

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

In the Matter of)	
)	
Amendment of Section 74.1231(i) of the Commission’s Rules on FM Broadcast Booster Stations)	MB Docket No. 20-401
)	
Modernization of Media Initiative)	MB Docket No. 17-105
)	
Amendment of Section 74.1231(i) of the Commission's Rules on FM Broadcast Booster Stations)	RM-11854
)	

**REPORT AND ORDER AND
FURTHER NOTICE OF PROPOSED RULEMAKING**

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By the Commission: Commissioners Carr and Starks issuing separate statements.

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I. INTRODUCTION

1. In this *Report and Order*, the Commission adopts changes to the Commission’s rules that will allow FM booster stations to originate programming, subject to future adoption of processing, licensing, and service rules as proposed in the *Further Notice of Proposed Rulemaking* (Further NPRM).¹ For the reasons explained below, we find that it is in the public interest to allow FM and LPFM² broadcasters to use booster stations to originate content on a limited basis, subject to the restrictions set out in the *Report and Order*.³

2. FM boosters currently serve the limited purpose of rebroadcasting primary FM (or LPFM) stations in areas of poor reception. GeoBroadcast Solutions, LLC (GBS) has developed technology that is designed to allow licensees of primary FM broadcast stations to originate content using FM boosters and is intended to do so without raising the potential for harmful co-channel interference to the reception of the primary station’s signal outside the coverage area of the booster station or to previously authorized secondary stations.⁴ GBS proposes that this content origination technology will

¹ We note that some of the proposals in the Further NPRM implicate all boosters, not only program originating boosters. The proposals in the Further NPRM that implicate all boosters include amending section 74.1204(f) to include a mechanism to address predicted interference while booster construction permit applications remain pending; clarifying section 74.1231(j) that grandfathered superpowered FM stations are able to implement booster stations only within the standard maximum contour for their class of station; codifying the requirement that booster stations must suspend operations any time their primary stations are not broadcasting and to file notices of suspended operation; and modifying section 74.1232 to clarify that a booster station may not broadcast programming that is not permitted by its FM primary station’s authorization.

² Both full-service FM and low power FM (LPFM) stations are authorized to operate booster stations. For convenience, we reference below only FM stations. However, our findings herein and the proposals in the Further NPRM apply to both full-service FM and LPFM stations.

³ While we conclude in the Report and Order that program originating boosters serve the public interest and we adopt certain rules herein to govern such booster operations (such as a three-minute per hour cap), stations will not be permitted to construct or operate program originating boosters pursuant to these rules until we adopt final service rules in response to the Further NPRM and such rules have been reviewed by the Office of Management and Budget. Pending adoption and OMB review of such rules, stations can pursue experimental authorizations pursuant to Part 5 of our rules. See *infra* paras. 70-71.

⁴ See Petition for Rulemaking of GeoBroadcast Solutions LLC, RM-11854 (filed Mar. 13, 2020) (Petition) at 9-13.

allow broadcasters to air “geo-targeted” content⁵ different from the primary station’s signal to specific areas within the primary station’s service contour. GBS argues that geo-targeted broadcasting can deliver significant value to broadcasters, advertisers, and listeners in distinct communities by broadcasting more relevant localized programming and information.⁶ Stations choosing to use this technology might, for limited portions of each broadcast hour, air advertisements from businesses that wish or can only afford to focus their reach on small geographic areas, and/or might air hyper-local news and weather reports most relevant to a particular community. GBS further observes that many other types of media, such as online content providers, cable companies, ATSC 3.0 television stations, and newspapers are able to differentiate their content geographically, but no such option exists for radio broadcasting.⁷ GBS filed a petition for rulemaking (Petition) seeking a rule change to allow FM boosters to originate such geo-targeted content,⁸ which it argues would enhance the ability of FM broadcasters, especially small and minority broadcasters, to compete in their local advertising markets. Upon consideration of supportive and opposing comments,⁹ we find it would serve the public interest to allow FM broadcasters to originate content on boosters as set out below. Moreover, in order to allow us to authorize broadcasters to offer this service on a permanent basis, we address a number of processing, licensing and service issues through the Further NPRM.

II. BACKGROUND

3. **The FM Booster Service.** FM boosters are low power, secondary stations that operate in the FM broadcast band. The Commission created the FM booster service in 1970¹⁰ and last made significant updates to FM booster rules in 1987.¹¹ The purpose of FM boosters is to improve signal strength of primary FM stations in areas where reception is poor due to terrain shielding or distance from the transmitter.¹² Booster stations must be licensed to the same licensee as the booster’s primary station, operate on the same frequency as the primary station, and rebroadcast the signal of the primary station within the primary station’s protected contour.¹³ The Commission’s rules prohibit booster stations from

⁵ Geo-targeted content, as the term is used herein, is that which can be heard only within a portion of an FM station’s total service area covered by the signal of a co-channel FM booster station. We also refer to the technology generally as geo-casting by a program originating booster.

⁶ Petition at 4.

⁷ *Id.*, Exhibit D at 6-10.

⁸ *Id.*

⁹ Comments regarding the Petition were also filed in the Commission’s Media Modernization docket (MB Docket No. 17-105), and we therefore incorporated the relevant comments from that docket into this proceeding.

¹⁰ *See Amendment of Part 74 of the Commission's Rules and Regulations to Permit the Operation of Low Power FM Broadcast Translator and Booster Stations*, Report and Order, 20 R.R.2d (P & F) 1538 (1970) (*Low Power FM Broadcast Translator and Booster Stations*).

¹¹ *See Amendment of Part 74 of the Commission's Rules Concerning FM Booster Stations and Television Booster Stations*, Report and Order, 2 FCC Rcd 4625 (1987) (amending the “FM booster rules to permit substantial increases in the output power of FM booster stations and to eliminate the restriction that such stations may only rebroadcast signals received over-the-air.”). In 2020, the Commission amended its rules to expand the ability of LPFM stations to operate boosters. *Amendments of Parts 73 and 74 to Improve the Low Power FM Radio Service Technical Rules*, Report and Order, 35 FCC Rcd 4115 (2020).

¹² Traditionally, an FM broadcast station transmits its signal from a single, elevated transmission site central to its protected service contour. This results in a stronger signal near the transmitter and a weaker signal as the distance from the transmitter increases. Intervening terrain can also reduce signal strength (i.e., terrain shielding), regardless of the distance from the transmitter. *See* Petition at 7-8.

¹³ 47 CFR § 74.1231(i).

originating content.¹⁴ A primary station can apply at any time for authorization to build any number of FM booster stations but, given the limited purpose of FM boosters and the risk that booster stations will cause co-channel interference to their primary station, the demand has traditionally been quite limited. As a secondary service, FM booster stations are not permitted to cause adjacent channel interference to other primary services or to previously authorized secondary stations.¹⁵ Although the Commission's rules allow a booster to cause some interference to its own primary station outside of its community of license,¹⁶ the Commission has long urged licensees to engineer boosters in a manner that would limit such interference.¹⁷

4. **Petition for Rulemaking and Testing.** GBS filed the Petition on March 13, 2020,¹⁸ proposing to give FM broadcasters the option to use boosters to originate programming to specific zones within their stations' service area.¹⁹ GBS proposes to allow program origination for a limited period totaling three minutes per hour. The Petition recommends that we amend section 74.1231(i) of the Commission's rules, which currently prohibits independent transmissions by FM boosters.²⁰ GBS envisions booster program origination would be voluntary, and the content would be available only in the specific part of the primary station's protected service contour served by the booster station. GBS proposes that we require the programming of the booster station and that of the primary station must remain "substantially similar,"²¹ which GBS defines as the booster's retransmission of the primary station except for five percent of each hour. During that limited period, GBS proposes that we allow the booster

¹⁴ *Id.* Section 74.1201(f) defines an FM booster station as a station "operated for the sole purpose of retransmitting the signals of an FM radio broadcast station, by amplifying and reradiating such signals, without significantly altering any characteristic of the incoming signal other than its amplitude." 47 CFR § 74.1201(f). *See infra* note 20.

¹⁵ *Id.* § 74.1203(a).

¹⁶ *Id.* § 74.1203(c) ("An FM booster station will be exempted from the provisions of paragraphs (a) and (b) of this section to the extent that it may cause limited interference to its primary station's signal, *provided* it does not disrupt the existing service of its primary station or cause such interference within the boundaries of the principal community of its primary station.").

¹⁷ *Low Power FM Broadcast Translator and Booster Stations*, 20 R.R.2d 1538 at para. 20.

¹⁸ The filing was announced by public notice on April 2, 2020. *See* Consumer & Governmental Affairs Bureau Reference Information Center Petition for Rulemakings Filed, Public Notice, Rep. No. 3145 (CGB Apr. 2, 2020).

¹⁹ Stations would create the zones using carefully located and synchronized booster transmitters and appropriately designed antennas to overlay a stronger, geographically localized signal in the targeted region. *See* Petition at 5, 8-9.

²⁰ 47 CFR § 74.1231(i) ("An FM broadcast booster station is authorized to retransmit only the signals of its primary station which have been received directly through space and suitably amplified, or received by alternative signal delivery means including, but not limited to, satellite and terrestrial microwave facilities. The FM booster station shall not retransmit the signals of any other station nor make independent transmissions, except that locally generated signals may be used to excite the booster apparatus for the purpose of conducting tests and measurements essential to the proper installation and maintenance of the apparatus."). Although GBS claims that only a targeted change to section 74.1231(i) is necessary to facilitate this proposal—which does not seek any changes to the rules regarding primary stations or FM translators—and that the proposed booster station operation is compatible with all existing interference rules, Petition at 7-8, we discuss below in the Further NPRM a number of proposed rule changes that we find are necessary in order for us to authorize boosters to originate content.

²¹ Petition at Exh. A ("[T]he programming must be the same except for advertisements, promotions for upcoming programs, and enhanced capabilities including hyper-localized content (e.g., geo-targeted weather, targeted emergency alerts, and hyper-local news)."). The definition of substantially similar advanced by GBS was derived from the rules regarding broadcast television stations' voluntary transition to the ATSC 3.0 transmission standard. *Id.* at 20. Stations that transition to ATSC 3.0 must simulcast their primary signals in ATSC 1.0 format, and that simulcast must be "substantially similar" to the signal aired in ATSC 3.0. *See, e.g.*, 47 CFR § 73.3801(b)(1).

to originate geo-targeted advertisements, promotions for upcoming programs, and other hyper-localized content.²² GBS suggests its proposal would benefit small and minority-owned broadcasters, because potential advertisers that currently find it prohibitively expensive to buy spots reaching a radio station's whole service area might purchase lower-cost airtime reaching a more targeted area, thereby becoming a new source of station revenue. GBS asserts that its proposal would not cause adjacent channel interference to other stations and that any co-channel interference between a booster and its own primary station would be minimal.²³

5. Prior to filing the Petition, GBS tested its technology on a limited basis in the Salt Lake City, Utah, market, an area with mountainous terrain; in Avon Park, Florida, an area with flat terrain; and in the more urban Milwaukee, Wisconsin, area.²⁴ GBS also enlisted NPR Labs and Towson University to conduct listening tests.²⁵ The Petition claimed these initial tests showed that the transition area—*i.e.*, the boundary between the primary station and booster coverage zones—can be minimized to affect only a tiny area, and for a very limited period of time, such that most listeners would never notice the transition.²⁶ The Petition does not propose any changes to our interference standards, propose any remediation requirements to address proposed or actual interference, or identify any new procedures by which stations would apply for new boosters.

6. On December 1, 2020, the Commission released the NPRM seeking comment on whether—and if so, how—to change FM booster station rules to permit origination of content. The NPRM asked whether booster program origination may result in self-interference²⁷ that would be disruptive to listeners and whether there are alternatives to GBS's proposal. The NPRM also invited comment on whether to require programming originated by the FM booster station to be “substantially similar” to the primary station's programming, and how to define that term. The NPRM sought comment on the potential impact of GBS's proposal on primary station broadcasts, the Emergency Alert System (EAS), and HD Radio broadcasts.²⁸ Finally, the NPRM asked commenters to address the potential public interest implications of geo-targeted content on localism, diversity, and competition in the media marketplace.

7. The Commission received supportive and opposing comments from established industry stakeholders, broadcasters (large and small), civil rights advocates, radio engineers, and members of the listening public. Many commenters conclude the GBS proposal is based on sound technology that could provide more locally relevant information to listeners while improving revenues for stations voluntarily adopting it, especially small and minority-owned stations.²⁹ However, numerous other commenters raise technical concerns about co-channel interference that might impede EAS messages,³⁰ disrupt digital HD

²² Letter from Gerard J. Waldron, Counsel, GBS, to Marlene H. Dortch, Secretary, FCC, RM-11854, at 1-2, 4-5 (filed July 17, 2020).

²³ Petition at 9-10.

²⁴ The tests used stations KDUT(FM), Randolph, Utah; WWOJ(FM), Avon Park, Florida; and WILL(FM), Union Grove, Wisconsin.

²⁵ Petition at 9.

²⁶ *Id.*

²⁷ *Amendment of Section 74.1231(i) of the Commission's Rules on FM Broadcast Booster Stations*, Notice of Proposed Rulemaking, 35 FCC Rcd 14213 (2020) (NPRM). We use the term “self-interference” to refer to the booster causing interference to the signal of its own primary station.

²⁸ NPRM, 35 FCC Rcd at 14,217-19, paras. 11-17, 14,220, para. 23, and 14,222, para. 31.

²⁹ *See, e.g.*, Comments of Emmis Communications; Comments of Way FM; Comments of BIA Advisory Services (BIA); Comments of Roberson & Associates, LLC (Roberson).

³⁰ Comments of Federal Emergency Management Agency (FEMA).

Radio signals,³¹ raise the overall FM noise floor,³² and generally degrade the listener experience.³³ Opposing commenters also raise concerns about whether broadcasters would be harmed by lower advertising rates in markets where one or more competitors adopt program originating booster technology.

8. After the comment period, which closed on March 21, 2021, GBS responded to concerns about the sufficiency of the pre-NPRM testing by conducting two additional rounds of tests. GBS partnered with the licensees of stations KSJO(FM) and WRBJ-FM to test the technology in San Jose, California, and Jackson, Mississippi, pursuant to experimental authority.³⁴ The new tests examined the performance of program originating boosters under several variables, including reception in vehicles traveling at different speeds, on different roads, and at various times of day. In San Jose, GBS tested the performance of program originating boosters in a hilly, rural area and considered EAS alerts and the primary station's HD Radio transmissions. In contrast, the Jackson test considered performance in a flat area with urban and suburban portions. Because the Jackson primary station operates only in analog, the Jackson test did not consider compatibility with HD Radio transmissions. GBS states that it designed the tests to reflect the full range of geographic features that broadcasters in certain markets may encounter as well as techniques and basic engineering principles that broadcasters typically employ to adapt to those matters.³⁵ GBS reported the results of the San Jose and Jackson tests in September 2021³⁶ and March 2022, respectively.³⁷ Because the test reports contain information that was unavailable during the original public comment cycle, and because GBS submitted those reports to address concerns in the comments about its technology, the Media Bureau (Bureau) invited public comment on the new GBS tests as well as any remaining concerns about GBS's proposed use of booster stations.³⁸

9. Supporters of the GBS proposal assert the San Jose and Jackson tests demonstrated the ability of program originating boosters to minimize self-interference as well as avoid harming EAS alerts or HD Radio broadcasts.³⁹ Opponents disagree, contending the tests were optimized in favor of the GBS proposal and failed to adequately explore many potential zones of interference.⁴⁰

³¹ Comments of Xperi Holding Corp. (Xperi).

³² See Reply Comments of the New York State Broadcasters Ass'n at 3-4; Comments of Alaska Broadcasters Ass'n, Colorado Broadcasters Ass'n, Oregon Ass'n of Broadcasters, and Puerto Rico Broadcasters Ass'n (Alaska Broadcasters Comments) at 7.

³³ See, e.g., Comments of National Association of Broadcasters (NAB).

³⁴ See File Nos. BESTA-20210203AAI (granted Feb. 8, 2021) as extended (San Jose); EXP-20211129AAN (granted Jun. 17, 2021) as extended (Jackson).

³⁵ Reply Comments of GBS at 3.

³⁶ See Roberson and Associates, LLC, KSJO Demonstration System: Geo-Targeted FM/HD Broadcast Technical Report, attached to Letter from Gerard J. Waldron, Covington & Burling LLP, to Marlene H. Dortch, Secretary, FCC (Sept. 17, 2021) (San Jose Test Report) (https://www.fcc.gov/ecfs/file/download/DOC-5efda36b20400000-A.pdf?file_name=KSJO%20Technical%20Report.pdf).

³⁷ See Roberson and Associates, LLC, WRBJ Demonstration System: Geo-Targeted FM Broadcast Technical Report, attached to Letter from Gerard J. Waldron, Covington & Burling LLP, to Marlene H. Dortch, Secretary, FCC (Mar. 30, 2022) (Jackson Test Report) (https://www.fcc.gov/ecfs/file/download/DOC-5ff6e91e66000000-A.pdf?file_name=GeoBroadcast%20WRBJ%20Technical%20Report%203.30.22.pdf).

³⁸ Media Bureau Seeks Comment on Recent Filings Concerning Use of FM Boosters for Geo-Targeted Content, Public Notice, DA 22-429 (MB Apr. 18, 2022).

³⁹ See, e.g., Comments of Flagstaff Radio, Inc.; Reply Comments of Octave Communications.

⁴⁰ See, e.g., 2022 Comments of NAB.

III. DISCUSSION

10. The issues raised in this proceeding fall into three broad categories: (1) non-technical matters such as the advantages and disadvantages of program originating boosters from an economic and public interest perspective; (2) technical issues such as whether program originating boosters, if properly engineered, would cause harmful interference to their primary station or adjacent channel stations; and (3) administrative matters that the Commission would need to address in order to authorize program originating boosters and respond to any resulting operational issues. The Report and Order portion of this document resolves the first two categories by determining that program originating boosters limited to originating programming for three minutes per hour would serve the public interest and that concerns about the technology's impact on advertising revenue of other broadcasters and harmful interference are speculative and, ultimately, do not counsel against granting the relief provided herein. The Report and Order also concludes that properly engineered program originating boosters will not cause interference to the primary station or adjacent channel stations. Any interference concerns that arise in individual circumstances can be addressed by the Bureau through conditions imposed as part of the authorization process. The Further Notice of Proposed Rulemaking section seeks additional comment on proposed processing, licensing, and service rules required to authorize broadcasters to originate programming on boosters on a permanent basis.

A. Report and Order.

11. In this Report and Order, we conclude that authorizing program originating boosters would advance the public interest by providing broadcasters and listeners options for more targeted and potentially more varied advertising and content that many stations are not able to provide today due to prohibitions in federal law.⁴¹ We also recognize that many parties raise concerns about interference and the impact program originating boosters may have on the radio industry. Based on our review of the record, however, and weighing the competing interests in this proceeding, we find that program origination over boosters will advance the public interest with benefits that outweigh the concerns expressed in the comments, subject to the following safeguards and limitations: a limitation on program origination to three minutes per hour (five percent of each hour); a notification requirement for program originating boosters; a requirement for program originating boosters to receive and broadcast all emergency alerts in the same manner as their primary station; and a limit on the number of boosters a station can operate.⁴² We note this use of boosters will be voluntary, and find that granting this level of flexibility to broadcasters is consistent with our ongoing policy goal of supporting the continued viability of the radio industry for the benefit of the listening public and helping to ensure that radio remains competitive with other technologies and services. To the extent that broadcasters choose to use boosters in this way, however, they will be required to follow the rules that we adopt herein as well as any conditions on operations that the Commission might impose when it grants authorizations.

1. Definition of a Program Originating FM Booster Station

12. We adopt a new definition in our rules to create a distinction between a booster station that serves purely as a fill-in station and a "Program Originating FM Booster Station" that serves primarily as a fill-in station but that also originates programming on a limited basis. Our current rules specify that booster stations are restricted to the retransmission of the existing broadcast of an FM

⁴¹ We note that program originating boosters do not provide the only option for hyper-local programming. The Commission created the LPFM service specifically for that purpose, and it serves the needs of targeted communities of listeners. See *Creation of Low Power Radio Service*, Report and Order, 15 FCC Rcd 2205, 2208 (2000) (subsequent history omitted) (*LPFM Order*). LPFM stations must operate noncommercially and, thus, cannot carry hyper-local (or any type of) advertising.

⁴² In the Further NPRM, we seek comment on the details attendant to certain of these limitations and safeguards as well as on service rules for program originating boosters.

station.⁴³ A booster station may not alter the programming it receives from its primary FM station, and simply rebroadcasts the primary station's programming in its entirety. Program originating booster stations cannot adhere to this existing definition.

13. In the Petition, GBS suggested that the Commission could authorize program origination by boosters with a single change to a rule pertaining to FM boosters.⁴⁴ The NPRM focused on this approach and asked parties to comment on, “[W]hether to require programming originated by the FM booster station to be ‘substantially similar’ to the primary station’s programming, and how to define this term.”⁴⁵ Although many of the commenters adopt this “substantially similar” terminology, we conclude that this definition, borrowed from the rules governing the digital television transition from ATSC 1.0 to 3.0, is inapplicable to program originating boosters.⁴⁶ Instead, we adopt a definition of “program originating booster” in new section 74.1201(f)(2) of our Rules, and use that definition to apply other parts of our rules to these types of boosters.

14. The definition we adopt herein limits program originating boosters to no more than three minutes per hour of booster-originated content. Although the Petition proposed the “substantially similar” language borrowed from the ATSC approach, GBS subsequently clarified that program originating boosters should be limited to five percent of each broadcast hour.⁴⁷ GBS asserted this approach would be the most consistent with existing industry practices.⁴⁸ Commenters supporting the proposal for program originating boosters did not raise objections to the three minute per hour limitation. We believe this three minute per hour limitation provides the best balance between the desire to offer broadcasters the flexibility to originate content on boosters and the need to implement safeguards to minimize the risks of interference as we assess the rollout of this new technology. The three-minute limit appears sufficient to achieve the goals of the new technology. The proposed types of public service uses of program originating boosters, such as hyperlocal weather reports and targeted news, are generally of a nature that we expect it would be possible to present such information within brief time periods. With respect to potential advertising and underwriting uses, a three-minute per hour time limit would allow several smaller businesses to advertise in 15- or 30-second spots on commercial radio or to have their underwriting support acknowledged in short announcements on noncommercial stations. Finally, in defining program originating boosters, we do not limit the type of programming boosters can originate, as GBS had proposed.⁴⁹ GBS proposed such language to demonstrate that booster programming could be

⁴³ 47 CFR § 74.1201(f).

⁴⁴ Petition at 6. GBS proposed amending 47 CFR § 74.1231(i) to add the following text: “The programming aired on the FM broadcast booster station must be ‘substantially similar’ to that aired by its primary station. For purposes of this section, ‘substantially similar’ means that the programming must be the same except for advertisements, promotions for upcoming programs, and enhanced capabilities including hyper-localized content (e.g., geo-targeted weather, targeted emergency alerts, and hyper-local news).” Petition at Exhibit A.

⁴⁵ NPRM at 5.

⁴⁶ Comments of NAB at 20-23.

⁴⁷ Comments of GBS at 12.

⁴⁸ *Id.* (“we modeled this limit on Nielsen’s requirement that a broadcasters’ online stream(s) mirror their over-the-air signal at least 95 percent of the time for online and over-the-air ratings to be aggregated. The proposed rule change is designed to be able to work within the existing metrics of the radio industry, so that broadcasters may take advantage of its benefits without jeopardizing important existing structures, such as ratings.”).

⁴⁹ GBS proposed to define “substantially similar” as programming that must be the same except for advertisements, promotions for upcoming programs, and enhanced capabilities including hyper-localized content (e.g., geo-targeted weather, targeted emergency alerts, and hyper-local news). Petition, Exh. A. *See supra* n. 44. REC argued that such language was unnecessary. *See* Comments of REC Networks at 14 (stating that “we do not see it necessary to

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classified as “substantially similar” to that aired by the primary station, but we are not adopting the “substantially similar” proposed language. We conclude there is no need to implement the approach GBS offered, which we view as mere suggestions of some types of content that broadcasters might, within their own discretion, consider.

2. Public Interest Benefits of Program Originating Boosters.

15. Overall, we find the advantages of program originating boosters outweigh the concerns raised in the comments. Allowing stations to geo-target content potentially increases their ability to create value and deliver it to consumers. The NPRM’s public interest discussion asked commenters to examine the impact of program originating boosters on localism, diversity, and competition. Responsive commenters differ on whether program originating boosters would be beneficial or harmful to stations, advertisers, listeners, the radio industry, and the overall economy. There is general consensus among the commenters that the radio industry has experienced declining revenues over the past decade, and continues to lose advertising market share to other media sources.⁵⁰ However, while supporters view program originating boosters as a solution capable of reversing that trend, opponents believe they would exacerbate these financial difficulties.⁵¹ Given that the technology would be adopted voluntarily and

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provide any specific rule or guidance in respect to what stations can do with their FM Booster stations within those 180 seconds as long as it does not exceed 180 seconds per hour”).

⁵⁰ *E.g.*, Comments of Press Communications, LLC (Press) at 2-4. According to Roberts Radio Broadcasting, LLC (Roberts), radio revenues have decreased from \$18.1 billion to \$9.7 billion in just 15 years. Comments of Roberts at 2.

