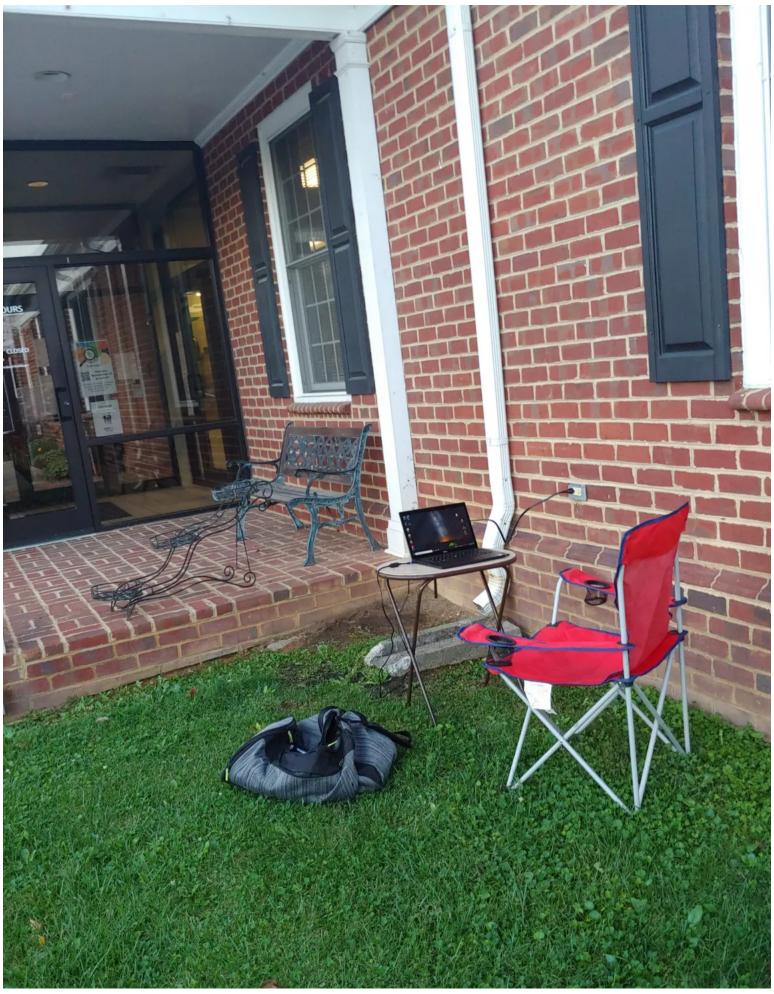


OPINION

Who should we thank for rural broadband?

It's a long list, and one that goes back to 1996.





When I was growing up, there was a band named Black Oak Arkansas and one of their songs was called "When Electricity Came to Arkansas."

Neither the band nor the song was very good, but we didn't know that back in those days. We just knew it was loud and something our parents probably disapproved of, which were the two main criteria that made the song popular with a certain subset of us at Montevideo High School in Rockingham County.

More recently, the Drive-By Truckers – another band springing out of the South – had a song called <u>"TVA"</u> that tells the story of what the Tennessee Valley Authority meant.

The key passage, written by Jason Isbell, who has since gone on to a successful solo career:

My granddaddy told me when he was just seven or so

His daddy lost work and they didn't have a row to hoe

Not too much to eat for seven boys and three girls;

All lived in a tent; bunch of sharecroppers versus the world

So his mama sat down, wrote a letter to FDR

En a couple days later, couple of county men came in a car

Rode out in the field, told his daddy to put down the plow

He helped build the dam, gave power to most of the South

So I thank God for the TVA

Thank God for the TVA

When Roosevelt let us all work for an honest day's pay

Thank God for the TVA

Let me assure you, "TVA" is a far better song than "When Electricity Came to Arkansas," and Drive-By Truckers is a far better band. My point here, though, is not to critique rock bands but to underscore how the story of rural electrification in the 1930s still resonates in parts of our culture.

The economic necessity of bringing broadband to rural America has been likened to a modern-day rural electrification – and that brings me to my big news: I now have broadband internet.

