This article examines Senator Edwin Johnson’s involvement with the television freeze in the United States from 1948 to 1952. The Federal Communications Commission (FCC) instituted the freeze after post-war applications for television licences far outstripped the capability of the VHF band to hold stations. During the freeze, Johnson, who was chair of the Senate Interstate and Foreign Commerce Committee, pressured the FCC to approve CBS’s non-compatible colour system and to move broadcasting to the UHF band as a way to counteract RCA’s patent dominance in monochrome VHF broadcasting. To this end, the senator corresponded with the FCC chair, industry leaders, members of the media and the general public and also set up his own committee to study the status of colour television technology. His position as commerce committee chair gave him a unique bully pulpit from which he was able to say and do things that FCC commissioners could not. Unencumbered by pressures from the industry or by congressional or executive oversight, Johnson was not afraid to make use of his status to take high-profile stands that were often at odds with the commission and, especially, powerful interests in the broadcast industry.

In the history of broadcasting regulation in the United States, there has perhaps never been as colourful a government official as Senator Edwin C. Johnson. Known affectionately (and sometimes derisively) as ‘Big Ed’, Johnson was a Democrat from Colorado who chaired the Senate Interstate and Foreign Commerce Committee from 1949 to 1952. That committee was tasked, among other things, with overseeing telecommunications issues and the activities of the Federal Communications Commission (FCC). Johnson was particularly strident in carrying
out that oversight, with industry observers noting that the FCC was continually ‘under [his] paternalistic eye’. ‘Whenever there’s a fire – or even a wisp of smoke – in broadcasting, Sen. Big Ed responds to the first alarm’, the industry trade magazine Broadcasting observed.¹

Johnson was certainly not afraid to thrust himself – forcefully and often acerbically – into broadcasting debates. He continually made his presence known through statements in the press and on the floor of the Senate, meetings with industry leaders and visits, phone calls and letters to the FCC chairman. The senator’s frequent and strongly worded missives to the FCC, in fact, were so notorious that Broadcasting magazine ran an editorial cartoon poking fun at them. The cartoon showed a distressed mail carrier using a long set of tongs to carry a blazing envelope towards the FCC entrance. ‘Another letter from the Senator from Colorado’, the mail carrier tells an onlooker (see Figure 1).²

During his four years as chair of the Interstate and Foreign Commerce Committee, Johnson was involved with numerous media-related issues, including the clear channel AM radio debate, broadcast liquor advertisements, broadcasting of sporting events and continuing efforts to reorganize the FCC. However, it was the FCC’s so-called television ‘freeze’ that attracted his most intense and continuing attention. The freeze began in September 1948 when the FCC suspended all action on pending television licence applications after it became clear that the 12 existing VHF television channels were not sufficient to accommodate post-war demand for licences. During the freeze, which lasted until 1952, Johnson was a vocal advocate for colour television; he also sought an immediate opening of the UHF television band and assurances that UHF stations would be on equal footing with existing and new VHF stations. In each of these endeavours, Johnson was driven both by his anti-monopoly sentiments and a desire to bring television – especially, colour television – to as many people as possible.

Despite Johnson’s importance not only to broadcasting but to other issues such as economic development, infrastructure creation and water rights in Colorado and the West, remarkably little has been written about him. The only biographical treatments of Johnson are two unpublished Master’s theses.³ Both concentrate on Johnson’s political rise and the traits that made him a successful state legislator, governor and senator over the course of four decades, but make little mention of his involvement with broadcasting issues.

This study examines Edwin Johnson’s tenure as chair of the Senate Interstate and Foreign Commerce Committee and his interactions with commission personnel and broadcast interests. Using archival material, contemporary press accounts and government documents, it seeks to show how the senator used the power and prestige of his position – along with a burgeoning interest and expertise in broadcast matters – to attempt to influence the broadcast industry and the FCC.⁴ In so doing, the intention is to provide greater understanding of the various ways members of Congress – and particularly chairs of the commerce committees that oversee the FCC – can influence the development of electronic media regulation.

Edwin Johnson was at times belligerent, not always consistent, and occasionally blinded by his own hubris. But he did understand the broadcast industry, and was not afraid to expose its warts. His position as chair of the Senate Interstate and Foreign Commerce committee gave him a unique bully pulpit from which he was
able to say and do things that FCC commissioners could not. Unencumbered by pressures from the industry or by congressional or executive oversight, ‘Big Ed’ was not afraid to make use of his status to take high-profile stands that were often at odds with the commission and, especially, powerful interests in the broadcast industry.

Johnson’s rise

Edwin Carl Johnson was born to Swedish immigrant parents on 1 January 1884, in a small town in northern Kansas. As a young adult, he developed tuberculosis and doctors advised him to move to a drier climate and spend more time outdoors. He and his wife eventually moved to Craig, a small town in north-west Colorado where Johnson eventually became manager of a farm cooperative. His outspokenness as a voice for farmers’ interests impressed local Democratic officials, who drafted him into a campaign for the Colorado legislature. Although the Craig area was dominantly Republican, Johnson decided to become a Democrat, in part because he was attracted to the populist sentiments of William Jennings Bryan. He was elected to the legislature in 1922 and served four terms before becoming lieutenant governor of Colorado in 1931 and governor in 1933. During his time in Colorado politics, Johnson earned the reputation as someone who got things done,
was not afraid to speak his mind, and was willing and happy to cooperate with Republicans. His physical presence, standing six feet four inches tall, was also unmistakable, soon earning him the nickname ‘Big Ed’. A reporter noted that Johnson ‘always looked a little wind-blown, as if the winds of the plains had conditioned him for a life leaning into – and most of the time licking – whatever opposition huffed up on the horizon’.  

