document and other required information to the U.S. Senate, the U.S. House of Representatives, and the Comptroller General of the United States prior to publication in the **Federal Register**. A major rule cannot take effect until 60 days after it is published in the **Federal Register**. This action is not a ''major rule'' as defined by 5 U.S.C. 804(2). This action will be effective October 15, 2007.

List of Subjects in 40 CFR Part 271

Environmental protection, Administrative practice and procedure, Confidential business information, Hazardous materials transportation, Hazardous waste, Indians—lands, Intergovernmental relations, Penalties, Reporting and recordkeeping requirements.

Authority: This action is issued under the authority of sections 2002(a), 3006, and 7004(b) of the Solid Waste Disposal Act as amended 42 U.S.C. 6912(a), 6926, 6974(b).

Dated: July 25, 2007.

Lawrence Starfield,

Acting Regional Administrator, Region 6.

[FR Doc. E7–16009 Filed 8–14–07; 8:45 am]

BILLING CODE 6560–50–P

FEDERAL COMMUNICATIONS COMMISSION

47 CFR Part 73

[MM Docket No. 99–325; FCC 07–33]

Digital Audio Broadcasting Systems and Their Impact on the Terrestrial Radio Broadcast Service

AGENCY: Federal Communications Commission.

ACTION: Final rule.

SUMMARY: In this document, the Commission adopts rules to foster the development of a vibrant terrestrial digital radio service for the public and to ensure that radio stations successfully implement digital audio broadcasting. The Commission's goals in this *Second Report and Order* are to begin to adopt service rules and other requirements for terrestrial digital radio.

DATES: Effective September 14, 2007, except for the rules in 47 CFR 73.404(b), 47 CFR 73.404(e), and 47 CFR 73.1201, which contain information collection requirements that have not been approved by OMB. The Federal Communications Commission will publish a document in the **Federal Register** announcing the effective date.

FOR FURTHER INFORMATION CONTACT: For additional information on this proceeding, contact Brendan Murray, *Brendan.Murray@fcc.gov* of the Media Bureau, Policy Division, (202) 418–2120.

SUPPLEMENTARY INFORMATION: This is a summary of the Commission's *Second Report and Order, First Order on Reconsideration,* and *Second Further Notice of Proposed Rulemaking,* FCC 07–33, adopted on March 22, 2007, and released on May 31, 2007. The full text of this document is available for public inspection and copying during regular business hours in the FCC Reference Center, Federal Communications Commission, 445 12th Street, SW., CY–A257, Washington, DC 20554. These documents will also be available via ECFS (*http://www.fcc.gov/cgb/ecfs/*). (Documents will be available electronically in ASCII, Word 97, and/or Adobe Acrobat.) The complete text may be purchased from the Commission's copy contractor, 445 12th Street, SW., Room CY–B402, Washington, DC 20554. To request this document in accessible formats (computer diskettes, large print, audio recording, and Braille), send an e-mail to *fcc504@fcc.gov* or call the Commission's Consumer and Governmental Affairs Bureau at (202) 418–0530 (voice), (202) 418–0432 (TTY).

Initial Paperwork Reduction Act of 1995 Analysis

This document contains modified information collection requirements subject to the Paperwork Reduction Act of 1995 (PRA), Public Law 104–13. It will be submitted to the Office of Management and Budget (OMB) for review under Section 3507(d) of the PRA. The Commission will publish a separate **Federal Register** Notice seeking public comments on the modified information collection requirements. Therefore, OMB, the general public, and other Federal agencies will be invited to comment on the modified information collection requirements contained in this proceeding once the **Federal Register** Notice is published. In addition, we note that pursuant to the Small Business Paperwork Relief Act of 2002, Public Law 107–198, see 44 U.S.C. 3506(c)(4), we previously sought specific comment on how the Commission might ''further reduce the information collection burden for small business concerns with fewer than 25 employees.''

In this present document, we have assessed the effects of easing the filing requirements imposed on entities that wish to implement IBOC, and find that the steps taken will reduce paperwork burdens on small entities because they will no longer be required to seek prior authorization to implement certain technologies for use with digital audio broadcasting.

Summary of the Report and Order

I. Introduction and Executive Summary

1. In the *Digital Audio Broadcasting Report and Order,* we selected in-band, on-channel (''IBOC'') as the technology enabling AM and FM radio broadcast stations to commence digital audio broadcasting (''DAB''). We note that in this *Second Report and Order* as well as in the *Second Further Notice of Proposed Rulemaking* (published elsewhere in this issue), DAB generally refers to the digital service broadcast by radio stations whereas IBOC generally refers to the technical system supporting DAB service. This terminology, and the subject matter discussed herein, applies to terrestrial over-the-air broadcasting. Satellite radio service, offered by XM and Sirius, is not a subject under consideration in this proceeding. In the *DAB R&O,* we adopted notification procedures allowing existing AM and FM radio stations to begin digital transmissions immediately on an interim basis using the IBOC system developed by iBiquity Digital Corporation (''iBiquity''). We concluded that the adoption of a specific technology would facilitate the development of digital services for terrestrial broadcasters. We deferred consideration of final operational requirements and related broadcast licensing and service rule changes to a future date. In a *Further Notice of Proposed Rule Making (''FNPRM''),* 69 FR 27874, we addressed issues left unresolved in the *DAB R&O,* 69 FR 78193, and sought comment on what changes and amendments to Part 73 of the Commission's rules were necessary to facilitate the adoption of DAB.

2. Through this proceeding, we seek to foster the development of a vibrant terrestrial digital radio service for the public and to ensure that radio stations successfully implement DAB. Our statutory authority for implementing these goals is derived from, *inter alia,* Sections 1, 4, 303, 307, 312, and 315 of the Communications Act. Our goals in this *Second Report and Order* are to begin to adopt service rules and other requirements for terrestrial digital radio. However, we find it necessary to ask additional questions, in a *Second Further Notice of Proposed Rulemaking,* on how to preserve free over-the-air radio broadcasting while permitting licensees to offer new services on a subscription basis. We also resolve and dispose of several petitions for

reconsideration that were filed in response to the *DAB R&O.*

3. In summary, the Commission, in this *Second Report and Order, First Order on Reconsideration, and Second Further Notice of Proposed Rulemaking:*

- Refrains from imposing a mandatory conversion schedule for radio stations to commence digital broadcast operations;
- Allows FM radio stations to operate in the extended hybrid digital mode;
- Requires that each local radio station broadcasting in digital mode provide a free over-the-air digital signal at least comparable in audio quality to its analog signal;
- Continues to require that the main digital broadcast stream simulcast the material aired on the analog signal;
- Adopts a flexible bandwidth policy permitting a radio station to transmit high quality audio, multiple program streams, and datacasting services at its discretion;
- Allows radio stations to time broker unused digital bandwidth to third parties, subject to certain regulatory requirements;
- Applies existing programming and operational statutory and regulatory requirements to all free DAB programming streams, but defers the issue of whether and how to apply any specific new public interest requirements;
- Authorizes AM nighttime operations and FM dual antenna configurations;
- Considers and addresses other technical matters, such as FM translator and booster operations and TV Channel 6 interference issues;
- Defers discussion of whether the Commission should impose content control requirements that would prevent listeners from archiving and redistributing digital musical recordings transmitted by digital broadcast stations;
- Recognizes that further negotiations between the United States and the international community are taking place to resolve possible disputes about the implementation and operation of DAB by domestic radio stations;
- Dismisses several pending Petitions for Reconsideration and Petitions for Rulemaking that asked, *inter alia,* the Commission to reconsider the adoption of iBiquity's IBOC system as the technology chosen for DAB transmission;
- Seeks further comment on appropriate limits to the amount of subscription services that may be offered by radio stations.

II. Background

A. In-Band On-Channel Technology

4. IBOC technology makes use of the existing AM and FM bands (In-Band) by adding digital carriers to a radio station's analog signal, allowing broadcasters to transmit digitally on their existing channel assignments (On-Channel) while simultaneously maintaining their analog service. iBiquity's IBOC DAB technology enables radio stations to provide enhanced sound fidelity, improved reception, multiple audio streams, and new data services. It permits the transmission of near-CD quality audio signals on the FM band, and improved fidelity on the AM band, to digital-ready radio receivers along with information services, such as station, song and artist identification, stock and news updates, and local traffic and weather bulletins. These digital signals are free from the static, hiss, pops, and fades associated with the current analog system. iBiquity's IBOC technology will also allow for new radios to be ''backward and forward'' compatible, allowing them to receive existing analog broadcasts from stations that have yet to convert and digital broadcasts from stations that have converted. Existing analog radios will continue to receive analog broadcast signals.

5. The iBiquity IBOC system evaluated by the DAB Subcommittee of the National Radio Systems Committee (''NRSC'') are ''hybrids'' in that they permit the transmission of both analog and digital signals within the spectral emission mask of a single AM or FM channel. In the hybrid mode, the iBiquity IBOC system places digital information on frequencies immediately adjacent to the analog signal. The digital signals are transmitted using orthogonal frequency division multiplexing (''OFDM''). The FM IBOC system has an extended hybrid mode, providing greater digital capacity than the hybrid mode. The IBOC system is also designed to eventually permit radio stations to convert to an all-digital mode of operation. The IBOC system uses perceptual coding to discard information that the human ear cannot hear. This reduces the amount of digital information, and as a result, the frequency bandwidth required to transmit a high-quality digital audio signal. In addition, the IBOC system in hybrid mode is designed to blend to analog when digital reception fails. This blending feature eliminates a digital ''cliff effect'' that would otherwise result in the complete and abrupt loss of reception at locations where the digital signal fails.

B. The Regulatory Development of Digital Audio Broadcasting

6. In 1990, the Commission first considered the feasibility of terrestrial and satellite digital radio services. As to the former, the Commission concluded that the digital terrestrial systems then under consideration were undeveloped and that it was premature to engage in discussions regarding DAB standards, testing, licensing, and other policy issues. In 1999, the Commission, recognizing new technological developments and innovations, commenced this proceeding to foster the adoption of a DAB system and develop a record regarding the legal and technical issues raised by the introduction of DAB. In the *DAB NPRM,* the Commission, *inter alia,* proposed criteria for the evaluation of DAB models and systems and considered certain DAB system testing, evaluation, and standard selection issues.

7. In the *DAB R&O,* the Commission selected the hybrid AM and FM IBOC system tested by the NRSC as the *de facto* standard for interim digital operation. As of the effective date of the *DAB R&O,* we stated we would no longer entertain any proposal for digital radio broadcasting other than IBOC. We found that IBOC was the best way to advance our DAB policy goals. We also found that this technology was supported by the broadcast industry and was the only approach that could be implemented in the near future. We recognized that the IBOC system was spectrum-efficient because it can accommodate digital operations for all existing AM and FM radio stations with no additional allocation of spectrum. The NRSC tests, as explained in the *DAB R&O,* showed that both AM and FM IBOC systems offer enhanced audio fidelity and increased robustness when encountering interference and other signal impairments. The tests also indicated that coverage for both systems would be at least comparable to analog coverage. We stated that audio fidelity and robustness will greatly improve when radio stations move to all-digital operations.

8. We established the following requirements for radio stations in the *DAB R&O:* (1) During interim IBOC operations, stations must broadcast the same main channel program material in both analog and digital modes; (2) interim IBOC facilities must use the station's authorized antenna system; a public notice seeking comment on the use of a dual FM antenna system was issued by the Media Bureau after the *DAB R&O* was released. The Media Bureau approved the use of separate FM

antennas in 2004; (3) due to interference concerns, stations implementing IBOC must communicate to the Commission the transmitter power output (for both analog and digital transmitters, if applicable) and must certify that the analog effective radiated power remains consistent with the station's authorization; (4) pending adoption of final rules, a licensee's authorization to transmit IBOC signals may be modified or cancelled by the Commission without prior notice or a right to a hearing to eliminate objectionable interference; and (5) IBOC AM stations may only operate during daytime hours.

9. In the *DAB FNPRM,* our goal was to create a record that would lead to permanent DAB policies and requirements. We sought public input on several issues related to digital audio broadcasting. Specifically we sought comment on: (1) The appropriate policies the Commission may adopt to encourage radio stations to convert from an analog-only radio service to a hybrid analog/digital radio service, and, eventually, to an all-digital radio service; (2) the types of digital services the Commission should permit radio stations to offer; (3) how noncommercial educational (''NCE'') FM and low power FM stations may provide digital radio service to the public; (4) how the Commission's existing programming and operational rules should be applied to DAB; and (5) what changes and amendments to the Commission's technical rules are necessary to further the introduction of DAB.

10. In the *DAB NOI,* we asked whether the transmission of digital radio signals, as a free over-the-air service, would create an environment for persons to engage in indiscriminate recording and Internet redistribution of musical recordings that are part of unencrypted free digital audio broadcasts and sought comment on how this matter should be addressed. On this point, we have been informed that interested parties are attempting to resolve this issue through a marketplace solution. We encourage this approach. Accordingly, we will defer further action on this issue at this time. In the *DAB NOI,* we also raised for comment whether there were international broadcast treaty matters that needed to be addressed at this time to ensure that DAB is successfully implemented in the United States.

C. Radio Statistics

11. As of August 1, 2005, approximately 900 radio stations have entered into licensing agreements with iBiquity for its IBOC technology. As of September 30, 2005, there were 10,973 commercial radio stations, as well as 2,626 FM educational radio stations in the United States. Of the commercial stations, 6,215 were FM stations and 4,758 were AM stations. There were also 3,920 FM translator and booster stations. Currently, 1,272 stations (195 AM and 1,077 FM) are authorized by the Commission to broadcast using the IBOC system, and approximately 700 FM stations have requested and received special temporary authority for multicasting. These stations are mostly located in the top 50 markets in the country and reach 60 percent of all potential listeners. At least 10 stations are on the air in each of the following markets: Los Angeles, Chicago, San Francisco, Boston, Detroit and Atlanta. Approximately, 85 percent of the IBOC stations on the air are FM stations and 15 percent are AM stations. iBiquity has announced that 21 of the nation's top radio broadcast groups have committed to accelerate broadcast conversion of 2,000 AM and FM stations to IBOC technology. Clear Channel Communications, Entercom and Cox Radio have all made substantial commitments to convert many of their stations to digital over the next few years. Moreover, ten of the largest radio firms have formed a strategic alliance to coordinate the rollout of DAB. This effort includes the coordination of multicast formats, securing digital automotive receiver designs, and lowering the price points for digital radio receivers.

III. Policies and Rules for DAB

A. The DAB Standard

12. In the *DAB R&O,* we stated that the adoption of a DAB standard will facilitate an efficient and orderly transition to digital radio, and we supported a public and open standard-setting process. In the *DAB FNPRM,* we encouraged the NRSC to provide us with information on the standard setting process as events warrant. On April 16, 2005, the NRSC announced approval of the initial NRSC IBOC standard known as NRSC–5. The standard is based on iBiquity's IBOC technology. In the iBiquity system, audio source coding and compression are handled by iBiquity's HD codec. NRSC–5 does not include specifications for audio source coding and compression. iBiquity has committed to license all patents necessary to implement NRSC–5, either with or without the HD codec. It is also possible within the NRSC–5 standard to use audio source coding and compression schemes other than iBiquity's HD codec. On May 18, 2005, the NRSC submitted NRSC–5 to the Commission for consideration and evaluation. A *Public Notice* seeking comments on the NRSC–5 standard was issued by the Media Bureau on June 16, 2005. Following the close of the comment cycle in August 2005, we will review the filings and then take further action. The NRSC adopted the NRSC–5–A IBOC broadcasting standard in September 2005. The NRSC–5–A IBOC standard adds sections concerning Advanced Application Services and a new reference document to the NRSC–5 IBOC standard, but the NRSC has not yet submitted the NRSC–5–A IBOC standard to the Commission for review. While our consideration of the NRSC–5 IBOC standards is continuing, we find that it is in the public interest to adopt certain policies, rules, and requirements for digital radio before we have completed our evaluation of the standards. Radio stations and equipment manufacturers need to move forward with the DAB conversion, and we need not wait until after final action is taken on the IBOC standards to provide such guidance to them.

