196. *Interim Benchmark.* We modify the proposed interim build-out requirement in response to the record. Recognizing concerns raised by commenters that the proposal may not afford a new entrant in a new flexible use terrestrial band sufficient time to deploy its network and offer service, we extend the interim build-out requirement timeframe from three to four years.[576] Extending the interim benchmark to four years will enable service providers and equipment vendors to deploy network infrastructure and devices based on the most advanced technologies, including the LTE-Advanced standard.[577] This is analogous to the Commission's decision in the *2012 WCS Order* in which the Commission extended the proposed build-out requirements by six months to accommodate new technological developments.[578] Extending the interim benchmark from three to four years also accommodates possible timing effects that may result from our technical findings, above, to enable use of the adjacent 1995-2000 MHz band.[579] We also increase the population benchmark from 30% to 40%, to more closely align the benchmark with interim benchmarks in other bands.[580] Finally, we determine that a licensee's total AWS-4 population shall be calculated by summing the population, based on the most recent decennial U.S. Census Data at the time of measurement, of each of its license areas in the AWS-4 band.[581]

197. *Final Benchmark.* We find, consistent with the record, that a final seven-year construction milestone provides a reasonable timeframe for a licensee to deploy its network and offer widespread service.[582] No party suggested that a longer time frame would be necessary and, indeed, DISH stated that seven years is a reasonable period for a final build-out milestone.[583] We are not

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[576] DISH Comments at 5, 19-20 (arguing that a "four-year interim buildout period is necessary to allow sufficient time to build a new facilities-based network."); *see also*, CCIA Reply Comments at 2, 9-11; AT&T Comments at 11-12; Globalstar Comments at 6 n.13; CCIA Comments at 6-8; Letter from Alison A. Minea, Corporate Counsel, DISH, to Marlene H. Dortch, Secretary, FCC, WT Docket No. 12-70 at 2 (filed August 21, 2012) (arguing in favor of modifying the interim milestone from three to four years); *but see*, T-Mobile Comments at 9 (arguing for more rigorous interim build-out requirements and requiring the licensee to provide coverage to at least 100 million people within 21 months and at least 145 million people within 33 months).

[577] DISH Comments at 19-23.

[578] In the 2.3 WCS band, the Commission implemented an interim build-out requirement of 4 years / 40% of population (per license) and a final build-out requirement of 6 ½ years / 75% of population (per license), finding that additional time was warranted to allow for the development and deployment of new equipment and technologies in the band. Amendment of Part 27 of the Commission's Rules to Govern the Operation of Wireless Communications Services in the 2.3 GHz Band, WT Docket No. 07-293, IB Docket No. 95-91, *Order on Reconsideration*, 27 FCC Rcd 13651 at 13702-06 ¶¶ 127-135 (2012) (*2012 WCS Order*).

[579] *See supra* Section III.B (Technical Issues). Although, as stated above, we do not base our technical rules on the potential of those rules effect the development of private party technical standards, we consider it as one reason of many here to adjust the interim build-out benchmark. *See supra* ¶¶ 94-95.

[580] *See 700 MHz Second Report and Order*, 22 FCC Rcd at 15351 ¶ 162; *2012 WCS Order*, 27 FCC Rcd at 13702-06 ¶¶ 127-135.

[581] For example, if Wireless Operator A has 20 AWS-4 EA licenses, its total AWS-4 population would be the sum of the populations in each of those twenty EAs. To meet the AWS-4 Interim Build-out requirement, Wireless Operator A would need to provide reliable terrestrial signal coverage and offer terrestrial service to at least forty (40) percent of this total AWS-4 population. The benchmark is thus measured against a single aggregate population total and is not calculated on an individual EA basis.

[582] *See e.g.*, DISH Reply Comments at 13; DISH Comments at 18 (stating that a seven year build-out schedule is achievable); RCA Comments at 6; NTCA Comments at 4. DISH Reply Comments at 16.

[583] DISH Comments at 18.

persuaded by T-Mobile's proposal that we require an expedited build-out schedule.[584] Although we expect it is possible for a licensee to meet a faster schedule, we believe such a benchmark could unnecessarily restrict the business plans of licensees, particularly new entrants. Therefore, after assessing the record and Commission precedent, we find that requiring 70% build-out at the seven-year milestone would serve the public interest.[585]

198. As discussed above,[586] we are adopting an EA-based AWS-4 band plan requirement and not a nationwide band plan. Setting build-out benchmarks on an EA basis is consistent with our general approach of assigning AWS-4 terrestrial spectrum rights under the Commission's Part 27 rules, including permitting any licensee to avail itself of the Commission's secondary market mechanisms.[587] Consistent with our practice in other bands, we will measure interim and final build-out benchmarks using percentages of license area population. We reject DISH's proposal to measure these benchmarks using static measures of population.[588] This allows for more flexibility and certainty in licensing. For example, should a licensee partition some of its AWS-4 spectrum, a percentage-based approach would apply to each partition, while a single population count would not.

199. *Rural Specific Benchmarks*. We conclude that no additional rural-specific construction benchmarks are warranted beyond the performance requirements described above. We recognize that some commenters seek stricter performance requirements to promote service to rural areas.[589] However, the performance requirements we adopt today will provide licensees with an ability to scale networks in a cost efficient manner while also ensuring that the vast majority of the population will have access to these wireless broadband services by the final benchmark.[590] Because of the substantial capital investment and logistical challenges associated with a licensee building-out its terrestrial network to a significant percentage of the Nation's population within four and seven years, we conclude that the performance requirements we adopt are an appropriate balance.

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[584] *See*, T-Mobile Comments at 10 (arguing that "seven years to deploy a terrestrial wireless network in this spectrum band is excessive in this case."); *see also* T-Mobile Comments at 3, 6, 8-11; PIO Comments at 5-7 (arguing that the build-out requirements proposed in the *AWS-4 NPRM* "are not substantially more stringent than conditions attached to auctioned spectrum.").

[585] *See*, DISH Comments at 23 ("The final milestone should be set at 200 million POPs, which is approximately 65 percent of the current U.S. population based on the 2010 U.S. Census."); AT&T Comments at 12 (proposing performance requirements modeled after the Upper 700 C-Block requirements, in particular, proposing to require licensees "to cover 75% of the total population of each MEA by the end of the license term.").

[586] *See supra* Section III.A.3. (Geographic Licensing Area).

[587] *See infra* Section III.G.3. (Secondary Markets).

[588] *See* DISH Comments at 23 ("[T]he Commission should adopt a four-year milestone that requires coverage and service to 60 million POPs, which is approximately 20 percent of the current U.S. population based on the 2010 U.S. Census....The final milestone should be set at 200 million POPs, which is approximately 65 percent of the current U.S. population based on the 2010 U.S. Census.").

[589] NRTC Comments at 6-7; NRTC Reply Comments at 4-5; *see also* PIO Comments at 7; PIO Reply Comments at 8.

[590] *See 700 MHz Second Report and Order*, 22 FCC Rcd at 15351 ¶ 164. *See also* DISH Comments at 19-22; AT&T Reply Comments at 9.

b. Penalties for Failure to Meet Construction Requirements

200. We adopt meaningful and enforceable consequences, or penalties, for failing to meet both the interim and the final benchmarks.[591] The penalties we adopt represent modification of the Commission's main proposal in the *AWS-4 NPRM* for the penalty for failure to meet in the interim build-out requirement; they reflect the record generated in this proceeding.

201. *Penalties for Failure to Meet the Interim Benchmark.* We modify the Commission's proposal and find that failure to meet the aggregate AWS-4 Interim Build-out Requirement will result in the AWS-4 Final Build-out Requirement being accelerated (shortened) by one year.[592] We agree with commenters who suggest that penalties of this nature are appropriate for failure to meet the AWS-4 interim benchmark.[593] In modifying the Commission's proposal from the *AWS-4 NPRM*,[594] we note the concerns raised by commenters who argued that the proposal to terminate all of a licensee's terrestrial authority for not meeting the Interim Build-out Requirement could impact investment and impact customers.[595]

202. *Penalties for Failure to Meet the Final Benchmark:* In the event a licensee fails to meet the AWS-4 Final Build-out Requirement in any EA, we adopt the proposal in the AWS-4 NPRM that the licensee's terrestrial authority for each such area shall terminate automatically without Commission action. Automatic termination is a common remedy for failure to build Part 27 flexible use licenses.[596] We also adopt the Commission proposal that any licensee who forfeits its AWS-4 operating authority for failure to meet the AWS-4 Final Build-out Requirement in an EA shall be precluded from regaining that authorization.[597] To the extent that a licensee is also the 2 GHz MSS licensee, failure to meet the AWS-4 Final Build-out Requirement in a license area shall also result in the MSS protection rule in section 27.1136 of the Commission's rules no longer applying to that AWS-4 license area.[598] We believe that our approach strikes an appropriate balance between promoting prompt build-out and penalizing a licensee

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[591] *See* Alcatel-Lucent Comments at 16.

[592] If a licensee of AWS-4 authority fails to meet the interim benchmark, its final build-out benchmark would be reduced to 6 years instead of 7 years. We recognize that in the 700 MHz proceeding, we reduced a licensee's final build-out requirement and license term by two years for failing to meet the interim benchmark. *See 700 MHz Second Report and Order*, 22 FCC Rcd at 15351 ¶ 163. However, we find that it would be unreasonable to set the interim benchmark for the licensees of AWS-4 authority at 4 years and the final benchmark at 5 years.

[593] DISH Reply Comments at 15 (proposing alternative sanctions including "reducing the length of the license term, implementing a remediation plan, or limiting the ability to obtain additional AWS licenses in other bands until buildout is completed."); DISH Comments at 24-25; AT&T Comments at 12-13; U.S. Cellular Reply Comments at 9-10.

[594] *See AWS-4 NPRM*, 27 FCC Rcd at 3591 ¶ 94.

