



6712-01

FEDERAL COMMUNICATIONS COMMISSION

47 CFR Parts 1 and 27

[WT Docket No. 12-357; FCC 12-152]

Service Rules for the Advanced Wireless Services in the H Block—Implementing Section 6401 of the Middle Class Tax Relief and Job Creation Act of 2012 Related to the 1915-1920 MHz and 1995-2000 MHz Bands

AGENCY: Federal Communications Commission.

ACTION: Notice of proposed rulemaking.

SUMMARY: In this document, the Commission proposes rules for the Advanced Wireless Services (AWS) H Block that would make available ten megahertz of spectrum for flexible use. The proposal would extend the widely-deployed Personal Communications Services (PCS) band, which is used by the four national providers as well as regional and rural providers to offer mobile service across the nation. The additional spectrum for mobile use will help ensure that the speed, capacity, and ubiquity of the nation's wireless networks keeps pace with the skyrocketing demand for mobile service.

DATES: Submit comments on or before February 6, 2013. Submit reply comments on or before March 6, 2013. Written comments on the proposed information collection requirements, subject to the Paperwork Reduction Act (PRA) of 1995, Public Law 104-13, should be submitted on or before **[INSERT 60 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER]**.

ADDRESSES: Federal Communications Commission, 445 12th Street, SW, Washington, DC 20554. A copy of any comments on the Paperwork Reduction Act information collection requirements contained herein should be submitted to the Federal Communications Commission via email to PRA@fcc.gov and to Nicholas A. Fraser, Office of Management and Budget, via email to Nicholas_A._Fraser@omb.eop.gov or via fax at 202-395-5167. You may submit comments, identified by FCC 12-152, or by WT Docket No. 12-357, by any of the following methods:

Federal eRulemaking Portal: <http://www.regulations.gov>. Follow the instructions for submitting comments.

- Federal Communications Commission's Web Site: <http://www.fcc.gov/cgb/ecfs/>. Follow the instructions for submitting comments.
- People with Disabilities: Contact the FCC to request reasonable accommodations (accessible format documents, sign language interpreters, CART, etc.) by e-mail: FCC504@fcc.gov or phone: (202) 418-0530 or TTY: (202) 418-0432.
- 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, S.W., CY-A257, Washington, D.C., 20554. These documents will also be available via ECFS. Documents will be available electronically in ASCII, Microsoft Word, and/or Adobe Acrobat.

For detailed instructions for submitting comments and additional information on the rulemaking process, see the **SUPPLEMENTARY INFORMATION** section of this document.

FOR FURTHER INFORMATION CONTACT: Peter Daronco of the Broadband Division, Wireless Telecommunications Bureau, at (202) 418-BITS. For additional information concerning the Paperwork Reduction Act information collection requirements contained in this document, contact Judith B. Herman at (202) 418-0214, or via the Internet at PRA@fcc.gov.

SUPPLEMENTARY INFORMATION: This is a summary of the Commission's Notice of Proposed Rulemaking, FCC 12-152, adopted on December 11, 2012, and released on December 17, 2012. The full text of this document is available for inspection and copying during normal business hours in the FCC Reference Information Center, Room CY-A257, 445 12th Street, SW, Washington, DC 20554. The complete text may be purchased from the Commission's duplicating contractor, Best Copy and Printing, Inc. (BCPI), Portals II, 445 12th Street, SW, Room CY-B402, Washington, DC 20554, (202) 488-5300, facsimile (202) 488-5563, or via e-mail at fcc@bcpiweb.com. The complete text is also available on the Commission's Website at http://hraunfoss.fcc.gov/edocs_public/attachment/FCC-12-152A1doc.

Alternative formats (computer diskette, large print, audio cassette, and Braille) are available by contacting Brian Millin at (202) 418-7426, TTY (202) 418-7365, or via e-mail to bmillin@fcc.gov.

Pursuant to §§ 1.415 and 1.419 of the Commission's rules, 47 CFR 1.415, 1.419, interested parties may file comments and reply comments on or before the dates indicated on the first page of this document. Comments may be filed using the Commission's Electronic Comment Filing System (ECFS). See Electronic Filing of Documents in Rulemaking Proceedings, 63 FR 24121 (1998). All filings should reference the docket numbers in this proceeding, FCC 12-152, or by WT Docket No. 12-357.

- Electronic Filers: Comments may be filed electronically using the Internet by accessing the ECFS: <http://fjallfoss.fcc.gov/ecfs2/>.
- Paper Filers: Parties who choose to file by paper must file an original and one copy 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. All filings must be addressed to the Commission's Secretary, Office of the Secretary, Federal Communications Commission.
 - All hand-delivered or messenger-delivered paper filings for the Commission's Secretary must be delivered to FCC Headquarters at 445 12th St., SW, Room TW-A325, Washington, DC 20554. The filing hours are 8:00 a.m. to 7:00 p.m. All hand deliveries must be held together with rubber bands or fasteners. Any envelopes and boxes 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).

- Document [FCC 12-152](#) contains proposed information collection requirements subject to the PRA. It will be submitted to the Office of Management and Budget (OMB) for review under section 3507 of the PRA. OMB, the general public, and other Federal agencies are invited to comment on the proposed information collection requirements contained in this document. PRA comments should be submitted to Judith B. Herman at (202) 418-0214, or via the Internet at PRA@fcc.gov and to and to Nicholas A. Fraser, Office of Management and Budget, via email to Nicholas_A._Fraser@omb.eop.gov or via fax at 202-395-5167.
- To view a copy of this information collection request (ICR) submitted to OMB: (1) Go to the web page <http://www.reginfo.gov/public/do/PRAMain>, (2) look for the section of the Web page called “Currently Under Review,” (3) click on the downward-pointing arrow in the “Select Agency” box below the “Currently Under Review” heading, (4) select “Federal Communications Commission” from the list of agencies presented in the “Select Agency” box, (5) click the “Submit” button to the right of the “Select Agency” box, (6) when the list of FCC ICRs currently under review appears, look for the Title of this ICR and then click on the ICR Reference Number. A copy of the FCC submission to OMB will be displayed.
- **INITIAL PAPERWORK REDUCTION ACT ANALYSIS**

This document contains proposed new or modified information collection requirements. The Commission, as part of its continuing effort to reduce paperwork burdens, invites the general public and the Office of Management and Budget (OMB) to comment on the information collection requirements contained in this document, as required by the Paperwork Reduction Act of 1995, Public Law 104-13. In addition, pursuant to the Small Business Paperwork Relief Act of 2002, Public Law 107-198, see 44

U.S.C. 3506(c)(4), we seek specific comment on how we might further reduce the information collection burden for small business concerns with fewer than 25 employees.

OMB Control Number: 3060-[XXXX]

Title: Sections 1.946, 1.949, 1.2105(a), ect. – Service Rules for Advanced Wireless Services (AWS) H Block.

Form Number: N/A.

Type of Review: New collection.

Respondents: Business or other for-profit entities, not-for-profit institutions, and state, local, or tribal government.

Number of Respondents: 50 respondents; 50 responses.

Estimated Time per Response: .25 hours to .5 hours.

Frequency of Response: Annual, one time, and on occasion reporting requirements; recordkeeping requirement; and third party disclosure requirement.

Obligation to Respond: Required to obtain or retain benefits. Statutory authority for the information collection is contained in 15 U.S.C. 79 et seq; 47 U.S.C. sections 151, 154(i), 154(j), 155, 157, 225, 227, 303(r), 309, 1404, and 1451.

Total Annual Burden: 14 hours.

Total Annual Cost: N/A.

Privacy Impact Assessment: N/A.

Nature and Extent of Confidentiality: There is no need for confidentiality.

Needs and Uses: The Commission is submitting this information collection to the Office of Management and Budget as a new collection. The Notice of Proposed Rulemaking (NPRM) proposes rules for the Advanced Wireless Services (AWS) H Block to make available ten megahertz of spectrum for flexible use, extending the current Personal Communications Services (PCS) band, which is used by the four national providers as well as regional and rural providers to offer mobile service across the Nation. The NPRM begins the Commission's implementation of the Congressional directive in the Middle Class Tax

Relief and Job Creation Act of 2012 (Spectrum Act) to grant new initial licenses for the 1915-1920 MHz (Lower H Block) and 1995-2000 MHz (Upper H Block) bands through a system of competitive bidding—unless doing so would cause harmful interference to commercial mobile service licensees in the 1930-1995 MHz (PCS downlink) band.

Summary

I. INTRODUCTION

1. We propose rules for the Advanced Wireless Services (AWS) H Block that would make available ten megahertz of spectrum for flexible use. The proposal would extend the widely-deployed Personal Communications Services (PCS) band, which is used by the four national providers as well as regional and rural providers to offer mobile service across the nation. The additional spectrum for mobile use will help ensure that the speed, capacity, and ubiquity of the nation’s wireless networks keeps pace with the skyrocketing demand for mobile service.

2. The Commission’s action is a first step in implementing the Congressional directive in the Middle Class Tax Relief and Job Creation Act of 2012 (Spectrum Act) that we grant new initial licenses for the 1915-1920 MHz and 1995-2000 MHz bands (the Lower H Block and Upper H Block, respectively) through a system of competitive bidding—unless doing so would cause harmful interference to commercial mobile service licensees in the 1930-1995 MHz (PCS downlink) band (collectively, the Lower H Block and Upper H Block are referred to as the “H Block”).

II. DISCUSSION

3. To implement the Spectrum Act provisions pertaining to the H Block, and in keeping with our goal of expanding the amount of spectrum available for wireless broadband services, we propose terrestrial service rules for the H Block that would generally follow the Commission’s part 27 rules. In some instances, we propose rules that are modified from part 27 to account for issues unique to the H Block, particularly to protect PCS licensees from harmful interference. With this NPRM, we seek comment on a number of proposals regarding the licensing, use, and assignment of the spectrum, including the costs and benefits of the proposals.

4. Although the Commission previously sought comment on many of these issues in the AWS-2 NPRM, Service Rules for Advanced Wireless Services in the 1915-1920 MHz, 1995-2000 MHz, 2020-2025 MHz and 2175-2180 MHz Bands, 69 FR 63489 (Nov. 2, 2004) (AWS-2 NPRM), and the 2008 FNPRM, Service Rules for Advanced Wireless Services in the 2155-2175 MHz Band; Service Rules for Advanced Wireless Services in the 1915-1920 MHz, 1995-2000 MHz, 2020-2025 MHz and 2175-2180 MHz Bands, 73 FR 35995 (June 25, 2008) (2008 FNPRM), wireless broadband technologies and the wireless industry have evolved since the Commission last sought comment on these issues such that, in our assessment, the development of a fresh record is warranted. As a result, we will adopt H Block rules based on the record developed in response to this NPRM (WT Docket No. 12-357). Parties may re-file in this docket earlier comments with any necessary updates.

5. For each of the issues identified below, we seek comment on the most efficient manner to address the issue. Commenters should also identify the various costs and benefits associated with a particular proposal. We ask that commenters take into account only those costs and benefits that directly result from the implementation of the particular rules that could be adopted, including any proposed requirement or potential alternative requirement. Further, to the extent possible, commenters should provide specific data and information, such as actual or estimated dollar figures for each specific cost or benefit addressed, along with a description of how the data or information was calculated or obtained, and any supporting documentation or other evidentiary support.

A. Spectrum Act Provisions for 1915-1920 MHz and 1995-2000 MHz

6. We discuss the Spectrum Act's four main statutory elements related to the H Block—allocation for commercial use, flexible use, assignment of licenses, and a determination regarding interference—in greater detail below.

1. Allocation for Commercial Use.

7. Section 6401 of the Spectrum Act requires the Commission to allocate the 1915-1920 MHz and 1995-2000 MHz bands for commercial use. The Spectrum Act does not define the phrase “allocate [the H Block] for commercial use.” When this phrase is read in the context of the Spectrum Act

as a whole, we conclude it requires the Commission to make any changes necessary to, or otherwise ensure that, the Non-Federal Table of Allocations reflects that the spectrum identified in section 6401 can be used commercially and licensed to non-federal entities under flexible use service rules through a system of competitive bidding. All of the H Block spectrum is within the 1850-2000 MHz band, which is allocated exclusively for non-federal, fixed and mobile use on a primary basis and designated for use in the commercial PCS/AWS bands. We believe the Commission's prior allocation of the H Block is fully consistent with section 6401's allocation language because the existing allocation is the broadest allocation possible consistent with international allocations. We further read section 6401 as directing the Commission to maintain this existing allocation. Given the requirement to license under flexible use service rules, we do not read the requirement to allocate the H Block for commercial use to specifically limit eligible uses to commercial uses.

8. Therefore, we tentatively conclude that the existing allocation of the H Block for non-federal fixed and mobile use on a primary basis meets the allocation requirement of section 6401(b)(1)(A) for the H Block, and seek comment on this tentative conclusion. We seek comment on whether there are any additional actions the Commission should take to comply with the requirement to allocate the H Block for commercial use. We ask commenters that believe further action is needed to comply with Congress's mandate to detail what other action is necessary, including the costs and benefits of such action.

2. Flexible Use.

9. Consistent with the Spectrum Act's mandate that we license the H Block under flexible use service rules, we propose service rules for the H Block that permit a licensee to employ the spectrum for any non-Federal use permitted by the United States Table of Frequency Allocations, subject to the Commission's part 27 flexible use and other applicable rules (including service rules to avoid harmful interference). Congress recognized the potential benefits of flexible spectrum allocations and amended the Communications Act in 1997 to add section 303(y), which grants the Commission the authority to adopt flexible allocations if certain factors are met. Thus, we propose that the H Block may be used for

any fixed or mobile service that is consistent with the allocations for the band. If commenters think any restrictions are warranted, they should describe why such restrictions are needed, quantify the costs and benefits of any such restrictions, and describe how such restrictions would comport with the statutory mandates of section 303(y) of the Communications Act and section 6401 of the Spectrum Act.

3. Assignment of Licenses.

10. Section 6401(b) of the Spectrum Act requires the Commission to assign initial licenses for the 1915-1920 and 1995-2000 MHz bands through a system of competitive bidding pursuant to section 309(j) of the Communications Act. Accordingly, below, we seek comment on proposals regarding competitive bidding rules that would apply to resolve any mutually exclusive applications accepted for H Block licenses.