⁵¹ The National Association of Broadcasters (NAB), which states that many of its members oppose the proposal, suggests that numerous supporting comments are disingenuous because they were filed by the same counsel that also represents GBS and because some of the commenters are small noncommercial broadcasters that NAB believes would have very limited use for program originating boosters. *See* NAB, Notice of Ex Parte Communication (Sept. 22, 2022) at 5-6. We are aware that four licensees indicate they do not support GBS’s proposal, notwithstanding GBS’s counsel’s pleadings on their behalf expressing support for program originating boosters. *See* Letter from Scott Poese, Owner and General Manager, Ranchland Broadcasting, and Warren Epstein, Executive Director of Marketing and Communications, Pikes Peak State College to Marlene H. Dortch, Secretary, FCC, MB Docket No. 20-401 (filed Oct. 11, 2022); Letter from Dan Balla, President, Falls Media LLC, and Andrew DeVall, President, Q-Media Group to Marlene H. Dortch, Secretary, FCC, MB Docket No. 20-401 (filed Oct. 11, 2022). GBS’s counsel, Shainis & Peltzman, Chartered, responds that all of its clients for whom it filed comments, “were supportive of utilizing their names in support of the rulemaking.” Letter from Aaron P. Shainis, Shainis & Peltzman, Chartered, to Marlene H. Dortch, Secretary, FCC, MB Docket No. 20-401, at 2 (filed Oct. 12, 2022). We will treat those four licensees’ comments in support as having been withdrawn. The National Association of Black Owned Broadcasters (NABOB), which had previously supported the Petition, thereafter submitted a notice that it has discontinued its support for program originating boosters. Letter from James L. Winston, President and CEO, National Association of Black Owned Broadcasters, Inc., to Marlene H. Dortch, Secretary, FCC, MB Docket No. 20-401 (filed Oct. 31, 2022). We note that in 2023 NABOB merged with U.S. Black Chambers, Inc. (USBC), which continues to support the GBS proposal. Letter from Ron Busby, Sr., President, U.S. Black Chambers, Inc., to Marlene H. Dortch, Secretary, FCC, MB Docket Nos. 20-401, 171-5 (filed Oct. 30, 2023). Although NABOB has become the USBC Media Network, we will continue to use their name at the time of filing (NABOB). NAB further raises concerns about “fraudulent and deceitful conduct” involving GBS’s principal, Chris Devine, based on past litigation and proceedings before the FCC. NAB, Notice of Ex Parte Communication at 3, citing *Allen v. Devine*, 670 F. Supp. 2d 164 (E.D.N.Y. 2009); *Applications of C. Devine Media, Inc., For Renewal of License of Station KBER-FM, Ogden, Utah; Street Stryder, For Renewal of License of Station KQOL-FM, Spanish Fork, Utah*, Hearing Designation Order and Notice of Forfeiture, MM Docket No. 93-56, File Nos. BRH-19900604YE and BRH-19900601A3, 8 F.C.C.R. 2493 (1993) at 4. NAB’s claims are echoed by Luke Allen, who states he initiated the litigation against Mr. Devine that NAB references. Letter from Luke Allen, to Marlene H. Dortch, Secretary, FCC, RM-11854 (filed Oct. 20, 2022). As an initial matter, most of the claims involve unadjudicated, non-FCC misconduct. *See Policy Regarding Character Qualifications in Broadcast Licensing*, Order and Policy Statement, 102 FCC 2d 1179, 1204-05 (1986) (noting the Commission’s policy to “refrain from taking any action on non-FCC misconduct prior to

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would be used for very limited portions of the broadcast day, we find that public interest benefits outweigh these non-technical risks highlighted in the record.

a. Competitive Effects.

16. Based on our review of the comments, we conclude the introduction of program originating boosters has benefits that outweigh the theoretical competitive effects that commenters raise. Commenters focus on the potential effect of program originating boosters on advertising rates, the cost of implementing these boosters, and the impact they may have on women and minorities. They also claim that geo-targeting is not a new concept: advertisers using other media, such as local cable, newspapers, online digital, and even broadcast television, have been able to geo-target their key audiences.⁵² Supporters also emphasize that station operations would change very little because boosters would originate content just three minutes per hour.⁵³ The record reflects that use of program originating boosters is not a one-size-fits-all solution, but rather one with potential costs and benefits that will likely vary from station to station and market to market. Because the use of boosters would be voluntary for stations and potentially beneficial to listeners and consumers, we find that the public interest will be served by providing each individual radio licensee the opportunity to evaluate whether or not program originating booster use would be advantageous under its own unique circumstances.⁵⁴

17. *Advertising Rates and Revenue Opportunities for Broadcasters.* We agree with commenters that commercial FM broadcasters should be allowed to pursue advertising and revenue opportunities from program originating boosters. Supporting commenters view program originating boosters as an important new source of revenue that is critically needed to enhance the financial viability of the radio broadcast industry.⁵⁵ They contend that allowing radio stations to offer geo-targeted content would permit broadcasters to compete effectively with other technologies and services. GBS argues that hyper-local content would help stations maintain audiences because studies have shown that consumers want to listen more and pay greater attention to content directed to their specific area.⁵⁶ The Petition cites

(Continued from previous page) _____
adjudication by another agency or court”) (subsequent history omitted). As for the one claim involving the FCC, the specified hearing proceeding was terminated without a finding of any violation. *See Chestnut Limited Liability Company*, Memorandum Opinion and Order, 10 FCC Rcd 1674 (1995). We also note that GBS has supported its proposal with submissions by sources that are well respected in the industry, such as a study of advertising by BIA Advisory Services that is included in the Petition. Moreover, the record reflects support for program originating boosters from commenters that have no known affiliation with GBS. We also note that the Commission is not endorsing GBS or its booster technology, and we make no judgment about GBS’s particular technology or business. We limit our decision to whether to allow booster stations to originate programming, using the equipment of any manufacturer.

⁵² See Comments of GBS at 1-4.

⁵³ E.g., Reply Comments of Goldman Engineering Management, LLC at 2 (Goldman); Comments of Monroe Capital, LLC at 1. The Petition sought authorization for program origination for up to 5% of each broadcast hour. The record and our findings in this Order are based upon that limit.

⁵⁴ Although GBS and some other commenters contend an important benefit of the GBS proposal is that we can authorize program originating boosters through only a minor revision to one of our rules (Comments of GBS at 4; Comments of Shamrock Communications at 2), we disagree. We have set out in the Further NPRM a number of proposed revisions to our rules that we propose to require in order to have a rational and nondisruptive introduction of program originating boosters.

⁵⁵ Comments of BIA at 2-5. According to BIA, radio advertising is decreasing both in terms of overall growth and local market share. Reply Comments of BIA at 2; Comments of JAM Media Solutions at 1. *See* Comments of Shamrock Communications at 1 (new revenue will help small market stations compete with streaming, satellite radio and social media).

⁵⁶ Petition at 13-17.

a BIA study determining that 91 percent of local retailers and 49 percent of national advertisers would put more advertising dollars into radio if program originating boosters were an option.⁵⁷ Among the economically favorable uses of program originating boosters that commenters anticipate is that a broadcaster might air simultaneous commercials from three different advertisers within three different portions of its market or, instead, air three versions of an advertisement from a single advertiser, including one in a different language.⁵⁸ GBS also argues that program originating boosters would be good for the overall economy because they would create jobs to install the boosters, generate the local content, and sell advertising focused on small businesses.

18. Opposing commenters disagree and speak to the negative impact that they believe program originating boosters could have on the advertising revenues of adopting stations as well as their competitors. They predict that program originating boosters will drive down advertising rates, resulting in reduced revenues for all stations, including stations that choose not to use the system, and thereby harm all stations' ability to serve the public with local news, information, and entertainment.⁵⁹ They claim that if one FM station in the market reduces its advertising rates by employing program originating boosters, all stations in that market may have to match the lower rates, including stand-alone AM stations that cannot adopt this FM technology.⁶⁰ Some are concerned that the lower advertising rates charged by program originating boosters will especially hurt small Class A FM broadcasters as well as minority-owned and women-owned broadcasters who operate in smaller markets. Some commenters predict that content origination over boosters "will be a deathblow to the radio broadcast industry" and "devastate local radio marketplace revenues across the US" by lowering advertising rates.⁶¹

19. Opposing commenters also challenge the Petition's premise that program originating boosters will create additional advertising sales for adopting stations to make up for lower, targeted rates. They argue there is no evidence that stations that charge businesses less to advertise to a smaller, more desirable subset of the broadcast area will be able to offset lost revenue by selling targeted ads to other subsets of that area.⁶² They also believe that adoption of targeted advertising would depress advertising rates because advertisers will seek to replace market-wide commercials with less expensive targeted

⁵⁷ BIA, Opportunity Assessment for Local Radio Stations with Zoned Broadcast Coverage (Nov. 20, 2018), submitted as Petition, Exh. D.

⁵⁸ 2022 Comments of Shamrock Communications at 2. Thomas J. Buono, founder of BIA, posits that instead of charging a single advertiser \$100 to cover the full market, a broadcaster could charge two advertisers \$70 each for two simultaneous ads aired on different program originating boosters serving different portions of the market and thereby generate combined revenue of \$140. 2022 Comments of Thomas J. Buono at 2. BIA refers to this pricing phenomenon as the "pizza theory," because buying a pizza one slice at a time is more expensive than buying the whole pizza at once but is a more affordable and less wasteful option for someone wanting only one slice. 2022 Comments of BIA at 4. Commenters also state that program originating boosters would create new opportunities for inclusion of radio stations in cross-media buys by advertising agencies. BIA states that radio spots can currently only be targeted based on listener age, demographics, and preferred format but that advertising agencies have expressed an interest in buying more radio spots if program originating boosters allow them to target by factors such as local topology, population density, commercial areas, and high-traffic thoroughfares. *Id.* at 4.

⁵⁹ 2022 Comments of State Broadcasters Associations at 2. *See* Comments of Rep. Mullin (boosters could destabilize the radio industry).

⁶⁰ 2022 Comments of Audacy at 20-21. *See* Ex Parte Comments of Senators Richard Blumenthal and Benjamin L. Cardin ("broadcasters would be encouraged, if not effectively forced, by advertisers to adopt such technologies and stand up new booster stations to segment their audiences. That would impose a substantial cost on small broadcasters, who would be required to spend money on new boosters and licensing fees for proprietary technologies — shifting scarce funds away from newsrooms and community resources.").

⁶¹ 2022 Comments of Press at 3-4.

⁶² Comments of Connoisseur Media and Neuhoff Communications at 4.

advertisements targeting the most desirable areas.⁶³ Some observe that many radio stations currently have excess inventory of advertising time and contend that increasing supply using program originating boosters will not bring in new advertisers.⁶⁴ Rather, they argue that when supply increases without demand growth, prices fall. Others fear that advertisers will try to leverage lower rates by choosing not to buy full-market ads from stations without boosters unless they match the lower rates offered by program originating boosters.⁶⁵ They believe that such forces could result in a “downward spiral” by introducing new pressure for FM stations to undercut one another to remain competitive.⁶⁶ Given the relationship between a station’s audience ratings and the advertising rates it can command, one commenter is concerned with how program originating boosters would interface with audience rating systems such as Nielsen’s Portable People Meters.⁶⁷

20. Several commenters are especially concerned that program originating boosters could harm stations in small markets that are embedded within or adjacent to large ones. They state that such stations rely on advertising from businesses within their own small markets and that their revenues would fall if program originating booster stations from larger adjacent markets begin to target the smaller areas.⁶⁸ They are concerned that those fringe area stations might be forced to lower their rates and to receive lower overall revenues in order to compete with the distant program originating booster stations.⁶⁹

21. Upon consideration of the record, we agree program originating boosters could further the public interest by enabling radio stations to seek new sources of revenue while providing audiences with hyper-local content. Program originating boosters could enhance the competitiveness of the overall FM radio industry by expanding the range of advertising opportunities available in the relevant geographic areas. We acknowledge the concern in the comments that program originating boosters could drive down advertising rates and thereby could negatively impact radio stations’ revenue, but we do not believe that this concern justifies rejecting the authorization of program originating boosters. We do not think it would advance the public interest for us to reject a new technology based on the fact that it could increase competition among FM stations for advertising revenue and thereby reduce advertising costs. Whether a broadcaster could recoup any lost revenues by selling more spots could vary from market to market and from station to station based on numerous factors. It would, therefore, be up to each broadcaster to weigh its own individual circumstances, market, and needs of its community of license to arrive at a voluntary decision of whether program origination on boosters, subject to our specified limitations, is suitable for its situation. We also reject the argument that program origination will not be voluntary because stations that would otherwise not adopt program originating boosters will allegedly be forced to do so in order to compete with lower advertising rates offered by those stations in a market that have adopted that technology.⁷⁰ We decline to allow such speculative concerns to persuade us to prohibit

⁶³ Comments of NAB at 7-8.

⁶⁴ 2022 Comments of Woof Boom Radio at 1.

⁶⁵ Joint Comments of Urban One, Inc., Davis Broadcasting Inc., Ohana Media Group, LLC, and Riverfront Broadcasting, LLC at 4-5 (Urban One).

⁶⁶ *Id.* at 5.

⁶⁷ 2022 Comments of Audacy at 22.

⁶⁸ Comments of Urban One at 5-6. Letter from Jeffrey D. Warshaw, Chief Executive Officer, Connoisseur Media, LLC, to Marlene H. Dortch, Secretary, FCC, RM-11854, at 4 (filed Oct. 13, 2022).

⁶⁹ 2022 Comments of Woof Boom Radio. For example, the New Jersey Association of Broadcasters predicts that New York and Philadelphia stations would use program originating boosters to sell advertising targeted at New Jersey audiences to the detriment of local New Jersey stations, and that the New Jersey stations would not be able to respond because they do not place strong enough signals over New York or Philadelphia. 2022 Comments of New Jersey Association of Broadcasters at 2.

⁷⁰ *See e.g.* Comments of NAB at 3, 8.

a new technology that offers significant public interest benefits, including increased competition, lower costs for consumers, and hyper-local content for listeners.

22. We also recognize commenters' concern that use of program originating boosters by competitors could affect a few markets differently due to geography and size, such as the example of small New Jersey stations located between the larger markets of New York and Philadelphia. But as noted above, these are speculative concerns that do not counsel in favor of denying regulatory relief given the benefits noted here. We thus decline to prohibit the rollout of a new optional technology solely to address speculations about concerns in one market, and the record contains no alternative suggestions. Additionally, the current absence of a definitive ratings method for including and/or distinguishing between audiences listening to programming originated over a booster versus the primary station is not a present concern. We would not expect ratings organizations to have developed methods for counting programming originated over boosters prior to our approval of such origination. We anticipate that market forces will cause ratings organizations to address such matters once program originating boosters are in regular use.

23. *Implementation Costs and Ownership Issues.* We find that the potential cost of implementing an effective network of program originating boosters is not an impediment to affording broadcasters the option to use this technology. We recognize adoption of program originating boosters is completely voluntary and may not be an attractive choice for some broadcasters. Commenters note even if booster use causes advertising revenues to increase, as supporters predict, those gains may be offset by increased costs. Commenters identify several potential costs associated with new boosters, and we agree that the cost of building and operating multiple boosters may be too significant for some broadcasters. In many ways, this concern is not different than the decisions that broadcasters routinely make about investment in technologies. Alpha Media USA, LLC (Alpha), licensee of WIIL(FM), which hosted GBS's Milwaukee tests, provides the most detailed information in the record about the costs broadcasters would confront. Alpha estimates that a broadcaster operating four boosters would incur initial costs of about \$51,000 and annual costs of about \$59,000 for infrastructure alone, which Alpha asserts would be beyond the reach of small and midsized stations.⁷¹ Other commenters identify additional expenses for the purchase of FM booster transmitting equipment, audio processors, additional content management systems to feed the secondary programming to the boosters, new sales software to handle sub-areas, additional sales staff to handle increased micro-volume, and sales staff retraining.⁷² One commenter thus questions how small station owners could realistically take advantage of program originating boosters when they currently barely afford much smaller expenses.⁷³

24. We acknowledge the concerns of commenters who fear they will be at a competitive disadvantage if they choose not to or are unable to make the large investment to implement program originating boosters, especially for the limited portion of the programming day they could be utilized under the proposal before us. We conclude this theoretical risk does not outweigh the potential public interest benefits outlined above. Such concerns about competitive disadvantage are merely speculation at this point. Additionally, the costs of new technologies tend to fall over time as they diffuse through a

⁷¹ Comments of Alpha Media USA, LLC at 2.

⁷² 2022 Comments of Audacy, Inc., Beasley Media Group, LLC, Cumulus Media New Holdings Inc., iHeart Communications, Inc., New York Public Radio, Salem Media Group, Inc. (Joint Commenters) at iv, 22. These parties earlier expressed concerns about substantial changes to a station's advertising sales chain, from proposal, to scheduling and placement, to billing and collection, imposing "non-trivial" costs likely beyond the means of all but the largest broadcasters. Joint Comments of Joint Commenters at 24.

⁷³ Zimmer believes that the GBS proposal would require stations to invest tens or more likely hundreds of thousands of dollars to cover the costs of infrastructure, licensing the technology from GBS, the permitting processes, and power bills. 2022 Ex Parte Comments of Zimmer at 2.

market and the scale of production increases. Therefore, concerns about the cost of implementation may be temporary in nature and otherwise do not counsel in favor of denying the regulatory action taken here.

25. Commenters concerned about the cost of implementing boosters also note that GBS is a single vendor with a proprietary technology and that even if GBS initially offers small broadcasters favorable terms when trying to gain a foothold in the market, it might offer unfavorable rates for late adopters.⁷⁴ In response to the NPRM's question of whether vendor financing would make the technology available to smaller broadcasters, including minorities and women, some say that it would not.⁷⁵ They argue that the Commission cannot enforce non-discriminatory financing terms. We note that our conclusions about program originating boosters are not tied to GBS's technology, and we do not limit broadcasters to use of the GBS system. Other solutions that comply with our interference rules may be options for broadcasters.⁷⁶ Accordingly, we find that concerns about GBS's status as a single vendor are not a basis to preclude the authorization of program originating boosters at this time.

26. In a similar vein, we have no reason to conclude that providers of program originating booster technologies will have a relationship with a broadcast licensee that is materially different from any other technology vendor. Nonetheless, we take this opportunity to emphasize that our existing broadcast ownership rules will continue to apply to licensees, including those that use program originating boosters, and that licensees will remain subject to the FCC's existing broadcast ownership rules, including our existing attribution rules.

27. *Minority and Female Broadcast Ownership.* We find the record does not provide clear evidence concerning a potentially unfavorable impact of program originating boosters on minority and female broadcasters specifically, and we therefore do not rely on this issue in reaching our conclusion. An underlying premise upon which GBS relies is that program originating boosters would be helpful to stations owned by minorities and women by creating more advertising opportunities in smaller markets.⁷⁷ This is a matter of commenter debate. For example, several members of Congress describe program originating boosters as potentially beneficial to minority-owned radio stations that could sell more advertising to small businesses that could advertise at lower costs, and to listeners that would receive more curated cultural content.⁷⁸ Similarly, former FCC Commissioner Andrew Barrett (Barrett) endorses the proposal, contending it would create significant advantages to broadcasters and businesses, especially for small Black-owned businesses that have been historically unable to afford broadcast advertising.⁷⁹

28. Other members of Congress are concerned that program originating boosters would disadvantage small broadcasters in rural communities and note those communities lack alternative communications infrastructure.⁸⁰ One commenter cautions that, even if program originating boosters were to make existing minority-owned stations more profitable, they would not increase diversity of

⁷⁴ Comments of Urban One at 5-6.

⁷⁵ *Id.*

⁷⁶ The Commission is not endorsing GBS's proprietary technology. Accordingly, we are not passing judgment on the merits of GBS's particular system, what prices it might charge, or any other GBS-specific concern raised in the comments. If there is significant interest in adopting program originating boosters, other businesses could enter the market and design their own solutions, and GBS recognizes this possibility. *See* Comments of GBS at 10.

⁷⁷ 2020 Reply Comments of GBS at 3-4.

⁷⁸ Comments of Reps. Johnson, Thompson, Lee, Brown, Beatty, Carter, Davis, Cleaver, Swalwell, and Scott; Comments of Reps. Horsford and Thompson.

⁷⁹ Comments of Andrew Barrett at 2. Barrett states that the plight of Black businesses was discussed often when he was a Commissioner and that he views program originating boosters as a solution.

⁸⁰ Comments of Reps. Duncan, Hudson, Upton, Pence, Johnson, Dunn, McKinley, Lesko, Long, Walberg, Griffith, Carter, and Bucshon.

ownership because they would not bring new entrants into the market.⁸¹ Some minority and female-owned licensees argue that program originating boosters would actually hurt minority broadcasters by lowering advertising revenue, making it harder for new entrants to be viable, and further “slicing up the pie” of potential revenue,⁸² though we note that one of these licensees previously expressed its support for the proposal.⁸³ There is concern that declining spot rates will hurt small Class A FM broadcasters as well as minority-owned and women-owned broadcasters who operate in smaller markets.⁸⁴ Specifically, they contend that smaller, minority-owned and woman-owned radio stations would suffer disproportionately because they would have to either (1) bear significant new costs to adopt the technology or (2) not adopt the technology but nevertheless sell their market-wide ads at lower prices to match those of program originating booster stations that target smaller areas.

29. As discussed previously, the impact of program originating boosters will vary from market to market. As with the overall impact, the potential effect on stations owned by minorities and women is based on theoretical competitive effects that are currently speculative and, when weighed against all other considerations noted here, is not a consideration that counsels against the relief provided here. We thus decline to rely on this factor in reaching our decisions today.

30. *Noncommercial Stations.* We will allow full-service noncommercial educational FM (NCE) and LPFM stations to implement program originating boosters in addition to commercial stations. Although most commenters focus on the potential for commercial FM stations to originate programming over boosters, some see similar opportunities for NCE and LPFM stations. These commenters assert that program originating boosters could attract more underwriters,⁸⁵ or originate targeted underwriting acknowledgements and local announcements for school closings and hyper-local weather.⁸⁶ Others question why a noncommercial station would be interested in this technology.⁸⁷

31. We believe program originating boosters would primarily be of interest to commercial FM stations by providing them with new options for selling advertising. Because NCE and LPFM stations are not permitted to air commercials and generally have fewer resources for start-up costs, they would likely find program originating boosters of lesser benefit.⁸⁸ Nevertheless, we recognize that some noncommercial stations might use program originating boosters to attract new underwriting from local businesses. Use of program originating boosters might also enable stations associated with educational

⁸¹ Comments of REC at 14-16.

⁸² See e.g. Comments of Urban One at 3. These comments were jointly filed on February 10, 2021 with Davis Broadcasting Inc., Ohana Media Group, LLC, and Riverfront Broadcasting, LLC. See also Comments of Small Radio Broadcaster Coalition at 2.

⁸³ See Letter from Karen Wishart, Chief Administrative Officer, Urban One, to Marlene H. Dortch, Secretary, FCC, RM-11854 (filed May 4, 2020) (previously arguing before changing its position that geo-targeting presents a “means of advancing diversity of broadcast ownership” and that GBS’s “proposed change in the booster rules” is “certainly worthy of adoption”).

⁸⁴ 2022 Comments of Press.

⁸⁵ Comments of WAY-FM at 1.

⁸⁶ Comments of REC Networks at 12; Comments of Radio By Grace at 1.

⁸⁷ NAB, Notice of Ex Parte Communication (Sept. 22, 2022) at 6 (“It strains credulity that any of these stations could possibly attract enough underwriters to fund a ZoneCasting play,” and noting that National Public Radio has opposed the proposal).

⁸⁸ Section 399B of the Communication's Act of 1934, as amended, (Act) and section 73.503(d) of our rules proscribe noncommercial stations from broadcasting announcements which promote the sale of goods and services of for-profit entities in return for consideration paid to the station. However, contributors may receive on-air acknowledgements.

institutions to personalize short portions of their content to students at different campuses. Accordingly, we will make program origination over boosters an option for all FM radio stations, whether commercial or noncommercial, as well as LPFM stations.

b. Consumer Impacts

32. We conclude that program originating boosters may provide tangible benefits for advertisers and consumers in addition to the benefit of potential revenue opportunities for broadcasters that we already identified. Program originating boosters will provide advertisers with better opportunities to direct their messages at the listeners they want to reach. They also hold the potential to provide listeners with more relevant advertising and targeted information.

33. The record indicates that program originating boosters would benefit listeners by delivering content that is more relevant and engaging. One Arizona broadcaster whose market population is 7.8 percent Native American comments that it plans to use program originating boosters to reach that community, which it says is largely ignored in programming directed to the market as a whole.⁸⁹ Others note that small businesses in areas with vibrant minority communities may view program originating boosters as an opportunity to tailor messages to interests and languages of those communities.⁹⁰ Commenters also identify geo-targeted ads as particularly useful for political advertising because a radio station's contour may contain many election districts but a candidate's message may only be relevant to one of them.⁹¹ Organizations representing minority and female station owners focus on the benefits to those communities. They believe that program originating boosters would enable smaller broadcasters to innovate, better serve their local constituencies with relevant content, and compete more effectively with larger national broadcasters.⁹²

34. Commenters claim program originating boosters will have a similar positive impact on minority business and advertisers. If they result in lower advertising rates to reach subsets of an existing market, program originating boosters may allow minority businesses that are currently priced out of the radio advertising market to run new advertisements and reach new targets.⁹³ The most recent filings in this proceeding, *i.e.*, *ex parte* submissions from 2023, focus on this potential benefit of the proposal.⁹⁴

35. The record also contains comments arguing that program originating boosters could have a negative impact on minority communities. Commenters raise a concern that targeted programming or advertising could result in intentional or inadvertent socio-economic "redlining."⁹⁵ Some argue that stations could perpetuate stereotypes by assuming that hyper-local news and public affairs programming

⁸⁹ 2022 Comments of Flagstaff Radio, Inc. at 2.

⁹⁰ Comments of Emmis Communications at 1.

⁹¹ Comments of Shainis at 1.

⁹² See Comments of Future Visions Entertainment, LLC at 1; Vision Multimedia Group LLC, Ex Parte Comments (Aug. 29, 2022) at 1. Commenters also state that program originating boosters are better able to target different demographics and would, thus, create new opportunities for inclusion of radio stations in cross-media buys by advertising agencies. See *supra* n. 58 for demographic factors identified in the 2022 Comments of BIA.