[595] Alcatel-Lucent Comments at 16; CCIA Comments at 6; CCIA Reply Comments at 9-11; AT&T Comments at 13; CTIA Comments at 17; CTIA Reply Comments at 12-14; Nokia Comments at 5; USCC at 9-10; Globalstar Reply Comments at 7; Globalstar Comments at 7; Sprint Reply Comments at 16; MSUA Comments at 3; SIA Comments at 4-5; *but see* MetroPCS Reply Comments (stating that "[t]he Commission's proposed penalties are fair and in-line with conditions imposed on other licensees."); T-Mobile Comments at 12-13.

[596] *See generally* 47 C.F.R. § 27.14.

[597] *See AWS-4 NPRM*, 27 FCC Rcd at 3592 ¶ 96; *see, e.g.*, 47 C.F.R. §§ 27.14(a), (j), (o).

[598] *See* RCA Comments at 6; PIO Reply Comments at 8 (arguing that "it seems reasonable and consistent with efficient spectrum use to reclaim the AWS-4 licenses that correspond to particular service areas where the licensee fails to meet final build-out requirements.); *see also* 47 C.F.R. § 27.1136.

for not meeting its terrestrial performance obligations in a particular EA.[599] In addition, by only terminating specific licenses where a licensee fails to meet the final benchmark in a particular license area, a licensee's customers in other license areas would not be impacted.[600]

203. Moreover, we reject suggestions that MSS interference protections should not be affected by a failure to construct terrestrial services.[601] If we do not remove the protection rule for satellite operations for those geographic areas where the terrestrial operating authority terminates, it will be challenging to relicense the spectrum in a way that will encourage productive terrestrial use. This could create incentives for the current licensees not to comply with the construction benchmarks and could potentially cause the spectrum to continue to lay fallow of terrestrial use contrary to the public interest.[602]

204. We believe these penalties are necessary to ensure that licensees utilize the spectrum in the public interest. As explained above, the Nation needs additional spectrum supply.[603] Failure by licensees to meet the build-out requirements would not address this need. Commenters did not offer specific data on the amount of benefits or costs associated with our proposed penalties or any alternative penalties for failure to meet performance requirements. We disagree that the penalties could potentially discourage network investment[604] for the licensee or lower the service quality for terrestrial wireless service customers.[605] While a customer might lose service if a licensee loses its terrestrial spectrum rights for failure to build-out,[606] we expect that a future licensee of AWS-4 authority for that EA would ultimately serve more customers. We expect the probability of not meeting the performance requirements due to the costs of meeting the rules to be small and that the performance penalties are unlikely to deter network investment. Moreover, the Commission has consistently dismissed the contention that an automatic termination policy is unfair; rather, it is the same approach that the Commission applies to nearly all geographically-licensed wireless services.[607] The Commission has specifically rejected the argument that the automatic termination penalty would deter capital investment, noting that the wireless industry has invested billions of dollars and has flourished under this paradigm.[608]

205. "*Use it or Share it.*" We decline to impose any "use it or share it" requirements for the AWS-4 spectrum band.[609] PIO argues that the Commission's build-out requirements should be "augmented by a 'use it or share it' license condition that would permit other parties to make use of

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[599] *See* RCA Comments at 6; PIO Reply Comments at 8.

[600] RCA Comments at 6; *see* PIO Reply Comments at 8; *see generally*, AT&T Comments at 13-14; U.S. Cellular Reply Comments at 9-10.

[601] MSUA Comments at 3; SIA Comments at 4-5.

[602] SIA acknowledges that "it is not practical for MSS licenses and AWS licenses for the same frequency bands to be held by different entities" SIA Comments at 4.

[603] *See supra* Section II.A (The Growing Spectrum Demands of Mobile Broadband Services).

[604] *See* Globalstar Comments at 7, CTIA Reply at 12-14, U.S. Cellular Reply Comments at 9-10.

[605] *See* Alcatel Comments at 16, CTIA Reply at 12-14.

[606] *See* Alcatel Comments at 16, DISH Comments at 25, U.S. Cellular Reply Comments at 9-10.

[607] *2010 WCS Order*, 25 FCC Rcd at 11796 ¶ 214; *2012 WCS Order*, 27 FCC Rcd at 13704 ¶ 131 (rel. Oct. 17, 2012).

[608] *2010 WCS Order*, 25 FCC Rcd at 11796 ¶ 214; *2012 WCS Order*, 27 FCC Rcd at 13704 ¶ 131 (rel. Oct. 17, 2012).

[609] CTIA Reply Comments at 2, 14-16; AT&T Reply Comments at 10-11.

unused" AWS-4 spectrum on a localized basis until the licensee actually begins providing service.[610] While we reserve the right to implement "use it or share it" obligations in the future, "use it or share it" is a complex concept that is not sufficiently developed in this record.[611] Even though we do not adopt a requirement, we encourage providers to enter into leasing agreements for unused spectrum.[612] While we discuss spectrum leasing in greater detail below,[613] we note that engaging in spectrum leasing may assist a licensee in meeting its performance milestones.[614] We also note that we asked a number of questions about "use or lease" in the *Incentive Auctions NPRM* and hope to build a more robust record in that proceeding about how such a process could work effectively.[615]

206. *Compliance Procedures.* After assessing the record, we find that licensees must demonstrate compliance with the new performance requirements by filing a construction notification within 15 days of the relevant milestone certifying that they have met the applicable performance benchmark, consistent with Section 1.946(d) of the Commission's rules.[616] Further, we find that each construction notification must 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.[617] Finally, we decline to require, as suggested by T-Mobile,[618] that any licensee file certifications every six months regarding its

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[610] PIO Comments at 13; *see also*, Letter from Michael Calabrese, Director, Wireless Future Project, Open Technology Institute, New America Foundation, to Marlene H. Dortch, Secretary, FCC, WT Docket No. 12-70 at 3 (filed August 20, 2012) (arguing that "any build-out requirements should be augmented by a 'use it or share it' license condition"); Letter from Michael Calabrese, Director, Wireless Future Project, Open Technology Institute, New America Foundation, to Marlene H. Dortch, Secretary, FCC, WT Docket No. 12-70 at 2 (filed July 19, 2012); Letter from James Carlson, President, Carlson Wireless Technologies, Inc., to Marlene H. Dortch, Secretary, FCC, WT Docket No. 12-70 at 1 (filed June 22, 2012) (applauding the "use it or share it" approach).

[611] *See* CTIA Reply Comments at 2, 14-16.

[612] NRTC Reply at 5 (arguing that the Commission should encourage licensees to partner with rural organizations by, for example, leasing spectrum to a rural entities and counting the population and geography associated with the lease toward meeting performance requirements); *see also*, RTG Reply Comments at 3 (supporting "NTCA's recommendation that DISH be permitted to meet its deployment benchmarks by meaningfully partnering with rural wireless carriers").

[613] *See infra* Section III.G.3.b. (Spectrum Leasing).

[614] *See* NTCA Comments at 4-5 ("[I]f the Licensee offers reciprocal roaming, marketing, leasing, or in any other meaningful way integrates a rural carrier's spectrum seamlessly into its network or operation, the population served by the rural provider should count toward the Licensee's build-out benchmarks."); NRTC Comments at 7 (arguing that "the population and/or geography associated with that lease could be applied toward satisfying the performance requirement.").

[615] *See* Expanding the Economic and Innovation Opportunities of Spectrum Through Incentive Auctions, Docket No. 12-268, *Notice of Proposed Rulemaking*, FCC 12-118 (rel. Oct. 2, 2012).

[616] *See* 47 C.F.R. § 1.946(d) ("notification[s] must be filed with Commission within 15 days of the expiration of the applicable construction or coverage period").

[617] *See, e.g.*, 47 C.F.R. § 1.17 (Truthful and accurate statements to the Commission); 47 C.F.R. § 1.917(c) ("Willful false statements . . . are punishable by fine and imprisonment, 18 U.S.C. 1001, and by appropriate administrative sanctions, including revocation of station license pursuant to 312(a)(1) of the Communications Act of 1934, as amended.").

[618] *See* T-Mobile Comments at 15.

construction progress; such frequent reporting is unnecessary to ensure intensive spectrum use given the performance measures we adopt today.[619]

207. Electronic coverage maps must accurately depict the boundaries of each license area in the licensee's service territory.[620] If a licensee does not provide reliable signal coverage to an entire EA, its map must accurately depict the boundaries of the area or areas within each EA not being served. Each licensee also must file supporting documentation certifying the type of service it is providing for each EA 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.

208. Further, the licensee must use the most recently available decennial U.S. Census Data at the time of measurement to meet the population based build-out requirements.[621] Specifically, the licensee must base its claims of population served on areas no larger than the Census Tract level.[622] This requirement tracks the Commission's action requiring broadband service providers to report "snapshots" of broadband service at the Census Tract level twice each year by completing FCC Form 477.[623]

F. Applications for Any AWS-4 Spectrum Returned to the Commission

209. Certain requirements adopted in this *Report and Order* create the potential for AWS-4 spectrum rights to be terminated automatically or otherwise returned to the Commission's spectrum inventory for reassignment.[624] For example, this *Report and Order* adopts consequences, including the loss of terrestrial use of, and satellite protection for, the spectrum, if a licensee fails to meet certain build-out requirements.[625] Such returned AWS-4 terrestrial spectrum rights would be reassigned using a geographic-area approach with licenses to be made available on an EA basis. In such a situation, consistent with the proposal set forth in the *AWS-4 NPRM*, we adopt a licensing process that provides for the acceptance of mutually exclusive applications, which would be resolved by means of competitive bidding pursuant to the statutory directive.[626] The Commission has long recognized that where mutually exclusive applications are submitted this type of framework best serves the public interest because the competitive bidding mechanism is most likely to select licensees that value the spectrum the most and

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[619] *See* DISH Reply Comments at 30-31; *see also* PIO Reply Comments at 8.