4. Determination of No Harmful Interference to the 1930-1995 MHz Band.

11. The Commission is prohibited from granting initial licenses under the Spectrum Act for the H Block if the Commission determines that the H Block “cannot be used without causing harmful interference” to commercial mobile licensees in the 1930-1995 MHz band (PCS downlink band). We note that the Spectrum Act does not define the term “harmful interference,” and we propose to use the existing definition of “harmful interference” in the Commission’s rules. Under the Commission’s rules harmful interference is “[i]nterference which endangers the functioning of a radionavigation service or of other safety services or seriously degrades, obstructs, or repeatedly interrupts a radiocommunication service operating in accordance with [the International Telecommunications Union] Radio Regulations.”

12. Upper H Block. As detailed in the Band Plan section below, the Commission allocated this spectrum for fixed and mobile use in 2003, and it designated it for PCS/AWS base station operations and proposed service rules to that effect in 2004. During the eight years that WT Docket No. 04-356 has been pending, no party has filed technical data and/or analysis indicating that base station operations in the Upper H Block would cause harmful interference to licensees in the PCS downlink band. Accordingly, we tentatively conclude that licensing the Upper H Block under flexible use service rules

will not cause harmful interference to commercial mobile licensees in the 1930-1995 MHz band. We seek comment on this tentative conclusion.

13. Lower H Block. In 2004 the Commission designated this spectrum for PCS/AWS mobile operations; paired with Upper H Block, after concluding that harmful interference from Lower H Block to the PCS downlink band could be addressed through appropriate service rules. In WT Docket No. 04-356, commenters vigorously debated the power and out-of-band emission limits necessary to avoid interference to mobiles receiving in the PCS downlink band. Four PCS licensees proposed technical rules for Lower H Block to avoid interference to PCS and at least one PCS licensee continues to advocate for one of the earlier proposals. As discussed in detail below, we propose a band plan and are seeking comment on technical rules to avoid interference, including the earlier proposals by PCS licensees. Accordingly, we tentatively conclude that it will be possible to auction and license the Lower H Block under flexible use service rules without causing harmful interference to commercial mobile licensees in the PCS downlink (1930-1995 MHz) band. We seek comment on this tentative conclusion. Regarding the proposed band plan and technical issues discussed in the sections below, we ask that commenters proposing alternative band plans and/or technical rules – including any alternative proposals that have been previously submitted to the Commission – provide detailed analyses of how their proposal will avoid harmful interference to licensees in the PCS downlink band.

14. Alternatives, if Harmful Interference to PCS. If, contrary to our expectation, the record results in a determination that licensing the Upper H Block, the Lower H Block, or both, would cause harmful interference to licensees in the PCS downlink band, section 6401(b)(4) of the Spectrum Act nullifies the initial requirement in section 6401(b)(1)(a) that the Commission to allocate the interfering spectrum for commercial use. We do not, however, believe that Congress intended section 6401(b)(4)(a) to disturb allocations adopted prior to the Spectrum Act. Rather, Congress intended section 6401(b)(4) to avoid harmful interference to the millions of existing customers of PCS licensees that might otherwise result from Commission actions implementing the requirements in section 6401(b)(1) related to H Block. Therefore, if we determine that the Lower H Block, the Upper H Block, or both, cannot be used without

causing harmful interference to PCS licensees, we tentatively conclude that we may not under the Spectrum Act auction and grant initial licenses, subject to flexible use service rules, for the interfering spectrum. If we determine that half of the H Block cannot be auctioned and licensed, we tentatively conclude that the statute requires us to auction and license the half of the H Block that would not cause harmful interference to PCS downlinks (i.e., either the Upper or Lower H Block). Accordingly, we ask commenters to address what should be done in the alternative with the H Block or any portion of the H Block that we determine cannot be licensed under the Spectrum Act due to harmful interference to licensees in the PCS downlink band. In particular, should any such spectrum be designated for Unlicensed PCS (UPCS)?

B. Band Plan

15. In the following sections, we propose to license the H Block as paired 5 megahertz blocks, with the Upper H Block used for high-power base stations and the Lower H Block used for mobile and low power fixed operations. We further propose to license the H Block by Economic Areas. We invite commenters to propose other licensing areas including for the Gulf of Mexico.

1. Block Configuration.

16. In 2004, the Commission adopted the AWS Sixth Report and Order, Amendment of Part 2 of the Commission's Rules to Allocate Spectrum Below 3 GHz for Mobile and Fixed Services to Support the Introduction of New Advanced Wireless Services, Including Third Generation Wireless Systems, 69 FR 62615 (Oct. 27, 2004), designating the H Block for licensed fixed and mobile services, including advanced wireless services, and pairing the 1915-1920 MHz band with the 1995-2000 MHz band. The Commission decided to pair the 1915-1920 MHz and 1995-2000 MHz bands because it found that pairing this spectrum would promote efficient use of the spectrum, would allow for the introduction of high-value services, and was otherwise preferable to the other options that had been put forth.

17. In addition, the Commission contemplated that mobile operations would be conducted in the Lower H Block. The Commission reasoned that using the Lower H Block for low power operations would be advantageous because the adjacent 1910-1915 MHz PCS band is used for mobile operations and

using the Lower H Block for high power base station operations could result in harmful interference to the PCS band.

18. We see no reason to diverge from the reasoning in the AWS Sixth Report and Order. Accordingly, we tentatively conclude that the 1915-1920 MHz and 1995-2000 MHz bands should be paired as a single band. In addition, we propose that high power base station operations will be prohibited in the Lower H Block. We seek comments on the costs and benefits of licensing the 1915-1920 MHz and 1995-2000 MHz bands in this manner. We also seek comment on alternate configurations of the H Block. Commenters should address any technical issues implicated in an alternate band plan, and should discuss the costs and benefits of any alternative proposal.

2. Service Area.

19. Geographic Area Licensing: We propose to adopt a geographic area licensing scheme for the H Block because it is well-suited for the types of fixed and mobile services that would likely be deployed in these bands. Additionally, geographic-area licensing is consistent with the Commission's licensing approach for the AWS-1, Broadband PCS, Commercial 700 MHz bands, and AWS-4 bands. Based on the Commission's experience administering these services, geographic area licensing: (1) provides licensees with substantial flexibility to respond to market demand, which results in significant improvements in spectrum utilization; (2) permits economies of scale because licensees can coordinate usage across an entire geographic area to maximize spectrum use; and, (3) reduces the regulatory burdens and transaction costs because wide-area licensing does not require site-by-site approval so a licensee can aggregate its service territories without incurring the administrative costs and delays associated with site-by-site licensing. We seek comment on this approach, including the costs and benefits of adopting a geographic area licensing scheme.

20. In the event that commenters do not support geographic-area licensing for the H Block, commenters should explain their position and identify any alternative licensing proposals that they support, including the costs and benefits associated with such alternative proposals. Commenters should also address how an alternative licensing approach would be consistent with the statutory requirement to

assign licenses in the H Block through competitive bidding and the statutory objectives that the Commission is required to promote in establishing methodologies for competitive bidding.

21. Service Area Size. We seek to adopt a service area size for the H Block that meets several statutory goals. These include facilitating access to spectrum by both small and large providers, providing for the efficient use of the spectrum, encouraging deployment of wireless broadband services to consumers, especially those in rural areas, and promoting investment in and rapid deployment of new technologies and services consistent with our obligations under section 309(j) of the Communications Act.

22. To accomplish these goals, we propose to license the H Block on an Economic Area (EA) basis. The adjacent bands, both PCS and AWS-4, are licensed on an EA basis. EAs are small enough to provide spectrum access opportunities for smaller carriers but also may be aggregated up to larger license areas to achieve economies of scale. We seek comment on this approach and ask commenters to discuss and quantify the economic, technical, and other public interest considerations of any particular geographic scheme for this band, as well as the impact that any such scheme would have on rural service and competition.

23. We also seek comment on whether we should license the H Block on a nationwide basis. We seek comment on the extent to which nationwide licenses maximize or limit the opportunity for licensees to provide the widest array of services, and whether nationwide licenses provide the necessary incentives to foster the growth of existing technologies and the development of new technologies. We also ask commenters to compare the advantages and disadvantages of nationwide licensing to those of licensing by EAs, including economic and financial considerations.

24. In response to the AWS-2 NPRM, some commenters argued that licensing the H Block using smaller geographic areas than EAs would accommodate its possible use as complementary spectrum to existing PCS offerings. Other commenters agreed and also noted that small and rural wireless providers would benefit if the Commission licensed the H Block using smaller geographic areas than EAs. Would licensing the H Block by areas smaller than EAs (e.g., Cellular Market Areas

comprising Metropolitan Statistical Areas (MSAs) and Rural Service Areas (RSAs)) facilitate its use by smaller and rural operators? Would the benefits of smaller licenses outweigh any potential diseconomies of scale? We also seek comment on whether we should license the H Block by BTAs and the associated costs and benefits of this approach. Are there other geographic licensing methods that would better meet the stated goals for this band?

3. Licensing the Gulf of Mexico.

25. In addition, we seek comment on how to license the Gulf of Mexico. Should the Gulf of Mexico be part of another service area(s) or should we separately license a service area(s) to cover the Gulf of Mexico? Are there any public interest benefits that would be served by creating a Gulf of Mexico licensing area? Further, would the interests of the land based licensees be protected if we proceeded to license the Gulf of Mexico? Commenters that advocate a separate service area(s) to cover the Gulf of Mexico should discuss what boundaries should be used, and whether special interference protection criteria or performance requirements are necessary due to the unique radio propagation characteristics and antenna siting challenges that exist for Gulf licensees.

C. Technical Issues

26. As discussed above, we are proposing that the Upper H Block be used for base station (i.e., high power) operations, and the Lower H Block for mobile and other low-power operations. In this section we consider whether technical standards generally applicable to AWS and PCS stations are appropriate for these bands, or whether different standards are necessary to provide interference protection to services operating in adjacent spectrum bands. In light of the Spectrum Act, and our assessment of the relevant public interest benefits, a key goal in this proceeding is to develop technical rules that will permit optimal use of the H Block without causing harmful interference to commercial mobile service licensees in the 1930-1995 MHz PCS band. In responding to our inquiries, we ask commenting parties to provide test data and specific technical analysis to support their positions.

1. Upper H Block: 1995-2000 MHz.

27. Immediately below the Upper H Block is the 1930-1995 MHz PCS band, which is used for base station transmit/mobile receive (i.e., downlink). The Commission has tentatively concluded that base stations operating in the Upper H Block would be compatible with similar use of the spectrum below 1995 MHz, and there would be no need to apply technical standards more restrictive than those established for other AWS stations. The record developed in WT Docket No. 04-356 does not demonstrate any disagreement with this approach.

28. Immediately above the Upper H Block is the 2000-2020 MHz band, which is allocated on a co-primary basis for Fixed, Mobile, and Mobile Satellite (Earth-to-space, i.e., for uplink mobile transmit/satellite receive). In the AWS-4 Report and Order, we adopted service rules under which 2000-2020 MHz will be licensed terrestrially for mobile transmit/base station receive. Service Rules for Advanced Wireless Services in the 2000-2020 MHz and 2180-2200 MHz Bands, FCC 12-151. The Commission has previously concluded that there is potential for mutual interference between these two bands, and in WT Docket No. 04-356 MSS commenters raised concerns. In the AWS-4 Report and Order, we concluded that the public interest is best served by requiring AWS-4 uplinks to operate at lower power levels in 2000-2005 MHz and emit lower emissions below 2000 MHz. We further concluded that 2 GHz MSS operators and AWS-4 licensees must accept any harmful interference from future, lawful operations in the Upper H Block due to out of band emissions in the 2000-2005 MHz band or receiver overload from transmitters operating within the 1995-2000 MHz band.

a. Upper H Block Power Limits.

29. We also propose to adopt the standard base station power limits that apply to AWS and PCS stations: 1640 watts peak equivalent isotropically radiated power (EIRP) in non-rural areas and 3280 watts peak EIRP in rural areas. We seek comment on this proposal.

b. Upper H Block Out of Band Emissions Limits.

30. Given the considerations addressed above, we propose an out-of band-emission (OOBE) limit for base stations of $43 + 10 \log_{10}(P)$ dB, where P is the transmit power in watts, outside of the 1995-

2000 MHz band. To provide some interference mitigation to AWS-4 uplink operations above 2000 MHz while ensuring that all of the Upper H Block spectrum can be used for more valuable downlink operations, we propose a further OOB limit of $70 + 10 \log_{10}(P)$ dB above 2005 MHz. We seek comment on our proposals and any alternative proposals, including comments on the associated costs and benefits of each proposal.

c. Co-Channel Interference Between Licensees Operating in Adjacent Regions.

31. If we ultimately decide to license this band on the basis of geographic service areas that are less than nationwide (e.g., EAs), we will have to ensure that such licensees do not cause interference to co-channel systems operating along their common geographic borders. In other services, the Commission has offered either a “boundary limit” or a “coordination” approach to provide interference protection between co-channel licensees operating in these bands. Both approaches have certain advantages and disadvantages. For example, coordination would likely minimize the potential for interference to coordinated stations, but could also impose unnecessary costs in coordinating facilities that have a low potential for interference. A boundary limit approach would establish an accepted standard, which would enable licensees to deploy facilities in boundary areas without the need for coordination; but could require some additional planning between licensees to ensure that potential interference does not occur.

32. In other bands where spectrum has been allocated for fixed and mobile services, we have uniformly adopted the boundary limit method to minimize co-channel interference. For example, for the PCS and AWS-1 bands, which are closest in frequency to the H Block, there is a field strength limit of 47 dBμV/m at the boundary of licensed geographic areas. We propose that the boundary limit approach should be adopted for the H Block as the means for protecting licensees from co-channel interference at their borders, and propose to specify a boundary field strength limit of 47 dBμV/m. We seek comment on these proposals. We also ask whether, if the boundary limit method is adopted, we should permit

licensees operating in adjoining areas to employ alternative, agreed-upon signal limits at their common borders.

2. Lower H Block: 1915-1920 MHz.

33. Immediately below the Lower H Block is the 1850-1915 MHz PCS band, which is used for mobile transmit/base receive. Use of the Lower H Block for mobile transmit/base receive, as we have proposed, would be compatible with this adjacent PCS band. Thus there would be no need to apply technical standards more restrictive than those established for AWS and PCS stations to protect PCS operations below 1915 MHz.