Johnson was elected to the United States Senate in 1936. As part of the Democratic majority, he was appointed to the Committee on Interstate Commerce under the chairmanship of Burton K. Wheeler of Montana. Johnson rather quickly established a unique presence, providing ‘plenty of colour in the sedate halls of the upper chamber’ and becoming ‘one of the most stubborn mavericks who ever rebelled against a party line vote’, according to McCarty. Wheeler became a mentor to Johnson, with the two men bonding not only over their shared geography but their anti-monopoly beliefs and increasing scepticism of President Franklin D. Roosevelt’s New Deal policies. Wheeler also nurtured Johnson’s interest in broadcasting, as the Montana senator had been involved in a number of telecommunications regulatory issues as chair of the commerce committee. Most notably, Wheeler fought against efforts of the clear channel AM stations to increase their power beyond the current 50,000-watt limit and maintain exclusive use of their frequencies. In 1938 Wheeler introduced a resolution, eventually passed by the Senate, contending that power in excess of 50,000 watts was ‘definitely against the public interest’. Although the resolution did not carry the force of law, it was widely credited with thwarting FCC plans to increase the power of at least some clear channel stations.

Broadcast history scholars have long recognized the importance of Congress in the regulatory process. The commerce committees in the House and Senate, Krasnow, Longley and Terry point out in their seminal work, *The Politics of Broadcast Regulation*, ‘are undoubtedly the center of congressional influence on broadcasting’. Smith notes that ‘[d]ating to the 1920s – and the early fights over assigning radio frequencies – Congress, the regulatory agency it created [the FCC] … and broadcasters, locked horns over the proper way to regulate the public airwaves’. Similarly, Emery contends that Congress saw the FCC ‘as a delinquent child – congenitally weak and depraved, and requiring frequent discipline’. ‘Perhaps no federal agency has been as frequent a target of vilification and prolonged investigation by Congress as the FCC’, Krasnow, Longley and Terry add. ‘From its inception through the early 1960s, the commission was almost always under a congressional investigation or the threat of one’. Indeed, Brinson points out that FCC commissioners were summoned to at least 176 House or Senate investigations between 1940 and 1960. Williams notes that ‘it only requires the efforts of a small number of Congressmen in key positions to make life intolerable for the commission’. The regulatory commissions such as the FCC, Baughman observes, ‘have not ordinarily been free agents’ and they can succeed ‘only with the cooperation of the other three wings [of government], notably the presidency and the Congress’.  

In 1948, when rumours spread that the FCC was again considering granting clear channels higher power, Johnson held a series of hearings on a bill that would prohibit power in excess of 50,000 watts and require the clear channel stations to give up their exclusive status. ‘Policy-making is a prerogative of Congress’,

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Johnson said, ‘For the Congress to permit the Commission to decide the all-important questions of super-power and clear channels without a formal or informal expression of the views of the Senate is nonfeasance’. Johnson warned that if his bill did not pass, the FCC could grant power increases to the clear channels that ‘may well result in a monopoly’. Although the bill was not passed by the Senate, it did once again serve notice on the FCC that there was congressional opposition to granting power increases to clear channel stations. The hearings also were something of a ‘coming out’ party for Johnson as a force in broadcast regulation. Less than 10 months later, when the Democrats re-took control of the Senate, elevating Johnson to the chairmanship of the Interstate and Foreign Commerce Committee, he would wield even more influence.

As noted, most historians addressing major issues in broadcast regulation from the 1930s to the 1960s have acknowledged the role of Congress, and particularly the commerce committees, in the formation of broadcast policy. Specific members of Congress and the activities of congressional committees generally play only a tangential role in these and other works, although a few scholars have examined individual members of Congress who were influential in the development of broadcasting policy.

Proffitt and Brown, for example, studied Tennessee congressman Ewin L. Davis’ efforts to fight radio monopoly in the mid–late 1920s. Although Davis was ultimately unable to get Congress to pass anti-monopoly provisions regulating the industry at large, he did secure legislation forcing the FCC to apportion radio stations more equally among all areas of the country. Smith examined investigations of the FCC by the Congressional Oversight Committee during the late 1950s. In response to complaints concerning the awarding of large market television licences, the committee hired an investigator who examined FCC phone records, memos and licensing files, uncovering ‘a Pandora’s Box of evidence that not only implicated commissioners in “fraternization” with broadcasters, but revealed questionable relationships between Washington politicians and broadcasters’. The investigation resulted in two FCC commissioners and a White House aide losing their jobs, as well as fundamental changes in rules governing contact between commission personnel and industry representatives. Godfrey and Benjamin’s study of Wallace H. White provides a longitudinal view of the Maine congressman’s involvement in the development of radio regulation in the 1920s and 1930s. They credit him with instilling the concept of public ownership of the airwaves and pushing for a permanent radio commission with the power to both enforce programme requirements and punish errant broadcasters. White, according to Godfrey and Benjamin, ‘contributed more to broadcast legislation than any other legislator’.

The Television Freeze

Experimental television broadcasting began in the United States in the 1920s. By the late 1930s, with several stations on the air and a few thousand sets already in the hands of consumers, the industry began to clamour for FCC approval of commercial licensing. In 1940, the radio manufacturers, with the blessing of the FCC, formed a National Television Systems Committee (NTSC) to establish technical
standards for broadcasting and in May 1941 the FCC approved commercial broadcasting using the NTSC standards. Although the United States’ entry into the Second World War delayed widespread commercial use of television, by the end of the war a number of competing technologies had emerged, leading to what Boddy has called ‘the fiercest and most critical battle in the history of television’.\(^{13}\)

The first question to be resolved was where to locate television channels: in the very high-frequency (VHF) spectrum or the ultra-high-frequency (UHF) spectrum. VHF broadcasting was a proven technology and was where the vast majority of experimental stations operated. But the VHF band could accommodate only 13 channels, which the FCC and industry observers agreed was too few to establish nationwide service. There would be far more room in the UHF band, but the technology to use it had not yet been perfected. Nonetheless, RCA, backed by nearly all radio and electronics manufacturers, pressured the FCC to approve television in the VHF band. Others – most notably CBS – called for the commission to wait until UHF broadcasting was ready. The second question was whether to maintain the black-and-white standards developed by the NTSC before the war or pursue a colour system developed by CBS. Here, too, RCA and manufacturers arrayed against new standards and called for the FCC to implement the black-and-white NTSC system. RCA, particularly, stood to profit handsomely as it owned the patents necessary for black-and-white VHF broadcasting, and manufacturers wanted to take advantage of pent-up post-war demand for consumer products.