[620] 47 C.F.R. § 27.14(p)(7).

[621] 47 C.F.R. § 27.14(h).

[622] The Census Bureau defines Census Tracts as "small, relatively permanent statistical subdivisions of a county delineated by local participants as part of the U.S. Census Bureau's Participant Statistical Areas Program… [T]he entire United States is covered by census tracts." U.S. Census Bureau, http://www.census.gov/geo/www/geo_defn.html#CensusTract (last visited Dec. 3, 2012).

[623] *See e.g.*, Development of Nationwide Broadband Data to Evaluate Reasonable and Timely Deployment of Advanced Services to All Americans, Improvement of Wireless Broadband Subscribership Data, and Development of Data on Interconnected Voice over Internet Protocol (VoIP) Subscribership, WC Docket No. 07-38, *Report and Order and Further Notice of Proposed Rulemaking*, 23 FCC Rcd 9691 (2008). Specifically, the Commission modified FCC Form 477 to require (1) wired, terrestrial fixed wireless, and satellite broadband service providers to report the number of broadband connections in service in individual Census Tracts; and (2) mobile wireless broadband service providers to identify those Census Tracts in which they offer service. *See id* at 23 FCC Rcd at 6995-99 ¶¶ 10-16.

[624] *AWS-4 NPRM*, 27 FCC Rcd at 3587 ¶ 81.

[625] *See supra* Section III.E. (Performance Requirements).

[626] *AWS-4 NPRM*, 27 FCC Rcd at 3587 ¶ 81.

will put it to its highest and most efficient use.[627] In the event that AWS-4 spectrum rights are returned to the Commission, we conclude that any such rights will be made available for reassignment for terrestrial use only.[628] Accordingly, the returned spectrum rights will be subject to the competitive bidding procedures we adopt below and will not be subject to any MSS protection rule.

1. Procedures for Any AWS-4 Licenses Subject to Assignment by Competitive Bidding

210. We will conduct any auction for AWS-4 licenses resulting from terrestrial spectrum rights being returned to the Commission pursuant to our standard competitive bidding rules found in Part 1, Subpart Q of the Commission's rules and will provide bidding credits for qualifying small businesses, as proposed in the *AWS-4 NPRM*. Below we discuss our reasons for adopting the relevant proposals.

a. Application of Part 1 Competitive Bidding Rules

211. The Commission proposed to conduct any auction for AWS-4 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.[629] Additionally, the Commission proposed to employ the Part 1 rules governing competitive bidding design, designated entity preference, unjust enrichment, application and payment procedures, reporting requirements, and the prohibition on certain communications between auction applicants.[630] 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. The *AWS-4 NPRM* also sought comment on

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[627] *See, e.g.*, Amendment of the Commission's Rules Regarding Multiple Address Systems, WT Docket No. 97-81, *Report and Order*, 15 FCC Rcd 11956, 11974 ¶ 47 (2000) (concluding that geographic-area licensing of the 928.85-929 MHz and 959.85-960 MHz bands would encourage efficient spectrum use, expeditious licensing, and the rapid delivery of new technologies to the public); Amendment of the Commission's Rules Regarding the 37.0-38.6 GHz and 38.6-40.0 GHz Bands, ET Docket No. 95-183, *Report and Order and Second Notice of Further Rule Making*, 12 FCC Rcd 18600, 18647 ¶ 101 (1997) (predetermined service areas provide a more orderly structure for the licensing process and foster efficient utilization of the spectrum in an expeditious manner); *see also* Revision of part 22 and Part 90 of the Commission's Rules to Facilitates Future Development of Paging Systems, WT Docket No. 96-18, *Second Report and Order and Further Notice of Proposed Rulemaking*, 12 FCC Rcd 2732, 2744 ¶ 15 (1997); Implementation of Section 309(j) of the Communications Act – Competitive Bidding, PP Docket No. 93-253, *Third Report and Order*, 9 FCC Rcd 2941, 2944 ¶ 6 (1994) (Narrowband Personal Communications Services); *see generally* Implementation of Section 309(j) of the Communications Act – Competitive Bidding, PP Docket No. 93-253, *Second Report and Order*, 9 FCC Rcd 2348, 2350 ¶ 4-5 (1994) (competitive bidding should place licenses in the hands of the parties able to use them most efficiently).

[628] As noted above, while we conclude that technological difficulties make it impractical today for same-band sharing of this spectrum between separate mobile satellite and terrestrial operators, we observed that it may become possible for such sharing to become technically feasible in the future. For this reason, and for other reasons discussed herein, including our determination that returned spectrum will not be subject to any MSS protection rule, we find it appropriate to put a framework in place now that would govern the reassignment of AWS-4 spectrum rights. To the extent that the MSS licensee relinquishes its terrestrial spectrum rights either voluntarily or involuntary the MSS licensee bears the consequences of any interference that occurs as an attendant result of its opening the door to satellite/terrestrial use in the same band by two different licensees. That is, the MSS licensee would be responsible for its own considered choices or for its failure to fulfill the responsibilities that attends the expansion of its licensed rights into the terrestrial realm.

[629] *AWS-4 NPRM*, 27 FCC Rcd at 3587-88 ¶ 83.

[630] *Id.*

whether any Part 1 rules would be inappropriate or should be modified for an auction of licenses in the AWS-4 bands.[631]

212. We received no comments on the proposed use of our standard competitive bidding rules for any auction of terrestrial AWS-4 licenses.

213. One commenter, TIA, makes several proposals addressing auction design, such as the use of two-sided auctions and auction vouchers, the use of combinatorial, or package, bidding, and avoiding the use of minimum bids.[632] Consistent with our long-standing approach, auction-specific matters such as the competitive bidding design and specific mechanisms relating to day-to-day auction conduct, including minimum opening bids and/or reserve prices, would be determined by the Wireless Telecommunications Bureau prior to the start of the auction pursuant to its delegated authority, after providing interested parties an opportunity to comment.[633] Such delegated authority has proven effective over the years in providing flexibility to develop auction procedures in response to auction-specific issues and to respond rapidly to potential bidder concerns that are sometimes of a time-sensitive nature. Consequently, we determine that the Commission's Part 1 bidding rules should govern the conduct of any such auction.[634] Given the record before us and the benefits discussed above, we conclude that the potential benefits of our proposal would likely outweigh any potential costs.

b. Small Business Provisions for Terrestrial Geographic Area Licenses

214. As the *AWS-4 NPRM* discussed, 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."[635] 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."[636] One of the principal means by which the Commission fulfills this mandate is through the award of bidding credits to small businesses.

215. In the *Competitive Bidding Second Memorandum Opinion and Order*, the Commission 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.[637] Further, in the *Part 1 Third Report and Order*, the Commission, while

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[631] *Id.*

[632] TIA Comments at 19-20. TIA characterizes minimum bids as "artificial floors to bidding" and claims they limit the ability of commercial entities to bid. *Id.* at 20.

[633] *See* 47 C.F.R. §§ 0.131(c), 0.331; *see also* Amendment of Part 1 of the Commission's Rules – Competitive Bidding Procedures, *Third Report and Order and Second Further Notice of Proposed Rule Making*, WT Docket No. 97-82, 13 FCC Rcd 374, 448-49, 454-55 (1997) (directing the Bureau to seek comment on specific mechanisms relating to auction conduct pursuant to the BBA) (*Part 1 Third Report and Order*).

[634] *AWS-4 NPRM*, 27 FCC Rcd at 3587-88 ¶ 83.

[635] *Id.* at 3588 ¶ 84 (quoting 47 U.S.C. § 309(j)(4)(D)).

[636] 47 U.S.C. § 309(j)(3)(B).

[637] Implementation of Section 309(j) of the Communications Act—Competitive Bidding, PP Docket No. 93-253, *Second Memorandum Opinion and Order*, 9 FCC Rcd 7245, 7269 ¶ 145 (1994) (*Competitive Bidding Second Memorandum Opinion and Order*); 47 C.F.R. § 1.2110(c)(1).

standardizing many auction rules, determined that it would continue a service-by-service approach to defining the eligibility requirements for small businesses.[638]

216. The Commission proposed in the *AWS-4 NPRM* 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.[639] Under this proposal, small businesses would be provided with a bidding credit of 15 percent and very small businesses with a bidding credit of 25 percent, consistent with the standardized schedule in Part 1 of our Rules.[640]

217. This proposal was modeled on the small business size standards and associated bidding credits as the Commission adopted for the AWS-1 band.[641] The Commission premised this proposal on the belief that the AWS-4 spectrum, assigned in geographic area licenses, would be employed for purposes similar to those for which the AWS-1 band is used.[642] In response to the *AWS-4 NPRM's* request for comment on these proposals, including the costs or benefits of these standards and associated bidding credits, especially as they relate to the proposed geographic areas, the Commission received no comment. Based on our prior experience with the use of bidding credits in spectrum auctions, we believe that the use of bidding credits is an effective tool in achieving the statutory objective of promoting participation by designated entities in the provision of spectrum-based services.[643] In the absence of small business size standards and bidding credits, designated entities might have less opportunity to obtain spectrum in this band. The Commission believes that continuing to extend such benefits to AWS-4 would be consistent with our statutory mandate. In light of the similarities with the AWS-1 service, we adopt these size standards and associated bidding credits for small businesses in the event that AWS-4 licenses are awarded through competitive bidding.[644]

218. We received two comments in response to the *AWS-4 NPRM's* request for comment on whether to use a different approach to bidding credits.[645] Commenters addressed eligibility in differing ways. NTCH proposes adopting eligibility rules that would preserve a 20 megahertz license for entities with less than $100 million in assets, with the remaining 20 megahertz block available for all bidders.[646] Council Tree proposes that in the absence of "set aside blocks" of AWS-4 spectrum for bidding only by designated entities, that the Commission adopt significantly higher bidding credits, with discounts up to 45 percent.[647] The Commission has previously rejected suggestions for spectrum "set-asides" in

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[638] *Part 1 Third Report and Order*, 13 FCC Rcd at 388 ¶ 18; 47 C.F.R. § 1.2110 (c)(1).