Now, I realize for some of you city slickers, my excitement seems quaint, but that's just one of the many ways that rural Virginia isn't like the rest of Virginia. You're living in a 5G world and we're not getting any signal at all.

For years, the only internet I've had at my home in rural Botetourt County has been from a small hotspot through my cellphone provider. So yes, I've had some internet – just not very good internet. The telecom promised unlimited data but the speed was also throttled – slowed down – once we hit certain data thresholds. None of those were fast enough to do the kinds of things most of you take for granted. Netflix? No Netflix and chill here. Hulu? That's just a hoop. Streaming of any kind? Well, there's a small creek at the bottom of the hill, but that's the only kind of streaming available.

The telecom's hotspot was basically strong enough to surf the internet and send emails, and that's about it. Then, when the pandemic hit and my employer – at the time, The Roanoke Times – had us work from home, I was burning through those monthly data thresholds in just a matter of days. We were mandated to work from home, yet working from home was basically impossible. Technically, yes, I had internet. For practical purposes, the internet I had was nearly worthless.

Whenever I mentioned this to someone in a more urban area, they were incredulous. "What about your cable company?" they'd ask.

"Dude," I'd reply, "this is the country. There's no cable company out here."

Our television comes via a satellite dish, or it doesn't come at all.

When I left The Roanoke Times to join Cardinal News, the big question wasn't whether the venture would be sustainable. (That's being answered every day, by the way: We started with about a dozen

donors, now we have more than 1,000 – we're hitting all our revenue targets months ahead of schedule. You <u>can be one of them</u>.) No, the big question was, how would I run an online news site with not much online access?

The answer: During the pretty days of last fall, I'd set up a lawn chair outside the Fincastle library and mooch off the Wi-Fi there. When winter came, I'd sit in my car, or sometimes go to the Mill Mountain Coffee and Tea shop in Daleville, about 11 miles away. I could do basic work from home, as long as the cats stayed off the keyboard, but to upload big photos or do any kind of Zoom meeting, it was either the library or the coffee shop. This was inconvenient, to be sure, but it gave us a good talking point: Washington Post media columnist Margaret Sullivan made much of this when she wrote about us in February.

After a while, a buddy of mine who works in information technology suggested I join the Calyx Institute. It's a nonprofit that, for complicated reasons, has access to part of the spectrum. As a nonprofit, Calyx couldn't sell me internet service but, as a nonprofit, I could pay to join and I'd get a "free" hotspot. Technicalities. That hotspot was probably about as fast as what my old telecom hotspot was with one difference: Calyx doesn't throttle. That makes it far more reliable. I still had to go to the library or coffee shop to upload certain files but at least I could do a Zoom meeting from home. As an interim measure, it was a godsend. Nonetheless, it still wasn't real broadband. Some suggested I check out Starlink, the satellite-based internet provided by Elon Musk's SpaceX. I know people in both Wise County and Grayson County who swear by it. I would have gone with that but Botetourt County administrator Gary Larrowe kept assuring me that fiber-based broadband was on the way in early 2022. And he was right.

In January some contractors for the Craig-Botetourt Electric Cooperative showed up at my house to string some fiber and install some weird-looking device on the telephone pole – the first step toward actual broadband. Last week, more contractors arrived and now, lo, I have joined the 21st century.

The Drive-By Truckers thanked Franklin Roosevelt for bringing electricity to their native rural Alabama (and other parts of the South). I'm no Jason Isbell, but I set out to credit whoever was responsible for bringing me rural internet. This column won't be nearly as poetic as the song, but, I hope, informative.

In January, this contracting crew arrived to string some fiber, the first step in getting broadband to the house. Photo by Dwayne Yancey. The answer is complicated. I like complicated answers; others not so much. The main things to keep in mind are a) extending broadband to rural America, especially rural Virginia, has been a truly bipartisan exercise, even if different parties have different views of how that should be done, and b) it's taken a combination of local, state and federal governments working together to do this.

We live in an era when we don't have much faith in government, no matter who is in charge of it. Here, though, is an example of government actually getting something done, so let's give credit where credit is due.