Responding to RCA’s pressure, the FCC in 1945 approved black-and-white commercial television broadcasting on VHF. However, problems with the FCC decision – particularly the small number of frequencies – were apparent from the start. Inventor Edwin Armstrong likened implementing a nationwide television service using only VHF to ‘trying to run twenty ton trucks on country lanes’, saying ‘it just cannot be done’. Still, owners of stations that received one of the coveted VHF licences – most of which were located in large cities – were in position to profit handsomely. As Owen, Beebe and Manning later observed, creating an ‘artificial scarcity’ of VHF licences was ‘perhaps the most significant event in the history of television regulation’ as it ‘create[d] a system of powerful vested interests [that] stand in the path to reform and change’. Chief among those vested interests was, of course, RCA, which not only owned the aforementioned patents for much of the existing VHF broadcasting system but – through its NBC network – either owned or was affiliated with nearly half of the stations on the air.\(^{14}\)

By 1948, it had become apparent to the FCC that it had made a mistake. There was no way the VHF band could accommodate the number of licence applications being received, and in fact miscalculations of signal propagation had led to interference between stations already on the air. Thus, in September 1948, with fewer than 50 stations currently broadcasting and another 50 in the process of being constructed, the FCC suspended action on all pending television applications. During the time of what came to be known as the freeze, the FCC considered a number of solutions to the television problem, including moving all television broadcasting to the UHF band (a proposal vehemently opposed by existing VHF stations) and authorising both UHF and VHF broadcasting. Also, CBS continued to push for approval of its colour television system that was incompatible with the existing NTSC system. The CBS colour system was opposed chiefly by RCA,
which favoured delaying colour until a system compatible with the existing black-and-white system could be developed. In fact, RCA was already at work on such a system.

**Johnson takes over as Chair**

A little more than four weeks after the FCC implemented the freeze, Democrats took control of the Senate. Thus, Johnson, the ranking Democrat on the Interstate and Foreign Commerce Committee, took over the chair position from Wallace H. White, who had become chair when the Republicans gained the Senate majority in 1947. White, as Godfrey and Benjamin note, sought to stay out of the headlines and instead ‘preferred quiet diplomacy’.¹⁵ Johnson would prove to be the polar opposite of the quiet Maine senator, enthusiastically – and at times bombastically – inserting himself into the debate over issues related to the freeze.

Johnson’s anti-monopoly sentiments led him to oppose the entrenched VHF interests and especially RCA. Thus, he embraced the idea of opening up the UHF band and establishing a colour system as quickly as possible. Both actions, in Johnson’s view, would mitigate against RCA’s monopoly control of patents. He also wanted television to be available to as many people as possible, especially those outside of the large cities that already had VHF stations. ‘[TV] belongs to the people and should be made available to all of the people’, Johnson contended. ‘The impact and importance of TV is so inter-related with the general welfare of the people that everything possible should be done to see that it becomes available to all of the people’. Wayne Coy, who had become FCC chairman at the beginning of 1948, was known to share Johnson’s sentiments on UHF and colour, at least from a personal standpoint. However, Coy was also more cognisant of (and constrained by) the wishes of the industry and fellow commissioners.¹⁶

Soon after the Senate re-convened for 1949, Johnson sent Coy a letter asking the chairman to respond to a number of questions about the freeze and plans for the future development of television. ‘While we hold that television development involves a fundamental policy question to be decided by the Congress we desire your views’, the letter noted. Johnson asked whether colour was being considered as part of the commission’s plans, whether ‘consideration has been given to the prevention of the element of monopoly control’ in television manufacturing and broadcasting, and whether assigning more stations to the VHF band would ‘mitigate against or prevent rapid development’ of UHF. He also realized that the more VHF sets that were sold to the public, the less likely it was that the FCC would do anything that would disrupt the existing VHF structure. Thus, the letter also asked about the possible obsolescence of television sets currently being sold:

> [I]t appears obvious to us that when and if licensing is authorized in the ultra-high-frequencies [UHF] … television sets being manufactured today will be obsolescent … We note that no purchaser of a television set today is advised or warned … that in a matter of a few months or years, the set for which he is paying $200 to $1000 will be junk. We wonder, therefore, if some action … which would result in set-manufacturers making clear to such buyers that


\textit{caveat emptor} should not enter into the purchase of such a highly complex and intricate mechanism as a television set. [emphasis in original].

‘The public requires protection’, the letter closed.\textsuperscript{17}

Johnson’s letter prompted a 17-page reply from Coy, writing for the commission, with additional comments by commissioners Robert Jones and Frieda Hennock. Coy’s response said that the FCC was considering the use of colour, then chronicled the development of television standards and the manifold intertwined issues. He noted, though, that the commission was aware that all of the interests in favour of continuing the present VHF-only, black-and-white system ‘are either in the business of manufacturing transmitters and receivers or in the broadcasting business utilising the present system of television or wanting badly to get into it’. On the question of monopolies, Coy noted that the FCC did not have direct authority over broadcast networks, but said that the commission was studying the patent situation. As for UHF, Coy said that there was great demand for additional television stations and that the existing 12 VHF channels ‘are not nearly enough to take care of the demand’. Finally, Coy addressed the questions about obsolescence of current television receivers. He acknowledged that if UHF channels were added, ‘there will be some obsolescence’, but stressed that there was really no way to totally protect consumers’ purchases from eventually becoming obsolete:

\begin{quote}
Radio broadcasting is but a quarter of a century old and already developments have occurred which in other fields would have taken a century … Moreover, developments occur so fast that there is no assurance that some revolutionary development will not emerge from the laboratory that will make present systems obsolete because the public advantage to be gained from its adoption outweighs the public burden incident to partial or complete obsolescence of equipment.
\end{quote}

Commissioner Hennock evinced greater concern for current purchasers of television sets. ‘It would seem desirable to make clear to the public the uncertainties inherent in the purchase of any particular television receiver’, she contended. ‘Any risk taken by the public would then be a calculated one’. Commissioner Jones was more direct:

\begin{quote}
[The FCC should] provide standards for orderly development of colour television and let the investing and listening public decide what it wants. In my opinion colour television can be provided for now. Every day the problem of changeover becomes more severe. The modification of black and white transmitters and receivers is minor compared to the other considerations involved.
\end{quote}

‘I have stated my views more fully’, Jones concluded, ‘because I do not think 1,000,000 receivers now should impair the whole future television system’.\textsuperscript{18}