[639] *AWS-4 NPRM*, 27 FCC Rcd at 3588-89 ¶ 86.

[640] *Id.* at 3589 ¶ 87

[641] *Id.* at 3588-89 ¶ 86.

[642] *Id.* at 3588-89 ¶ 86.

[643] *See e.g., AWS-1 Report and Order*, 18 FCC Rcd at 25219-20 ¶ 148.

[644] On December 5, 2012, we requested the U.S. Small Business Administration's approval of our final rule adopting these small business size standards. Letter from Gary D. Michaels, Deputy Chief, Auctions and Spectrum Access Division, Wireless Telecommunications Bureau, Federal Communications Commission, to Khem R. Sharma, Division Chief, Office of Size Standards, U.S. Small Business Administration, dated Dec. 5, 2012.

[645] *AWS-4 NPRM*, 27 FCC Rcd at 3589 ¶ 89.

[646] NTCH Comments at 10.

[647] *See, e.g.*, Council Tree Comments at 11-12; *see also* MetroPCS Reply Comments at 15-16. Council Tree proposes bidding credits of 25% to businesses with average annual gross revenues not exceeding $40 million; 35% (continued....)

rulemaking proceedings, concluding that it was unnecessary to supplement the incentives provided for small business participation by foreclosing licenses to other bidders.[648] In the *AWS-4 NPRM*, the Commission acknowledged the difficulty in accurately predicting the market forces that might exist at the time that these frequencies are licensed, but the Commission is not persuaded that it is necessary to either set aside a portion of the spectrum at issue now, or adopt significantly larger bidding credits, in order to encourage the full participation of designated entities.[649] We therefore adopt our proposals relating to small businesses. Given the record before us and the benefits discussed above, we conclude that the potential benefits of our proposals would likely outweigh any potential costs.

G. Regulatory Issues; Licensing and Operating Rules

219. The regulatory framework we adopt below establishes the license term, criteria for renewal, and other licensing and operating rules pertaining to the AWS-4 bands. In the *AWS-4 NPRM*, the Commission proposed to grant licensees of AWS-4 operating authority the flexibility to provide any fixed or mobile service consistent with the allocations for this spectrum.[650] The Commission also proposed to license this spectrum under the Commission's market-oriented Part 27 rules, and generally to apply the provisions of the Commission's Part 27 rules applicable to AWS and the Commission's wireless rules generally applicable across multiple commercial bands to AWS-4 spectrum.[651]

1. Flexible Use, Regulatory Framework, and Regulatory Status

220. Below, we adopt regulations to provide licensees of AWS-4 operating authority with the flexibility to provide any terrestrial fixed or mobile service that is consistent with the allocation and service rules for AWS-4 spectrum. We also determine to license the AWS-4 spectrum under the Commission's market-oriented Part 27 rules and apply the regulatory status provisions of Section 27.10

a. Flexible Use

221. *Background.* In the *AWS-4 NPRM*, the Commission proposed service rules that would permit licensees to employ the AWS-4 band for any terrestrial use permitted by the United States Table of Frequency Allocations contained in Part 2 of the Commission's rules (*i.e.*, fixed or mobile services).[652] In proposing this approach, the Commission observed that Congress recognized the potential benefits of flexible allocations of the electromagnetic spectrum and amended the Communications Act in 1999 to add Section 303(y), which gives the Commission authority to provide for flexibility of use if:

> (1) such use is consistent with international agreements to which the United States is a party; and (2) the Commission finds, after notice and an opportunity for public comment, that (A) such an allocation would be in the public interest; (B) such use would not deter

(Continued from previous page)
for businesses with revenues not exceeding $15 million; and 45% to businesses with revenues not exceeding $3 million. Council Tree Comments at 11-12. This proposal is premised on Council Tree's own assessment of the Commission's designated entity program. The Commission has made clear that it is unpersuaded by Council Tree's claims with respect to the performance of designated entities in recent auctions. *See, e.g.*, Service Rules for the 698-746, 747-762 and 777-792 MHz Bands, *Report and Order and Further Notice of Proposed Rulemaking*, WT Docket No. 06-150, 22 FCC Rcd 8064, 8090 ¶ 65 (2007). Therefore, although we address Council Tree's proposals for the AWS-4 band, we decline to address again such claims, which are not the subject of this proceeding.

[648] *See AWS-1 Report and Order*, 18 FCC Rcd at 25189-90 ¶ 68.

[649] *AWS-4 NPRM*, 27 FCC Rcd at 3589 ¶ 88.

[650] *Id.* at 3592 ¶ 99.

[651] *Id.* at 3592-604 ¶¶ 99-129.

[652] *Id.* at 3593 ¶ 100.

> investment in communications services and systems, or technology development; and (C) such use would not result in harmful interference among users.[653]

The Commission also stated that it had previously laid the foundation for more flexible use of the AWS-4 band in the *2 GHz Band Co-Allocation Order*, in which the Commission added co-primary Fixed and Mobile allocations to the pre-existing MSS allocation in the 2 GHz band.[654] The Commission sought comment on its proposal for flexible use of the AWS-4 band.[655] The Commission asked whether any restrictions on the band are warranted and, if so, requested that commenters state what they should be and why they are needed.[656] In addition, the Commission asked commenters to quantify the costs and benefits of any such restrictions and to discuss any trade-offs between flexibility and investment in technology and new services.[657]

222. *Discussion.* In order to promote innovative broadband services and encourage the flexible and efficient use of the AWS-4 band, we will allow a licensee of AWS-4 authority to utilize the spectrum for any terrestrial use permitted by the United States Table of Frequency Allocations contained in Part 2 of the Commission's rules, provided that the licensee complies with the applicable service rules. We find that this determination fully meets the criteria of Section 303(y) and that the record unanimously supports our permitting flexible use of the AWS-4 spectrum.[658]

223. First, as required by Section 303(y)(1), flexible use of this band is consistent with applicable international agreements. Such use would remain subject to bilateral discussions commonly undertaken whenever spectrum is put to use in border areas.

224. Second, as required by Section 303(y)(2), flexible use is in the public interest because it would not deter—and, indeed, we expect it will stimulate—investment in broadband, and it would not result in harmful interference.[659] We agree with commenters who state, for example, that flexibility will promote broadband deployment,[660] ensure the spectrum is put to its most beneficial use,[661] and maximize the probability of success for new services to be provided in the AWS-4 band.[662] Similarly, we expect that flexibility will allow any licensee of AWS-4 authority to respond to consumer demand in a manner that, as AT&T states, would "maximize the value of the spectrum resource both to the licensee and to the public."[663]

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[653] *Id.* at 3593 ¶ 100 (citing Balanced Budget Act, Pub. L. No. 105-33, 111 Stat. 251, 268-69; 47 U.S.C. § 303(y)).

[654] *2 GHz Band Co-Allocation Report and Order*, 26 FCC Rcd at 5714-16 ¶¶ 8-13.

[655] *AWS-4 NPRM,* 27 FCC Rcd at 3594 ¶ 102.

[656] *Id.*

[657] *Id.*

[658] *See e.g.,* Alcatel Comments at 14; AT&T Comments at 10; CEA Comments at 3; COMPTEL Comments at 2; DISH Comments at 25; Nokia Comments at 4-5; NRTC Comments at 2; T-Mobile Comments at 6; Verizon Wireless Comments at 4.

[659] 47 U.S.C. § 303(y)(2).

[660] *See, e.g.,* Alcatel Comments at 6; T-Mobile Comments at 6; Verizon Wireless Comments at 4.

[661] CEA Comments at 3.

[662] NRTC Comments at 7.

[663] AT&T at i, 9; *see also* Alcatel Comments at 7; DISH Comments at 31; Nokia Comments at 5.

225. Similarly, we believe flexibility will spur investment in communications services and systems and technology development. We find that permitting licensees to use this spectrum for any use permitted by the spectrum's allocation will not deter investment in communications services and systems, or technology development.[664] The record in this proceeding unambiguously supports this determination. For example, T-Mobile states that "[f]lexible use could 'encourage innovation and investment in mobile broadband.'"[665] DISH asserts that flexibility will allow the licensee "to tailor its services to consumer demand and technological innovation."[666] Nokia explains that being able to adapt as necessary will allow operators to "address the rapid changes generated by new and innovative concepts in the marketplace."[667] Similarly, NRTC states that "flexibility will be critical in adapting to changing technology."[668]

226. We also find that permitting licensees' flexible use of the AWS-4 spectrum will not result in harmful interference among spectrum users. The technical rules we adopt today reflect careful consideration of potential interference scenarios and the overall public interest.[669] Further, the flexibility we are permitting will itself provide licensees with the ability to adjust their operations to minimize any interference that might occur.[670] Our technical rules for the AWS-4 band will permit licensees to provide a wide variety of services in these bands with a minimum of interference, and will permit both in-band (if any) and adjacent-band licensees to operate with sufficient certainty and clarity regarding their rights and responsibilities. Because we are adopting technical restrictions to protect other spectrum users, this proposal will not result in harmful interference.[671] Accordingly, the standards of Section 303(y)(2) are satisfied here. Commenters did not offer specific data on the amount of benefits or costs associated with our proposal for flexible use of the AWS-4 band. Given unanimous supports in the record and the potential benefits discussed above, we conclude that the potential benefits of our proposal would outweigh any potential costs.

b. Regulatory Framework

227. *Background.* In the *AWS-4 NPRM*, because the Commission proposed to permit flexible use of these bands, the Commission also proposed to license the spectrum under the flexible regulatory framework of Part 27 of our rules.[672] The Commission stated that Part 27 does not prescribe a comprehensive set of licensing and operating rules for the spectrum, but instead defines the permissible uses and any limitations thereon, and specifies basic licensing requirements.[673] The Commission sought comment on its proposal to apply the Part 27 rules to the AWS-4 band and the associated costs and benefits.[674]

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[664] *See* 47 U.S.C. § 303(y)(2)(B).

