station (ARISS <http://www.ariss.org>) program. Sumner aid that advocacy on behalf of Amateur Radio has included relentless defense of Amateur Radio spectrum, the Amateur Radio Parity Act, and an increased awareness of the value of Amateur Radio on Capitol Hill.

Details of ARRL's revenues and expenditures are available in its Annual Report <http://www.arrl.org/annual-reports>

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archive for the years 2002 to 2014. The cost of a basic ARRL membership will rise to \$49 on January 1, 2016. An ARRL Life Membership, now \$975, will increase to \$1225.

Amateur Radio Enforcement Plan

The Board also directed the CEO, staff, and General Counsel to develop and, under the supervision of the Executive Committee, execute a plan to improve timely and visible enforcement in the Amateur Radio Service, most notably in the areas of RF interference from power lines and Part 15 and 18 lighting devices and malicious interference to HF net operations and VHF/UHF repeaters.

ARRL 2016 National Convention

The Board authorized the holding of an ARRL National Convention in Orlando, Florida, February 12-14, 2016, in conjunction with the 70th anniversary of Orlando HamCation.

Strategic Plan

The Board approved preliminary recommendations of the ARRL Strategic Planning Working Group and authorized the continuation of the group's activities with final recommendations due at the Board's 2016 Annual Meeting.

Source:

The ARRL Letter

QRZ.com Website Undergoing Major Upgrade

The popular **QRZ.com** website has been undergoing a major upgrade since last Friday, and things are going a bit more slowly than initially anticipated. QRZ.com Founder and President Fred Lloyd, AA7BQ, said the site's engineers "have encountered some unforeseen problems." "What started out as a simple update that went bad is now almost over," Lloyd **announced** on the site's Facebook page early on July 22. "We've replaced our forums software and are reconfiguring it for use with QRZ. While we realize that many folks have been concerned, we want to express our sincere thanks to those who have been patient and understanding with us as we work overtime to put the system back online."

The outage does not affect call sign lookups, logbook, and other site features. Lloyd said QRZ.com is "looking forward to a shiny new user interface and a bunch of new features for our wildly popular Ham Radio Forums."

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Classes & VEC Testing

None scheduled

*You can find an Amateur License Exam
In your area at [ARRL.ORG](http://www.arrl.org)*

http://www.arrl.org/exam_sessions/search

*Free Amateur Radio Practice Testing is
available on the Web*

Practice exams are for those people who would like to study for a new US amateur radio license class. The questions contained within are provided by the Federal Communications Commission and are selected from the same sub-elements that would be used for an official license examination.

<http://aa9pw.com>

<http://www.qrz.com/exams>

<http://hamexam.org>

<http://www.eham.net/exams/>

Safety Tip

Distracted driving is seven times more deadly than drunk driving! Nonetheless, stay sober, or stay home!

Basics

Operating amateur radio equipment while underway is an activity we all enjoy, but one that should never be taken lightly. Besides driving, we have to content with other vehicles and their drivers, driving conditions including weather and traffic congestion, yet deal with the distraction all of these activities generate.

Distracted driving is *the* leading cause of motor vehicle crashes and deaths! The major causes include cellphones, entertainment devices, navigation systems, and even amateur radio! While some of these devices are more distracting than others (their basic design plays an important part), cellphone use (especially texting) is by far the most distracting. This fact has prompted all-manner of political entities to enact laws governing their use while underway. Virtually every city and state (including the European Union) have enacted ordinances either limiting or eliminating their use while underway. Unfortunately, a lot of these ordinances have included amateur radio, albeit

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inadvertently. For example, in some localities, you cannot drive with a communications device in your hand. While aimed at cellphone use, it effectively eliminates the use of a microphone.

To help combat these unintended consequences, the ARRL issued a [Mobile Policy Statement](#) outlining the differences between cellphone communications, and amateur radio communications. However, that isn't the end of the story!

One of the most important steps to minimize distraction is the proper [installation](#) of amateur radio gear (including antennas). Hurried and haphazard installations are not only distracting, they're frustrating, and often dangerous! Anything stuck on with hook and loop fasteners, magnets, clips, clamps, bungie cords, rubber bands, suction cups, and double-sided sticky tape will always fail at the most inopportune time!

When and how we operate are important attributes too. Talking on two meters while wolfing down a donut and drinking coffee, is both distracting and dangerous. Poor weather conditions, traffic congestion, spousal irritation, and entertainment device use, are all good reasons to hang up the microphone.

OMIK Digital News

The OMIK Amateur Radio Club has XRF185 reflector up and running. If you are a D-Star user and would like to use it, feel free. Contact Frank at k6fed@yahoo.com he will provide you with the information. The information Dashboard is located <http://xrf185.dyndns.org>.