B. Conversion Policy

13. In the *DAB FNPRM,* we sought comment on the pace of the analog to digital radio conversion and the possibility of an all-digital terrestrial radio system in the future. We noted that Congress codified December 31, 2006, as the analog television termination date with certain exceptions, and we recognized that there is no analogous congressional mandate for the termination of analog radio broadcasting. We stated that the Commission has not considered a date certain as to when radio stations should commence digital broadcast operations because radio stations, unlike television stations, are not using additional spectrum to provide digital service. We also stated that band-clearing is not an issue. Based on these factors, we found that there was no immediate need to consider mandatory transition policies of the type contemplated with respect to DTV. However, we recognized the spectrum efficiencies and related new service opportunities inherent in the IBOC system. As such, we sought comment on what changes in our rules would likely encourage radio stations to convert to a hybrid or an all-digital transmission system and asked whether the government, the marketplace, or both should determine the speed of conversion from analog to hybrid and, eventually, to all digital radio service. We also asked whether we should conduct periodic reviews, in terms of the number of DAB receivers on the market and DAB stations on the air, to

help us decide how to set policy as the conversion to digital audio broadcasting moves forward.

14. Commenters generally support a marketplace transition to digital audio broadcasting. For example, the State Broadcasters Associations (''SBAs'') states that the Commission should allow market forces to govern the adoption of DAB by the radio industry and that no station should be required to adopt IBOC or any other digital technology. The Public Interest Coalition (''PIC'') agrees that the market should govern the pace of the DAB transition. PIC states that allowing market forces to guide the digital radio transition will permit stations to convert at a pace dictated by their own needs.

15. We will not establish a deadline for radio stations to convert to digital broadcasting. Stations may decide if, and when, they will provide digital service to the public. Several reasons support this decision. First, unlike television licensees, radio stations are under no statutory mandate to convert to a digital format. Second, a hard deadline is unnecessary given that DAB uses an in-band technology that does not require the allocation of additional spectrum. Thus, the spectrum reclamation needs that exist for DTV do not exist here. Moreover, there is no evidence in the record that marketplace forces cannot propel the DAB conversion forward, and effective markets tend to provide better solutions than regulatory schemes.

16. iBiquity argues that in the early stages of the transition, the Commission should favor and protect existing analog signals. It states that this could be accomplished by limiting the power level and bandwidth occupancy of the digital carriers in the hybrid mode. At some point in the future, when the Commission determines there is sufficient market penetration of digital receivers, iBiquity asserts that the public interest will be best served by reversing this presumption to favor digital operations. At that time, broadcasters will no longer need to protect analog operations by limiting the digital signal and stations should have the option to implement all-digital broadcasts. We decline to adopt iBiquity's presumption policy because it is too early in the DAB conversion process for us to consider such a mechanism. We find that such a policy, if adopted now, may have unknown and unintended consequences for a new technology that has yet to be accepted by the public or widely adopted by the broadcast industry.

17. Nevertheless, as enunciated in more detail below, we take significant steps to facilitate the digital radio conversion by adopting rules and policies that encourage radio stations to invest in digital equipment and programming. For example, we permit radio stations to provide various types of digital service as long as one free over-the-air digital stream of equal or greater quality than the station's existing analog signal is available for listeners. We also establish technical rules, such as permitting AM nighttime service, intended to reinvigorate the AM band. To ensure that DAB adoption proceeds in a timely manner, we will conduct periodic reviews of digital service and receiver penetration, as suggested by iBiquity, as circumstances warrant. iBiquity states that the Commission should conduct periodic reviews of station conversions and receiver penetration to ensure the functioning of market forces. iBiquity recommends the commencement of a first review five years after adoption of a *Second Report and Order* in this proceeding to check on the progress of the conversion. Other commenters agree that the Commission should periodically review the progress of the DAB conversion process.

18. *Extended Hybrid Mode.* NAB asserts that the Commission's authorization of extended hybrid mode DAB operations will further the conversion process. According to NAB, the extended hybrid mode, which adds up to 50 kbps, (''kbps'' is the acronym for kilobits per second (1000 bits per second)), of data carrying capacity to an FM IBOC signal, will allow broadcasters to support a range of datacasting services without affecting the quality of the 96 kbps main channel digital audio signal. NAB asserts that while the use of the FM extended hybrid mode increases the bandwidth occupancy of the digital carriers, this will not increase interference to adjacent channels since the additional (*i.e.*, extended hybrid) digital carriers fall between a station's primary digital carriers and its host analog signal. Consequently, each broadcaster will be able to control the level of impact these extended hybrid signals may have on its own transmission. NAB comments that the Commission should authorize broadcasters to adopt all three extended hybrid modes and allow broadcasters to make the appropriate operational decisions based on the needs of their listeners. In the extended hybrid mode, digital carriers are added at frequencies immediately adjacent to the analog FM signal. The three extended hybrid modes (MP2, MP3, and MP4) are defined by the number of digital partitions added (one, two, or four pairs), respectively. NPR submitted a detailed report in November 2004 about the effect of extended hybrid operation on the host analog signal in various receivers. The report concludes that the FM extended hybrid mode does not affect host analog reception in car radios, home stereo receivers, or subsidiary communications authorization receivers.

19. The FM extended hybrid mode holds great promise for both broadcasters and their listeners. NPR has submitted data showing that the FM extended hybrid mode will work in most circumstances. NPR's report provides an ample basis for permitting radio stations to operate in an extended hybrid mode. Authorization of this digital mode will permit broadcasters to offer new and innovative services, especially to underserved populations, such as the visually impaired and non-English speaking citizens. If interference issues do arise, we are confident that the Commission staff will be able to resolve disputes on a case-by-case basis, and we intend that the staff will address these complaints in a timely fashion. In this connection, the Media Bureau has full authority to adjust and, if necessary, prohibit hybrid operations by broadcasters.

20. *All-digital Mode.* In the *DAB FNPRM,* we recognized that it may be premature to adopt policies for all-digital radio operation given that there are no standards for this type of broadcasting. NAB agrees that adoption of policies and procedures relating to the all-digital mode of IBOC operation would be premature in the absence of ''comprehensive and impartial testing'' of all-digital systems. NAB states, however, that it is important to recognize that the all-digital mode is an integral part of the IBOC DAB system specification and that the software iBiquity provides to its transmitter and receiver manufacturer licensees includes an all-digital mode of operation. NAB states that when the time is ripe to consider use of the all-digital mode, consumers and broadcasters who have already invested in IBOC DAB equipment will not be disenfranchised and a smooth transition from a hybrid to an all-digital environment will be assured. iBiquity agrees that additional work is required before there is an industry consensus on the IBOC all-digital system.

21. NPR states that it is premature for the Commission to contemplate a regulatory structure for all-digital terrestrial radio. It states that the elegance of the DAB transition is that the public, through its response to digital services, will determine the pace

of the transition. NPR further states that until the transition to all-digital operation becomes more imminent, the Commission should refrain from adopting any policy affecting all-digital DAB. PIC states that the Commission should use its authority to facilitate public participation in the further development of digital radio technology.

22. The ultimate goal of this proceeding is to establish a robust and competitive all-digital terrestrial radio system. We agree with NPR that it is premature, however, to consider the adoption of policies and rules for an all-digital mode of operation. There are many unresolved technical issues associated with the all-digital radio broadcast system and radio stations do not plan to offer all-digital service in the near future. Broadcasters, of course, are encouraged to experiment with an all-digital service, with appropriate authorization, but for regulatory purposes, our principle focus at this stage is to ensure that the ground rules are set for the introduction of hybrid IBOC DAB. When DAB receiver penetration has reached a critical mass and most, if not all, radio stations broadcast in a hybrid digital format, we will begin to explore the technical and policy issues germane to an all-digital terrestrial radio environment.

C. Service Rules

1. Flexible Uses

23. As explained above, the IBOC DAB system provides radio stations with new flexibility and capabilities. First and foremost, it allows FM broadcasters to scale their audio quality from 96 kbps downward in 1 kbps or smaller increments. Any reduction below 96 kbps frees capacity that can be devoted to other services. The AM system offers two levels of audio quality. The ''core'' AM carriers provide 20 kbps of robust monophonic sound. The ''enhanced'' layer adds an additional 16 kbps of digital carriers and enables full stereo sound. The AM system design allows broadcasters to devote the full 36 kbps to a single audio signal or, in the future, select only the 20 kbps core mode for audio and devote the remaining 16 kbps enhanced carriers for other services.

24. The scaling of the audio codec, which permits broadcasters to reduce the number of bits devoted to the main channel audio signal, may affect the quality of the audio. An audio codec compresses digital audio data prior to transmission and decompresses data received. However, it will not impact the robustness of the signal. The audio quality may be affected because the reduction in the bit rate may increase the likelihood of digital artifacts. The trade-off between bits and audio quality is not linear. There can be a substantial reduction in bit rate before most listeners would notice any digital artifacts that might impact audio quality. The broadcasters' and listeners' tolerance for reduced audio quality depends on many factors, most importantly, station program format.

25. The IBOC DAB system thus allows radio stations to broadcast a single high quality audio signal, multiple streams of lower quality audio, or various combinations of different quality audio signals. In addition, the system is capable of non-broadcast uses that are non-audio and/or subscription-based in nature. In the *DAB FNPRM,* we tentatively found that permitting radio stations to use their bandwidth in a flexible manner is in the public interest. Section 303 of the Act compels the Commission to ''study new uses for radio, provide for experimental uses of frequencies, and generally encourage the larger and more effective uses of radio in the public interest.''

26. NAB states that a digital radio station's service offerings should be determined by the licensee rather than by government mandate. NAB explains that digital business models will vary from licensee to licensee. Some stations, such as those with jazz or classical music genres, may choose to focus their resources on promoting the highest quality audio signal, while others may want to broadcast multiple streams of news, weather or financial information. NAB submits that these kinds of decisions are best left to consumer demand and the marketplace. NAB states that beyond an obligation to deliver at least one main audio channel of equal or better quality than a station's existing analog service, broadcasters should retain the flexibility to scale signals to enhance audio quality, to upgrade existing supplementary services, or offer new services for their audiences. NAB concludes that for DAB to fulfill its potential, supplementary services must be a viable option. NPR states that the Commission should not specify the amount of capacity stations should allocate to any given audio or data service. NPR argues that radio station licensees, like digital television licensees, should have the freedom to develop innovative services for the public.

27. iBiquity also urges the Commission to adopt a flexible approach to its service rules because radio stations have only begun to explore the IBOC system options. iBiquity asserts that this approach will encourage broadcasters to experiment and will foster the development of innovative new services for the listening public. iBiquity states that the imposition of unnecessarily restrictive service rules will have the effect of stifling the development of new services. Cox likewise suggests that the Commission should maintain a ''do no harm'' position, arguing that if concerns arise later in the conversion, the Commission can always adopt responsive rules at that time. There were no comments criticizing the adoption of a flexible use policy.

28. We expect and intend that the fundamental use of DAB will be for the provision of free over-the-air radio service. We will, therefore, require radio stations to provide at least one free digital over-the-air audio broadcast service. Specifically, radio stations operating in a digital mode must provide one free digital audio programming service that is comparable to or better in audio quality than that of their current analog service. Such a baseline requirement mirrors the Commission's analogous requirement for digital television stations, and is based on the same underlying policy consideration that significant benefits from digital conversion should flow directly to the public. We do not here alter the requirement set forth in the *DAB R&O* that a radio station must simulcast its analog programming service on its digital signal. However, we will revisit the simulcasting requirement in the future when we decide whether or not to approve the NRSC–5 standard. In any event, simulcasting is part of the IBOC operational structure and a radio station must duplicate its programming if it wants the DAB ''blend'' feature to work properly.

29. Taking these points into consideration, we will permit radio stations to use their frequencies as the marketplace dictates, an approach supported by dozens of interested parties and consistent with our digital television policy. We are hopeful that this flexibility also will lead to a more rapid conversion to DAB. We elaborate on this issue below by addressing issues raised regarding some of the services DAB stations might choose to provide.

a. Digital Audio Broadcasting Signal Quality

30. In the *DAB FNPRM,* we sought comment on whether or not we should require broadcasters to provide a high quality digital audio signal and, if so, what minimum bandwidth should be required for this purpose. We also sought comment on the amount of

capacity necessary to allow radio stations to broadcast a high quality digital signal while permitting the introduction of new datacasting and audio services.

31. iBiquity supports the use of the IBOC system to improve audio quality. It believes, however, that market forces should be allowed to determine the optimal quality levels of the IBOC system. iBiquity argues that the Commission should not establish minimum quality requirements, but rather should allow radio stations to make their own determination of the appropriate level of audio quality for their particular listeners. NAB states that, at this early point in the digital radio transition, it is impossible to conclude with any measure of certainty the number of bits necessary to support a good quality main audio signal or how many secondary audio streams an IBOC radio station can transmit without degrading audio quality. Cox Radio adds that any restrictions contemplated by the Commission may become obsolete soon after they are adopted.

32. As discussed above, we decline to require broadcasters to dedicate a minimum level of digital bandwidth to provide a high quality digital signal. Instead, we leave the decision as to the quality of the signal provided to the discretion of the radio station licensee, subject to the comparable signal obligation discussed earlier. The IBOC system allows stations to offer the public high quality audio, as well as a broad variety of other innovative services. We believe that we should provide broadcasters with the freedom to innovate and respond to the marketplace in developing not only the mix of services, but also the quality of the audio they will offer the public.

b. Multicasting

33. The IBOC FM DAB system permits an FM radio station to broadcast multiple audio programming services within its assigned channel. As AM IBOC operation develops, iBiquity plans to introduce the option to split the digital AM bitstream into two channels. In order to provide multiple digital programming streams, a radio station must reduce the audio bit rate of its main channel broadcasts or use the extended hybrid mode to obtain additional capacity that can be devoted to a lower bit rate supplemental audio channel. Testing conducted by NPR established the viability of this functionality and also demonstrated that the supplemental channel will have coverage equivalent to the coverage of the main channel audio signal. Due in part to IBOC system design constraints, however, any supplemental audio services will not be able to take advantage of the blend function available to the main channel audio. The blend function enhances rapid tuning for the main channel digital signal and provides an analog backup signal in the event the main channel audio signal is lost. Therefore, any supplemental channel will require several seconds for tuning and will experience muting of the audio in the event of signal loss.

34. In the *DAB FNPRM,* we asked how the availability of additional audio streams can further our diversity goals, particularly for people with disabilities and minority or underserved segments of the community. We tentatively concluded that adopting DAB service rules that encourage more audio streams would promote program diversity, and that, once the Commission adopts a policy in this area, radio stations would no longer need to obtain experimental authority to broadcast multiple digital programming streams. Section 303 of the Act compels the Commission to ''study new uses for radio, provide for experimental uses of frequencies, and generally encourage the larger and more effective uses of radio in the public interest.''

35. Generally, commenters urged the Commission to authorize multicasting on a permanent basis, and at the same time, asked us to avoid excessive regulation that would disadvantage any new type of digital service. Specifically, commenters emphasized the benefits of multiple digital audio channels and how that IBOC feature will ensure the continuing viability of radio reading services as well as enhance the ability of broadcasters to offer more niche programming and public affairs broadcasts.

36. The IBOC system makes it possible for FM radio stations to air additional streams of traditional radio programming (*e.g.*, music, news, and sports), public safety services (*e.g.*, national security announcements), assisted living services (*e.g.*, radio reading services), non-English language programming, and news services to underserved populations. Experts state that one 96 kbps FM channel could be divided into up to eight streams of digital programming. Many stations commented that multicasting will foster the expansion of local public affairs programming generally and programming serving the Latino, Asian, and other communities of common cultural interest, in particular. A number of such stations comment that they will use their digital capacity to broadcast more foreign language services. Indeed, a large number of NCE stations filed comments specifically stating that the following program services are likely to emerge: (1) Special programming for English as a Second Language (''ESL'') listeners; (2) native American programming; (3) public affairs programming, such as school board, civic and local government meetings; (4) youth, young adult and student productions; (5) reading services for the blind; (6) homeland security/public safety programming; (7) arts and culture programming; (8) breaking news/special news events/emergency alerts; (9) international news coverage; and (10) educational/children's programming. NPR has announced that it will offer five music services for multicast streams on affiliated public radio stations: classical, jazz, electronica, triple-A, and folk. Other program offerings NPR is developing for stations with new channels include a news and information service and formats that would serve culturally diverse audiences. Westwood also said it would make its lineup of news, sports, talk and entertainment programming, as well as its traffic and information content available to HD Radio FM broadcasters' multicast services. In addition, iBiquity reports that commercial radio broadcasters, including Infinity, Capitol Broadcasting, and Greater Media have all launched new multicast digital radio streams with different formats in the summer of 2005.