34. Above the Lower H Block is the 1920-1930 MHz unlicensed PCS (UPCS) band, which does not require protection, and the 1930-1995 PCS base transmit/mobile receive band. The latter presents protection challenges for use of the Lower H Block. The Commission has previously concluded that there is potential for mobile transmitters in the 1915-1920 MHz band to cause out-of-band and overload interference to mobile receivers in the 1930-1995 MHz band, but only when certain worst-case conditions are all present. Specifically, “[t]he worst case occurs when the mobile transmitter is operating at maximum power (near the edge of its service area) at the upper edge of the band (near 1920 MHz) and the mobile receiver is trying to receive a weak signal (near the edge of its service area) at the lower edge of the band (near 1930 MHz) and only free space loss is considered.” Additionally, both mobiles must be in close proximity to each other, less than a few meters, and in line-of-sight conditions. The Commission found that the confluence of these worst-case circumstances is very infrequent and the risk of actual interference is further mitigated by normal network management practices such as handoff and power management. Nevertheless, the Commission concluded that technical standards more restrictive for Lower H Block than those established for PCS may be appropriate to avoid impairing incumbent PCS operations above 1930 MHz.

35. The Spectrum Act sharply focuses these concerns by requiring us to auction the H Block spectrum unless we determine that the frequencies cannot be used without causing harmful interference to commercial mobile service licensees in the frequencies between 1930 MHz and 1995 MHz (PCS

downlink). We therefore wish to review previous proposals for Lower H Block power and emissions limits, evaluate how the interference environment may have changed since those earlier discussions, and determine what limits are appropriate for the current environment, and whether they may be increased in the future.

a. Lower H Block Power Limits.

36. Several parties have expressed concern about the potential for intermodulation interference, which can result from receiver overload, impacting PCS user equipment (UEs) receiving in the PCS B Block (1950-1965 MHz). In the 2008 FNPRM, the Commission proposed a limit on the EIRP from H Block mobile transmitters of +23 dBm/MHz. In response, Sprint and Verizon Wireless (both licensees of significant portions of PCS including B Block) and Nextel reiterated their 2005 proposal for graduated power limits to avoid interference to PCS as follows: a limit on mobile EIRP of +6 dBm/MHz in the 1917-1920 MHz band, and a limit of +30 dBm/MHz in the 1915-1917 MHz band. This proposal was supported by testing of a variety of mobiles commissioned by CTIA in 2004. Sprint has repeatedly and recently stated that the H Block can be auctioned and licensed without interfering with PCS operations by using these earlier-proposed, graduated power limits. AT&T, also a licensee of a significant portion of PCS spectrum, including the B Block, did not concur with the plan put forth by Sprint, Verizon and Nextel and submitted an alternative solution. AT&T proposed a uniform, “technologically neutral,” 13 dBm/MHz power limit on the Lower H Block to protect PCS, arguing that the split-band approach favored CDMA over GSM and wideband technologies, such as W-CDMA and UMTS/HSPA. In response to the AWS-4 NPRM AT&T favored leaving the H Block idle to serve as a guard band to protect AWS-4 and PCS. More recently, AT&T argues in the alternative that if the Commission proceeds with an auction of the entire H Block despite AT&T’s concerns, we should adopt technical rules to protect PCS devices from harmful interference including appropriate power limits on H Block mobiles.

37. We seek to establish technical requirements that will support flexible use of this spectrum in accordance with the Spectrum Act without causing harmful interference to PCS licensees. The record in WT Docket No. 04-356 was largely developed between four and eight years ago. Since then, the

mobile broadband industry, including the wireless network equipment sector, has undergone a rapid evolution. The marketplace has seen greater adoption of wideband technologies such as UMTS and LTE, as well as the authorization and launch of PCS services in the G Block. Advances in mobile device development have unleashed new designs and ushered in the advent of the smartphone. We seek comment on how changes in the industry may have affected the assumptions underlying previous analyses. How have filtering techniques and duplex design improved? Given that the Commission's intentions to authorize mobile service in the H Block have been known in the industry since at least 2004, have better duplexer filters been employed in user equipment? How has the population of mobile devices changed, what is the mix of technologies in use in the marketplace, and what is the performance of this new generation of devices?

38. We seek comment on the appropriate power limit for 1915-1920 MHz mobile devices in order to prevent interference to PCS operations. Commenters are asked to submit detailed technical analyses or studies in support of their recommendations and are encouraged to provide test data wherever possible. The assumptions that underpin the analyses should identify how harmful interference is defined. What probability of interference is deemed acceptable (what percentage of mobiles, what percentage of locations)? For example, the Commission's earlier proposal, 23 dBm/MHz, was based on a mobile separation of two meters between users, while others argued for a one-meter separation. Likewise, is defining harmful interference based on degradation to a receiver's noise floor appropriate for a system which is inherently interference-limited? If stricter limitations on mobile transmit power are deemed necessary to protect current legacy devices, should the power limits sunset after a period of time, allowing time for new, more resilient mobiles to comprise the bulk of the mobile population? How much time will licensees need to obtain and deploy UEs with the better filters, if better filters are still needed? How long will consumers' legacy UEs need to be protected? We also seek comment on the costs and benefits of alternative power limits.

39. The 1915-1920 MHz band is also allocated for fixed services, so fixed stations will be allowed to operate in the band. However, because fixed station antennas are generally located some

distance above ground level, the possibility of interference from fixed stations to PCS mobiles will likely be less than the anticipated interference from 1915-1920 MHz mobiles to PCS mobiles. We therefore believe that 1915-1920 MHz fixed stations should be permitted to employ a higher power level than mobiles operating in that band. We seek comment as to what that power level should be.

b. Lower H Block Out of Band Emissions Limits.

40. The Commission has previously concluded that, in certain circumstances, attenuating transmitter OOBES by $43 + 10 \log_{10}(P)$ dB is appropriate to minimize harmful electromagnetic interference between operators. This limit is generally applied in cases where adjacent services have similar characteristics, such as base-to-base or mobile-to-mobile and adhere to similar power limits. This limit has served well as a basis for development of industry standards which may impose tighter limits in some cases. An OOBES limit of $43 + 10 \log_{10}(P)$ dB applies to most of the services authorized under parts 24 and 27. In particular, this is the limit imposed on transmitters operating in both the 1930-1995 MHz PCS band and the 1920-1930 MHz UPCS band adjacent to the Lower H Block. As both of these services in adjacent bands provide for mobiles with similar power, the same OOBES limit appears appropriate for the Lower H Block. The Commission therefore proposes to require attenuation of $43 + 10 \log_{10}(P)$ to emissions from transmitters in the 1915-1920 MHz band.

41. The risk of mobile-to-mobile interference discussed below may require a further OOBES limitation to protect against the potential for interference from the out-of band emissions of Lower H Block transmitters into PCS mobiles receiving in the 1930-1995 MHz band. Currently, the Commission's rules require licensees operating in the 1850-1915 MHz PCS band to comply with the $43 + 10 \log_{10} P$ dB OOBES limit at the edge of their authorized spectrum block. This level of required attenuation of emissions with respect to the transmitter power can be translated into a power spectral density of -13 dBm/MHz for out-of-band emissions. We are aware that PCS-industry standards require equipment manufacturers to incorporate a stronger OOBES suppression capability in PCS mobiles. In the 2008 FNPRM, the Commission proposed a stricter limit on out of band emissions from Lower H Block transmitters of -60 dBm/MHz in the frequency range of 1930-1990 MHz (PCS downlink band),

equivalent to an attenuation of $90 + 10 \log_{10}(P)$ dB. The joint proposal of Sprint, Verizon and Nextel requested a limit of -76 dBm/MHz. Their analysis assumed a one-meter separation and mobile receivers operating in noise-limited faded signal conditions, and included test data commissioned by CTIA. Most of the mobiles tested met this limit. The -76 dBm/MHz specification is also the industry standard for CDMA devices under TIA-98F. Ericsson and Motorola submitted comments supporting the use of industry standards as the basis for OOB limits and cited -61 dBm/MHz for the GSM Standard, with Motorola citing -76 dBm/MHz for the CDMA standard. Ericsson provided a later submission specifically supporting a limit of -66 dBm/MHz. Motorola, responding to CTIA's measurements, noted the failure of two GSM devices to meet the tighter CDMA-based OOB limits of -76 dBm/MHz and thus advocated a limit of -71 dBm/100 kHz, which is equivalent to -61 dBm/MHz. .

42. As discussed earlier, there has been considerable technological advancement in devices and technologies deployed in the mobile broadband industry since this issue was last under review. We note that many of the arguments for proposed OOB limits were linked to industry standards at the time. The 3GPP standard for emerging 4G technology allows for a higher level of OOB, generally -50 dBm/MHz in most bands, but has implemented a limit of -40 dBm/MHz in several bands. The current LTE standards for the use in PCS requires mobiles in 1850-1915 MHz to meet a limit of -50 dBm/MHz in 1930-1995 MHz. In this and the concurrent AWS-4 proceeding, Sprint has expressed support for an OOB limit of -40 dBm/MHz from AWS-4 transmitters into the PCS downlink band at 1930-1995 MHz. In the AWS-4 Report and Order we apply the limit of $70 + 10 \log_{10}(P)$ dB, which is equivalent to -40 dBm/MHz, to all emissions below 2000 MHz. We believe that the current capabilities for mobile device manufacturers will support this level of tolerance for interference. Given that other operations may already be imposing out-of-band emissions at the -40 dBm/MHz level, should the Commission adopt this limit specifically for Lower H Block emissions in the 1930-1995 MHz range?

43. The consensus from the record developed in WT Docket No. 04-356 supports the creation of a specific OOB limit for emissions from Lower H Block transmitters into the 1930-1995 MHz band, even though no other PCS mobiles are subject to such tighter limits in this band. We seek

comment on the appropriate OOB limit for the Lower H Block necessary to prevent interference to PCS operations. Commenters are asked to submit detailed technical analyses or studies in support of their recommendations and are encouraged to provide test data wherever possible. As with comments regarding power limits, the assumptions that underpin the analyses should identify how harmful interference is defined. What probability of interference is deemed acceptable (what percentage of mobiles, what percentage of locations)? For example, the Commission's earlier proposal was based on a mobile separation of two meters between users, while others argued for a one-meter separation. Commenters should also discuss if certain limits favor or prohibit certain technologies, and are therefore not technologically neutral. For example, would imposing a limit of -76 dBm/MHz favor CDMA2000 over LTE, because CDMA2000 specifies -76 dBm/MHz for this band, while LTE specifies only -50 dBm/MHz? If stricter limitations on OOB are deemed necessary to protect current legacy devices, should these limits sunset after a period of time, allowing time for new, more resilient mobiles to comprise the bulk of the mobile population? How much time will licensees need to obtain and deploy UEs with the better filters? How long will consumers' legacy UEs need to be protected? We also seek comment on the costs and benefits of alternative OOB limits.

44. To fully define an emissions limit, the Commission's rules generally specify details on how to measure the power of the emissions, such as the measurement bandwidth. For the Broadband PCS band, the measurement bandwidth used to determine compliance with this limit for mobile stations is one MHz or greater, with some modification in the one-MHz bands immediately outside and adjacent to the frequency block where a resolution bandwidth of at least one percent of the emission bandwidth of the fundamental emission of the transmitter may be employed. We believe that it is reasonable to apply this same procedure to transmissions in the 1915-1920 MHz band.

3. Canadian and Mexican Coordination.

45. Section 27.57(c) of our rules provides that AWS-1 operations are subject to international agreements with Mexico and Canada. We propose to use this approach for the H Block. Until such time as any adjusted agreements between the United States, Mexico and/or Canada can be agreed to,

operations must not cause harmful interference across the border, consistent with the terms of the agreements currently in force. We note that our proposed rules, and any rules that may ultimately become effective pursuant to the above-captioned proceeding, may need to be modified to comply with any future agreements with Canada and Mexico regarding the use of the H Block. We seek comment on this issue, including the costs and benefits, and on any alternative approaches to this issue.

4. Other Technical Issues.

46. Part 27 contains several additional technical rules applicable to all part 27 services, including § 27.51 (Equipment authorization), § 27.52 (RF safety), § 27.54 (Frequency stability), § 27.56 (Antennas structures; air navigation safety), and § 27.63 (Disturbance of AM broadcast station antenna patterns). As we are proposing to license the H Block as Advanced Wireless Services under part 27, we propose that all of these part 27 technical rules should apply to all H Block licenses and licensees, including licensees who acquire their licenses through partitioning or disaggregation. We seek comment on this approach including comments on the associated costs and benefits.

47. We recognize that H Block, governed under part 27 rules, is adjacent to Broadband PCS spectrum administered under part 24. The adjacent blocks are harmonized with the same uplink/downlink configuration. It is possible that the licensee of a PCS G Block geographic area may also acquire the authorization for the adjoining H Block through the competitive bidding process. In that event, the licensee may wish to deploy a wider channel bandwidth operating across both bands, and we believe that such flexibility is appropriate. For one thing, wider channel bandwidths may provide higher data rates and potentially more efficient use of the spectrum. The potential for this situation raises questions about the possible effects of the combined blocks operating under different rule parts. Under the technical rules proposed herein, the limits on OOB and power are similar, but not precisely the same. We anticipate that the licensee's combined operations should satisfy the more restrictive limit if a conflict arises. For example, an OOB limit of $43 + 10 \log_{10}(P)$ dB applies to both the Upper G Block and the Upper H block. However, the Upper H Block has an additional requirement to meet an OOB limit of $70 + 10 \log_{10}(P)$ dB above 2005 MHz. The combined operations of both blocks would still need to meet this

tighter restriction above 2005 MHz. We further propose that to the extent a service provider establishes unified operations across the adjacent blocks, the operator may choose not to observe emission limits strictly between its adjacent block licenses in a geographic area, so long as it complies with other Commission rules and is not adversely affecting the operations of other parties by virtue of exceeding the emission limit. We seek comment on this observation. We also seek comment to identify potential conflicts between the two rule parts under this scenario and proposals on how they could be reconciled. Commenters should discuss and quantify any costs and benefits associated with such combined operations and any effects on competition, innovation and investment.

D. Cost Sharing

1. 1915-1920 MHz Band.

48. The 1915-1920 MHz band is a subset of a larger band at 1910-1930 MHz that is allocated for Fixed and Mobile services on a primary basis. In 1993, the Commission designated the 1910-1930 MHz band for use by Unlicensed Personal Communications Service (UPCS) devices. Prior to 1993, the 1910-1930 MHz band was allocated for Fixed services and used for fixed point to point microwave links. To facilitate the introduction of UPCS systems, the Commission designated the Unlicensed PCS Ad Hoc Committee for 2 GHz Microwave Transition and Management (now known as “UTAM, Inc.”) as the sole entity to coordinate and manage the transition. In accordance with the Commission’s policies established in the Emerging Technologies proceeding, UTAM subsequently relocated virtually all of the incumbent microwave links, thereby clearing the 1910-1930 MHz band for use by UPCS systems.