New Technologies

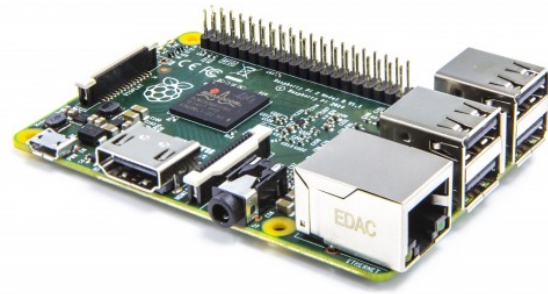
In recent years the Raspberry Pi Foundation released a small inexpensive computer called the Raspberry Pi. The Raspberry Pi is about the size of a credit card, but yet is a fully functional computer. It has a HDMI monitor output, 4 USB ports, a network interface (optional), SD card slot, audio output jack (no input, but does work with external usb audio interfaces for input). The Pi also has a GPIO interface (General Purpose Input Output), which should be of great interest to hams, because it can be used to interface to external hardware such as relays. All this for a whopping \$35 dollars with the network interface (Model Pi 2). The Pi uses a 900 MHz ARM processor, 1 gig ram with a Videocore 4 graphics processor capable of Blu-ray playback. The system runs of 5 volts using a USB power supply that connects via a Micro USB jack.

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The Raspberry Pi primarily uses [Linux kernel](#)-based [operating systems](#). The [ARM11](#) chip at the heart of the Pi is based on version 6 of the [ARM](#). The current releases of several popular versions of Linux, including [Ubuntu](#),^[60] will not run on the ARM11. It is possible to run Windows on the Raspberry Pi 2 only.

The Pi at this point is a highly experimental device and is not comparable to your quad core desktop PC. So, why should hams be excited about the Pi? Due to it's small size and low power it makes an ideal embed-able computer to be used as a controller. The GPIO makes it ideal for interfacing to hardware like relays or knobs. Maybe interesting for Antenna controllers, repeater controllers, APRS repeaters, D-star hotspot controllers, etc. The implications for SDR use are also interesting. You could potentially couple a Softrock RXTX, Pi, 12v / 5V power supply, usb wifi dongle, and a usb audio dongle in a small case. You could then stick a cheap used Android phone on the front as a color display. The phone could get video via WiFi using VNC and audio out using Skype. So. for less than \$200, you could have a self contained SDR radio in a small case with a touchscreen. Stick a PSK31 program on the Pi and then us would have a small portable QRP rig for digital.



Digital Technologies

The United Digital Amateur Radio Club has XRF185 reflector up and running. If you are a D-Star user and would like to use it, feel free. Contact Frank at k6fed@yahoo.com he will provide you with the information. The Dashboard is located <https://xrf185.dyndns.org>

Digital Technology News

D-Star No Radio Required!!
The ThumbDV and Star*DV are a big hit among the Amateur radio community. With either one of these items and a internet connection, a ham can plug it into their computers USB port, install some free software enjoy all the fun on Dstar.

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The ThumbDV can be purchased online at www.nwdigitalradio.com for a cost of \$119. The Star*DV can be purchased online www.moencomm.com at a cost of \$129. I've had many QSO with hams stateside and abroad that have made the purchase. While they insist they still love their HF bands, they say these two items are perfect for rag chewing world wide. There have been instances where these products have sold out but I think they now have new stock. I wonder why? If you're wondering why the bands are so quiet, it because most of the action has moved to Dstar. Think of it as Skype for hams. Checkout this website www.dstarusers.org it is updated every few second to indicate live activity taking place on this mode.

ThumbDV



Star*DV



D-Star computer Dongle for rx/tx D-Star over IP When a DV Dongle is connected to a PC or Mac and used with DVTool software, an amateur radio operator can connect to the international D-Star gateway network and receive/transmit just like a D-Star radio user. The DV Dongle connects to your PC or Apple Mac via a USB port and provides encoding and decoding of compressed audio using the DVSI AMBE2000 full duplex vocoder DSP chip. AMBE technology is used in all D-Star radios to provide efficient voice transmissions. The DV Dongle is also used in some HF digital protocols by vendors like AOR.



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How to Use a DV Dongle with DV Tool Software to Access D-Star

<https://www.youtube.com/watch?v=UDRxnNUs3hY>



For Sale or SWAP

This space is reserved for anything amateur related you want to sale, swap trade, buy or get rid of. Send your list to K6FED@yahoo.com. Items are listed for one month. Additional time can be requested by email.

Suggested Yahoo Groups: DV Dongle

<http://groups.yahoo.com/group/DVDongle>

D-Star Software Yahoo

group: <http://groups.yahoo.com/group/dstarsoftware>

Suggested Youtube video