The basic fact to keep in mind is that internet providers are not government agencies. That's a good thing, of course, but also means that rural broadband runs into some basic economic facts. It's not profitable for companies to lay fiber in rural areas. The service might ultimately be profitable, but the infrastructure is cost-prohibitive – so to make rural broadband happen, we need government to subsidize it. That's not the word that gets used, but that's really what we're talking about. Think about how difficult this makes the politics: Republicans, by their nature, aren't keen to subsidize anything. And Democrats have seen their support in rural areas shrink to barely a shadow, so to make rural broadband happen, we need both parties to do something hard. Republicans have to work up the gumption to subsidize something and Democrats have to work up the gumption to pour a lot of money into parts of the country that won't vote for them. Framed that way, I'm surprised any of this has happened, yet, to the credit of both parties, it has.

The federal government first started putting up money for rural broadband during Bill Clinton's first term, as part of the Telecommunications Act of 1996, which was described as the first major overhaul of telecommunications law in six decades. Two of the key players behind that bill were then-Reps. Bob Goodlatte, R-Roanoke County, and Rick Boucher, D-Abingdon, both of whom were interested in technology issues (and both of whom are members of our <u>community advisory committee</u>, although committee members have no role in news decisions; <u>see our policy</u>). Somewhere in this great land of ours are people who should thank Boucher and Goodlatte for their internet service.

In Virginia, the Tobacco Region Revitalization Commission was created in 1999 and funded with part of the state's share of the master settlement against tobacco companies. It's been paying for broadband expansion since almost the beginning.

If you're in Southwest and Southside Virginia and have broadband service, you may need to thank the commission and the people who set that up: then-Gov. Jim Gilmore, then-Sen Charles Hawkins, R-Pittsylvania County, and then-Del. Whitt Clement, D-Danville. The Obama administration pledged to bring "true broadband [to] every community in America" and spent a lot of money trying to make that happen – \$7.2 billion in his initial stimulus program went to broadband. In the end, though, that wasn't

nearly enough and President Barack Obama fell short of his goal. Still, some of that funding did extend the Mid-Atlantic Broadband line to Blacksburg, so a lot of people along the way should thank Obama for getting broadband as soon as they did.

Let's jump ahead to more recent times: Virginia got into the rural broadband business in 2016 when then-Gov. Terry McAuliffe proposed \$2.5 million for the newly created Virginia Telecommunications Initiative. The Republican-run General Assembly cut that to \$1 million but, whatever the amount, that was the state's first real investment in making rural broadband happen. The first grants went to projects in Albemarle, Augusta, Bland, Gloucester and Greensville counties. Before anyone jumps to some partisan conclusion, keep this in mind: While Virginia was putting up \$1 million, the Republican legislature in Minnesota was putting up \$35 million.

The 2017 governor's race between Ralph Northam and Ed Gillespie was the first one where broadband was an issue. They had different ideas on how to do it but they both agreed on the ultimate goal: Everyone needs access to the internet just as everyone has access to electricity. Northam won, obviously, and he set a goal of achieving universal broadband within 10 years. From that modest \$1 million beginning, Virginia was spending nearly \$1 billion to make that happen. That's probably not what Northam will be remembered for, though it certainly ought to be on the list.

Now let's fast forward to even more recent history. Many electric utilities are in the process of upgrading their lines to "smart grid" technology. If utilities are already out there stringing new lines, why can't we string internet fiber along with it? Good idea, but that requires changing the law. (Everything is complicated, and telecoms and utilities are both pretty regulated.) In 2019, Del. Israel O'Quinn, R-Washington County, sponsored legislation to allow the state's two biggest investor-owned utilities – Appalachian Power and Dominion Power – to experiment with letting internet providers piggyback on their lines. Appalachian chose Grayson County as the place to start that program; Northam went to Independence to sign the legislation – conveniently in O'Quinn's district. If you're looking for an example of bipartisan cooperation, here's one. (Brian Funk had this story about how the program is playing out in Grayson County.)

