The Capitol Hill Monitor

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CHM GET-TOGETHER THIS SATURDAY !!!

The CHM winter get-together is set for Saturday, Feb. 8, 2020, from 2 p.m. to 4 p.m. at the Sakura Seafood Buffet at 9031 Baltimore Ave in College Park, Md.

This is our annual get-together to share radio-related tech topics with fellow enthusiasts in the D.C. area. EVERYBODY IS INVITED TO COME!

Please note, we are trying a different day (Saturday) and a different restaurant than in previous years.

This is the all-you-can-eat buffet offering a wide range of Asian and American foods... can't beat the price with free parking and there are coupons on the website: sakuraseafoodbuffet.com.

Our guest speaker is Kevin Hartwig from the D.C. Office of Unified Communications (OUC). He has been with OUC for three years and manages the ops floor IT support team.

Hartwig also manages the MDC IT support team at the agency's radio shop on McMillan Drive NW. Prior to coming to OUC, he served as a sergeant in the US Marine Corps for four years where he worked in IT supporting satellite communications.

Also, Ken Fowler is planning to demonstrate how to use amateur radios to create hotspots, a popular trend we have been seeing recently.

MONTGOMERY CO. TO ENCRYPT POLICE DISPATCH IN NEW P25 RADIO NETWORK

At about this time next year Montgomery County government will have completed its transition to a new Project 25-compliant trunked radio network. Tower site construction and facility buildouts are currently underway.

Gerry Adcock, the P25 radio system project manager, says he anticipates the system to be operational late this summer as the county hopes to start range testing in August or September while leaves are still on the trees.

He says public service agencies such as Ride-On and other Dept. of Transportation personnel will likely migrate to the P25 network first, followed by public safety users this December.

The new network features 22 sites and will reuse the existing 20 800 MHz channels. The best known site has been the controversial one proposed in Olney which will be on a tower built and owned by the State of Maryland intended for the FiRST network which is expanding to the Washington suburbs. The county will also use that tower as part of its P25 network.

Despite complaints from some property owners, the governor made the decision to continue with the tower. But that delayed the project by several months.

The county's existing 800 MHz network uses only 11 sites, Adcock points out. The current Motorola Smartzone 3.0 system only allowed 10 sites in a single zone, but through an auxiliary port on the system controller, he says they were able to add an 11th site co-located.

Based on the 10-site limitation (11 with the aux port) of the current system installed more than 20 years ago, antenna sites for this new network had to be strategically located to get the “best bang for the buck,” he said.

The new Motorola Astro P25 system supports up to 32 sites in a single zone. But the system design for the county’s new P25 system only requires 22 sites which reuses most of the existing sites, he added.

“We are moving off three very expensive existing sites [high rent] by going to nearby locations that are available,” Adcock stated. “By moving off these three expensive rental sites, I am saving enough money that I will reduce our annual rental costs while doubling our antenna footprint [22 sites for the price of 11],” he said.

As far as encryption is concerned, we have been hearing conflicting information for the past couple years. Chief Michael Baltrotsky, the fire/EMS technical operations manager, had told us last year that “As of now [encryption use] will remain the same as it is today in the new system.” So only the special talkgroups will be encrypted in the fire/EMS radios.

“The decision to encrypt some or all of the talkgroups on the county’s new P25 radio system is a police operations decision and lies solely with the Montgomery County Police Department,” Adcock points out. “The county Department of Technology Services will support whatever direction the police take on this matter,” he added.

As for encrypting the primary police channels, Elsa Rand of the police public information division said she was "told by my captain that we had to refer all questions to the county."

Ohene Gyapong, Office of Public Information deputy director, said last week that "Yes, the primary police dispatch channels will be encrypted; however, I cannot elaborate until the County Executive's staff has the opportunity to update the County Council on the progress."

ANNE ARUNDEL CO. ALSO SWITCHING TO P25

Like Montgomery County, Anne Arundel County is one of the few local jurisdictions remaining that has not yet migrated to a P25 network. The county was among the first in the region to switch to a Motorola trunked network in 1989.

Rick Napolitano, the county CIO, says the cutover to a new P25 network is planned for FY22. He said last week that "there are some major drivers for this in terms of having the capabilities delivered in time to do full foliage testing. If the testing is not completed with full foliage, the rollout may slip to the end of 2022."