49. In 2003, the Commission sought comment on re-designating all or a portion of the 1910-1920 MHz segment for AWS use. In 2004, the Commission re-designated the 1910-1915 MHz band from the UPCS to Fixed and Mobile services and assigned that spectrum to Sprint Nextel, Inc. (“Sprint”) as replacement spectrum for Sprint’s operations being relocated from the 800 MHz band. Shortly thereafter, the Commission re-designated the 1915-1920 MHz band from UPCS for use by licensed AWS operations. In so doing, the Commission acknowledged that “UTAM must be fully and fairly reimbursed for relocating incumbent microwave users in this band” and agreed “that UTAM should be made whole

for the investments it has made in clearing the UPCS bands.” Relative to the Lower H Block, the Commission specifically concluded that “UTAM is entitled to reimbursement of twenty-five percent—on a pro-rata basis—of the total costs it has incurred, including its future payment obligations for links it has relocated, as of the date that a new entrant gains access to the 1915-1920 MHz spectrum band.” The Commission also determined that AWS licensees would be required to pay their portion of the 25 percent of costs prior to commencement of their operations.

50. In the AWS-2 NPRM, the Commission requested comments on methods for apportioning the relocation costs among H Block licensees, including what method of allocating relocation costs would be most advantageous to reimbursing UTAM and for providing certainty for bidders. The AWS-2 NPRM also sought comment on what rules should govern the allocation of relocation costs among multiple AWS licensees in the 1915-1920 MHz band. Because UTAM requested that reimbursement payments from AWS licensees be due as a precondition to the granting of a license, the Commission sought comment on whether it would be advantageous to require AWS licensees to reimburse UTAM for its band clearing costs “earlier than the commencement of actual service.” To the extent that the Commission opted not to do so, the Commission also sought comment on whether it should specify when AWS entrants will be considered to have commenced operations.

51. In deciding how to apportion UTAM’s reimbursement among H Block licensees in the 1915-1920 MHz band, we believe it is important to provide auction bidders with reasonable certainty as to the range of the reimbursement obligation associated with each license under various auction outcomes. We also believe it is important for UTAM to be fully reimbursed as soon as possible given that UTAM cleared the band over ten years ago. Accordingly, we propose to require H Block licensees to pay a pro rata amount of the 25 percent owed to UTAM based on the gross winning bids of the initial H Block auction. Specifically, we propose that the reimbursement amount owed (“RN”) be determined by dividing the gross winning bid (“GWB”) for an H Block license (i.e., an individual EA) by the sum of the gross winning bids for all H Block licenses won in the initial auction and then multiplying by \$12,629,857. In other words, the cost-sharing formula would read as follows:

$$RN \left(\frac{\text{EA GWB}}{\text{Sum of GWBs}} \right) \times \$12,629,857$$

52. This formula would ensure that UTAM receives full reimbursement after the first auction by effectively apportioning the reimbursement costs associated with any unsold H Block licenses among the winning bidders of H Block licenses in the first auction—with an exception in the event a successful bidder’s long-form application is not filed or granted, and a contingency to cover an unlikely scenario. We further propose that winning bidders of H Block licenses in the first auction of this spectrum would not have a right to seek reimbursement from other H Block licensees including for licenses awarded in subsequent auctions. We believe this approach would avoid recordkeeping burdens and potential disputes and that it is appropriate given that—in the event that most licenses are awarded—the reimbursement obligation for an individual license will represent but a fraction of overall reimbursement to UTAM. We seek comment on our proposals including the following contingency: in the unlikely event that licenses covering less than 40 percent of the population of the United States are awarded in the first auction, we propose that winning bidders—in the first auction of this spectrum as well as in subsequent auctions—will be required to timely pay UTAM their pro rata share calculated by dividing the population of the individual EA awarded at auction by the total U.S. population and then multiplying by \$12,629,857. This contingent proposal would ensure that UTAM is reimbursed as soon as possible while also protecting winning bidders of H Block licenses from bearing an undue burden of the reimbursement obligation due to UTAM. We seek comment on our proposal.

53. Alternatively, we specifically seek comment on the relative costs and benefits of adopting a population based cost-sharing formula as the general rule for the H Block. We acknowledge that using a population based approach in all events would offer bidders certainty as to the obligation attached to each license but this approach could also defer UTAM’s full reimbursement indefinitely if less than all of the licenses are awarded during the initial auction.

54. We further propose that winning bidders promptly pay UTAM the amount owed, as calculated pursuant to the formula that we adopt, within 30 days of grant of their long form applications for the licenses. For PCS and AWS-1, and AWS-4, cost sharing obligations are triggered when a licensee proposes to operate a base station in an area cleared of incumbents by another licensee. In this case, however, UTAM's members received no benefit for clearing the Lower H Block nationwide over ten years ago, and the Commission determined in 2003 that the new PCS/AWS licensees entering the band would reap the benefits of UTAM's efforts and that UTAM should be fully reimbursed. Moreover, as noted above, given the relative fraction of overall reimbursement to UTAM that will be owed by each winning bidder, we believe that it will not disincentivize parties from filing applications or impose a burden on winning bidders to reimburse UTAM within 30 days of the grant of their long-form applications. We seek comment on the above proposals, including the costs and benefits.

2. 1995-2000 MHz Band.

55. The 1995-2000 MHz band is part of the 1990-2025 MHz band that the Commission reallocated from the Broadcast Auxiliary Service (BAS) to emerging technologies such as PCS, AWS, and MSS. Consistent with the relocation principles established by the Commission, each new entrant had an independent responsibility to relocate incumbent BAS licensees. In addition, as a general rule, the Commission's traditional cost-sharing principles are applicable to the 1990-2025 MHz band. Sprint, which is the PCS licensee at 1990-1995 MHz, completed the BAS transition for the entire 35 megahertz in 2010. In 2011, Sprint notified the Commission that it entered in a private settlement with DISH to resolve the dispute with MSS licensees with respect to MSS licensees' obligation to reimburse Sprint for their share of the BAS relocation costs. Accordingly, the only remaining cost-sharing obligations in the 1990-2025 MHz band are attributable to the remaining, unassigned ten megahertz of spectrum in the 1990-2025 MHz band: 1995-2000 MHz and 2020-2025 MHz.

56. In the AWS Sixth Report and Order, the Commission determined that all new entrants to the 1990-2025 MHz band may be required to bear a proportional share of the costs incurred in the BAS clearance, on a pro rata basis according to the amount of spectrum each licensee is assigned. However,

the Commission did not decide specifically how to allocate that share. In the AWS-2 NPRM, the Commission sought comment on how the reimbursement rights and obligations of each AWS licensee could be most efficiently and equitably allocated if the H Block were licensed on a geographic area basis other than as a nationwide license. To the extent that not all spectrum in the 1990-2025 MHz band would have been licensed, the Commission sought comment on whether to require those entrants who are licensed at that time to bear a pro rata share of the relocation costs based on the amount of spectrum they have been assigned relative to the amount of 1990-2025 MHz spectrum that has been licensed. In addition, the Commission also sought comment on whether to impose reimbursement obligations on later arriving new entrants, on the appropriate length of such an obligation, and on the mechanism for applying those obligations.

57. Consistent with the Commission's intent that all entrants to the 1990-2025 MHz band bear a proportional share of the costs incurred in the BAS clearance on a pro rata basis according to the amount of spectrum each entrant is assigned, H Block licensees will be responsible for reimbursing Sprint for one-seventh of the BAS relocation costs (i.e., the proportional share of the costs associated with Sprint relocating 5 megahertz of BAS spectrum that will be used by H Block entrants). We believe it is important to provide auction bidders with reasonable certainty as to the range of the reimbursement obligation associated with each license under various auction outcomes. We also believe it is important for Sprint to be fully reimbursed as soon as possible given that Sprint cleared the H Block so H Block licensees will receive unencumbered spectrum. Accordingly, we propose to require H Block licensees to reimburse Sprint based on the gross winning bids of the initial H Block auction. Specifically, we propose that the reimbursement amount owed ("RN") be determined by dividing the gross winning bid ("GWB") for an H Block license (i.e., an individual EA) by the sum of the gross winning bids for all H Block licenses won in the initial auction and then multiplying by \$94,875,516. In other words, the cost-sharing formula would read as follows:

$$RN \left(\frac{\text{EA GWB}}{\text{Sum of GWBs}} \right) \times \$94,875,516$$

Because certain EAs, such as for the Gulf of Mexico, have a relative value that is not directly tied to population, our proposal seeks to allow the market to determine the value of each EA license and the associated amount of the reimbursement obligation. However, parties can comment on alternative cost-sharing formulas, including one based on population as described below. We seek comment on our proposals.

58. This formula would ensure that Sprint receives full reimbursement after the first auction by effectively apportioning the reimbursement costs associated with any unsold H Block licenses among the winning bidders of H Block licenses in the first auction—with an exception in the event a successful bidder’s long-form application is not filed or granted, and a contingency to cover an unlikely scenario. We further propose that winning bidders of H Block licenses in the first auction of this spectrum would not have a right to seek reimbursement from other H Block licensees including for licenses awarded in subsequent auctions. We believe this approach would avoid recordkeeping burdens and potential disputes and that it is appropriate given that—in the event that most licenses are awarded—the reimbursement obligation for an individual license will represent but a fraction of overall reimbursement to Sprint. We seek comment on our proposals including the following contingency: in the unlikely event that licenses covering less than 40 percent of the population of the United States are awarded in the first auction, we propose that winning bidders—in the first auction of this spectrum as well as in subsequent auctions—will be required to timely pay Sprint their pro rata share calculated by dividing the population of the individual EA awarded at auction by the total U.S. population and then multiplying by \$94,875,516. This contingent proposal would ensure that Sprint is reimbursed as soon as possible while also protecting winning bidders of H Block licenses from bearing an undue burden of the reimbursement obligation due to Sprint. We seek comment on our proposal.

59. Alternatively, we specifically seek comment on the relative costs and benefits of adopting a population based cost-sharing formula as the general rule for the H Block. We acknowledge that using a population based approach in all events would offer bidders certainty as to the obligation attached to each license but this approach could also defer Sprint's full reimbursement indefinitely if less than all of the licenses are awarded during the initial auction.

60. We further propose that winning bidders promptly pay Sprint the amount owed, as calculated pursuant to the formula that we adopt, within 30 days of grant of their long form applications for the licenses. For PCS and AWS-1, and AWS-4, cost sharing obligations are triggered when a licensee proposes to operate a base station in an area cleared of incumbents by another licensee. In this case, rather than Sprint itself benefiting from its band clearing efforts, other entrants in the band will reap the benefits of Sprint's efforts. Accordingly, we find no significant reason to treat Sprint any differently than UTAM and propose that Sprint be fully reimbursed by AWS licensees that will benefit from Sprint's clearing of the H Block. Moreover, as noted above, given the relative fraction of overall reimbursement to Sprint that will be owed by each winning bidder, we believe that it will not disincentivize parties from filing applications or impose a burden on winning bidders to reimburse Sprint within 30 days of the grant of their long-form applications. We seek comment on the above proposals, including the costs and benefits.

61. Consistent with precedent, we propose a specific date on which the reimbursement obligation adopted above will terminate. In recent instances, the relocation and cost-sharing obligations sunset ten years after the first ET license is issued in the respective band. To the extent that Sprint had not completed the relocation of BAS from the 1990-2025 MHz band, BAS operations in the band would have become secondary after December 9, 2013. However, in this instance, we do not believe that the public interest would be served by adopting December 9, 2013 as the sunset date for terminating the requirement that H Block licensees collectively reimburse Sprint for one-seventh of the BAS relocation costs. Rather, we propose a sunset date for the cost-sharing obligations of H Block licensees to Sprint that is ten years after the first H Block license is issued in the band. We find that a number of factors support

our proposal. As discussed above, Sprint relocated BAS incumbents from the 1995-2000 MHz band, even though H Block licensees and not Sprint itself will reap the benefits of Sprint's relocation of BAS. In addition, the integrated nature of BAS operations required relocations on a market-by-market basis, and such a requirement would have imposed significant costs on individual H Block entrants because isolated, link-by-link relocation was infeasible. It therefore served the public interest for Sprint to undertake the relocation on an integrated, nationwide basis. Because H Block licenses have yet to be auctioned and because interested applicants will be able to calculate their reimbursement obligation to Sprint in bidding on licenses, we do not believe that our proposal imposes a burden on the winning bidders of H Block licenses. We seek comment on our proposed sunset date, including the costs and benefits.

E. Regulatory Issues; Licensing and Operating Rules

62. We are proposing licensing and operating rules that will provide H Block licensees with the flexibility to provide any fixed or mobile service that is consistent with the allocations for this spectrum. Specifically, we are seeking comment on the appropriate license term, criteria for renewal, and other licensing and operating rules pertaining to the H Block. In addition, we seek comment on the potential impact of all of our proposals on competition. In addressing these issues, commenters should discuss the costs and benefits associated with these proposals and any alternative that commenters propose.

1. Regulatory Status.

63. We propose to apply the regulatory status provisions of § 27.10 of the Commission's rules to licensees in the H Block. The Commission's current mobile service license application requires an applicant for mobile services to identify the regulatory status of the service(s) it intends to provide because service offerings may bear on eligibility and other statutory and regulatory requirements. Under part 27, the Commission permits applicants who may wish to provide both common carrier and non-common carrier services (or to switch between them) under a single license to request status as both a common carrier and a non-common carrier. Thus, a part 27 applicant is not required to choose between

providing common carrier and non-common carrier services. We propose to adopt this same approach here. Licensees in the H Block would be able to provide all allowable services anywhere within their licensed area at any time, consistent with their regulatory status. We believe that this approach is likely to achieve efficiencies in the licensing and administrative process, and provide flexibility to the marketplace. We seek comment on the appropriate licensing approach and ask that commenters discuss the costs and benefits of their proposed licensing approach.

64. We further propose that applicants and licensees in the H Block be required to indicate a regulatory status for any services they choose to provide. Apart from this designation of regulatory status, we do not propose to require applicants to describe the services they seek to provide. We caution potential applicants that an election to provide service on a common carrier basis typically requires that the elements of common carriage be present; otherwise the applicant must choose non-common carrier status. If potential applicants are unsure of the nature of their services and their classification as common carrier services, they may submit a petition with their applications, or at any time, requesting clarification and including service descriptions for that purpose. We propose to apply this framework to H Block licensees and seek comment on this proposal, including the costs and benefits of this proposal.

