Before the
Federal Communications Commission
Washington, D.C. 20554

In the Matter of Petition for Rulemaking and Future of Television Initiative Report Filed by the National Association of Broadcasters	MB Docket No. 16-142

COMMENTS OF PUBLIC KNOWLEDGE, ACCESS HUMBOLDT, CONSUMER REPORTS, ELECTRONIC FRONTIER FOUNDATION, MEDIA COUNCIL HAWAII, AND OPEN TECHNOLOGY INSTITUTE AT NEW AMERICA

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May 7, 2025

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INTRODUCTION

The NAB's proposal to mandate a nationwide transition to ATSC 3.0 and to sunset ATSC 1.0 is a deeply flawed plan that prioritizes broadcaster profits and control at the expense of the public interest. This petition, though couched in the language of innovation and progress, proposes what amounts to the privatization of access to the public airwaves through a DRM-enforced, industry-controlled broadcast ecosystem. The Commission must not allow this under the guise of modernization.

Rather than serving the public, the NAB petition would impose new costs on consumers, shrink the competitive landscape for device manufacturers, undermine free access to public spectrum, and compromise longstanding legal rights, including fair use. These issues are compounded by the pervasive and inappropriate incorporation of Digital Rights Management (DRM) into the ATSC 3.0 standard, which fundamentally contradicts the Commission's mandate to promote access, localism, and diversity.

The public interest cannot be served by creating technological barriers to reception of free broadcast signals. Historically, the FCC's broadcast priorities have included the universality, affordability, and openness of access to over-the-air content. Any mandatory transition to a new standard must preserve these values. It must ensure universal and equitable access to service, strong and enforceable public interest obligations, affordable and interoperable reception equipment, non-discriminatory access to devices and content, robust privacy protections, and the safeguarding of fair use rights, innovation, and competition. Unless these concerns are addressed, we urge the Commission to reject the NAB petition.

I. THE NAB PETITION FAILS TO SAFEGUARD THE PUBLIC INTEREST

The NAB's petition to mandate a nationwide transition to ATSC 3.0 is predicated on the mistaken belief that technological superiority, in and of itself, serves the public interest. It

advances the notion that higher resolution, improved signal efficiency, or enhanced technical flexibility justifies a rushed process that sidelines the regulatory safeguards that have long governed the public airwaves. This reasoning is both legally insufficient and misguided as to policy.

The Commission's statutory mandate under the Communications Act of 1934, as amended, is not to chase incremental improvements in bitrate or spectrum utilization, but to promote "the public interest, convenience, and necessity." *See* 47 U.S.C. § 151. That mandate includes ensuring universal access to communications services, supporting localism and diversity, and preserving the openness of the broadcast medium. A new broadcast standard may be technically "better" in a laboratory sense, but unless it is demonstrably more accessible, equitable, inclusive, and protective of consumer rights, it cannot be presumed to serve the public interest. The transition to ATSC 3.0 is not simply a change in codec or resolution: it is a change in the architecture, economics, and regulatory framework of the broadcast system. It affects who can receive content, what equipment can be used, how signals are monetized, and how consumer rights are enforced.

The Commission must assess whether the transition promotes or impedes the goals of the Communications Act: universal service, localism, viewpoint diversity, and public accountability. It must consider the transition's impact on marginalized communities, on independent device manufacturers, and on the broader media ecosystem. The ATSC 3.0 transition, as proposed in the NAB petition, fails this test. Its core architecture is designed around features such as Digital Rights Management (DRM), internet-dependent features, and return-path data collection. These features, however profitable they may be to licensees, introduce substantial public harms. Chief among them is the erosion of free, anonymous, and unconditional access to the public airwaves.

A. The Transition Would Disenfranchise Marginalized Communities

The proposed transition to ATSC 3.0 would create a tiered system of access in which only those who can afford new, DRM-licensed, certified hardware will be able to fully access broadcast content. This represents a fundamental shift in the character of broadcasting, from a public utility model grounded in universality to a gated, commercial platform.

For millions of Americans, particularly those in low-income households, rural communities, tribal areas, or elder populations, broadcast television remains a primary or exclusive source of news, educational content, emergency alerts, and entertainment. These communities are least likely to upgrade their hardware frequently and are disproportionately affected by costs associated with new tuners, incompatible televisions, or internet-enabled features.

Under the NAB proposal, these viewers would be required to purchase new equipment certified by the ATSC 3.0 Security Authority (A3SA), a private consortium of industry players that exercises discretionary control over licensing, encryption, and device compliance. This raises serious questions about affordability, accountability, and public oversight. It also effectively extinguishes the longstanding right of consumers to use general-purpose or open-source equipment to receive broadcast signals.

B. Public Airwaves Must Not Be Privatized Through Technological Gatekeeping

At the heart of the NAB petition lies a regulatory inversion: a proposal that transforms free and open access to public airwaves into a system of conditional, encrypted access subject to private approval. This is fundamentally incompatible with the principles that undergird broadcast regulation.

For decades, the FCC has treated the airwaves as a public resource, licensed to private entities in exchange for commitments to serve the public interest. ATSC 3.0, by contrast,

empowers broadcasters to encrypt their primary signals, exclude non-certified devices, and require internet connectivity and license verification in order to receive content that was previously available with nothing more than an antenna.

Such a system erodes the commons-based model of broadcast television. It introduces artificial scarcity where none is technologically necessary and substitutes market-based access for universal service. In effect, the NAB's proposal would allow a small group of broadcasters to impose toll booths on public spectrum, deciding who may access what content, with what device, and under what terms. This model mirrors the most extractive and consumer-hostile practices of the streaming and broadband industries, and it has no place in the context of a free-to-air service traditionally subject to public obligations and regulatory limits.

C. The ATSC 3.0 Transition Would Generate Unnecessary Electronic Waste

A mandated transition to ATSC 3.0, particularly one that renders ATSC 1.0 broadcasts unavailable and imposes DRM and certification restrictions on reception, would result in the widespread obsolescence of otherwise functional consumer electronics. Millions of televisions, converter boxes, DVRs, and tuner-equipped PCs that currently receive ATSC 1.0 signals would no longer be able to access free broadcast content. As a result, consumers will be forced to prematurely discard working equipment and purchase new, certified devices merely to retain access to public airwaves. This outcome is not environmentally or economically sustainable. It will generate a surge in electronic waste, disproportionately burdening lower-income households, municipalities, and recycling systems. Moreover, the problem will be exacerbated by the fact that many ATSC 3.0 devices, due to licensing terms, have limited certification lifespans—often 10 or 30 years—after which they may cease to function even if the hardware is fully intact.

The FCC should not endorse a transition that accelerates product turnover and landfill burden without a clear and compelling public benefit. At a minimum, any mandated transition must be

accompanied by robust reuse, recycling, and buyback initiatives funded by broadcasters and device manufacturers—not by consumers or local governments. In the absence of such safeguards, the transition to ATSC 3.0 risks becoming a generator of unnecessary environmental harm in addition to its other social costs.

II. CONSUMERS SHOULD NOT BEAR THE BURDENS OF TRANSITION

The proposal by NAB to mandate a nationwide transition to ATSC 3.0 by 2030 imposes significant and unjustifiable burdens on American consumers. While broadcasters stand to benefit from expanded commercial opportunities—including targeted advertising, datacasting, and retransmission fees—consumers are asked to absorb the costs of new equipment, navigate technical complexities, and potentially lose access to free over-the-air television if they cannot afford or adapt to the new standard. This cost-shifting is neither equitable nor consistent with the Commission's longstanding obligation to ensure universal, affordable access to essential communications services. It also marks a shift in policy from the previous analog-to-digital broadcast transition, where Congress, in the Digital Transition and Public Safety Act of 2005, made a subsidy available to every household to cover the cost of necessary converter boxes.