If Johnson’s February letter was not evidence enough that he planned to take a hands-on approach to overseeing the commission, his 20 April diatribe from the floor of the Senate erased all doubt. He began by pointing out that it was with ‘with deep reluctance’ that he was ‘compelled to employ the harsh method of a public denouncement’ then proceeded to note that the commission had ‘failed utterly in protecting the people against monopolistic exploitation’ through inaction.
and mixed messages in the clear channel and television allocations issues. He charged that commissioners were ‘bogged down in the technicalities and red tape of their own creation’ and were hamstrung by their own staffs who were themselves ‘the captive of the high and mighty’ in the broadcasting industry. Johnson ran through his version of the history of television allocation, charging that the FCC had created ‘a caste service’ in which some cities had as many as five TV stations, while entire states (including his home state of Colorado) had none. He particularly cited RCA’s continued opposition to colour, UHF broadcasting and other innovations that could potentially bring better television service to more people, noting that the corporation ‘won Commission acceptance all down the line’. ‘What kind of country are we going to have when a half dozen corporations control the airways of America?’ he asked. ‘Nothing behind the Iron Curtain compares with it’. He concluded his statement by noting that ‘by fighting to protect the people’, the Congress and FCC could make ‘freedom of thought and ideas … living realities’.19

Broadcasting called Johnson’s ‘vicious denunciation’ of the FCC ‘one of the bluntest attacks it had ever suffered’. In a lengthy editorial, the magazine agreed that Johnson had raised important issues. ‘In this respect, and in others’, the editorial noted, ‘Sen. Johnson shows an amazing insight into Commission affairs’. However, it also said that Johnson was unjustifiably hard on the commissioners themselves, who ‘do not have to take starvation pay and Senatorial assault and battery too’.20

Colour

A little more than a month after Johnson’s attack, the FCC announced plans to combine the various issues related to the freeze into a formal rulemaking. The commission proposed the development of a nationwide allocation plan maintaining the 12 VHF channels and supplementing them with 42 UHF channels. First, however, the commission would consider ‘the optional use’ of colour. The inclusion of colour was a victory for Johnson, who told Broadcasting that the announcement represented ‘a great step forward … It’s what we’ve been fighting for right along’. In the meantime, however, Johnson tapped Edward Condon, director of the National Bureau of Standards, to lead an independent study into the feasibility of implementing colour. ‘[I]t is greatly in the public interest that a sound, factual ascertainment be had now whether or not minimum standards can be fixed today, or in the very near future, so that colour television might develop and progress with complete freedom under the stimulus of commercial competition’, Johnson told Condon. To that end, he charged Condon’s group with examining existing colour systems and assessing their readiness for widespread use. In a letter to Coy, he urged the FCC to ‘affirmatively push forward the development of the art’ and, if need be, conduct its own technical studies instead of ‘choos[ing] between contesting opponents’. ‘The development of colour television is so compelling in the public interest that I hope every opportunity will be seized upon to push, prod, and encourage its commercial utilization’, he wrote. In November, he told Broadcasting that the FCC should adopt a ‘broad general standard’ that ‘would permit
the art and science of colour TV to develop in the usual American manner’. In a somewhat strained example, he noted that if specifications for the Cadillac had been adopted by the entire automobile industry, ‘there would be no automotive industry today and there would be no Cadillac’.21

The FCC held hearings and technical demonstrations throughout 1949 and early 1950. A focal point was a demonstration of colour systems from RCA, CBS and Colour Television Inc. (CTI) attended by members of the commission, Johnson, and members of the Condon committee. Observers believed that each system had its merits, and Johnson called for a ‘composite’ standard or multiple standards ‘using the better parts of all systems’. Johnson particularly applauded improvements in the RCA and CTI systems, saying he was ‘tremendously impressed’. However, he noted that RCA’s progress came only because it was ‘under the whip of CBS’. ‘For once’, Johnson said, ‘they’ve been forced to do something else besides create a rumpus’. In July 1950, Condon’s committee released its final report, comparing the relative merits of the three competing colour systems. The committee did not recommend a particular system, but urged the FCC to settle on one of the mutually exclusive competing systems. Noting that each system had been developed ‘through the efforts of single organizations working in competition’, the committee saw great potential in having those organisations and others come together to work on a single system. This view, of course, went against Johnson’s previous calls for multiple standards. Nonetheless, the senator was pleased with the report’s overarching view that colour should be embraced now.22

Meanwhile, international events would threaten to stall progress towards a decision on colour. In June 1950, Soviet-backed North Korean soldiers invaded neighbouring South Korea. By July, US troops had joined the fighting on South Korea’s side, and President Harry S. Truman mobilized American industries to support the military effort. Given the quick escalation, reports surfaced that the FCC was considering delaying its colour decision. RCA chairman David Sarnoff met with Johnson in early August and informed him that RCA intended to write to the FCC opposing any delay in colour. Sarnoff also urged Johnson and CBS president Frank Stanton to write similar letters. Initially, Stanton did not feel a letter from CBS was necessary, but Johnson persuaded him to write one anyway.23

Although the letters from Sarnoff and Stanton were succinct and straightforward, Johnson’s lengthy missive railed against ‘the busy-body scandal mongers’ who were ‘desperate … for any excuse for procrastination, deferment, or weasely worded proposed findings’ that would further delay a colour decision. ‘I know the devious character of the opponents’, he said. The commission, between its own hearings and the issuance of the Condon Report, had all the technical data it needed to reach a colour decision, Johnson said. If anything, he contended, the Korean War pointed out how colour could be useful for ‘testing jet engine flame colours, observation of guided missiles, surveillance of various atomic processes, and in a number of other still secret processes and developments’. He praised both CBS and RCA, who had ‘fought the hard battle in the laboratory and expended millions of dollars to make this amazing recreational and educational development available now to the American people’. He also warned that the commission’s standing with Congress and the general public was at stake, noting that ‘[e]veryone realizes that the commission is itself before the bar of public opinion in this
matter’. ‘I have been in this campaign too long to surrender without a struggle’, he noted. ‘[T]he fight must go on until the American people enjoy the beneficent gift which science already has brought out of the laboratory’. In response, Coy claimed that he had not heard any rumours of a delay and assured Johnson that the commission was still hard at work on the colour issue.24