As far as encryption is concerned, Napolitano said that encryption will be available on all devices. "The radios will be configurable, so in some instances they will all be configured and in some they will not," he noted. When asked if the police dispatch talkgroups will be encrypted he said that "Many of the specifics are policy driven and as such they are still under review…"

We are told to keep checking the FCC database for clues about some frequencies we might want to monitor for activity. The county currently has licensed these 800 MHz trunked/conventional freqs: 851.1375, 852.6875, 853.325, 853.8375, 854.1125, 854.1875, 854.3375, 854.4125, 854.5125, 854.5375, 854.7125, 854.8125, 855.1625, 855.5375, 855.8375, 856.0125, 856.0875, 856.1125, 856.1625, 856.3875, 856.4125, 856.5125 and 856.6375.

WMATA P25 RADIO UPDATE

A source familiar with the future WMATA 700 MHz P25 network tells us that the decision has been made to encrypt all talkgroups including future bus, rail and police communication. The last reported launch date is March/April of 2021.

WMATA has increased the number of towers that the system will be using and some interop agreements are still being negotiated which has been one reason for the delay.

Meanwhile, WMATA's current Motorola equipment is being held together with "band-aids and duct tape" as many key components are no longer available for purchase, new or used.

Once WMATA successfully migrates to 700 MHz, the UHF-T band channels might be abandoned unless something changes. WMATA could continue to use those channels as an emergency backup system, although WMATA is attempting to roam onto other 700/800 MHz systems in the region as the backup to its new network. But Metro is still attempting to negotiate these agreements.

Metro's radio network will be one of the largest in the D.C. region since it must cover the operating area of both the rail and most of the bus system.

D.C. MEDIA CHOPPER UPDATE

WTTG, WJLA and WUSA started the new year with a new leased helicopter, N111TV, a Robinson R66 built specifically for news gathering and sold to Sky Helicopters. This helicopter identifies on the aircraft radio as "*Chopper 1*."

The new chopper features improved optics and can travel at faster speeds. The stations are happy after the first month of service as the camera is improved especially on night shots.

To confuse matters, the competing helicopter, a Bell 206-L4, N98CL, identifies as "*News 1*" and reports only for WRC. That helicopter is owned by Helicopters Inc. A Bell 206B, N9QD, is the WRC backup chopper.

The former "*News 2*" chopper, N67CL, also owned by Helicopters Inc, has been moved to Raleigh. That was the chopper WTTG, WJLA and WUSA had used previously.

Both "*Chopper 1*" and "*News 1*" are based at Tipton Airport near Fort Meade. "*Chopper 1*" will be controlled by one of the three participating TV stations on an alternating monthly basis. "*News 1*" is solely under the control of WRC.

The D.C. media helicopter freqs remain the same (WRC: 153.05, WTTG: 161.73, WJLA: 450.1125/450.2625, and WUSA: 450.0875). The choppers regularly chat on 134.35 (DCA tower) and 123.025 (helo common).

SCANNING "FACTORY PRESET" RADIO CHANNELS

by Richard Rowland

Amazon and eBay are overwhelmed with inexpensive two-way radios marketed toward business, recreational and amateur radio users. Some radios are FCC approved, other manufacturers claim their radios are approved while many radios are outright counterfeits and/or not actually FCC approved.

These include Retevis and Baofeng. They compete in the same market space with the larger established brand names like Motorola and Kenwood, who make consumer-grade radios as well. These radios all have factory presets which customers often never change.

Enter the era of factory preprogrammed business band frequencies in many radios. Regardless of where you may be,

going for gas, groceries or shoes, at the beach, or just at home, their radio traffic surrounds you!

From a hobby standpoint, the Motorola XTN and CLS series are perhaps the most popular. Some Kenwood models have similar channel plans and carry four frequencies not found in the Motorola radios: 467.85, 467.875, 467.9 and 467.925.

These four are used nationwide by 15 or more retail establishments. Another three frequencies, 451.8, 451.8125 and 456.8125, are Wawa favorites.

I have merged the two preset UHF channel plans together and added the four additional frequencies eliminating any duplicates. These 90+ freqs make a good list for mall, retail store and miscellaneous frequency hunting.

451.1875	461.0375	462.7875	466.2125	467.9000
451.2375	461.0625	462.8125	466.2375	467.9125
451.2875	461.0875	462.8375	466.2625	467.9250
451.3375	461.1125	462.8625	466.2875	468.2125
451.4375	461.1375	462.8875	466.3125	468.2625
451.5375	461.1625	462.9125	466.3375	468.3125
451.6375	461.1875	464.4875	466.3625	468.3625
451.8125	461.2125	464.5000	467.1875	468.4125
452.3125	461.2375	464.5125	467.4625	468.4625
452.4125	461.2625	464.5375	467.4875	468.5125
452.5125	461.2875	464.5500	467.5125	468.5625
452.5375	461.3125	464.5625	467.7625	468.6125
452.7625	461.3375	466.0375	467.7875	468.6375
452.8000	461.3625	466.0625	467.8125	469.4875
452.8625	462.1875	466.0875	467.8375	469.5125
456.1875	462.4625	466.1125	467.8500	469.5375
456.2375	462.4875	466.1375	467.8625	469.5625
456.2875	462.5125	466.1625	467.8750	
456.8125	462.7625	466.1875	467.8875	

Refer to this link for more details on common factory preset channel plans and related info.