A. The Transition Would Be Costly and Confusing for Consumers

The financial costs of the transition will be borne disproportionately by households with limited means. The Consumer Technology Association (CTA) has documented that televisions equipped with ATSC 3.0 tuners are, on average, $80 more expensive than comparable ATSC 1.0 sets. This price premium is attributable to the additional hardware required for the new standard, as well as licensing fees associated with DRM and certification processes. For a low-income household, or for families with multiple televisions, this cost increase is far from trivial.

Moreover, while external tuners and USB-based adapters—such as the ADTH NextGen TV USB tuner priced at $69.99—are often cited as affordable alternatives, their utility is limited.

These devices are not universally compatible with all televisions, especially those that use proprietary operating systems such as LG's webOS or Samsung's Tizen. In practice, this means that many consumers may find themselves needing to replace entire television sets, or else purchase multiple, platform-specific adapters, simply to retain access to free broadcast content that they already receive today without restriction.

Beyond cost, the transition introduces significant complexity and confusion. Consumers will be expected to navigate a new and opaque landscape of certifications and digital locks. Devices must first obtain the "NextGen TV" certification mark (issued under the auspices of broadcasters) and then undergo a separate layer of DRM certification administered by A3SA. The need for A3SA compliance may also result in firmware updates, license renewals, or periodic online validations, further complicating the user experience.

This multi-layered certification regime not only increases device costs but creates a significant risk of obsolescence. Consumer-friendly solutions such as over-the-air DVRs, open-source recording software, and older digital televisions may no longer function if they cannot meet the A3SA's DRM and encryption standards. The net result is a landscape in which consumers will be forced to upgrade not for meaningful new features, but merely to retain basic access.

B. The Transition Would Disproportionately Impact Vulnerable Populations

The harms described above fall most heavily on those least able to bear them. ATSC 3.0 threatens to widen the digital divide by making access to free, over-the-air broadcasting more expensive, more complex, and less inclusive. Low-income households, rural residents, seniors, and people with disabilities are among those most reliant on broadcast television for news, emergency alerts, and educational content. They are also the least likely to have disposable

income to purchase new equipment, or the technical know-how to troubleshoot DRM failures, firmware incompatibilities, or streaming integration bugs.

This risk is especially acute given the absence of any proposed subsidy or assistance program. During the 2009 analog-to-digital television transition, the federal government implemented the TV Converter Box Coupon Program, which provided $40 vouchers to help households purchase digital-to-analog converter boxes. The program was widely regarded as a necessary policy intervention that prevented massive consumer disruption. In contrast, the NAB petition makes no similar proposal and assumes, without evidence, that the private market will deliver affordable solutions in time for the 2030 deadline.

Without targeted support, millions of Americans may be effectively disenfranchised from access to public airwaves. The result would be a form of digital redlining: those who can afford to upgrade will benefit from high-definition content and interactive features, while those who cannot will be left behind, or cut off entirely. This outcome is fundamentally at odds with the Commission's universal service mandate and its obligation under Section 1 of the Communications Act to ensure "rapid, efficient, Nation-wide" communication service to "all the people of the United States."

Moreover, the burdens of the transition are not limited to households. Community institutions such as shelters, senior centers, schools, and rural hospitals often rely on free, over-the-air broadcasting as a core communications channel. If these facilities are forced to purchase new equipment, or lose reliable access to emergency alerts and public service programming, public safety and community cohesion will be compromised.

C. The Transition Timeline Is Unrealistic and Arbitrary

The NAB's proposed deadline—mandating a full transition to ATSC 3.0 in the top 55 markets by 2028, and nationwide by 2030—is both unrealistic and unsubstantiated. It fails to

reflect the current state of consumer adoption, device availability, or broadcaster infrastructure readiness. As of this writing, only a small fraction of American households own ATSC 3.0-enabled televisions. Awareness of the standard among consumers remains extremely low, and compelling ATSC 3.0-exclusive content that might drive consumer adoption is almost nonexistent.

Furthermore, the proposed timeline fails to account for the economic challenges that broadcasters themselves face in completing the transition. Public television stations, in particular, may face costs ranging from $300,000 to $3 million per site to upgrade equipment, including encoders, transmitters, and antenna systems. In the absence of dedicated funding, these costs may force stations to delay upgrades, reduce programming, or exit the market altogether, leading to signal loss in the very communities most dependent on public service broadcasting.

An arbitrary sunset of ATSC 1.0, untethered from demonstrable metrics of readiness, risks creating a chaotic and deeply inequitable transition. The Commission should reject any timeline that is driven by industry convenience rather than by the reality of consumer adoption, equipment availability, and infrastructure maturity.

D. The Burden Must Be Borne by Those Who Benefit

The broadcasters who stand to profit from ATSC 3.0, including through datacasting, encrypted content licensing, and addressable advertising, should bear the primary costs of the transition. It is their initiative, their proposed timeline, and their prospective revenue model that are driving the shift—not any demonstrated shortcoming in ATSC 1.0 from the consumer's perspective. Accordingly, it is broadcasters who should provide free or subsidized equipment, offer backward-compatible content, and ensure continued access to public interest programming throughout the transition period.

To that end, while the NAB's petition should be denied, the FCC should condition any eventual transition on the implementation of a robust consumer protection plan, including:

- A federally funded voucher or rebate program for low-income households and institutions;
- Requirements that ATSC 3.0 stations simulcast substantially similar content in ATSC 1.0 until a defined penetration threshold is met;
- Clear labeling requirements on devices regarding ATSC 3.0 compatibility and internet dependencies;
- Rules prohibiting broadcasters from requiring internet connectivity as a condition for accessing unencrypted content;
- And periodic public reporting on consumer impact, device adoption rates, and service accessibility.

Absent such safeguards, the transition will not serve the public interest—it will impose new costs on the public for the benefit of industry incumbents.

III. ATSC 3.0 PUBLIC INTEREST OBLIGATIONS MUST BE MANDATORY AND MEANINGFUL

The NAB promotes ATSC 3.0 as an opportunity to enhance public service through technological innovation, citing capabilities such as advanced emergency alerting, improved accessibility, and more localized or personalized content delivery. These are meaningful potential benefits of the standard. However, the mere existence of these capabilities does not ensure their availability to the public. The Commission must not conflate the availability of technical features with their deployment in practice.

The FCC cannot rely on market forces alone, or voluntary commitments to safeguard the public interest. This would abdicate the agency's statutory role in overseeing and conditioning the use of public spectrum. Historically, public interest obligations—such as children's educational programming requirements, political advertising rules, and closed captioning mandates—have not emerged spontaneously from industry goodwill. They have been secured through regulation, following deliberate rulemaking processes grounded in the principle that broadcasters are public trustees of a scarce and valuable public resource.

ATSC 3.0's enhanced capabilities should not be treated as optional features for stations to adopt at their discretion. Instead, they must form the basis for a new, enforceable baseline of obligations applicable to all licensees utilizing the new standard. The Commission should take this moment of technological transition as an opportunity not to deregulate, but to modernize and expand the framework of broadcaster responsibilities in light of new capabilities.

A. Enhanced Emergency Alerting Must Be Mandated and Verified

One of the most frequently cited public benefits of ATSC 3.0 is its support for advanced emergency alerting systems. These include geo-targeted warnings, rich media content (such as maps, images, and video), multilingual delivery, and improved wake-up functionality for sleeping or unattended devices. These are real improvements over the basic, text-only alerts provided through ATSC 1.0 and the Emergency Alert System (EAS).

However, unless the Commission mandates deployment of these features, their adoption will be uneven at best. Some stations may prioritize the commercial aspects of ATSC 3.0, such as targeted advertising or datacasting, and may delay or neglect implementation of improved public safety functions. Others may deploy emergency alerting only partially, failing to integrate it with receiver wake-up capabilities, multilingual interfaces, or IP-based redundancy.

