VIA ELECTRONIC MAIL

To: Jen Leasure, The Quilt

From: Jeff Mitchell

Re: Monthly Broadband Policy Update – through June 3, 2020

Capitol Hill

On May 15, the House passed the Democrats’ multi-trillion dollar Heroes Act on a party-line vote. This is the next installment of COVID-19 response legislation and although it contains many good multi-billion broadband spending programs, it is unlikely to become law. Fortunately, some of the broadband pieces of the Heroes Act have been introduced as standalone bills which stand some chance of passage this year. These along with other bills of interest are summarized below:

- **Supporting Connectivity for Higher Education Students in Need Act** ([Senate version](#)). Would establish a $1 billion Emergency Higher Education Connectivity fund at the National Telecommunications Information Administration (NTIA) to help ensure college and university students at historically Black colleges and universities, Tribal colleges and universities, other minority-serving institutions, and rural-serving institutions, have adequate home internet connectivity during the pandemic. Colleges and universities could use the funding to directly help students in need pay for at-home internet connections and equipment such as routers, modems, Wi-Fi hotspots, laptops, tablets, and internet-enabled devices to students.

- **Healthcare Broadband Expansion During COVID-19 Act** ([House version](#)). Would appropriate $2 billion in temporary Federal Communications Commission (FCC) Rural Health Care (RHC) program funding and require a return to a rolling application process where urban and rural healthcare providers could apply for funding at any time with new funding decisions issued within 60 days after the application is filed. Temporarily waives the competitive bidding rules to allow health care providers to obtain funding to upgrade their existing level of service from their existing provider immediately.

- **Emergency Educational Connections Act of 2020** ([Senate version](#)). Would authorize $4 billion ($2 billion in House version) in extra temporary funding for the E-rate program to support Wi-Fi hotspots, modems, routers, and connected devices during emergency periods relating to COVID-19, and for other purposes.
• **E-rate to the Home Act** (developed by SHLB/SECA/Funds for Learning; drafted but not introduced yet). $5.25 billion for the E-rate program to support home broadband service, broadband network equipment, end-user devices (such as laptops or tablets), and cybersecurity; explicitly allows schools and libraries to extend their existing E-rate-funded networks to serve the surrounding community (including for backhaul). SHLB has a detailed summary of the bill [here](#).

• **Endless Frontiers Act** ([full text; summary](#)). $100 billion (with a “B”) proposed for the National Science Foundation. From the [press release](#): “Bipartisan, Bicameral Endless Frontier Act Proposes Expansion of National Science Foundation, $100 Billion For Strategically Advancing Science and Tech R&D, and $10 Billion For Establishment of Regional Technology Hubs Across the Country to Launch New Companies, Revive American Manufacturing, and Create New Jobs to Jumpstart Local Communities.” More [here](#).

**National Telecommunications and Information Administration (NTIA)**

NTIA was in the news this month as the vehicle by which the Trump Administration intends to kick-off an FCC inquiry into **Section 230(c) of the Communications Decency Act**. On May 28, 2020, [President Trump directed](#) NTIA in the next 60-days to submit a petition for rulemaking asking the FCC to propose regulations to clarify the precise scope of Section 230. Both Democrats and Republicans have had growing criticism of Section 230, but for different reasons. (Wikipedia has a good [historical overview of Section 230](#).)

The NTIA monthly webinar was held May 20, 2020: Using Smart Technologies to Drive Regional Transformation. Regions covered included Arizona, Colorado, and the Great Lakes. Information from past webinars is available in the [webinar archive](#). The June webinar will be held June 17 and will focus on Utilizing Federal Data to Measure the Digital Divide. The [May BroadbandUSA Newsletter](#) links to many state COVID-related actions and resources; the June newsletter links to state broadband news items from Alabama, Illinois, Maine, Minnesota, and South Carolina, among others.