37. We will permit radio stations to provide multiple audio streams of digital programming without the need for individual station approval by the Commission. FM stations currently multicasting pursuant to experimental authority from the Commission are released from the requirement to submit a report, as specified in the letter granting multicasting authority. We believe that radio stations can best stimulate consumers' interest in digital audio services if they are able to offer the programs that are the most attractive to their communities. Further, allowing radio stations the flexibility to provide multicast services will allow them to offer a mix of services that can promote increased consumer acceptance of DAB, which, in turn, will likely speed the conversion process. Additionally, diversity of programming services may result from multicasting and provide programming to unserved and underserved segments of the population. We strongly encourage digital audio broadcasters to use their additional channels for local civic and public affairs programming and

programming that serves minorities, underserved populations, and non-English speaking communities.

38. Mt. Wilson Broadcasters opposes Commission action authorizing multicasting, at least at the present time, arguing that ''splitting the channel'' will derogate the service provided by FM radio stations. NPR asserts that Mt. Wilson Broadcasters is misinformed about the purposes of DAB, the technical feasibility of multicasting, and the competitive consequences of authorizing full-power broadcast stations to broadcast multiple audio channels. We find that multicasting will not derogate the service as Mt. Wilson argues. An FM station commencing DAB operations will have approximately the same geographic reach for its digital signal as for its analog signal. Moreover, splitting the FM signal into multiple digital streams will not harm listeners in any manner. As noted above, a licensee must provide a broadcast stream at least equivalent in quality to its existing analog service. In fact, an FM station operating a digital service will be able to provide more services than it could with only its analog signal. Accordingly we perceive no derogation of the type forecast by Mt. Wilson Broadcasters.

39. *Time Brokering.* In the *DAB FNPRM,* we sought comment on the extent, if any, to which we should permit radio stations to lease unused or excess bandwidth to unaffiliated audio programmers. In this context, we noted that an unaffiliated entity may schedule the programming output of a particular digital audio stream for a period of time under a contract with the licensee. We stated that radio stations may benefit from leasing unused or excess air-time because they would have additional funds to invest in new programming, which, in turn, would benefit the public. We asked whether our diversity goals will be furthered if we allow independent programmers to lease excess capacity from broadcast licensees.

40. We will permit radio stations to enter into time brokerage agreements for their digital bandwidth. ''Time brokerage'' (also known as ''local marketing'') is the sale by a licensee of discrete blocks of time to a ''broker'' that supplies the programming to fill that time and sells the commercial spot announcements in it. Because these agreements are essentially leasing arrangements, they achieve benefits similar to those achieved through leasing arrangements. The Commission has for many years permitted brokering of FM subcarriers and excess digital television bandwidth. Moreover, we permit stations to enter into time brokerage agreements on their main broadcast channels. Subject to our attribution rules, as noted below, broadcasters will have the flexibility in structuring business arrangements and attracting capital to make DAB a success. We agree with the SBAs that the adoption of this policy will allow licensees to recoup some of the costs associated with the digital conversion, and to increase outlet diversity. We strongly encourage digital audio broadcasters to enter in such agreements with ''eligible entities,'' which often include businesses owned by women and minorities. An eligible entity is an entity that would qualify as a small business consistent with SBA standards for its industry grouping. Moreover, the brokering of individual digital streams will provide a means to overcome some financial impediments to getting involved in broadcasting and there is a potential for new market entrants to take advantage of such arrangements. Whatever the agreement, it is the licensee who remains responsible for ensuring the fulfillment of all obligations incumbent upon a broadcast licensee, including ultimate control over program material aired on its station's facilities.

41. In the *DAB FNPRM,* we also asked how Section 310(d) of the Act, regarding transfers of control, should apply to these situations as well as how the Commission's broadcast ownership limits and attribution rules would be affected if an unaffiliated programmer, that is also the licensee of another station in the same market, leases one of the additional audio streams. Moreover, we asked whether there should be an overall limit to the amount of programming time a particular radio station can broker or lease to others.

42. A number of commenters raise issues regarding the interplay between multiple audio streams, brokering, and ownership issues. For example, REC Networks assert that when there is a substantial penetration of DAB receivers in the marketplace, owners of multiple FM stations in a single market should consolidate their multiple FM station broadcasts on a single channel, multicast their programming services using IBOC technology, and then divest their additional transmitter facilities. The SBAs state that brokering of a multicast audio stream would not constitute an illegal transfer of control. They argue that leasing of a digital stream is consistent with longstanding Commission treatment of time brokerage arrangements. Specifically, PIC argues, and we agree, that a licensee owning the maximum permissible number of stations in a particular market should not be allowed to acquire additional broadcast streams through time brokering agreements. Under the Commission's established policies for attribution of such agreements, we count the brokered station toward the brokering licensee's permissible ownership totals under the local broadcast ownership rules. Where an entity owns or has an attributable interest in one or more stations in a local radio market, time brokering of another station in that market for more than 15 percent of the brokered station's broadcast time per week will result in counting the brokered station toward the brokering licensee's ownership caps. We clarify that, in the multicast context, a station owner who programs more than 15 percent of the total weekly hours broadcast on a digital audio stream of another station in the market will be considered to have an attributable interest in the brokered station. The interest attributable to a station owner in such circumstances is equivalent to the percentage of total broadcast time that the stream which is attributable to the station owner constitutes. Under a time brokering agreement, licensees must ensure that they maintain full, effective, and ultimate control over all material aired on their stations. Therefore, time brokering agreements do not raise transfer of control issues under Section 310(d) of the Act.

c. Datacasting

43. In the analog context, all FM stations are authorized to transmit secondary services via an automatic subsidiary communications authorization (''SCA'') under Section 73.295 of the Commission's rules. Subsidiary communication services are those transmitted on a subcarrier within the FM baseband signal, not including services that enhance the main program broadcast service or exclusively relate to station operations. Subsidiary communications include, but are not limited to, services such as radio reading services, utility load management, market and financial data and news, paging and calling, traffic control signal switching, bilingual television audio, and point to point or multipoint messages. Some FM broadcasters currently provide emergency alert system notifications and paging functions under SCA authorization.

44. Section 73.593 of the Commission's rules pertains to subsidiary communications services broadcast by NCE FM radio stations. Under our rules, the licensee of an NCE

FM station is not required to use its subcarrier capacity, but if it chooses to do so, it is governed by the SCA rules for commercial FM stations regarding the types of permissible subcarrier uses and the manner in which subcarrier operations are conducted. A significant difference from the commercial FM SCA rules, however, is the requirement that the remunerative use of an NCE FM station's subcarrier capacity not be detrimental to the provision of existing or potential radio reading services for the blind or otherwise inconsistent with its public broadcasting responsibilities.

45. Similarly, Section 73.127 of the Commission's rules permits AM broadcast stations to use their AM carriers to transmit signals not audible on ordinary consumer receivers for both broadcast and non-broadcast purposes. A station's AM carrier service authorization may not be retained or transferred in any manner separate from the station's license. The licensee must establish that the broadcast operation is in the public interest wholly apart from the subsidiary communications services provided. In the analog context, the station identification, delayed recording, and sponsor identification announcements required by Sections 73.1201, 73.1208, and 73.1212 are not applicable to leased communications services transmitted via services that are not of a general broadcast nature. For both AM and FM services, the licensee must retain control over all material transmitted in a broadcast mode via the station's facilities and has the right to reject any material that it deems inappropriate or undesirable.

46. iBiquity, in a partnership with broadcasters and equipment manufacturers, has developed IBOC data services for terrestrial radio stations. The IBOC system permits radio stations to offer varied and robust datacasting applications. Using an established standard ID3 format (ID3 is a file tagging software used to provide text information such as artist name and song title information. ID3 also supports text descriptions with ads, such as phone numbers and Web addresses.), information services can be used to provide listeners with song, CD title, and artist information. In addition, information and host profiles will complement advertisements and talk radio formats. Synchronized multimedia integration language (''SMIL''), a protocol used by iBiquity as the foundation for advanced application services (''AAS''), allows for the creation and delivery of new data services in the future. Some possible commercial applications envisioned by iBiquity include: (1) Enhanced information services such as weather and traffic alerts delivered to DAB receivers as a text and/or audio format; (2) enhanced advertising services; (3) listener controlled main audio services providing the ability to pause, store, fast-forward, index, and replay audio programming via an integrated program guide with simplified and standard user interface options; and (4) supplementary data delivery that will spur the introduction of automatic driving assistance applications, navigation and rear-seat entertainment programming. Robert Struble, iBiquity's CEO, has noted that the text of advertising messages could be synchronized to display on a DAB receiver's text screen at the same time as a related commercial is broadcast. We sought comment on whether we should permit radio stations to distribute any and all types of datacasting services. We also sought comment on what data services digital noncommercial educational stations should be permitted to offer.

47. iBiquity urges the Commission to authorize datacasting services and to include sufficient flexibility in the datacasting authorization to promote innovation in this area. iBiquity states that there is tremendous opportunity for the development of low-cost innovative datacasting services. iBiquity submits that the greater capacity and reliability of data services based on the IBOC system will help ensure that data services are introduced. It suggests that promotion of datacasting will help introduce new services to the public and will also provide added value for consumers who invest in IBOC receivers. NAB similarly asserts that datacasting services are still in the nascent stage, and that the Commission's main goal at this time should be to encourage and enable broadcasters to innovate and experiment with these aspects of digital radio. NAB maintains that providing broadcasters with flexibility in this area will expedite the emergence of DAB. Bloomberg states that the Commission must not unnecessarily limit the ability of the DAB platform to carry program-associated data or other additional, innovative data services. It argues that the best way to encourage investment, and thereby spur terrestrial radio broadcasters to make the conversion to DAB, is to provide broadcasters with the utmost flexibility to develop new digital applications. The SBAs state that the Commission should permit licensees to provide for datacasting, within the constraints of the IBOC technical standards, mainly because it would enhance the multiplicity of information sources. NPR states that the opportunity to offer datacasting services will motivate stations to develop new services beyond what is available today. It expects stations to use their technical capabilities to provide homeland security-related services, addressing local, regional, or national events and emergencies, and provide expanded weather alerts, traffic safety, and other public safety services.

48. Consistent with our decision with regard to audio multicasting services, we conclude that permitting broadcast licensees flexibility with regard to the provision of datacasting services is in the public interest. We will permit radio stations to provide any type of digital datacasting service, consistent with existing broadcast policies and rules applicable to analog SCA services, as long as it does not derogate the mandated stream of free audio programming. Our aim is to promote innovation and experimentation that will lead to applications that will serve the public, such as song and artist information as well as enhanced news, weather, and emergency updates. We note that, for reasons discussed *infra,* we will currently only allow datacasting that is subscription pursuant to an experimental authorization granted by the Commission.

2. Ancillary Subscription Services

49. Radio stations may wish to offer certain digital audio or data content under a subscription model. In this context, ancillary subscription services may be available for a fee or the listener may simply need to enter a code to access the service. IBOC DAB has the potential to limit access to certain channels by receiver serial number, just like satellite radio receivers are presently able to do. In the *DAB FNPRM,* we sought comment on whether we should permit ancillary subscription services. One proposal offered in the *DAB FNPRM* was to permit ancillary subscription services as long as they do not derogate the free services a radio station broadcasts. We also asked whether we should impose spectrum fees for that portion of digital bandwidth used for ancillary subscription services. Commenters generally urged the Commission to permit ancillary subscription services, but argued against the imposition of fees associated with the offering of such services. iBiquity argues that broadcasters can currently provide both datacasting and supplemental audio channels using SCA analog frequencies without incurring additional spectrum fees and the same approach should be applied to digital services. NAB states

that it would be inappropriate to consider fees at this time because a fee requirement would have the effect of discouraging innovation and new services that would benefit the public. Nevertheless, we remain concerned that pay services, left unrestricted, could overwhelm free over-the-air services, to the detriment of the listening public. We expect terrestrial radio service to remain a free over-the-air service and, therefore, the amount of capacity devoted to ancillary subscription services must be limited. We thus seek further comment on ancillary subscription service issues in a *Second Further Notice of Proposed Rulemaking,* found below. Until this *Rulemaking* is completed and a determination is made regarding assessment of the five percent fee, discussed *infra,* we will only allow ancillary subscription services pursuant to an experimental authorization granted by the Commission. We would grant such authorizations for uses that serve the public interest, including current subcarrier services like radio reading services.

3. Noncommercial Educational Stations

50. NCE radio stations face unique opportunities and challenges as they move to implement DAB. The Act states that a ''noncommercial educational broadcast station'' must be ''owned and operated by a public agency or nonprofit private foundation, cooperation, or association'' or ''owned and operated by a municipality and which transmits only noncommercial programs for educational purposes.'' In 1981, Congress amended the Act to give NCE stations more flexibility to generate funds for their operations. As amended, Section 399B of the Act permits NCE stations to provide facilities and services in exchange for remuneration as long as those uses do not interfere with the station's ''provision of public telecommunications services.'' Section 399B also requires that public stations engaged in revenue generating activities comply with accounting procedures designed to separately identify these commercial revenues and costs, and it prohibits Corporation for Public Broadcasting funds from being used to defray any costs associated with these activities. Section 399B, however, does not permit NCE stations to make their facilities ''available to any person for the broadcasting of any advertisement.'' Section 73.503 of the Commission's rules addresses the licensing requirements and service of NCE FM stations. Under our rules, an NCE FM broadcast station will be licensed only to a nonprofit educational organization and upon showing that the station will be used for the advancement of an educational program. Although the Commission does not reserve frequencies for NCE use in the AM service, and thus has not codified noncommercial eligibility rules for this service, the Commission has treated AM stations that satisfy the NCE FM eligibility rules as noncommercial AM stations. Under Section 73.621 of the Commission's rules, public television stations are required to furnish primarily an educational as well as a nonprofit and noncommercial broadcast service. Section 73.621 of the Commission's rules provides that ''noncommercial educational broadcast stations will be licensed only to nonprofit educational organizations upon a showing that the proposed stations will be used primarily to serve the educational needs of the community; for the advancement of educational programs; and to furnish a nonprofit and noncommercial television broadcast service.''

51. In 2001, the Commission concluded that an NCE television licensee must use a substantial majority of its digital television capacity for nonprofit, noncommercial, educational broadcast services. In addition, the Commission held that the statutory prohibition against broadcasting of advertising on NCE television stations applies to broadcast programming streams provided by NCE licensees, but does not apply to any ancillary or supplementary services presented on their excess DTV channels that do not constitute broadcasting. Like commercial DTV stations, NCE DTV licensees must pay a fee of five percent of gross revenues generated by ancillary or supplementary services provided on their DTV service. In *Office of Communication, Inc. of United Church of Christ* v. *F.C.C.*, the U.S. Court of Appeals for the District of Columbia Circuit upheld the *DTV NCE A&S Order*. In the *DAB FNPRM,* we sought comment on what, if any, special rules or considerations should apply to NCE radio stations in light of our decision regarding NCE DTV stations and the D.C. Circuit's *UCC* decision. We also sought comment on how we can ensure NCE radio stations remain noncommercial in nature as the radio industry converts to DAB.

52. NPR favors a flexible use policy for NCE station digital bandwidth. It states that it does not expect the remunerative use of digital bandwidth to result in a profusion of commercial service offerings by NCE radio stations. NPR further states that it expects any subscription or other services provided by NCE stations to relate to each station's NCE mission. For instance, although subscription services are not anticipated for several generations of digital radio receivers, some NCE radio stations may experiment with offering ''pledge-free,'' but otherwise identical, versions of their free over-the-air services to those listeners who financially support the station. NPR adds that since the authorization of enhanced underwriting and remunerative subcarrier services in the early 1980s, the ensuing diversity of revenue sources has emerged as the key to public radio's independence from any single revenue source. According to NPR, while the remunerative use of NCE station facilities and analog spectrum has, to date, provided only modest amounts of revenue, the remunerative use of digital technology will enable NCE stations to better weather the periodic downturns in corporate and foundation underwriting, membership dues, and, in the case of public radio, State and Federal funding.