[665] T-Mobile Comments at 6 (citing *AWS-4 NPRM*, 27 FCC Rcd at 3561 ¶ 1).

[666] DISH Comments at 31.

[667] Nokia Comments at 5

[668] NRTC Comments at 7.

[669] *See supra* Section III.B. (Technical Issues).

[670] *See* Alcatel Comments at 7 ("flexibility will also assist the AWS-4 licensee to best address any adjacent interference").

[671] *See supra* Section III.B. (Technical Issues).

[672] *AWS-4 NPRM*, 27 FCC Rcd at 3594 ¶ 103.

[673] *Id.* at 3594 ¶ 103.

[674] *Id.* at 3594 ¶ 103.

228. *Discussion.* We determine to license the AWS-4 spectrum under Part 27 because these rules provide a broad and flexible regulatory framework for licensing spectrum, thereby enabling the spectrum to be used to provide a wide variety of broadband services. This light-handed regulatory approach permits licensees to use the spectrum for a multitude of purposes across the country and provides licensees with the ability to change technologies in response to changes in market conditions.

229. The record unanimously supports this approach.[675] For example, NRTC states that licensees should be able to take advantage of the flexibility provided by the Part 27 rules.[676] Similarly, the Consumer Electronics Association ("CEA") states that this Part 27 flexibility will allow market forces to determine what services are offered in the AWS-4 band.[677] We agree. This flexibility should allow licensees to design their systems to respond readily to consumer demand, thus allowing the marketplace to dictate the best uses of the licensed spectrum. Commenters did not offer specific data on the amount of benefits or costs associated with our proposal to apply the Part 27 rules to the AWS-4 band. Given unanimous support in the record and the potential benefits discussed above, we conclude that the potential benefits of our proposal would outweigh any potential costs.

c. Regulatory Status

230. *Background.* In the *AWS-4 NPRM*, the Commission proposed to apply the regulatory status provisions of Section 27.10 of the Commission's rules to licensees in the AWS-4 band.[678] Under this approach, the Commission permits applicants to request common carrier status as well as non-common carrier status for authorization in a single license, rather than to require the applicant to choose between common carrier and non-common carrier services.[679] In addition, the Commission proposed that an AWS-4 band licensee would be required to indicate its regulatory status based upon the type of service(s) it chooses to provide.[680] A licensee would be able to provide all allowable services anywhere within its licensed area, consistent with its regulatory status.[681] Apart from this designation of regulatory status, the Commission did not propose to require applicants to describe the services they seek to provide.[682] If a licensee changes the service or services it offers such that its regulatory status would change, the Commission proposed that the licensee be required to notify the Commission.[683] 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.[684] Consistent with our Part 27 rules, the Commission proposed to require 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,

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[675] *See, e.g.*, CEA Comments at 3-4; NRTC Comments at 7; NRTC Reply Comments at 5.

[676] *See* NRTC Comments at 7.

[677] *See* CEA Comments at 3.

[678] *AWS-4 NPRM*, 27 FCC Rcd at 3594 ¶ 104.

[679] *See* 47 C.F.R. § 27.10.

[680] *AWS-4 NPRM*, 27 FCC Rcd at 3595 ¶ 105.

[681] *AWS-4 NPRM*, 27 FCC Rcd at 3594-95 ¶ 104. For instance, we note that, 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, 47 C.F.R. §§ 20.1 *et seq.*

[682] *AWS-4 NPRM*, 27 FCC Rcd at 3595 ¶ 105.

[683] *Id.* at 3595 ¶ 106.

[684] *Id.* at 3595 ¶ 106; *see also*, 47 U.S.C. § 310(b); *see infra* Section III.G.2.a. (Foreign Ownership).

reduction, or impairment of the existing service.[685] The Commission sought comment on these proposals and the associated costs and benefits of the proposals.[686]

231. *Discussion.* No commenters directly addressed the application of Section 27.10 of the Commission's rules to the AWS-4 band. Commenters, however, overwhelmingly support increased regulatory flexibility and applying the Part 27 rules to the AWS-4 band.[687] We believe that by applying Section 27.10 of the Commission's rules to the AWS-4 band we will achieve efficiencies in the licensing and administrative process, and provide licensees with additional flexibility.[688] Therefore, we adopt the proposal from the *AWS-4 NPRM* to apply Section 27.10 of our rules to the AWS-4 band.[689]

232. Under this flexible regulatory approach, licensees in the AWS-4 band may provide common carrier, non-common carrier, private internal communications or any combination of these services, so long as the provision of service otherwise complies with applicable service rules.[690] This broad licensing framework will encourage licensees to develop new and innovative services with minimal regulatory restraint.

233. To fulfill our enforcement obligations and to ensure compliance with Titles II and III of the Communications Act, we require the licensee to identify the regulatory status of the service(s) it intends to provide. Consistent with Section 27.10 of the Commission's Rules, the licensee will not be required to describe its particular services, but only to designate the regulatory status of the service(s). We remind potential licensees that an election to provide service on a common carrier basis requires that the elements of common carriage be present;[691] otherwise the applicant must choose non-common carrier status.[692] If a potential licensee is unsure of the nature of its services and whether classification as common carrier is appropriate, it may submit a petition with its applications, or at any time, requesting clarification and including service descriptions for that purpose.[693]

234. We also determine that if the licensee elects to change the service or services it offers such that its regulatory status would change, it must notify the Commission and must do so within 30 days of making the change.[694] A change in the licensee's regulatory status will not require prior

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[685] *AWS-4 NPRM,* 27 FCC Rcd at 3595 ¶ 106; *see also* 47 C.F.R. § 27.66.

[686] *AWS-4 NPRM,* 27 FCC Rcd at 3595 ¶¶ 104-06.

[687] *See supra* Sections III.G.1.a.. (Flexible Use), III.G.1.b. (Regulatory Framework).

[688] *See AWS-4 NPRM,* 27 FCC Rcd at 3594-95 ¶ 104.

[689] *Id.* at 3594-95 ¶¶ 104-06.

[690] *See* FCC Form 601.

[691] *See* 47 U.S.C. § 153(44) ("A telecommunications carrier shall be treated as a common carrier under this Act"); *see also* 47 U.S.C. § 332(C)(1)(A) ("A person engaged in the provision of a service that is a commercial mobile service shall, insofar as such person is so engaged, be treated as a common carrier for purposes of this Act").

[692] *See Part 27 Report and Order*, 12 FCC Rcd at 10848 ¶¶ 121-22. The Commission examined services in the *LMDS Second Report and Order* and explained that any video programming service would be treated as a non-common carrier service. Rulemaking to Amend Parts 1, 2, 21, and 25 of the Commission's Rules to Redesignate the 27.5-29.5 GHz Frequency Band, to Reallocate the 29.5-30.0 GHz Frequency Band, to Establish Rules and Policies for Local Multipoint Distribution Service and for Fixed Satellite Services, CC Docket No. 92-297, *Second Report and Order, Order on Reconsideration, and Fifth Notice of Proposed Rulemaking*, 12 FCC Rcd 12545, 12639-41 ¶¶ 213-15 (1997) (*LMDS Second Report and Order*); *aff'd, Melcher v. FCC*, 134 F.3d 1143 (D.C. Cir. 1998).

[693] *Part 27 Report and* Order, 12 FCC Rcd at 10848 ¶ 121.

[694] *See* 47 C.F.R. § 27.10(d). *See also* 47 C.F.R. § 27.66.

Commission authorization, provided the licensee is in compliance with the foreign ownership requirements of Section 310(b) of the Communications Act that apply as a result of the change.[695] We note, however, that a different time period (other than 30 days) may apply, as determined by the Commission, where the change results in the discontinuance, reduction, or impairment of the existing service.[696]

2. Ownership Restrictions

a. Foreign Ownership

235. *Background*: In the *AWS-4 NPRM*, the Commission observed that Sections 310(a) and 310(b) of the Communications Act impose foreign ownership and citizenship requirements that restrict the issuance of licenses to certain applicants.[697] The Commission stated that Section 27.12 of its rules implements these restrictions and proposed to apply Section 27.12 to applicants applying for licenses in the AWS-4 band.[698] With respect to filing applications, the Commission proposed that all applicants provide the same foreign ownership information, which covers both Sections 310(a) and 310(b), regardless of whether they propose to provide common carrier or non-common carrier service in the band. The Commission sought comment on this proposal, including any associated costs or benefits.

236. *Discussion*: Based on our statutory responsibilities, we determine that all licensees of AWS-4 authority shall be subject to the provisions of Section 27.12 of the Commission's rules.[699] All such entities are subject to Section 310(a) of the Communications Act, which prohibits licenses from being "granted to or held by any foreign government or the representative therefore."[700] In addition, as

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[695] 47 U.S.C. § 310(b); *see infra* Section III.G.2.a. (Foreign Ownership).

[696] *See* 47 C.F.R. § 27.66.

[697] *AWS-4 NPRM*, 27 FCC Rcd at 3596 ¶ 107 (citing 47 U.S.C. §§ 310(a), (b)). The relevant provisions of section 310 are as follows:

> Sec. 310. Limitation on Holding and Transfer of Licenses.
>
> (a) The station license required under this Act shall not be granted to or held by any foreign government or representative thereof.
>
> (b) No broadcast or common carrier or aeronautical en route or aeronautical fixed radio station license shall be granted to or held by—
>
> (1) any alien or the representative of any alien;
>
> (2) any corporation organized under the laws of any foreign government;
>
> (3) any corporation of which more than one-fifth of the capital stock is owned of record or voted by aliens or their representatives or by a foreign government or representative thereof or by any corporation organized under the laws of a foreign country;
>
> (4) any corporation directly or indirectly controlled by any other corporation of which more than one-fourth of the capital stock is owned of record or voted by aliens, their representatives, or by a foreign government or representative thereof, or by any corporation organized under the laws of a foreign country, if the Commission finds that the public interest will be served by the refusal or revocation of such license.