Within a month, in fact, the FCC announced its intention to approve the CBS colour system unless manufacturers could agree within 30 days on ‘bracket standards’ that would allow new monochrome sets to receive both existing monochrome signals and signals using CBS’s colour system. The bracket standards would likely have the effect of ‘kicking the can down the road’, as they would allow the commission to further study colour without worsening the compatibility issue of sets currently being sold. If manufacturers could not agree to bracket standards, the FCC said, it would approve the CBS system, noting that ‘every day that passes would aggravate the compatibility problem’. Johnson supported the decision, contending in a letter to Coy that although none of the competing interests got everything they wanted, the decision ‘brings very close the day when this great new improvement in the art will serve the American people’.25

However, the set manufacturers said they could not agree on bracket standards, prompting Johnson to accuse them of organising a ‘sit-down strike’. Thus, the FCC on October 10, 1950, ordered adoption of the CBS colour standards. RCA and Pilot Radio Corporation filed separate lawsuits against the decision, seeking injunctions to prevent the FCC from implementing the CBS colour plan. Pilot’s lawsuit specifically targeted Johnson by subpoenaing all correspondence he had with the FCC and CBS. ‘I hope that every shred of correspondence … will be made a matter of public record’, Johnson told Coy and Stanton. ‘I am sure that any correspondence will only go to show that my sole interest has been to see that the public is not denied colour television’. In a reply, Isidor Goldberg, Pilot’s president, asked Johnson why he had ‘cajoled, prodded and even demanded’ that the FCC approve the CBS colour system when it was opposed by so many in the industry. Johnson was clearly irritated by Goldberg’s note. ‘[T]hose believed to be conspirators’ may be called before his committee and ‘given an opportunity to prove the … allegations contained in your telegram’, he warned.26

Although Pilot eventually dropped its lawsuit, RCA’s continued, delaying implementation of the FCC’s colour order until May 1951 when the Supreme Court upheld a lower court’s decision in favour of the FCC. On 25 June 1951, CBS debuted its colour system with a special hour-long telecast featuring Ed Sullivan. However, it was unclear how many people could actually watch the programme because there were only about 20 CBS colour receivers in existence. Nonetheless, Johnson and Stanton exchanged congratulatory letters, with Johnson calling it ‘an historic day for the progress of man’ and Stanton noting that ‘when the record is written of the development of colour television, it must reveal the unique role you played in its successful culmination’.27

But CBS struggled to find footing for its colour system, with few manufacturers making television sets and few stations broadcasting in colour. Despite the improvement over existing black-and-white TVs, colour sets cost about twice as much and had smaller screens. Privately, Coy contended that RCA officials had pressured manufacturers to ‘hold the line’ against manufacturing colour sets using
the CBS system and that a few manufacturers had actually set up inferior demo units to dissuade dealers and customers from wanting colour sets. In October 1951, the National Production Authority (NPA), responding to a CBS request for materials for its colour sets, issued a ban on the manufacture of colour television sets and converters for general sale. CBS quickly agreed to comply, and some industry observers contended that the order actually took CBS off the hook for its moribund system. Johnson, however, would not give up so quickly. He tried to encourage Stanton to keep up the fight for colour and sent a letter to the NPA’s Charles Wilson, protesting the order as ‘just another unwarranted crippling blow aimed directly and specifically at colour television’. ‘Frankly, the Committee on Interstate and Foreign Commerce has followed and nursed colour television through years of deadly struggle and will not, without protest, idly stand by and see it delayed arbitrarily and capriciously’, he warned. At Johnson’s behest, the NPA held a meeting with industry representatives in February 1952. Both Stanton and Sarnoff denied they had requested the ban, with Sarnoff noting that RCA was continuing to develop its compatible colour system based on CBS’s failure to implement its system on a wide basis.

VHF, UHF and allocation

Of course, the widespread adoption of any colour system was still dependent on the FCC lifting the freeze. Thus, with the colour issue seemingly settled, the commission would now turn its attention to allocations. At the outset of the freeze, Johnson favoured scrapping VHF and moving all television to the UHF spectrum, a view shared by Coy as well. However, Coy quickly realized there were not enough votes on the commission to make such a move, and Johnson eventually came to this conclusion as well. However, the Senator wanted to make sure that the existing VHF assignments and the VHF-only sets currently in the hands of consumers would not stand in the way of what he called ‘a truly equitable and scientifically practical VHF-UHF allocation’. He also vehemently opposed calls for lifting the freeze on VHF before implementing a plan that included UHF. ‘Easily identified selfish interests are laboring day and night to lift the [VHF] freeze now and nothing more’, Johnson contended. ‘To lift the freeze without a definite plan for the allocation and use of UHF channels would be both a scientific and economic absurdity’.

Johnson’s insistence that the FCC resolve the freeze in a comprehensive way that included colour, VHF and UHF made him a lightning rod for those in the industry and members of the general public frustrated by the stalled development of television during the freeze. His February 1949 exchange with Coy led to both men receiving letters from concerned television set owners, worried that their investment would soon be worthless. Johnson also received a letter from the president of Remington Radio Corporation, criticising him for throwing the potential buying public ‘into a state of confusion’. Johnson defended his actions, noting that ‘I believe it is my duty as a legislator and as Chairman of the Committee to make certain that the public at least knows all the facts when it makes an investment of this kind’. He said that set manufacturers were not telling consumers that the sets
currently being sold would need converters to receive future UHF broadcasts, and that there were questions about ‘how satisfactory such converters may be’. ‘I am just as anxious as you are that the television industry grow and prosper’, he wrote. ‘But I cannot blind myself to certain facts; my first responsibility is to the public’.31