⁹³ See Comments of Reps. Johnson, Thompson, Lee, Brown, Beatty, Carter, Davis, Cleaver, Swalwell, and Scott.

⁹⁴ See, e.g., Ex Parte Comments of U.S. Black Chambers, Inc. (Dec. 1, 2023); Ex Parte Comments of Benjamin F. Chavis (Nov. 8, 2023); Ex Parte Comments of International Black Broadcasters Ass'n (Nov. 7, 2023).

⁹⁵ See Rev. Dean Nelson, How 'zonecasting' could harm minority neighborhoods, The Hill (Mar. 9, 2021) submitted with Comments of iHeart Media (Oct. 14, 2021). Redlining, is a term used when private or public actors limit or deny services to poor or minority communities. It occurred most frequently in the 1970s when banks and financial institutions marked up maps with red lines around neighborhoods that they deemed undeserving of loans and insurance coverage.

about minority-related issues are only of interest within a zone populated primarily by minority groups and that people in the minority-populated zone do not travel in and out of the zone in the course of daily activities.⁹⁶ Others argue that geo-targeting would make it easier for advertisers to discriminate based on the location of listeners, even if the discrimination is unintended.⁹⁷ For example, these commenters are concerned that geo-targeting is likely to marginalize minority and low-income communities by giving advertisers a new way to avoid advertising to them.⁹⁸ Such commenters say that advertisers would have the means and motivation to serve more “desirable” areas and to overlook other neighborhoods or niche markets.⁹⁹ Some parties note this is particularly problematic in light of the fact that minority communities rely heavily on broadcasting for news and other information.¹⁰⁰ BIA, however, contradicts these arguments, stating it was unable to find any documentation of redlining by any other local media offering geo-targeted advertising.¹⁰¹ GBS responds that broadcasters will not ignore portions of the market because program originating boosters can only result in more, not less, content.¹⁰²

36. The Commission has long recognized the public interest benefits of hyper-local content, such as when it created the LPFM service.¹⁰³ We conclude that allowing limited adoption of program origination on boosters may expand the availability of hyper-local service. In reaching our conclusion to allow program originating boosters, we have given careful consideration to the concerns of commenters that such boosters can be used to disadvantage certain communities or geographic areas. We rely on BIA’s unrebutted research finding that the business and academic literature contains no documentation of redlining by any other local media offering geo-targeted advertising. The record contains no evidence of factors unique to radio broadcasting that would cause radio-specific redlining by advertisers or licensees of program originating booster stations. However, while we appreciate GBS’s suggestion that broadcasters have every economic incentive to serve all parts of their service area,¹⁰⁴ we will continue to actively monitor the marketplace to ensure these stations are not used to disadvantage particular communities or locations.

3. Testing and Potential Interference.

37. We conclude that program originating boosters offer significant benefits that outweigh the interference concerns raised in the record. We recognize, however, that the question of whether program originating boosters will cause interference has been of concern among commenters in this proceeding. As is discussed in greater detail below, the record demonstrates the main interference concern posed by program originating boosters is interference to the primary station. Based on the record in this proceeding, adjacent channel interference is not a significant concern. We find the test record has

⁹⁶ Comments of Alaska Association of Broadcasters at 5-6.

⁹⁷ Comments of NAB at 15.

⁹⁸ Comments of Connoisseur at 8. *See Ex Parte* Comments of Senators Richard Blumenthal and Benjamin L. Cardin (“Geographic targeting of advertisements creates a foreseeable risk that certain neighborhoods or communities will not receive ads for employment, education, and other economic opportunities. We also fear that broadcasters who have invested in building listenership in lower income communities could be punished by such proposals if advertisers shift their spending toward more lucrative audience segments.”).

⁹⁹ Comments of WBR at 2. Comments of Audacy at 27 (advertisers will use geo-casting to target zones that are perceived as more valuable, *i.e.*, “Gold Coast neighborhoods” leaving less desirable zones ignored and unsold).

¹⁰⁰ *Ex Parte* Comments of Reps. Clark and Soto; *Ex Parte* Comments of Reps. Cárdenas and Horsford.

¹⁰¹ 2022 Comments of BIA at 5.

¹⁰² Comments of GBS at 14-15.

¹⁰³ *See LPFM Order*, 15 FCC Rcd at 2208, para. 4.

¹⁰⁴ Comments of GBS at 6-7; 2022 Reply Comments of GBS at 6-7.

shown that properly engineered program originating boosters can be implemented without causing harmful interference. Moreover, our decision to limit program origination to three minutes per hour combined with the economic incentive broadcasters have to minimize self-interference will help to reduce any ongoing risk of interference. We will continue to monitor concerns about interference as broadcasters adopt program originating boosters and will revisit this issue if we receive reports of widespread interference.¹⁰⁵

38. Concerns of potential interference from FM boosters is neither a new concern nor limited to the current proceeding. When the Commission increased the power of FM boosters to their current levels in 1987, it was particularly concerned that boosters not cause interference to co-channel and adjacent channel full service stations.¹⁰⁶ The Commission originally proposed to address this concern by establishing interference protection standards based on desired to undesired signal ratios of co-channel and adjacent channel stations to that of the booster.¹⁰⁷ Ultimately, however, the Commission adopted the current standards in order to minimize the administrative burden on licensees and its own resources.¹⁰⁸ Under those standards, a booster's signal must be at least 6 dB less than the signal of a first-adjacent channel full-service station.¹⁰⁹ There are no protection requirements for co-channel, second-adjacent channel, or third-adjacent channel stations. An FM booster station is allowed to cause "limited interference" to its primary station's signal provided it does not disrupt the existing service of its primary station or cause such interference within the boundaries of the primary station's principal community of license.¹¹⁰

39. Commenters' interference concerns fall within four general categories: (1) adjacent channel interference to stations licensed to others; (2) co-channel, self-interference that a booster might cause to its own primary FM station (or to another booster rebroadcasting that primary station); (3) interference to EAS alerts; and (4) interference to HD Radio transmissions. We analyze separately each of these interference scenarios.

40. *Adjacent Channel Interference.* The test reports and the record as a whole do not contain any evidence that allowing boosters to originate programming increases their risk of generating adjacent channel interference.¹¹¹ Existing booster stations have not created adjacent channel interference concerns because booster station signals must be contained within the coverage area of the primary station. Potential interference from the booster to adjacent channel stations is substantially masked by the higher power co-channel signal from the primary station. Using the booster to originate programming will not change this interference scenario. Our experience with boosters over many years has demonstrated our existing booster rules, including the requirement in section 74.1204(i) for a booster's signal to be at least 6 dB less than the signal of a first-adjacent channel full-service station¹¹² and our framework in section

¹⁰⁵ A few commenters also expressed concern about the impact of program originating boosters on the overall noise floor in the FM band. See Reply Comments of the New York State Broadcasters Ass'n at 3-4; Alaska Broadcasters Comments at 7. We believe our decision to impose a cap on the number of boosters each broadcaster can own will minimize this issue. See *infra* para. 81. We seek further comment on the details of that cap in the Further Notice.

¹⁰⁶ See *Amendment Concerning FM Booster Stations*, Report and Order, 2 FCC Rcd 4625 (1987) (*1987 Booster Report*). We note that one of the rules concerning booster power, 47 CFR § 74.1235(b), misspells the word "radial", and we have corrected that rule herein. See Appendix B.

¹⁰⁷ *Id.* at 4626, para. 10.

¹⁰⁸ *Id.* at 4629-30, paras. 26-34.

¹⁰⁹ 47 CFR § 74.1204(i).

¹¹⁰ *Id.* § 74.1203(c).

¹¹¹ The record also does not contain any reports of complaints from adjacent channel stations during the tests.

¹¹² 47 CFR § 74.1204(i).

74.1203 to address claims of actual interference caused by boosters,¹¹³ provide adequate protection to ensure boosters do not cause adjacent channel interference. As an additional safeguard, we find it imperative to adopt a notification requirement so that the Commission and interested parties are able to identify which booster stations are originating content, which will allow us to address more quickly any reports of interference or other issues that may arise through the introduction of program originating boosters.¹¹⁴ Therefore, we conclude program originating boosters will not create a risk of adjacent channel interference.

41. The limited number of comments in the record that address adjacent channel interference support our conclusion that program originating boosters will not cause harmful interference to first-adjacent or second adjacent channel stations.¹¹⁵ Those comments also note that the Commission's existing rules already provide interference protection to adjacent channel stations.¹¹⁶ GatesAir, a booster manufacturer, argues that booster technology has improved so substantially since creation of the service that existing booster interference rules are no longer necessary.¹¹⁷

42. The NPRM sought comment on whether we should impose second adjacent channel interference protections for program originating boosters.¹¹⁸ However, replacing the primary station's programming with booster-originated programming does not change the technical characteristics of the signal the booster transmits. Factors such as the frequency, modulation and bandwidth occupancy of the booster's signal, all of which could impact an adjacent channel station, should not change. We therefore conclude that program origination by itself will not increase the likelihood of adjacent channel interference. We also note that program originating boosters are subject to the same technical rules which already provide protections against adjacent channel interference. As a secondary service, boosters must protect full-service stations and previously authorized secondary service stations from any interference.¹¹⁹ We therefore conclude we do not need to impose any protection for second adjacent channel interference. The NPRM also asked whether we should adopt any changes to section 74.1204(i) of our rules to better protect first-adjacent channel stations.¹²⁰ Consistent with our analysis of second adjacent channel interference, we are confident that our existing rule requiring booster applicants to site their stations so that the signal of a first adjacent channel station exceeds the signal of the booster by 6 dB will prevent broadcasters from implementing program originating boosters that will cause first adjacent channel interference.¹²¹

43. REC asserts that existing rules requiring the booster to remediate interference would be of little help if a well-funded primary station employing boosters fails to respond to a pre-existing, adjacent channel LPFM with superior rights because the LPFM licensee has more limited resources to

¹¹³ 47 CFR § 74.1203.

¹¹⁴ In the accompanying Further NPRM, we seek comment on the details of this notification requirement as well as whether any adjustments to section 74.1203 are appropriate in the context of program originating boosters.

¹¹⁵ See, e.g., Comments of GBS at 4.

¹¹⁶ *Id.* at 11.

¹¹⁷ GatesAir specifically references technology that it developed in partnership with GBS and which it says is used in 13 markets. Comments of GatesAir at 2-3.

¹¹⁸ NPRM at 5.

¹¹⁹ 47 CFR § 74.1203(a)(3). If interference to a primary or pre-existing station occurs, an FM booster must eliminate the interference or cease broadcasting.

¹²⁰ NPRM at 6.

¹²¹ *Id.* § 74.1204(i).

pursue the matter.¹²² We note that the Commission has recently updated its interference complaint process, and we believe these procedures are effective, even for stations with limited resources, and will be sufficient to address this concern.¹²³ But as noted above, we will continue to monitor concerns about interference as broadcasters adopt program originating boosters and will revisit this issue if necessary.

44. *Co-Channel Self-Interference.* Based on our review of the test reports and the extensive record on self-interference, we conclude broadcasters can implement program originating boosters without harmful interference to the public's ability to receive the primary station outside the booster's coverage area. As is discussed in detail below, the record reflects competing views of the potential for self-interference. Based on our detailed review of the record, we conclude there are viable options for broadcasters to minimize self-interference. Moreover, we believe broadcasters have a strong economic incentive to engineer program originating boosters to reduce any potential for self-interference. We further limit the potential for interference by limiting program origination to only three minutes per hour.

45. Due to the fact that boosters operate on the same channel as the primary station and within the primary station's coverage area, there always is a risk of self-interference. Our rules currently take this into account and permit a booster to cause "limited interference" to its primary station provided it does not disrupt the existing service of its primary station or cause such interference within the boundaries of the principal community of its primary station.¹²⁴ In the NPRM, we sought comment on whether this rule is sufficient to address self-interference concerns associated with program originating boosters and whether broadcasters are sufficiently incentivized to address such concerns.¹²⁵ We focus, as commenters have, on the question of whether the interference zone between the booster and its primary station creates an unacceptable level of self-interference. We credit GBS's argument that program originating boosters can be configured to ensure that any such interference will be brief and that broadcasters have a business incentive to avoid more than a limited amount of self-interference.¹²⁶

46. The record and GBS's tests focus primarily on the question of self-interference. In its most recent set of comments, GBS contends that the San Jose and Jackson tests demonstrate the efficacy of program originating boosters in flat and hilly settings, rural and urban areas, with analog and digital signals.¹²⁷ GBS reports there can be some limited "signal instability"¹²⁸ or interference but that there are no "dead zones." Although GBS's comments on the San Jose and Jackson tests acknowledge a limited amount of self-interference in transition regions between boosters and the primary station, GBS argues that the size of the transition region is entirely within the control of the broadcaster and can be designed to be small, infrequent, transitory, and unobjectionable.¹²⁹ GBS contends that noticeable interference would

¹²² 2022 Comments of REC at 8 and 10; 2022 Ex Parte Comments of REC at 3. *See also* Comments of NAB (agreeing that program originating boosters should be required to protect previously authorized secondary stations).

¹²³ *See* 47 CFR § 74.1203(a)(3).

¹²⁴ *Id.* § CFR 74.1203(c).

¹²⁵ NPRM para. 13.

¹²⁶ Comments of GBS at 6-7; 2022 Reply Comments of GBS at 6-7. *See also* Comments of Wennes Communications Stations, Inc. at 1.

¹²⁷ The different environments in which GBS conducted these tests is important because hilly areas have natural terrain shielding and, similarly, signal propagation in urban areas is affected by buildings. In contrast, flat and rural areas lack the features that can be used to contain signal propagation.

¹²⁸ GBS uses the phrase "signal instability" rather than interference because it defines interference as an "effect of unwanted energy" whereas a broadcaster engaging in geo-casting is transmitting two signals that it wants to be received. *See* Jackson Test Report at 3.2; GBS Ex Parte Notice (Apr. 12, 2022) at 50. Accordingly, GBS does not consider any performance degradation, misinterpretation, or loss of information by program originating boosters to be interference because it is caused by energy that is wanted by the broadcaster. *Id.* We disagree and use the term interference to describe any situation where one transmission degrades the signal of another.

mean the broadcaster erred in designing the system, and such an error would be rare because broadcasters would not place their businesses at risk with bad signal quality.¹³⁰ GBS further argues that interference areas only appear during the short time intervals each hour when different content is broadcast in the booster zone. GBS thus contends that originating programming on boosters is technically sound. Supporters of program originating boosters, including several groups that retained their own engineering consultants to review the San Jose and Jackson test results, agree that the tests' methodology, analysis, and conclusions are sound.¹³¹ Those commenters are satisfied that the tests were designed to reflect the full range of features that broadcasters may encounter.¹³²

47. However, many commenters reject GBS's assertions, and are concerned that self-interference might diminish the audience experience and lead to listeners becoming frustrated, tuning away, and suspecting that their car radios are defective.¹³³ These comments focus primarily on the concern that the tests were optimized to avoid showing interference and inadequate by omitting critical scenarios. As a result, some commenters fear dramatic long-term consequences such as listeners abandoning broadcast radio altogether and/or car manufacturers no longer including radios as standard equipment.¹³⁴ Even commenters that do not completely oppose the Petition urge the Commission to proceed cautiously and to require further testing.¹³⁵

48. NAB contends that the tests were not objective but rather were designed to put the system's "best foot forward" and "to cover up the blemishes."¹³⁶ NAB identifies what it views as numerous problems at each test location, argues that the tests leave critical questions unanswered, and claims that GBS's tests, including the most recent ones in San Jose and Jackson, are not "a reasonable simulation of what would be expected under normal or common conditions."¹³⁷ Critiques of the tests in Salt Lake City highlight they did not consider mobile receivers and involved boosters that were separated by terrain, with little or no overlap between the boosters and the main signal.¹³⁸ A similar analysis of the

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¹²⁹ GBS Ex Parte Presentation (Apr. 12, 2022). Specifically, GBS states that altering the distance between an FM booster and the border of a zone reduces the respective transition area. Jackson Test Report at 2.

¹³⁰ For example, GBS states that transition areas frequently can be designed to fall over water or in unpopulated areas without roads, as was done in Jackson. Jackson Test Report at 4.

¹³¹ Those supporters that retained engineers include the National Association of Black Owned Broadcasters and the Multicultural Media, Telecom and Internet Council.

¹³² For example, BIA, which states that it has 38 years of experience in the broadcast industry, describes as "reasonable and compelling" the conclusion of the test reports that program originating boosters work from a technical perspective and from an audience perspective. 2022 Comments of BIA at 6.

¹³³ See, e.g., Comments of NAB at 18-19; Comments of Alaska Broadcasters Association at 8; Comments of Xperi at 7; Comments of Ron Zlotnick at 2.

¹³⁴ See, e.g., Comments of NAB at 20.

¹³⁵ 2022 Comments of Xperi at 4-5.

¹³⁶ 2022 Comments of NAB at 2. NAB more recently characterized this as the tests being conducted in "cherry-picked testing environments" that were "carefully designed to produce only positive results, and that do not simulate real-world conditions." 2022 Comments of NAB at 3 and 25. See also 2022 Comments of the Joint Commenters at 4-10.

¹³⁷ 2022 Comments of NAB at 5. For example, NAB questions what a listener would experience travelling near or along the intersection between two zones while the primary station and booster are airing different content, and how stationary listeners located in homes near this intersection would be impacted. It also asks how geo-casting would impact radio listening beyond the small listening area tested and impact listeners travelling away from the primary signal on the far side of a booster. 2022 Comments of NAB at 23.

¹³⁸ Comments of Joint Commenters at 4-5.

Milwaukee tests notes GBS did not disclose underlying data such as vehicle speed and tested only west-to-east routes.¹³⁹ Commenters also dispute GBS's characterization of an interference zone in Milwaukee as minimal based on the ability of listeners to move through that area (of a few city blocks) within about 15 seconds. The analysis argues that 15 seconds of interference represents fully half of a typical 30-second message, and would be especially significant if the message contained emergency information.¹⁴⁰ Commenters note that the San Jose test reveals that a listener traveling an ideal, terrain shielded route at 10 mph would be subject to interference for more than 11 seconds and that for stations without natural terrain shielding like that in the Jackson test, a listener travelling at 20 mph would suffer a disruption for an average of 8 seconds, with many exceeding 16 seconds and some longer than 20 seconds.¹⁴¹

49. Although GBS conducted the San Jose and Jackson tests to address issues raised in response to the earlier tests, opponents continue to cite objections to the methodology used and the test results. NAB and NPR characterize the test results as misleading because the potential for interference in the test areas was limited by natural terrain shielding and low population.¹⁴² They also argue that the tests only examined back-to-back boosters located very close to a highway¹⁴³ (instead of larger, more realistic travel zones), measured the system's performance only on very small portions of the roadways, and tested for interference only to cars travelling at high speeds along the most ideal driving routes. NAB contends that this methodology constrains the resulting interference and fails to recognize predicted interference in large regions outside the small test area. Moreover, it argues that GBS should have conducted listener studies with actual measurements, but instead used hypothetical thresholds to estimate the degradation of sound quality. NAB states that, at best, cars traveling at 60 mph could experience outages for up to 7 seconds and, at worst, cars stuck in traffic and crawling in bad weather could lose coverage for long periods, which they argue would be dangerous. Thus, it argues that the tests are an attempt by GBS to skew the record by submitting only glowing results for extremely circumscribed, specifically engineered situations and claiming those results to be representative of all circumstances. GBS responds that the criticisms of its tests are baseless.¹⁴⁴

50. NPR analyzed the impact of GBS's technology on audio fidelity of the primary station's broadcast. Their report focuses on subjective listening evaluations of the audio captured in the interference zone between the booster and the primary station. NPR concludes "that listeners respond extremely negatively to ZoneCasting™ interference" to the extent it occurs with somewhere between 71% and 91% of listeners indicating they would change the station rather than listening to the

¹³⁹ *Id.* at 10, n.25.

¹⁴⁰ *Id.* at 18.

¹⁴¹ 2022 Reply Comments of NAB at 9-10. Four engineers who work for the Joint Commenters previously worked with GBS to design the tests. However, they are now critical of how the tests were carried out and say that the San Jose and Jackson tests did not take measurements that they recommended and considered vital. Ex Parte Comments of John D. Kennedy, *et. al.* (Sept. 1, 2022) at 2-3. For example, they say that the tests did not consider whether the boosters caused interference to the main station's actual signal, but rather only whether there was interference to the main station's programming as simulcast on one of the boosters included in the test. *Id.* GBS conducted its tests using paired boosters—one retransmitting the primary station and one originating content. These engineers contend the test should have looked for interference to the primary station's signal rather than the signal rebroadcast on one of the two paired boosters.

¹⁴² 2022 Comments of NAB at 16-17 and 22; 2022 Comments of NPR at 5-7.

¹⁴³ NAB characterizes the locations as an attempt to "stack the deck" by placing back-to-back, highly directional antennas right on top of where the measurements were made. 2022 Comments of NAB at 15.

¹⁴⁴ For example, GBS states that it is true that the tests were designed to avoid listeners traveling tangentially or diagonally to a transition area but submits that is a good outcome, consistent with the Commission's rules. 2022 Comments of GBS at 6-7.

interference.¹⁴⁵

51. Although opponents raise a long list of concerns about all the tests GBS conducted, we are persuaded that the self-interference concerns raised in the record are not sufficient to bar the use of program originating boosters. GBS has tested various aspects of the performance of program originating boosters in five markets under a variety of conditions. The multiple test reports show that program originating boosters work well under the varied, but not exhaustive, circumstances presented in those tests. In 2023, GBS also notes that geo-casting is being used in India. The record contains no specific details or test data about that deployment, but we note that the record also does not contain any mention of interference experienced by listeners or stations there or what standards that government applies to address any such interference. While we recognize some commenters have raised concerns about self-interference, we believe it is ultimately the decision of individual broadcasters to determine whether or not the purported benefits of program originating boosters are worth causing self-interference.¹⁴⁶ In evaluating the record, we agree that broadcasters implementing program originating boosters have an economic incentive to properly engineer their systems to maintain the quality of their primary signal and minimize interference.¹⁴⁷ Furthermore, under the rules we adopt today, boosters may originate programming for only a small percentage of the listening hour, which substantially reduces any potential for harmful interference from a booster's airing of programming different from that of the primary station.

52. To further reduce the risk of self-interference, we will apply section 74.1203(c) to program originating boosters with a clarification and an amendment. Section 74.1203(c) addresses interference from a booster to its primary station. A booster is permitted to cause "limited interference to its primary station's signal" but may not "disrupt the existing service of its primary station" or cause any interference "within the boundaries of the principal community of its primary station."¹⁴⁸ In the NPRM, we sought comment on whether this existing rule is sufficient to address any concern with self-interference¹⁴⁹ and on other changes to our booster station rules necessary to enable geo-targeting.¹⁵⁰ GBS favors retaining section 74.1203(c) without change based on its interpretation that the rule permits stations to deploy program originating boosters anywhere within the primary station's service contour so long as doing so would result in no more than limited self-interference.¹⁵¹ Kirchner Broadcast Services offers a different interpretation, arguing that the rule necessarily prohibits program originating boosters because they transmit content different from that of the primary station and could be deployed within the principal community of the primary station.¹⁵² We reject the view that a booster's transmission of programming different from that of the primary station, for only three minutes per hour, qualifies as interference with or disruption to the existing service of the primary station. That view does not account

¹⁴⁵ 2022 Comments of NPR at 8.

¹⁴⁶ Broadcasters also assert the introduction of program originating boosters will harm the overall radio industry. *See e.g.* Comments of NAB at 19-20 ("[B]roadcasters have global concerns that any interference, including 'self-interference,' will reflect negatively on FM radio service and spur listeners to change to a plethora of competitors. Nothing less than the reputation of FM radio service is at stake . . ."). We believe broadcasters have a strong economic incentive to avoid self-interference and other problems that could prompt listeners to turn to other sources of information and entertainment.

¹⁴⁷ Comments of GBS at 6-7; 2022 Reply Comments of GBS at 6-7; Comments of Wennes Communications Stations, Inc. at 1.

¹⁴⁸ *Id.* § 74.1203(c).

¹⁴⁹ NPRM para. 13.

¹⁵⁰ *Id.* paras 1, 4, 10, 18.

¹⁵¹ *See* GBS Aug. 11 2022 ex parte at 2; GBS March 2021 Reply Comments at n.3.

¹⁵² *See* Comments of Kirchner Broadcast Services, LLC at 2-3.

for the limited duration of booster-originated programming or for the public interest benefits of that programming. Furthermore, listeners in the booster's coverage area would still receive the programming intended by the broadcaster. At the same time, we also reject GBS's view that section 74.1203(c) permits a booster to produce "limited interference" even within the boundaries of the principal community of its primary station. The rule as written states that even with respect to the permissible "limited interference," the booster cannot "cause such interference within the boundaries of the principal community of its primary station." In light of these findings, we clarify that a booster's limited origination of programming does not cause interference into or "disrupt the existing service" of the primary station solely because it originates programming different from that of the primary station. We also amend the rule to eliminate the specific prohibition on interference within the primary station's principal community as applied to program originating boosters. As we noted elsewhere in this Report and Order, we believe broadcasters have a sufficient economic incentive to avoid self-interference, and that negates the ongoing need for this restriction as applied to program originating boosters. Furthermore, retaining the restriction would impede the voluntary deployment of program originating boosters, and the corresponding public interest benefits, in cases where even a well-engineered transition zone were located within the primary station's principal community. However, we retain the requirement that all boosters may provide only "limited" interference to emphasize that we expect booster stations to minimize their impact on their primary station wherever possible. While we believe broadcasters will have every incentive to comply with that standard, we will not hesitate to address non-compliance when poorly engineered program originating booster systems result in unduly large transition zones or otherwise cause excessive interference.