To avoid a fragmented and inadequate emergency alerting landscape, the FCC should issue rules requiring all ATSC 3.0 broadcasters to implement enhanced alerting features as a core condition of operating under the new standard. This includes the technical integration of ATSC 3.0's Advanced Emergency Information (AEI) framework, receiver wake-up functionality, accessibility for individuals with disabilities, and the use of geo-targeting to deliver more precise alerts. The Commission should further require periodic testing, public reporting, and independent verification to ensure compliance. Emergency alerting is not a value-added feature; it is a critical component of a resilient public safety infrastructure and must be regulated as such.

B. Accessibility Features Should Be Built-In and Enforced

ATSC 3.0 supports a range of accessibility enhancements that go beyond what was possible under ATSC 1.0, including customizable captions, multiple audio tracks, support for screen readers, and synthesized voice guidance. These tools could greatly expand access to news, entertainment, and civic information for Americans with hearing, vision, cognitive, or other impairments.

But these benefits will only be realized if they are mandated. Absent clear rules, broadcasters and device manufacturers may neglect to implement or enable accessibility features, especially if doing so imposes additional development costs or conflicts with proprietary user interface designs. Accessibility must not be treated as a secondary concern or an optional add-on.

The Commission should therefore adopt explicit rules requiring full implementation of all accessibility features supported by the ATSC 3.0 standard. This includes mandatory support for audio description, speech synthesis for on-screen menus, user-customizable caption display, and compatibility with screen readers and other assistive technologies. The FCC should also ensure that the return-path and internet-based aspects of ATSC 3.0, such as interactive content or targeted services, are held to the same accessibility requirements as traditional broadcast features.

Furthermore, the Commission should update its enforcement regime under the Twenty-First Century Communications and Video Accessibility Act (CVAA) to reflect ATSC 3.0's technical environment. Viewers with disabilities must have the same rights to accessible content and interfaces in the new broadcast system as they do in the current one.

C. Multicast and Ancillary Services Must Advance Educational and Civic Goals

ATSC 3.0 also expands the ability of broadcasters to offer multicast streams and ancillary services—delivering multiple content streams over a single RF channel or integrating

broadband-enabled features into the over-the-air experience. These capabilities could be harnessed for significant public benefits, including the delivery of K–12 educational programming, local government and civic content, and public health or emergency preparedness information.

The FCC should ensure that these capabilities are not monopolized for commercial or paywalled uses alone. At a minimum, broadcasters who choose to offer multicast or datacasting services should be required to dedicate a portion of that capacity to noncommercial, locally relevant, or educational programming. For example, a station might be required to provide a dedicated multicast stream for children's educational content during school hours in coordination with local school districts, or to reserve bandwidth for civic coverage such as local government meetings, town halls, and election-related information.

In rural and underserved communities, where broadband access remains limited, such programming can serve as a lifeline for students and families with few alternatives. To that end, the Commission should consider applying existing children's television rules, such as minimum programming hours, educational content quality standards, and limits on advertising, to multicast streams as well. Datacasting services used for educational purposes should be subject to similar safeguards to ensure they serve the public, not just private partners or vendors.

D. Public Interest Requirements Must Evolve Alongside Technology

More broadly, any future transition to ATSC 3.0 requires a rethinking of how the Commission defines and enforces the public interest obligations of broadcasters. Technological innovation does not lessen the need for regulation; it changes the form that regulation must take. As broadcasters gain the ability to geo-target programming, insert dynamically generated content, or gather viewer data through internet return paths, the Commission must develop new

metrics and standards for evaluating whether stations are serving their communities of license in meaningful ways.

This includes updating the public inspection file requirements to capture new kinds of services and programming, requiring broadcasters to report on how they are using their additional capacity, and potentially setting minimum public interest programming thresholds as a condition of spectrum use. As with cable franchise obligations and public access requirements, the Commission should recognize that public spectrum is a form of public capital and should deliver measurable public returns.

IV. NAB'S PROPOSAL TO END SIMULCASTING IS PREMATURE

The NAB has proposed that the FCC sunset the requirement for ATSC 1.0 simulcasting in two phases: first in the top 55 markets by February 2028, and then nationwide by February 2030. This proposal is premature and unsubstantiated by the current state of consumer readiness, market penetration, or device availability. Ending ATSC 1.0 simulcasting on an arbitrary calendar basis, rather than based on clear, data-driven benchmarks, threatens to disenfranchise millions of viewers who continue to rely on legacy equipment and who have not yet transitioned to ATSC 3.0-compatible devices.

The NAB's petition presumes that consumer adoption of ATSC 3.0 will proceed rapidly and smoothly, largely on the basis of presumed market incentives. But the empirical record does not support this assumption. ATSC 3.0 device penetration remains exceedingly low. Less than 2% of televisions sold in the United States currently include ATSC 3.0 tuners. Consumer awareness of the new standard is minimal, demand for it is negligible, and the availability of compelling, ATSC 3.0-exclusive content is limited or nonexistent. Most importantly, even among consumers who are aware of the standard, the cost of upgrading remains a significant barrier, particularly in households with fixed or limited incomes.

Although external converter devices have been introduced, they remain relatively expensive, not broadly available, and not universally compatible. For example, popular USB-based tuners may not work with TVs running proprietary operating systems such as Samsung's Tizen or LG's webOS. Even when technically compatible, these devices often lack full support for features like closed captions or DVR integration, and they may require internet connectivity for DRM certificate validation. These limitations are not minor inconveniences; they are structural barriers to universal adoption.

Against this backdrop, any regulatory action that permits the early elimination of ATSC 1.0 simulcasting would constitute a de facto loss of service for millions of viewers. This is particularly true for elderly individuals, rural residents, and low-income households, who are more likely to rely on over-the-air broadcasting as their primary or sole source of television content. For these communities, ATSC 1.0 is not a legacy format. It is a lifeline.

A. The Substantially Similar Rule Remains a Critical Consumer Protection

The Commission's "substantially similar" simulcasting rule ensures that viewers who rely on ATSC 1.0 retain access to the same essential content being broadcast in ATSC 3.0. It does not require a duplication of advanced features or enhanced video quality, but it does require that core programming such as local news, public safety announcements, emergency alerts, and educational content remains accessible to legacy viewers during the transition.

This rule preserves continuity of service, prevents economic coercion to upgrade, and upholds the principle of non-discriminatory access to public airwaves. Any idea that market incentives alone will suffice to ensure continued service access is at odds with the entire history of American broadcast policy. It was not market forces but government regulation that ensured the success of the 2009 analog-to-digital television transition, including mandatory public

education campaigns, subsidized converter boxes, and a well-defined sunset framework. The FCC must follow the same principles here.

Eliminating the substantially similar rule before device adoption and consumer readiness have reached critical mass would expose millions to content blackouts, including loss of access to Emergency Alert System (EAS) messages, weather alerts, and real-time news—services that are particularly vital during crises and disasters. Moreover, it would allow broadcasters to reserve their most desirable content for encrypted ATSC 3.0 signals, effectively turning public spectrum into a premium-access service gated by technical and economic prerequisites.

B. Transition Benchmarks Must Be Based on Demonstrable Metrics

The FCC should not permit the end of ATSC 1.0 simulcasting based on calendar deadlines proposed by industry actors. Instead, any transition must be tethered to demonstrable, transparent benchmarks of consumer readiness and public interest protection. These benchmarks should include:

- National and market-specific penetration rates of ATSC 3.0-compatible devices, disaggregated by income, geography, and age demographics;
- Availability and affordability of standalone ATSC 3.0 receivers and converter boxes (or a subsidy program), including compatibility across operating systems and platforms;
- Confirmed redundancy of emergency alerting functionality across ATSC 3.0 and ATSC 1.0 pathways;
- Independent verification of signal robustness and geographical coverage for all ATSC 3.0 stations seeking to end simulcasting;
- Comprehensive public education campaigns conducted at the national and local levels, with sufficient lead time to ensure informed consumer decisions.