NTIA hosts a [searchable database](#) featuring 50 federal broadband funding opportunities across a dozen federal agencies. The NTIA [Broadband USA main page](#) features a state-by-state summary of state broadband programs (scroll down to the map and click on a state). NTIA recently released the pilot results of its [National Broadband Availability Map (NBAM)](#) which was authorized by Congress in 2018. The NBAM currently covers eight states: California, Utah, Minnesota, Tennessee, North Carolina, West Virginia, Massachusetts, and Maine. The NBAM incorporates FCC Form 477 data along with broadband data from third-party sources including other federal agencies. Because the NBAM includes both public and proprietary data, coverage details are available only to state and federal “partners” and not the general public.
USDA – Rural Utilities Service

Grant Programs

The official funding announcement for the next tranche of ReConnect Program funding ($550 million) is available here. Although the ReConnect application window closed April 15, the CARES Act allocated an additional $100 million for ReConnect grant funding. If you are interested in viewing proposed ReConnect projects, the public notice filings (published to facilitate overbuild challenges), are here; awardees are identified here; proposed and funded projects are depicted on an interactive map here.

The Distance Learning & Telemedicine Grant Program received an additional $25 million in funding in the CARES Act and has opened a second application window which closes July 13, 2020. The RUS Community Connect Grant program is currently inactive. Although not USDA/RUS, the Health Resources and Services Administration (HRSA), recently announced a Telehealth Network Grant Program with $8.7 million available and awards up to $300K. This application deadline has been extended to June 15, 2020.

Precision Agriculture

The FCC’s Precision Agriculture Connectivity Advisory Task Force met virtually on March 25, 2019; that meeting can be viewed here. (The April 2019 USDA report on rural broadband infrastructure and next generation precision agriculture is available here.)

Federal Communications Commission

The agenda for the FCC’s June 9, 2020 open meeting includes a Public Notice regarding the upcoming Rural Digital Opportunity Fund (RDOF) phase one auction, and an order proposing rules to reorganized the 70/80/90 GHz spectrum bands to support 5G point-to-point backhaul (draft NPRM here). Broadcast Internet services are also on the agenda (draft declaratory ruling here).

At its May meeting the Commission adopted rules to reorganized the 900 MHz band which is currently used mostly by utilities and industries for private-two-way radio, to create a 6 MHz broadband segment for commercial use (order).

As noted last month, the FCC has been very active between meetings with various emergency orders and new programs responding to the COVID-19 pandemic. Some of these actions are addressed below.
White Spaces

The unused spectrum between TV station channels or in places where channels are vacant are called “white spaces.” This vacant broadcast spectrum represents a resource for mobile broadband, particularly in rural areas. In March 2020 the FCC proposed updated rules to facilitate increased innovation in the white spaces area. Comments are currently being filed in this rulemaking. SHLB signed on to the Broadband Connects America Coalition comments. Microsoft has been a leader in this area – their comments are here.

Spectrum

In this new section of the monthly broadband policy update, we will maintain brief summaries of selected FCC spectrum proceedings that are active and that impact the public availability of broadband. If there is a specific proceeding that interests you, please let me know. Here is quick-and-dirty explanation (courtesy of Jeremy Horowitz at venturebeat.com) of the utility of different bands in the 5G era:

The . . . low band tier covers a lot of space, slowly, while the . . . mid band covers less space at faster speeds, and the . . . high band covers the least space at super-fast speeds. . . . One low band (600-700MHz) tower can cover hundreds of square miles with 5G service that ranges in speed from 30 to 250 megabits per second (Mbps). A mid band (2.5/3.5GHz) tower covers a several-mile radius with 5G that currently ranges from 100 to 900Mbps. Lastly, a high band (millimeter wave/24-39GHz) tower covers a one-mile or lower radius while delivering roughly 1-3Gbps speeds. Each of these tiers will improve in performance over time.

L-Band (1.0GHz to 2.0GHz)

The FCC on April 20 unanimously, and with broad bi-partisan support, approved a controversial and long-pending request by Ligado Networks (f.k.a LightSquared) to utilize a portion of the L-band spectrum that it owns. Turning again to Mr. Horowitz at VentureBeat:

The L-band includes all frequencies from 1.0GHz to 2.0GHz, the upper (1.7GHz+) portion of which has been used for cellular phone service for years, while the middle (1.5GHz to 1.7GHz) has been reserved largely for GPS, GLONASS, and Galileo location satellite transmissions. . . . Ligado holds 40MHz of spectrum spread across multiple 1.5GHz and 1.6GHz channels, the former coming close to GPS satellite frequencies but not overlapping them.