65. We also propose that if a licensee were to change the service or services it offers such that it would be inconsistent with its regulatory status, the licensee must notify the Commission. A change in a licensee's regulatory status would not require prior Commission authorization, provided the licensee was in compliance with the foreign ownership requirements of section 310(b) of the Communications Act that would apply as a result of the change, consistent with the Commission's rules for AWS-1 spectrum. Consistent with our part 27 rules, we propose to require licensees to file the notification within 30 days of a change made without the need for prior Commission approval, except that a different time period may apply where the change results in the discontinuance, reduction, or impairment of the existing service. We seek comment on this proposal, including the costs and benefits.

2. Ownership Restrictions.

a. Foreign Ownership Reporting:

66. We propose to apply the provisions of § 27.12 of the Commission's rules to applicants for licenses in the H Block. Section 27.12 implements section 310 of the Communications Act, including foreign ownership and citizenship requirements that restrict the issuance of licenses to certain applicants. An applicant requesting authorization to provide services in this band other than broadcast, common carrier, aeronautical en route, and aeronautical fixed services would be subject to the restrictions in section 310(a), but not to the additional restrictions in section 310(b). An applicant requesting authorization for broadcast, common carrier, aeronautical en route, or aeronautical fixed services would be subject to both sections 310(a) and 310(b). We do not believe that applicants for this band should be subject to different obligations in reporting their foreign ownership based on the type of service authorization requested in the application. Consequently, we propose to require all applicants to provide the same foreign ownership information, which covers both sections 310(a) and 310(b), regardless of which service they propose to provide in the band. We note, however, that we would be unlikely to deny a license to an applicant requesting to provide exclusively services that are not subject to section 310(b), solely because its foreign ownership would disqualify it from receiving a license if the applicant had applied for authority to provide such services. However, if any such licensee later desires to provide any services that are subject to the restrictions in section 310(b) we would require the licensee to apply to the Commission for an amended license, and we would consider issues related to foreign ownership at that time. We request comment on this proposal, including any costs and benefits.

b. Eligibility and Mobile Spectrum Holding Policies.

67. We propose to adopt an open eligibility standard for the H Block. We believe that adopting such a standard should encourage efforts to develop new technologies, products and services, while helping to ensure efficient use of this spectrum. An open eligibility standard is consistent with the Commission's past practice for mobile wireless spectrum allocations, as well as with section 6404 of the Spectrum Act. We seek comment on our open eligibility approach.

68. We note that an open eligibility approach would not affect citizenship, character, or other generally applicable qualifications that may apply under our rules. Additionally, section 6004 of the Spectrum Act restricts participation in auctions required under the Spectrum Act, which includes the H Block, by “person[s] who [have] been, for reasons of national security, barred by any agency of the Federal Government from bidding on a contract, participating in an auction, or receiving a grant.” We seek comment on our proposal to address this issue in the competitive bidding procedures section below. Further, as the Commission observed in the Incentive Auction NPRM, Expanding the Economic and Innovation Opportunities of Spectrum Through Incentive Auctions, 77 FR 69934 (Nov. 21, 2012) (Incentive Auction NPRM), section 6004 does not address eligibility to acquire licenses on the secondary market from the initial or subsequent licensee. We seek comment on whether section 6004 permits or requires the Commission to restrict eligibility of the persons described therein to acquire licenses in the secondary market, and whether and to what extent such restriction is consistent with other provisions of the Communications Act. If such restrictions should be implemented, should we do so by requiring certifications in applications similar to those required under our rules for enforcement of the Anti-Drug Abuse Act of 1988? Would it be permissible and appropriate to address such situations on a case-by-case basis in light of the specific facts and circumstances? Should we apply the same attribution rules in doing so, where the relevant person is not the sole owner of the proposed licensee?

69. We seek comment generally on whether and how to address any mobile spectrum holdings issues involving H Block spectrum in order to meet our statutory requirements and our goals for the H Block. Section 309(j)(3)(B) of the Communications Act provides that in designing systems of competitive bidding, the Commission shall “promot[e] economic opportunity and competition and ensur[e] that new and innovative technologies are readily accessible to the American people by avoiding excessive concentration of licenses.” More recently, section 6404 of the Spectrum Act recognizes the Commission’s authority “to adopt and enforce rules of general applicability, including rules concerning spectrum aggregation that promote competition.” We note that we recently initiated a proceeding to revisit the mobile spectrum holdings policies that apply to both transactions and auctions. In the past, the

Commission has sought comment on these issues with respect to particular spectrum bands prior to auctioning spectrum licenses.

70. We seek comment on whether the acquisition of H Block spectrum should be subject to the same general mobile spectrum holding policies applicable to frequency bands that the Commission has determined to be available and suitable for wireless services. Alternatively, depending on the specific rules and requirements that apply to H Block spectrum, should we distinguish H Block spectrum for purposes of evaluating mobile spectrum holdings? Commenters should discuss and quantify any costs and benefits associated with any proposals on the applicability of spectrum holdings policies to H Block spectrum.

3. License Term, Performance Requirements, Renewal Criteria, Permanent Discontinuance of Operations.

a. License Term:

71. We propose to establish a 10-year term for licenses for the H Block. The Communications Act does not specify a term limit for AWS band licenses. The Commission has adopted 10-year license terms for most wireless radio services licenses. To maintain this consistency among wireless services, in the AWS-2 NPRM, the Commission proposed that H Block licenses have a term of 10 years. We continue to believe that a 10-year license term is appropriate, and consequently propose, a 10 year license term for the H Block spectrum. We seek comment on this proposal, including any costs and benefits of the proposal. In addition, we invite commenters to submit alternate proposals for the appropriate license term, which should similarly include a discussion on the costs and benefits.

72. Under our license term proposal, if a license in these bands is partitioned or disaggregated, any partitionee or disaggregatee would be authorized to hold its license for the remainder of the partitioner's or disaggregator's original license term. This approach is similar to the partitioning provisions the Commission adopted for BRS, for broadband PCS licensees, for the 700 MHz band licensees, and for AWS-1 licenses at 1710-1755 MHz and 2110-2155 MHz, and AWS-4. We emphasize that nothing in our proposal is intended to enable a licensee, by partitioning or disaggregating the license,

to confer greater rights than it was awarded under the terms of its license grant. Similarly, nothing in our proposal is intended to enable any partitionee or disaggregatee to obtain rights in excess of those previously possessed by the underlying licensee. We seek comment on these proposals, including the cost and benefits thereof.

b. Performance Requirements.

73. The Commission establishes performance requirements to promote the efficient deployment of wireless services, including to rural areas, and ensure that spectrum is used. Over the years, the Commission has applied different performance and construction requirements to different spectrum bands. For example, within four (4) years, an AWS-4 licensee must provide reliable terrestrial signal coverage and offer terrestrial service to at least forty (40) percent of its total AWS-4 population. Within seven (7) years, an AWS-4 licensee must provide reliable terrestrial signal coverage and offer terrestrial service to at least seventy (70) percent of the population in each of its license areas. Similarly, for licensees operating in the 2.3 GHz Wireless Communications Services (WCS) band, the Commission adopted performance requirements that included a population-based construction requirements (40 percent of the license area's population within four (4) years and 75 percent within six -and-a-half (6.5) years) and reporting requirements. In the AWS-2 NPRM, the Commission broadly sought comment on whether it should establish any specific performance requirements in the H Block, including interim performance requirements.

74. Today, we continue to believe that performance requirements play a critical role in ensuring that licensed spectrum does not lie fallow, and now propose to establish the following performance requirements. We seek comment on the following buildout requirements for the H Block:

- H Block Interim Buildout Requirement: Within four (4) years, an H Block licensee shall provide signal coverage and offer service to at least forty (40) percent of the population in each of its license areas.

- H Block Final Buildout Requirement: By the end of the license term, i.e., within ten (10) years, an H Block licensee shall provide signal coverage and offer service to at least seventy (70) percent of the population in each of its license areas.

75. We propose these performance requirements in an effort to foster deployment expeditiously in the H Block for the provision of wireless, terrestrial broadband service, and to enable the Commission to take appropriate corrective action should such deployment fail to occur. Specifically, the interim benchmark at four years would ensure that a licensee begins deploying facilities quickly, thereby evidencing meaningful utilization of the spectrum. At the same time, by proposing a relatively low population threshold in the interim benchmark, we acknowledge that large-scale network deployment may ramp up over time as equipment becomes available and a customer base is established. In addition, by proposing a final buildout requirement timeline of ten years, we believe we allow a reasonable amount of time for any H Block licensee to attain nationwide scale.

76. We seek comment on these proposed buildout requirements. We encourage comment on whether our proposals represent the appropriate balance between requirements that are too low as to not result in meaningful buildout and those that would be so high as to be unattainable. We also seek comment on whether other benchmarks represent more appropriate requirements? Commenters should discuss and quantify how any supported buildout requirements will affect investment and innovation as well as discuss and quantify other costs and benefits associated with the proposal.

77. Agreements between H Block and AWS-4 licensees. In the AWS-4 Report and Order, we permit AWS-4 licensees to enter into private operator-to-operator agreements with all 1995-2000 MHz licensees so that AWS-4 operations above 2000 MHz may have an OOB level in excess of $70 + 10 \log_{10}(P)$ dB into the 1995-2000 MHz band. In the event that an AWS-4 licensee reaches such an agreement with all 1995-2000 MHz licensees, should the H Block licensees' performance requirements be reduced or eliminated because accepting a higher OOB level increases the use of the 2000-2005 MHz band? Implementing such an approach would enable a market-based solution for AWS-4 licensees who

seek to remove technical rules designed to protect the H Block, by allowing them to acquire H Block licenses at auction (or, later, on the secondary market) and prioritize deployment of AWS-4 over H Block.

78. Penalties for Failure to Meet Construction Requirements. Along with construction benchmarks, we seek to adopt meaningful and enforceable consequences, or penalties, for failing to meet the benchmarks. Building on what we have learned from other bands and considering the unique characteristics of the H Block, we propose and seek comment, including on the costs and benefits, of the following penalties in the event an H Block licensee fails to satisfy its buildout requirements:

- In the event an H Block licensee fails to meet the H Block Interim Buildout Requirement in its license area, the term of the license shall be reduced by two years.
- In the event an H Block licensee fails to meet the H Block Final Buildout Requirement in its license area, the H Block license for each license area in which it fails to meet the buildout requirement shall terminate automatically without Commission action.

79. We further propose that, in the event a licensee's authority to operate terminates, the licensee's spectrum rights would become available for reassignment pursuant to the competitive bidding provisions of section 309(j). Further, consistent with the Commission's rules for other spectrum bands, including AWS-1 and the Broadband Radio Service, we propose that any H Block licensee who forfeits its license for failure to meet its performance requirements would be precluded from regaining the license.

80. Compliance Procedures. Consistent with § 1.946(d) of the Commission's rules, we propose to require H Block licensees to demonstrate compliance with the performance requirements by filing a construction notification within 15 days of the relevant milestone certifying that they have met the applicable performance benchmark. Further, we propose that each construction notification include electronic coverage maps and supporting documentation, which must be truthful and accurate and must not omit material information that is necessary for the Commission to determine compliance with its performance requirements.

81. Electronic coverage maps must accurately depict the boundaries of each license area in the licensee's service territory. If a licensee does not provide reliable signal coverage to an entire license

area, we propose that its map must accurately depict the boundaries of the area or areas within each license area not being served. Further, we propose that each licensee also must file supporting documentation certifying the type of service it is providing for each licensed area within its service territory and the type of technology used to provide such service. Supporting documentation must include the assumptions used to create the coverage maps, including the propagation model and the signal strength necessary to provide reliable service with the licensee's technology.

c. Renewal Criteria.

82. Pursuant to section 308(b) of the Communications Act, the Commission may require renewal applicants to “set forth such facts as the Commission by regulation may prescribe as to the citizenship, character, and financial, technical, and other qualifications of the applicant to operate the station” as well as “such other information as it may require.” We propose to adopt H Block license renewal requirements consistent with those adopted in the 700 MHz First Report and Order and the AWS-4 Report and Order, which form the basis of the renewal paradigm proposed in our Wireless Radio Services Renewal NPRM. See Service Rules for the 698-746, 747-762 and 777-792 MHz Bands, 72 FR 24238 (May 2, 2007) (700 MHz First Report and Order); AWS-4 Report and Order; Amendment of parts 1, 22, 24, 27, 74, 80, 90, 95, and 101 To Establish Uniform License Renewal, Discontinuance of Operation, and Geographic Partitioning and Spectrum Disaggregation Rules and Policies for Certain Wireless Radio Services, 75 FR 38959 (July 7, 2010) (WRS Renewal NPRM and Order). We emphasize that, as the Commission made clear in these proceedings, a licensee's performance showing and its renewal showing are two distinct showings. A performance showing provides a snapshot in time of the level of a licensee's service, while a renewal showing provides information regarding the level and types of service provided over the entire license term.

83. We propose that applicants for renewal of H Block licenses file a “renewal showing,” in which they demonstrate that they have provided, and are continuing to provide, service to the public, and that they are compliant with the Communications Act and the Commission's rules and policies. In the 700 MHz First Report and Order, the Commission explained that in the renewal context, the Commission

considers “a variety of factors including the level and quality of service, whether service was ever interrupted or discontinued, whether service has been provided to rural areas, and any other factors associated with a licensee’s level of service to the public.” As we adopted in the AWS-4 Report and Order, we also propose to consider the extent to which service is provided to qualifying tribal lands. We propose that these same factors should be considered when evaluating renewal showings for the H Block and seek comment on this approach. Commenters should discuss and quantify the costs and benefits of this approach.

84. As explained above, today we are proposing that H Block licensees meet four and ten-year performance obligations. We therefore seek comment on whether the public interest would be served by awarding H Block licensees renewal expectancies where they maintain the level of service demonstrated at the ten year performance benchmark through the end of their license term, provided that they have otherwise complied with the Communications Act and the Commission’s rules and policies during their license term. We also seek comment on whether H Block licensees should obtain a renewal expectancy for subsequent license terms, if they continue to provide at least the level of service demonstrated at the ten year performance benchmark through the end of any subsequent license terms. Commenters should discuss and quantify the costs and benefits of this approach.

85. Finally, consistent with the AWS-4 Report and Order, the 700 MHz First Report and Order and the WRS Renewals NPRM and Order, we propose to prohibit the filing of mutually exclusive renewal applications, and that if a license is not renewed, the associated spectrum would be returned to the Commission for reassignment. We seek comment on these proposals, including on the associated costs and benefits.

d. Permanent Discontinuance of Operations.