[698] *AWS-4 NPRM*, 27 FCC Rcd at 3596 ¶ 107 (citing 47 C.F.R. § 27.12, which provides that: "Except as provided in §§ 27.604, 27.1201, and 27.1202, any entity other than those precluded by section 310 of the Communications Act . . . is eligible to hold a license under this part.").

[699] 47 C.F.R. § 27.12.

[700] 47 U.S.C. § 310(a).

applicable here, a licensee that would provide a common carrier, aeronautical en route, or aeronautical fixed service in this band would also be subject to the foreign ownership and citizenship requirements in Section 310(b) of the Communications Act.[701]

237. We did not receive any comments opposing our proposal that applicants for this band be required to provide the same foreign ownership information in their filings, regardless of the type of service the licensee would provide using its authorization. Since we are adopting a flexible approach to licensing the AWS-4 band, we determine that all licensees will be subject to the same requirements for filing foreign ownership information in their applications. Therefore, we will require all licensees to provide the same foreign ownership information, which covers both Sections 310(a) and 310(b) of the Communications Act, regardless of whether the licensee will provide common carrier or non-common carrier service. 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.

b. Eligibility and Mobile Spectrum Holding Policies

238. *Background.* 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."[702] In the *AWS-4 NPRM* the Commission proposed not to apply any eligibility restrictions to AWS-4 licenses.[703] The Commission stated that it believed that open eligibility in the AWS-4 band would not pose a significant likelihood of substantial harm to competition in any specific markets and that open eligibility in these bands is consistent with the FCC's statutory mandate to promote the development and rapid deployment of new technologies, products, and services; economic opportunity and competition; and the efficient and intensive use of the electromagnetic spectrum.[704] The Commission sought comment on this approach and asked commenters to discuss the costs and benefits of the open eligibility proposal on competition, innovation, and investment.[705] No commenters specifically addressed this issue.

239. Access to spectrum is a precondition to the provision of mobile wireless services. Ensuring the availability of sufficient spectrum is critical for promoting the competition that drives innovation and investment. Currently, the Commission generally addresses mobile spectrum holdings issues using a case-by-case analysis. In the *AWS-4 NPRM*, the Commission sought comment on whether and, if so, how to address any such concerns involving AWS-4 spectrum, including on the costs and benefits of any proposals.[706]

240. Several parties addressed mobile spectrum holdings issues in their comments. For example, NRTC stated that AWS-4 spectrum should be subject to the same spectrum aggregation policies that apply to other CMRS spectrum bands.[707] AT&T argued that the AWS-4 spectrum should be included

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[701] 47 U.S.C. § 310(b).

[702] *See* Spectrum Act at § 6404.

[703] *AWS-4 NPRM,* 27 FCC Rcd at 3596 ¶ 109.

[704] *Id.* at 3596 ¶ 109 (citing 47 U.S.C. §§ 309(j)(3)(A), (B) & (D)).

[705] *AWS-4 NPRM,* 27 FCC Rcd at 3596 ¶ 109.

[706] *Id.* at 3596-97 ¶¶ 110-11.

[707] NRTC Comments at 8; NRTC Reply Comments at 5-6.

in the Commission's spectrum screen.[708] And Council Tree asserted that the Commission should establish generally applicable spectrum aggregation limits, beyond the current screen, to all mobile telephony/broadband services.[709] Finally, subsequent to the comment dates for the *AWS-4 NPRM*, the Commission opened a proceeding to examine its mobile spectrum holding policies.[710]

241. *Discussion.* The Commission has previously determined in a number of services that eligibility restrictions on licenses may be imposed only when open eligibility would pose a significant likelihood of substantial harm to competition in specific markets and when an eligibility restriction would be effective in eliminating that harm. This approach relies on market forces absent a compelling showing that regulatory intervention to exclude potential participants is necessary.[711]

242. There is nothing in the record indicating that open eligibility in the AWS-4 band would pose a significant likelihood of substantial competitive harm in the broadband services market. Therefore, consistent with our findings on this issue for other spectrum bands, we find that open eligibility in this band is consistent with our statutory mandate to promote the development and rapid deployment of new technologies, products, and services; economic opportunity and competition; and the efficient and intensive use of the electromagnetic spectrum.[712] The open eligibility is also consistent with Section 6404 of the Spectrum Act.[713] Given the record before us, we conclude that the potential benefits of open eligibility would outweigh any potential costs.[714]

243. The Commission recently opened a general rulemaking proceeding to broadly examine its policies and rules regarding mobile spectrum holdings.[715] Given that recently-initiated proceeding, we decline to address here the narrower issue of how to assess AWS-4 spectrum holdings for purposes of spectrum concentration analysis. During the pendency of the *Mobile Spectrum Holdings Policies* proceeding, we will continue to apply our case-by-case approach to secondary market transactions and initial license applications as necessary.[716]

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[708] AT&T Comments at 11.

[709] Council Tree Comments at 14-16.

[710] Policies Regarding Mobile Spectrum Holdings, WT Docket No. 12-269, *Notice of Proposed Rulemaking*, 27 FCC Rcd 11710 (2012) (*Mobile Spectrum Holdings Policies NPRM*).

[711] *See, e.g.*, Service Rules for the 698-746, 747-762 and 777-792 MHz Bands, WT Docket No. 06-150, *Second Report and Order*, 22 FCC Rcd 15289, 15381, 15383-84 ¶¶ 253, 256 (2007); Allocations and Service Rules for the 71-76 GHz, 81-86 GHz and 92-95 GHz Bands, *Report and Order*, 18 FCC Rcd 23318 at 23346-47 ¶ 70 (2003); *see also AWS-4 NPRM*, 27 FCC Rcd at 3596 ¶ 108.

[712] *See* 47 U.S.C. § 309(j)(3)(A), (B), & (D).

[713] *See* Spectrum Act at § 6404.

[714] We note that, although there will be no band specific eligibility restrictions on holding a AWS-4 operating authority, as discussed earlier the terrestrial operating authority will be granted to the incumbent 2 GHz MSS authorization holders through license modifications pursuant to Section 316 of the Act. *See infra* Section III.D. (Assignment of AWS-4 Operating Authority).

[715] *See Mobile Spectrum Holdings Policies NPRM*, 27 FCC Rcd 11710.

[716] *Id.* at 11718 ¶ 16 n.59.

3. Secondary Markets

a. Partitioning and Disaggregation

244. *Background.* The Commission's Part 27 rules generally allow for geographic partitioning and spectrum disaggregation.[717] 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 a discrete amount 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 providing licensees with the flexibility to make offerings directly responsive to market demands for particular types of services, increase competition by allowing market entry by new entrants, and expedite provision of services that might not otherwise receive service in the near term.[718]

245. In the *AWS-4 NPRM*, the Commission sought comment on allowing licensees in the AWS-4 band to partition their service areas or to disaggregate their spectrum into new licenses.[719] The Commission's Part 27 rules for terrestrial wireless service provide that licensees may apply to partition their licensed geographic service areas or disaggregate their licensed spectrum at any time following the grant of their licenses.[720] The Commission's rules also set forth the general requirements that apply with regard to approving applications for partitioning or disaggregation, as well as other specific requirements (*e.g.*, performance requirements) that would apply to licensees that hold licenses created through partitioning or disaggregation. The Commission sought comment on applying these general procedures and requirements to any permissible partitioning or disaggregation of AWS-4 licenses. In particular, the Commission sought comment on the performance requirements that would apply to any license created through partitioning or disaggregation.[721] The Commission proposed requiring each licensee of AWS-4 authority who is a party to a partitioning, disaggregation or combination of both to independently meet the applicable performance and renewal requirements.[722] The Commission sought comment on these proposals and asked that commenters discuss and quantify the costs and benefits of these proposals on competition, innovation, and investment.[723]

246. The Commission acknowledged, however, that there may be technical impediments to partitioning or disaggregating satellite spectrum and service.[724] The Commission, therefore, sought

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[717] *See* 47 CFR § 27.15.

[718] Geographic Partitioning and Spectrum Disaggregation by Commercial Mobile Radio Service Licensees, WT Docket No. 96-148 *Report and Order and Further Notice of Proposed Rulemaking*, 11 FCC Rcd 21831, 21833 ¶ 1 (1996).

[719] *AWS-4 NPRM*, 27 FCC Rcd at 3598 ¶ 113.

[720] *See Part 27 Report and Order*, 12 FCC Rcd at 10836-39 ¶¶ 96-103.

[721] *AWS-4 NPRM*, 27 FCC Rcd at 3598 ¶ 113.

[722] *Id.* at 3598 ¶ 113.

[723] *Id.* at 3598 ¶ 113.