JOIN THE SCANNER GROUP ON DMR TGIF HOTSPOT RADIO!

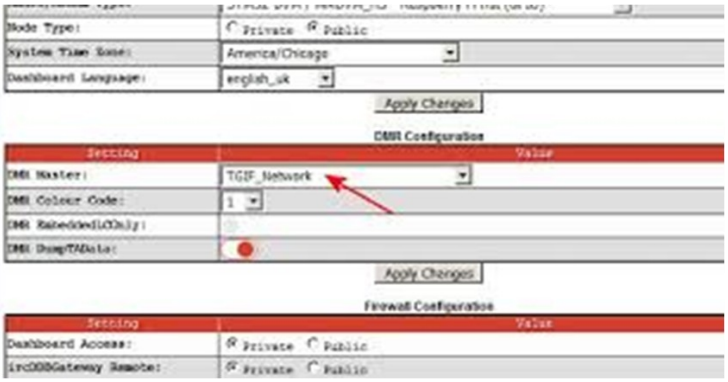
by Kenneth Fowler, KD4IIW

I would like to introduce "The Scanner Junkies," a DMR talkgroup designed for all aspects of the scanner radio hobby. We focus on the use of scanner radios, fire pagers, shortwave receivers, air-band radios and wide-band receivers, scanner radio apps, websites and just about any other technology used today in the hobby.

The talkgroup number, 1033, was chosen as the best representation of the 10 code "10-33" for "emergency traffic" that you hear in monitoring public safety radio communication.

This is an amateur radio DMR talkgroup hosted by the TGIF DMR network. The mission of the TGIF network [http://tgif.network/] is to discuss and explore new technologies, DMR radios, digital modes, computers and to have these discussions in a friendly and knowledgeable environment whilst still promoting amateur radio! That is where you can find "The Scanner Junkies" on talkgroup #1033.

How to get to the TGIF network: The primary way to join in on the fun is by connecting your DMR radio and hotspot to the TGIF network. Switch your DMR master to the TGIF Network (see below).



You will have to edit the codeplug in your radio to include 1033 as a digital contact and create a channel in your radio for this talkgroup. It is a good idea to create a separate zone in your radio for TGIF. For any help with DMR, you can email me at: KD4IIW@arrl.net

Once your hotspot is detected by the network, open another browser window and use this URL to make your talkgroup static on your hotspot. Most hotspot setups send traffic to Timeslot 2 on the radio in simplex mode.

When done using the talkgroup, set the talkgroup to "4000" to disconnect. Please come by and say hello.

Ken will demonstrate this exciting technology on Saturday!

INTERESTED IN BREAKING NEWS REPORTS? JOIN THE NCR ZELLO NETWORK!

Zello is a push-to-talk (PTT)-style app for smart phones much like the old Nextel Direct Connect that allows walkie-talkie-like communication via cell phones.

Inspired by the Scan-DC email group, Kenny Lorber created the "National Capital Region Public Safety" group on Zello several years ago.

We hope this group will continue to grow as people discover the need to share information on emergency events and breaking news among us fellow radio hobbyists — especially after recent hurricanes!

Those seeking to join must be approved to transmit but anyone with the password may listen. Download the Zello app, then join the NCR group. The password for the group is "scandc2018!" (without the quotation marks but make certain to include the exclamation point).

The Capitol Hill Monitor
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INSIDE: Montgomery Co. police and WMATA plan to **ENCRYPT** new radio network talkgroups. Will Anne Arundel Co. PD be next? DC TV media chopper changes; scanning common factory preset radio freqs and using a DMR hotspot to monitor "The Scanner Junkies" on the TGIF network!

The *Capitol Hill Monitor* is the non-profit newsletter of the Capitol Hill Monitors. The newsletter keeps scanner enthusiasts abreast of local meetings, frequency profiles and other topics of interest. We encourage readers to submit material and write articles that relate to the hobby. All submissions are subject to editing for style and content.

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CHM HAS GONE PAPERLESS!

The *Capitol Hill Monitor* newsletter is converting to electronic distribution. "Snail mail" distribution will continue for the time being for those who already paid for delivery via U.S. Mail. To receive the identical online newsletter for FREE, please sign up for email notification via the CHM website.