53. PIC argues that NCE radio stations, like NCE television stations, should be obligated to ''use their entire digital capacity primarily for a nonprofit, noncommercial, educational broadcast service,'' meaning a ''substantial majority'' of the entire digital capacity. PIC urges the Commission not to repeat the ''error'' it made in authorizing NCE DTV stations to offer remunerative services. PIC also asserts that the ''over commercialization'' resulting from remunerative activities will discourage public support for public broadcasting. PIC additionally claims that allowing NCE radio stations to offer advertising supported non-broadcast services violates the intent underlying the original reservation of spectrum and will reduce ''ratio of noncommercial-to-commercial programming.''

54. NPR objects to PIC's suggestions, stating that NCE television stations are subject to a more exacting regulatory mandate to furnish ''primarily'' a non-profit and noncommercial television broadcast service. NCE radio stations, on the other hand, are licensed ''for the advancement of an educational program.'' NPR notes that the Commission adopted a higher standard for NCE television stations because such stations use greater amounts of spectrum, have more extensive coverage areas, and are far fewer in number. NPR also asserts that requiring NCE radio stations to reserve a ''substantial majority'' of their entire digital capacity for a free NCE service would significantly restrict station flexibility to determine the appropriate mix of services, and how much capacity to devote to each, based on the specific

needs of their community of service. NPR states, for example, that such a ''substantial majority'' requirement would prevent stations from dividing the 96 kbps bitstream into two 48 kbps service streams. This is an approach that WAMU–FM is pursuing, as it has found that splitting the bandwidth evenly into 48 kbps each was ''extremely good'' for both the main and the supplemental channel. According to NPR, a minimum quantitative requirement, and one requiring a ''substantial majority'' of the bitstream, in particular, would countermand the inevitable improvement in audio coding technology that will otherwise permit higher quality audio using fewer kilobits.

55. We defer consideration of the issues discussed above to a later date. As noted above, we have decided to further examine the offering of subscription services in a *Second Further Notice of Proposed Rulemaking*. In addition to our concern about maintaining the free nature of all terrestrial radio services, we wish to preserve the noncommercial educational nature of NCE service. We will address both issues after considering the comments in response to our *Second Further Notice of Proposed Rulemaking*. In any event, we hold that an NCE radio station is obligated, like its commercial counterpart, to provide at least one free over-the-air digital programming stream that is comparable to or better in audio quality than its analog signal.

4. Low Power FM

56. In 2000, the Commission authorized the licensing of two new classes of FM radio stations, one operating at a maximum power of 100 watts and one operating at a maximum power of 10 watts. We note that a 100-watt Low Power FM station can serve an area with a radius of approximately 3.5 miles. The Commission has yet to authorize any 10 watt stations in the LPFM service. Both types of stations, known as low power FM (''LPFM'') stations, were authorized in a manner that protects existing FM service. The Commission stated that LPFM stations would be operated on a NCE basis by entities that do not hold an attributable interest in any other broadcast station or other media subject to our broadcast ownership rules. The Commission established the new LPFM service to create new broadcasting opportunities for locally-based organizations to serve their communities. In the *DAB FNPRM,* we sought comment on the conversion of LPFM stations to digital operation and the potential impact of such a conversion on other stations.

57. iBiquity states that LPFM stations should have the option to convert to digital operations. It states that IBOC-based equipment can operate at the 100-watt power levels authorized for LPFM service. iBiquity asserts that in the case of 10-watt stations, however, the extremely low power level of those stations may make digital broadcasts infeasible. The IBOC system broadcasts the digital signal at one percent of the station's analog power level. In the case of a 10-watt LPFM station, that digital power level would fall below the noise floor and would be difficult for any digital receiver to recover; however, this would not be the case with 100-watt LPFM stations. iBiquity notes that because these LPFM stations are required to comply with the Commission's adjacent channel interference restrictions, the introduction of digital broadcasts by these stations should not create harmful new interference.

58. We find that if an LPFM station intends to transmit in digital, and is technically capable of doing so, there should be no regulatory impediments preventing its adoption of the IBOC technology. We recognize that LPFM is a new service which involves non-commercial, community-oriented stations and that these stations have limited resources. We are committed to working with these stations to address issues regarding their transition to digital as they arise. We note that in 2005 the Commission released a *Second Order on Reconsideration and Further Notice of Proposed Rulemaking,* which further advanced the introduction of LPFM service in numerous areas across the United States. This *Second Order* addressed technical, operational, and ownership issues necessary for the further development of the service. In the *Second Order on Reconsideration,* the Commission modified its rules governing minor changes and technical minor amendments for LPFM stations. We also clarified the definition of locally originated programming for purposes of resolving mutually exclusive LPFM applications. In the *Further Notice of Proposed Rulemaking*, the Commission sought comment on a number of technical and ownership issues related to LPFM.

5. Licensing Procedures

59. Under Section 73.1695 of the Commission's rules, the Commission considers whether a proposed change or modification of a transmission standard for a broadcast station would be in the public interest. Sections 73.3571 and 73.3573 of the Commission's rules discuss the processing of AM and FM broadcast station applications, respectively. In the *DAB FNPRM,* we sought comment on what, if anything, the Commission should do to amend or replace these procedural requirements in the context of DAB. With regard to mandatory paperwork, Section 73.3500 of the Commission's rules lists the applications and report forms that must be filed by an actual or potential broadcast licensee in certain circumstances. In the *DAB FNPRM,* we sought comment on which forms and applications must be modified because of DAB. We note that the following forms may be at issue: (1) Form 301—Application for Authority to Construct or Make Changes in a Commercial Broadcast Station; (2) Form 302–AM—Application for AM Broadcast Station License; (3) Form 302–FM—Application for FM Broadcast Station License; (4) Form 340—Application for Authority to Construct or Make Changes in a Noncommercial Educational Broadcast Station; (5) Form 349—Application for Authority to Construct or Make Changes in an FM Translator or FM Booster Station; and (6) Form 350—Application for an FM Translator or FM Booster Station License. In the *DAB FNPRM,* we sought comment on any specific changes to these forms. We find that certain changes to our licensing processes are necessary to accommodate DAB operations. Rather than amend the administrative licensing requirements and generate new forms now, however, we will delegate the authority to make such changes, to the extent possible, to the Media Bureau. This delegation permits the Bureau staff to make changes on an expedited basis as circumstances warrant, subject to Office of Management and Budget approval under the Paperwork Reduction Act.

D. Programming and Operational Rules

1. Public Interest Issues

60. The *DAB FNPRM* sought comment on a number of policies and requirements impacting the public interest. Such subjects as sponsorship identification, political advertising, and cigarette advertising were raised for comment. The Commission received extensive comment on several issues, including radio reading services, the emergency alert system, and station identification. Therefore, these subjects are discussed separately below.

a. Public Interest Obligations

61. It is incumbent upon the Commission to ensure that broadcast radio and television stations serve the

''public interest, convenience and necessity.'' To ensure that broadcasters' service meets this high standard, both the Congress and the Commission have devised various program-related and operational duties that licensees must discharge. Broadcasters, for example, are required to air programming responsive to community needs and interests and have other service obligations. We remain committed to enforcing our statutory mandate to ensure that broadcasters serve the public interest and remind broadcasters of the importance of meeting their existing public interest obligations. We also encourage them to increase public disclosure of the ways in which they serve the public interest. Our current requirements, including those implementing specific statutory requirements, were developed for broadcasters who were essentially limited by technology to a single, analog audio programming service and minor ancillary services. The potential for a more flexible and dynamic use of the radio spectrum, as a result of IBOC, gives rise to important questions about the nature of program-related and operating obligations in digital broadcasting because the scope of those responsibilities has not been defined.

62. In the *DAB FNPRM,* we sought comment on how to apply such obligations to DAB. We also tentatively concluded that the conversion to DAB will not require changes to the following requirements: (1) Sections 312(a)(7) (Section 312(a)(7) provides that ''[t]he Commission may revoke any station license or construction permit for willful or repeated failure to allow reasonable access to or permit purchase of reasonable amounts of time for the use of a broadcasting station by a legally qualified candidate for Federal elective office on behalf of his candidacy.'' This right of access does not apply to candidates for state or local offices.) and 315 (Section 315(a) of the Act, as amended, provides that ''if any licensee shall permit any person who is a legally qualified candidate for any public office to use a broadcasting station, he shall afford equal opportunities to all other such candidates for that office in the use of such broadcasting station.'') Section 73.1940 of the Commission's rules defines ''legally qualified candidate'' as any person who has publicly announced his or her intention to run for nomination or office, is qualified under the applicable local, State, or Federal law to hold office for which he or she is a candidate, and has qualified for ballot placement or has otherwise met all the qualifications set forth in the Commission's rules. In addition, both the Act and the rules narrowly define the term ''use'' and exclude from the definition candidates' appearances in *bona fide* newscasts, interviews, documentaries, and the on-the-spot coverage of news events. Licensees have no power of censorship over the material broadcast under the equal opportunity provisions of Section 315(a). Two years ago, Congress amended the lowest unit charge provision of Section 315, codified the Commission's existing political file rule, and expanded that rule to require that a broadcast's station's public file contain information regarding certain issue advertising. The Supreme Court upheld these amendments to the Communications Act in *McConnell* v. *FEC*), of the Act and Sections 73.1940–44 of the Commission's rules—political broadcasting; (2) Section 507 of the Act and Section 73.4180 of the Commission's rules—payment disclosure; (Section 507 of the Act states that ''Any employee of a radio station who accepts or agrees to accept from any person (other than such station), or any person (other than such station) who pays or agrees to pay such employee, any money, service or other valuable consideration for the broadcast of any matter over such station must, in advance of such broadcast, disclose the fact of such acceptance or agreement to such station.''). The requirement, in industry parlance, addresses ''payola'' and ''plugola.'' Payola occurs when a station fails to announce the receipt of something valuable in return for the inclusion of material in a broadcast. Plugola describes a situation in which a station fails to identify an outside business interest of the licensee, its parent, its affiliates, or an employee in the broadcast of particular materials.) (3) Section 508 of the Act—prohibited contest practices; (Section 508 of the Act addresses prohibited practices in contests of knowledge, skill, or chance. Under the Act, it is unlawful for any person, with intent to deceive the listening or viewing public, to supply to any contestant in a purportedly *bona fide* contest of intellectual knowledge or intellectual skill any special and secret assistance whereby the outcome of such contest will be in whole or in part prearranged or predetermined.) (4) Section 317 of the Act and Section 73.1212 of the Commission's rules—sponsorship identification (Section 317 of the Act and the Commission's rules state that all matter broadcast by any radio station for which any money, service or other valuable consideration is directly or indirectly paid, must announce that such matter is paid for or furnished by the paying party.); (5) Section 1335 of Title 15 and Section 73.4055 of the Commission's rules—cigarette advertising; (Section 1335 of Title 15 of the U.S. Code, and the Commission's implementing regulations, makes it illegal to advertise cigarettes and little cigars on any medium of electronic communication subject to the Commission's jurisdiction. Thus, application of this rule to DAB is statutorily required.) and (6) Section 73.1208 of the Commission's rules—broadcast of taped or recorded material. Under Section 73.1208, any taped, filmed or recorded program material in which time is of special significance, or by which an affirmative attempt is made to create the impression that it is occurring simultaneously with the broadcast, must be announced at the beginning as taped, filmed or recorded. The language of the announcement shall be clear and in terms commonly understood by the public. The purpose of this rule is to avoid public confusion by informing the listening audience that the material presented is not being broadcast in real time. However, we sought comment on how such requirements should be applied to multicast services and whether the requirements apply to subscription services.

63. In its comments, PIC outlines certain areas in which the Commission should take action to ensure digital radio stations adequately serve the public interest. Specifically, PIC promotes the following six principles: (1) Free, over-the-air radio is a vital national interest that must be preserved and protected for civic, public safety, informational, and cultural reasons; (2) broadcasters must add as much additional capacity for the provision of new and independent voices or for serving underserved communities as they add for other purposes, such as offering commercial services that increase format diversity or subscription services; (3) radio must use digital technology to improve its offering of emergency information to all audiences, including those listening to subscription services, no later than it deploys other new services; (4) core statutory obligations must apply to all newly-created digital channels, and need modest alteration for a digital environment; (5) benefits that accrue to digital audio broadcasters must be accompanied by specific public interest obligations enforced through Commission rules and renewal processing guidelines; and (6) the Commission must ensure that

technology advancements support a broader benefit to the public. For example, PIC suggests that a broadcaster's statutory obligations should apply to all DAB streams (*i.e.*, free, subscription, and multicast streams). PIC also recommends that the Commission develop a flexible ''menu'' of additional public interest obligations and impose such obligations when a broadcaster chooses to implement subscription or other non-advertising based services. PIC advocates that this menu should place the highest priority on offering capacity for audio programming to non-affiliated noncommercial programmers, ''small disadvantaged businesses,'' and commercial programmers serving underserved audiences. The menu should also include options to offer additional news and public affairs programming, and to offer public interest data services. WRAL–FM suggests that all radio and television stations should be required to meet certain minimum standards of public interest performance. It states that a voluntary code of conduct should be adopted to encourage higher than minimum standards for the broadcast industry and all stations should be required to report quarterly on their public interest activities.

64. NAB states that existing public interest obligations generally should apply to hybrid radio stations. NAB asserts, however, that it is premature for the Commission to impose more specific or additional public interest obligations on new multicast audio services or on datacasting services. NAB argues that the proposals made by PIC lack justification, are impracticable and overly burdensome, and present a number of policy, statutory and constitutional problems. With regard to subscription services specifically, NAB notes that the Commission has in the past declined to impose traditional ''broadcast type'' public interest obligations on subscription services (including video and audio program services), especially when those services are in their nascent stage of development. The NAB, citing *Subscription Video,* asserts that the Commission has declined to impose traditional broadcast regulations on subscription services carried on FM subcarrier frequencies, such as background music programs. NAB argues that the Commission should refrain from applying the various ''broadcast type'' public interest requirements to IBOC radio subscription services, at least until those services, if any, have matured. In any event, NAB states that this proceeding, which is focused on radio stations' implementation of IBOC, is not the proper vehicle for rewriting the Commission's broadcast public interest regulations that apply to both television and radio stations. NAB states that the proposals made by PIC and other commenters are being specifically, thoroughly, and more properly addressed in one or more pending proceedings focusing on broadcasters' public interest obligations.

65. We conclude that applying statutory and regulatory public interest requirements currently imposed on analog radio to digital radio is both necessary and the proper course of action. Specifically, the following requirements apply: (1) Political broadcasting; (2) payment disclosure; (3) prohibited contest practices; (4) sponsorship identification; (5) cigarette advertising; and (6) broadcast of taped or recorded material. Further, we will impose these requirements on all free over-the-air digital audio programming streams. The application of these requirements to subscription services is addressed in the *Second Further Notice of Proposed Rulemaking*, below.

66. Additionally, radio stations operating in a digital format must comply with all other public interest obligations applicable to radio broadcasters while operating in that mode. That is, a radio station providing digital audio programming service analogous to the analog audio service subject to regulation by the Commission must comply with such regulations that apply to that service, unless otherwise specified or clarified in this *Second Report and Order*. The Commission's station log and public file requirements, under Section 73.1820 and Sections 73.3526 and 73.3527, respectively, are some of the rules that apply in this context. Other statutory requirements and Commission regulations that apply to DAB, but need further explanation, are discussed below. We again remind broadcasters of the importance of meeting their existing public interest obligations and encourage them to increase public disclosure of the ways in which they serve the public interest.

67. While we move forward and apply existing public interest obligations to all free digital broadcast streams, we will not adopt new ''public interest'' requirements in this *Second Report and Order*. The commenters have raised important and complex issues concerning how broadcasters' public interest obligations should be tailored to the new radio services made possible through digital technology. Given the substance and scope of the proposed requirements, we conclude that it is best to defer consideration of any new public interest obligations (of the type envisioned by PIC, for example) so that we can, instead, promptly establish basic operational requirements in this proceeding. Radio stations using IBOC DAB technology, at this stage in the conversion process, are generally offering basic hybrid service where the digital signal replicates the programming of the analog signal. Thus, for the immediate future, we do not expect novel public interest problems to arise in this context.