Still, not everyone in Virginia is covered by Appalachian and Dominion. Some are served by municipal broadband authorities. It would take a subsequent bill sponsored by Sen. John Edwards, D-Roanoke, and then-Del. Hala Ayala, D-Prince William County, to get them covered. (If Ayala's name rings a bell, it's because she was her party's unsuccessful candidate for lieutenant governor last year.) Meanwhile, much of rural Virginia is serviced by electric cooperatives, a legacy of rural electrification when investorowned utilities either wouldn't or couldn't serve rural areas. I live in one of those areas; I'm in Craig-Botetourt Electric Cooperative territory.

In 2019, the same year that O'Quinn's bill was being passed, the Virginia Telecommunications Initiative awarded Botetourt County almost \$760,000 for fiber build-out in the county. That money was enough to allow Craig-Botetourt to reach one-third of its customers in Botetourt County. I was one not of those one-third, but hang on.

(Let me just say a word here about Larrowe, Botetourt's county administrator, who has been gung-ho about getting broadband into Botetourt. Here's someone who understands how the modern economy works, even if he has had to put up with me pestering him every few months about "where's my broadband?" And, of course, no county administrator can do much without a supportive board of supervisors. For those of you following the politics, note that Botetourt has an all-Republican board. Supervisor Mac Scothorn, an eye doctor by day, has been one of the driving forces behind broadband in Botetourt.)

Now, back to the story: Electric co-ops operate by different rules than investor-owned utilities, so the enabling power for them wasn't the General Assembly but the State Corporation Commission, the entity that regulates utilities in Virginia. In this case, Craig-Botetourt needed to incorporate a for-profit subsidiary that would be owned by a nonprofit cooperative. I'm sure many lawyers racked up some billable hours figuring all this out. The short version is there's now an outfit called Bee Online Advantage.

In all, five Virginia co-ops have set up subsidiaries such as this. The other four are Central Virginia (based in Nelson County and serving all or parts of 14 counties), BARC (which covers all or parts of Bath, Alleghany, Augusta, Highland and Rockbridge counties), Prince George and Mecklenburg. (You may recall that earlier this year we ran a story about why Nelson County has the state's highest percentage of remote workers. One of the reasons was Central Virginia's broadband project. Lisa Provence wrote about how the arrival of broadband revolutionized things in Nelson.)

Craig-Botetourt's first fiber started to be laid in early 2020. You may recall that something happened soon afterwards: the pandemic. That both snarled supply chains, delaying the arrival of key materials, and also highlighted just how important broadband coverage is.

The first trunk line in my part of the county was planned to go tantalizingly close to my house – about a mile away, on a different road – but may as well have been on Mars as far as I was concerned. I was still coaxing a weak signal out of my hotspot and traveling to the library and coffee shop more often than I wanted to.

Larrowe, the county administrator, kept telling me help was on the way, and it was.

Early in the pandemic – March 2020 – Congress passed and President Donald Trump signed into law the Coronavirus Aid, Relief, and Economic Security Act, a \$2.2 billion stimulus package. It passed the House 419–6 and the Senate 96–0. Every member of the Virginia delegation voted for it, so more bipartisan cooperation. About \$6 million of that CARES Act funding came to Botetourt County, with about half of that dedicated to broadband expansion, according to Larrowe. (I messaged him using my fancy new internet and speedily got back a reply.) Of that, \$776,437 went to Craig–Botetourt to complete that trunk line. "We received these funds because we were in a position to guarantee that we could complete the project within the defined timeline," says co–op CEO Jeff Ahearn. "This was less than two months (November–December of 2020)."

With that trunk line in place, Craig-Botetourt could begin running other lines off of it. If you're still thinking of the internet as an "information superhighway," think of that trunk line as the interstate and those other lines being primary and secondary roads. My internet now comes from one of those.

Technically speaking, that line that now comes to my house was funded by Craig-Botetourt Electric Cooperative, "but was *enabled* by the [trunk line] project we completed at the end of 2020," Ahearn tells me.