53. *EAS Compatibility.* To ensure that listeners to program originating boosters receive timely emergency alerts, we will require program originating boosters to receive and broadcast all emergency alerts in the same manner as their primary station. We codify this requirement by amending section 11.11 of the Rules.¹⁵³ As the San Jose and Jackson tests demonstrated, constructing a program originating booster with full EAS capability is the best way to ensure those stations deliver emergency messages to listeners. Moreover, this requirement is consistent with the approach that GBS and its supporters used to demonstrate the compatibility of program originating boosters and the EAS.

54. Consistent with our findings about overall interference from program originating boosters, we conclude these stations can be implemented without causing harmful interference to the EAS. The San Jose Test Report and Jackson Test Report document successful reception of EAS tones from both the primary station and the program originating booster. The record does not contain any evidence that the booster's substitution of programming caused a dead zone unable to receive an emergency alert. Nor has any commenter presented definitive evidence that program originating boosters are incompatible with the EAS. In light of the significant concerns that interested parties have expressed about the EAS, and the importance of the EAS to public safety, we will carefully monitor the implementation of program originating boosters and may revisit this issue if commercial operations result in reports of interference.

55. In the San Jose and Jackson tests, both the primary station and at least one program originating booster were equipped to broadcast an emergency alert.¹⁵⁴ In the San Jose test, GBS demonstrated that the program originating booster switched from its own programming to the appropriate EAS alert tone. In addition, the test demonstrated simultaneous reception of the EAS tone from both the primary station and the program originating booster.¹⁵⁵ GBS replicated these results in its Jackson test. Again, radios in separate locations successfully received the EAS tone from both the primary station and

¹⁵³ See Appendix B.

¹⁵⁴ San Jose Test Report at 34; Jackson Test Report at 37-38.

¹⁵⁵ San Jose Test Report at 34-35.

the program originating booster.¹⁵⁶

56. In addition to the concerns expressed above that the San Jose and Jackson tests were optimized and inadequate,¹⁵⁷ opponents also argue that the interference zones between the primary station and the program originating booster could be significantly larger than is shown in the test reports.¹⁵⁸ Larger zones of interference could have a greater impact on the EAS. Commenters also express concerns that individuals crossing an interference zone at a slower rate (which may be likely during an emergency situation when traffic would be heavier), could experience longer interruptions to emergency alerts.¹⁵⁹ One commenter cautions that the proponents of program originating boosters have not addressed “the significant technical and engineering risks, that are still unknown, as they relate to the incredibly important Integrated Public Alert and Warning System (IPAWS) and [EAS].”¹⁶⁰ NPR questioned whether the insertion of an emergency alert for the booster would add complexity, “thereby increasing the risk of errors and malfunctions during alert messages.”¹⁶¹ FEMA and other commenters called for additional testing of GBS’s technology to determine the potential impact on EAS.¹⁶²

57. GBS counters that its tests used standard industry configurations, represented a real-world environment, and demonstrated conclusively that an emergency signal would override any booster-originated programming and allow a program originating booster to fulfill its obligation, “to transmit national level EAS messages and required tests.”¹⁶³ Meintel, Sgrignoli & Wallace, LLC (MSW) were hired by supporters to analyze the San Jose and Jackson tests. MSW concludes, “[t]he EAS signal operated as normal and [was] re-transmitted appropriately by the FM Boosters. The tests demonstrate that no adverse impacts to EAS operations should be experienced.”¹⁶⁴ A consultant hired by GBS states that when the EAS equipment at the primary station is activated, all broadcasts, whether from the primary or the booster, are overridden.¹⁶⁵ He believes that program originating boosters will not harm EAS signals because the signals and data contained within the EAS tones would override any booster-originated content before it is delivered to the booster.¹⁶⁶

58. Based on the San Jose and Jackson tests, we conclude program originating boosters can be designed to minimize disruptions to emergency alerts if the booster transmits the emergency alert

¹⁵⁶ Jackson Test Report at 37-39.

¹⁵⁷ See *supra* paras. 47-48.

¹⁵⁸ See *e.g.* 2022 Comments of NAB; 2022 Comments of Press.

¹⁵⁹ 2022 Comments of Joint Commenters at 9-10; 2022 Comments of Woof Boom. The State Broadcasters Associations note, “Drivers stuck in slow traffic caused by an emergency will take longer to traverse the area in which ZoneCasting disrupts radio service as the radio signal transfers from one booster to another. Listeners in this situation could lose clear radio service for an extended period of time, and at the worst possible time.” 2022 Comments of State Broadcasters Associations at 2.

¹⁶⁰ 2022 Comments of Press at 3.

¹⁶¹ 2022 Comments of NPR at 9.

¹⁶² See *e.g.* Comments of FEMA. C. Patrick Roberts (Roberts), President of the Florida Association of Broadcasters, acknowledged potential benefits of the GBS Petition but urged the Commission to proceed with caution until the impact on EAS is tested. He stated that even 15-30 seconds of interference could jeopardize the resiliency of EAS, upon which Florida relies during severe weather. Comments of C. Patrick Roberts at 1.

¹⁶³ 2022 Reply Comments of GBS at 8-10.

¹⁶⁴ MMTTC Test Report at 2.

¹⁶⁵ Comments of Gregory Cooke at 2-3.

¹⁶⁶ *Id.* at 3.

simultaneously with the primary station. These tests confirm the stations can be engineered to allow the EAS signal to override programming from both the primary station and program originating booster. Also, the transmission of the EAS signal on both the primary station and the booster ensures that the booster's program origination does not create a dead zone without an EAS signal. The booster's broadcast of the EAS signal should address FEMA's concern that there would be a three-minute time period when emergency messages would not be received in the booster's zone. Moreover, as discussed above, the relatively small zones between reception of the primary signal and the program originating booster would minimize any geographic disruption of the public's ability to receive an emergency alert. While we conclude that the EAS rule we adopt today will ensure that these emergency messages are passed through, we will closely monitor the rollout of these boosters and may revisit this issue, in consultation with FEMA, if we receive reports that program originating boosters disrupt emergency alerts.¹⁶⁷

59. *Impact On HD Radio.* Consistent with our findings about self-interference and EAS compatibility, we conclude that it is possible for program originating boosters to minimize disruption to HD Radio. The test reports demonstrate that boosters can originate programming, without material degradation of the listener's experience, when deployed with optimal system design and successful synchronization. The record lacks any evidence that program originating boosters cause actual degradation to the digital signal. However, we are cognizant of commenters' concerns regarding potential untested interference scenarios and note that we will monitor implementation of the proposed technology, and remain willing to address reports of HD Radio interference.

60. GBS's San Jose test concluded that transition zones made up a very small portion of the service area and the HD signal was stable inside the transition zones.¹⁶⁸ The test also found that listeners experience an almost instantaneous transition between zones, and there was no evidence that zone transitions cause noticeable variation in the receiver's performance.¹⁶⁹

61. Despite its reservations due to limited testing, discussed further below, a technical report produced by HD Radio developer Xperi concludes that the listener experience for station KSJO(FM) was "generally good" when characterized by well-designed booster antennas to diminish transition zone size, and absent synchronization issues.¹⁷⁰ Further, independent engineers specializing in HD Radio deployment reviewed the San Jose Technical Report and agree that when professionally designed and deployed with successful synchronization, the technology causes "no appreciable degradation" to HD Radio signals.¹⁷¹

62. Yet, a number of commenters raise concerns that the impact of program originating boosters on digital radio has not been sufficiently examined because the one digital station used for testing was protected by terrain obstructions,¹⁷² and because the test failed to assess HD3 and HD4

¹⁶⁷ In the accompanying Further NPRM, we seek comment on whether to require FM primary stations implementing program originating boosters to notify all EAS participants monitoring that primary station of the booster's program origination and whether to require broadcasters using program originating boosters to report EAS-related problems or interference to the FCC. *See infra* para. 79.

¹⁶⁸ San Jose Technical Report at 3 and 28-29. The San Jose Test report states that HD1 transitions were almost instantaneous, without noticeable audio degradation, but that there were short audio dropouts of the HD2 signal in the interference zone. The report states that these brief HD2 issues were due partially to the current use of unsynchronized HD Exporters for HD2, 3 and 4 programming. The report anticipates that the duration of this dropout can be reduced through future use of synchronized exporters.

¹⁶⁹ *Id.* at 3 and 29-31.

¹⁷⁰ 2022 Xperi Technical Report at 5, 12, and 33.

¹⁷¹ 2022 Comments of Anderson at 1-2; 2022 Comments of Flagstaff at 2-3 and Attach. C, Technical Statement; 2022 Comments of Octave at 2.

subchannels.¹⁷³ Commenters also argue that program originating boosters could cause significant disruption to HD Radio in transition regions between the booster and primary signals, causing listener dissatisfaction and ultimately rejection of broadcast radio.¹⁷⁴ Xperi is also concerned about the size and design of potential “dead” zone regions in which the digital content is entirely compromised.¹⁷⁵ Specifically, Xperi asserts that its own testing confirmed signal degradation in transition zones due to frequent switching between main and zone audio programs, and loss of both physical and digital synchronization, resulting in audio outages.¹⁷⁶

63. Commenters therefore request further testing and propose potential scenarios that have not yet been tested. In particular, commenters suggest that transition zones between the primary station and the program originating booster could be significantly larger than those studied in the San Jose test.¹⁷⁷ Further, commenters maintain that the San Jose test demonstrated clear disruption to the HD2 signal.¹⁷⁸ NAB also argues that the testing provided inadequate results in and around transition zones.¹⁷⁹

64. GBS counters that it resolved physical synchronization issues working with Xperi and GatesAir, and further, booster systems designed with optimal transition zones will minimize switching between main and booster signals.¹⁸⁰ GBS also explains that Xperi observed, and submitted comments based on synchronization-related signal disruptions, or gaps in HD coverage, prior to their resolution.¹⁸¹ GBS’s engineering consultant adds that after working with Xperi and GatesAir, coverage between the synchronized boosters is now seamless.¹⁸² GBS relies on Xperi’s conclusion that HD3 and HD4 channels would operate consistent with HD2 results,¹⁸³ and notes that disruption, if any, would only occur in the transition zone during “the nominal three minutes of geo-targeted broadcasting.”¹⁸⁴ GBS maintains that licensees are incentivized to prevent signal degradation, and will therefore position transition zones in

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¹⁷² 2022 Comments of Xperi at 7 and 10; 2022 Comments of NAB at 10 and 19; 2022 Comments of Joint Commenters at 4 and 7.

¹⁷³ 2022 Comments of Xperi at 6; 2022 Comments of Joint Commenters at 14-15, 2022 Reply Comments of Joint Commenters at 5; 2022 Comments of NAB at 21; 2022 Comments of Press at 3.

¹⁷⁴ 2022 Comments of Xperi at 2-4 and 9; 2022 Comments of NAB at 21, 2022 Comments of Joint Commenters at 17-18; 2022 Reply Comments of Joint Commenters at 14; 2022 Comments of Joint Public Radio at 3; 2022 Comments of Press at 3.

¹⁷⁵ 2022 Comments of Xperi at 5-6 and 9.

¹⁷⁶ *Id.* at 5-7 (“because the use of geo-targeted programming is likely to result in different analog and digital signals in parts of the transition zone, it could disrupt the carefully designed audio blending between the analog and digital portions of the HD Radio signal.”).

¹⁷⁷ 2022 Reply Comments of NAB at 10 and 16; 2022 Comments of Joint Commenters at 13-14.

¹⁷⁸ 2022 Comments of NAB at 21; 2022 Comments of Joint Commenters at 15.

¹⁷⁹ 2022 Comments of NAB at 20-21.

¹⁸⁰ 2022 Reply Comments of GBS, Roberson Analysis at 10-11; San Jose Test Summary at 4, San Jose Technical Report at 3 and 36-37. GBS’s San Jose Technical Report acknowledges that the technology caused HD-2 dropouts of up to seven seconds, however GBS states that successful synchronization significantly reduced the duration of signal loss.

¹⁸¹ 2022 Reply Comments of GBS, Roberson Analysis at 10-11.

¹⁸² 2022 Reply Comments of at 4-5.

¹⁸³ 2022 Reply Comments of GBS at 8, *citing* 2022 Comments of Xperi at 6, Roberson Analysis at 11.

¹⁸⁴ 2022 Reply Comments of GBS, Roberson Analysis at 2 and 10-11.

optimal locations, i.e. areas of low population, away from major roads, or at terrain obstructions.¹⁸⁵ GBS asserts that it is in the licensee's best interest to ensure that its transmitters are synchronized in order to maintain an optimal signal.¹⁸⁶ Lastly, GBS and Goldman state that certain concerns put forth by commenters are independent of program originating boosters, and are in fact characteristic of any HD Radio and booster design, including HD2 and HD3 incoming and outgoing interference to other stations and improper booster synchronization.¹⁸⁷

65. Based on the San Jose test, and the resulting report, we conclude that program originating boosters can be designed to minimize interference to or disruption of HD Radio signals. We find it significant that Xperi, the developer of HD Radio, has not opposed the adoption of program originating boosters even though it has a strong incentive to prevent interference to digital operations. We also based our conclusion on the fact that we have determined the only potential interference concern of any significance from program originating boosters is co-channel interference from the booster to the primary station. Broadcasters that find they are unable to engineer boosters to avoid co-channel interference to their HD Radio operations can opt not to implement those boosters. Moreover, our definition of program originating boosters, which limits program origination to three minutes per hour, further reduces the risk of widespread interference to HD Radio broadcasts. Finally, we note the majority of FM stations have not yet adopted HD Radio, and therefore would not have this concern if they are considering the use of program originating boosters.¹⁸⁸ We therefore find that optimal, minimized transition zones between the primary station and program originating booster do not bar the introduction of program originating boosters. Nonetheless, we recognize the commenters asserting that testing to date has not examined many typical digital radio implementations. While we continue to believe that there is sufficient reason to find that program originating boosters are in the public interest, to the extent that we receive reports of significant disruption to digital broadcasts, we may revisit this issue.

4. Compliance with LCRA Requirements

66. A limit on the number of program originating boosters that a station can operate or other measures may be needed to ensure that an increase in booster stations resulting from our decision to authorize program originating boosters is consistent with the Local Community Radio Act of 2010 (LCRA).¹⁸⁹ Since current use of boosters is a response to weak signals caused by terrain, few stations use multiple boosters currently, and it is rare for a station to use three or four. The new use of program originating boosters could potentially increase booster use significantly. Therefore, in the Further NPRM, we seek comment on a program originating booster cap or other measures and whether they will be necessary for program originating booster stations to ensure compliance with the LCRA. Specifically, section 5 of the LCRA (Section 5) requires the Commission to ensure, when licensing new FM translators, FM boosters, or LPFM stations, that: (1) "licenses are available" to FM translator stations, LPFM stations, and FM booster stations; (2) licensing decisions are made "based on the needs of the local community"; and (3) FM translator stations, LPFM stations, and FM booster stations remain "equal in

¹⁸⁵ *Id.* at 1 and 7-8.

¹⁸⁶ *Id.* at 12 and 16.

¹⁸⁷ *Id.* at 9 and 16-17; 2022 Goldman Reply Comments at 6.

¹⁸⁸ The Commission's database indicates 2,125 stations, representing 25% of all FM stations, have notified us that they intended to convert to digital operations. Because stations are not required to notify the Commission if they cease digital operations, the number of stations currently broadcasting digitally may be lower.

¹⁸⁹ Pub. L. 111-371, 124 Stat. 4072 (2011). Because our decision here with respect to program originating boosters does not change the status quo regarding other boosters and the LCRA, we are limiting our discussion of the LCRA here to program originating boosters.

status” and secondary to existing and modified full-service FM stations.¹⁹⁰

67. In considering the first requirement of the LCRA, ensuring future licensing opportunities, we note that our existing rules requiring booster stations to operate within the service area of their primary station, and to broadcast on the same channel as the primary, already limit the impact of booster stations on other secondary service licensing opportunities. The primary station, which is not subject to the LCRA, imposes the greatest constraint on licensing additional secondary services in that area. Despite this, we do not yet know the extent of demand for program originating FM booster stations, nor the impact that potentially large numbers of such stations in a market could have on spectrum availability on adjacent channels where new FM translators and LPFM stations might conceivably wish to locate. To address any concerns about the impact new booster stations will have on the availability of licenses for FM translator and LPFM stations, we will limit to 25 the number of program originating boosters licensed to each full-service FM station during the FCC’s consideration of these issues in response to the FNPRM.¹⁹¹ We take this interim step because we may conclude that a limitation is necessary to ensure our secondary service licensing satisfies the LCRA.¹⁹² Moreover, this is in accordance with our more recent determination that Section 5 does not require a singular solution to ensure future licensing opportunities. Instead, we must use solutions appropriate for each licensing round we undertake.¹⁹³

68. With respect to the second requirement of the LCRA, we disagree with REC’s proposal to implement a “technical needs” solution to be employed on an application-by-application basis. Specifically, REC defines “needs of the local community” from the second prong of Section 5 as the need to serve populations that cannot receive at least a 54 dBμ signal from the primary FM station’s transmitter.¹⁹⁴ It therefore urges us to require that all FM booster applicants include a “local community needs” showing demonstrating that at least 40% of the population within the proposed booster’s 60 dBμ contour cannot receive at least a 54 dBμ signal from the primary station’s main transmitter.¹⁹⁵ We concluded above that program originating boosters could advance the public interest by enabling radio stations to gain new sources of revenue while providing audiences with hyper-local content. We further found that these public interest benefits, while accruing mostly to commercial FM stations, would also be of interest to NCE and LPFM stations. We believe that the provision of such hyper-local content, including, for example, advertisements for locally owned businesses and focused material tailored to the

¹⁹⁰ LCRA, Section 5.

¹⁹¹ We note that LPFM stations already have a cap of two boosters. 47 CFR § 73.860(b). In the Further NPRM, we propose that 25 is an appropriate per-station cap for each covered full-service FM station.

¹⁹² For example, in Auctions 99 and 100, the Commission advanced the local community need by supporting the local programming AM stations offer and ensured future licensing opportunities by implementing a cap of one FM translator per AM station. *Revitalization of the AM Radio Service*, Notice of Proposed Rule Making, 28 FCC Rcd 15221 (2013); *Revitalization of the AM Radio Service*, First Report and Order, Further Notice of Proposed Rule Making, and Notice of Inquiry, 30 FCC Rcd 12145 (2015). The Commission adopted a different approach in Auction 83 where it used preclusion studies to limit the number of translator applications in order to preserve future licensing opportunities. *Creation of a Low Power Radio Service*, Fourth Report and Order and Third Order on Reconsideration, 27 FCC Rcd 3364 (LPFM Fourth R&O), clarified, *Fifth Order on Reconsideration and Sixth Report and Order*, 27 FCC Rcd 15402 (2012) (LPFM Sixth R&O).

¹⁹³ *Capstar TX, LLC*, Memorandum Opinion and Order, 37 FCC Rcd 11073 (2022) (*Capstar*). We also note the Part 5 authorizations are on a noninterference basis and would not preclude future licensing of LPFM or FM translator stations.

¹⁹⁴ REC describes a 54 dBμ signal as being “internationally accepted” as the minimum usable signal in rural areas, citing *Planning Standards for Terrestrial FM Sound Broadcasting at VHF*, International Telecommunications Union, ITU-R BS.412-9 (Dec. 1998), at § 1.1. REC Comments at 4.

¹⁹⁵ REC Comments at 6. No commenters or reply commenters addressed REC’s “local community needs showing” proposal.

interests and needs of the individual areas within a community, is responsive to the Section 5 requirement that we make licensing decisions based on the “needs of the local community.” We therefore find that the potential for hyper-local programming satisfies this criterion of Section 5 of the LCRA when licensing new program originating FM booster stations, and will not require a special showing by those seeking to originate programming via boosters.

69. Finally, with regard to the third criterion, requiring that FM booster stations remain “equal in status” to FM translators and LPFM stations, our decision to allow program originating boosters does not alter the booster’s status as a secondary service. We therefore find this criterion of Section 5 of the LCRA is satisfied when licensing new program originating FM booster stations.

5. Part 5 Licensed Operations

70. As of the effective date of this *Report and Order and Further Notice of Proposed Rulemaking* (i.e., 30 days following publication in the Federal Register) and until the effective date of final service rules based on the proposals in the Further NPRM, a licensed booster station may originate programming on a booster station as explained herein. The mechanism we will use to authorize those operations during this period of time will be a one-year, experimental authorization, which may be renewed, obtained through Part 5 of the Commission’s rules.¹⁹⁶ Our rules provide an existing process for renewing these licenses, and we expect that the Commission will renew them promptly after the initial, one-year term as needed by the licensee.¹⁹⁷ We view experimental use of program-originating boosters as an appropriate mechanism to use during the pendency of the Further NPRM because it allows the FCC to closely monitor the rollout of the technology. We direct the Media Bureau to provide expedited treatment for any such request for Part 5 authorization.

71. Broadcasters may file an application requesting experimental authorization for a licensed broadcast station to originate programming on booster stations. A licensee that already operates an existing booster station and seeks to use it to originate programming should request experimental authorization pursuant to section 5.203 of the Commission’s rules.¹⁹⁸ An FM or LPFM station licensee that seeks new booster stations for the purpose of originating programming, must obtain a construction permit and license for the booster stations pursuant to Part 74 of the Commission’s rules and concurrently file a separate request for experimental authorization to originate programming. Because one of the main purposes of program originating boosters is to allow targeted advertising and underwriting, we direct the Media Bureau to include in any grant of experimental authorization for program origination a waiver of sections 5.215 and 5.203(c)(4) which would otherwise prevent an experimental station to charge for commercials or to accept underwriting donations. We do not believe that the data gained through this Part 5 experimental authorization would be as useful if participating stations could not be used fully in the manner intended. We further direct the Media Bureau to condition any experimental authorization for program origination on the licensee’s adherence to certain rules proposed in the Further NPRM¹⁹⁹ and to place any additional appropriate conditions on the authorizations. We require the Media Bureau’s conditions to reflect that experimental authorizations to originate programming are time-limited and subject to the outcome of the Commission’s decisions in the Further Notice of Proposed Rulemaking.

¹⁹⁶ 47 CFR § 5.71(c).

¹⁹⁷ *Id.*

¹⁹⁸ 47 CFR § 5.203.

¹⁹⁹ The application for experimental authorization will provide the Media Bureau with notification of program origination pending adoption of final notification procedures. The Media Bureau will place appropriate conditions in any experimental authorization for program origination to ensure EAS and OPIF compliance.

B. Further Notice of Proposed Rulemaking

72. While the Order we adopt today authorizes program originating boosters and uses a Part 5 process in the near term, we also propose to modify some of our existing rules. Also, as noted in the Report and Order above, our conclusion that it is in the public interest to provide broadcasters flexibility to use program originating boosters is based on certain safeguards to address concerns raised in the record. This Further NPRM seeks comment on the details of implementing additional potential rule changes and sets out a number of proposed changes to our rules detailed in Appendix C. We seek comment on these proposed rule changes as well as a number of additional questions set out below.

1. Program Origination Notification

73. In order to address concerns in the comments about the impact of program originating boosters on existing FM service, we conclude in the Report and Order that it is imperative for the Commission to adopt a notification requirement for program originating boosters. This will enable the Media Bureau to keep track of which stations are using boosters to originate content and to respond to any complaints that may arise. Program originating boosters authorized pursuant to experimental authority prior to finalized rules will satisfy the notification requirement through the application for experimental authority. We do not propose, however, to subject broadcasters to filing windows specifically for program originating booster stations; rather, we propose to continue to process booster applications, whether now with program origination under experimental authority or in the future pursuant to adopted rules, on a first come/first served basis using our existing application procedures.²⁰⁰ In the NPRM we sought comment on how to deal with mutually exclusive FM booster station applications, such as two proposed program originating boosters that are short-spaced under section 74.1204(g) and filed the same day.²⁰¹ The record is not yet developed on this question and we again invite commenter input.

74. With respect to the notification requirement, we propose to require licensees of authorized booster stations to file a notification, in machine-readable, open format, of their intention to originate programming rather than implementing a separate application process for boosters that originate programming that could introduce greater delay for broadcasters seeking to operate such booster stations. We seek comment on the details of this notification framework for program originating boosters. We propose to adopt new section 74.1206 that sets out the requirement for a FM Booster Origination Notification.²⁰² Our proposed rule would require broadcasters commencing originating programming on a booster to file a notification 15 days prior to commencing origination. Our proposed rule would also require broadcasters that permanently discontinue originating programming on a booster to file a notification within 30 days after termination. We believe these simple notification requirements will provide adequate notice to the Commission and interested parties while minimizing the regulatory burden for broadcast stations. We seek comment on this proposal and the proposed text of section 74.1206 set out in Appendix C.

75. *OPEN Government Data Act.* The OPEN Government Data Act,²⁰³ requires agencies to make “public data assets” available under an open license and as “open Government data assets,” *i.e.*, in machine-readable, open format, unencumbered by use restrictions other than intellectual property rights, and based on an open standard that is maintained by a standards organization.²⁰⁴ This requirement is to be

²⁰⁰ See 47 CFR § 74.1233.

²⁰¹ NPRM para. 18.

²⁰² Our proposed rule would require filers to submit the required information in machine-readable format.

²⁰³ Congress enacted the OPEN Government Data Act as Title II of the Foundations for Evidence-Based Policymaking Act of 2018, Pub. L. No. 115-435 (2019), §§ 201-202.

²⁰⁴ 44 U.S.C. §§ 3502(20), (22) (definitions of “open Government data asset” and “public data asset”), 3506(b)(6)(B) (public availability).

implemented “in accordance with guidance by the Director” of the Office of Management and Budget. (OMB).²⁰⁵ The term “public data asset” means “a data asset, or part thereof, maintained by the Federal Government that has been, or may be, released to the public, including any data asset, or part thereof, subject to disclosure under [the Freedom of Information Act (FOIA)].”²⁰⁶ A “data asset” is “a collection of data elements or data sets that may be grouped together,”²⁰⁷ and “data” is “recorded information, regardless of form or the media on which the data is recorded.”²⁰⁸ Would the information collected in the proposed FM Booster Notification constitute “data assets” for purposes of the OPEN Government Data Act? If so, would the collected information constitute “public data assets”? Is there any reason the Commission should not make such information publicly available?