68. The Commission will issue an annual report as to how the new digital radio services are being rolled out, whether multicast streams are being offered, and the extent to which programming on digital radio and on the multicast streams are fostering the services described in paragraph 37. We will obtain data for the report by periodically surveying digital audio broadcasters as to the status of their new services.

b. Station Identification

69. Under Section 73.1201 of the Commission's rules, broadcast station identification announcements must be made at the beginning and end of each time of operation, and as close to the hour as feasible, at a natural break in programming. Official station identification consists of the station's call letters immediately followed by the community or communities specified in its license as the station's location. The name of the licensee or the station's frequency or channel number, or both, as stated on the station's license may be inserted between the call letters and station location. In the *DAB FNPRM*, we sought comment on whether the station identification rules should apply to all digital audio content of a radio station. Specifically, we sought comment on how a station should identify audio channels other than the main channel. We asked whether there should be separate call letters for separate streams. We also sought comment on how any proposed rule should differ, if at all, for AM radio stations. There are rules for simultaneous AM (535–1605 kHz) and expanded band AM (1605–1705 kHz) broadcasts. If the same licensee operates an AM broadcast station in the 535–1605 kHz band and an AM broadcast station in the 1605–1705 kHz band with both stations licensed to the same community and simultaneously broadcasts the same programs over the facilities of both such stations, station identification announcements may be made jointly for both stations for

periods of such simultaneous operations.

70. PIC states that clearly understandable station identification rules, differentiating between multiple channels offered by the same licensee, and identifying the owner and location of the owner of the station, are necessary to allow the public to identify the source of the programming. It further states that the Commission should expand the call letters that a station uses to identify itself to allow listeners to easily remember which station and channel they are tuned. PIC adds that call letters are an important mechanism the public and the Commission use to identify particular broadcast streams, especially in the indecency context.

71. iBiquity argues against any proposal to create a separate station identification requirement associated with digital broadcasts. iBiquity argues that because hybrid radio stations (that do not multicast) broadcast identical programming throughout the day, there is no need for additional identification requirements. iBiquity asserts that broadcasting a separate digital call sign would require significant system and equipment modifications that will deter conversions to digital broadcasts.

72. The SBAs state that multicast programming streams should not be subject to station identification requirements. They argue that such requirements are unnecessary for listener recognition and Commission enforcement efforts. A radio station will voluntarily identify its channel position to listeners to develop market recognition. According to the SBAs, stations now identify themselves, their call sign, identifier slogan, community of license and dial position (*e.g.*, ''Z105.3'') far more often than the Commission's rules require. They assert that further station identification requirements, which reduce broadcast flexibility, are not needed to ensure listener recognition of particular broadcast channels. Additionally, with new digital technologies, the call letters of the licensee can be embedded into the bit-stream of a channel. Thus, the Commission will have a means to easily identify a station and monitor its compliance with broadcast rules. The SBAs posit that DAB technology permits a visual identification on all receivers (through an identification included in the transmitted bitstream), eliminating the need for an hourly aural identification.

73. We find that station identification requirements for DAB stations are necessary to facilitate public participation in the regulatory process, a key element in the Commission's supervision of broadcast licensees. Accordingly, we will implement the following regulations. First, both AM and FM stations with DAB operations will be required to make station identification announcements at the beginning and end of each time of operation, as well as hourly, for each programming stream. Second, proper identification consists of the station's call letters followed by the particular program stream being broadcast and the community or communities specified in the station's license as the station's location. Stations may insert between the call letters and the station's community of license the station's frequency, channel number, name of the licensee, and/or the name of the network, at their discretion. Third, a radio station operating in DAB hybrid mode must identify its digital signal, including any free multicast audio programming streams, in a manner that appropriately alerts its audience to the fact that it is listening to a digital audio broadcast. This requirement can be met through auditory means (*i.e.*, voiceovers), textual means (*i.e.*, datacast text appearing on the receiver's readout), or any other reasonable means of communication. As stations convert to a digital format and elect to provide multicast programming, thereby increasing the number of program streams potentially available to the public, clear identification of the station providing the programming, as well as the particular program stream being broadcast, becomes increasingly important, both for listeners and for stations themselves. These policies and rules are similar to those adopted by the Commission for DTV stations and support our goal of applying similar rules to similarly situated broadcasters.

c. Emergency Alert System

74. The current emergency alert system (''EAS'') requirements are codified in part 11 of the Commission's rules and, *inter alia*, mandates the delivery of a ''Presidential message'' in the case of a national emergency. Along with its primary role as a national public warning system, EAS and other emergency notification mechanisms, are part of an overall public alert and warning system, over which the Federal Emergency Management Agency (''FEMA'') exercises jurisdiction. EAS use as part of such a public warning system at the state and local levels, while encouraged, is merely voluntary.

75. Section 73.1250 of the Commission's rules further specifies the substance and scope of the emergency information being broadcast. Under our rules, and if requested by government officials, a station may, at its discretion, and without further Commission authorization, transmit emergency point-to-point messages for the purpose of requesting or dispatching aid and assisting in rescue operations. If EAS is activated for a national emergency while a local area or state emergency operation is in progress, the national level EAS operation must take precedence. Emergency situations in which the broadcasting of information is considered as furthering the safety of life and property include, but are not limited to the following: tornadoes, hurricanes, floods, tidal waves, earthquakes, icing conditions, heavy snows, widespread fires, discharge of toxic gasses, widespread power failures, industrial explosions, civil disorders and school closing and changes in school bus schedules resulting from such conditions. AM stations may, without further Commission authorization, use their full daytime facilities during nighttime hours to broadcast emergency information when necessary for the safety of life and property, in dangerous conditions of a general nature, and when adequate advance warning cannot be given with the facilities authorized. All activities must be conducted on a noncommercial basis, but recorded music may be used to the extent necessary to provide program continuity. In the *DAB FNPRM*, we tentatively concluded that Section 73.1250 should apply to all audio streams broadcast by a radio station because the emergency information mandate can only be fulfilled if it is broadly applied.

76. The SBAs state that it is in the public interest to extend the emergency alert system to all audio streams broadcast by a radio station. NPR states that each free over-the-air audio program service should participate in the EAS system. Using relatively inexpensive distribution amplifiers and switching devices, NPR states that radio stations should be able to carry EAS or other emergency information virtually instantaneously via each free over-the-air program channel. However, NPR does not believe stations should be compelled to offer additional, unspecified ''emergency'' or other services as a condition to offering any data services. NAB argues that any questions regarding EAS equipment requirements for DAB should be set aside until a later date.

77. Subsequent to the release of the DAB FNPRM, the Commission adopted a *Notice of Proposed Rulemaking* seeking comment on rule changes for the emergency alert system. In that

proceeding, the Commission asked how the EAS system can be improved to be a more effective mechanism for warning the American public of an emergency. The action originated, in part, from recommendations of the Media Security and Reliability Council (an FCC Advisory Committee) and the Partnership for Public Warning. The Commission specifically sought comment on IBOC DAB and how the EAS system should apply to additional digital multicast programming streams. In November 2005, we revised our Part 11 EAS rules to apply to all radio stations operating in a digital mode and required such stations to air all national EAS messages on all audio streams, including subscription services. We found that all listeners should be informed of critical emergency information regardless of which audio stream they are listening to. We also clarified that if DAB stations choose to participate in state and local EAS activations, they must comply with Part 11. The Commission stated that such rules will become effective on December 31, 2006.

78. With regard to Section 73.1250, we note that a digital simulcast of an analog radio signal will, by virtue of the IBOC system design, be transmitting EAS information. Thus, listeners of the free digital simulcast will be able to access important emergency information per the existing requirements. As for multicast digital audio programming streams, we will apply the mandates of Section 73.1250 to all DAB audio streams in accordance with the revisions made to our Part 11 requirements. The public benefit of the Commission's emergency information requirements can only be realized if the rule is applied in this manner.

d. Radio Reading Services

79. Radio reading services for the blind (''RRS'') have been one of the critical public interest services provided by radio stations and others across the country. Radio reading services are conducted by nonprofit organizations that read printed materials over electronic media for persons who are visually impaired. Radio reading services operate on FM radio subcarrier channels, usually under a leasing arrangement. Alternatively, RRS use cable television systems, a television station's second audio program (''SAP''), or the main channel of an AM or FM radio station. RRS represents the most frequent use of subcarrier channels on noncommercial stations. In 1983, the Commission held that public radio stations, subject to Section 399B of the Act, using subcarriers for remunerative activities must ensure that neither existing nor potential RRS are diminished in quality or quantity by the pursuit of commercial subcarrier undertakings. The Commission held that a station using one of its subcarriers for commercial purposes would be obliged to accommodate RRS on its other subchannel to ensure the availability of alternative subchannel capacity for such services. In the *DAB R&O*, we raised concerns about the level of interference to analog SCA services and its potential impact on RRS. In the *DAB FNPRM*, we sought further comment on measures to protect established SCA services from interference.

80. *Protecting Analog Radio Reading Services From Interference.* According to iBiquity, previous field tests presented to the Commission and the NRSC demonstrate that, except in limited circumstances, DAB stations operating on second-adjacent channels will not cause harmful interference to analog radio reading services and other SCA services. iBiquity asserts that since the scaling of the HDC codec to obtain additional capacity for multicasting or datacasting only impacts the audio of the main channel signal, and not the bandwidth occupancy, it cannot change the interference potential from the digital signal. Although using the extended hybrid mode increases the bandwidth occupancy, it extends inward toward the host signal rather than outward toward adjacent channel stations. Thus, iBiquity argues the use of the extended hybrid mode cannot increase interference to adjacent channel SCA signals. iBiquity states that although the extended hybrid mode could possibly increase the potential for interference to the host station's existing analog SCA services, the host station has the ability to address this situation.

81. In 2002, NPR commissioned a study to estimate the number of listeners potentially affected by additional interference from IBOC in the top 16 radio markets. The results show that, on average, additional interference from IBOC could affect 2.6 percent of eligible radio reading service receivers within an FM station's service area. Harris points out that the NPR study used mathematically averaged receiver performance data to estimate interference potential in the top 16 radio markets. Harris emphasizes that actual interference is not widespread, and that any possible degradation to radio reading services may be ameliorated, at least in part, through antenna alignment, substitution of a higher quality analog receiver, or carrying the programming on a digital SCA channel. Harris states that it will be testing the use of the extended hybrid digital system to provide for a digital transition of RRS. Harris recommends that the Commission adopt and enforce the revised FM RF mask proposed by iBiquity to further mitigate interference to SCA services, other digital services, and second adjacent channel analog FM services.

82. These RR Services provide tremendous value and we wish to encourage their development in a digital environment. Based on the record, it does not appear that interference generated by IBOC is likely to cause significant harm to analog SCA reading services. Nevertheless, the Commission staff will act on complaints in the rare cases in which interference is shown to cause a problem. In the meantime, we encourage NPR and other parties to continue independent testing that will provide us with data on possible interference in particular circumstances in specific areas. We will defer considering Harris' recommendation on the RF mask until such test results are made available.

83. *Digital Radio Reading Services.* IAAIS urges the Commission to adopt rules requiring digital radio stations to carry digital RRS. IAAIS essentially argues that before any radio station offers income generating secondary audio streams, it should be required to first provide digital bandwidth for RRS. IAAIS suggests that digital RRS will be best accommodated on the extended hybrid mode where the IBOC codec can easily process human speech. IAAIS additionally states that the digital information sent to radios can be accessed only after authorization, thus protecting the reading service copyright exemption for use of the thousands of print materials read aloud. iBiquity opposes IAAIS's request that the Commission require digital radio stations to offer capacity for RRS. iBiquity asserts that the radio reading services do not need a dedicated 20 or 24 kbps channel to match their current service. iBiquity indicates that high quality ''voice'' channels can be attained using 8 or 10 kbps codecs designed for those low bit rates. In some cases, those codecs can support voiceover programming with background music. Although this class of codec is not designed for higher quality music, iBiquity asserts that high quality music programming would be beyond the mission of the reading service stations. iBiquity states that it will identify a suitable solution that can function at 12 kbps. NPR asserts that it is inappropriate to consider IAAIS's proposals at this stage of the DAB

conversion process because more testing of digital RRS needs to be undertaken before regulations are considered. We decline to impose a digital RRS requirement, or place conditions of the type suggested by IAAIS, on radio stations at this time. The Commission does not require radio stations to offer analog RRS and there is no substantial evidence in the record supporting enhanced RRS requirements for DAB. Moreover, we find that any type of RRS requirement would run counter to our flexible bandwidth policy. However, we reiterate our recognition of the value of such services and encourage their deployment in the digital environment. We also decline to adopt new policies addressing the interplay between remunerative services offered by NCEs and the availability of RRS, similar to the requirements in Section 73.593 of the Commission's rules, because the business and programming decisions of noncommercial stations are not yet known. This will be an issue addressed in a DAB periodic review in the future.

84. *Receiver Requirements.* IAAIS urges the Commission to require all digital receivers to include RRS capabilities. In addition, IAAIS asks the Commission to require tactile controls and other accessibility features to be built into every digital receiver. iBiquity opposes new requirements for radio equipment manufacturers, arguing that it would impair the development of DAB. It further asserts that the imposition of new and potentially expensive regulations on the design and features of digital receivers will create a strong disincentive for manufacturers to introduce digital devices, particularly if these accessibility features would require significant development work or redesign of radio receivers. According to iBiquity, these regulations would not only increase the costs of digital radio for consumers, but it also would slow the introduction of digital receivers and the IBOC transition.

85. Our goal is to see RRS services deployed. As noted below, voluntary industry efforts in this regard are continuing and show substantial promise. In addition, reception devices for analog RRS are available as stand-alone equipment for those with visual impairments. Such consumers may subscribe to RRS services and be able to obtain an RRS receiver if they so desire. Consumer electronics manufacturers, however, are under no obligation to build analog audio receivers with RRS capabilities nor should they be required to manufacture IBOC receivers with RRS functionalities. IAAIS's proposed mandates would make it more costly to produce DAB receivers, which in turn, would make it more expensive for consumers to purchase equipment. We note that there is no express statutory provision requiring such capabilities. IAAIS relies on Section 255 of the Telecommunications Act of 1996 as the basis for some of its requests. This section codifies the responsibilities of telecommunications manufacturers and service providers to meet the needs of the disabled. This section, however, applies to entities regulated under Title II of the Act. It does not impose any requirements on broadcasters regulated under Title III of the Act or on manufacturers of broadcast -related equipment. Moreover, we recognize that any regulation of broadcast reception equipment is subject to the limitations identified in recent court precedent. Although we will not require RRS capability at this time, we do not rule out the possibility of revisiting the issue in the future should the need arise.

86. *Voluntary Industry Efforts.* iBiquity states that it has been working with the IAAIS to ensure that radio reading services are accommodated as radio stations convert to digital. iBiquity notes that it is developing a conditional access solution for the IBOC system to ensure that reading services are able to maintain their copyright exemption. iBiquity is supplying software, hardware and laboratory facilities to facilitate additional testing to determine the appropriate low bit rate codec that can be used for reading services. iBiquity states that even though it has engineered the HDC codec to function at bit rates low enough to accommodate reading services, it has consistently assured the reading services that the IBOC system will operate compatibly with any low bit rate codec the reading services select for inclusion in reading service devices. NPR states that it is exploring the use of the extended hybrid spectrum for the digital transmission of radio reading services. Pursuant to a Corporation for Public Broadcasting grant, NPR conducted full perceptual testing of the latest low- and very low-bit rate digital audio coders that may be used for radio reading services audio. NPR plans additional tests to measure the coverage capabilities of extended hybrid operation. With predictions that the prevalence of visual disabilities will increase markedly during the next 20 years as the U.S. population ages, NPR expects NCE stations to continue leading the way in offering assisted living services, including radio reading services for the ''print-impaired.'' We are encouraged by the voluntary steps taken by iBiquity and NPR, so far. We urge these parties to work with IAAIS to forge a resolution that would benefit all parties involved.

2. Operating Hours

87. In the *DAB FNPRM,* we asked how the conversion to DAB would affect the ''minimum hours of operation'' requirement in Sections 73.1740 and 73.561 Under the relevant rules, AM and FM commercial stations are required to operate two-thirds of the total hours they are authorized to operate between 6 a.m. and 6 p.m. local time and two-thirds of the total hours they are authorized to operate between 6 p.m. and midnight, local time, each day of the week except Sunday. NCE FM stations are required to operate at least 36 hours per week, consisting of 5 hours of operation per day on at least 6 days per week. The SBAs state that multicasting changes the way radio stations operate. It states, for example, that the Commission may want to support multicast streams, which do not operate two-thirds of the total hours they are authorized to operate between 6 a.m. and 6 p.m. and two-thirds of the total hours they are authorized to operate between 6 p.m. and midnight, in order to promote more digital multicasting on the air. We find merit in the SBAs arguments and will permit radio stations to set their own schedule for DAB hybrid mode broadcasts as well as additional multicast streams at this stage of the DAB conversion process. We note that multicasting is at the discretion of the licensee stations; therefore they should be allowed to schedule separate streams as they wish. This flexible policy will encourage more radio stations to experiment with new programming services that interest the public. We will revisit this issue, if necessary, in future periodic reviews.