[724] *Id.* at 3598-99 ¶ 114 (noting that the Commission was seeking comment on the Commission's earlier conclusion that the complexities of coordination between MSS and terrestrial operations render impractical assignment of terrestrial licenses to an entrant other than the incumbent MSS licensee(s)).

comment on whether the actual capabilities of existing or future satellites make partitioning or disaggregation of spectrum difficult or problematic.[725]

247. The Commission also acknowledged that Part 25 of its rules does not contain provisions governing the partition or disaggregation of MSS.[726] The Commission thus sought comment on whether, in the event the Commission permits partitioning or disaggregation for licensees of AWS-4 authority, the Part 25 rules also should be amended to address partitioning and disaggregation of 2 GHz MSS spectrum by its licensees. The Commission also asked if any permitted partitioning or disaggregation should apply to AWS-4 use individually or only to the entire terrestrial and mobile satellite authorization. Commenters were asked to discuss and quantify the costs and benefits of allowing partitioning and disaggregation of AWS-4 spectrum.[727]

248. *Discussion.* Partitioning and disaggregation promote the efficient use of spectrum and increase competition. These secondary market tools also should expedite the provision of service to rural and other underserved areas of America as well as to niche markets.[728]

249. We conclude that a licensee of AWS-4 authority should have the same ability to partition its service territories and disaggregate its spectrum as other wireless licensees and, therefore will allow any such licensee to partition its service areas or to disaggregate its spectrum to the extent permitted by section 27.15 of the Commission's rules.[729] We acknowledge that, as the record indicates, there may be technical complexities associated with partitioning and disaggregation specific to the satellite overlay that exists in the band. For example, CEA contends that partitioning and disaggregation should be permitted in the AWS-4 band to the extent technically feasible and NRTC states that partitioning and disaggregation will be technically complex.[730] Further, SIA and US GPSIC argue that partitioning and disaggregation should be prohibited in the AWS-4 band due to coordination and technical difficulties.[731] Although these coordination and technical issues are real—indeed, they are central to our assignment determinations, above—the fact that we will assign AWS-4 operating authority to the 2 GHz MSS licensees mitigates against the need to prohibit partitioning or disaggregation. Additionally, the MSS interference protection rule we adopt above will "run with the license", obligating any partitionee or disaggregatee to avoid interference with MSS operations.[732]

250. To the extent that a licensee of AWS-4 authority develops the ability (through technical advances or coordination measures) to ensure that an AWS-4 partitionee or disagregatee would not cause

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[725] *AWS-4 NPRM,* 27 FCC Rcd at 3598-99 ¶ 114.

[726] *Id.* at 3598 ¶ 114; *see* 47 C.F.R. Part 25.

[727] *AWS-4 NPRM,* 27 FCC Rcd at 3598-99 ¶ 114.

[728] *See* Amendment of Parts 1, 22, 24, 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, WT Docket No. 10-112, *Notice of Proposed Rulemaking and Order*, 25 FCC Rcd 6996 at 7024-25 ¶ 75 (*WRS Renewals NPRM and Order*), citing *CMRS Partitioning and Disaggregation* Order, 11 FCC Rcd at 21843 ¶ 14 ("increasing the number of parties that may obtain partitioned PCS licenses will lead to more efficient use of PCS spectrum and will speed service to underserved or rural areas").

[729] 47 C.F.R. § 27.15.

[730] CEA Comments at 3; NRTC Comments at 8.

[731] SIA Comments at 5; US GPIC Comments at 4.

[732] *See infra* Section III.C. (Protection of MSS Operations).

harmful interference to MSS operations, we find no basis to restrict it from entering into partitioning or disaggregation arrangements in the same manner as other Part 27 licensees.

251. As explained above and in the *AWS-4 NPRM*, the Commission determined that, based on the facts in this band, a grant of AWS-4 operating authority to a third party would potentially compromise the existing rights of existing satellite licensees.[733] A private party licensee, however, is free to choose voluntarily to enter into a business relationship that includes its agreeing to not pursue all of its rights or even to encumber some of its rights. This is particularly so, if the licensee's forgoing of its rights furthers larger Commission goals. Stated otherwise, while we decline to grant AWS-4 authority to parties in a manner that would undermine the existing MSS licensees,[734] we find it would be consistent with the Commission's goal of widespread mobile broadband availability to permit an MSS licensee to limit voluntarily its ability to offer satellite service as part of a secondary market arrangement enabling another party to better provide flexible use terrestrial service, including mobile broadband using AWS-4 spectrum. For example, a licensee may determine that it would be best for it to give up its rights to interference protection for its satellite operations for a certain geographic area or a specific portion of its spectrum and permit another licensee to have a license for terrestrial use for the corresponding geographic area or spectrum.

252. Thus, we believe that any licensee of AWS-4 authority should have the same freedom as other wireless licensees to use its licensed spectrum in the way that the licensee determines would make the best business sense through the use of partitioning or disaggregation. A licensee of AWS-4 authority should be permitted the discretion to determine the amount of spectrum it will occupy and the area it will serve consistent with its business plan.[735] Accordingly, we find it in the public interest to permit any licensee of AWS-4 authority to partition any geographic portion of its license area, at any time following the grant of its license, and to also permit any such licensee to disaggregate spectrum in any amount, at any time following the grant of its license.[736]

253. We further conclude that the public interest would be served by requiring each party to a partitioning, disaggregation, or combination of both in the AWS-4 band to individually meet the applicable AWS-4 performance requirements. As the Commission observed in the *WRS NPRM*, this approach should lead to more efficient spectrum usage and prevent the avoidance of timely construction through secondary market fiat, while still providing operators with the flexibility to design their networks according to their operational and business needs.[737] In addition, commenters did not offer specific costs associated with the geographic partitioning and spectrum disaggregation rules for the AWS-4 band. Given the benefits discussed above, we conclude that the potential benefits of the partitioning and disaggregation rules would likely outweigh any potential costs.

b. Spectrum Leasing

254. *Background.* In order to promote more efficient use of terrestrial wireless spectrum through secondary market transactions, while also eliminating regulatory uncertainty, the Commission, in

[733] There are mechanisms whereby the Commission can limit or even revoke the right to use spectrum of a particular licensee (*e.g.*, revocation under Section 312 of the Communications Act). Because the 2 GHz MSS licensees have met their satellite milestones and committed to offer MSS to the public, we do not pursue such options here. *See* DISH Comments at 2; DISH Reply at 9-12, 20.

[734] *See supra* Section III.D. (Assignment of AWS-4 Operating Authority).

[735] *See WRS Renewals NPRM and Order,* 25 FCC Rcd at 7025 ¶ 76.

[736] 47 C.F.R. § 27.15(a)(2); *see also Part 27 Report and Order*, 12 FCC Rcd at 10836-39 ¶¶ 96-103.

[737] *See WRS Renewals NPRM and Order,* 25 FCC Rcd at 7023, 7029 ¶¶ 73, 91.

2003, adopted a comprehensive set of policies and rules to govern spectrum leasing arrangements between terrestrial licensees and spectrum lessees.[738] These policies and rules enabled 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 would be permitted to provide wireless services consistent with the underlying license authorization.[739] 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.[740] 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.[741] Most recently, in 2011 in the *2 GHz Band Co-Allocation Order*, the Commission extended its secondary market spectrum leasing policies, procedures, and rules to MSS/ATC spectrum and licenses for spectrum manager lease arrangements.[742]

255. In the *AWS-4 NPRM*, the Commission sought comment on the extent to which the Commission's secondary markets spectrum leasing policies and rules should be extended to AWS-4 spectrum.[743] The Commission proposed to extend spectrum manager lease arrangements to AWS-4 spectrum.[744] With regard to *de facto* transfer lease arrangements, the Commission proposed to permit them only to the extent that the disaggregation and partitioning of AWS-4 spectrum and licenses is

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[738] Promoting Efficient Use of Spectrum Through Elimination of Barriers to the Development of Secondary Markets, WT Docket No. 00-230, *Report and Order and Further Notice of Proposed Rulemaking*, 18 FCC Rcd 20604 (2003) (*Secondary Markets First Report and Order*), *Erratum*, 18 FCC Rcd 24817 (2003).

[739] *Secondary Markets First Report and Order*, 18 FCC Rcd at 20609-13, 20648-49 ¶¶ 8-9, 12-13, 91-92. Wireless Radio Services do not include satellite services. 47 C.F.R. § 1.907. Under these secondary market policies and rules, the service rules and policies applicable to the licensee under its license authorization—including all technical, interference, and operational rules—apply to the spectrum lessee as well. *Secondary Markets First Report and Order*, 18 FCC Rcd at 20648-49 ¶¶ 91-92; *see* 47 C.F.R.§§ 1.9020(c)-(d), 1.9030 (c)-(d), 1.9035(c)-(d). The rules and procedures for spectrum leasing arrangements are set forth in Part 1, Subpart X. 47 C.F.R §§ 1.9001 *et seq.*

[740] *See Secondary Markets First Report and Order*, 18 FCC Rcd at 20607 ¶ 2.

[741] Promoting Efficient Use of Spectrum Through Elimination of Barriers to the Development of Secondary Markets, WT Docket No. 00-230, *Second Report and Order, Order on Reconsideration, and Second Further Notice of Proposed Rulemaking*, 19 FCC Rcd 17503 (2004) (*Secondary Markets Second Report and Order*). The Commission has added more terrestrial services to this spectrum leasing framework, including the AWS-1 in 2003 (*AWS-1 Report and Order)* and the Broadband Radio Services and Educational Broadband Services in 2004 (Amendment of Parts 1, 21, 73, 74 and 101 of the Commission's Rules to Facilitate the Provision of Fixed and Mobile Broadband Access, Educational and Other Advanced Services in the 2150-2162 and 2500-2690 MHz Bands, WT Docket Nos. 03-66, 03-67, 02-68, 00-230, MM Docket No. 97-217, *Report and Order and Further Notice of Proposed Rulemaking*, 19 FCC Rcd 14165, 14232-34 ¶¶ 177-181 (2004).

[742] *2 GHz Band Co-Allocation Report and Order*, 26 FCC Rcd at 5716-19 ¶¶ 14-19. The Commission did not extend the secondary market regime to MSS/ATC *de facto* transfer lease arrangements because that would have been inconsistent with the need to have the same entity control both the terrestrial and satellite operations. Additionally, as explained in the *MSS NPRM*, the application of the secondary market rules to MSS/ATC spectrum does not apply to the BAS and FSS operations currently in the 2 GHz band or to MSS leasing arrangements (*e.g.*, transponder leases) that do not involve spectrum associated with terrestrial operations. *MSS Fixed and Mobile Allocation NPRM*, 25 FCC Rcd at 9488-92 ¶¶ 17-25.