So who should I thank for this? Boucher and Goodlatte and others in Congress nearly three decades ago for that massive 1996 telecommunications bill that got the federal government into the business of helping build out rural networks? Clinton for signing it? Obama for making a Kennedyesque declaration about getting all of America on broadband even if his administration wasn't able to make that happen? McAuliffe and the General Assembly for getting the state into paying for rural broadband expansion? Northam and a subsequent General Assembly for expanding those programs? The Craig-Botetourt board for wanting to get into the broadband business? (Certainly the board, for sure). The State Corporation Commission that allowed the co-op to do that? Trump and the Congress that passed the CARES Act that paid for the trunk line? Larrowe and a Botetourt County Board of Supervisors that has made using some of that money for broadband a priority? Or none of those since Craig-Botetourt's subsidiary paid for the final line to my house (I suppose technically I'm paying for it through my future bills, which seem pretty reasonable, by the way)? That last option seems far too narrow and ignores all the work that went into making that last mile possible. To be on the safe side, I should probably thank all those people, right?

That will make it hard to write a song as succinct and catchy as "TVA." But at least with my fancy new internet, I can now watch the video.



OPINION

Miyares visits Virginia's largest state prison with former Gov. Allen

Attorney General Miyares made an unannounced visit to Red Onion State Prison on Thursday and brought along the two people most responsible for its construction.





Warden Rick White talks with Attorney General Jason Miyares (blue jacket, center) and former Gov. George Allen (brown jacket, right). Photo by Dwayne Yancey.

The tour of Red Onion State Prison had moved on to a common area when Attorney General Jason Miyares and his entourage turned their attention to an unusual device on the wall: a computer screen that listed songs the inmates have access to. There was much chatter among some of the younger staff members about how the first two songs listed were "Jump Then Fall" and "Back to December" by Taylor Swift.

"They can download these to their iPads," someone said.

"They have iPads?" Miyares asked.

Yes, inmates can purchase their own computer tablets – televisions, too. That sounds lenient, but prison officials encourage that because the devices serve to keep inmates occupied (and some inmates use them for classes or religious programming). Suddenly Miyares was not so interested in Taylor Swift.

TO REPORT SEXUAL ARTISE OR RULASSMENT- DIAL #55

Attorney General Jason Miyares looks at notices on the wall in a common area (barely visible in front of him is the computer screen with a music playlist). Photo by Dwayne Yancey.

"I've got to make sure they can't contact victims," he said, and bounded up the steps to the

mezzanine to find warden Rick White. The warden assured him that the inmates can't email victims – inmate email is restricted so they can only send messages to those who allow it. With that assurance, the tour continued on, with Miyares musing about whether Swift would ever emulate Johnny Cash, famous for his prison concerts at Folsom and San Quentin in California. "I wonder if I tweeted out being in Red Onion and seeing Taylor Swift on the playlist and tagged her in what she would do?"

Prisons don't make for many light-hearted moments, but that was one on Miyares' tour of Red Onion on Thursday – and even that was interrupted by a reminder of the seriousness of just what a prison is about.



Inside Red Onion State Prison. Photo by Dwayne Yancey.

The attorney general is spending much of this week touring Southwest Virginia – hosting a roundtable on crime in Roanoke, discussing tourism in Tazewell County, hosting a "thank you" breakfast for law enforcement in Norton, talking economic development in Bristol, visiting a mental health provider in Abingdon. Not on his public schedule was Thursday's tour of Red Onion State Prison in Wise County. It's not surprising that a state attorney general would visit a prison, but the unusual angle here was that Miyares brought along the two people most responsible for the prison's construction: former Gov. George Allen and former Attorney General Jerry Kilgore (who before that was Allen's secretary of public safety).

A prison might seem an odd thing to be proud of, but Allen is very much proud of Red Onion, a product of his administration in the mid-1990s. "The VCU engineering school, the Smart Road, and Red Onion – those are my monuments," Allen told me as we walked through the yard at Red Onion. (For those not in the know, the Smart Road is a testbed in Montgomery County where the Virginia Tech Transportation Institute, now the second biggest university-affiliated transportation institute in the

country, and others conduct research into new transportation technologies.) Allen sees those three things as emblematic of his administration – he was known for declaring (like the current governor) that Virginia was "open for business" and he was known for being tough on crime.