Zenith Radio Corporation, whose television sets were among the only ones in the industry that had the capability to receive both VHF and UHF signals, also picked up on Johnson’s concerns about VHF channel scarcity, and began running foreboding advertisements implying that a sudden change in television channels may be imminent. The ads used quotations from Johnson to bolster these claims. Motorola’s director of research complained to Coy that the Zenith ads made him ‘violently nauseated’ and expressed concern that they could set back the development of television by many years. ‘If the Senator and Zenith Radio Corporation had deliberately set out to sabotage this young and growing art, they could not have devised a more effective plan’, he noted. The Better Business Bureau also reported to the commission that it had received many inquiries from concerned television retailers and customers. ‘[W]e would like to make clear that … the public is entitled to know of changes … that would effect [sic] their present or future investment’, the bureau said. ‘We believe, however, that the facts should be fully and impartially presented’. Coy’s responses to these letters noted that although there was uncertainty over when and how UHF service would be implemented, it was highly unlikely that VHF television service would be eliminated. Privately, however, Coy acknowledged that it was ‘doubtful’ that VHF-only televisions would continue to be manufactured once UHF was approved.32

Johnson’s most public thrashing came at the hands of influential New York Times television critic Jack Gould. In January 1950, Gould wrote a column criticising the length of the freeze, saying the FCC had ‘exact[ed] a high price from the public as it pursues ‘perfection’ in colour’. He called for the commission to first open up more frequencies for television broadcasting, then ‘allow the natural laws of competition to prevail’. He ended the article by saying it was vitally important that the FCC show ‘some real gumption and backbone to reassert its proper authority’, and that the commission had been ‘altogether too susceptible to the beck and call of Senator Edwin C. Johnson … who persists in issuing communiques on what the commission should or should not do in highly technical matters’.33

Johnson sent Gould a lengthy reply, in which he contended that the problems in television stemmed from the FCC’s previous ‘injudicious half-baked’ allocation decisions. ‘I do not deny that I watch the FCC’s actions closely’, Johnson noted, ‘the law directs me to do that’. However, he said he was not responsible for the freeze or its prolonged activation. ‘I am not omnipotent’, he closed, ‘I cannot alter scientific facts’. Gould included a portion of Johnson’s reply in his 12 February 1950, column, in which he again chided the senator for his inordinate pressure on the FCC to approve colour broadcasting, noting that ‘[i]mpromptu opinions’ were not the same as ‘exercising broad supervision over the FCC’s affairs’. Johnson responded by reading Gould’s columns into the Congressional Record and accusing him of allowing his columns to be ‘prostituted by private interests’. ‘[T]he campaign to lift the freeze is an artificial fog’, Johnson contended, ‘spread by expert, high-powered propaganda artists’ attempting to pressure Congress into holding
hearings to force the FCC to end the freeze. ‘If there is to be an investigation of television by Congress, let us have one which goes into monopoly controls and patent-holding devices and restrictions … [to] determine who is calling the shots, and why’, he said. He concluded, ironically, by expressing his confidence that ‘the Commission will proceed with their hearings without becoming ruffled or stampeded by high-pressure tactics’.34

The end of the freeze and the reversal on colour

The freeze dragged on throughout 1950 and 1951, with Johnson growing increasingly frustrated over the continuing delays which he said had ‘roused the people to a point that I have not observed in many years’. When the FCC announced its intention to lift the freeze by the end of April 1952, Johnson said that Congress would take matters into its own hands if the commission did not meet that deadline. Finally, on 14 April 1952, the FCC issued its ‘Sixth Report and Order’ lifting the freeze. A nationwide table of assignments provided for more than 2000 stations – 1436 UHF and 617 VHF – in nearly 1300 markets. Johnson immediately set out to obtain additional funding so that the commission could hire additional hearing examiners to process applications and get stations on the air more quickly. In a letter to the Senate Appropriations Committee, he contended that television was ‘certain to have a powerful cultural influence on the American people’:

Television is the finest media of mass communications conceived by man. Besides being a fascinating form of entertainment and education, television is certain to become a major element in the American economy with respect to the number of people employed, money invested and a new and forceful device through which products are sold to the general public.

Johnson also testified before the appropriations committee, and was eventually able to secure an additional $300,000 for the commission. In the meantime, he worked to get television on the air in Denver, which was at the time the largest US city without a television station. Through his efforts, KFEL went on the air in the Colorado capital just ten days after the FCC had announced post-freeze construction permits.35

Meanwhile, the NPA relaxed its ban on colour equipment, but by then it seemed CBS’s moment had already passed. RCA continued to publicize its work on a compatible colour system, while manufacturers flooded the market with black-and-white sets. In early 1953, the National Television Systems Committee (NTSC) embraced what was in essence RCA’s latest iteration of compatible colour, which by most accounts had finally caught up to the quality of the CBS system. In March 1953, Stanton announced that CBS would not continue development of its colour system without further FCC guidance and that it would support the NTSC system if the FCC adopted it. Seeing the writing on the wall, the FCC reversed its 1951 decision and approved the NTSC (nee RCA) system at the end of 1953. Johnson now turned his attention to encouraging Sarnoff, even though less than a year earlier he had pledged ‘not to be coaxed, bribed or bluffed’ by RCA’s patent monopoly. ‘Many will throw rocks at you because of your determination and
strong militant effort to give colour television to the people now’, Johnson wrote. ‘Do not let them dismay you … Your efforts in devising a compatible colour system will long be remembered as a magnificent achievement of science’.

Johnson relinquished the chair of the Committee on Interstate and Foreign Commerce after Republicans re-took control of the Senate at the end of 1952. He would continue to speak out on communications issues, however, pressing for implementation of colour broadcasting and measures that would strengthen the position of newly minted UHF broadcasters. He remained on the committee until 1955, when he returned to Colorado and was re-elected governor. Even as governor, he continued to tangle with the FCC, defying the commission’s orders and authorising a series of ‘booster’ stations to broadcast television signals into remote areas of the state. Eventually, the FCC backed down and approved operation of the booster stations.

Conclusion

Examining Edwin Johnson’s involvement with the television freeze during his tenure as chair of the Senate Interstate and Foreign Commerce Committee provides useful insight for scholars of American broadcast history. The present study shows that the position afforded ample power for Johnson to set the broad terms for discussing the freeze and to influence the subsequent debate. Although it is impossible to say with certainty what effect Johnson’s actions had on the FCC, it is clear that he established himself as an important player in the rulemaking process. *Broadcasting* magazine, perhaps the closest contemporary observer of the freeze, contended that Johnson had become ‘the self-appointed conscience of communications’, and that his Senate committee ‘functioned as super FCC’.