3. Territorial Exclusivity

88. In the *DAB FNPRM,* we sought comment on the application of Sections 73.132 and 73.232, the territorial exclusivity rules for AM and FM stations. Under these rules, no licensee of an AM or FM broadcast station shall have any arrangement with a network organization that prevents or hinders another station serving substantially the same area from broadcasting the network's programs not taken by the former station, or which prevents or hinders another station serving a substantially different area from broadcasting any program of the network organization. This section does not prohibit arrangements under which the station is granted first call within its primary service area upon the network's programs. The SBAs states that changes will not be necessary to these

requirements due to the advent of DAB. With regard to these requirements, we note that the rules apply to the licensees themselves and not the content being broadcast. Due to the expansive language contained in the current requirements, and the pro-competition policies reflected therein, the territorial exclusivity rules apply to all free digital audio programming streams. Any novel issues that may arise from our decision here will be addressed on a case-by-case basis.

E. Technical Rules

1. AM Nighttime Operation

89. In the *DAB R&O,* we declined to authorize nighttime IBOC operation by AM stations because there were insufficient test results in the record to support that action. In 2004, NAB submitted its analysis of AM nighttime IBOC tests conducted by iBiquity and recommended that the Commission ''extend the current interim authorization for IBOC service to permit nighttime AM broadcasts.'' On April 14, 2004, the Commission issued a Public Notice seeking comments on the NAB recommendations. Most of the comments received from broadcasters, such as the SBAs, support NAB's recommendation that the Commission extend current interim authorizations of IBOC service to nighttime AM broadcasts. Several other commenters, however, object to nighttime AM IBOC operations citing the potential for increased interference due to nighttime AM skywave propagation.

90. On balance, we find that the benefits of full-time IBOC operation by AM stations outweigh the slightly increased risk of interference. The studies performed by iBiquity and analyzed by NAB indicate that the greatest potential for interference occurs at the extremities of the nighttime coverage area of the desired station, primarily at locations where substantial interference from existing analog operations is already present. We do not anticipate increased interference within AM stations' core service areas. Furthermore, the interference management procedures established in the *DAB R&O* provide a mechanism whereby particular instances of interference can be readily resolved. Therefore, we will extend the permissible hours of IBOC interim operation for AM stations to include all hours during which a given station is currently authorized for analog operation, subject to the notification procedures established in the *DAB R&O.* In order to avoid unnecessary and repetitious notifications, we will not require those AM stations which have already notified the Commission of the commencement of daytime IBOC operation to file any further notification; authority for nighttime IBOC operation is automatically conferred upon those stations by the action taken herein. AM stations which file IBOC notifications with the Commission after the effective date of this *Second Report and Order* will be presumed to have commenced IBOC operation for all hours of currently authorized analog operation, unless the notification states otherwise. We note that many Class D AM stations are authorized for nighttime secondary operation with extremely low operating power, in some cases as low as one watt. In some cases, nighttime IBOC power may be so low as to render IBOC operation technically infeasible. Nighttime secondary operation for an AM station is operation with power less than 250 watts and antenna efficiency less than 241 millivolts per meter at one kilometer for one kilowatt input. We remind licensees that nighttime secondary analog operation by Class D AM stations does not carry any minimum operating schedule requirement, and that interim IBOC operation is entirely voluntary for all stations at the present time.

2. Dual Antennas

91. In the *DAB R&O,* we limited interim IBOC implementation to the systems that the NRSC had tested. With respect to FM antennas, the NRSC had tested a configuration in which the FM analog and digital signals were combined and fed into the same antenna. Consequently, FM stations implementing IBOC were initially required to use the single-antenna approach. Subsequent testing by NAB, however, showed that separate antennas could be used for the analog and digital FM signals within specified limits. NAB stated that the dual antenna approach is less costly for many FM stations, and may therefore encourage IBOC development. By *Public Notice,* we authorized FM stations to use dual antennas for IBOC pursuant to routine special temporary authorization (STA) procedures. We raised the issue of dual antennas for further comment in the *DAB FNPRM.* Commenters were unanimous in supporting the expansion of IBOC notification procedures to include dual antenna use, without the necessity of an STA request. We agree and accordingly authorize FM stations to implement IBOC without prior authority using separate antennas conforming to the criteria set forth in the *Dual Antennas Public Notice.* Stations must notify the Commission within ten days of the commencement of IBOC operations, consistent with the digital notification procedures already in place. In addition to the information required of all licensees initiating digital operations, FM licensees using dual antennas shall provide the following information: (1) Geographic coordinates, elevation data, and license file number for the auxiliary antenna to be employed for digital transmissions; and (2) for systems employing interleaved antenna bays, a certification that adequate filtering and/or isolation equipment has been installed to prevent spurious emissions in excess of the limits specified in 47 CFR73.317.

3. FM Translator and Booster Stations

92. An FM translator station is a station operated for the purpose of retransmitting the signals of an FM station or another FM translator station without significantly altering any characteristics of the incoming signal other than its frequency and amplitude. An FM booster station is a station operated for the purpose of retransmitting the signals of an FM station by amplifying and reradiating such signals without significantly altering any characteristics of the incoming signal other than its amplitude. In the *DAB FNPRM,* we solicited comment on digital issues concerning FM translators and boosters. Commenters discussed the following seven issues: (1) Conversion of FM translator and booster stations to digital operation; (2) permissible uses of digital translator and booster stations; (3) use of FM translators and boosters to rebroadcast multiplexed audio streams; (4) use of dual output digital translators; (5) indefinite continuation of analog FM translator and booster station operation; (6) modifications of the currently permitted signal delivery methods for FM translators and boosters; and (7) requirements related to the simultaneous digital conversion of licensed main and FM translators and boosters. The latter issue garnered the most attention from interested parties, where most agreed that the Commission should not require simultaneous digital conversion of the primary station and its FM translators and boosters.

93. We will permit the use of digital translator and booster stations during interim DAB operations. However, we believe that a stronger record is necessary to address the complicated issues involved in the authorization of these facilities before adopting permanent rules for digital translator and booster stations. Pursuant to experimental authorization issued by the Commission, KCSN–FM and NPR

conducted field tests in the Los Angeles metropolitan area in December 2004 to evaluate KCSN–FM's signal coverage via mobile reception. NPR and the station attempted to evaluate IBOC DAB system coverage in terms of received signal level. The field tests evaluated reception availability and compared actual data to predictions using a computerized propagation model. NPR chose KCSN–FM to conduct these tests because the station operates the nation's first IBOC DAB booster which presents unique challenges for technical performance. The testing indicated that the booster generally increased the availability of KCSN–FM's digital signal, but that there were still coverage issues in certain service areas. We will not require the simultaneous conversion of the primary station and its FM translators and boosters. We do not want to overburden radio stations with more technical requirements than necessary as they commence digital operations.

4. TV Channel 6

94. Beginning approximately 20 years ago, NCE FM stations operating on channels 201 through 220 were required to protect channel 6 TV stations from adjacent channel interference based on the performance characteristics of analog TV receivers. In the *DAB FNPRM*, we sought comment on what, if any, rule changes are necessary to protect channel 6 TV stations from interference from digital radio operations, and if new rules are needed to protect channel 6 DTV stations. There are currently 58 licensed analog channel 6 full-service TV stations and 6 licensed analog channel 6 Class A TV stations. There are currently no licensed or authorized channel 6 digital TV or digital Class A TV stations.

95. NPR and Paul Delaney assert that due to the low signal strength of the IBOC digital signal, there is minimal potential for increased NCE FM interference to analog channel 6 TV stations. Additionally, both question the continued applicability of the existing TV channel 6 protection requirements in light of the transition to DTV where there will be few, if any, channel 6 TV stations, and where the use of digital receivers will provide increased immunity to adjacent channel FM interference. REC Networks concurs with NPR concerning the re-examination of the current NCE FM channel 6 protection requirements, but, it suggests that perhaps some protection of both analog and digital channel 6 TV stations may be appropriate for NCE FM IBOC hybrid operations.

96. We agree that the very low increase in power resulting from the addition of the IBOC digital signal likely will not result in any increased interference to analog channel 6 TV stations from NCE FM stations operating on FM channels 201–220, and that the DTV transition may render this issue moot. Therefore, no changes in Section 73.525 governing TV channel 6 protection are necessary at this time. The Commission will, however, initiate a separate proceeding to evaluate the existing NCE FM channel 6 TV protection requirements, and seek public input on their continued viability, following the completion of the DTV transition, a review of the immunity characteristics of DTV receivers, and the widespread deployment of DAB transmitting facilities.

5. Super-Powered and Short-Spaced Stations

97. Although this issue was not raised in the *DAB FNPRM,* Livingston Radio Company and Taxi Productions Inc. (''Livingston'') urge the Commission to restrict the digital power levels for super-powered FM stations. A super-powered FM station is a station for which the power/antenna height combination exceeds the class limit set forth in 47 CFR § 73.211. Such stations were authorized before the current class limits were adopted, and have ''grandfathered'' status. Livingston asserts that super-powered stations cause more interference than stations that comply with class limits. Therefore, according to Livingston, IBOC operations by super-powered stations must be limited in order to avoid excessive interference to nearby stations on adjacent channels. Livingston urges the Commission ''not to extend superpower privileges into the IBOC digital environment,'' and suggests determining digital signal power based on class maximum facilities. Similarly, Press Communications, LLC (''Press'') suggests that the Commission adopt limits on IBOC operation by short-spaced FM stations.

98. Several commenters disagree with Livingston's proposal. WPNT, Inc., for example, states that ending the grandfathered status of super-powered stations would simply benefit some broadcasters at the expense of others. Cox Radio, Inc. and Bonneville International Corporation assert that termination of super-power status is outside the scope of this proceeding, and that the Commission would violate the Administrative Procedures Act if it were to adopt rules without first seeking comment from the public. We agree that the consideration of super-powered status is beyond the scope of this proceeding, and, therefore, decline to adopt special restrictions on digital operations by super-powered stations here. In any event, we do not see a compelling reason to restrict digital operations by short-spaced FM stations, as Press suggests. We will continue to evaluate any complaints of possible IBOC interference on a case-by-case basis as we stated in the *DAB R&O.*

6. Expansion of IBOC Notification Procedures

99. We are hereby changing the procedures for approving IBOC operations to allow broadcasters to take advantage of technical improvements as they develop, rather than waiting for Commission action and rules to do so. In the *DAB R&O,* we permitted radio stations to implement IBOC operations without prior authority, provided that the IBOC configurations were substantially the same as those tested by the NRSC. The IBOC DAB service is developing rapidly, with new modes of operation such as multicasting, datacasting, and dual antenna operation all commencing after the *DAB R&O* was adopted. As test results have been added to the record in this proceeding, the staff has sought comment and subsequently issued Public Notices authorizing IBOC operations that differ from the configurations originally tested by the NRSC. Stations wishing to implement multicasting or dual antenna operations have, however, been required to request prior authority to operate from the Commission. We believe that DAB will continue to evolve rapidly in tandem with modifications by iBiquity to the IBOC system. In the interests of efficiency, we delegate to the Media Bureau the authority to issue Public Notices, seek public input, and review the range of permissible IBOC operations as circumstances warrant. After appropriate notice and comment, the staff is authorized to act on delegated authority on implementing new IBOC notification procedures to cover new IBOC configurations. Expansion of the notification procedures will allow stations to implement digital operations without unnecessary delay.

7. Receivers

100. According to iBiquity, its systems provide extensibility in that the first-generation receivers are designed to operate both in the interim hybrid and in all-digital modes. In the *DAB R&O,* we stated that this is an area in which definitive evaluations can only be undertaken after we resolve a number of all-digital issues, such as issues relating to signal architecture. Recognizing the

flexibility of the IBOC model, and the possibility of new services, we stated that we will address receiver issues in more detail at a later date. We sought comment on whether the issues raised, and the policies proposed, in the *DAB FNPRM* require us to address receiver issues at this stage of DAB development. We asked, for example, how the adoption of a high quality audio requirement would affect receiver manufacturers. As noted above, we do not establish a high quality audio requirement. The commenters did not address the issue of receiver performance standards. Further, there is an open Commission proceeding concerning the adoption of receiver performance standards. Consequently, we believe that the public interest is better served by awaiting the outcome of that proceeding and will address DAB receiver issues, if necessary, in the future.

8. Patents

101. The iBiquity IBOC DAB system uses patented technologies. This requires IBOC licensees to pay licensing fees to the patent holders. The Commission stated in the *DAB R&O* that during the interim DAB operation period, we will monitor the behavior of the patent holders to determine if the required licensing agreements are reasonable and non-discriminatory and that we will seek additional public comment on this matter as required. In the *DAB FNPRM,* we sought further comment on iBiquity's conduct regarding licensing agreements in the interim DAB operating period. Although iBiquity has pledged to adhere to the Commission's patent policy, certain parties commented that iBiquity might resort to unreasonable and discriminatory licensing fees once DAB receivers have become widely available. We find that iBiquity has abided by the Commission's patent policy up to this point in the DAB conversion process. Therefore, we do not believe that it is appropriate at this time for us to adopt regulations governing IBOC licensing and usage fees. If we receive information that suggests we need to explore this issue further, especially in connection with the adoption of the NRSC–5 standard, we will take appropriate action at that time.

9. Other Technical Issues

102. In the *DAB FNPRM,* we raised for comment other technical issues relevant to the discussion of DAB operations, including (1) AM and FM definitional issues; (2) interference; (3) AM stereo; (4) operating power; and (5) predicted coverage for digital signals. We find that these issues have been sufficiently addressed in the *DAB R&O* to permit station authorization on an interim basis. Further evaluation of these issues is best undertaken in conjunction with the NRSC–5 standards review.

IV. International Issues

103. In the *DAB R&O,* the Commission stated that during the period of interim IBOC operation, all relevant international agreements will be reviewed and any necessary modifications will be addressed at a later date. In the DAB NOI, we noted that these matters are being informally addressed by the Commission's International Bureau (''IB'') and asked what IB should focus on to expedite the rollout of DAB in the United States. The Commission has rules pertaining to FM broadcasting and international agreements relevant to the service. Specifically, Section 73.207 states that under the Canada-United States FM Broadcasting Agreement, domestic U.S. allotments and assignments within 320 kilometers (199 miles) of the common border must be separated from Canadian allotments and assignments by not less than the distances provided in the Commission's rules. It also states that under the 1992 Mexico-United States FM Broadcasting Agreement, domestic U.S. assignments or allotments within 320 kilometers (199 miles) of the common border must be separated from Mexican assignments or allotments by not less than the distances stated in the rule.

104. According to iBiquity, the International Bureau has appropriately analyzed the ability of the United States to implement IBOC consistent with the United States' treaty obligations to Canada and Mexico. The International Bureau also has held informal discussions with both the Canadian and Mexican governments concerning implementation of IBOC in the United States. iBiquity states that it supports these efforts and submits that the current process is adequately addressing the international requirements for implementing IBOC.

105. One commenter, Barry McLarnon, states that the current broadcast co-channel allocation rules are no longer adequate to prevent objectionable interference from operating hybrid AM IBOC radio stations. He argues that AM IBOC is not permissible under the terms of the U.S.-Canada bilateral agreement on AM broadcasting. Specifically, he asserts that AM IBOC interference is in contravention of the article in that agreement which states: ''Classes of emission other than A3E, for instance to accommodate stereophonic systems, could also be used on condition that the energy level outside the necessary bandwidth does not exceed that normally expected in A3E. * * *.'' McLarnon asserts that the ''necessary bandwidth'' in this case is defined as 10 kHz and the hybrid AM IBOC system increases the occupied bandwidth of an AM station to approximately 28 kHz. He further asserts that the increased power is outside the necessary bandwidth of the AM signal and exceeds that normally expected in A3E. He also states that identical wording is used in the agreement between the U.S. and Mexico, and therefore, that agreement is also violated by any usage of the hybrid AM IBOC system.