2. Section 74.1204(f)

76. Section 74.1204(f) of the Rules addresses claims of predicted interference outside a protected station’s contour when a translator station construction permit application is pending.²⁰⁹ Unlike the actual interference rule in section 74.1203, which addresses both translator and booster stations, the predicted interference rule in section 74.1204(f) addresses only translator stations. We seek comment on whether we should modify section 74.1204(f) to include a mechanism to address predicted interference while booster construction permit applications remain pending. We believe this could help ensure that broadcasters do not invest in developing booster stations that will cause interference that must be resolved under section 74.1203 once the booster commences broadcasts. We also propose to apply this new mechanism to any booster applications that are pending at the time the modifications to section 74.1204 are adopted. We seek comment on these proposals.²¹⁰

3. Synchronization

77. We seek comment on whether we should adopt a requirement that broadcasters synchronize their primary station and booster signals to reduce and eliminate self-interference. GBS’s engineering consultant emphasized in the comments that synchronization is critical to successful booster implementation.²¹¹ Further, Anderson notes, “It is imperative that all transmitters/boosters within any booster system, but particularly in a ZoneCasting, system, be synchronized in carrier frequency, pilot phase, and audio frames for analog FM.”²¹² In the Report and Order, we concluded that broadcasters have strong economic incentives to avoid self-interference to their primary station’s signal.²¹³ In light of that conclusion, we believe broadcasters deploying program originating boosters will employ a technology

²⁰⁵ OMB has not yet issued final guidance.

²⁰⁶ 44 U.S.C. § 3502(22).

²⁰⁷ 44 U.S.C. § 3502(17).

²⁰⁸ 44 U.S.C. § 3502(16).

²⁰⁹ *Id.* § 74.1204(f). Also, to conform to the publishing conventions of the National Archives and Records Administration’s Office of the Federal Register, we propose to move the Note to paragraph (a)(4) of section 74.1204 into a new subsection (a)(5). *See* Appendix C.

²¹⁰ We also propose a minor editorial change to the translator rule in section 74.1204(f)(1) to conform to the proposed changes to our booster rules in section 74.1204(f)(2). *See* Appendix C.

²¹¹ Comments of Goldman at 5. *See also* Reply Comment of TBA Communications, LLC at 2 (“if the main and zone boosters are not properly synchronized, disruptive digital audio outages and degradation will occur within the transition zones.”).

²¹² Reply Comment of TBA Communications, LLC at 2. *See also* Comments of Goldman at 5 (“in order to implement a FM booster . . . with minimal self-interference, several things must be precisely engineered: Carrier frequency and pilot, pilot phase, antenna design, timing and modulation with 0.25dB.”).

²¹³ *See supra* para.44.

that uses synchronization. Is there any need to adopt a separate synchronization requirement as an additional safeguard? If we were to adopt a synchronization requirement, we seek comment on what level of synchronization would be appropriate. Should we adopt any standards with regard to synchronizing any or all of the elements discussed by Anderson? Would stations require new or specialized equipment to maintain proper synchronization or is that a routine part of existing booster station operations? Do station signals change enough to require constant monitoring and recalibration and if so, how does this affect our ability to develop and apply a standard? Or would a synchronization requirement impose an unnecessary burden on booster station operations? We seek comment on these questions.

4. Notification to EAS Participants

78. In the Report and Order, we require program originating boosters to receive and broadcast all emergency alerts in the same manner as their primary station.²¹⁴ As we stated in the Report and Order, we have codified this requirement by amending section 11.11 of our Rules to explicitly make all requirements concerning EAS applicable to full-service AM and FM stations and LPFM stations²¹⁵ equally applicable to program originating FM boosters.

79. In its comments, FEMA recommended that we require FM primary stations implementing program originating boosters to notify all EAS participants monitoring that primary station of the booster's program origination.²¹⁶ We seek comment on this proposal. Does our proposal to require all program originating boosters to broadcast emergency alerts negate the need for this proposal? As we stated in the Report and Order, we believe our requirement that program originating boosters broadcast all emergency alerts will ensure no disruptions to the EAS, but we will monitor the rollout of program originating boosters to ensure they do not cause interruptions to the EAS. Should we adopt any requirement for broadcasters using program originating boosters to report EAS-related problems or interference to us? What would be the best means for broadcasters to provide this information to us? Should we require that licensees also submit this information to FEMA?

5. Part 74 Licensing Issues

80. We propose to clarify certain operational issues for program originating boosters. We propose to reorganize and clarify section 74.1231 of our rules by changing the current Note to a new paragraph (j), which clarifies grandfathered superpowered FM stations will be able to implement booster stations only within the standard (i.e., non-superpowered) maximum contour for their class of station.²¹⁷ We believe this helps to minimize interference risks by further isolating program originating boosters from adjacent FM broadcast stations. Also, we propose to add a new paragraph (k) that requires booster stations to suspend operations any time their primary stations are not broadcasting and to file notices of suspended operations pursuant to section 73.1740 of our rules. This change codifies more explicitly existing requirements. Finally, we propose to modify section 74.1232 to clarify that a booster station may

²¹⁴ See *supra* paras. 53-58.

²¹⁵ We propose an administrative update to section 73.801 of our rules to cross-reference the EAS obligation for LPFM stations contained in section 11.11 of the rules.

²¹⁶ Comments of FEMA at 2.

²¹⁷ The current version of section 74.1231 includes a Note following paragraph (i) that reads: "In the case of an FM broadcast station authorized with facilities in excess of those specified by § 73.211 of this chapter, an FM booster station will only be authorized within the protected contour of the class of station being rebroadcast as predicted on the basis of the maximum powers and heights set forth in that section for the applicable class of FM broadcast station concerned." We propose to re-categorize the Note into new paragraph (j), and to make clear that "an FM broadcast station authorized with facilities in excess of those specified by § 73.211 of this chapter" refers to superpowered FM facilities. See Appendix C.

not broadcast programming that is not permitted by its FM primary station's authorization. This will ensure that program originating boosters are not used in a manner that is inconsistent with the primary station. We take this opportunity to remind broadcasters that licensees of noncommercial FM stations may not use booster stations for commercial broadcasts. We seek comment on these proposed rule changes.

6. Cap on Program Originating FM Boosters and Other LCRA Issues

81. We further propose to amend section 74.1232(g) of our rules²¹⁸ to limit full-service FM stations to 25 program originating booster stations. This cap on the number of program originating FM booster stations would represent a change from the current rule, which imposes no numerical limit on FM booster stations.²¹⁹ The ability of other secondary service applicants to locate within an existing full-service FM station's service contour is ordinarily constrained by the full-service FM primary station itself. Despite this, we do not yet know the extent of demand for program originating FM booster stations, nor the impact that potentially large numbers of such stations in a market could have on spectrum availability on adjacent channels where new FM translators and LPFM stations might conceivably wish to locate. Accordingly, in the Report and Order we conclude that a limit on the number of program originating FM boosters a station can operate may be needed to ensure that an increase in booster stations resulting from our decision to authorize program originating boosters is consistent with the LCRA. We noted in the Report and Order that some commenters have expressed concern about the effect of additional boosters on the FM noise floor.²²⁰ Would a program originating FM booster cap address such concerns? We tentatively conclude that a limit of 25 program originating boosters per full-service FM primary station is a reasonable compromise. In seeking comment on this number, we also note that imposing an artificially low number of program originating boosters could make it harder for licensees to design and deploy boosters in a way that minimizes the risks of interference. We do not propose an overall per market limit. We seek comment on these tentative conclusions as well as any alternative number for the cap. GBS's studies evaluated geotargeting deployments with up to nine boosters.²²¹ Thus, we tentatively conclude that a 25 program originating booster station cap should not impose an undue burden on the rollout of this technology while at the same time ensuring consistency with the LCRA. We also seek input on any alternatives. We ask that any alternative proposals be accompanied by detailed justifications, as well as a discussion of the effect any alternative program originating booster cap or alternative approach to limiting program originating boosters might have on other stations, both full-service and secondary, and on the local FM noise floor generally.

82. We also seek comment on whether there are other requirements needed to ensure compliance with the LCRA. As noted in the Report and Order, we conclude our authorization of program originating boosters is consistent with the LCRA. However, we seek input on any remaining concerns about compliance with the LCRA. We note that currently, LPFM stations are permitted to originate programming 100 percent of the time, while FM translators and boosters do not originate programming. What difference, if any, does allowing some FM boosters to originate programming for five percent of each broadcast hour make to the relative status of the secondary services? We seek comment on these matters.

83. Additionally, in discussing any proposed LCRA-based requirements in licensing program

²¹⁸ 47 CFR § 74.1232(g).

²¹⁹ Non-Tribal LPFM stations are already limited to attributable interests in two FM translators, two FM boosters, or one translator and one booster. 47 CFR § 73.860(b). Tribal Applicants may hold attributable interests in up to two LPFM stations and four FM translators. *Id.* § 73.860(c). We do not propose to change these caps.

²²⁰ *See supra* n. 105.

²²¹ Jackson Test Report at 10.

originating FM booster stations, we ask commenters specifically to enumerate the costs and benefits of their proposals or any alternatives set forth by commenters. This should include the costs of preparing any proposed application showings, or of licensing an FM booster in such a manner as to comply with the LCRA. Commenters should also quantify projected costs and benefits, identify supporting evidence and any underlying assumptions, and explain any difficulties faced in trying to quantify benefits and costs of the proposals and how the Commission might nonetheless evaluate them.

7. Political Broadcasting and Advertising

84. If program originating boosters are widely adopted, candidates and issue advertisers may seek to use program originating booster stations to target their message to particular subsets of a market, which has political broadcasting and recordkeeping implications. As an initial matter, we tentatively conclude that, to the extent an FM booster station originates programming, it should be subject to the full array of political programming requirements that are applicable to full power broadcast stations.²²² These obligations ensure that candidates for elective office have access to broadcast facilities and certain other media platforms and foster transparency about entities sponsoring advertisements. We therefore propose to adopt a new provision at section 74.1290 of the Commission's rules²²³ to explicitly make all political programming requirements applicable to program originating FM booster stations. We also propose to obligate broadcasters originating programming on a booster to maintain a political file for the booster in the same political file as the booster's primary station. Thus, we propose to amend section 73.3526 of the Commission's rules (online public inspection file of commercial stations)²²⁴ and section 73.3527 of the Commission's rules (online public inspection file of noncommercial educational stations)²²⁵ to appropriately reflect the obligation of licensees of program originating FM booster stations to maintain an online political file for each such station. LPFM stations operating program originating boosters will need to maintain a physical political file consistent with existing requirements. We invite comment on this proposal.

85. *Political Files.* Applying the full array of political programming requirements to program originating FM booster stations raises several additional issues on which we seek comment. First, we seek comment on how licensees should comply with the political file requirements in section 73.1943 of the Commission's rules and section 315(e) of the Act for program originating booster stations.²²⁶ For example, these sections require commercial licensees to maintain online political files for requests for the purchase of broadcast time by or on behalf of all legally qualified candidates for public office and by or on behalf of issues advertisers whose ads communicate a message relating to any political matter of national importance. The requirement applies to both full service noncommercial stations and LPFM stations to the extent that they make time available without charge for use by a candidate.²²⁷ What is the best location for records of such commercial and noncommercial use of broadcast time on a program originating booster station? We note that booster stations are not required to maintain a public file.²²⁸ Should records of political use of broadcast time on a program originating

²²² See 47 CFR §§ 73.1212 (Sponsorship identification), 73.1940 (Legally qualified candidates for public office), 73.1941 (Equal opportunities), 73.1942 (Candidate rates), 73.1943 (Political file), 73.1944 (Reasonable access); 47 U.S.C. §§ 312(a)(7), 315, and 317.

²²³ 47 CFR § 74.1290 (currently "Reserved").

²²⁴ *Id.* § 73.3526.

²²⁵ *Id.* § 73.3527.

²²⁶ *Id.* § 73.1943 and 47 U.S.C. § 315(e).

²²⁷ 47 CFR §§ 73.3527(e)(5), 73.1943(c).

²²⁸ *Id.* § 73.3526(a)(2) ("Every permittee or licensee of an AM, FM, TV or Class A TV station in the commercial broadcast services shall maintain a public inspection file. . ."); *Id.* § 73.3527(a)(2) ("Every permittee or licensee of

(continued....)

booster station be commingled with records of requests for the use of broadcast time on the licensee's primary station so long as they are appropriately labeled to identify the station on which the use was made? Alternatively, should licensees be required to create a political file subfolder for each of its booster stations into which it would place records of requests for the purchase or free use of broadcast time? Would candidates and members of the public know that a political message that they have heard originated on a booster station (as opposed to the licensee's primary station) and know where to locate records of the message in the station's political file? How should LPFM stations, which are not currently required to have an online public inspection file, keep publicly available records of political use of their program originating boosters? For example, should they keep a physical file for the booster with the LPFM station's files consistent with requirements for political use of the LPFM station?²²⁹ We invite comment on all of these questions and any additional issues that follow from requiring licensees to maintain records of requests for the purchase of political time and of time made available without charge for use by a candidate on their program originating booster stations.

86. *Equal Opportunities.* Targeted advertising also raises questions about how licensees should comply with obligations related to equal opportunities. Under section 73.1941 of the Commission's rules and section 315(a) of the Act, if a licensee permits a legally qualified candidate for any public office to use its station, it must, with some exceptions, permit all other legally qualified candidates for the same office to also use its station.²³⁰ Should candidates who are requesting equal opportunities in response to an advertisement or noncommercial announcement that was broadcast on a particular program originating booster station be entitled to use only that booster station, essentially treating individual booster stations and a licensee's primary station as separate facilities for equal opportunities purposes?

87. *Reasonable Access.* Similar questions arise with respect to how licensees should entertain requests for reasonable access by Federal candidates on program originating booster stations. Under section 73.1944 of the Commission's rules and section 312(a)(7) of the Act, commercial broadcast stations must permit candidates for Federal office to purchase reasonable amounts of advertising time.²³¹ In determining what is "reasonable" for reasonable access purposes, should licensees treat their program originating booster and primary stations as separate facilities? For example, should the amount of time that a Federal candidate has purchased on a licensee's primary station affect the amount of time to which the same candidate is entitled to purchase on one of the licensee's program originating booster stations, and vice versa?

88. *Candidate Rates.* Program originating booster stations raise additional questions about how licensees should apply candidate rates. Pursuant to section 73.1942 of the Commission's rules and section 315(b) of the Act,²³² during the 45-day period preceding a primary or primary run-off election, and the 60 day period preceding a general or special election, stations must charge candidates in connection with their campaigns no more than the station's lowest unit charge for the same class and amount of time during the same period. In determining lowest unit charges, should licensees treat their program originating booster stations and primary stations as separate facilities? Is it reasonable to expect that the

(Continued from previous page) _____

an AM, FM, or TV station in the noncommercial educational broadcast services shall maintain a public inspection file. . .").

²²⁹ *Creation of a Low Power Radio Service*, Report and Order, 15 FCC Rcd 2205, para. 176 (2000) ("[W]e will require LPFM licensees to maintain a political file, if needed, to record the requisite particulars. The political file shall be maintained for public inspection at an accessible place in the station's community.").

²³⁰ 47 CFR § 73.1941 and 47 U.S.C. § 315(a).

²³¹ 47 CFR § 73.1944 and 47 U.S.C. § 312(a)(7).

²³² 47 CFR § 73.1942 and 47 U.S.C. § 315(b).

lowest unit rates on a licensee's program originating booster station would be different from the lowest unit rates on its primary station?

8. Licensing Issues

89. We also seek comment on whether we should require vendors of program originating technology and patent owners in program originating technology to abide by the Commission's patent policy²³³ or any other guidelines common to open standards, which require that licenses be available to all parties on fair, reasonable and nondiscriminatory terms.²³⁴ Would such a step be necessary or an appropriate exercise of Commission authority in light of the fact that the Report and Order does not endorse a particular technical approach? Parties suggesting that we do consider any requirements should provide detailed information, including how long such requirements should last and our authority to adopt such requirements.

9. Other Safeguards

90. Are there any other non-technical safeguards on program originating boosters that might be useful? For example, two members of Congress who support geo-targeted content, nevertheless suggest that the Commission should consider requiring licensees of program originating boosters to certify that they are being responsive to needs and issues of their service areas, especially minority communities.²³⁵ This appears to be a response to concerns of a non-technical nature, such as the potential for redlining by advertisers or licensees. Although, as discussed above, we find no evidence of factors to cause redlining,²³⁶ we seek comment on whether a safeguard in the form of a reporting condition might generally be useful to address non-technical concerns. If so, what information should licensees certify to, and how often?

10. Digital Equity and Inclusion

91. The Commission, as part of its continuing effort to advance digital equity for all,²³⁷ including people of color, persons with disabilities, persons who live in rural or Tribal areas, and others who are or have been historically underserved, marginalized, or adversely affected by persistent poverty or inequality, invites comment on any equity-related considerations²³⁸ and benefits (if any) that may be

²³³ Revised Patent Procedures of the Federal Communications Commission, 3 FCC 2d 26 (1966).

²³⁴ See American National Standards Institute, ANSI Essential Requirements: Due process requirements for American National Standards at section 3.1 (March 2, 2022), https://share.ansi.org/Shared%20Documents/About%20ANSI/Current_Versions_Proc_Docs_for_Website/ER_Pro_current.pdf (essential patents must be made available, "under reasonable terms and conditions that are demonstrably free of any unfair discrimination.").

²³⁵ Comments of Reps. Horsford and Thompson at 1-2 ("While we support the proceeding, we also believe the adoption of a Public Interest Certification should be required by all licensees of FM booster stations under this new authority, requiring the licensee to be responsive to the needs and issues of the people in their service area. This certification will provide an additional layer of oversight for the Commission and provide minority communities with a certainty that geotargeting will be deployed equitably.").

²³⁶ See *supra*, paras. 35-36.

²³⁷ Section 1 of the Communications Act of 1934 as amended provides that the FCC "regulat[es] interstate and foreign commerce in communication by wire and radio so as to make [such service] available, so far as possible, to all the people of the United States, without discrimination on the basis of race, color, religion, national origin, or sex." 47 U.S.C. § 151.

²³⁸ The term "equity" is used here consistent with Executive Order 13985 as the consistent and systematic fair, just, and impartial treatment of all individuals, including individuals who belong to underserved communities that have been denied such treatment, such as Black, Latino, and Indigenous and Native American persons, Asian Americans and Pacific Islanders and other persons of color; members of religious minorities; lesbian, gay, bisexual,

(continued...)

associated with the proposals and issues discussed herein. Specifically, we seek comment on how our proposals may promote or inhibit advances in diversity, equity, inclusion, and accessibility, as well the scope of the Commission's relevant legal authority.

IV. PROCEDURAL MATTERS

A. Regulatory Flexibility Analysis

92. *Regulatory Flexibility Act.* The Regulatory Flexibility Act of 1980, as amended (RFA),²³⁹ requires that an agency prepare a regulatory flexibility analysis for notice and comment rulemakings, unless the agency certifies that “the rule will not, if promulgated, have a significant economic impact on a substantial number of small entities.”²⁴⁰ Accordingly, we have prepared a Final Regulatory Flexibility Analysis (FRFA) concerning the possible impact of the rule changes contained in this Report and Order. The FRFA is set forth in Appendix D.

93. We have also prepared an Initial Regulatory Flexibility Analysis (IRFA) concerning the potential impact of the rule and policy changes contained in the Further NPRM. The IRFA is set forth in Appendix E. Written public comments are requested on the IRFA. Comments must be filed by the deadlines for comments on the Further NPRM indicated on the first page of this document and must have a separate and distinct heading designating them as responses to the IRFA.

B. Report and Order

1. Final Paperwork Reduction Act of 1995 Analysis

94. This document does not contain new or modified information collection requirements subject to the Paperwork Reduction Act of 1995 (PRA), Public Law 104-13. In addition, therefore, it does not contain any new or modified information collection burdens for small business concerns with fewer than 25 employees, pursuant to the Small Business Paperwork Relief Act of 2002, Public Law 107-198, see 44 U.S.C. 3506(c)(4).

2. Congressional Review Act

95. The Commission has determined, and the Administrator of the Office of Information and Regulatory Affairs, Office of Management and Budget, concurs, that these rules are non-major under the Congressional Review Act, 5 U.S.C. § 804(2). The Commission will send a copy of the Report and Order to Congress and the Government Accountability Office pursuant to 5 U.S.C. § 801(a)(1)(A).

C. Further Notice of Proposed Rule Making

1. Filing Requirements.

96. *Ex Parte Rules.* This proceeding shall be treated as a “permit-but-disclose” proceeding in accordance with the Commission's *ex parte* rules.²⁴¹ Persons making *ex parte* presentations must file a copy of any written presentation or a memorandum summarizing any oral presentation within two business days after the presentation (unless a different deadline applicable to the Sunshine period applies).

(Continued from previous page) _____
transgender, and queer (LGBTQ+) persons; persons with disabilities; persons who live in rural areas; and persons otherwise adversely affected by persistent poverty or inequality. See Exec. Order No. 13985, 86 Fed. Reg. 7009, Executive Order on Advancing Racial Equity and Support for Underserved Communities Through the Federal Government (January 20, 2021).

²³⁹ 5 U.S.C. §§ 601–612. The RFA has been amended by the Small Business Regulatory Enforcement Fairness Act of 1996 (SBREFA), Pub. L. No. 104-121, Title II, 110 Stat. 857 (1996).

²⁴⁰ 5 U.S.C. § 605(b).

²⁴¹ 47 CFR §§ 1.1200 *et seq.*

Persons making oral *ex parte* presentations are reminded that memoranda summarizing the presentation must (1) list all persons attending or otherwise participating in the meeting at which the *ex parte* presentation was made, and (2) summarize all data presented and arguments made during the presentation. If the presentation consisted in whole or in part of the presentation of data or arguments already reflected in the presenter's written comments, memoranda, or other filings in the proceeding, the presenter may provide citations to such data or arguments in his or her prior comments, memoranda, or other filings (specifying the relevant page and/or paragraph numbers where such data or arguments can be found) in lieu of summarizing them in the memorandum. Documents shown or given to Commission staff during *ex parte* meetings are deemed to be written *ex parte* presentations and must be filed consistent with rule 1.1206(b). In proceedings governed by rule 1.49(f) or for which the Commission has made available a method of electronic filing, written *ex parte* presentations and memoranda summarizing oral *ex parte* presentations, and all attachments thereto, must be filed through the electronic comment filing system available for that proceeding, and must be filed in their native format (e.g., .doc, .xml, .ppt, searchable .pdf). Participants in this proceeding should familiarize themselves with the Commission's *ex parte* rules.

97. *Filing Requirements—Comments and Replies.* Pursuant to sections 1.415 and 1.419 of the Commission's rules, 47 CFR §§ 1.415, 1.419, interested parties may file comments and reply comments on or before the dates indicated on the first page of this document. Comments may be filed using the Commission's Electronic Comment Filing System (ECFS). See *Electronic Filing of Documents in Rulemaking Proceedings*, 63 FR 24121 (1998).

- Electronic Filers: Comments may be filed electronically using the Internet by accessing the ECFS: <http://apps.fcc.gov/ecfs/>.
- Paper Filers: Parties who choose to file by paper must file an original and one copy of each filing.
- Filings can be sent by commercial overnight courier, or by first-class or overnight U.S. Postal Service mail. All filings must be addressed to the Commission's Secretary, Office of the Secretary, Federal Communications Commission.
 - Commercial overnight mail (other than U.S. Postal Service Express Mail and Priority Mail) must be sent to 9050 Junction Drive, Annapolis Junction, MD 20701.
 - Postal Service first-class, Express, and Priority mail must be addressed to 45 L Street, NE, Washington DC 20554.
- Effective March 19, 2020, and until further notice, the Commission no longer accepts any hand or messenger delivered filings. This is a temporary measure taken to help protect the health and safety of individuals, and to mitigate the transmission of COVID-19.²⁴²

98. *People with Disabilities.* To request materials in accessible formats for people with disabilities (braille, large print, electronic files, audio format), send an e-mail to fcc504@fcc.gov or call the Consumer & Governmental Affairs Bureau at 202-418-0530 (voice), 202-418-0432 (tty).

99. *Additional Information.* For additional information on this proceeding, contact Albert Shuldiner, Audio Division, Media Bureau at Albert.Shuldiner@fcc.gov or 418-2721, or James Bradshaw, Audio Division, Media Bureau at James.Bradshaw@fcc.gov or (202) 418-2739.

2. Paperwork Reduction Act Analysis.

100. This document contains proposed new or modified information collection requirements.

²⁴² See FCC Announces Closure of FCC Headquarters Open Window and Change in Hand-Delivery Policy, Public Notice, 35 FCC Rcd 2788 (2020).

The Commission, as part of its continuing effort to reduce paperwork burdens, invites the general public and the Office of Management and Budget (OMB) to comment on the information collection requirements contained in this document, as required by the Paperwork Reduction Act of 1995 (PRA), Public Law 104-13. In addition, pursuant to the Small Business Paperwork Relief Act of 2002, Public Law 107-198, *see* 44 U.S.C. § 3506(c)(4), we seek specific comment on how we might “further reduce the information collection burden for small business concerns with fewer than 25 employees.”

D. Providing Accountability Through Transparency Act

101. Consistent with the Providing Accountability Through Transparency Act, Public Law 118-9, a summary of this document will be available on <https://www.fcc.gov/proposed-rulemakings>.²⁴³

V. ORDERING CLAUSES

102. Accordingly, IT IS ORDERED that pursuant to the authority contained in sections 1, 2, 4(i), 7, 301, 302, 303, 307, 308, 309, 316, 319, and 324 of the Communications Act of 1934, 47 U.S.C. §§151, 154, 157, 301, 302, 303, 307, 308, 309, 316, 319, and 324, this Report and Order IS ADOPTED.