In the absence of these safeguards, a 2028 or 2030 sunset of simulcasting cannot be considered consistent with the public interest. Timelines must follow readiness; not the reverse.

C. The Burden of Proof Rests with the Petitioners

The burden of demonstrating that a sunset of simulcasting will not harm the public lies with the NAB and its members--not with the FCC, and certainly not with public interest advocates or

affected consumers. It is insufficient for the NAB to assert that "most" viewers will have upgraded by 2028 or 2030. The FCC must demand verifiable data showing that vulnerable populations will not be excluded, and that no community will lose access to essential public service broadcasting.

Moreover, the Commission must consider the broader implications of allowing broadcasters to phase out ATSC 1.0 service without binding commitments to public interest programming, privacy protections, or competitive safeguards. The risk is not merely consumer confusion or temporary disruption—it is the structural erosion of a universally accessible, free-to-air broadcast system in favor of a gated, IP-delivered commercial platform.

The NAB's proposed timeline to sunset the substantially similar simulcasting requirement is unsupported by current adoption trends, unjustified by public interest considerations, and antithetical to the FCC's statutory obligations. A forced or premature termination of ATSC 1.0 service risks disenfranchising millions of Americans who rely on legacy equipment and have not yet transitioned to ATSC 3.0.

The FCC must reject calendar-based transition deadlines and reaffirm its commitment to protecting continuity of access for all Americans. The substantially similar rule must remain in place until the Commission can certify that no viewer will be left behind. Anything less would represent a retreat from the public trust responsibilities that have long governed the broadcast medium. The airwaves belong to the public, not to those who would shutter free access before the public is ready.

V. DRM IS INCOMPATIBLE WITH THE USE OF PUBLIC SPECTRUM

The mandatory adoption of encrypted ATSC 3.0 transmissions fundamentally conflicts with longstanding legal, constitutional, and policy frameworks governing broadcast television. Introducing Digital Rights Management (DRM) to public airwaves undermines the principles of

free and open spectrum access, chills fair use and innovation, suppresses competition through opaque private certification schemes, and violates core First Amendment protections. Furthermore, encrypted ATSC 3.0 broadcasts fail to meet the statutory definition of "broadcasting," contravene the All-Channel Receiver Act by conditioning public access on private terms, and exceed the FCC's regulatory authority as explicitly limited by *American Library Association v. FCC.*

A. Public Spectrum Must Remain Free and Open

The incorporation of Digital Rights Management (DRM) into over-the-air broadcasting through ATSC 3.0 represents a profound and unjustifiable shift in the regulatory and public policy framework that has governed the use of the public airwaves for nearly a century. The introduction of DRM transforms the nature of broadcast television from a free, unencrypted, and universally accessible public service into a permissioned, conditional-access platform, where access to content is contingent not upon possession of a receiver, but upon approval by private licensors and compliance with proprietary restrictions.

Public spectrum is not a private fiefdom. It is a shared, collectively-owned resource managed by the Federal Communications Commission under a statutory mandate to ensure that licensees act as public trustees. Under 47 U.S.C. § 309(a), the Commission may grant licenses only where doing so serves "the public interest, convenience, and necessity." That mandate is not compatible with DRM, a technology that, by design, limits how content is accessed, stored, reused, and shared. In doing so, DRM creates artificial scarcity where none is technologically necessary, and undermines the principle that access to broadcast content should be universal, non-discriminatory, and unconstrained by private licensing terms.

DRM is fundamentally inconsistent with the history and structure of broadcast regulation in the United States. From the earliest days of television, the FCC has required that broadcast

signals be receivable by the public without subscription or encryption. The Communications Act requires that broadcasters make their primary programming streams freely available to the general public, not only in theory but in practice. Allowing content to be encrypted with DRM and accessible only through certified, DRM-compliant devices contravenes this statutory design, and effectively imposes a technological toll booth on access to public spectrum.

Historically, consumers have enjoyed a wide and competitive market in receiving equipment: from basic television sets to digital converter boxes, computer-based tuners, and open-source DVRs. This diversity has been essential to innovation, accessibility, and affordability. DRM breaks this open ecosystem. It transforms a historically unconditional medium into one where the ability to receive and use content depends on private technical certification and contractual compliance with opaque rules drafted by industry-controlled entities. In short, DRM permits licensees of public spectrum to act as gatekeepers not only over the content they broadcast, but over the devices and technologies the public may lawfully use to access that content.

B. DRM Blocks Fair Use and Chills Lawful Activity

DRM is not only inconsistent with the nature of public spectrum—it also directly threatens the exercise of fair use rights long protected under American copyright law. Fair use is a constitutionally grounded doctrine that permits individuals to record, excerpt, transform, or repurpose content for criticism, education, commentary, research, and personal use. The contours of fair have been affirmed repeatedly by the federal courts, most notably in *Sony Corp. of America v. Universal City Studios,* 464 U.S. 417 (1984), which held that individuals have the right to time-shift broadcast content for later viewing in the privacy of their homes.

DRM renders these rights effectively inaccessible. Under Section 1201 of the Digital Millennium Copyright Act (DMCA), it is unlawful to bypass DRM protections, even for uses that are otherwise lawful under the Copyright Act. This legal regime creates a perverse situation

in which a consumer may have a clear legal right to use broadcast content in a certain way, but is prevented from exercising that right because the technological barrier cannot be circumvented without violating federal law. This creates a chilling effect on innovation and expression.

The NAB has attempted to address these concerns by pointing to so-called "encoding rules" developed by the ATSC 3.0 Security Authority (A3SA), which purport to allow certain limited uses of DRM-locked content. But these rules are no substitute for legal rights. They are not enforceable by law, they are not subject to public input or oversight, and they can be changed at any time by A3SA itself--an industry-controlled consortium that operates without transparency or accountability. Entrusting public rights to private rulemaking is antithetical to both the rule of law and the principles of democratic governance.

Moreover, DRM has a well-documented history of suppressing innovation. Many widely-used consumer technologies that are now staples of American households, such as DVRs, home media servers, and even closed-captioning tools, would likely have been barred or rendered impracticable under a DRM-centric regulatory regime. The first commercially successful DVR, TiVo, for example, may never have received certification from an entity like A3SA had such a body existed at the time. Features such as commercial skipping, automatic recording, and user-initiated content organization often conflict with the priorities of copyright holders and network operators, and would likely be prohibited under modern DRM license terms.

The result is a stifling effect not only on consumer rights, but on the development of new devices, services, and software that expand access to information, facilitate accessibility, and promote democratic participation in media.

C. The A3SA Certification Model Suppresses Competition and Innovation

The DRM regime proposed for ATSC 3.0 is the foundation of an entire licensing and control framework managed by A3SA, a private entity controlled by incumbent broadcasters. Under this

model, any manufacturer wishing to build a device that receives encrypted ATSC 3.0 content must enter into a licensing agreement with A3SA, comply with a complex set of design and behavior requirements, and submit to certification and compliance testing. Devices that fail to meet A3SA's standards, or whose features are deemed undesirable by content providers, can be excluded from the market altogether.

This model raises grave concerns under both competition policy and the public interest standard of the Communications Act. A3SA, as currently structured, operates without meaningful external oversight. Its licensing terms are confidential, its decision-making processes are opaque, and its accountability to consumers, innovators, and public interest stakeholders is nonexistent. In effect, it serves as a privatized gatekeeper to the public airwaves. This is wholly inconsistent with the FCC's obligation to ensure that access to spectrum is governed by fair, open, and nondiscriminatory rules.

The consequences for innovation are stark. Startups, open-source projects, and academic developers lack the resources or institutional connections to navigate the A3SA certification process. Many will simply be locked out of the ATSC 3.0 ecosystem. Even large manufacturers may choose to avoid the standard altogether, fearing the costs and restrictions associated with DRM compliance. As a result, consumers are left with fewer choices, higher prices, and less control over how they watch and use public broadcasts.