Opening more of the mid-L-band for cellular service would enable existing and new cell towers to quickly add data bandwidth, better yet on frequencies that can travel extremely far. The L-band channels could be used for both downloading and uploading data or dedicated just to uploading, a weakness in current 4G and 5G cellular systems. Anything calling for greater wireless upload speeds, such as sharing live videos from 5G drones or phones, could benefit, as could internet of things applications where upload speed isn’t as critical as the number of concurrent connections.
Because Ligado’s spectrum is close to spectrum reserved for GPS, the Department of Defense (DOD), Department of Transportation (DOT), and other interests strongly oppose this move. On May 22, NTIA (on behalf of DOD and DOT) formally challenged the FCC’s decision through a petition for reconsideration and a petition for stay.

2.5 GHz Rural Tribal Priority Window (formerly EBS)

In response to the COVID-19 pandemic, the FCC has granted temporary (60-day) emergency access to 2.5 GHz spectrum for requesting tribal groups including the Pueblo Zuni tribe in New Mexico and Navajo Nation in Arizona, New Mexico and Utah. Because of the unique impact of COVID-19 in tribal areas, more such requests may be forthcoming. With the June 2, 2020, waiver for Harlan County, Kentucky, at least one poor Appalachian community is also benefitting from temporary emergency use of the spectrum. These temporary spectrum access grants do not affect the availability of spectrum for the 2.5 GHz rural tribal priority window (see below).

The FCC last summer decided to auction remaining unlicensed Educational Broadband Spectrum (EBS) (2.5 GHz band) to commercial users. This spectrum is suitable for mobile and fixed point-to-point wireless services. Prior to the auction, tribal entities in rural areas have a limited opportunity to apply for licenses for available 2.5 GHz spectrum in their areas. This “rural tribal priority window” opened February 3, 2020, and closes August 3, 2020. The FCC has not responded to calls to extend the tribal window deadline due to COVID-19.

The FCC has made available a number of resources for the tribes including a mapping tool, information about the application process, and access to training materials. The general FCC website with links to these resources is here: https://www.fcc.gov/25-ghz-rural-tribal-window.

C-Band (3.7-4.2 GHz)

Broadcast satellite operations are the current licensed users of the mid-band C-Band spectrum. The FCC in February 2020 voted (along party lines) to approve two orders to reorganize and reclaim 280 MHz of the band for flexible-use and to facilitate public auctions of the newly available bands. The public auction is slated to commence December 8, 2020, with the new spectrum slated to be in use by September 2025. Incentive payments to the incumbents – which will come from auction proceeds – exceed $9 billion. On June 1, 2020, Chairman Pai announced that five of the major satellite operators had agreed on an accelerated timeline to vacate the first
chunk of the airwaves they currently hold by December 2021. Smaller operators on May 1 filed legal challenges to the FCC C-Band order and have sought a stay.

### 3.1-3.55 GHz

The Commission recently approved an NPRM for Facilitating Shared Use in the 3.1-3.55 GHz Band (link fixed). The 3.1-3.55 GHz band is currently used by the Department of Defense (DOD) for fixed and mobile radar as well as secondary non-federal amateur and experimental users. The U.S. is arguably handicapped in the 5G race in no small part due to the large government (DOD) holdings of mid-band spectrum. Commission’s goal is to relocate non-federal users to clear as much as 100 MHz spectrum for commercial 5G. The comment period closed March 23, 2020 – comments can be browsed here. This proceeding is at an initial stage and it remains to be seen how cooperative DOD will be in this effort.