86. We also request comment on the Commission’s rules governing the permanent discontinuance of operations, which are intended to afford licensees operational flexibility to use their spectrum efficiently while ensuring that spectrum does not lay idle for extended periods. Under § 1.955(a)(3) of the Commission’s rules, an authorization will automatically terminate, without specific

Commission action, if service is “permanently discontinued.” For the H Block, we propose to define “permanently discontinued” as a period of 180 consecutive days during which a licensee does not operate and does not serve at least one subscriber that is not affiliated with, controlled by, or related to the provider. We believe this definition strikes an appropriate balance between our twin goals of providing licensees operational flexibility while ensuring that spectrum does not lie fallow. Licensees would not be subject to this requirement until the date of the first performance requirement benchmark, which is proposed as 4 years from the license grant, so they will have adequate time to construct their network. In addition, consistent with § 1.955(a)(3) of the Commission’s rules, we propose that, if an H Block licensee permanently discontinues service, the licensee must notify the Commission of the discontinuance within 10 days by filing FCC Form 601 or 605 and requesting license cancellation. An authorization will automatically terminate without specific Commission action if service is permanently discontinued even if a licensee fails to file the required form. We seek comment on these proposals, including the associated costs and benefits.

4. Secondary Markets.

a. Partitioning and Disaggregation.

87. The Commission’s part 27 rules generally allow for geographic partitioning and spectrum disaggregation. Geographic partitioning refers to the assignment of geographic portions of a license to another licensee along geopolitical or other boundaries. Spectrum disaggregation refers to the assignment of discrete amounts of spectrum under the license to another entity. Disaggregation allows for multiple transmitters in the same geographic area operated by different companies on adjacent frequencies in the same band. As the Commission noted when first establishing partitioning and disaggregation rules, allowing such flexibility could facilitate the efficient use of spectrum by enabling licensees to make offerings directly responsive to market demands for particular types of services, increasing competition by allowing market entry by new entrants, and expediting provision of services that might not otherwise be provided in the near term.

88. We propose to permit partitioning and disaggregation by licensees in the H Block. To ensure that the public interest would be served if partitioning or disaggregation is allowed, we propose requiring each H Block licensee that is a party to a partitioning, disaggregation or combination of both to independently meet the applicable performance and renewal requirements. We believe this approach would facilitate efficient spectrum use, while enabling service providers to configure geographic area licenses and spectrum blocks to meet their operational needs. We seek comment on these proposals. Commenters should discuss and quantify the costs and benefits of these proposals with respect to competition, innovation, and investment.

89. We also seek comment on whether the Commission should adopt additional or different mechanisms to encourage partitioning and/or disaggregation of H Block spectrum and the extent to which such policies ultimately may promote more service, especially in rural areas. Commenters should discuss and quantify the costs and benefits of promoting more service using mechanisms to encourage partitioning and disaggregation of H Block spectrum, including the effects of the proposal.

b. Spectrum Leasing.

90. In 2003, in order to promote more efficient use of terrestrial wireless spectrum through secondary market transactions, while also eliminating regulatory uncertainty, the Commission adopted a comprehensive set of policies and rules to govern spectrum-leasing arrangements between terrestrial licensees and spectrum lessees. These policies and rules enable terrestrially-based Wireless Radio Service licensees holding “exclusive use” spectrum rights to lease some or all of the spectrum usage rights associated with their licenses to third party spectrum lessees, which then are permitted to provide wireless services consistent with the underlying license authorization. Through these actions, the Commission sought to promote more efficient, innovative, and dynamic use of the terrestrial spectrum, expand the scope of available wireless services and devices, enhance economic opportunities for accessing spectrum, and promote competition among terrestrial wireless service providers. In 2004, the Commission built upon this spectrum leasing framework by establishing immediate approval procedures

for certain categories of terrestrial spectrum leasing arrangements and extending the spectrum leasing policies to additional Wireless Radio Services.

91. We propose that the spectrum leasing policies and rules established in those proceedings be applied to the H Block in the same manner that those policies apply to other part 27 services. We seek comment on this proposal. Commenters should discuss the effects on competition, innovation and investment, and on extending our secondary spectrum leasing policies and rules to the H Block.

5. Other Operating Requirements.

92. Even though licenses in the H Block may be issued pursuant to one rule part, licensees in this band may be required to comply with rules contained in other parts of the Commission's rules by virtue of the particular services they provide. For example:

- Applicants and licensees would be subject to the application filing procedures for the Universal Licensing System, set forth in part 1 of our rules.
- Licensees would be required to comply with the practices and procedures listed in part 1 of our rules for license applications, adjudicatory proceedings, etc.
- Licensees would be required to comply with the Commission's environmental provisions, including § 1.1307.
- Licensees would be required to comply with the antenna structure provisions of part 17 of our rules.
- To the extent a licensee provides a Commercial Mobile Radio Service, such service would be subject to the provisions of part 20 of the Commission's rules, including 911/E911 and hearing aid-compatibility requirements, along with the provisions in the rule part under which the license was issued. Part 20 applies to all CMRS providers, even though the stations may be licensed under other parts of our rules.
- To the extent a licensee provides interconnected VoIP services, the licensee would be subject to the E911 service requirements set forth in part 9 of our rules.

- The application of general provisions of parts 22, 24, 27, or 101 would include rules related to equal employment opportunity, etc.

93. We seek comment on whether we need to modify any of these rules to ensure that H Block licensees are covered under the necessary provisions. We seek comment on applying these rules to the H Block spectrum and specifically on any rules that would be affected by our proposal to apply elements of the framework of these parts, whether separately or in conjunction with other requirements. What are the potential problems that may be associated with the Commission's adoption of any of these potential requirements, and how do they compare to the potential benefits?

6. Facilitating Access to Spectrum and the Provision of Service to Tribal Lands.

94. The Commission currently has under consideration various provisions and policies intended to promote greater use of spectrum over Tribal lands. We propose to extend any rules and policies adopted in that proceeding to any licenses that may be issued through competitive bidding in this proceeding. We seek comment on this proposal, including any costs and benefits.

F. Procedures for Any H Block Licenses Subject to Assignment by Competitive Bidding

95. As discussed above, if we adopt a geographic area licensing scheme for the 1915-1920 MHz and 1995-2000 MHz bands, we will resolve mutually exclusive applications through competitive bidding, consistent with our statutory mandate.

1. Application of Part 1 Competitive Bidding Rules.

96. We propose that the Commission would conduct any auction for H Block licenses in conformity with the general competitive bidding rules set forth in part 1, subpart Q, of the Commission's rules, and substantially consistent with the competitive bidding procedures that have been employed in previous auctions. Specifically, we propose to employ the part 1 rules governing competitive bidding design, designated entity preferences, unjust enrichment, application and payment procedures, reporting requirements, and the prohibition on certain communications between auction applicants. Under this

proposal, such rules would be subject to any modifications that the Commission may adopt for its part 1 general competitive bidding rules in the future. In addition, consistent with our long-standing approach, auction-specific matters such as the competitive bidding design and mechanisms, as well as minimum opening bids and/or reserve prices, would be determined by the Wireless Telecommunications Bureau pursuant to its delegated authority. We seek comment on this approach, including the costs and benefits of this approach. We also seek comment on whether any of our part 1 rules would be inappropriate or should be modified for an auction of licenses in the H Block.

2. Revision to Part 1 Certification Procedures

97. Section 6004 of the Spectrum Act prohibits “a person who has been, for reasons of national security, barred by any agency of the Federal Government from bidding on a contract, participating in an auction, or receiving a grant” from participating in a system of competitive bidding under section 309(j) required to be conducted under Title VI of the Spectrum Act. Accordingly, we propose to require that an auction applicant certify, under penalty of perjury, that it and all of the related individuals and entities required to be disclosed on the short-form application are not such persons. For purposes of this certification, we propose to define “person” as an individual, partnership, association, joint-stock company, trust, or corporation. We also propose to define “reasons of national security” to mean matters relating to the national defense and foreign relations of the United States. Our existing rules also include various certifications that a party must make in any application to participate in competitive bidding. As with other required certifications, failure to include the required certification by the applicable filing deadline would render the application unacceptable for filing, and the application would be dismissed with prejudice. We seek comment on this proposal.

3. Small Business Provisions for Geographic Area Licenses.

98. In authorizing the Commission to use competitive bidding, Congress mandated that the Commission “ensure that small businesses, rural telephone companies, and businesses owned by members of minority groups and women are given the opportunity to participate in the provision of spectrum-based services.” In addition, section 309(j)(3)(B) of the Communications Act provides that, in

establishing eligibility criteria and bidding methodologies, the Commission shall promote “economic opportunity and competition . . . by avoiding excessive concentration of licenses and by disseminating licenses among a wide variety of applicants, including small businesses, rural telephone companies, and businesses owned by members of minority groups and women.” One of the principal means by which the Commission fulfills this mandate is through the award of bidding credits to small businesses.

99. The Commission has previously stated that it would define eligibility requirements for small businesses on a service-specific basis, taking into account the capital requirements and other characteristics of each particular service in establishing the appropriate threshold. Further, the Commission, while standardizing many auction rules, has determined that it would continue a service-by-service approach to defining small businesses.

100. In the event that the Commission assigns exclusive geographic area licenses for the H Block, we believe that this spectrum would be employed for purposes similar to those for which the AWS-1 band is used. We therefore propose to establish the same small business size standards and associated bidding credits for the H Block as the Commission adopted for the AWS-1 band. We note that these small business size standards and associated bidding credits were proposed for the AWS-1 band because of the similarities between the AWS-1 service and the broadband PCS service and the Commission followed this approach when proposing small business size standards and associated bidding credits in the AWS 2 NPRM. Thus, we propose to define a small business as an entity with average gross revenues for the preceding three years not exceeding \$40 million, and a very small business as an entity with average gross revenues for the preceding three years not exceeding \$15 million. We seek comment on this proposal, including the costs and benefits of the proposal.

101. We propose to provide small businesses with a bidding credit of 15 percent and very small businesses with a bidding credit of 25 percent, as set forth in the standardized schedule in part 1 of our rules. We seek comment on the use of these standards and associated bidding credits, with particular focus on the appropriate definitions of small businesses and very small businesses as they may relate to the size of the geographic area to be served and the spectrum allocated to each license. Commenters

should discuss and quantify any costs or benefits associated with these standards and associated bidding credits as they relate to the proposed geographic areas. In discussing these issues, commenters are requested to address and quantify the expected capital requirements for services in these bands and other characteristics of the service. Commenters are also invited to use comparisons with other services for which the Commission has already established auction procedures as a basis for their comments and any quantification of costs and benefits regarding the appropriate small business size standards.

102. In establishing the criteria for small business bidding credits, we acknowledge the difficulty in accurately predicting the market forces that will exist at the time these frequencies are licensed. Thus, our forecasts of types of services that will be offered over these bands may require adjustment depending upon ongoing technological developments and changes in market conditions.

103. We seek comment on whether the small business provisions we propose today are sufficient to promote participation by businesses owned by minorities and women, as well as rural telephone companies. To the extent that commenters propose additional provisions to ensure participation by minority-owned or women-owned businesses, they should address how such provisions should be crafted to meet the relevant standards of judicial review.

104. In addition, we note that under our part 1 rules, a winning bidder for a market will be eligible to receive a bidding credit for serving a qualifying tribal land within that market, provided that it complies with the applicable competitive bidding rules. The Commission currently has under consideration various provisions and policies intended to promote greater use of spectrum over tribal lands. We propose to extend any rules and policies adopted in that proceeding to any H Block licenses that may be assigned through competitive bidding. We seek comment on this proposal.

III. PROCEDURAL MATTERS

A. Ex Parte Presentations

105. The proceedings this Notice of Proposed Rulemaking initiate shall be treated as a “permit-but-disclose” proceeding in accordance with the Commission’s ex parte rules. Persons making ex parte presentations must file a copy of any written presentation or a memorandum summarizing any

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

B. Initial Regulatory Flexibility Analysis

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

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

107. Wireless broadband is a key component of economic growth, job creation and global competitiveness because consumers are increasingly using wireless broadband services to assist them in their everyday lives. The explosive growth of wireless broadband services has created increased demand for wireless spectrum, which is expected to continue increasing, despite technological developments that allow for more efficient spectrum use. Unleashing more spectrum for broadband is essential to meeting this demand. In this NPRM, we seek to increase the nation's supply of spectrum for mobile broadband by proposing rules for licensed fixed and mobile services, including advanced wireless services (AWS), in the H Block. These service rules would make available 10 MHz of spectrum for flexible use in accordance with the Spectrum Act, without causing harmful interference to PCS licensees. In proposing terrestrial service rules for the band, which include technical rules to protect against harmful interference, licensing rules to establish geographic license areas and spectrum block sizes, and performance requirements to promote robust buildout, we advance toward enabling rapid and efficient deployment in the band. We do so by proposing service, technical, assignment, and licensing rules for this spectrum that generally follow the Commission's part 27 rules that generally govern flexible use terrestrial wireless service—except that in order to protect PCS licenses, our proposed rules are more stringent in certain respects. Overall, these proposals are designed to provide for flexible use of this spectrum by allowing licensees to choose their type of service offerings, to encourage innovation and investment in mobile broadband use in this spectrum, and to provide a stable regulatory environment in which broadband deployment would be able to develop through the application of standard terrestrial wireless rules. The market-oriented licensing framework for these bands would ensure that this spectrum is efficiently utilized and will foster the development of new and innovative technologies and services, as well as encourage the growth and development of broadband services, ultimately leading to greater benefits to consumers.

D. Legal Basis

108. The proposed action is authorized pursuant to sections 1, 2, 4(i), 201, 301, 302, 303, 307, 308, 309, 310, 316, 319, 324, 332, 333, 1404, and 1451 of the Communications Act of 1934, as amended, 47 U.S.C. 151, 152, 154(i), 201, 301, 302, 303, 307, 308, 309, 310, 316, 319, 324, 332, 333, 1404, and 1451.

E. Description and Estimate of the Number of Small Entities To Which the Proposed Rules Will Apply

109. The RFA directs agencies to provide a description of, and, where feasible, an estimate of the number of small entities that may be affected by the proposed rules and policies, if adopted. 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 SBA.