Additionally, A3SA's licensing terms are time-limited (typically 10 or 30 years), which means that compliant devices may be rendered inoperable or obsolete when their certification expires, regardless of whether the hardware continues to function. This practice not only increases e-waste, but also imposes recurring costs on consumers who must continually repurchase equipment merely to maintain access to free broadcasts. For lower-income

households, this cycle represents an unacceptable and discriminatory barrier to participation in public life.

D. DRM is in Tension with Core First Amendment Principles

Any regulatory framework that contemplates the deployment of DRM to control access to publicly broadcast content must grapple with a constitutional constraint. The fair use doctrine is not merely a statutory provision: it is a requirement of the First Amendment. The introduction of DRM into ATSC 3.0, particularly when coupled with legal prohibitions on circumvention under the DMCA, threatens to obliterate the constitutionally required space for public engagement with copyrighted works. The Commission cannot, consistent with the Constitution, authorize a broadcast system that forecloses the practical ability of the public to make lawful, non-infringing, and constitutionally protected uses of broadcast material.

The First Amendment guarantees not only the right to speak, but the right to receive information. As the Supreme Court has repeatedly recognized, "the right to receive ideas is a necessary predicate to the recipient's meaningful exercise of his own rights of speech, press, and political freedom." *Board of Educ. v. Pico*, 457 U.S. 853, 867 (1982) (plurality op.). This principle has special force in the context of publicly available communications, such as broadcast television, where government regulation has long been subject to heightened scrutiny. See *FCC v. League of Women Voters of Cal.,* 468 U.S. 364, 377 (1984).

The Copyright Clause, U.S. Const. art. I, § 8, authorizes Congress to promote the progress of science and the useful arts by granting exclusive rights to authors for limited times. But the Supreme Court has made clear that this limited monopoly must be balanced against First Amendment interests. In *Eldred v. Ashcroft*, the Court upheld the Copyright Term Extension Act only after emphasizing that "fair use … affords considerable 'latitude for scholarship and comment.'" 537 U.S. 186, 220 (2003) (citing *Harper & Row v. Nation Enterprises*, 471 U.S.

539, 560 (1985). The fair use doctrine therefore means that "copyright law contains built-in First Amendment accommodations." *Id.* at 219.

Fair use, then, is not merely a legislative policy choice. It is the constitutional safety valve that ensures copyright does not run afoul of the First Amendment. The fair use doctrine preserves the breathing space necessary for First Amendment freedoms. It is what prevents copyright from becoming a system of government-sanctioned private censorship.

In practice, DRM undermines this breathing space. It does not merely prevent unauthorized copying or redistribution. It forecloses all access unless certain conditions are met, regardless of whether the intended use is a fair use or otherwise lawful. As a result, fair use becomes not just difficult but functionally impossible. A teacher cannot excerpt a clip for classroom use. A journalist cannot record a political broadcast for commentary. A citizen cannot archive footage for posterity or scholarly review. The act of accessing the material in a usable form is itself criminalized.

Against this legal backdrop, the Commission cannot ignore the constitutional implications of endorsing a DRM-based broadcast standard. When the FCC authorizes a transmission system that, in practice, restricts or eliminates fair use, it transforms copyright's balance from an accommodation into a suppression. The agency thereby sanctions a system of prior restraint—delegated not to a court or regulatory body, but to a private standards organization, A3SA, and to the broadcasters who control it.

The ATSC 3.0 standard thus represents a novel regulatory model in which First Amendment-protected uses are subject to technological preapproval by licensees of public spectrum. This is untenable. No agency of the federal government has authority to license expressive activity in this way.

E. ATSC 3.0 Transmissions Do Not Meet the Definition of "Broadcasting"

ATSC 3.0 transmissions, when encrypted and gated by private certification regimes, likely do not constitute "broadcasting" within the meaning of the Communications Act. Under 47 U.S.C. § 153(7), "broadcasting" is defined as the "dissemination of radio communications intended to be received by the public, directly or by the intermediary of relay stations." The essential attributes of this definition are clear: broadcasting must be public-facing, unconditionally accessible, and not limited by individualized authorization or subscription mechanisms. ATSC 3.0 transmissions fail to meet these criteria. The use of DRM, private device certification, and internet return-path dependencies renders ATSC 3.0 transmissions legally and functionally distinct from traditional broadcasting.

ATSC 3.0 broadcasters encrypt their signals, requiring viewers to use devices certified by the ATSC 3.0 Security Authority (A3SA), a private, broadcaster-controlled entity. This system introduces not only technological barriers but also contractual conditions (in the form of device End User License Agreements) that viewers must accept to access what has historically been a free and open medium. These conditions are antithetical to the legal conception of "broadcasting" as a service offered to the general public, not a select class of users.

Courts and the Commission have long understood broadcasting to mean the distribution of programming to the public generally, as opposed to subscription services or targeted communications. In *National Ass'n for Better Broadcasting v. FCC*, 849 F.2d 665 (D.C. Cir. 1988), the court upheld the Commission's authority to distinguish broadcasting from non-broadcast services that are not freely available to the general public.

The implications of classifying encrypted ATSC 3.0 transmissions as "broadcasting" are far-reaching. Only "broadcasting" qualifies for a wide array of statutory privileges, including eligibility for public spectrum and must-carry provisions. These privileges are premised on the

notion that broadcasters serve the public directly and unconditionally, without regard to commercial status, technical sophistication, or restrictions on receiving devices. Once a broadcaster conditions access to its signal on the use of a specific, certified device—or requires acceptance of license agreements that limit user behavior—it no longer meets that standard.

Moreover, the Commission must consider the practical consequences for viewers. DRM restrictions and certification requirements may leave otherwise fully functional receivers incapable of accessing encrypted ATSC 3.0 content. Devices that do not support A3SA-mandated protocols, or that lose access to DRM updates due to expired licenses or lack of internet connectivity, will effectively be locked out of service. This creates a structural exclusion from a medium that the public has long relied on as the most accessible form of mass communication. A signal that cannot be freely received with commonly available, general-purpose hardware--without interference, license negotiation, or commercial surveillance--is not "broadcasting." To preserve the meaning of broadcasting, and to safeguard public access to the airwaves, the Commission must reject any interpretation of the statute that would render receiving "public" broadcast signals a matter of private discretion.

F. The ATSC 3.0 Transition Is in Tension With the All-Channel Receiver Act

The Commission must consider whether the proposed mandatory transition to ATSC 3.0, particularly one that allows encryption of primary broadcast content and conditions reception on private certification, would violate the All-Channel Receiver Act of 1962 (ACRA), codified at 47 U.S.C. § 303(s). The statute grants the FCC the authority to ensure that all television receivers manufactured or imported for sale in the United States are "capable of adequately receiving all frequencies allocated by the Commission to television broadcasting." If the Commission mandates a nationwide transition to ATSC 3.0 while permitting broadcasters to encrypt signals

such that only A3SA-approved devices may receive them, it will effectively outsource the operability of broadcast reception to a private entity.

The All-Channel Receiver Act was enacted to ensure that television receivers could receive all television broadcast signals, including those on the UHF band, so that viewers could benefit from the full range of licensed stations and that new broadcasters would have access to an audience. Permitting broadcasters to encrypt ATSC 3.0 signals and condition their decryption on A3SA licensing and certification fundamentally alters this dynamic. A television may technically include an ATSC 3.0 tuner and meet RF front-end specifications, yet still be unable to "adequately receive" a Commission-authorized signal unless it complies with licensing and cryptographic obligations imposed by A3SA. These obligations are not Commission rules, but private agreements that can restrict access based on proprietary criteria. As such, reception is no longer determined by physical and radio capabilities alone, but by a privately enforced gatekeeping system that is entirely outside of the FCC's regulatory framework.