**Citizens Broadband Radio Service (CBRS) (3.55-3.65 GHz)**

This spectrum is being used for naval radar and so away from the coasts much of the spectrum is unused. In recently deciding to reorganize the spectrum, the Commission allowed licensed use (through PALs), and General Authorized Access (GAA), which allows unlicensed access to available channels managed by a frequency coordinator called a Spectrum Access System (SAS). More information about SAS functionality – which is critical to all future spectrum sharing applications – is available here and here. An excellent general non-legal web resource for CBRS usage is available here. There is growing interest in CBRS among both K-12 and higher education on CBRS’ ability to provision private wide area wireless networks for education.

The FCC’s CBRS auction of PALs will go forward this summer but has been delayed by one month to July 23, 2020 – due to COVID-19. Each PAL will consist of a 10-year renewable license for a 10 MHz unpaired channel. According to the FCC this auction “will offer the greatest number of spectrum licenses ever made available for bidding in a single auction and is intended to further the deployment of fifth-generation (5G) wireless, the Internet of Things, and other advanced spectrum-based services for the benefit of the public.” The Commission public notice establishing the CBRS PALs auction procedures was approved at the February 2020 open meeting.

### 5.9 GHz Band

The Commission recently approved an NPRM for Promoting Innovation in the 5.9 GHz Band which would reorganize spectrum previously reserved for Dedicated Short Range Communications in order to support development of next generation “Cellular Vehicle to Everything” (C-V2X) technology as well as increase unlicensed utilization (e.g., more Wi-Fi channels). The FCC
proposes to make the lower 45 MHz of the 5850-5925 MHz band available for unlicensed use and allocate the upper 20 MHz for C-V2X. The DOT and auto safety interests oppose the FCC plan – while WiFi interests support it.

6 GHz Band

Here is an overview from C-NET highlighting industry estimates that allowing unlicensed use of 6 GHz spectrum will lead to supercharged Wi-Fi and create billions in value for the economy. Some claim this is the most important decision the FCC has made on unlicensed spectrum use in 25 years. Qualcomm recently released its plans for new products later this year that will take advantage of the spectrum.

E-rate & Rural Health Care COVID-19 Waivers

The Commission on March 18, 2020, waived the gift rules for both the E-rate and RHC programs through September 30, 2020. The scope of this waiver is broad, permitting (¶ 7):

service providers to offer [free of charge], and eligible RHC and E-Rate entities to solicit and accept, improved capacity, Wi-Fi hotspots, networking gear, or other things of value to assist health care providers, schools, and libraries as well as doctors and patients, teachers, students, school administrators, and librarians and patrons during the coronavirus outbreak. These gifts could include but are not limited to free upgrades to connections, connected devices, equipment, and other services for RHC program participants who provide care via telemedicine and free broadband connections, devices, or other services that support remote learning for students and teachers who will be taking classes at and providing instruction from home as a result of COVID-19.

The Commission in both E-rate and RHC extended programmatic deadlines for filing funding applications, appeals, invoicing, service delivery and information requests, as well as waived certain rules regarding contract extensions. If you intend to take advantage of any of these extensions of waivers, please consult these orders carefully.

E-rate

Park Hill

The Park Hill decision, released in late April 2020, is the first major FCC decision (by the Wireline Competition Bureau) addressing the contours of the rules governing self-constructed networks. The FCC in Park Hill overturned a USAC decision that had rescinded previously awarded funding from 2016 and denied funding for FY 2017. Park Hill is a school district in Kansas City, Missouri, that partnered with the city to build its own self-constructed network. Of course, before moving
forward, Park City had established that this self-provisioning partnership was significantly less costly than service-based alternatives. As part of a long-term cost-sharing agreement, the city received fiber strands in exchange for in-kind contributions including conduit and maintenance. Significantly, Park Hill was able to demonstrate that this arrangement saved substantial sums of E-rate funding:¹

Pursuant to the agreement, Kansas City would provide Park Hill access to [the city’s] conduit, assume ‘locate responsibilities’ to mark and locate the conduit system lines and facilities for Park Hill’s network, and provide all permits and rights of way access required for the construction of Park Hill’s network in exchange for Park Hill’s installation of 72 strands of fiber and a 12-strand fiber buffer tube throughout certain portions of the network for [the city’s] use. Park Hill estimated that its partnership with [the city] would result in total savings of up to $430,000, and given Park Hill’s 50% discount rate under the E-Rate program, would result in cost savings to the program of approximately $215,00.