106. All matters pertaining to the relevant international agreements, including the above contentions, are being addressed in the appropriate bilateral and multilateral fora. While we are optimistic that we will be able to resolve any outstanding issues with Canada and Mexico or other countries, these issues remain subject to ongoing negotiations. Therefore, until the negotiations are completed, we advise the radio industry that the following condition will be applied to stations operating with IBOC DAB:

> Operation with facilities specified herein is subject to modification, suspension or termination without right to hearing, as may be necessary to carry out the applicable provisions of the ITU Radio Regulations, the Final Acts of the ITU Administrative Conference on Medium Frequency Broadcasting in Region 2 (Rio de Janeiro, 1981), or any bilateral or multilateral agreement(s) of the United States.

V. Order on Reconsideration

107. The Commission has before it three Petitions for Reconsideration of the *DAB R&O* in which the Commission selected IBOC as the sole digital technology for the terrestrial radio broadcasting service. More than three years ago, the Commission sought comment on an NRSC report documenting extensive laboratory and field tests of the FM IBOC system. iBiquity was the only developer to submit digital systems to the NRSC for evaluation. The NRSC FM report recommended that the Commission adopt iBiquity's FM system for DAB. On April 15, 2002, the NRSC filed its evaluation of iBiquity's AM hybrid system, recommending that the Commission adopt the system for daytime use pending further study under nighttime propagation conditions. Broadcast industry commenters, including small and large radio station owners, equipment manufacturers, and

receiver manufacturers expressed strong support for iBiquity's AM and FM systems, and both systems were subsequently adopted for interim use on a voluntary basis in the *DAB R&O*. For the reasons discussed below, we deny the petitions of the Amherst Alliance and other parties (collectively ''Amherst'') and of John Pavlica, Jr. We dismiss the petition of Glen Clark and Associates ''Clark'' as moot.

108. The Amherst Alliance has filed the following pleadings with the Commission: (1) A Petition for Reconsideration of the *DAB R&O* (filed October 25, 2002); (2) a Petition for Rulemaking (filed April 17, 2002); and (3) a request for Environmental Impact Statement (filed July 18, 2002). Specifically, Amherst claims that the Commission failed to act on a request filed by it and other parties for an environmental impact statement concerning the possible effects of IBOC, and on a petition by it and other parties for a new rulemaking on digital radio. Amherst also claims that the Commission should not have adopted IBOC until proceedings on blanketing interference and human exposure to electromagnetic radiation were resolved. NAB opposes Amherst stating that it ''presents no basis for reconsideration of the *DAB R&O* and virtually no substance or support for its complaints.'' iBiquity states that Amherst offers no new information justifying any changes in the policies adopted by the Commission in the *DAB R&O* and is merely an attempt to delay IBOC. We agree with NAB and iBiquity that Amherst has not presented any arguments that were not already addressed and disposed of by the Commission in the *DAB R&O*. Moreover, we find that Amherst has not provided new evidence of the type necessary for the Commission to delay the introduction of IBOC and the offering of DAB to the public. Therefore, its Petitions for Reconsideration and Rulemaking are denied.

109. We also affirm our conclusion in the *DAB R&O* that the initiation of interim IBOC operations is categorically excluded from environmental processing and that the procedure requiring licensees to certify compliance with existing RF exposure standards satisfies any environmental requirements. Accordingly, preparation of an environmental impact statement is unnecessary in the context of IBOC operations. We reject the argument that the denial of Amherst's Request for Environmental Impact Statement was not ''officially'' denied because the denial was not listed in the ordering clause of the *DAB R&O*. Where the text of an order is clear, the omission of the action from the ordering clause is not determinative.

110. *John Pavlica, Jr. petition*. Pavlica states that the iBiquity IBOC systems cause ''substantial and nearly continuous interference'' to existing AM and FM stations. According to Pavlica, the Commission should consider options such as better receiver technology before adopting any digital radio system. Pavlica suggests a one-year period for evaluating alternatives to IBOC. Pavlica also expresses concern about iBiquity's status as the sole source of proprietary IBOC technology. All of Pavlica's contentions were thoroughly addressed in the *DAB R&O*. Beyond the simple assertion that IBOC causes extensive interference, the petition offers no technical support for this characterization of IBOC operation. In sharp contrast, the NRSC spent several years crafting IBOC tests, the results of which are documented in detailed comments. The comparison of alternatives for introducing digital technology to the AM and FM bands that Pavlica calls for began with the *DAB NPRM* in 1999, and concluded with the selection of IBOC in 2002 based on a substantial record. It is well established that the Commission does not grant reconsideration for the purpose of debating matters on which it has already deliberated.

111. *Other Pleadings.* In two letters, Amherst suggests that IBOC operations may cause interference to the AMBER alert system. In participating states, AMBER alerts are broadcast as part of the Emergency Alert System. EAS messages are transmitted via the main analog radio signal. Amherst offers no support for the allegation. Test results presented in the NRSC AM and FM reports demonstrate that analog radio signals will not be subject to interference that would impair EAS transmissions. Any interference from IBOC is likely to occur at the fringes of a station's normally protected coverage area, where the analog signal quality is poor. In such circumstances, analog listeners are likely to tune to another radio station with a stronger signal, particularly in the event of an emergency. Amherst provides no countervailing evidence that IBOC will interfere with AMBER alerts, and no reason to delay IBOC implementation.

112. In a petition for rulemaking filed January 24, 2003, Kahn Communications, Inc. requests that the Commission initiate a new proceeding to revise procedures for evaluating new technology. Kahn also requests that the Commission stay the *DAB R&O* and reevaluate its adoption of IBOC in light of any resulting policy revisions. To the extent that Kahn's filing is a petition for reconsideration of the *DAB R&O*, the petition is untimely. Kahn provides no justification for failing to file timely comments in this proceeding. Moreover, we do not find that the public interest would be served by further delay of the long-contemplated digital conversion of the terrestrial radio service. Therefore, we will not consider Kahn's untimely comments in this proceeding.

VI. Procedural Matters

A. Filing Requirements

113. *Ex Parte Rules*. The *Second Further Notice of Proposed Rulemaking* in this proceeding will be treated as a ''permit-but-disclose'' subject to the ''permit-but-disclose'' requirements under Section 1.1206(b) of the Commission's rules. *Ex parte* presentations are permissible if disclosed in accordance with Commission rules, except during the Sunshine Agenda period when presentations, *ex parte* or otherwise, are generally prohibited. Persons making oral *ex parte* presentations are reminded that a memorandum summarizing a presentation must contain a summary of the substance of the presentation and not merely a listing of the subjects discussed. More than a one- or two-sentence description of the views and arguments presented is generally required. Additional rules pertaining to oral and written presentations are set forth in Section 1.1206(b).

114. *Comments and Reply Comments*. 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: (1) The Commission's Electronic Comment Filing System (ECFS), (2) the Federal Government's eRulemaking Portal, or (3) by filing paper copies.

- *Electronic Filers:* Comments may be filed electronically using the Internet by accessing the ECFS: *http://www.fcc.gov/cgb/ecfs/* or the Federal eRulemaking Portal: *http://www.regulations.gov*. Filers should follow the instructions provided on the Web site for submitting comments.
- For ECFS filers, if multiple docket or rulemaking numbers appear in the caption of this proceeding, filers must transmit one electronic copy of the comments for each docket or rulemaking number referenced in the caption. In completing the transmittal screen, filers should include their full name, U.S. Postal Service mailing

address, and the applicable docket or rulemaking number. Parties may also submit an electronic comment by Internet e-mail. To get filing instructions, filers should send an e-mail to *ecfs@fcc.gov*, and include the following words in the body of the message, ''get form.'' A sample form and directions will be sent in response.

• *Paper Filers:* Parties who choose to file by paper must file an original and four copies of each filing. If more than one docket or rulemaking number appears in the caption of this proceeding, filers must submit two additional copies for each additional docket or rulemaking number.

Filings can be sent by hand or messenger delivery, by commercial overnight courier, or by first-class or overnight U.S. Postal Service mail (although we continue to experience delays in receiving U.S. Postal Service mail). All filings must be addressed to the Commission's Secretary, Office of the Secretary, Federal Communications Commission.

• The Commission's contractor will receive hand-delivered or messenger-delivered paper filings for the Commission's Secretary at 236 Massachusetts Avenue, NE., Suite 110, Washington, DC 20002. The filing hours at this location are 8 a.m. to 7 p.m. All hand deliveries must be held together with rubber bands or fasteners. Any envelopes must be disposed of before entering the building.

• Commercial overnight mail (other than U.S. Postal Service Express Mail and Priority Mail) must be sent to 9300 East Hampton Drive, Capitol Heights, MD 20743.

• U.S. Postal Service first-class, Express, and Priority mail must be addressed to 445 12th Street, SW., Washington DC 20554.

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).

115. *Availability of Documents.* Comments, reply comments, and *ex parte* submissions will be available for public inspection during regular business hours in the FCC Reference Center, Federal Communications Commission, 445 12th Street, SW., CY–A257, Washington, DC 20554. Persons with disabilities who need assistance in the FCC Reference Center may contact Bill Cline at (202) 418–0267 (voice), (202) 418–7365 (TTY), or *bill.cline@fcc.gov*. These documents also will be available from the Commission's Electronic Comment Filing System. Documents are available electronically in ASCII, Word 97, and Adobe Acrobat. Copies of filings in this proceeding may be obtained from Best Copy and Printing, Inc., Portals II, 445 12th Street, SW., Room CY–B402, Washington, DC 20554; they can also be reached by telephone, at (202) 488–5300 or (800) 378–3160; by e-mail at *fcc@bcpiweb.com*; or via their Web site at *http://www.bcpiweb.com*. 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 and Governmental Affairs Bureau at (202) 418–0531 (voice), (202) 418–7365 (TTY).

116. *Additional Information.* For additional information on this proceeding, contact Ann Gallagher, *Ann.Gallagher@fcc.gov*, of the Media Bureau, Audio Division, (202) 418–2716 or Brendan Murray, *Brendan.Murray@fcc.gov*, of the Media Bureau, Policy Division, (202) 418–2120.

B. Initial and Final Regulatory Flexibility Analysis

117. The Regulatory Flexibility Act of 1980, as amended (''RFA''), requires that a regulatory flexibility analysis be prepared for notice and comment rule making proceedings, unless the agency certifies that ''the rule will not, if promulgated, have a significant economic impact on a substantial number of small entities.'' The RFA generally defines the term ''small entity'' as having the same meaning as the terms ''small business,'' ''small organization,'' and ''small governmental jurisdiction.'' In addition, the term ''small business'' has the same meaning as the term ''small business concern'' under the Small Business Act. 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 Small Business Administration (SBA). By the issuance of this *Second Further Notice of Proposed Rulemaking*, we seek comment on the impact our suggested proposals would have on small business entities.

118. *Act.* As required by the Regulatory Flexibility Act, the Commission has prepared a Final Regulatory Flexibility Analysis (''FRFA'') relating to this *Second Report and Order and First Order on Reconsideration*.

C. Paperwork Reduction Act Analysis

119. The *Second Report and Order, First Order on Reconsideration*, and *Second Further Notice of Proposed Rulemaking* contains modified information collection requirements subject to the Paperwork Reduction Act of 1995 (PRA), Public Law 104–13. It will be submitted to the Office of Management and Budget (OMB) for review under Section 3507(d) of the PRA. The Commission will publish a separate **Federal Register** Notice seeking public comments on the modified information collection requirements. Therefore, OMB, the general public, and other Federal agencies will be invited to comment on the modified information collection requirements contained in this proceeding once the **Federal Register** Notice is published. In addition, we note that pursuant to the Small Business Paperwork Relief Act of 2002, Public Law 107–198, *see* 44 U.S.C. 3506(c)(4), we previously sought specific comment on how the Commission might ''further reduce the information collection burden for small business concerns with fewer than 25 employees.''

120. In addition to filing comments with the Secretary, a copy of any comments on the Paperwork Reduction Act information collection requirements contained herein should be submitted to Cathy Williams, Federal Communications Commission, Room 1–C823, 445 12th Street, SW., Washington, DC 20554, or via the Internet to *Cathy.Williams@fcc.gov* and to Jasmeet K. Seehra, Room 10236 NEOB, 725 17th Street, NW., Washington, DC 20503, or via the Internet to *Jasmeet_K._Seehra@omb.eop.gov*, or via fax at 202–395–5167. For additional information concerning the Paperwork Reduction Act information collection requirements contained in this document, contact Cathy Williams at 202–418–2918, or via the Internet at *Cathy.Williams@fcc.gov*.

Initial Regulatory Flexibility Analysis

121. As required by the Regulatory Flexibility Act of 1980, as amended, the Commission has prepared this Initial Regulatory Flexibility Analysis of the possible significant economic impact on a substantial number of small entities by the policies and rules proposed in the *Second Further Notice of Proposed Rulemaking*. 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 on the *Second Further Notice of Proposed Rulemaking*. The Commission will send a copy of this

entire *Second Further Notice of Proposed Rulemaking* (''FNPRM''), including this IRFA, to the Chief Counsel for Advocacy of the Small Business Administration (''SBA''). In addition, the *Second Further Notice of Proposed Rulemaking* and the IRFA (or summaries thereof) will be published in the **Federal Register**.

122. *Need For, and Objectives of, the Proposed Rules.* The *Second FNPRM* has been initiated to obtain further comments concerning the development and implementation of terrestrial digital audio broadcasting. Because free over-the-air terrestrial broadcasting is in the public interest, and because spectrum is a limited resource, in the *Second FNPRM* the Commission seeks comment on how to limit ancillary subscription services provided by radio stations converting to the IBOC DAB format so that terrestrial radio broadcasting remains an essentially free over-the-air service. The Commission also seeks comment on *inter alia*, the application of several statutory and regulatory public interest requirements to subscription services.

123. *Legal Basis.* The authority for this *Second Further Notice of Proposed Rulemaking* is contained in Sections 1, 2, 4(i), 303, 307, 312(a)(7), 315, 317, 507, and 508 of the Communications Act of 1934, 47 U.S.C. 151, 152, 154(i), 303, 307, 312(a)(7), 315, 317, 508, and 509.

124. *Description and Estimate of the Number of Small Entities to Which the Proposed Rules Will Apply.* The RFA directs the Commission to provide a description of and, where feasible, an estimate of the number of small entities that will be affected by the proposed rules. The RFA generally defines the term ''small entity'' as encompassing the terms ''small business,'' ''small organization,'' and ''small governmental entity.'' In addition, the term ''small business'' has the same meaning as the term ''small business concern'' under the Small Business Act. 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 Small Business Administration (''SBA'').

125. *Radio Stations.* The proposed rules and policies potentially will apply to all AM and commercial FM radio broadcasting licensees and potential licensees. The SBA defines a radio broadcasting station that has $6.5 million or less in annual receipts as a small business. A radio broadcasting station is an establishment primarily engaged in broadcasting aural programs by radio to the public. Included in this industry are commercial, religious, educational, and other radio stations. Radio broadcasting stations which primarily are engaged in radio broadcasting and which produce radio program materials are similarly included. However, radio stations that are separate establishments and are primarily engaged in producing radio program material are classified under another NAICS number. According to Commission staff review of BIA Publications, Inc. Master Access Radio Analyzer Database on March 31, 2005, about 10,840 (95%) of 11,410 commercial radio stations have revenue of $6.5 million or less. We note, however, that many radio stations are affiliated with much larger corporations having much higher revenue. Our estimate, therefore, likely overstates the number of small entities that might be affected by our action.

126. *Electronics Equipment Manufacturers.* The rules adopted in this proceeding will apply to manufacturers of DAB receiving equipment and other types of consumer electronics equipment. The appropriate small business size standard is that which the SBA has established for radio and television broadcasting and wireless communications equipment manufacturing. This category encompasses entities that primarily manufacture radio, television, and wireless communications equipment. Under this standard, firms are considered small if they have 1,000 or fewer employees. Census Bureau data for 2002 indicate that, for that year, there were a total of 1,041 establishments in this category. Of those, 1,023 had employment under 1,000. Given the above, the Commission estimates that the great majority of equipment manufacturers affected by these rules are small businesses.