103. IT IS FURTHER ORDERED that the *Report and Order* and the amendments to the Commission’s rules set forth in Appendix B SHALL BE EFFECTIVE 30 days after publication of a summary in the Federal Register.

104. IT IS FURTHER ORDERED that, pursuant to sections 1, 2, 4(i), 7, 301, 302, 303, 307, 308, 309, 316, 319, 324, and 403 of the Communications Act of 1934, as amended, 47 U.S.C. §§ 151, 154, 157, 301, 302, 303, 307, 308, 309, 316, 319, 324, and 403, this Further Notice of Proposed Rule Making IS ADOPTED.

105. IT IS FURTHER ORDERED that, pursuant to applicable procedures set forth in sections 1.415 and 1.419 of the Commission’s rules, 47 CFR §§ 1.415, 1.419, interested parties may file comments on the Further Notice of Proposed Rulemaking in MB Docket No. 20-401 on or before thirty (30) days after publication in the *Federal Register* and reply comments on or before sixty (60) days after publication in the *Federal Register*.

106. IT IS FURTHER ORDERED that the Commission’s Office of the Secretary, Reference Information Center SHALL SEND a copy of this Report and Order and Further Notice of Proposed Rulemaking, including the Final and Initial Regulatory Flexibility Analysis, to the Chief Counsel for Advocacy of the Small Business Administration, and shall cause it to be published in the Federal Register.

107. IT IS FURTHER ORDERED that Office of the Managing Director, Performance Program Management, SHALL SEND a copy of this Report and Order and Further Notice of Proposed Rulemaking in a report to be sent to Congress and the Government Accountability Office pursuant to the Congressional Review Act, 5 U.S.C. § 801(a)(1)(A).

FEDERAL COMMUNICATIONS COMMISSION

Marlene H. Dortch
Secretary

²⁴³ 5 U.S.C. § 553(b)(4). The Providing Accountability Through Transparency Act, Pub. L. No. 118-9 (2023), amended section 553(b) of the Administrative Procedure Act.

APPENDIX A
List of Commenters

Commenters to Notice of Proposed Rule Making in MB Docket 20-401

Aaron Read

Alaska Broadcasters Association, Colorado Broadcasters Association, Oregon Association of Broadcasters, Puerto Rico Broadcasters Association**

Alpha Media USA LLC**

Andrew C. Barrett

Ashley Communications, Inc.

Ashley Communications, Inc., Evans Broadcasting, Inc.**

Ashley County Broadcasters, Inc.

Beasley Media Group, LLC, Cumulus Media New Holdings Inc., Entercom Communications Corp., iHeart Communications, Inc., New York Public Radio, Salem Media Group, Inc.*

Best Media, Inc.

BIA Advisory Services, LLC*

Boswell Media, LLC

Broadsouth Communications, Inc.

Center Broadcasting Company, Inc.

Cheyenne Mountain Public Broadcast House, Inc.

Connoisseur Media, Neuhoff Communications

Country Gold Broadcasting, Inc.

Covington & Burling LLP***

Cromwell Group, Inc

Dockins Broadcast Group, LLC

Dockins Communications, Inc.

Double-R Communications, LLC

Educational Communications of Colorado Springs, Inc.

Emmis Communications
Evans Broadcasting, Inc.
Falls Media, LLC
Federal Emergency Management Agency
Flagstaff Radio, Inc.
Florida Association of Broadcasters
Future Visions Entertainment LLC
GatesAir Inc.
GeoBroadcast Solutions, LLC*
Goldman Engineering Management, Inc.
Hazard Broadcasting, Inc.
HubCast Broadcasting, Inc.
Intercambio*
Johnny Boswell Radio LLC
Juan Carlos Matos Barreto*
Kath Broadcasting Co., LLC
Keyhole Broadcasting, LLC
Kirschner Broadcast Services, LLC*
KM Broadcasting of Guam, L.L.C.
KM Communications, Inc.
KM Radio of Atlanta, L.L.C.
KM Radio of Breese, L.L.C.
KM Radio of Earlville, L.L.C.
KM Radio of Independence, L.L.C.
KM Radio of Lovelady LLC*
KM Radio of St. Johns, L.L.C.

Lake Broadcasting, Inc.
Lazo Media LLC
Leslie County Broadcasting, Inc.
LHTC Media of West Virginia, Inc.
Marshall University Board of Governors
Midway Broadcasting Corporation***
M & M Broadcasting
Monroe Capital LLC
Monticello-Wayne County Media, Inc.
Mountain Broadcasting Service, Inc.
Multicultural Media, Telecom and Internet Council***
National Association of Broadcasters*
National Newspaper Publishers Association
New Life Broadcasting, Inc.
New York State Broadcasters Association, Inc.**
Peak Radio, LLC
Phillips Broadcasting Company, Inc.
Pikes Peak Community College
Q Media Group, LLC
Q Media Properties, LLC
Quantum Advertising/Design Inc.**
Ranchland Broadcasting Company, Inc.
REC Networks*
Resort Broadcasting Company LLC
Revenue Developers/Media Negotiator, LLC**
R&M Broadcasting

Roberson and Associates, LLC**

Roberts Broadcasting, L.L.C. **

Ronald Zlotnik

Sam Sylk**

Shamrock Communications Inc.

Sky Media, LLC

Small Radio Broadcaster Coalition

Southark Broadcasters, Inc.

Southwest Media, Inc.

Southwestern Diabetic Foundation, Inc., d/b/a Camp Sweeney

State Broadcaster Associations**

Steven L. White

The Evans Broadcast Company, Inc.*

Truckee Tahoe Radio, LLC,

Two Black Cadillacs, Inc.

Urban One, Inc., David Broadcasting Inc., Ohana Media Group, LLC, and Riverfront Broadcasting LLC

USA Radio*

WAY Media, Inc.

W. Craig Fugate

Wennes Communications Stations, Inc.

Xperi Holding Corporation

Yeary Broadcasting, Inc.

* Filed comments and reply comments

** reply comments only

*** Filed ex parte notice only

Commenters to Public Notice in MB Docket No. 20-401

Alpha Media USA LLC

Alta Communications

Audacy, Inc., Beasley Media Group, LLC, Cumulus Media New Holdings Inc., iHeart Communications, Inc., New York Public Radio, Salem Media Group, Inc.*

BIA Advisory Services, LLC

Center for the Economics of the Internet at the Hudson Institute

Cup O'Dirt, LLC

Evans Broadcast Company, Inc.; Ashley County Broadcasters, Inc. Best Media, Inc., Boswell Media, LLC, BroadSouth Communications, Inc., Southwestern Diabetic Foundation, Inc., d/b/a Camp Sweeney, Center Broadcasting Company, Inc., Cheyenne Mountain Public Broadcast House, Inc., Country Gold Broadcasting, Inc., Datatech Digital LLC, Dockins Broadcast Group, LLC, Dockins Communications, Inc., Double-R Communications, LLC, Educational Communications of Colorado Springs, Inc., Evans Broadcasting, Inc., Ashley Communications, Inc., Falls Media, LLC, Hazard Broadcasting, Inc., Flagstaff Radio, Inc., HubCast Broadcasting, Inc., Johnny Boswell Radio LLC, Kath Broadcasting Co., LLC, Keyhole Broadcasting LLC, KM Broadcasting of Guam, L.L.C., KM Communications, Inc., KM Radio of Atlanta, L.L.C, KM Radio of Breese, L.L.C, KM Radio of Earlville, L.L.C., KM Radio of Independence, L.L.C, KM Radio of Lovelady LLC, KM Radio of St. Johns, L.L.C., Lake Broadcasting, Inc., Lazo Media LLC, Leslie County Broadcasting, Inc., LHTC Media of West Virginia, Inc., M&M Broadcasting, Marshall University Board of Governors, Monticello-Wayne County Media, Inc., Mountain Broadcasting Service, Inc., Peak Radio, LLC, Phillips Broadcasting Company, Inc., Pikes Peak Community College, Q Media Group LLC, Q Media Properties, LLC, R&M Broadcasting, Ranchland Broadcasting Company, Inc., Sky Media, LLC, Southark Broadcasters, Inc., Southwest Media, Inc., Truckee Tahoe Radio, LLC, Two Black Cadillacs, Inc., Yeary Broadcasting, Inc.*

Flagstaff Radio, Inc.

Friendship Broadcasting

GeoBroadcast Solutions, LLC**

Goldman Engineering Management,**

Gregory Cooke

JAM Media Solutions, LLC

KCUR, WBUR, WSHU, and New England Public Media

Kevin M. Fitzgerald*

Members of Congress, Henry C. "Hank" Johnson, Jr., Bennie Thompson, Barbara Lee, Anthony Brown

Members of Congress, Henry C. "Hank" Johnson, Jr., Bennie Thompson, Barbara Lee, Anthony Brown, Joyce Beatty, Troy Carter, Eric Swalwell, Danny Davis, Emanuel Cleaver, Robert C. "Bobby" Scott**

Multicultural Media, Telecom and Internet Council; National Association of Black Owned Broadcasters,

Inc.*

National Association of Black Owned Broadcasters, Inc.

National Association of Broadcasters*

National Public Radio, Inc.*

Octave Communications**

Press Communications, LLC

REC Networks

TBA Communications, LLC

Vision Multimedia Group LLC WUFO

Woof Boom Radio

Xperi Holding Corporation

* Filed comments and reply comments

** Filed reply comments only

Commenters that Filed Ex Parte Notices and Submissions in MB Docket No. 20-401 After Conclusion of 2022 Comment Period

AlwaysMountain Time, LLC

Benjamin F. Chavis, Jr.

Colorado Broadcasters Association (on behalf of Ranchland Broadcasting and Pikes Peak State College)

Connoisseur Media LLC

Core Communicators Broadcasting, Core Radio Group, LLC

Davis Broadcasting Inc., Perry Publishing & Broadcasting

Geobroadcast Solutions, LLC

International Black Broadcasters Association

iHeartMedia

JAM Media Solutions, LLC

Luke Allen

Jonanthan Mason

MMTC (Multicultural Media, Telecom and Internet Council)

Members of Congress, Tony Cárdenas, Steven Horsford

Members of Congress, Yvette D. Clark, Darren Soto

Members of Congress, Jeff Duncan, Richard Hudson, Fred Upton, Greg Pence, Bill Johnson, Neal P. Dunn, M.D., David B. McKinley, P.E., Debbie Lesko, Billy Long, Tim Walberg, H. Morgan Griffith, Earl L. “Buddy” Carter, Larry Bueshon, M.D.

Members of Congress, Steven Horsford, Bennie G. Thompson

Member of Congress, Robin Kelly

Member of Congress, Markwayne Mullin

National Association of Black Owned Broadcasters, Multicultural Media, Telecom and Internet Council, National Newspaper Publishers Association, JAM Media Solutions, LLC, Spotset, GeoBroadcast Solutions, LLC

National Public Radio

New Jersey Broadcasters Association

Radio By Grace

Roberson and Associates, LLC

Roberts Radio Broadcasting, LLC, JAM Media Solutions, LLC

Salem Media Group

Senators, Richard Blumenthal, Benjamin L. Cardin

Senator Chris Van Hollen

Shainis & Peltzman, Chartered

State Broadcasters Associations

Texas Association of Broadcasters (on behalf of Falls Media LLC and Q-Media Group)

Urban One, Federal Street Strategies

U.S. Black Chambers, Inc.

Zimmer Midwest Communications, Inc., Zimmer Radio of Mid-Missouri

APPENDIX B

Final Rules

Deleted text is marked with a strikethrough and new text is bolded. Other text is current and remains part of the Commission’s rules.

Part 11 of Chapter I of Title 47 of the Code of Federal Regulations is amended as follows:

PART 11 – EMERGENCY ALERT SYSTEM (EAS)

1. The authority citation for Part 11 continues to read as follows:

Authority: 47 U.S.C. 151, 154(i) and (o), 303(r), 544(g), 606, 1201, 1206.

2. Amend Section 11.11 by revising paragraph (a) and Table 1 to paragraph (a), and revising paragraph (b), to read as follows:

§11.11 The Emergency Alert System (EAS).

(a) The EAS is composed of analog radio broadcast stations including AM, FM, ~~and~~ Low-power FM (LPFM), **and program originating FM booster stations**; digital audio broadcasting (DAB) stations, including digital AM, FM, LPFM, and program originating FM booster stations; Class A television (CA) and Low-power TV (LPTV) stations; digital television (DTV) broadcast stations, including digital CA and digital LPTV stations; analog cable systems; digital cable systems which are defined for purposes of this part only as the portion of a cable system that delivers channels in digital format to subscribers at the input of a Unidirectional Digital Cable Product or other navigation device; wireline video systems; wireless cable systems which may consist of Broadband Radio Service (BRS), or Educational Broadband Service (EBS) stations; DBS services, as defined in § 25.701(a) of this chapter (including certain Ku-band Fixed-Satellite Service Direct to Home providers); and SDARS, as defined in § 25.201 of this chapter. These entities are referred to collectively as EAS Participants in this part, and are subject to this part, except as otherwise provided herein. At a minimum EAS Participants must use a common EAS protocol, as defined in § 11.31, to send and receive emergency alerts, and comply with the requirements set forth in § 11.56, in accordance with the following tables:

Table 1 - Analog and Digital Broadcast Station Equipment Deployment Requirements

EAS Equipment Requirement	AM & FM & Program originating FM booster station	Digital AM & FM & Program originating FM booster station	Analog & Digital FM class D	Analog & Digital LPFM & Program originating FM booster station	DTV	Analog & Digital Class A TV	Analog & Digital LPTV
EAS Decoder ¹	Y	Y	Y	Y	Y	Y	Y
EAS Encoder	Y	Y	N	N	Y	Y	N
Audio message	Y	Y	Y	Y	Y	Y	Y

Video message	N/A	N/A	N/A	N/A	Y	Y	Y
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¹ EAS Participants may comply with the obligations set forth in § 11.56 to decode and convert CAP-formatted messages into EAS Protocol-compliant messages by deploying an Intermediary Device, as specified in § 11.56(b).

* * *

(b) Analog class D non-commercial educational FM stations as defined in § 73.506 of this chapter, digital class D non-commercial educational FM stations, analog LPFM stations as defined in §§ 73.811 and 73.853 of this chapter, digital LPFM stations, analog LPTV stations as defined in § 74.701(f), and digital LPTV stations as defined in § 74.701(k) of this chapter are not required to comply with § 11.32. Analog and digital LPTV stations that operate as television broadcast translator stations, as defined in § 74.701(b) of this chapter, are not required to comply with the requirements of this part. FM broadcast booster stations as defined in § 74.1201(f)(1) of this chapter and FM translator stations as defined in § 74.1201(a) of this chapter which entirely rebroadcast the programming of other local FM broadcast stations are not required to comply with the requirements of this part. **Program originating FM booster stations as defined in § 74.1201(f)(2) of this chapter must comply with the requirements of this part as set forth in Table 1 to paragraph (a) of this section.** International broadcast stations as defined in § 73.701 of this chapter are not required to comply with the requirements of this part. Analog and digital broadcast stations that operate as satellites or repeaters of a hub station (or common studio or control point if there is no hub station) and rebroadcast 100 percent of the programming of the hub station (or common studio or control point) may satisfy the requirements of this part through the use of a single set of EAS equipment at the hub station (or common studio or control point) which complies with §§ 11.32 and 11.33.

* * * * *

Part 73 of Chapter I of Title 47 of the Code of Federal Regulations is amended as follows:

PART 73 – RADIO BROADCAST SERVICES

1. The authority citation for Part 73 continues to read as follows:

Authority: 47 U.S.C. 154, 155, 301, 303, 307, 309, 310, 334, 336, 339.

2. Amend Section 73.860 by adding new paragraph (b)(5), to read as follows:

§ 73.860 Cross-ownership.

* * * * *

(b) * * * * *

* * *

(5) Booster stations commonly owned by LPFM stations may conduct transmissions independent of those broadcast by the primary LPFM station for a period not to exceed three minutes of each broadcast hour. This is a strict hourly limit that may not be exceeded by aggregating unused minutes of program origination.

* * * * *

Part 74 of Chapter I of Title 47 of the Code of Federal Regulations is amended as follows:

PART 74 – EXPERIMENTAL RADIO, AUXILIARY, SPECIAL BROADCAST AND OTHER PROGRAM DISTRIBUTIONAL SERVICES

1. The authority citation for part 74 continues to read as follows:

Authority: 47 U.S.C. 154, 302a, 303, 307, 309, 310, 325, 336, and 554.

2. Amend Section 74.1201 by revising paragraph (f), to read as follows:

§ 74.1201 Definitions.

* * * * *

(f) (1) *FM broadcast booster station.* A station in the broadcasting service operated for the sole purpose of retransmitting the signals of an FM radio broadcast station, by amplifying and reradiating such signals, without significantly altering any characteristic of the incoming signal other than its amplitude. Unless specified otherwise, this term includes LPFM boosters as defined in paragraph (l) of this section.

(2) *Program Originating FM booster station.* An FM broadcast booster station that retransmits the signals of an FM radio broadcast station or a low-power FM broadcast station, and that may replace the content of the incoming signal by originating programming for a period not to exceed three minutes of each broadcast hour. This is a strict hourly limit that may not be exceeded by aggregating unused minutes of program origination. A program originating FM booster station is subject to the same technical and interference protection requirements as are all FM broadcast booster stations, including but not limited to those set forth in §§ 74.1203 – 74.1262 of this part.

* * * * *

3. Amend Section 74.1203 by revising paragraph (c), to read as follows:

§ 74.1203 Interference.

* * * * *

(c) An FM **broadcast** booster station will be exempted from the provisions of paragraphs (a) and (b) of this section to the extent that it may cause limited interference to its primary station's signal, *provided* it does not disrupt the existing service of its primary station or cause such interference within the boundaries of the principal community of its primary station. **A program originating FM booster station will be exempted from the provisions of paragraphs (a) and (b) of this section to the extent that it may cause limited interference to its primary station's signal.** A properly synchronized program originating FM booster station transmitting programming different than that broadcast by the primary station, subject to the limits set forth in § 74.1201(f)(2) of this part, is not considered to cause interference to its primary station solely because such originated programming differs from that transmitted by the primary station.

* * * * *

4. Amend Section 74.1231 by revising paragraph (i), by removing the Note to paragraph (i), and by

adding new paragraph (j), to read as follows:

§ 74.1231 Purpose and permissible service.

* * * * *

(i) FM broadcast booster stations provide a means whereby the licensee of an FM broadcast station may provide service to areas in any region within the primary station's predicted authorized service contours. An FM broadcast booster station is authorized to retransmit only the signals of its primary station which have been received directly through space and suitably amplified, or received by alternative signal delivery means including, but not limited to, satellite and terrestrial microwave facilities. The FM booster station shall not retransmit the signals of any other station nor make independent transmissions **except as set forth in § 74.1201(f)(2) of this part, and** except that locally generated signals may be used to excite the booster apparatus for the purpose of conducting tests and measurements essential to the proper installation and maintenance of the apparatus.

~~Note: In the case of an FM broadcast station authorized with facilities in excess of those specified by § 73.211 of this chapter, an FM booster station will only be authorized within the protected contour of the class of station being rebroadcast as predicted on the basis of the maximum powers and heights set forth in that section for the applicable class of FM broadcast station concerned.~~

(j) In the case of an FM broadcast station authorized with facilities in excess of those specified by § 73.211 of this chapter, an FM booster station will only be authorized within the protected contour of the class of station being rebroadcast as predicted on the basis of the maximum powers and heights set forth in that section for the applicable class of FM broadcast station concerned.

5. Amend Section 74.1232 by revising paragraph (f), to read as follows:

§ 74.1232 Eligibility and licensing requirements.

* * * * *

(f) An FM broadcast booster station will be authorized only to the licensee or permittee of the FM radio broadcast station whose signals the booster station will retransmit, to serve areas within the protected contour of the primary station, subject to ~~Note, § 74.1231(h)~~ **§ 74.1231(j)** of this part.

* * * * *

6. Amend Section 74.1235 by revising paragraph (b), to read as follows:

§ 74.1235 Power limitations and antenna systems.

* * * * *

(b) An application for an FM translator station, other than one for fill-in service which is covered in paragraph (a) of this section, will not be accepted for filing if it specifies an effective radiated power (ERP) which exceeds the maximum ERP (MERP) value determined in accordance with

this paragraph. The antenna height above average terrain (HAAT) shall be determined in accordance with § 73.313(d) of this chapter for each of 12 distinct radials, with each radial spaced 30 degrees apart and with the bearing of the first radial bearing true north. Each ~~radial~~ **radial** HAAT value shall be rounded to the nearest meter. For each of the 12 radial directions, the MERP is the value corresponding to the calculated HAAT in the following tables that is appropriate for the location of the translator. For an application specifying a nondirectional transmitting antenna, the specified ERP must not exceed the smallest of the 12 MERP's. For an application specifying a directional transmitting antenna, the ERP in each azimuthal direction must not exceed the MERP for the closest of the 12 radial directions.

* * *

* * * * *

APPENDIX C
Proposed Rules

Deleted text is marked with a strikethrough and new text is bolded. Other text is current and remains part of the Commission's rules.

Part 73 of Chapter I of Title 47 of the Code of Federal Regulations is proposed to be amended as follows:

PART 73 – RADIO BROADCAST SERVICES

1. The authority citation for part 73 continues to read as follows:
Authority: 47 U.S.C. 154, 155, 301, 303, 307, 309, 310, 334, 336, 339.
2. Amend Section 73.801 by removing all text following the introductory sentence, and adding paragraphs (a), (b), and (c), to read as follows:

§ 73.801 Broadcast regulations applicable to LPFM stations.

The following rules are applicable to LPFM stations:

~~Section 73.201 Numerical definition of FM broadcast channels.~~

~~Section 73.220 Restrictions on use of channels.~~

~~Section 73.267 Determining operating power.~~

~~Section 73.277 Permissible transmissions.~~

~~Section 73.297 FM stereophonic sound broadcasting.~~

~~Section 73.310 FM technical definitions.~~

~~Section 73.312 Topographic data.~~

~~Section 73.318 FM blanketing interference.~~

~~Section 73.322 FM stereophonic sound transmission standards.~~

~~Section 73.333 Engineering charts.~~

~~Section 73.503 Licensing requirements and service.~~

~~Section 73.508 Standards of good engineering practice.~~

~~Section 73.593 Subsidiary communications services.~~

~~Section 73.1015 Truthful written statements and responses to Commission inquiries and correspondence.~~

~~Section 73.1030 Notifications concerning interference to radio astronomy, research and receiving~~

installations.

~~Section 73.1201 Station identification.~~

~~Section 73.1206 Broadcast of telephone conversations.~~

~~Section 73.1207 Rebroadcasts.~~

~~Section 73.1208 Broadcast of taped, filmed, or recorded material.~~

~~Section 73.1210 TV/FM dual language broadcasting in Puerto Rico.~~

~~Section 73.1211 Broadcast of lottery information.~~

~~Section 73.1212 Sponsorship identification; list retention; related requirements.~~

~~Section 73.1213 Antenna structure, marking and lighting.~~

~~Section 73.1216 Licensee-conducted contests.~~

~~Section 73.1217 Broadcast hoaxes.~~

~~Section 73.1250 Broadcasting emergency information.~~

~~Section 73.1300 Unattended station operation.~~

~~Section 73.1400 Transmission system monitoring and control.~~

~~Section 73.1520 Operation for tests and maintenance.~~

~~Section 73.1540 Carrier frequency measurements.~~

~~Section 73.1545 Carrier frequency departure tolerances.~~

~~Section 73.1570 Modulation levels: AM, FM, and TV aural.~~

~~Section 73.1580 Transmission system inspections.~~

~~Section 73.1610 Equipment tests.~~

~~Section 73.1620 Program tests.~~

~~Section 73.1650 International agreements.~~

~~Section 73.1660 Acceptability of broadcast transmitters.~~

~~Section 73.1665 Main transmitters.~~

~~Section 73.1692 Broadcast station construction near or installation on an AM broadcast tower.~~

~~Section 73.1745 Unauthorized operation.~~

~~Section 73.1750 Discontinuance of operation.~~

~~Section 73.1920 Personal attacks.~~

~~Section 73.1940 Legally qualified candidates for public office.~~

~~Section 73.1941 Equal opportunities.~~

~~Section 73.1943 Political file.~~

~~Section 73.1944 Reasonable access.~~

~~Section 73.3511 Applications required.~~

~~Section 73.3512 Where to file; number of copies.~~

~~Section 73.3513 Signing of applications.~~

~~Section 73.3514 Content of applications.~~

~~Section 73.3516 Specification of facilities.~~

~~Section 73.3517 Contingent applications.~~

~~Section 73.3518 Inconsistent or conflicting applications.~~

~~Section 73.3519 Repetitious applications.~~

~~Section 73.3520 Multiple applications.~~

~~Section 73.3525 Agreements for removing application conflicts.~~

~~Section 73.3539 Application for renewal of license.~~

~~Section 73.3542 Application for emergency authorization.~~

~~Section 73.3545 Application for permit to deliver programs to foreign stations.~~

~~Section 73.3550 Requests for new or modified call sign assignments.~~

~~Section 73.3561 Staff consideration of applications requiring Commission consideration.~~

~~Section 73.3562 Staff consideration of applications not requiring action by the Commission.~~

~~Section 73.3566 Defective applications.~~

~~Section 73.3568 Dismissal of applications.~~

~~Section 73.3580 Local public notice of filing of broadcast applications.~~

~~Section 73.3584 Procedure for filing petitions to deny.~~

~~Section 73.3587 Procedure for filing informal objections.~~

~~Section 73.3588 Dismissal of petitions to deny or withdrawal of informal objections.~~

~~Section 73.3589 Threats to file petitions to deny or informal objections.~~

~~Section 73.3591 Grants without hearing.~~

~~Section 73.3593 Designation for hearing.~~

~~Section 73.3598 Period of construction.~~

~~Section 73.3599 Forfeiture of construction permit.~~

~~Section 73.3999 Enforcement of 18 U.S.C. 1464 restrictions on the transmission of obscene and indecent material.~~

(a) Part 11 – Emergency Alert System (EAS)

(1) Section 11.11 The Emergency Alert System (EAS).