For Allen and Kilgore (the twin brother of House Majority Leader Terry Kilgore, R-Scott County), Red Onion and its counterpart, Wallens Ridge, aren't simply a necessary function of public safety, they're a source of jobs in a part of Virginia where jobs have been hard to come by. "For Jerry Kilgore and me, going to Red Onion is particularly heartwarming because it was a battle to get the Board of Corrections to accept the free land," Allen said.

At the law enforcement breakfast in Norton, and later on the prison tour itself, Allen regaled listeners with how the prison came to be. He had come into office vowing to abolish parole – which would create a need for more prisons. He also reminded listeners that Virginia at the time was being sued for having overcrowded prisons, and that he had assured voters he would only build prisons in communities that wanted them. A proposal to build a prison in Northampton County on the Eastern Shore was rejected for that very reason – local opposition. Localities in Southwest Virginia, though, were eager to have prisons. "We were all living through the boom and bust of the coal industry," Jerry Kilgore told me. Here were 400 permanent jobs for each prison. The prisons were an easy sell in Southwest.

Pittston Coal offered free land – an old coal mine called Red Onion on a ridge almost in Kentucky. The Board of Corrections was not so impressed. Allen said the board, dominated by holdovers from the previous Democratic administration of Douglas Wilder, was skeptical that the hollowed-out ground could support a prison. When the board refused to accept the land, "I fired the board," Allen said, and stacked the new board with retired sheriffs from Southwest Virginia. "I knew they would have good sense," he said – meaning they'd accept the land. Critics at the time (and maybe still) complained that Allen was building too many prisons and would point today to the fact that Red Onion accepts some prisoners from out of state as evidence of overbuilding. Allen sees it differently. "Virginia is making money on this," he said, because other states pay to house some of their inmates here.

"Stab vest required" – a sign leading to one section of Red Onion State Prison. Photo by Dwayne Yancey.

Allen took a personal interest in the construction of both Red Onion and Wallens Ridge. (Red Onion is the more infamous of the two because it's considered a supermax prison for the state's most violent offenders. Wallens Ridge has a lower security classification.) The engineering concerns about building on an old mine site were real; to make the property suitable for construction required something called dynamic deep compaction.

"They keep pounding it," Allen said, in layman's terms. (He always did have a politician's gift for taking complex subjects and turning them into sound bites.) "They even let me operate the machinery as governor – to the worry of everyone."

At Wallens Ridge, a hillside needed to be dynamited. "Jerry knows how much I like fireworks – real fireworks, not like this crap we sell in Virginia but the kind they have in Tennessee and South Carolina,"

Allen said. As governor, he pushed the button to blow up that hillside and still gets a kick out of describing it.

At center court of the prison's basketball court. From left: House Majority Leader Terry Kilgore, former Gov. George Allen, Attorney General Jason Miyares, Deputy Secretary of Public Safety and Homeland Security Maggie Cleary, former Attorney General Jerry Kilgore. Note the star that denotes the location of the prison. Photo by Dwayne Yancey.

Red Onion opened in 1998, by which time Allen was out of office. Thursday was the first time he'd visited his handiwork and he seemed thrilled – almost giddy. Miyares and his entourage met with Red Onion staff in the prison's gym – more on that speechifying to come. Allen studied the prison logo at center court – a map of Virginia with a star marking the prison. "I love that!" he exclaimed, pointing to the star. "I love that dot!" He then insisted the key members of the entourage line up and get their photo taken by the logo – and when he saw the first photo had people standing on the words, he made them line up again for a re-take. Outside, between buildings, Allen heard dogs barking and interrogated the warden about why. "So why are they barking? Because dogs bark? Anything agitate them or do they do it to remind the inmates?" The answer was that the dogs are trained to bark at the sign of almost any

human movement – they bark a lot. Later, when he saw a guard with a dog, Allen insisted on a photo: "Everybody loves dogs."

Former Gov. George Allen takes a picture of a guard dog. Photo by Dwayne Yancey.