127. *Description of Projected Reporting, Recordkeeping and Other Compliance Requirements.* The proposed rules on subscription services may impose additional reporting or recordkeeping requirements on existing radio stations, depending upon how the Commission decides to limit subscription services. We seek comment on the possible burden these requirements would place on small entities. Also, we seek comment on whether a special approach toward any possible compliance burdens on small entities might be appropriate.

128. *Steps Taken to Minimize Significant Impact on Small Entities, and Significant Alternatives Considered.* The RFA requires an agency to describe any significant alternatives 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 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 small entities.

129. In the *Second Report and Order,* the Commission permits radio stations to offer high quality digital radio signals, multicast digital audio programming streams, and datacasting. In the *Second Further Notice of Proposed Rulemaking,* the Commission seeks comment on what limitations on ancillary subscription services are necessary and appropriate to ensure the viability of free over-the-air radio broadcasting. This is an issue of first impression for the Commission; there is no history that indicates whether limits on ancillary subscription services will be adverse or beneficial to small businesses. Therefore, we make no judgment on whether limits on ancillary subscription services will adversely affect small business. We welcome commenters to address whether limits on ancillary subscription services will have any adverse effects on small businesses.

130. *Federal Rules Which Duplicate, Overlap, or Conflict With, the Commission's Proposals.* None.

Final Regulatory Flexibility Analysis

131. As required by the Regulatory Flexibility Act of 1980, as amended (''RFA''), an Initial Regulatory Flexibility Analysis (''IRFA'') was incorporated in the *Further Notice of Proposed Rule Making.* The Commission sought written public comment on the proposals in the *FNPRM,* including comment on the IRFA. This Final Regulatory Flexibility Analysis (''FRFA'') conforms to the RFA.

132. *Need For, and Objectives of, the Proposed Rules.* The policies and rules set forth herein are required to ensure a smooth conversion of the nation's radio system from an analog to a digital format. In this *Second Report and Order,* the Commission: (1) Reaffirms its commitment to providing radio broadcasters with the option of utilizing DAB technology; (2) announces public policy objectives resulting from the introduction of DAB service, such as more diverse programming serving local and community needs; (3) provides radio stations with the ability to offer more channels of programming and

datacasting; (4) adopts technical service rules for DAB, such as the authority to commence AM nighttime service and dual antenna operation; (5) adopts operational requirements for digital radio stations, such as emergency alert systems, station identification, and operating hours. In the *First Order on Reconsideration,* the Commission dismisses or denies outstanding Petitions for Reconsideration and Rulemaking which questioned the adoption of iBiquity's IBOC technology for use by DAB stations.

133. *Summary of Significant Issues Raised by Public Comments in Response to the IRFA.* None.

134. *Description and Estimate of the Number of Small Entities to Which the Adopted Rules Will Apply.* The RFA directs the Commission to provide a description of and, where feasible, an estimate of the number of small entities that will be affected by the rules adopted herein. The RFA generally defines the term ''small entity'' as encompassing the terms ''small business,'' ''small organization,'' and ''small governmental entity.'' In addition, the term ''small business'' has the same meaning as the term ''small business concern'' under the Small Business Act. 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 Small Business Administration (''SBA'').

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137. *Description of Projected Reporting, Recordkeeping and Other Compliance Requirements.* The rules adopted in this *Second Report and Order* will impose additional reporting or recordkeeping requirements on existing radio stations. First, the Commission applies the existing statutory and regulatory obligations to all free digital radio streams, thus increasing the scope of a radio station's existing compliance requirements. Second, the Commission's policies will increase the amount of information that must be kept in a radio station's public file. Finally, there will be new forms generated by the Commission's Media Bureau that must be processed by each radio station that elects to offer IBOC DAB.

138. *Steps Taken to Minimize Significant Impact on Small Entities, and Significant Alternatives Considered.* The RFA requires an agency to describe any significant alternatives 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 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 small entities.

139. In this *Second Report and Order,* the Commission (1) Reaffirms its commitment to providing radio broadcasters with the option of utilizing DAB technology; (2) announces public policy objectives resulting from the introduction of DAB service, such as more diverse programming serving local and community needs; (3) provides radio stations with the ability to offer more channels of programming and datacasting; (4) adopts technical service rules for DAB, such as the authority to commence AM nighttime service and dual antenna operation; (5) adopts operational requirements for digital radio stations, such as emergency alert systems, station identification, and operating hours. This adoption of a flexible use policy for DAB, will allow radio stations to transmit high quality digital audio, multiplexed digital audio streams, and datacasting, which should allow broadcasters to meet the policy objectives. In addition, rather than require all radio stations to convert to a digital format by a date certain, the Commission will allow marketplace forces to dictate the conversion process. However, each radio station broadcasting in the IBOC format will have to provide one free digital radio programming stream of audio quality comparable to that of the analog signal to the public. With regard to technical requirements, the Commission satisfies the interests of digital AM stations by permitting them to operate during nighttime hours; it also lessens the burden of all digital radio broadcasters by permitting the use of cost-effective dual antennas to transmit digital radio programming. Because the Commission is allowing the marketplace to drive adoption of the transition to digital broadcasts, the rules and policies set forth herein impose no adverse economic impact. This flexibility allows small entities to explore the economic choices on their own, and therefore significant alternatives to these rules and policies are unnecessary.

140. *Report to Congress.* The Commission will send a copy of the *Second Report and Order, First Order on Reconsideration, and Second Further Notice of Proposed Rulemaking,* including this FRFA, in a report to be sent to Congress pursuant to the Congressional Review Act. In addition, the Commission will send a copy of the *Second Report and Order, First Order on Reconsideration, and Second Further Notice of Proposed Rulemaking,* including this FRFA, to the Chief Counsel for Advocacy of the SBA. A copy of the Second Report and Order,

First Order on Reconsideration, and Second Further Notice of Proposed Rulemaking and FRFA (or summaries thereof) will also be published in the **Federal Register**.

VII. Ordering Clauses

141. Accordingly, *It is ordered,* pursuant to the authority contained in Sections 1, 2, 4(i), 303, 307, 312, 315, 317, 507, and 508 of the Communications Act of 1934, 47 U.S.C 151, 152, 154(i), 303, 307, 312, 315, 508, and 509, *this Second Report and Order First Order on Reconsideration and Second Further Notice of Proposed Rulemaking* IS ADOPTED.

142. *It is further ordered* that the rules contained herein are : Effective September 14, 2007, except for the rules in 47 CFR 73.404(b), 47 CFR 73.404(e), and 47 CFR 73.1201, which contain information collection requirements that have not been approved by OMB. The Federal Communications Commission will publish a document in the **Federal Register** announcing the effective date.

143. *It is further ordered* that, pursuant to 47 U.S.C. 155(c), the Chief, Media Bureau, is granted delegated authority to issue Public Notices and consider and grant routine petitions and waivers of the Commission's DAB technical requirements, resolve interference disputes, amend licensing requirements and generate new forms, and update IBOC notification procedures.

144. *It is further ordered* that the Petition for Reconsideration filed October 25, 2002, by the Amherst Alliance is denied.

145. *It is further ordered* that the Petition for Rulemaking filed April 17, 2002, by the Amherst Alliance is denied.

146. *It is further ordered* that the Petition for Reconsideration filed December 10, 2002 by Glen Clark and Associates is dismissed.

147. *It is further ordered* that the Petition for Reconsideration filed January 13, 2003, by John Pavlica Jr. is denied.

148. *It is further ordered* that the Petition for Rulemaking filed January 24, 2003, by Kahn Communications, Inc. is dismissed.

149. *It is further ordered* that the untimely Petition for Reconsideration filed by Kahn Communications, Inc. is denied.

150. *It is further ordered* that the Commission's Consumer and Governmental Affairs Bureau, Reference Information Center, *shall send* a copy of this *Second Report and Order First Order on Reconsideration and Second Further Notice of Proposed Rulemaking* including the Initial and Final Regulatory Flexibility Analysis, to the Chief Counsel for Advocacy of the Small Business Administration.

151. *It is further ordered* that the Commission *shall send* a copy of this *Second Report and Order First Order on Reconsideration and Second Further Notice of Proposed Rulemaking* in a report to be sent to Congress and the General Accounting Office pursuant to the Congressional Review Act, *see* 5 U.S.C. 801(a)(1)(A).

List of Subjects in 47 CFR Part 73

Digital television, Radio.

Federal Communications Commission.

Marlene H. Dortch,

Secretary.

Rule Changes

■ For the reasons discussed in the preamble, the Federal Communications Commission amends 47 CFR part 73 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, 303, 334, 336.

■ 2. Subpart C is redesignated as Subpart D

■ 3. New Subpart C is added to read as follows:

Subpart C—Digital Audio Broadcasting

Sec.

Subpart C—Digital Audio Broadcasting

§ 73.401 Scope.

This subpart contains those rules which apply exclusively to the digital audio broadcasting (DAB) service, and are in addition to those rules in Subparts A, B, C, G and H which apply to AM and FM broadcast services, both commercial and noncommercial.

§ 73.402 Definitions.

(a) *DAB.* Digital audio broadcast stations are those radio stations licensed by the Commission and use the In-band On-channel (''IBOC'') system for broadcasting purposes.

(b) *In Band On Channel DAB System.* A technical system in which a station's digital signal is broadcast in the same spectrum and on the same channel as its analog signal.

(c) *Hybrid DAB System.* A system which transmits both the digital and analog signals within the spectral emission mask of a single AM or FM channel.

(d) *Extended hybrid operation.* An enhanced mode of FM IBOC DAB operation which includes additional DAB subcarriers transmitted between the analog FM signal and the inner edges of the primary DAB sidebands.

(e) *Primary AM DAB Sidebands.* The two groups of hybrid AM IBOC DAB subcarriers which are transmitted 10 to 15 kHz above carrier frequency (the upper primary DAB sideband), and 10 to 15 kHz below carrier frequency (the lower primary DAB sideband).

(f) *Multicasting.* Subdividing the digital bitstream into multiple channels for additional audio programming uses.

(g) *Datacasting.* Subdividing the digital bitstream into multiple channels for additional data or information services uses.

§ 73.403 Digital audio broadcasting service requirements.

(a) Broadcast radio stations using IBOC must transmit at least one over-the-air digital audio programming stream at no direct charge to listeners. In addition, a broadcast radio station must simulcast its analog audio programming on one of its digital audio programming streams. The DAB audio programming stream that is provided pursuant to this paragraph must be at least comparable in sound quality to the analog programming service currently provided to listeners.

(b) Emergency information. The emergency information requirements found in § 73.1250 shall apply to all free DAB programming streams.

§ 73.404 Interim hybrid IBOC DAB operation.

(a) The licensee of an AM or FM station, or the permittee of a new AM or FM station which has commenced program test operation pursuant to § 73.1620, may commence interim hybrid IBOC DAB operation with digital facilities which conform to the technical specifications specified for hybrid DAB operation in the First Report and Order in MM Docket No. 99–325. AM and FM stations may transmit IBOC signals during all hours for which the station is licensed to broadcast.

(b) In situations where interference to other stations is anticipated or actually occurs, AM licensees may, upon notification to the Commission, reduce the power of the primary DAB sidebands by up to 6 dB. Any greater reduction of sideband power requires prior authority from the Commission via the filing of a request for special temporary authority or an informal letter request for modification of license.

(c) Hybrid IBOC AM stations must use the same licensed main or auxiliary antenna to transmit the analog and digital signals.

(d) FM stations may transmit hybrid IBOC signals in combined mode; i.e., using the same antenna for the analog and digital signals; or may employ separate analog and digital antennas. Where separate antennas are used, the digital antenna:

(1) Must be a licensed auxiliary antenna of the station;

(2) Must be located within 3 seconds latitude and longitude from the analog antenna;

(3) Must have a radiation center height above average terrain between 70 and 100 percent of the height above average terrain of the analog antenna.

(e) Licensees must provide notification to the Commission in Washington, DC, within 10 days of commencing IBOC digital operation. The notification must include the following information:

(1) Call sign and facility identification number of the station;

(2) Date on which IBOC operation commenced;

(3) Certification that the IBOC DAB facilities conform to permissible hybrid specifications;

(4) Name and telephone number of a technical representative the Commission can call in the event of interference;

(5) Certification that the analog effective radiated power remains as authorized;

(6) Transmitter power output; if separate analog and digital transmitters are used, the power output for each transmitter;

(7) If applicable, any reduction in an AM station's primary digital carriers;

(8) If applicable, the geographic coordinates, elevation data, and license file number of the auxiliary antenna employed by an FM station as a separate digital antenna;

(9) If applicable, for FM systems employing interleaved antenna bays, a certification that adequate filtering and/or isolation equipment has been installed to prevent spurious emissions in excess of the limits specified in § 73.317;

(10) A certification that the operation will not cause human exposure to levels of radio frequency radiation in excess of the limits specified in § 1.1310 of this chapter and is therefore categorically excluded from environmental processing pursuant to § 1.1306(b) of this chapter. Any station that cannot certify compliance must submit an environmental assessment (''EA'') pursuant to § 1.1311 of this chapter and may not commence IBOC operation until such EA is ruled upon by the Commission.

■ 4. In § 73.1201, revise paragraph (b) to read as follows:

§ 73.1201 Station identification.

* * * * *

(b) *Content.* (1) Official station identification shall consist of the station's call letters immediately followed by the community or communities specified in its license as the station's location; Provided, That the name of the licensee, the station's frequency, the station's channel number, as stated on the station's license, and/or the station's network affiliation may be inserted between the call letters and station location. DTV stations, or DAB Stations, choosing to include the station's channel number in the station identification must use the station's major channel number and may distinguish multicast program streams. For example, a DTV station with major channel number 26 may use 26.1 to identify an HDTV program service and 26.2 to identify an SDTV program service. A radio station operating in DAB hybrid mode or extended hybrid mode shall identify its digital signal, including any free multicast audio programming streams, in a manner that appropriately alerts its audience to the fact that it is listening to a digital audio broadcast. No other insertion between the station's call letters and the community or communities specified in its license is permissible.

(2) A station may include in its official station identification the name of any additional community or communities, but the community to which the station is licensed must be named first.

* * * * *

[FR Doc. E7–15922 Filed 8–14–07; 8:45 am]
BILLING CODE 6712–01–P

FEDERAL COMMUNICATIONS COMMISSION

47 CFR Part 73

[DA 07–3414; MB Docket No. 06–46; RM–11256]

Radio Broadcasting Services; Little Rock and Waukomis, AR

AGENCY: Federal Communications Commission.

ACTION: Final rule.

SUMMARY: At the request of Linda Crawford d/b/a Waukomis Broadcasting, Channel 292A is allotted at Waukomis, Oklahoma, as the community's first local aural transmission service. Channel 292A is allotted at Waukomis, Oklahoma, at Petitioner's requested site 6.3 kilometers (3.9 miles) southwest of the community at coordinates 36–14–01 NL and 97–56–25 WL.

DATES: Effective September 10, 2007.

ADDRESSES: Federal Communications Commission, 445 Twelfth Street, SW., Washington, DC 20554.

FOR FURTHER INFORMATION CONTACT: Victoria McCauley, Media Bureau, (202) 418–2180.

SUPPLEMENTARY INFORMATION: This is a synopsis of the Commission's *Report and Order*, MB Docket No. 06–46, adopted July 25, 2007, and released July 27, 2007. The full text of this Commission decision is available for inspection and copying during normal business hours in the FCC's Reference Information Center at Portals II, CY–A257, 445 Twelfth Street, SW., Washington, DC 20554. This document may also be purchased from the Commission's duplicating contractor, Best Copy and Printing, Inc., Portals II, 445 12th Street, SW., Room CY–B402, Washington, DC 20554, telephone 1–800–378–3160, or via e-mail *http://www.BCPIWEB.com*. The Commission will send a copy of this *Report and Order* in a report to be sent to Congress and the Government Accountability Office pursuant to the Congressional Review Act, *see* 5 U.S.C. 801(a)(1)(A).

List of Subjects in 47 CFR Part 73

Radio, Radio broadcasting.

■ As stated in the preamble, the Federal Communications Commission amends 47 CFR part 73 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, 303, 334, 336.

§ 73.202 [Amended]

■ 2. Section 73.202(b), the Table of FM Allotments under Oklahoma is amended by adding Waukomis, Channel 292A.

Federal Communications Commission.

John A. Karousos,

Assistant Chief, Audio Division, Media Bureau.

[FR Doc. E7–15704 Filed 8–14–07; 8:45 am]
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