This is precisely the situation the All-Channel Receiver Act was intended to prevent. A standard that allows some broadcast frequencies to be effectively invisible to compliant devices, unless those devices obtain permission from a non-governmental actor, cannot be squared with ACRA.

G. Granting the Petition Would Exceed the Commission's Authority under *American Library Association v. FCC*

In *American Library Association v. FCC*, the FCC attempted to enforce a "broadcast flag" rule requiring digital television receivers to recognize and respond to a digital code embedded in broadcast signals, thereby preventing unauthorized redistribution of content. The court held that the FCC lacked authority to impose such requirements on consumer electronics, stating:

> [T]he agency's general jurisdictional grant does not encompass the regulation of consumer electronics products that can be used for receipt of wire or radio

> communication when those devices are not engaged in the process of radio or wire transmission.

Am. Library Ass'n, 406 F.3d at 700. In other words, the FCC's jurisdiction over broadcasting does not extend to regulating receiving devices post-transmission, absent a specific statutory grant.

The proposed mandatory transition to ATSC 3.0 would require consumer devices to incorporate specific technologies to access encrypted broadcast content. This requirement would effectively dictate the design and capabilities of televisions and related devices, extending FCC regulation into consumer electronics. Such regulation mirrors the broadcast flag regime invalidated in American Library Association, as it imposes post-transmission obligations on devices, controlling how they process and display content.

VI. ATSC 3.0'S INTERNET DEPENDENCE IS A THREAT TO ACCESSIBILITY AND RESILIENCE

Another concern raised by the NAB proposal is the dependence of ATSC 3.0 on internet connectivity. While the new standard is marketed as an innovation that combines over-the-air broadcasting with broadband functionality, that convergence must not come at the expense of core accessibility principles that have defined broadcast television since its inception. Broadcast TV is a one-to-many communications medium that operates independently of subscription services, billing systems, and network infrastructure beyond the user's antenna and receiver. Introducing internet dependence to this model—even under the guise of offering interactive features or DRM credential updates—poses a direct threat to accessibility, equity, and the public interest.

Historically, the strength of broadcast television has been its universality. Unlike cable or broadband services, broadcast TV does not require a monthly fee, a modem, or an ongoing service relationship. It is accessible to anyone with a compatible receiver, and it continues to

function during network outages, power failures (with backup power), and natural disasters. This makes it an essential source of news, information, and emergency alerts—particularly for rural, low-income, and otherwise marginalized communities. Any system that compromises this universality undermines the very rationale for allocating public spectrum to broadcasters.

Under the current ATSC 3.0 framework, numerous device functions (including security certificate updates, software licensing verification, and access to certain encrypted or interactive content) may be contingent on a live internet connection. Although NAB and ATSC proponents have downplayed this dependency, technical documentation and manufacturer behavior suggest otherwise. For example, some ATSC 3.0 televisions and tuners have already shipped with firmware that requires an internet connection to receive encryption keys and validate DRM licenses. Other features, such as on-screen guides, video-on-demand menus, or enhanced advertising overlays, function only when the receiver is online. Over time, these requirements may become more deeply embedded in the core functionality of ATSC 3.0 receivers, particularly as broadcasters shift more content and services to hybrid broadcast-broadband delivery.

This shift poses a serious barrier to access for millions of Americans who either cannot afford broadband or live in areas where reliable service is not available. According to the FCC's own data, tens of millions of U.S. households, disproportionately located in rural and tribal communities, still lack affordable, high-speed internet. These are precisely the same populations that rely most heavily on free over-the-air television for news, weather, educational programming, and emergency alerts. If ATSC 3.0 receivers cease to function properly without periodic internet access, these viewers will effectively be cut off from vital information services that have been historically guaranteed as a matter of public policy. This transforms a universal

entitlement into a conditional service, undermining the very reason why broadcasters are granted exclusive use of spectrum and significant regulatory benefits in the first place.

In addition to its implications for access and equity, internet dependency also undermines one of the most frequently cited public interest benefits of ATSC 3.0: improved emergency alerting. While the new standard promises features such as geo-targeted alerts, rich media content, and on-screen interactivity during emergencies, these benefits become moot if the system fails when it is needed most. In the event of a widespread broadband outage, due to a cyberattack, natural disaster, or infrastructure failure, any ATSC 3.0 system that depends on cloud-based DRM verification or online servers may become inoperable. This is particularly dangerous during blackouts or disasters, when broadcast television is often the only functioning communication medium and when reliable, real-time access to alerts can be a matter of life and death.

The very architecture of broadcast television is designed to be resilient in such circumstances. Unlike streaming models, which require two-way communication and network authentication, broadcast systems are inherently one-directional and do not require the receiver to be "known" or connected to a network. Introducing a requirement that receivers communicate with the internet in order to maintain access to core services undercuts this resilience and exposes the public to unnecessary and avoidable risks.

While the Commission should deny NAB's petition as proposed, any eventual transition must codify a rule requiring that all core ATSC 3.0 functions, including reception of primary broadcast streams, rendering of video and audio, EAS compliance, and access to public interest programming, be fully operable without any internet connection. This requirement should also extend to periodic updates and security verifications: devices must not be rendered nonfunctional due to lack of connectivity or expired certificates. Viewers should not be forced to connect to a

third-party server or accept proprietary terms of service simply to receive public broadcast signals.

Furthermore, any enhanced features that do rely on broadband connectivity must be strictly ancillary, clearly labeled, and incapable of interfering with baseline access to content. The Commission should also require manufacturers to disclose internet requirements clearly at the point of sale, and should prohibit the design of devices that "fail safe" into a disabled state if offline. Such safeguards are necessary not only to protect consumers but to preserve the integrity of the broadcast service itself as a vital, standalone platform for information, education, and democratic discourse.

VII. PRIVACY CONCERNS WITH ATSC 3.0 AND THE INTERNET RETURN PATH

ATSC 3.0's architecture introduces, for the first time in the history of U.S. broadcasting, a persistent return path via internet connectivity that enables the collection of individualized user data. Unlike ATSC 1.0, which is a one-way, unidirectional transmission standard offering no capacity for collecting viewer data, ATSC 3.0 is designed to facilitate hybrid broadcast-broadband functionality. Internet connectivity is needed to offer interactive features, targeted advertising, and for remote license management. While these features may enable technical enhancements and offer new business models for broadcasters, they also introduce a powerful vector for the surveillance of viewers—one that is unprecedented in the context of free, over-the-air broadcasting.

ATSC 3.0 itself does not transmit personal data over the airwaves. The privacy concerns stem from the return-path connectivity that accompanies the standard's hybrid design. In other words, when a receiver (such as a television, set-top box, or dongle) is connected to the internet, it can transmit data back to broadcasters, device manufacturers, or third-party vendors. This can include information about which channels are being watched, for how long, at what times of day,

and in conjunction with what other behaviors, potentially enriched with additional metadata such as ZIP code, device ID, or household-level demographics.

This return-path functionality blurs the line between broadcasting and online content delivery, placing traditional broadcasters in the position of collecting and potentially monetizing data in ways that closely resemble streaming platforms and smart TV manufacturers. However, unlike those services, broadcasters operate on public spectrum under public interest obligations, and their viewers have historically had no expectation that watching a local news broadcast might subject them to online tracking or behavioral profiling.

NAB has offered no meaningful assurances that this new data collection paradigm will be subject to transparency, accountability, or consent mechanisms. If left unregulated, the return-path capability of ATSC 3.0 devices could be used to create detailed behavioral profiles of individual viewers, facilitate targeted advertising across platforms, enable location-based content tracking, or serve as a vector for data leakage and cybersecurity vulnerabilities. Viewers who rely on broadcast television precisely because it is private, offline, and independent of surveillance infrastructure may now find that their behavior is being monitored every time they turn on their TV.