110. Small Businesses, Small Organizations, and Small Governmental Jurisdictions. Our action may, over time, affect small entities that are not easily categorized at present. We therefore describe here, at the outset, three comprehensive, statutory small entity size standards that encompass entities that could be directly affected by the proposals under consideration. As of 2009, small businesses represented 99.9% of the 27.5 million businesses in the United States, according to the SBA. Additionally, a “small organization” is generally “any not-for-profit enterprise which is independently owned and operated and is not dominant in its field.” Nationwide, as of 2007, there were approximately 1,621,315 small organizations. Finally, the term “small governmental jurisdiction” is defined generally as “governments of cities, counties, towns, townships, villages, school districts, or special districts, with a population of less than fifty thousand.” Census Bureau data for 2007 indicate that there were 89,527 governmental jurisdictions in the United States. We estimate that, of this total, as many as 88,761 entities

may qualify as “small governmental jurisdictions.” Thus, we estimate that most governmental jurisdictions are small.

111. Wireless Telecommunications Carriers (except satellite). The NPRM proposes to apply various Commission policies and rules to terrestrial service in the MSS bands. We cannot predict who may in the future become a licensee or lease spectrum for terrestrial use in these bands. In general, any wireless telecommunications provider would be eligible to become an Advanced Wireless Service licensee or lease spectrum from the MSS or AWS licensees. This industry comprises establishments engaged in operating and maintaining switching and transmission facilities to provide communications via the airwaves. Establishments in this industry have spectrum licenses and provide services using that spectrum, such as cellular phone services, paging services, wireless Internet access, and wireless video services. The appropriate size standard under SBA rules is for the category Wireless Telecommunications Carriers. The size standard for that category is that a business is small if it has 1,500 or fewer employees. Under the present and prior categories, the SBA has deemed a wireless business to be small if it has 1,500 or fewer employees. For this category, census data for 2007 show that there were 1,383 firms that operated for the entire year. Of this total, 1,368 firms had employment of 999 or fewer employees and 15 had employment of 1000 employees or more. Similarly, according to Commission data, 413 carriers reported that they were engaged in the provision of wireless telephony, including cellular service, Personal Communications Service (PCS), and Specialized Mobile Radio (SMR) Telephony services. Of these, an estimated 261 have 1,500 or fewer employees and 152 have more than 1,500 employees. Consequently, the Commission estimates that approximately half or more of these firms can be considered small. Thus, using available data, we estimate that the majority of wireless firms can be considered small.

F. Description of Projected Reporting, Recordkeeping, and other Compliance Requirements

112. This NPRM contains new 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 projected reporting, recordkeeping, and other compliance requirements resulting from the NPRM will apply to all entities in the same manner. The Commission believes that applying the same rules equally to all entities in this context promotes fairness. The Commission does not believe that the costs and/or administrative burdens associated with the rules will unduly burden small entities. The revisions the Commission adopts should benefit small entities by giving them more information, more flexibility, and more options for gaining access to valuable wireless spectrum.

113. OMB, the general public, and other Federal agencies are invited to comment on the new or modified information collection requirements contained in this proceeding. 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 seek specific comment on how the Commission might further reduce the information collection burden for small business concerns with fewer than 25 employees.

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

114. The RFA requires an agency to describe any significant, specifically small business, 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 and reporting requirements under the rule for such small entities; (3) the use of performance rather than design standards; and (4) an exemption from coverage of the rule, or any part thereof, for such small entities.”

115. The proposal to license the H Block under Economic Areas (EA) geographic size licenses will provide regulatory parity with other AWS bands that are licensed on an EA basis, such as AWS-1 licenses. Additionally, assigning H Block in EA geographic areas would allow H Block licensees to make adjustments to suit their individual needs. EA license areas are small enough to provide spectrum access opportunities for smaller carriers. EA license areas also nest within and may be aggregated up to

larger license areas. Depending on the licensing mechanism we adopt, licensees may adjust their geographic coverage through auction or through secondary markets. This proposal should enable H Block providers, or any entities, whether large or small, providing service in other AWS bands to more easily adjust their spectrum to build their networks pursuant to individual business plans.

116. The technical rules of the NPRM will protect entities operating in nearby spectrum bands from harmful interference, which may include small entities. These technical rules are based on the rules for AWS-1 spectrum, with specific additions or modifications designed to protect broadband PCS services operating in the 1930-1995 MHz band, as well as future services operating in the 2020-2025 MHz band.

117. The NPRM proposal pertaining to how the H Block licenses will be assigned includes proposals to assist small entities in competitive bidding. Specifically, small entities will benefit from the proposal to provide small businesses with a bidding credit of 15 percent and very small businesses with a bidding credit of 25 percent. Providing small businesses and very small businesses with bidding credits will provide an economic benefit to small entities by making it easier for small entities to acquire spectrum or access to spectrum in these bands.

118. The NPRM also proposes to provide H Block licensees with the flexibility to provide any fixed or mobile service that is consistent with the allocations for this spectrum, which is consistent with other spectrum allocated or designated for licensed fixed and mobile services, e.g., AWS-1. The NPRM further proposes to generally license this spectrum under the Commission's market-oriented part 27 rules, except that certain restrictions would apply. These proposals include applying the Commission's secondary market policies and rules to all transactions involving the use of H Block bands for terrestrial services, which will provide greater predictability and regulatory parity with bands licensed for terrestrial mobile broadband service. This proposal should make it easier for H Block providers to enter secondary market arrangements involving terrestrial use of their spectrum. The secondary market rules apply equally to all entities, whether small or large. As a result, we believe that this proposal will provide an

economic benefit to small entities by making it easier for entities, whether large or small, to enter into secondary market arrangements for H Block spectrum

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

119. None.

IV. ORDERING CLAUSES

120. Accordingly, it is ordered, pursuant to sections 1, 2, 4(i), 201, 301, 302, 303, 307, 308, 309, 310, 316, 319, 324, 332, 333, 1404, and 1451 of the Communications Act of 1934, as amended, 47 U.S.C. 151, 152, 154(i), 201, 301, 302, 303, 307, 308, 309, 310, 316, 319, 324, 332, 333, 1404, and 1451, that this Notice of Proposed Rulemaking is hereby adopted.

121. It is further ordered that notice is hereby given of the proposed regulatory changes described in this notice and that comment is sought on these proposals.

122. It is further ordered that the Initial Regulatory Flexibility Analysis is adopted.

123. It is further ordered that the Commission's Consumer and Governmental Affairs Bureau, Reference Information Center, shall send a copy of this Notice, including the Initial Regulatory Flexibility Analysis, to the Chief Counsel for Advocacy of the Small Business Administration.

List of Subjects in 47 CFR Parts 1 and 27

Communications common carriers, Radio.

FEDERAL COMMUNICATIONS COMMISSION

Marlene H. Dortch,

Secretary.

For the reasons discussed in the preamble, the Federal Communications Commission proposes to amend 47 CFR parts 1 and 27 as follows:

PART 1—PRACTICE AND PROCEDURE

1. The authority citation for part 1 is revised to read as follows:

Authority: 15 U.S.C. 79 et seq.; 47 U.S.C. 151, 154(i), 154(j), 155, 157, 225, 227, 303(r), 309 and 1404.

2. Section 1.949 is amended by adding paragraph (c) to read as follows:

§ 1.949 Application for renewal of license.

(c) Renewal Showing. An applicant for renewal of a geographic-area authorization in the 1915-1920 MHz and 1995-2000 service bands must make a renewal showing, independent of its performance requirements, as a condition of renewal. The showing must include a detailed description of the applicant's provision of service during the entire license period and address:

(1) The level and quality of service provided by the applicant (e.g., the population served, the area served, the number of subscribers, the services offered);

(2) The date service commenced, whether service was ever interrupted, and the duration of any interruption or outage;

(3) The extent to which service is provided to rural areas;

(4) The extent to which service is provided to qualifying tribal land as defined in § 1.2110(f)(3)(i); and

(5) Any other factors associated with the level of service to the public.

3. Section 1.2105 is amended by adding paragraph (a)(2)(xii) to read as follows:

§ 1.2105 Bidding application and certification procedures; prohibition of certain communications.

(a) * * *

(2) * * *

(xii) For auctions required to be conducted under Title VI of the Middle Class Tax Relief and Job Creation Act of 2012 (Pub. L. No. 112-96) the Commission may require certification under penalty of perjury that the applicant and all of the person(s) disclosed under paragraph (a)(2)(ii) of this section are not person(s) who have been, for reasons of national security, barred by any agency of the Federal Government from bidding on a contract, participating in an auction, or receiving a grant. For the purposes of this certification, the term “person” means an individual, partnership, association, joint-stock company, trust, or corporation, and the term “reasons of national security” means matters relating to the national defense and foreign relations of the United States.

* * * * *

PART 27—MISCELLANEOUS WIRELESS COMMUNICATIONS SERVICES

4. The authority citation for part 27 is revised to read as follows:

Authority: 47 U.S.C. 154, 301, 302, 303, 307, 309, 332, 336, 337, and 1451 unless otherwise noted.

5. Section 27.1 is amended by adding paragraph (b)(10) to read as follows:

§ 27.1 Basis and purpose.

(b) ***

(10) 1915-1920 MHz and 1995-2000 MHz.

6. Section 27.4 is amended by revising the definition of “Advanced wireless service (AWS)” to read as follows:

§ 27.4 Terms and definitions.

Advanced wireless service (AWS). A radiocommunication service licensed pursuant to this part for the frequency bands specified in § 27.5(h) or § 27.5(j).

7. Section 27.5 is amended by adding paragraph (j) to read as follows:

§ 27.5 Frequencies.

(j) 1915-1920 MHz and 1995-2000 MHz bands. The paired 1915-1920 MHz and 1995-2000 MHz bands are available for assignment on an Economic Area basis.

8. Section 27.6 is amended by adding paragraph (i) to read as follows:

§ 27.6 Service areas.

(i) 1915-1920 MHz and 1995-2000 MHz bands. AWS service areas for the 1915-1920 MHz and 1995-2000 MHz bands are based on Economic Areas (EAs) as defined in paragraph (a) of this section.

9. Section 27.13 is amended by adding paragraph (i) to read as follows:

§ 27.13 License period.

(i) 1915-1920 MHz and 1995-2000 MHz bands. Authorizations for 1915-1920 MHz and 1995-2000 MHz bands will have a term not to exceed ten years from the date of issuance or renewal.

10. Section 27. 14 is amended by revising the first sentence of paragraphs (a), (f), and (k), and adding paragraph (q) to read as follows::

§ 27.14 Construction requirements; Criteria for renewal.

(a) AWS and WCS licensees, with the exception of WCS licensees holding authorizations for Block A in the 698–704 MHz and 728–734 MHz bands, Block B in the 704–710 MHz and 734–740 MHz bands, Block E in the 722–728 MHz band, Block C, C1, or C2 in the 746–757 MHz and 776–787 MHz bands, Block D in the 758–763 MHz and 788–793 MHz bands, Block A in the 2305–2310 MHz and 2350–2355 MHz bands, Block B in the 2310–2315 MHz and 2355–2360 MHz bands, Block C in the 2315–2320 MHz band, and Block D in the 2345–2350 MHz band, and with the exception of licensees holding AWS authorizations in the 1915-1920 MHz and 1995-2000 MHz bands, must, as a performance requirement, make a showing of “substantial service” in their license area within the prescribed license term set forth in § 27.13. ***

(f) Comparative renewal proceedings do not apply to WCS licensees holding authorizations for the 698–746 MHz, 747–762 MHz, and 777–792 MHz bands and licensees holding AWS authorizations for the 1915-1920 MHz and 1995-2000 MHz bands. ***

(k) Licensees holding WCS or AWS authorizations in the spectrum blocks enumerated in paragraphs (g), (h), (i), or (q) of this section, including any licensee that obtained its license pursuant to the procedures set forth in paragraph (j) of this section, shall demonstrate compliance with performance requirements by filing a construction notification with the Commission, within 15 days of the expiration of the applicable benchmark, in accordance with the provisions set forth in § 1.946(d) of this chapter. ***

* * * * *

(q) The following provisions apply to any licensee holding an AWS authorization in the 1915-1920 MHz and 1995-2000 MHz bands (an “H Block licensee”):

(1) An H Block licensee shall provide signal coverage and offer service within four (4) years from the date of the initial license to at least forty (40) percent of the total population in each service area that it has licensed in the 1915-1920 MHz and 1995-2000 MHz bands (“H Block Interim Buildout Requirement”).

(2) An H Block licensee shall provide signal coverage and offer service within ten (10) years from the date of the initial license to at least seventy (70) percent of the population in each of its licensed areas in the 1915-1920 MHz and 1995-2000 MHz bands (“H Block Final Buildout Requirement”).

(3) If an H Block licensee fails to establish that it meets the H Block Interim Buildout Requirement for a particular licensed area, then the H Block Final Buildout Requirement (in this paragraph (q)) and the H Block license term (as set forth in § 27.13) for each license area in which it fails to meet the H Block Interim Buildout Requirement shall be accelerated by two years (from ten to eight years).

(4) If an H Block licensee fails to establish that it meets the H Block Final Buildout Requirement for a particular licensed areas in the 1915-1920 MHz and 1995-2000 MHz bands, its authorization for each license area in which it fails to meet the H Block Final Buildout Requirement shall terminate automatically without Commission action. The H Block licensee that has its license automatically terminate under paragraph (q) of this subsection will be ineligible to regain it if the Commission makes the license available at a later date.

(5) To demonstrate compliance with these performance requirements, licensees shall use the most recently available U.S. Census Data at the time of measurement and shall base their measurements of population served on areas no larger than the Census Tract level. The population within a specific Census Tract (or other acceptable identifier) will only be deemed

served by the licensee if it provides signal coverage to and offers service within the specific Census Tract (or other acceptable identifier). To the extent the Census Tract (or other acceptable identifier) extends beyond the boundaries of a license area, a licensee with authorizations for such areas may only include the population within the Census Tract (or other acceptable identifier) towards meeting the performance requirement of a single, individual license.

11. Section 27.15 is amended by revising the first sentence in paragraph (d)(1)(i); adding paragraph (d)(1)(iii); revising the first sentence in paragraph (d)(2)(i), and adding paragraph (d)(2)(iii) to read as follows:

§ 27.15 Geographic partitioning and spectrum disaggregation.