In this regard, Johnson’s initial letter to FCC chairman Wayne Coy, delivered just weeks after the senator had assumed his position as committee chair, helped set the terms for the debate that would last for the next four years. By invoking the danger of monopoly, and specifically how the continued development of monochrome VHF absent the concurrent development of colour and UHF would tend to nurture that monopoly, Johnson made the freeze about something more than merely a delay caused by bureaucratic inefficiency. The fact that Johnson released the letter to the press helped place the issue before the potential viewing public as well. Throughout the discussion of the freeze, Johnson continually invoked fears of monopoly inherent in sticking with the monochrome VHF-only system, while pointing out the great promise of colour (and – to a lesser extent – UHF) to improve the public’s television viewing experience.

The main target of Johnson’s anti-monopoly attention was, of course, RCA. However, neither he nor the FCC seemed willing to take the company on directly, possibly because, as Geisst points out, RCA had a good reputation with consumers and a close relationship with the US military. Thus, Johnson rarely mentioned the conglomerate by name in public criticisms, preferring instead more general identifiers such as ‘selfish interests’ or ‘the high and mighty’. Further, Johnson maintained cordial relations with RCA personnel throughout the freeze and even praised David Sarnoff upon the FCC’s approval of the company’s colour system.
Despite having requested and received a trove of information about RCA’s likely violations of antitrust law from the FCC in 1949, Johnson chose not to hold hearings and not to make any specific charges against the company. In the end, Johnson found his stance against perceived monopoly power at odds with his even greater desire to see television proliferate beyond its currently very limited reach. Similarly, the FCC had been repeatedly apprised of the RCA’s likely violations of antitrust laws over the preceding decade by its in-house patent staff and had chosen not to take any action.\(^3\) 

Perhaps Johnson’s most important legacy in broadcast regulation, then, was that he made it possible for the FCC to implement two difficult decisions that actually did strike against RCA’s power. It is difficult to imagine the commission approving the incompatible CBS colour system – or any colour system, for that matter – in the early 1950s absent industry support and public enthusiasm had Johnson not been so vocal in his support for it, although, as Slotten notes, commissioners Coy and Jones were also sympathetic to Johnson’s cause.\(^3\) Similarly, Johnson’s was among the few voices that opposed lifting the VHF portion of the freeze before dealing with UHF. Both decisions were, of course, fraught with problems, as documented elsewhere.\(^4\) However, this study has shown how Johnson was able to in effect provide cover for the FCC to make decisions that went against the industry’s dominant forces. He did this by couching the freeze issues in terms of monopoly power and nationwide service and by embracing the role of colour’s most enthusiastic supporter. Most of all, Edwin Johnson’s ‘paternalistic eye’ drove him to act as both a critic and a defender of the commission, unleashing scathing attacks on its ineptitude and timidity but also providing support when factions of the industry, government or the press criticized it.

Disclosure statement

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Notes

1. See John Osbon, ‘49 on Capitol Hill’, Broadcasting, 17 October, 1949, 28; and “Big Ed” Chases a New Fire …’, Broadcasting, 15 February, 1954, 130.
2. Cartoon, Broadcasting, 27 June, 1949, 24.
3. See William T. McCarthy, HORSE SENSE: The Divided Politics of Edwin C. Johnson, 1923–1954 (M.A. Thesis, University of Northern Colorado, 1996); and Patrick F. McCarty, Big Ed Johnson of Colorado: A Political Portrait (M.A. Thesis, University of Colorado, 1958).
4. Unfortunately, Johnson ordered that most of his personal and professional correspondence be destroyed upon his death. However, records of the Senate Interstate and Foreign Commerce, records of the Federal Communications Commission, the Wayne Coy papers and contemporary press accounts were used to re-construct Johnson’s correspondence and activities.
5. McCarthy, ‘HORSE SENSE’, 14.
6. The committee became the Committee on Interstate and Foreign Commerce in 1947.
7. McCarty, ‘Big Ed Johnson of Colorado’, 104, 107.
8. S. Res. 294, 9 June, 1938, Congressional Record, 75th Cong. 3d Sess., 8585.
9. See Erwin G. Krasnow, Lawrence D. Longley and Herbert A. Terry, The Politics of Broadcast Regulation, 3rd ed. (New York: St. Martin’s Press, 1982), 87–8, 121; Reed W. Smith, Regulating the Regulators: The Conflict between the Congressional Oversight Subcommittee and the FCC, Journal of Broadcasting & Electronic Media 54, no. 2 (2010): 195; Walter Emery, Broadcasting and Government: Responsibilities and Regulations (East Lansing: Michigan State University Press, 1971), 469; Susan L. Brinson, The Red Scare, Politics, and the Federal Communications Commission, 1941–1960 (Westport, CT: Praeger, 2004), 15; Robert J. Williams, ‘The Politics of American Broadcasting: Public Purposes and Private Interests’, Journal of American Studies 10, no. 3 (December 1976): 336; and James Baughman, Television’s Guardians: The FCC and the Politics of Programming, 1958–1967 (Knoxville: The University of Tennessee Press, 1985).
10. See Rufus Crater, ‘Clears Blasted’, Broadcasting, March 1, 1948, 13; and ‘Johnson Bill’, Broadcasting, 29 March, 1948, 108.
11. See Robert W. McChesney, Telecommunications, Mass Media, and Democracy: The Battle for the Control of U.S. Broadcasting, 1928–1935 (New York: Oxford University Press, 1993); Nathan Godfried, WCFL, Chicago’s Voice of Labor, 1926–78 (Urbana: University of Illinois Press, 1997); and James C. Foust, Big Voices of the Air: The Battle Over Clear Channel Radio (Ames: Iowa State University Press, 2000).
12. See Jennifer M. Proffitt and Michael Brown, ‘Regulating the Radio Monopoly: Ewin Davis and his Legislative Debates, 1923–1928’, Journal of Radio Studies 11, no. 1 (June 2004): 106–7; Smith, ‘Regulating the Regulators’, 198; and Donald G. Godfrey and Louise M. Benjamin, ‘Radio Legislation’s Quiet Backstage Negotiator’: Wallace H. White, Jr., Journal of Radio Studies 10, no. 1 (2003): 94.
13. William Boddy, Fifties Television: The Industry and its Critics (Urbana: University of Illinois Press, 1990), 35.
14. See Edwin Armstrong to Edwin Johnson, 5 September, 1951, A-TV, Box 36, Sen. 82A-F11, RG 46 National Archives, Washington, DC (hereafter RG 46); and Bruce M. Owen, Jack H. Beebe and Willard Manning, Television Economics (Lexington, MA: D.C. Heath) 12.
15. Godfrey and Benjamin, 99.
16. Johnson W.E. Govia, 16 April, 1952, G-TV, Box 36, Sen. 82A-F11, RG 46.
17. Johnson to Wayne Coy, 15 February, 1949, Communications: American Cable and Radio Corp. to FCC, Box 21, Sen. 81A-F10, RG 46.
18. Coy to Johnson, 25 February, 1949, 92–4f, Jan. 1, 1947 to August 31, 1949, Box 130, A1-E100B General Correspondence, 1947–1956, RG 173, National Archives, College Park, MD (hereafter RG 173), 2, 4.
19. A Report on Communications, 20 April, 1949, Congressional Record, 81st Cong, 1st Session, 4781–4791.
20. See Rufus Crater, ‘FCC Taken to Woodshed’, Broadcasting, 25 April, 1949, 23; and Johnson Still Battling, Broadcasting, 25 April, 1949, 38.
21. See FCC Announces Plans for Further Television Proceedings, 26 May, 1949, 92–4f, Box 130, A1-E100B General Correspondence, 1947–1956, RG 173; Rufus Crater, ‘Video Standards Showdown’, Broadcasting, 30 May, 1949, 24; Advisory Committee on Color Television, Present Status of Color Television (Washington, DC: U.S. Government Printing Office, 1950), III; Edwin Johnson to Robert G. Kramer, 8 March, 1949, Box 130, A1-E100B General Correspondence, 1947–1956, RG 173; and ‘Color’, Broadcasting, 14 November, 1949, 65.