Allen, of course, is out of office, so he can afford such levity (and even when he was in office, Allen was known for being somewhat irrepressible). Miyares, being in office, was in a more serious fact-finding mode. Besides quizzing the warden on what email access inmates have (restricted), he also asked about:

• Staffing: The warden said that he has about 30 vacancies, but that applications had doubled since the recent state budget raised the pay for correctional officers (starting pay is now about \$44,000). "Thank you, Governor Youngkin," Miyares said. Jerry Kilgore said there are no staff vacancies right now at Wallens Ridge.

- Capacity: Red Onion currently houses 730 inmates, down from its official capacity of 1,200 because part of the prison is being renovated with new water lines.
- COVID-19: There are currently no COVID cases at Red Onion.
- How inmates are classified: The color of their jumpsuit denotes their security classification. The Miyares group toured the strictest classification building, where some inmates are locked in individual cells either for their own safety or the safety of others. Posted on the door of each one is their picture and any specific instructions about handling. One read: "Double cuff." Another building had a door with the warning: "Stab vest required." Former state Sen. Bill Carrico, R-Grayson County, said he toured Red Onion years ago and a guard was stabbed during the tour.
- Escapes: No one has ever escaped from Red Onion. (And seeing the place, I can understand why. Security was so strict that even the attorney general had to surrender his driver's license before the tour, presumably lest it fall into the wrong hands and also yet another way to make sure that any visitors check in before they leave.)

In addressing the assembled correctional officers, Miyares struck a somber tone as he referenced the victims of all the men housed at Red Onion. "You'll never meet them, you'll never hear from them but they are able to sleep at night because of what you do," he said. "They are able to live their lives with some sense of normalcy because of what you do."

As the entourage was walking from one building to another, a guard holding open one of the doors recognized Allen and offered a greeting: "Thank you for building this."



OPINION

Virginia's most famous court clerk is retiring, eventually going to the moon

Wise County's Jack Kennedy has been at the forefront of technological innovation, and promoting a technology sector in Southwest Virginia. Now he plans a second career in aerospace, and eventually will have his cremated remains sent to the moon.





Jack Kennedy looks up as birth is given to the national drone industry at Lonesome Pine Airport in Wise in 2015. Courtesy of Kennedy.

In 1966, a 10-year-old in Wise County watched an episode of "Star Trek" – <u>the episode</u> in which Captain Kirk is court-martialed on grounds of perjury. The evidence against him is the ship's computer log, which <u>recorded evidence</u> in <u>direct contradiction</u> of how Kirk reported a particular incident. Spoiler alert: Spock was able to determine that the computer had been tampered with – hacked is the term we'd use now – and Kirk was cleared.

That episode made a powerful impression on the youngster in Wise County. And that's why the Wise County Circuit Court Clerk's office has, for nearly three decades, been at the forefront of technological

innovation in both the state and the country. It's also why that youngster – now 66 – has signed a contract with a company that promises to send him to the moon.

We're skipping over a lot of action in between then and now, and some future date with eternity, so let's back up and cover that ground.

The immediate news: The most famous court clerk in Virginia is retiring. This hasn't really been a secret but Jack Kennedy made it official recently. He will not be seeking reelection next year as clerk of court in Wise County. He'd rather we not use the phrase "retiring." From his point of view, he's simply leaving the post and embarking on an entirely new career in a new place – the space business in Florida.

Court clerks don't generally make the news. Kennedy has spent 28 years or more making news – first for the technological changes he's introduced to the office, then for using his position as an elected official to advocate more broadly for the growth of a technology sector in Southwest Virginia. That's what makes Kennedy's impending departure, both from the office and from the state, so noteworthy.



Jack Kennedy

I first met Kennedy in 1985 and it was somewhat embarrassing. I was covering Doug Wilder's campaign for lieutenant governor for The Roanoke Times and Wilder spoke at a Democratic dinner in Wise County. Kennedy was the master of ceremonies and introduced all the dignitaries who were present. He then proceeded to do something I'd never seen – he started introducing all the out-of-town journalists. We journalists tend to prefer to sit in the back of the room unnoticed, but that was not Kennedy's way: He named every single one of us and made us stand up to be recognized. It was my first inkling that Kennedy was someone who was not afraid to break with tradition.