(b) Part 73 – Radio Broadcast Services

(1) Section 73.201 Numerical definition of FM broadcast channels.

(2) Section 73.220 Restrictions on use of channels.

(3) Section 73.267 Determining operating power.

(4) Section 73.277 Permissible transmissions.

(5) Section 73.297 FM stereophonic sound broadcasting.

(6) Section 73.310 FM technical definitions.

(7) Section 73.312 Topographic data.

(8) Section 73.318 FM blanketing interference.

(9) Section 73.322 FM stereophonic sound transmission standards.

(10) Section 73.333 Engineering charts.

(11) Section 73.503 Licensing requirements and service.

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- (12) Section 73.508 Standards of good engineering practice.
 - (13) Section 73.593 Subsidiary communications services.
 - (14) Section 73.1015 Truthful written statements and responses to Commission inquiries and correspondence.
 - (15) Section 73.1030 Notifications concerning interference to radio astronomy, research and receiving installations.
 - (16) Section 73.1201 Station identification.
 - (17) Section 73.1206 Broadcast of telephone conversations.
 - (18) Section 73.1207 Rebroadcasts.
 - (19) Section 73.1208 Broadcast of taped, filmed, or recorded material.
 - (20) Section 73.1210 TV/FM dual-language broadcasting in Puerto Rico.
 - (21) Section 73.1211 Broadcast of lottery information.
 - (22) Section 73.1212 Sponsorship identification; list retention; related requirements.
 - (23) Section 73.1213 Antenna structure, marking and lighting.
 - (24) Section 73.1216 Licensee-conducted contests.
 - (25) Section 73.1217 Broadcast hoaxes.
 - (26) Section 73.1250 Broadcasting emergency information.
 - (27) Section 73.1300 Unattended station operation.
 - (28) Section 73.1400 Transmission system monitoring and control.
 - (29) Section 73.1520 Operation for tests and maintenance.
 - (30) Section 73.1540 Carrier frequency measurements.
 - (31) Section 73.1545 Carrier frequency departure tolerances.
 - (32) Section 73.1570 Modulation levels: AM, FM, and TV aural.
 - (33) Section 73.1580 Transmission system inspections.
 - (34) Section 73.1610 Equipment tests.
 - (35) Section 73.1620 Program tests.

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- (36) Section 73.1650 International agreements.**
 - (37) Section 73.1660 Acceptability of broadcast transmitters.**
 - (38) Section 73.1665 Main transmitters.**
 - (39) Section 73.1692 Broadcast station construction near or installation on an AM broadcast tower.**
 - (40) Section 73.1745 Unauthorized operation.**
 - (41) Section 73.1750 Discontinuance of operation.**
 - (42) Section 73.1920 Personal attacks.**
 - (43) Section 73.1940 Legally qualified candidates for public office.**
 - (44) Section 73.1941 Equal opportunities.**
 - (45) Section 73.1943 Political file.**
 - (46) Section 73.1944 Reasonable access.**
 - (47) Section 73.3511 Applications required.**
 - (48) Section 73.3512 Where to file; number of copies.**
 - (49) Section 73.3513 Signing of applications.**
 - (50) Section 73.3514 Content of applications.**
 - (51) Section 73.3516 Specification of facilities.**
 - (52) Section 73.3517 Contingent applications.**
 - (53) Section 73.3518 Inconsistent or conflicting applications.**
 - (54) Section 73.3519 Repetitious applications.**
 - (55) Section 73.3520 Multiple applications.**
 - (56) Section 73.3525 Agreements for removing application conflicts.**
 - (57) Section 73.3539 Application for renewal of license.**
 - (58) Section 73.3542 Application for emergency authorization.**
 - (59) Section 73.3545 Application for permit to deliver programs to foreign stations.**
 - (60) Section 73.3550 Requests for new or modified call sign assignments.**

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- (61) Section 73.3561 Staff consideration of applications requiring Commission consideration.
 - (62) Section 73.3562 Staff consideration of applications not requiring action by the Commission.
 - (63) Section 73.3566 Defective applications.
 - (64) Section 73.3568 Dismissal of applications.
 - (65) Section 73.3580 Local public notice of filing of broadcast applications.
 - (66) Section 73.3584 Procedure for filing petitions to deny.
 - (67) Section 73.3587 Procedure for filing informal objections.
 - (68) Section 73.3588 Dismissal of petitions to deny or withdrawal of informal objections.
 - (69) Section 73.3589 Threats to file petitions to deny or informal objections.
 - (70) Section 73.3591 Grants without hearing.
 - (71) Section 73.3593 Designation for hearing.
 - (72) Section 73.3598 Period of construction.
 - (73) Section 73.3599 Forfeiture of construction permit.
 - (74) Section 73.3999 Enforcement of 18 U.S.C. 1464 (restrictions on the transmission of obscene and indecent material).
- (c) Part 74 – Experimental Radio, Auxiliary, Special Broadcast and Other Program Distributional Services
- (1) Section 74.1201 Definitions.
 - (2) Section 74.1203 Interference.
 - (3) Section 74.1206 Program originating FM booster station notifications.
 - (4) Section 74.1231 Purpose and permissible service.
 - (5) Section 74.1232 Eligibility and licensing requirements.
 - (6) Section 74.1290 Political programming rules applicable to program originating FM booster stations.

3. Amend Section 73.3526 by adding paragraph (a)(3), to read as follows:

§ 73.3526 Online public inspection file of commercial stations.

(a) * * *

(3) Every permittee or licensee of a program originating FM booster station, as defined in § 74.1201(f)(2) of this chapter, shall maintain in the political file of its primary station the records required in § 73.1943 of this part for each such program originating FM booster station.

* * * * *

4. Amend Section 73.3527 by adding paragraph (a)(3), to read as follows:

§ 73.3527 Online public inspection file of noncommercial educational stations.

(a) * * *

(3) Every permittee or licensee of a program originating FM booster station, as defined in § 74.1201(f)(2) of this chapter, in the noncommercial educational broadcast service shall maintain in the political file of its primary station the records required in § 73.1943 of this part for each such program originating FM booster station.

* * * * *

Part 74 of Chapter I of Title 47 of the Code of Federal Regulations is proposed to be amended as follows:

PART 74 – EXPERIMENTAL RADIO, AUXILIARY, SPECIAL BROADCAST AND OTHER PROGRAM DISTRIBUTIONAL SERVICES

1. The authority citation for part 74 continues to read as follows:

Authority: 47 U.S.C. 154, 302a, 303, 307, 309, 310, 325, 336, and 554.

2. Amend Section 74.1204 by removing the Note to paragraph (a)(4), adding paragraph (a)(5), revising paragraph (f)(1), adding new paragraphs (f)(2) and (f)(3), renumbering current paragraphs (f)(1) – (f)(5) as paragraphs (f)(3)(i) – (f)(3)(v), revising paragraph (f)(3)(iv), and revising paragraph (i), to read as follows:

§ 74.1204 Protection of FM broadcast, FM Translator and LP100 stations.

(a) * * *

~~Note to paragraph (a)(4): LP100 stations, to the purposes of determining overlap pursuant to this paragraph, LPFM applications and permits that have not yet been licensed must be considered as operating with the maximum permitted facilities. All LPFM TIS stations must be protected on the basis of a nondirectional antenna.~~

(5) For the purposes of determining overlap pursuant to this paragraph, LP100 stations, LPFM applications, and LPFM permits that have not yet been licensed must be considered as operating with the maximum permitted facilities. All LPFM TIS stations must be protected on the basis of a nondirectional antenna.

* * * * *

(f) **(1)** An application for an FM translator station will not be ~~accepted for filing~~ **granted** even though the proposed operation would not involve overlap of field strength contours with any other station, as set forth in paragraph (a) of this section, if grant of the authorization will result in interference to the reception of a regularly used, off-the-air signal of any authorized co-channel, first, second or third adjacent channel broadcast station, including previously authorized secondary service stations within the 45 dB μ field strength contour of the desired station. Interference is demonstrated by:

~~(1) The required minimum number of valid listener complaints as determined using Table 1 to § 74.1203(a)(3) of this part and defined in § 74.1201(k) of this part;~~

~~(2) A map plotting the specific location of the alleged interference in relation to the complaining station's 45 dB μ contour;~~

~~(3) A statement that the complaining station is operating within its licensed parameters;~~

~~(4) A statement that the complaining station licensee has used commercially reasonable efforts to inform the relevant translator licensee of the claimed interference and attempted private resolution; and~~

~~(5) U/D data demonstrating that at each listener location the undesired to desired signal strength exceeds -20 dB for co-channel situations, -6 dB for first adjacent channel situations or 40 dB for second or third adjacent channel situations, calculated using the methodology set out in paragraph (b) of this section.~~

(2) An application for an FM broadcast booster station will not be granted even though the proposed operation would not involve overlap of field strength contours with any other station, as set forth in paragraph (i) of this section, if grant of the authorization will result in interference to the reception of a regularly used, off-the-air signal of any authorized co-channel, first, second or third adjacent channel broadcast station, other than the booster's primary station, but including previously authorized secondary service stations within the 45 dB μ field strength contour of the desired station.

(3) Interference, with regard to either an FM translator station or an FM broadcast booster station application, is demonstrated by:

(1i) The required minimum number of valid listener complaints as determined using Table 1 to § 74.1203(a)(3) of this part and defined in § 74.1201(k) of this part;

(2ii) A map plotting the specific location of the alleged interference in relation to the complaining station's 45 dB μ contour;

(3iii) A statement that the complaining station is operating within its licensed parameters;

(4iv) A statement that the complaining station licensee has used commercially reasonable efforts to inform the relevant translator **or booster** licensee of the claimed interference and attempted private resolution; and

(5v) U/D data demonstrating that at each listener location the undesired to desired signal strength exceeds -20 dB for co-channel situations, -6 dB for first-adjacent channel situations or 40 dB for second- or third-adjacent channel situations, calculated using the methodology set out in paragraph (b) of this section.

* * * * *

(i) FM **broadcast** booster stations shall be subject to the requirement that the signal of any first adjacent channel station must exceed the signal of the booster station by 6 dB at all points within the protected contour of any first adjacent channel station, except that in the case of FM stations on adjacent channels at spacings that do not meet the minimum distance separations specified in § 73.207 of this chapter, the signal of any first adjacent channel station must exceed the signal of the booster by 6 dB at any point within the predicted interference free contour of the adjacent channel station.

* * * * *

3. Add new Section 74.1206, to read as follows:

§ 74.1206 Program originating FM booster station notifications.

(a) **A program originating FM booster station must electronically file an FM Booster Program Origination Notification with the Commission in LMS, before commencing or after terminating the broadcast of booster-originated content subject to the provisions of § 74.1201(f)(2) of this part. Such a notification must be filed within 15 days before commencing origination, or within 30 days after terminating origination.**

(b) **Every FM Booster Program Origination Notification must include the following information in machine-readable format:**

- (1) **The call sign and facility identification number of the program originating FM booster station;**
- (2) **If applicable, the date on which the program originating FM booster station will commence or has terminated originating content;**
- (3) **The name and telephone number of a technical representative the Commission or the public can contact in the event of interference;**
- (4) **A certification that the program originating FM booster station complies with all Emergency Alert System (EAS) requirements in part 11 of this chapter;**
- (5) **A certification that the program originating FM booster station will originate programming for no more than three minutes of each broadcast hour; and**
- (6) **A certification that the program originating FM booster station has been properly synchronized to minimize interference to the primary station.**

4. Amend Section 74.1231 by revising paragraph (j) and adding new paragraph (k), to read as

follows:

§ 74.1231 Purpose and permissible service.

* * * * *

(j) In the case of ~~an~~ **a superpowered** FM broadcast station, authorized with facilities in excess of those specified by § 73.211 of this chapter, an FM booster station will only be authorized within the protected contour of the class of station being rebroadcast as predicted ~~based on the basis of~~ the maximum ~~powers and heights~~ **facilities** set forth in ~~that section~~ **§ 73.211** for the applicable class of FM broadcast station ~~concerned~~ **being rebroadcast**.

(k) An FM broadcast booster station, as defined in § 74.1201(f)(1) or (f)(2) of this part, must suspend operations at any time its primary station is not operating. If a full-service FM broadcast station suspends operations, in addition to giving the notification specified in § 73.1740(a)(4) of this chapter, each FM broadcast booster station and program originating FM booster station must also file a notification under § 73.1740(a)(4) that it has suspended operations.

5. Amend Section 74.1232 by revising the first sentence of paragraph (g), adding new paragraph (h), and redesignating paragraph (h) as paragraph (i), to read as follows:

§ 74.1232 Eligibility and licensing requirements.

* * * * *

(g) No numerical limit is placed upon the number of FM booster stations which may be licensed to a single licensee. **No more than twenty five (25) program originating FM booster stations may be licensed to a single full-service FM broadcast station.** * * *

(h) A program originating FM booster station, when originating programming pursuant to the limits set forth in § 74.1201(f)(2) of this part, may not broadcast programming that is not permitted by its primary station's authorization (e.g., a program originating FM booster station licensed to a noncommercial educational primary station may only originate programming consistent with § 73.503 of this chapter).

(hi) Any authorization for an FM translator station issued to an applicant described in paragraphs (d) and (e) of this section will be issued subject to the condition that it may be terminated at any time, upon not less than sixty (60) days written notice, where the circumstances in the community or area served are so altered as to have prohibited grant of the application had such circumstances existed at the time of its filing.

6. Add new Section 74.1290, to read as follows:

§ 74.1290 Political programming rules applicable to program originating FM booster stations.

To the extent a program originating FM booster station originates programming different than that broadcast by its primary station, pursuant to the limits set forth in § 74.1201(f)(2) of this part, it shall comply with the requirements in §§ 73.1212 (Sponsorship identification), 73.1940 (Legally qualified candidates for public office), 73.1941 (Equal opportunities), 73.1942 (Candidate rates), 73.1943 (Political file), and 73.1944 (Reasonable access), of this chapter.

APPENDIX D

Final Regulatory Flexibility Analysis

1. As required by the Regulatory Flexibility Act of 1980, as amended (RFA)¹ an Initial Regulatory Flexibility Analysis (IRFA) was incorporated in the *Amendment of Section 74.1231(i) of the Commission's Rules on FM Broadcast Booster Stations, Notice of Proposed Rulemaking (NPRM)*, released in December 2020.² The Federal Communications Commission (Commission) sought written public comment on the proposals in the *NPRM*, including comment on the IRFA. No comments were filed addressing the IRFA. This Final Regulatory Flexibility Analysis (FRFA) conforms to the RFA.³

A. Need For, and Objectives of, the Report and Order

2. In the *Report and Order*, the Commission finds that it is in the public interest to allow FM and low power FM (LPFM) broadcasters to use FM booster stations to provide booster-originated content on a voluntary, limited basis, subject to certain restrictions described in the *Report and Order*, and further subject to the adoption of licensing, interference and service rules for origination of content on boosters as proposed in a concurrently adopted *Further Notice of Proposed Rulemaking (FNPRM)*. In order to distinguish between a fill-in station and a Program Originating FM booster station, the *Report and Order* adopts a new definition of program originating boosters.⁴ The ability to originate content will enable broadcasters to serve geographic segments of their broadcast areas, could open up more affordable advertising to smaller and minority-owned businesses, and will generally provide broadcasters and listeners options for more targeted and varied advertising and content that many stations are not able to provide today.

3. The issues raised in this proceeding fall into three broad categories: (1) non-technical matters such as the advantages and disadvantages of program originating boosters from an economic and public interest perspective; (2) technical issues such as whether program originating boosters, if properly engineered, would cause harmful interference to their primary station or adjacent channel stations; and (3) administrative matters the Commission would need to address in order to authorize program originating boosters and respond to any resulting operational issues. The *Report and Order* resolves the first category by adopting a rule that determines program originating boosters limited to originating programming for three minutes per hour would serve the public interest. In addition, the *Report and Order* determines concerns about the technology's impact on advertising revenue of other broadcasters and harmful interference are not supported by the record. It also addresses the second category about interference by concluding that properly engineered program originating boosters will not cause interference to the primary station or adjacent channel stations. The *Report and Order* also requires that program originating boosters receive and broadcast all emergency alerts in the same manner as their primary station.⁵ While stations will not be permitted to construct or operate program originating boosters pursuant to these rules until we adopt final service rules in response to the *Further NPRM* and such rules have been reviewed by the Office of Management and Budget, the Commission provides that pending adoption and OMB review of such rules, stations can pursue experimental authorizations pursuant to Part 5 of our rules. In the *FNPRM*, the Commission seeks comment on the proposed

¹ 5 U.S.C. § 603. The RFA, 5 U.S.C. §§ 601-612, was amended by the Small Business Regulatory Enforcement Fairness Act of 1996 (SBREFA), Pub. L. No. 104-121, Title II, 110 Stat. 847 (1996).

² *Amendment of Section 74.1231(i) of the Commission's Rules on FM Broadcast Booster Stations, Notice of Proposed Rulemaking*, 35 FCC Rcd 14213 (2020).

³ 5 U.S.C. § 604.

⁴ See *Report and Order*, paras. 12-14.

⁵ See *Report and Order*, paras. 53.

processing, licensing, and service rules required to authorize broadcasters to originate programming on boosters on a permanent basis.

B. Summary of Significant Issues Raised by Public Comments in Response to the IRFA

4. Parties that filed comments did not specifically reference the IRFA in their comments. Some commenters, however, expressed concern about increased costs, such as the cost of building and operating multiple boosters, particularly for smaller broadcasters, and the initial outlay to cover infrastructure and maintenance expenses, and additional expenses to hire and train staff, and purchase content management systems to feed secondary programming to the boosters.⁶ In addition, commenters claim GeoBroadcast Solutions' (GBS) proprietary technology could ultimately lead to unfavorable rates for small entities that are late adopters of the technology.⁷ These and other concerns are discussed in section F of this FRFA.

C. Response to Comments by the Chief Counsel for Advocacy of the Small Business Administration

5. Pursuant to the Small Business Jobs Act of 2010, which amended the RFA, the Commission is required to respond to any comments filed by the Chief Counsel for Advocacy of the Small Business Administration (SBA), and to provide a detailed statement of any change made to the proposed rules as a result of those comments.⁸ The Chief Counsel did not file any comments in response to the proposed rules in this proceeding.

D. Description and Estimate of the Number of Small Entities to Which the Rules Apply

6. The RFA directs the agencies to provide a description of and, where feasible, an estimate of the number of small entities that may be affected by the rules adopted herein.⁹ The RFA generally defines the term "small entity" as having the same meaning as the terms "small business," "small organization," and "small government jurisdiction."¹⁰ In addition, the term "small business" has the same meaning as the term "small business concern" under the Small Business Act.¹¹ A small business concern is one which: (1) is independently owned and operated; (2) is not dominant in its field of operation; and (3) satisfies any additional criteria established by the SBA.¹²

7. *Radio Stations.* This industry is comprised of "establishments primarily engaged in broadcasting aural programs by radio to the public."¹³ Programming may originate in their own studio, from an affiliated network, or from external sources.¹⁴ The SBA small business size standard for this

⁶ See *Report and Order*, paras. 23-24.

⁷ See *Report and Order*, para. 25.

⁸ 5 U.S.C. § 604(a)(3).

⁹ *Id.* § 604(a)(4).

¹⁰ *Id.* § 601(6).

¹¹ *Id.* § 601(3) (incorporating by reference the definition of "small business concern" in 15 U.S.C. § 632). Pursuant to 5 U.S.C. § 601(3), the statutory definition of a small business applies "unless an agency, after consultation with the Office of Advocacy of the Small Business Administration and after opportunity for public comment, establishes one or more definitions of such term which are appropriate to the activities of the agency and publishes such definition(s) in the Federal Register." 5 U.S.C. § 601(3).

¹² 15 U.S.C. § 632.

¹³ See U.S. Census Bureau, *2017 NAICS Definition, "515112 Radio Stations,"* <https://www.census.gov/naics/?input=515112&year=2017&details=515112>.

¹⁴ *Id.*

industry classifies firms having \$41.5 million or less in annual receipts as small.¹⁵ U.S. Census Bureau data for 2017 show that 2,963 firms operated in this industry during that year.¹⁶ Of this number, 1,879 firms operated with revenue of less than \$25 million per year.¹⁷ Based on this data and the SBA's small business size standard, we estimate a majority of such entities are small entities.

8. The Commission estimates that as of September 30, 2023, there were 4,452 licensed commercial AM radio stations and 6,670 licensed commercial FM radio stations, for a combined total of 11,122 commercial radio stations.¹⁸ Of this total, 11,120 stations (or 99.98 %) had revenues of \$41.5 million or less in 2022, according to Commission staff review of the BIA Kelsey Inc. Media Access Pro Database (BIA) on October 4, 2023, and therefore these licensees qualify as small entities under the SBA definition. In addition, the Commission estimates that as of September 30, 2023, there were 4,263 licensed noncommercial (NCE) FM radio stations, 1,978 low power FM (LPFM) stations, and 8,928 FM translators and boosters.¹⁹ The Commission however does not compile, and otherwise does not have access to financial information for these radio stations that would permit it to determine how many of these stations qualify as small entities under the SBA small business size standard. Nevertheless, given the SBA's large annual receipts threshold for this industry and the nature of radio station licensees, we presume that all of these entities qualify as small entities under the above SBA small business size standard.

9. We note, however, that in assessing whether a business concern qualifies as "small" under the above definition, business (control) affiliations²⁰ must be included. Our estimate, therefore, likely overstates the number of small entities that might be affected by our action, because the revenue figure on which it is based does not include or aggregate revenues from affiliated companies. In addition, another element of the definition of "small business" requires that an entity not be dominant in its field of operation. We are unable at this time to define or quantify the criteria that would establish whether a specific radio or television broadcast station is dominant in its field of operation. Accordingly, the estimate of small businesses to which the rules may apply does not exclude any radio or television station from the definition of a small business on this basis and is therefore possibly over-inclusive. An additional element of the definition of "small business" is that the entity must be independently owned and operated. Because it is difficult to assess these criteria in the context of media entities, the estimate of small businesses to which the rules may apply does not exclude any radio or television station from the

¹⁵ See 13 CFR § 121.201, NAICS Code 515112 (as of 10/1/22 NAICS Code 516110).

¹⁶ See U.S. Census Bureau, *2017 Economic Census of the United States, Selected Sectors: Sales, Value of Shipments, or Revenue Size of Firms for the U.S.: 2017*, Table ID: EC1700SIZEREVFIRM, NAICS Code 515112, <https://data.census.gov/cedsci/table?y=2017&n=515112&tid=ECNSIZE2017.EC1700SIZEREVFIRM&hidePreview=false>. We note that the US Census Bureau withheld publication of the number of firms that operated for the entire year.

¹⁷ *Id.* The available U.S. Census Bureau data does not provide a more precise estimate of the number of firms that meet the SBA size standard. We note that the U.S. Census Bureau withheld publication of the number of firms that operated with sales/value of shipments/revenue in the individual categories for less than \$100,000, and \$100,000 to \$249,999 to avoid disclosing data for individual companies (see Cell Notes for the sales/value of shipments/revenue in these categories). Therefore, the number of firms with revenue that meet the SBA size standard would be higher than noted herein. We also note that according to the U.S. Census Bureau glossary, the terms receipts and revenues are used interchangeably, see https://www.census.gov/glossary/#term_ReceiptsRevenueServices.

¹⁸ *Broadcast Station Totals as of September 30, 2023*, Public Notice, DA 23-921 (rel. Oct. 3, 2023) (*October 2023 Broadcast Station Totals PN*), <https://docs.fcc.gov/public/attachments/DA-23-921A1.pdf>.

¹⁹ *Id.*

²⁰ "[Business concerns] are affiliates of each other when one concern controls or has the power to control the other or a third party or parties controls or has the power to control both." 13 CFR § 21.103(a)(1).

definition of a small business on this basis and similarly may be over-inclusive.

E. Description of Projected Reporting, Recordkeeping, and Other Compliance Requirements for Small Entities

10. The *Report and Order* adopts rules requiring compatibility between program originating boosters and the Emergency Alert System (EAS) as well as rules establishing a limitation on program origination to three minutes per hour. Stations that wish to originate programming on a booster station may request experimental authorization pursuant to section 5.203 of the Commission's rules, which would require an application describing the nature, purpose, and duration of the experimental authorization, and require the station to file any supplemental reports that flow from this authorization. The Media Bureau (MB) is required to provide expedited treatment for any such requests. As discussed previously, the use of program originating boosters will be voluntary. To the extent that broadcasters choose to use boosters in this way, they will be required to follow the rules adopted in the *Report and Order*. We also note the Commission concurrently adopted an *FNPRM* in this proceeding, which proposes modified reporting requirements for FM booster stations.

F. Steps Taken to Minimize Significant Economic Impact on Small Entities and Significant Alternatives Considered

11. The RFA requires an agency to provide, "a description of the steps the agency has taken to minimize the significant economic impact on small entities...including a statement of the factual, policy, and legal reasons for selecting the alternative adopted in the final rule and why each one of the other significant alternatives to the rule considered by the agency which affect the impact on small entities was rejected."²¹ In the *Report and Order*, the Commission adopted measures authorizing program originating boosters to benefit the public by providing broadcasters and listeners with increased options for more targeted and varied advertising and content that many stations are not able to currently provide. We sought to weigh the impact of these measures on small entities against the public interest benefits gained from them and have determined that the benefits outweigh the costs. Commenters have asserted that while booster use causes advertising revenues to increase, the gains may be offset by increased costs.²² Other commenters claim purchasing program originating boosters will necessitate additional expenses, such as purchasing additional content management systems to feed the secondary programming to the boosters, new sales software to handle sub-areas, and hiring and retraining staff.²³ In contrast, supporters of FM geotargeting claim the technology will enable small, minority-owned broadcasters to become more competitive by attracting new advertisers and listeners, and offer targeted advertisements relevant to the local community.²⁴

12. Commenters also raised concerns about the potential of GBS' proprietary technology to create unfavorable rates for small entities who are late adopters, however, we do not require broadcasters to use GBS' system.²⁵ Other, more economical solutions that are in compliance with our interference rules may be viable options for broadcasters. Lastly, we considered concerns regarding the potential impact of program originating boosters on minority and female broadcasters, however, the record does

²¹ 5 U.S.C. § 604(a)(6).