22. ‘Composite Color System’, Broadcasting, 20 March, 1950, 68; Color Progress, Broadcasting, 25 December, 1950, 72; Advisory Committee on Color Television, 5, 38.

23. Memorandum, 4 August, 1950, Color TV Columbia Broadcasting Corp., Box 40, Sen. 82A-F11, RG 46.

24. See Johnson to Coy, 4 August, 1950, and Coy to Johnson, 7 August, 1950, both in Vol. 18, Box 78, Docket 8736, A1-E120 Docketed Case Files, RG 173.

25. See First Report of Commission, 1 September, 1950, 57, Volume 3, Box 261, A1-E120 Docketed Case Files, RG 173; and Color Television, Congressional Record, 1950, September 5, 1950, A6363.

26. ‘See Battle Lines Form on Color’, Broadcasting, 23 October, 1950, 55, 80; Isidor Goldberg to Johnson, 10 November, 1950, Color television legal, Box 40, Sen. 82A-F11, RG 46; and Johnson to Goldberg, 13 November, 1950, Color television legal, Box 40, Sen. 82A-F11, RG 46.

27. See Johnson to Frank Stanton, 25 June, 1950 and Stanton to Johnson, 28 June, 1951, both in Television Code of Ethics, Box 40, Sen. 82A-F11, RG 46.

28. Coy, Draft Memorandum, nd., FCC (1952), Box 6, Papers of albert Wayne Coy, Franklin D. Roosevelt Library, Hyde Park, New York.

29. Johnson to Charles Wilson, 14 December, 1951, Television-General, Box 36, Sen. 82A-F11, RG 46.

30. See ‘Coy for VHF, no UHF’, Broadcasting, 17 September, 1951, 25; and Johnson to Coy, 12 November, 1949, Volume 13, Box 73, A1-E120 Docketed Case Files, RG 173.

31. Johnson to Kramer, 8 March, 1949.

32. See Daniel Noble to Coy, 13 March, 1949, Kenneth Wilson to Coy, 18 March, 1949 and Coy to Kenneth Wilson, 29 March, 1949, all in 92–4f, Box 130, A1-E100B, RG 173.

33. Jack Gould, ‘Time for Action’, New York Times, 29 January, 1950, p. 83.

34. Television Freeze, Congressional Record, Congressional Record 81st Cong, 2nd Session, 16 February, 1950, 1863–1877.

35. See Johnson to Paul A. Walker, 4 April, 1952, Television Allocation and Freeze 2d Session, Box 37, Senate 82A-F11, RG 46; ‘If No Thaw …’, Broadcasting, 7 April, 1952, 88; Edwin Johnson to Burnet Maybank, 19 May, 1952, Colorado Station, Box 41, Senate 82A-F11, RG 46; and Douglas Gomery, ‘Television Sweeps the Nation: The Story Behind the Pioneering Post-"Freeze" Stations’, Television Quarterly 32, no. 2/3 (Summer/Fall 2001): 80.

36. Johnson to George Saunders, 18 February, 1952, S-TV Colorado, Box 41, Sen. 82A-F11, RG 46; and Color Promptly as Possible Sarnoff Tells Johnson, Broadcasting, 20 April, 1953, 9.

37. See ‘Paying the fiddler; or Just Fiddling?’, Broadcasting, 15 March, 1954, 132; and ‘Closed Circuit’, Broadcasting, 27 October, 1952, 6.
38. See Charles R. Geisst, *Monopolies in America: Empire Builders and Their Enemies from Jay Gould to Bill Gates* (New York: Oxford University Press, 2000), 106; Closed Circuit, *Broadcasting*, 11 April, 1949, 4; and Bernard Schwartz, *The Professor and the Commissions* (New York: Knopf, 1959), 134–5.

39. Hugh Slotten, *Radio and Television Regulation: Broadcast Technology in the United States, 1920–1960* (Baltimore: The Johns Hopkins University Press, 2000), 205.

40. See Baughmann, *Television’s Guardians*; Boddy, *Fifties Television*; Susan L. Brinson, ‘Missed Opportunities: FCC Commissioner Frieda Hennock and the UHF Debacle’, *Journal of Broadcasting and Electronic Media* 44, no. 2 (2000): 248–67; and David E. Fisher and John Fisher, *Tube: The Invention of Television* (Washington, DC: Counterpoint, 1996).

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