At present, there are no federal privacy laws that specifically apply to broadcasters using the ATSC 3.0 return path to collect viewer data. Section 631 of the Communications Act, 47 U.S.C. § 551, imposes privacy obligations on cable and satellite providers, requiring them to obtain affirmative consent before collecting or disclosing personally identifiable information. But these protections do not extend to broadcasters—even when they engage in indistinguishable data collection practices via hybrid broadband integration. As a result, ATSC 3.0 risks creating a regulatory vacuum: broadcasters can collect individualized data using internet return paths, but

are subject to none of the baseline consumer privacy protections applicable to other multichannel video programming distributors. Without appropriate safeguards, data collected through the return path could be shared with third-party advertisers, sold to data brokers, or even accessed by government agencies without a warrant. The ubiquity of internet-connected televisions, coupled with the normalization of opaque data collection practices, makes it all the more urgent for the FCC to act before these practices become widespread and entrenched.

To prevent these harms, we urge the Commission to adopt a binding privacy framework tailored specifically to ATSC 3.0's hybrid capabilities. This framework should recognize that while ATSC 3.0's over-the-air transmission remains inherently anonymous, the internet return path introduces privacy risks equivalent to those posed by streaming services and smart TVs. Accordingly, while the NAB's petition should be denied as proposed, the following principles should guide any FCC rules addressing privacy in ATSC 3.0 after any eventual transition:

- Affirmative, Opt-In Consent for Internet-Enabled Data Collection: Any collection or transmission of viewer data through the internet return path must be contingent on clear, affirmative, opt-in consent, obtained at the device level and distinct from general terms of service.
- Transparency and Notice: Broadcasters, device manufacturers, and software vendors must provide clear and conspicuous disclosures about what data is collected via return-path functionality, how it is used, and with whom it is shared.
- Data Minimization and Retention Limits: Only the minimum data necessary to support declared features should be collected, and that data should be retained no longer than necessary. Purpose creep must be explicitly prohibited.
- Limitations on Third-Party Sharing: Return-path data must not be sold, licensed, or otherwise disclosed to third parties, including advertisers or data brokers, without granular, opt-in consent. Cross-contextual behavioral advertising should be restricted.
- Access and Correction Rights: Viewers must have the ability to review what data has been collected about them via the return path and to correct or delete that data upon request.
- Device-Level Controls and Offline Functionality: All ATSC 3.0 receivers must offer viewers the ability to disable internet connectivity without losing access to core broadcast functions. No feature that is essential to basic reception or decoding of the broadcast signal should require an internet connection.

- Enforcement and Penalties: The Commission should establish clear enforcement mechanisms, including civil penalties and private rights of action, for violations of privacy rules governing ATSC 3.0 return-path data collection.

These provisions reflect widely accepted consumer privacy principles and mirror obligations already in place for cable, satellite, and broadband service providers. They also align with the FCC's broader public interest mandate, including the goals of protecting vulnerable populations, promoting informed consent, and ensuring that access to broadcast content does not come at the cost of personal privacy.

To be clear, not all forms of data-enabled enhancement in broadcasting are inherently harmful. There may be legitimate applications of return-path data for public service purposes, such as enhancing emergency alerts or improving accessibility features. But such use must be clearly defined, opt-in, narrowly tailored, and subject to rigorous oversight. The FCC must not permit a stealth transformation of broadcast television into another node in the surveillance economy.

In the absence of action, the shift to ATSC 3.0 will fundamentally alter the expectations and rights of broadcast viewers, eroding the historical distinction between free, anonymous reception and subscription-based surveillance. If viewers are to continue trusting the broadcast medium, they must have confidence that their televisions are not watching them back.

VIII. RECEIVABILITY STANDARDS MUST ENSURE SERVICE QUALITY

While the Commission should deny the NAB's petition, any eventual transition must include strong, enforceable receivability standards for ATSC 3.0 to prevent the erosion of service quality and to ensure continued universal access to free, over-the-air television. As broadcasters transition to ATSC 3.0, the standard's technical flexibility, particularly its wide range of modulation and coding (ModCod) configurations, introduces the risk that some licensees may prioritize commercial data services or capacity maximization over the quality of the primary

broadcast video stream. Without adequate safeguards, this tradeoff will result in degraded reception for many viewers, particularly those using indoor antennas, living in apartment buildings, or residing on the edges of a station's licensed service contour. These households are disproportionately low-income and rural, and they often rely on broadcast television as a primary or sole source of information and entertainment.

ATSC 3.0's technical versatility permits broadcasters to select ModCod parameters that favor throughput at the expense of coverage. While this flexibility may benefit high-bandwidth applications or niche commercial services such as datacasting or targeted advertising, it poses a direct threat to the reliability and reach of free broadcast video services. Broadcasters may configure their signals for higher capacity and compression efficiency, resulting in narrower coverage footprints and increased susceptibility to multipath distortion and terrain obstructions.

The Commission required that ATSC 1.0 signals meet minimum performance criteria, including coverage requirements and transmission standards designed to ensure consistent signal availability within a station's service contour. The same principles must apply to ATSC 3.0. There must be a baseline technical obligation that all full-power broadcast stations provide a primary video signal of at least equivalent geographic reach, robustness, and quality to that previously available under ATSC 1.0. Without such a standard, there is no regulatory check against a future in which broadcast licensees deliver only a weak, spotty video signal while reallocating their spectrum to ancillary, subscription-based, or data-centric uses.

Accordingly, after any future transition, the Commission should adopt a set of minimum receivability standards for ATSC 3.0 stations. These standards should include:

- Mandatory ModCod Thresholds: The use of modulation and coding parameters (e.g., QAM levels, code rates, guard intervals) that provide equal or better coverage than ATSC 1.0 for the primary video stream. Higher-capacity, lower-robustness configurations should be permitted only for secondary or ancillary services.

- Primary Stream Protection: Broadcasters should be required to reserve sufficient bandwidth for the primary, free-to-air video service such that it remains reliably receivable across the full coverage area, including under typical indoor reception conditions.
- No Degradation Without Consent: Stations must not reduce signal robustness or effective radiated power (ERP) without prior Commission review and a public showing that service continuity and coverage parity will be maintained.

In addition to baseline technical rules, the Commission must require independent field testing and public transparency. Reliance on theoretical coverage maps or self-reported performance data has proven inadequate in other contexts, particularly in the broadband sector. ATSC 3.0 deployment should be subject to periodic, on-the-ground signal quality assessments conducted by third-party engineers using representative reception equipment in residential environments. The results of these studies should be made publicly available and used to verify compliance with coverage parity obligations.

Public reporting of reception statistics will also help identify patterns of degradation or exclusion, including geographic disparities, equipment incompatibilities, or demographic inequities. For example, the Commission should collect and publish data on failed or marginal ATSC 3.0 reception zones, categorized by urban density, income level, and language or disability access. This will allow both the agency and stakeholders to monitor whether broadcasters are fulfilling their public interest obligations—or whether coverage gaps are becoming a new digital divide.

Finally, after any future transition the Commission should make clear that the use of spectrum for non-video ancillary services may not come at the expense of the public's right to reliable access to free, over-the-air video programming. The primary video stream must not be treated as a bandwidth afterthought. Broadcasters who wish to pursue additional commercial uses of their spectrum may do so only after satisfying their core public service obligations, including full receivability.

IX. PROTECTING UNLICENSED ACCESS TO TV WHITE SPACES

The Commission must ensure that the ATSC 3.0 transition does not foreclose public access to unlicensed spectrum in the television bands, commonly referred to as TV White Spaces (TVWS). These spectrum gaps—unused portions of broadcast television frequencies—provide a platform for rural broadband deployment, community wireless networks, and innovative unlicensed services. Allowing ATSC 3.0 deployments to encroach on these frequencies without justification would amount to an unjustified windfall to commercial broadcasters and a direct threat to the public interest.