USAC objected to this arrangement. In reversing USAC, the Bureau clarified that “an E-Rate eligible entity may . . . share the services and equipment used to construct and/or operate a self-provisioned network supported by E-Rate funding with an ineligible third-party entity so long as the ineligible third-party entity pays its fair share of the costs, i.e., its pro-rata portion of the undiscounted costs of the network.”² The Bureau also clarified that “our rules do not require E-Rate applicants to exclusively own and use [their] entire self-provisioned network.”³ This is an important and in some ways surprising outcome given how this FCC previously appeared to regard the previous FCC’s construction/special construction policies (see next item).

Texas Carriers’ E-rate Rulemaking Petition on Overbuilding

At stake is whether the FCC should open a rulemaking to consider changes to program rules governing new fiber construction. Links to the original filings are below while dueling filings by interested parties continue; most recently Totelcom on March 10, 2020, in favor of the Texas Carriers and responding to SHLB’s January letter to Chairman Pai.

Background: On May 30 the FCC sought comment on a petition for rulemaking in the E-rate program filed by several small Texas telcos that claimed E-rate rules are supporting improper overbuilding of their networks. Comments were filed on July 1 with replies filed on July 16. SHLB

¹ See Request for Review and/or Waiver of a Decision of the Universal Service Administrator by Park Hill School District Kansas City, Missouri; Schools and Libraries Universal Service Support Mechanism, CC Docket 02-6, DA 20-455, ¶ 7 (WCB 2020).
² Id. at ¶ 12.
³ Id. at ¶ 15.
joined with the Consortium for School Networking (CoSN), the Texas Association of School Administrators (TASA), the Texas Association of School Boards (TASB), the Texas Association of School Business Officials (TASBO), the Texas Computer Education Association (TCEA), and the Texas K-12 CTO Council in opposing the petition.

**Rural Health Care**

USAC delays processing funding applications for 2019 are in the forefront, with many program participants still receiving 14-day information requests from USAC for funding applications submitted over a year ago. It is clear USAC is way behind the pace of processing applications in prior years and some are calling for the FCC to act.

**Net Neutrality**

On October 1, 2020, the DC Circuit upheld in significant part the FCC’s 2017 repeal of net neutrality rules, as well as the so-called transparency rule which requires carriers to disclose changes in their terms of service. The Court reversed the FCC on blanket state preemption and remanded several issues including jurisdictional questions over pole attachment regulation, impacts on public safety, and funding broadband through the Lifeline Program. In February 2020 the FCC sought public comment on the three remanded issues (comments here).

On December 13, 2019, Mozilla and other parties had sought a rehearing en banc at the DC Circuit, however the Court denied these petitions on February 6, 2020. Parties on both sides have confirmed that the pending federal court cases in California and Vermont (see below) remain stayed until all judicial remedies are exhausted, including Supreme Court review if it eventually occurs.

**Federal Courts:**


- Eastern District of California. In October 2018, SB 822, the California Internet Consumer Protection and Net Neutrality Act of 2018 was challenged in federal district court in California by the Department of Justice (DOJ) and several industry groups (in a separate suit). DOJ had sought a preliminary injunction but the court agreed to a request by all parties to stay the case after California agreed not to enforce the law pending final resolution of Mozilla v. FCC.
• Vermont District Court. In October 2018 the same industry groups – American Cable Association (ACA), CTIA - The Wireless Association (CTIA), NCTA - The Internet & Television Association (NCTA), and USTelecom challenged Vermont’s net neutrality law and executive order in federal district court there and in January 2019 sought summary judgment. The parties in March 2019 agreed to stay further proceedings pending a final resolution of Mozilla v. FCC.

States

The National Conference of State Legislators (NCSL) features a summary of net neutrality efforts by state for 2020 here (updated March 27, 2020). Note this list does not identify current laws, only current efforts to pass new laws.