I knew then that Kennedy was a political junkie from a young age – a legislative aide, a national officer for the Young Democrats, a national convention delegate at the age of 20. What I didn't know then was that he was also a space buff. He grew up watching "Star Trek" with more enthusiasm than most of us. "I was a Trekker, not a Trekkie," he explains. "I don't dress up as Captain Kirk." But that "Court Martial" episode made a powerful impression on him – he saw the intersection of law and computers. When he was 15, Kennedy went to Florida to see Apollo 14 launched to the moon, the third mission that landed

on the surface. It was a heady time to be interested in space exploration. By the end of the next year, though, the moon program had been canceled by a nation that had grown bored of the adventure. Kennedy was baffled. He didn't go into space but he did go into the law – and eventually computers.

In 1987, Kennedy challenged a Democratic incumbent, won the nomination and then the general election to the House of Delegates. This was back in the days when the coal counties still elected Democrats. In fact, in those days, the coal counties *preferred* Democrats, but that's another story. In 1991, when then-state Sen. John Buchanan passed away, Kennedy ran for, and won, a state Senate seat. That didn't last long. Population change squeezed a Senate seat out of Southwest Virginia and Kennedy wound up in a district paired with Republican incumbent William Wampler Jr. Wampler won and continued to serve for many more years. In 1995, the Wise County court clerk died; Kennedy ran in the special election to fill the remainder of the term and won. He's been reelected ever since.

Politically, the clerkship seemed something of a consolation prize but Kennedy sure hasn't treated it like that.

During the time between that election and when he formally took office, Kennedy read two books – simultaneously, he said. One was "The Road Ahead," co-written by Bill Gates, a just-published book that looked at the implications of the computer age and the arrival of something called the World Wide Web that was then only a rumor to most people. The other book was a much older text by Napoleon Hill, a Wise County self-help guru from the early 1900s – his "17 principles of personal achievement." The lessons of those two books merged together in his mind with that "Star Trek" episode from his youth: It was time to bring the computer revolution to the clerk's office.

At a time when most people didn't even know what the internet was, Kennedy set about trying to put court records online. "I became fascinated with knowing that technology could be taken one step further," he told the Associated Press in 1996. "I kept thinking, why are we waiting? The technology is here now." He quickly ran into obstacles: Attorney General Jim Gilmore ruled that he didn't have the authority. In time, those antiquated state laws fell by the wayside. In 2000, the Wise County clerk's office became the first in the nation to record the electronic filing of a deed. Over the years since, his office became the first to put criminal records online and to make it possible to apply for or renew concealed weapons permits online. His office is now involved in a first-in-the-nation effort to use blockchain technology to create searchable land transfer records. "People have the general conception that you can walk into a clerk's office, push a button and have a 40-to-60 year title abstract completed and that's not true," he said. But in the months ahead it will be – in Wise County. For generations, clerk's offices have dealt in paper. Kennedy sees paper as obsolete. "We've basically tried to look at work flow and tried to eliminate paper," he said. "The conundrum has been the two state prisons [Red Onion and Wallens Ridge]. We can't give inmates laptops to send their pleadings."

While clerk, Kennedy has still found time to pursue his space passion, which will soon become more than just a passion. He obtained a master's degree in space policy and space law, from the University of North Dakota. He jokes that many of his fellow students were Air Force officers in charge of nuclear missile silos – they have a lot of downtime in which to study, he says. Kennedy has visited the Russian spaceflight facilities (back when our relations with Russia were a little warmer than they are now). He's attended meetings of the International Astronomical Union, the governing body for all things astronomical. Closer to home, Gov. Tim Kaine – a fellow Democrat – appointed Kennedy to the state's commercial space flight authority trying to promote commercial space launches from Wallops Island on the Eastern Shore; Republican Gov. Bob McDonnell reappointed him. I can tell you from my experience as a journalist that you've never met someone from Southwest Virginia more enthusiastic about the potential of the Eastern Shore as Kennedy has been, at least where space flights are concerned. He talks up connections he's made with space firms in Israel and South Korea that he hopes to lure to Wallops Island. Under later Democratic governors, Kennedy was named to the Virginia Aviation Board.