²² See *Report and Order*, para. 23.

²³ *Id.*

²⁴ See Letter from U.S. Black Chambers, Inc. to Marlene H. Dortch, Secretary, MB Docket Nos. 20-401, 17-105, (filed Oct. 30, 2023); Letter from Roberts Broadcasting to Marlene H. Dortch, Secretary, MB Docket Nos. 20-401, 17-105, (filed Nov. 1, 2023).

²⁵ *Report and Order*, at para. 25.

not provide clear evidence concerning the potential impact to these entities.²⁶ While we acknowledge and have considered these concerns, we have determined that the public interest benefits of localism, diversity, and competition obtained by the adopted rules outweigh those potential risks.

G. Report to Congress

13. The Commission will send a copy of the *Report and Order*, including this FRFA, in a report to Congress pursuant to the Congressional Review Act.²⁷ In addition, the Commission will send a copy of the *Report and Order*, including this FRFA, to the Chief Counsel for Advocacy of the SBA. A copy of the *Report and Order* and FRFA (or summaries thereof) will also be published in the *Federal Register*.²⁸

²⁶ *Id.* at paras. 26-27.

²⁷ *Id.* § 801(a)(1)(A).

²⁸ *Id.* § 604(b).

APPENDIX E

Initial Regulatory Flexibility Act Analysis

1. As required by the Regulatory Flexibility Act of 1980, as amended (RFA),¹ the Federal Communications Commission (Commission) has prepared this Initial Regulatory Flexibility Act Analysis (IRFA) of the possible significant economic impact on a substantial number of small entities by the policies and rules proposed in the *Further Notice of Proposed Rulemaking (FNPRM)*. Written public comments are requested on this IRFA. Comments must be identified as responses to the IRFA and must be filed by the deadlines for comments provided on the first page of the *FNPRM*. The Commission will send a copy of the *FNPRM*, including this IRFA, to the Chief Counsel for Advocacy of the Small Business Administration (SBA).² In addition, the *FNPRM* and IRFA (or summaries thereof) will be published in the Federal Register.³

A. Need for, and Objectives of, the Proposed Rules

2. The *FNPRM* seeks further comment on processing, licensing, and service rules for program originating FM booster stations, or program originating boosters, which provide targeted programming to specific areas within their primary FM stations' service areas. Through the *FNPRM*, the Commission sets out a number of proposed changes to the rules, detailed in Appendix C, and seeks comment on these proposed rule changes.

3. In the *FNPRM*, the Commission proposes to retain the requirement that a booster station may cause only limited interference to its primary station's signal, but also proposes to eliminate the current rule provision barring any interference to the primary station's signal within the boundaries of the community of license. Additionally, the Commission proposes a notification requirement in which licensees of authorized booster stations will be required to file a notification of their intention to originate programming rather than implementing a separate application process for boosters that originate programming that could introduce greater delay for broadcasters seeking to operate such booster stations. The Commission also asks whether it should codify technical specifications for synchronization of the program originating booster's signal with that of the FM primary station, as well as whether imposing such a requirement would be an unnecessary burden on broadcasters.

4. The *FNPRM* seeks comment regarding whether any additional requirements will be needed regarding the interaction of program originating boosters and the Emergency Alert System (EAS). In the *Report and Order*, we required program originating boosters to receive and broadcast all emergency alerts in the same manner as their primary station, by codifying this requirement through an amendment of section 11.11 of the rules.⁴

5. Additionally, the Commission proposes to add a new section 74.1206 to the rules, requiring that a program originating booster formally notify the Commission through the Media Bureau's Licensing and Management System (LMS) of the commencement and suspension of operations. Other proposed rule additions and amendments include a requirement that a program originating booster suspend operations when its FM primary station suspends operations, and to so notify the Commission. The *FNPRM* also proposes that the programming originated by an FM booster station must conform to that broadcast by the FM primary station, e.g., a booster re-transmitting a noncommercial educational (NCE) FM station may also only broadcast NCE content. The *FNPRM* also seeks comment on whether

¹ 5 U.S.C. § 603. The RFA, 5 U.S.C. §§ 601-612, has been amended by the Small Business Regulatory Enforcement Fairness Act of 1996 (SBREFA), Pub. L. No. 104-121, Title II, 110 Stat. 857 (1996). The SBREFA was enacted as Title II of the Contract with America Advancement Act of 1996 (CWAAA).

² 5 U.S.C. § 603(a).

³ *Id.*

⁴ 47 CFR § 11.11.

information collected in the proposed FM Booster Notification constitute “data assets” for purposes of the OPEN Government Data Act and, if so, whether the collected information constitutes “public data assets.”

6. The Commission further proposes to amend section 74.1232(g), limiting full-service FM stations to 25 FM booster stations. This cap represents a change from the current rule, which imposes no numerical limit on FM booster stations. This proposal is based on the decision in the Report and Order that a limit on the number of boosters a station can operate is needed to ensure that an increase in booster stations resulting from our decision to authorize program originating boosters is consistent with the Local Community Radio Act of 2010 (LCRA).⁵

7. The *FNPRM* also addresses issues regarding political broadcasting. To the extent that political advertising may be broadcast over a program originating booster, the Commission proposes that such a booster station must follow all of the Commission’s political broadcasting rules. These would include rules requiring the maintenance of an online political file, provision of equal opportunity and reasonable access to political candidates, and limiting the rates charged to political candidates for air time.

8. Finally, the *FNPRM* also asks whether vendors of these technologies should abide by the Commission’s patent policy or any other guidelines common to open standards, which require that licenses be available to all parties on fair, reasonable, and nondiscriminatory terms.

B. Legal Basis

9. The proposed action is authorized pursuant to sections 1, 2, 4(i), 7, 301, 302, 303, 307, 308, 309, 316, 319, 324, and 403 of the Communications Act of 1934, as amended, 47 U.S.C. §§ 151, 154, 157, 301, 302, 303, 307, 308, 309, 316, 319, 324, and 403.

C. Description and Estimate of the Number of Small Entities to Which the Proposed Rules Will Apply

10. The RFA directs agencies to provide a description of, and where feasible, an estimate of the number of small entities that may be affected by the proposed rules, if adopted.⁶ The RFA generally defines the term “small entity” as having the same meaning as the terms “small business,” “small organization,” and “small governmental jurisdiction.”⁷ In addition, the term “small business” has the same meaning as the term “small business concern” under the Small Business Act (SBA).⁸ A “small business concern” is one which: (1) is independently owned and operated; (2) is not dominant in its field of operation; and (3) satisfies any additional criteria established by the SBA.⁹

11. *Small Businesses, Small Organizations, Small Governmental Jurisdictions.* Our actions, over time, may affect small entities that are not easily categorized at present. We therefore, describe three broad groups of small entities that could be directly affected herein.¹⁰ First, while there are industry specific size standards for small businesses that are used in the regulatory flexibility analysis, according to data from the Small Business Administration’s (SBA) Office of Advocacy, in general a small business is

⁵ Pub. L. 111-371, 124 Stat. 4072 (2011).

⁶ 5 U.S.C. § 603(b)(3).

⁷ 5 U.S.C. § 601(6).

⁸ *See id.* § 601(3) (incorporating by reference the definition of “small business concern” in 15 U.S.C. § 632(a)(1)). Pursuant to 5 U.S.C. § 601(3), the statutory definition of a small business applies “unless an agency, after consultation with the Office of Advocacy of the Small Business Administration and after opportunity for public comment, establishes one or more definitions of such term which are appropriate to the activities of the agency and publishes such definition(s) in the Federal Register.”

⁹ 15 U.S.C. § 632.

¹⁰ *See* 5 U.S.C. § 601(3)-(6).

an independent business having fewer than 500 employees.¹¹ These types of small businesses represent 99.9% of all businesses in the United States, which translates to 33.2 million businesses.¹²

12. Next, the type of small entity described as a “small organization” is generally “any not-for-profit enterprise which is independently owned and operated and is not dominant in its field.”¹³ The Internal Revenue Service (IRS) uses a revenue benchmark of \$50,000 or less to delineate its annual electronic filing requirements for small exempt organizations.¹⁴ Nationwide, for tax year 2020, there were approximately 447,689 small exempt organizations in the U.S. reporting revenues of \$50,000 or less according to the registration and tax data for exempt organizations available from the IRS.¹⁵

13. Finally, the small entity described as a “small governmental jurisdiction” is defined generally as “governments of cities, counties, towns, townships, villages, school districts, or special districts, with a population of less than fifty thousand.”¹⁶ U.S. Census Bureau data from the 2017 Census of Governments¹⁷ indicate there were 90,075 local governmental jurisdictions consisting of general purpose governments and special purpose governments in the United States.¹⁸ Of this number, there were 36,931 general purpose governments (county,¹⁹ municipal, and town or township²⁰) with populations of

¹¹ See SBA, Office of Advocacy, “What’s New With Small Business?”, <https://advocacy.sba.gov/wp-content/uploads/2023/03/Whats-New-Infographic-March-2023-508c.pdf> (Mar. 2023).

¹² *Id.*

¹³ See 5 U.S.C. § 601(4).

¹⁴ The IRS benchmark is similar to the population of less than 50,000 benchmark in 5 U.S.C § 601(5) that is used to define a small governmental jurisdiction. Therefore, the IRS benchmark has been used to estimate the number of small organizations in this small entity description. See Annual Electronic Filing Requirement for Small Exempt Organizations – Form 990-N (e-Postcard), “Who must file,” <https://www.irs.gov/charities-non-profits/annual-electronic-filing-requirement-for-small-exempt-organizations-form-990-n-e-postcard>. We note that the IRS data does not provide information on whether a small exempt organization is independently owned and operated or dominant in its field.

¹⁵ See Exempt Organizations Business Master File Extract (EO BMF), “CSV Files by Region,” <https://www.irs.gov/charities-non-profits/exempt-organizations-business-master-file-extract-eo-bmf>. The IRS Exempt Organization Business Master File (EO BMF) Extract provides information on all registered tax-exempt/non-profit organizations. The data utilized for purposes of this description was extracted from the IRS EO BMF data for businesses for the tax year 2020 with revenue less than or equal to \$50,000 for Region 1-Northeast Area (58,577), Region 2-Mid-Atlantic and Great Lakes Areas (175,272), and Region 3-Gulf Coast and Pacific Coast Areas (213,840) that includes the continental U.S., Alaska, and Hawaii. This data does not include information for Puerto Rico.

¹⁶ See 5 U.S.C. § 601(5).

¹⁷ See 13 U.S.C. § 161. The Census of Governments survey is conducted every five (5) years compiling data for years ending with “2” and “7”. See also Census of Governments, <https://www.census.gov/programs-surveys/cog/about.html>.

¹⁸ See U.S. Census Bureau, 2017 Census of Governments – Organization Table 2. Local Governments by Type and State: 2017 [CG1700ORG02], <https://www.census.gov/data/tables/2017/econ/gus/2017-governments.html>. Local governmental jurisdictions are made up of general purpose governments (county, municipal and town or township) and special purpose governments (special districts and independent school districts). See also tbl.2. CG1700ORG02 Table Notes_Local Governments by Type and State_2017.

¹⁹ See *id.* at tbl.5. County Governments by Population-Size Group and State: 2017 [CG1700ORG05], <https://www.census.gov/data/tables/2017/econ/gus/2017-governments.html>. There were 2,105 county governments with populations less than 50,000. This category does not include subcounty (municipal and township) governments.

²⁰ See *id.* at tbl.6. Subcounty General-Purpose Governments by Population-Size Group and State: 2017 [CG1700ORG06], <https://www.census.gov/data/tables/2017/econ/gus/2017-governments.html>. There were 18,729 municipal and 16,097 town and township governments with populations less than 50,000.

less than 50,000 and 12,040 special purpose governments—independent school districts²¹ with enrollment populations of less than 50,000.²² Accordingly, based on the 2017 U.S. Census of Governments data, we estimate that at least 48,971 entities fall into the category of “small governmental jurisdictions.”²³

14. *Radio Stations.* This industry is comprised of “establishments primarily engaged in broadcasting aural programs by radio to the public.”²⁴ Programming may originate in their own studio, from an affiliated network, or from external sources.²⁵ The SBA small business size standard for this industry classifies firms having \$41.5 million or less in annual receipts as small.²⁶ U.S. Census Bureau data for 2017 show that 2,963 firms operated in this industry during that year.²⁷ Of this number, 1,879 firms operated with revenue of less than \$25 million per year.²⁸ Based on this data and the SBA’s small business size standard, we estimate a majority of such entities are small entities.

15. The Commission estimates that as of September 30, 2023, there were 4,452 licensed commercial AM radio stations and 6,670 licensed commercial FM radio stations, for a combined total of 11,122 commercial radio stations.²⁹ Of this total, 11,120 stations (or 99.98 %) had revenues of \$41.5 million or less in 2022, according to Commission staff review of the BIA Kelsey Inc. Media Access Pro Database (BIA) on October 4, 2023, and therefore these licensees qualify as small entities under the SBA definition. In addition, the Commission estimates that as of September 30, 2023, there were 4,263 licensed noncommercial (NCE) FM radio stations, 1,978 low power FM (LPFM) stations, and 8,928 FM

²¹ See *id.* at tbl.10. Elementary and Secondary School Systems by Enrollment-Size Group and State: 2017 [CG1700ORG10], <https://www.census.gov/data/tables/2017/econ/gus/2017-governments.html>. There were 12,040 independent school districts with enrollment populations less than 50,000. See also tbl.4. Special-Purpose Local Governments by State Census Years 1942 to 2017 [CG1700ORG04], CG1700ORG04 Table Notes_Special Purpose Local Governments by State_Census Years 1942 to 2017.

²² While the special purpose governments category also includes local special district governments, the 2017 Census of Governments data does not provide data aggregated based on population size for the special purpose governments category. Therefore, only data from independent school districts is included in the special purpose governments category.

²³ This total is derived from the sum of the number of general purpose governments (county, municipal and town or township) with populations of less than 50,000 (36,931) and the number of special purpose governments - independent school districts with enrollment populations of less than 50,000 (12,040), from the 2017 Census of Governments - Organizations tbls. 5, 6 & 10.

²⁴ See U.S. Census Bureau, *2017 NAICS Definition, “515112 Radio Stations,”* <https://www.census.gov/naics/?input=515112&year=2017&details=515112>.

²⁵ *Id.*

²⁶ See 13 CFR § 121.201, NAICS Code 515112 (as of 10/1/22 NAICS Code 516110).

²⁷ See U.S. Census Bureau, *2017 Economic Census of the United States, Selected Sectors: Sales, Value of Shipments, or Revenue Size of Firms for the U.S.: 2017*, Table ID: EC1700SIZEREVFIRM, NAICS Code 515112, <https://data.census.gov/cedsci/table?y=2017&n=515112&tid=ECNSIZE2017.EC1700SIZEREVFIRM&hidePreview=false>. We note that the US Census Bureau withheld publication of the number of firms that operated for the entire year.

²⁸ *Id.* The available U.S. Census Bureau data does not provide a more precise estimate of the number of firms that meet the SBA size standard. We note that the U.S. Census Bureau withheld publication of the number of firms that operated with sales/value of shipments/revenue in the individual categories for less than \$100,000, and \$100,000 to \$249,999 to avoid disclosing data for individual companies (see Cell Notes for the sales/value of shipments/revenue in these categories). Therefore, the number of firms with revenue that meet the SBA size standard would be higher than noted herein. We also note that according to the U.S. Census Bureau glossary, the terms receipts and revenues are used interchangeably, see https://www.census.gov/glossary/#term_ReceiptsRevenueServices.

²⁹ *Broadcast Station Totals as of September 30, 2023*, Public Notice, DA 23-921 (rel. Oct. 3, 2023) (*October 2023 Broadcast Station Totals PN*), <https://docs.fcc.gov/public/attachments/DA-23-921A1.pdf>.

translators and boosters.³⁰ The Commission however does not compile, and otherwise does not have access to financial information for these radio stations that would permit it to determine how many of these stations qualify as small entities under the SBA small business size standard. Nevertheless, given the SBA's large annual receipts threshold for this industry and the nature of radio station licensees, we presume all of these entities qualify as small entities under the above SBA small business size standard.

16. We note, however, that in assessing whether a business concern qualifies as "small" under the above definition, business (control) affiliations³¹ must be included. Our estimate, therefore, likely overstates the number of small entities that might be affected by our action, because the revenue figure on which it is based does not include or aggregate revenues from affiliated companies. In addition, another element of the definition of "small business" requires that an entity not be dominant in its field of operation. We are unable at this time to define or quantify the criteria that would establish whether a specific radio or television broadcast station is dominant in its field of operation. Accordingly, the estimate of small businesses to which the rules may apply does not exclude any radio or television station from the definition of a small business on this basis and is therefore possibly over-inclusive. An additional element of the definition of "small business" is that the entity must be independently owned and operated. Because it is difficult to assess these criteria in the context of media entities, the estimate of small businesses to which the rules may apply does not exclude any radio or television station from the definition of a small business on this basis and similarly may be over-inclusive.

D. Description of Projected Reporting, Recordkeeping, and Other Compliance Requirements for Small Entities

17. The *FNPRM* proposes modified reporting requirements that, if adopted, may impact compliance requirements for small entities. The Commission seeks comment on whether FM licensees and permittees employing program originating boosters should provide notice through the Licensing and Management System (LMS) prior to commencing program origination, and whether it should similarly provide LMS notice when suspending operations. Should the Commission ultimately decide to adopt these requirements, they would likely result in a modified paperwork obligation for small and other entities. The Commission will have to consider the benefits and costs of allowing program originating booster licensees to submit certain notifications in LMS. If adopted, the Commission will seek approval of and submit the corresponding burden estimates to account for this modified reporting requirement. Additionally, small entities may determine they will need to hire professionals to comply with the rule changes proposed in the *FNPRM*, if adopted. We expect the comments we receive from the parties in the proceeding, including cost and benefit analyses, will help the Commission to identify and evaluate compliance costs and burdens for small businesses that may result from the proposed rules and additional matters discussed in the *FNPRM*.

E. Steps Taken to Minimize the Significant Economic Impact on Small Entities, and Significant Alternatives Considered

18. The RFA requires an agency to describe any significant alternatives, specifically for small businesses, that it has considered in reaching its proposed approach, which may include the following four alternatives (among others): "(1) the establishment of differing compliance or reporting requirements or timetables that take into account the resources available to small entities; (2) the clarification, consolidation, or simplification of compliance or reporting requirements under the rule for such small entities; (3) the use of performance, rather than design, standards; and (4) an exemption from coverage of the rule, or any part thereof, for such small entities."³²

³⁰ *Id.*

³¹ "[Business concerns] are affiliates of each other when one concern controls or has the power to control the other or a third party or parties controls or has the power to control both." 13 CFR § 21.103(a)(1).

³² See 5 U.S.C. § 603(c)(1)–(4).

19. The Commission has sought to minimize the economic impact on small entities, as well as consider significant alternatives and weigh their potential impact to those entities. In the *FNPRM*, we take the step of proposing to modify rules to facilitate limited program origination by FM booster stations.

20. In addition, the *FNPRM* seeks to avoid imposing additional burdens on small radio stations where practicable. For example, the *FNPRM* proposes to add a new section 74.1206 to the rules, which would prescribe LMS notification of the commencement or suspension of program originating booster service. The majority of Commission notifications in the media services are delivered through LMS, which is less burdensome than requiring separate mail or electronic mail notification. Further, our proposed rule also simplifies notification and certification requirements for broadcasters that permanently discontinue originating programming on a booster to file a notification of termination within 30 days. We believe that unlike other alternatives for compliance, this approach will provide adequate notice to the Commission while minimizing the regulatory burden for broadcast stations.

21. At this time, the Commission does not have supporting data to determine if there will or will not be an economic impact on small businesses as a result of the proposed rule amendments and/or additions. To assist in the Commission's evaluation of the economic impact on small entities, as a result of actions that have been proposed in the *FNPRM*, and to better explore options and alternatives, the Commission has sought comment from the parties. In particular, the Commission seeks comment on whether any of the burdens associated with the filing, recordkeeping and reporting requirements described above can be minimized for small entities. Additionally, the Commission seeks comment on whether any potential costs associated with our FM Booster Station requirements can be alleviated for small entities. The Commission expects to more fully consider the economic impact and alternatives for small entities following the review of comments filed in response to the *FNPRM*.

F. Federal Rules that May Duplicate, Overlap, or Conflict with the Proposed Rule

22. None.

**STATEMENT OF
COMMISSIONER BRENDAN CARR**

Re: *Amendment of Section 74.1231(i) of the Commission's Rules on FM Broadcast Booster Stations, MB Docket No. 20-401; Modernization of Media Initiative, MB Docket No. 17-105; Amendment of Section 74.1231(i) of the Commission's Rules on FM Broadcast Booster Stations, RM-11854*

America's radio broadcasters are competing hard every day in the market and delivering the innovative audio content that responds to the needs and interests of their listeners. But they are competing on a playing field that has been tilted against them by outdated and unnecessary federal regulations—restrictions that do not apply to services offered by other businesses in the audio market, including those offered by Big Tech companies. The FCC needs to do a better job of eliminating regulations that are needlessly holding broadcasters back.

We take a good step in the right direction today. For years, the FCC has ensured that various technologies from cable to 5G to next-gen broadcast TV have the freedom to target their content to specific geographies. This has been a proven way to serve the needs of diverse communities while bringing in additional advertisers and revenue opportunities for providers. Except the FCC has never allowed radio broadcasters that same opportunity. It has artificially limited broadcasters' business models.

Today, we change that. The FCC now gives radio broadcasters the opportunity to target content for limited portions of time. With this Order, broadcasters can move forward now with plans to deploy technology to geotarget their audiences with hyper-local news, alerts, weather reports, and advertising. The Order definitively resolves all of the issues that had been raised from interference concerns to policy considerations. Importantly, the Order does not mandate that any broadcaster embrace this technology. It simply eliminates a federal regulation that would have prevented broadcasters from voluntarily choosing to offer this service. It represents an approach to unnecessary regulation that should serve as a model more broadly for how the FCC's broadcast rules should work. Moreover, the Order immediately opens up new opportunities for all FM radio broadcasters which operate in an intensely competitive media environment.

That is why I am very pleased to support the FCC's unanimous decision today that authorizes radio broadcasters to begin offering this service on a voluntary basis. I want to acknowledge in particular the work and leadership that Commissioner Starks has done to advance this bipartisan win. I have appreciated the chance to work with him on this important item.

**STATEMENT OF
COMMISSIONER GEOFFREY STARKS**

Re: *Amendment of Section 74.1231(i) of the Commission's Rules on FM Broadcast Booster Stations, MB Docket No. 20-401; Modernization of Media Initiative, MB Docket No. 17-105; Amendment of Section 74.1231(i) of the Commission's Rules on FM Broadcast Booster Stations, RM-11854*

There's no shortage of ways to consume media in the Internet age. Cable, satellite, streaming, and shorts. Podcasts, audiobooks, socials, and, for a time, even audio chat. All of them compete for our attention alongside good old-fashioned radio and broadcast TV. And all of that competition has led to open questions about the direction of media, and the future and role that broadcasters will play. The answers are not crystal clear.

I believe that radio and TV stations are unique, and will continue to shine. They reach just about every home and most roadways in America. They provide a free, over-the-air option for millions of Americans who just can't afford another subscription or are aching from subscription fatigue. They serve as critical conduits for public safety messaging when disaster strikes. They remain among the most trusted sources of local content, including local news, in our communities. Safe, trusted, local, free, and ubiquitous. Those are sound and strong fundamentals.

Broadcasters, though, still need to build and innovate. They'll need to keep giving a voice to every community that they serve. That's why I led the charge to reinstate broadcast workforce data reporting. It's why I continue to fight for a fast and fair transition to NextGenTV. And it's why I support today's decision to allow FM radio stations to originate geotargeted content. Radio is the only media service that, until today, could not offer geo-targeted content. Talk about competing with one-hand tied behind your back.

Small and independent FM broadcasters, many of them minority-owned, have been the driving force behind this change. They've said they want to offer tailored content that speaks to specific communities within their listening audience, including weather and emergency alerts. They've told us that times are tough, and that geotargeting could help them generate new ad revenue. They've also expressed interest in airing geotargeted content to boost public safety and civic engagement. No fewer than [21 civil rights organizations](#) also urged us to make this change. They believe geotargeting has the power to diversify media ownership, while giving small businesses and community organizations more of an opportunity to get their message on the air.

This is about innovation. It's about time we gave these broadcasters—on a voluntary basis—the opportunity to try out their plans. What they have in mind no doubt presents a fresh way of thinking about FM. But the spirit of entrepreneurship runs deep in our communications history, and embracing the new has created pathways to opportunity for millions of Americans. The same could be true for radio.

I'd like to thank leaders in Congress, especially Congressional Black Caucus Chairman Steven Horsford, Congressman Bennie Thompson, and Congressman Hank Johnson, for their support. I'd also like to thank my colleague Commissioner Carr -- he and I have been working side-by-side to make this proposal a reality for a number of years. This bipartisan and unanimous result wouldn't have been possible without his true collaboration. I'd also like to thank Chairwoman Rosenworcel for working with us to circulate this item.

Finally, I'd like to thank our excellent staff in the Media Bureau -- and especially the Audio Division -- for their dedication, determination, and tremendous expertise. This item has my full support.