Broadcasters have already received their spectrum allocations free of charge for the explicit purpose of providing free, over-the-air service to the public. Yet many of the same parties now seek to exploit the ATSC 3.0 transition as an opportunity to expand their spectrum footprint and launch fee-based services that compete directly with licensed mobile providers--without paying for the privilege.

The impact on TVWS would be particularly severe in rural and underserved areas, where TVWS technology is often the only affordable path to broadband access. These areas already face connectivity challenges due to the high cost of fiber deployment and limited commercial incentives for fixed wireless investment. If TVWS channels are reclassified as protected broadcast spillover zones, the viability of rural broadband networks, smart agriculture systems, and local mesh networks could be irreparably harmed. This would undermine not only national broadband goals but also the Commission's statutory obligations to promote access in high-cost areas under Section 254 of the Communications Act.

Further, such an expansion would contradict the stated intent of the ATSC 3.0 transition itself. The National Association of Broadcasters has repeatedly emphasized that the transition would be "voluntary" and "spectrum-neutral," requiring no additional grants of public airwaves.

Yet proposals for protected DTS spillover and broader interference rights functionally constitute a de facto spectrum grab. This bait-and-switch risks harming the public twice: first by denying communities the benefits of unlicensed spectrum, and second by allowing broadcasters to monetize the spectrum for paywalled or encrypted services that no longer meet the definition of free, over-the-air broadcasting.

The Commission should therefore draw a firm line after any future transition: broadcasters deploying ATSC 3.0 may not claim new interference protection rights or expanded coverage areas that displace unlicensed services. Any DTS spillover beyond a licensee's existing service contour must remain unprotected. If broadcasters wish to make use of these frequencies for non-broadcast ancillary services, they must do so under the same regulatory constraints that apply to other commercial spectrum users, including participation in competitive licensing processes.

To maintain integrity in spectrum policy and prevent unjust enrichment, the FCC should reaffirm that TVWS remain available for unlicensed public use and resist any ATSC 3.0-related regulatory change that would compromise that access. Anything less would convert a voluntary technology upgrade into a vehicle for privatizing spectrum that rightfully belongs to the American public.

X. POTENTIAL ANTICOMPETITIVE TRENDS

The transition to ATSC 3.0, while technically promising, also carries with it significant risks to the competitive integrity of the broadcast ecosystem. Early market behavior already reveals an emerging pattern of consolidation, spectrum pooling, and platform gatekeeping. If left unregulated, the architecture and business incentives of ATSC 3.0 could exacerbate market concentration, reduce localism, hinder innovation, and ultimately entrench a handful of dominant players who control not only spectrum access but also advertising markets, content delivery, and device certification.

ATSC 3.0 allows for more efficient spectrum use, but it also enables new forms of vertical and horizontal integration. These include joint ventures for datacasting services, revenue-sharing partnerships with content distributors, and multicast hosting arrangements that consolidate broadcast infrastructure among competing licensees. This consolidation of physical infrastructure could transform what were once independent, competing broadcasters into tenants of a shared, privately controlled platform.

Such arrangements can have serious implications for competition and the diversity of voices on the public airwaves. For example, the host station in a spectrum-sharing agreement may prioritize its own programming streams over those of its partners, offer better signal quality to affiliated networks, or use its infrastructure position to influence commercial negotiations. This opens the door to exclusionary practices, such as degrading the reach or quality of unaffiliated or independent stations, delaying the rollout of public interest content, or imposing contractual terms that discourage competition in adjacent services like advertising, emergency alerting, or datacasting.

ATSC 3.0 also enables entirely new revenue models, particularly through addressable advertising and IP-based datacasting, that are likely to attract technology companies, data brokers, and investment groups seeking to monetize broadcast spectrum for non-traditional purposes. In the absence of appropriate safeguards, broadcasters may enter into exclusive arrangements with data partners that control user analytics, targeting algorithms, or return-path infrastructure. This not only creates new privacy concerns (as discussed above) but also gives rise to platform economics where the value of the spectrum is less about free over-the-air programming and more about control over a monetizable user base.

This raises a serious risk that ATSC 3.0 could mirror the structural consolidation and platform lock-in seen in the broadband and digital advertising sectors, where a handful of firms control access to digital infrastructure, advertising markets, and user data. These firms often use their dominance to extract rents, marginalize competitors, and suppress innovation—trends that are antithetical to the FCC's goals of localism, competition, and viewpoint diversity in broadcasting.

Particularly worrisome is the potential for new forms of vertical integration, where broadcasters, infrastructure providers, and device manufacturers enter into bundled arrangements that tie access to content with use of certified devices or proprietary software. Already, A3SA operates a certification model that requires manufacturers to enter into licensing agreements with broadcaster-controlled entities in order to access encrypted signals. These arrangements could be expanded to favor or exclude particular vendors, limit support for open-source or third-party applications, or impose data-sharing obligations on device makers that further entrench gatekeeper control.

The Commission must prevent such outcomes. If the transition to ATSC 3.0 accelerates, the FCC should use its existing statutory tools, including its authority under Section 310(d) of the Communications Act, to scrutinize any transaction involving the transfer of control over broadcast facilities, datacasting operations, or shared infrastructure arrangements. The Commission should treat ATSC 3.0 not merely as a broadcast standard but as a platform with far-reaching implications for market structure.

To that end, after any future transition the FCC should require broadcasters engaged in ATSC 3.0 signal hosting, spectrum pooling, or datacasting joint ventures to submit detailed disclosures regarding:

- Ownership and control structures, including beneficial ownership of any entities involved in hosting or signal aggregation;
- Affiliated business arrangements, including partnerships with advertising networks, data brokers, or device manufacturers;
- Terms of access for third parties, particularly whether unaffiliated stations are given equitable and non-discriminatory access to infrastructure;
- Technical parity, including whether hosted signals receive the same signal quality, bitrate, and availability as host station streams;
- Use of encryption, DRM, and A3SA licensing restrictions, and whether such tools are used to restrict interoperability or competition;
- Revenue-sharing agreements related to datacasting, interactive services, or targeted advertising platforms.

Moreover, the Commission should clarify that it retains the authority to impose structural remedies in the event that ATSC 3.0 deployment results in excessive concentration of control over local broadcast infrastructure or spectrum. This includes ordering divestitures, limiting cross-ownership of station groups and signal hosting operations, and requiring nondiscrimination in access to return-path infrastructure or programmatic advertising systems.

The Commission should also consider a framework for monitoring and reporting on the competitive dynamics of ATSC 3.0 markets. This could take the form of a biennial report to Congress on competition in broadcast platform infrastructure, analogous to the Commission's reports on the communications and video marketplace. Such transparency will allow policymakers, stakeholders, and the public to evaluate whether ATSC 3.0 is promoting or hindering the goals of a diverse, local, and competitive media environment.

CONCLUSION

In light of the substantial costs, potential for consumer confusion, and disproportionate impact on vulnerable populations, the proposed mandatory transition to ATSC 3.0 by 2030 is premature and ill-conceived. The FCC must prioritize the public interest by ensuring that any transition plan includes comprehensive consumer education, financial assistance programs, and safeguards to maintain universal access to free over-the-air broadcasts.

Viewers should not bear the financial burden of upgrading equipment to continue accessing services that have historically been free and unconditional. Broadcasters, who benefit financially from spectrum access and who stand to gain new monetization opportunities through ATSC 3.0, should bear a substantial share of these costs.

The Commission must also reject any transition proposal that incorporates DRM as a condition of content access. DRM is fundamentally incompatible with the public nature of the airwaves and undermines fair use, innovation, and device competition. A broadcast standard that enforces encryption and private licensing on public content is not a public service—it is a walled garden.

Until the Commission can guarantee that any new standard will preserve openness, affordability, universal service, innovation, and lawful consumer rights, it must reject the NAB petition.

Respectfully submitted,

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