(d) ***

(1) ***

(i) Except for WCS licensees holding authorizations for Block A in the 698–704 MHz and 728–734 MHz bands, Block B in the 704–710 MHz and 734–740 MHz bands, Block E in the 722–728 MHz band, Blocks C, C1, or C2 in the 746–757 MHz and 776–787 MHz bands, or Block D in the 758–763 MHz and 788–793 MHz bands; and for licensees holding AWS authorizations in the 1915-1920 MHz and 1995-2000 MHz bands; the following rules apply to WCS and AWS licensees holding authorizations for purposes of implementing the construction requirements set forth in § 27.14. ***

(iii) For licensees holding AWS authorizations in the 1915-1920 MHz and 1995-2000 MHz bands, the following rules apply for purposes of implementing the construction requirements set forth in § 27.14. Each party to a geographic partitioning must individually meet any service-

specific performance requirements (i.e., construction and operation requirements). If a partitioner or partitionee fails to meet any service-specific performance requirements on or before the required date, then the consequences for this failure shall be those enumerated in § 27.14(q)

(2) ***

(i) Except for WCS licensees holding authorizations for Block A in the 698–704 MHz and 728–734 MHz bands, Block B in the 704–710 MHz and 734–740 MHz bands, Block E in the 722–728 MHz band, Blocks C, C1, or C2 in the 746–757 MHz and 776–787 MHz bands, or Block D in the 758–763 MHz and 788–793 MHz bands; and for licensees holding AWS authorizations in 1915-1920 MHz and 1995-2000 MHz bands; the following rules apply to WCS and AWS licensees holding authorizations for purposes of implementing the construction requirements set forth in § 27.14. ***

(iii) For licensees holding AWS authorizations in the 1915-1920 MHz and 1995-2000 MHz bands, the following rules apply for purposes of implementing the construction requirements set forth in § 27.14. Each party to a spectrum disaggregation must individually meet any service-specific performance requirements (i.e., construction and operation requirements). If a disaggregator or a disagregatee fails to meet any service-specific performance requirements on or before the required date, then the consequences for this failure shall be those enumerated in § 27.14(q).

12. Section 27.17 is added to read as follows:

§ 27.17 Discontinuance of service in the 1915-1920 MHz and 1995-2000 MHz bands.

(a) Termination of Authorization. A licensee's AWS authorization in the 1915-1920 MHz and 1995-2000 MHz bands will automatically terminate, without specific Commission action, if it permanently discontinues service after meeting the H Block Interim Buildout Requirement specified in § 27.14.

(b) Permanent discontinuance of service is defined as 180 consecutive days during which a licensee holding AWS authority in the 1915-1920 MHz and 1995-2000 MHz bands does not operate or, in the case of a commercial mobile radio service provider, does not provide service to at least one subscriber that is not affiliated with, controlled by, or related to the providing carrier.

(c) Filing Requirements. A licensee of the 1915-1920 MHz and 1995-2000 MHz bands that permanently discontinues service as defined in this section must notify the Commission of the discontinuance within 10 days by filing FCC Form 601 or 605 requesting license cancellation. An authorization will automatically terminate, without specific Commission action, if service is permanently discontinued as defined in this section, even if a licensee fails to file the required form requesting license cancellation.

13. Section 27.50 is amended by revising paragraph (d) introductory text, paragraphs (d)(1) and (2) introductory text, and adding paragraph (d)(7), to read as follows:

§ 27.50 Power limits and duty cycle.

(d) The following power and antenna height requirements apply to stations transmitting in the 1710-1755 MHz, 2110-2155 MHz, 1915-1920 MHz and 1995-2000 MHz bands:

(1) The power of each fixed or base station transmitting in the 1995-2000 MHz or the 2110-2155 MHz band and located in any county with population density of 100 or fewer persons per square

mile, based upon the most recently available population statistics from the Bureau of the Census, is limited to:

(2) The power of each fixed or base station transmitting in the 1995-2000 MHz or the 2110-2155 MHz band and situated in any geographic location other than that described in paragraph (d)(1) is limited to:

(7) Fixed, mobile and portable (hand-held) stations operating in the 1915-1920 MHz band are limited to 1 Watt EIRP, except that the total power of any portion of an emission that falls within the 1917-1920 MHz band may not exceed 4 milliwatts (6 dBm).

14. Section 27.53 is amended by revising paragraph (h) to read as follows:

§ 27.53 Emission limits.

(h) AWS Emission Limits. (1) General Protection Levels. Except as otherwise specified below, for operations in the 1710–1755 MHz, 2110–2155 MHz, 1915-1920 MHz, and 1995-2000 MHz bands, the power of any emission outside a licensee’s frequency block shall be attenuated below the transmitter power (P) by at least $43 + 10 \log_{10}(P)$ dB.

(2) Additional Protection Levels. Notwithstanding the foregoing paragraph (h)(1) of this section:

(i) For operations in the 1915-1920 MHz band, the power of any emission above 1930 MHz shall be attenuated below the transmitter power (P) in watts by at least $70 + 10 \log_{10}(P)$ dB.

(ii) For operations in the 1995-2000 MHz band, the power of any emission above 2005 MHz shall be attenuated below the transmitter power (P) in watts by at least $70 + 10 \log_{10}(P)$ dB.

(3) Measurement Procedure.

- (i) Compliance with this provision is based on the use of measurement instrumentation employing a resolution bandwidth of 1 megahertz or greater. However, in the 1 megahertz bands immediately outside and adjacent to the licensee's frequency block, a resolution bandwidth of at least one percent of the emission bandwidth of the fundamental emission of the transmitter may be employed. The emission bandwidth is defined as the width of the signal between two points, one below the carrier center frequency and one above the carrier center frequency, outside of which all emissions are attenuated at least 26 dB below the transmitter power.
- (ii) When measuring the emission limits, the nominal carrier frequency shall be adjusted as close to the licensee's frequency block edges, both upper and lower, as the design permits.
- (iii) The measurements of emission power can be expressed in peak or average values, provided they are expressed in the same parameters as the transmitter power.

15. Section 27.55 is amended by revising paragraphs (a)(1) to read as follows:

§ 27.55 Power strength limits.

(a)***

(1) 1995-2000, 2110-2155, 2305-2320, 2345-2360 MHz bands: 47 dB μ V/m.

16. Section 27.57 is amended by revising paragraph (c) to read as follows:

§ 27.57 International Coordination

(c) Operation in the 1710-1755 MHz, 1915-1920 MHz, 1995-2000 MHz and 2110-2155 MHz bands is subject to international agreements with Mexico and Canada.

17. Add subpart K to part 27 to read as follows:

Subpart K—1915-1920 MHz and 1995-2000 MHz

Licensing and Competitive Bidding Provisions

Sec.

- 27.1001 1915-1920 MHz and 1995-2000 MHz bands subject to competitive bidding.
- 27.1002 Reimbursement obligation of AWS licensees at 1915-1920 MHz.

Reimbursement Obligations of AWS Licensees at 1915-1920 and 1995-2000 MHz

Sec.

- 27.1021 Reimbursement obligation of AWS licensees at 1915-1920 MHz.
- 27.1031 Reimbursement obligation of AWS licensees at 1995-2000 MHz.
- 27.1041 Termination of Cost-Sharing Obligations.

Licensing and Competitive Bidding Provisions

§ 27.1001 1915-1920 MHz and 1995-2000 MHz bands subject to competitive bidding.

Mutually exclusive initial applications for 1915-1920 MHz and 1995-2000 MHz band licenses are subject to competitive bidding. The general competitive bidding procedures set forth in 47 CFR part 1, subpart Q will apply unless otherwise provided in this subpart.

§ 27.1002 Designated Entities in the 1915-1920 MHz and 1995-2000 MHz bands.

Eligibility for small business provisions:

- (a)(1) A small business is an entity that, together with its affiliates, its controlling interests, the affiliates of its controlling interests, and the entities with which it has an attributable material relationship, has average gross revenues not exceeding \$40 million for the preceding three years.
- (2) A very small business is an entity that, together with its affiliates, its controlling interests, the affiliates of its controlling interests, and the entities with which it has an attributable material relationship, has average gross revenues not exceeding \$15 million for the preceding three years.

(b) Bidding credits. A winning bidder that qualifies as a small business as defined in this section or a consortium of small businesses may use the bidding credit specified in § 1.2110(f)(2)(iii) of this chapter. A winning bidder that qualifies as a very small business as defined in this section or a consortium of very small businesses may use the bidding credit specified in § 1.2110(f)(2)(ii) of this chapter.

Reimbursement Obligations of AWS Licensees at 1915-1920 and 1995-2000 MHz

§ 27.1021 Reimbursement obligation of AWS licensees at 1915-1920 MHz.

AWS licensees of the H Block (1915-1920 MHz paired with 1995-2000 MHz) are collectively responsible for reimbursing UTAM, Inc. a pro rata share of the expenses that UTAM, Inc. has incurred from relocating and clearing incumbent Fixed Microwave Service (FS) licensees from the 1910-1930 MHz band. Specifically, within 30 days of grant of its long-form application, AWS licensees in the 1915-1920 MHz band, which constitutes 25 percent of the 1910-1930 MHz band, shall, on a pro rata shared basis as set forth in paragraph (a) in this section reimburse 25 percent of the total relocation costs incurred by UTAM, Inc.

(a) To the extent that H Block licenses awarded in the first auction for this spectrum cover, collectively, at least forty (40) percent of the nation’s population, the amount owed to UTAM, Inc. by the winning bidder of each individual H Block license awarded in the first auction will be determined by dividing the gross winning bid (“GWB”) for each individual H Block license (i.e., an Economic Area (EA)) by the sum of the gross winning bids for all H Block licenses awarded in the first auction, and then multiplying by \$12,629,857.

$$RN = \left(\frac{\text{BTA GWB}}{\text{Sum of GWBs}} \right) \times \$12,629,857.00$$

Except as provided in paragraphs (b) and (c) of this section, an AWS licensee that obtains a license for a market not awarded in the first H Block auction will not have a reimbursement obligation to UTAM, Inc.

(b) The Commission imposes payment obligations on bidders that withdraw provisionally winning bids during the course of an auction, on those that default on payments due after an auction closes, and on those that are disqualified. See 47 CFR 1.2110(f)(2)(i). In the initial auction, a winning bidder of an EA license that is not awarded a license for any reason will be deemed to have triggered a reimbursement obligation to UTAM, Inc. that will be paid to UTAM, Inc. by the licensee acquiring the EA license at reauction. The amount owed to UTAM, Inc. by the licensee acquiring the EA license at reauction will be based on the gross winning bid for the EA license in the initial auction. Accordingly, an applicant at reauction will know with certainty the reimbursement obligation it will owe for each EA license subject to this paragraph (b).

(c) To the extent that H Block licenses awarded in the first auction for this spectrum cover, collectively, less than forty (40) percent of the nation's population, then the amount owed to UTAM, Inc. shall be more equitably dispersed across all EA licenses based on the relative population of the EA to the population of the United States. Specifically, the amount that the licensee of an individual H Block license must reimburse UTAM, Inc. shall be calculated by dividing the population of the individual BTA by the total U.S. population, and then multiplying by \$12,629,857.

$$RN = \left(\frac{\text{EA POP}}{\text{U.S. POP}} \right) \times \$12,629,857$$

(d) For purposes of compliance with this section, licensees should determine population based on 2000 U.S. Census Data or such other data or measurements that the Wireless

Telecommunications Bureau proposes and adopts under the notice and comment process for the auction procedures.

§ 27.1031 Reimbursement obligation of AWS licensees at 1995-2000 MHz.

AWS licensees of the H Block (1915-1920 MHz paired with 1995-2000 MHz) are collectively responsible for reimbursing Sprint Nextel, Inc. or a successor in interest to Sprint Nextel, Inc. (Sprint), a pro rata share of the eligible expenses that Sprint has incurred from relocating and clearing Broadcast Auxiliary Service (BAS), Cable Television Relay Service (CARS), and Local Television Transmission Service (LTTS) incumbents from the 1990-2025 MHz band. Specifically, within 30 days of grant of its long-form application, AWS licensees in the 1995-2000 MHz band, which constitutes one-seventh of the 35 megahertz of spectrum at 1990-2025 MHz, shall, on a pro rata shared basis as set forth below in this section reimburse one-seventh of the eligible expenses incurred by Sprint.

(a) To the extent that H Block licenses awarded in the first auction for this spectrum cover, collectively, at least forty (40) percent of the nation's population, the amount owed to Sprint by the winning bidder of each individual H Block license awarded in the first auction will be determined by dividing the gross winning bid ("GWB") for each individual H Block license (*i.e.*, an Economic Area (EA)) by the sum of the gross winning bids for all H Block licenses awarded in the first auction, and then multiplying by \$94,875,516.

$$RN = \left(\frac{\text{EA GWB}}{\text{Sum of GWBs}} \right) \times \$94,875,516$$

Except as provided in paragraphs (b) and (c), an AWS licensee that obtains a license for a market not awarded in the first H Block auction will not have a reimbursement obligation to Sprint.

(b) The Commission imposes payment obligations on bidders that withdraw provisionally winning bids during the course of an auction, on those that default on payments due after an auction closes, and on those that are disqualified. See 47 CFR 1.2110(f)(2)(i). In the first auction, a winning bidder of an EA license that is not awarded a license for any reason will be deemed to have triggered a reimbursement obligation to Sprint that will be paid to Sprint by the licensee acquiring the EA license at reauction. The amount owed to Sprint by the licensee acquiring the EA license at reauction will be based on the gross winning bid for the EA license in the first auction. Accordingly, an applicant at reauction will know with certainty the reimbursement obligation it will owe for each EA license subject to this paragraph (b).

(c) To the extent that H Block licenses awarded in the first auction for this spectrum cover, collectively, less than forty (40) percent of the nation's population, then the amount owed to Sprint shall be more equitably dispersed across all EA licenses based on the relative population of the EA to the population of the United States. Specifically, the amount that the licensee of an individual H Block license must reimburse Sprint shall be calculated by dividing the population of the individual EA by the total U.S. population, and then multiplying by \$94,875,516.

$$RN = \left(\frac{\text{EA POP}}{\text{U.S. POP}} \right) \times \$94,875,516$$

(d) For purposes of compliance with this section, licensees should determine population based on 2000 U.S. Census Data or such other data or measurements that the Wireless Telecommunications Bureau proposes and adopts under the notice and comment process for the auction procedures.

§ 27.1041 Termination of Cost-Sharing Obligations.

(a) The cost-sharing obligation adopted in this subpart will sunset ten years after the first H Block license is issued in the band.

(b) An H Block licensee must satisfy in full its payment obligations under this subpart K within thirty days of the grant of its long-form application. The failure to timely satisfy a payment obligation in full prior to the applicable sunset date will not terminate the debt owed or a party's right to collect the debt.

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