[743] *AWS-4 NPRM*, 27 FCC Rcd at 3600 ¶ 117.

[744] *Id.* at 3600 ¶ 117.

permitted.[745] The Commission also proposed, however, not to allow *de facto* transfer lease arrangements for AWS-4 spectrum or licenses, to the extent that the Commission finds that the complexities of coordination between MSS and terrestrial operations renders impractical assignment of terrestrial licenses to an entrant other than the incumbent MSS licensee(s).[746] The Commission sought comment on these proposals, and asked commenters to discuss the costs and benefits for competition, innovation, and investment of extending the Commission's secondary spectrum leasing policies and rules to AWS-4 spectrum.[747]

256. The record unanimously supports permitting spectrum manager lease arrangements for AWS-4 spectrum,[748] but is mixed with regard to *de facto* transfer lease arrangements.[749] Several parties urge the Commission to extend our existing secondary markets leasing rules and policies to the AWS-4 spectrum.[750] Others, however, urge the Commission not to permit *de facto* leasing arrangements, arguing that it would be difficult for parties to such licenses to overcome the technical difficulties to reach workable sharing arrangements.[751]

257. *Discussion.* We find it in the public interest to apply the same comprehensive set of rules, policies, and procedures governing spectrum leasing arrangements between terrestrial licensees and spectrum lessees that we have adopted for other wireless spectrum bands to the AWS-4 band.[752] This decision will encourage innovative arrangements and investment in the AWS-4 band.

258. We extend our secondary leasing policies to both spectrum manager lease arrangements and *de facto* transfer lease arrangements.[753] For a particular spectrum band, spectrum leasing policies generally follow the same approach as the partitioning and disaggregation policies for the band. In the *AWS-4 NPRM*, we observed this relationship between partitioning/disaggregation and spectrum leasing, but did not make a specific proposal with respect to whether to permit partitioning and disaggregation of AWS-4 spectrum. Consistent with our determination, above, to permit partitioning and disaggregation of AWS-4 spectrum,[754] we permit spectrum leasing of AWS-4 spectrum, including both categories of spectrum lease arrangements.[755]

259. We acknowledge that in the *2 GHz Band Co-Allocation Order* the Commission did not extend the secondary market regime to permit MSS/ATC *de facto* transfer lease arrangements.[756] The facts underlying that decision, however, differ from those here. In the case of MSS/ATC spectrum, terrestrial operations were explicitly ancillary to satellite operations and terrestrial operations were

[745] *Id.* at 3600 ¶ 117.

[746] *Id.* at 3600 ¶ 117.

[747] *Id.* at 3600 ¶ 117.

[748] *See, e.g.*, CEA Comments at 4; NRTC Reply Comments at 5-6; TIA Comments at 21.

[749] *See, e.g.*, SIA Comments at 5; USGIC at 4.

[750] *See, e.g.*, CEA Comments at 4; NRTC Reply Comments at 5-6; TIA Comments at 21.

[751] *See, e.g.*, USGIC at 4; *see also* SIA Comments at 5.

[752] *See generally Secondary Markets First Report and Order*, 18 FCC Rcd 20604; *Secondary Markets Second Report and Order*, 19 FCC Rcd 17503.

[753] *See, e.g.*, CEA Comments at 4; TIA Comments at 20.

[754] *See supra* Section III.G.3.a. (Partitioning and Disaggregation).

[755] *See AWS-4 NPRM*, 27 FCC Rcd at 3600 ¶ 117.

[756] *2 GHz Band Co-Allocation Report and Order*, 26 FCC Rcd at 5716-19 ¶¶ 14-19.

premised on the operator satisfying the ATC gating criteria, some of which require at least a certain amount of control over satellite operations, control an ATC lessee would not be able to exercise.[757] That is not the situation here. The AWS-4 terrestrial spectrum use will not be ancillary to satellite 2 GHz MSS use. Rather, subject to the technical rules established herein, terrestrial and satellite uses will exist under co-primary allocations and will have equal status. Further, an AWS-4 terrestrial lessee will not be responsible for meeting satellite obligations, including the ATC gating criteria, which we are eliminating (along with the entire ATC regime) for the 2 GHz MSS band. Accordingly, we decline to adopt the Commission's proposal to not permit *de facto* lease arrangements of AWS-4 spectrum and reject the similar position of a handful of commenters. Instead, for the aforementioned reasons, we permit these lease arrangements, as well as spectrum manager lease arrangements for AWS-4 spectrum. Additionally, the MSS interference protection rule we adopt above will "run" with either type of leasing arrangement, obligating any lessee to avoid interference with MSS operations.[758] Given the record before us, we conclude that the potential benefits of extending these rules, policies, and procedures are likely to outweigh the potential costs.

4. License Term, Renewal Criteria, and Permanent Discontinuance of Operations

a. License Term

260. *Background.* In the *AWS-4 NPRM*, the Commission proposed to establish a 10-year term for AWS-4 licenses.[759] Although the Communications Act does not require a specific term for spectrum licenses,[760] the Commission has adopted 10-year terms for many wireless radio services.[761] The Commission sought comment on its proposal to establish a 10-year term for AWS-4 spectrum rights, including on its costs and benefits.[762] The Commission also sought comment on whether the spectrum rights should match the 15-year term of the satellite licenses and, if so, inquired how this could be accomplished given that the term of the two 2 GHz MSS licenses have different expiration dates.[763]

261. The Commission proposed, in addition, that, if the terrestrial authority under a license 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.[764] The Commission emphasized that nothing in this proposal was intended to enable a licensee, by partitioning or disaggregation, to be able to confer greater rights than it was awarded under the terms of its license grant; nor would any partitionee or disaggregatee obtain rights in excess of those previously possessed by the underlying Commission licensee.[765] The Commission sought comment on these proposals, including on their costs and benefits.

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[757] *Id.* at 5717 ¶ 16.

[758] *See infra* Section III.C. (Protection of MSS Operations).

[759] *AWS-4 NPRM*, 27 FCC Rcd at 3600 ¶ 118.

[760] The only statutory limit on license terms is eight years for licenses in the broadcast services. *See* 47 U.S.C. § 307(c)(1); *see also* 47 C.F.R. § 73.1020(a). The Table of Frequency Allocations does not permit broadcast use of the 2155-2175 MHz band. 47 C.F.R. § 2.106.

[761] *AWS-4 NPRM*, 27 FCC Rcd at 3600 ¶ 118; *see, e.g.*, 47 C.F.R. §§ 24.15, 27.13(a).

[762] *Id.* at 3600 ¶ 118.

[763] *Id.* at 3600-01 ¶ 119.

[764] *Id.* at 3601 ¶ 120.

[765] *Id.* at 3601 ¶ 120.

262. *Discussion.* We adopt a license term for AWS-4 spectrum rights of ten years and subsequent renewal terms of ten years and we modify Section 27.13 of the Commission's rules to reflect these determinations.[766] We find our decision consistent with the Commission's adoption of ten-year license terms in most other Part 27 services[767] and in services using similar spectrum, such as that used for PCS.[768] Thus, in adopting a 10-year license term, we treat holders of AWS-4 spectrum rights similarly to licensees providing like services. Further, no party opposed (or commented on) the Commission's license term proposal.

263. In addition, we adopt the Commission's proposal that, in the event that the terrestrial portion of a license is partitioned or disaggregated, any partitionee or disaggregatee will be authorized to hold its license for the remainder of the partitioner's or disaggregator's license term. Although the parties to such an arrangement may agree that the arrangement will terminate prior to the end of the license term, the arrangement may not remain in effect longer than the license term (or any subsequent renewal term). Thus, we ensure that a licensee, by partitioning or disaggregation, will not be able to confer greater rights on another party than it was awarded by the Commission under the terms of its license grant. This approach is similar to the partitioning and disaggregation provisions the Commission adopted for licensees in other spectrum bands, including for the BRS (formerly MDS),[769] broadband PCS,[770] 700 MHz band,[771] and AWS-1 bands.[772] Accordingly, we conclude that the potential benefits of the proposed license terms would outweigh any potential costs.

b. Renewal Criteria

264. *Background.* In the *AWS-4 NPRM,* the Commission proposed to adopt AWS-4 renewal requirements consistent with those adopted in the *700 MHz First Report and Order*, which form the basis of the renewal paradigm proposed in the *Wireless Radio Services Renewal NPRM.*[773] The Commission emphasized that, as was set forth in both of these items, a performance showing and a renewal showing

[766] 47 C.F.R. § 27.13.

[767] *See* 47 C.F.R. § 27.13, describing initial license terms for licensees in the 2305-2320 MHz and 2345-2360 MHz Bands (ten years), 698-764 MHz and 776-794 MHz Bands (ten years, except for initial authorizations for (1) broadcast service providers and (2) licensees in the 746-747 MHz, 776-777 MHz, 762-764 MHz and 792-794 MHz Bands), 1390-1392 MHz Band (ten years), 1392-1395 MHz and 1432-1435 MHz Bands (ten years), 1670-1675 MHz Band (ten years); *but see AWS-1 Report and Order*, 18 FCC Rcd at 25190 ¶ 70 (fifteen years).

[768] *See* 47 C.F.R. § 24.15.

[769] *See* Amendment of Parts 21 and 74 of the Commission's Rules With Regard to Filing Procedures in the Multipoint Distribution Service and in the Instructional Television Fixed Service, MM Docket No. 94-131, *Report and Order,* 10 FCC Rcd 9589, 9614 ¶ 46 (1995).

[770] *See* Geographic Partitioning and Spectrum Disaggregation by Commercial Mobile Radio Services Licensees and Implementation of Section 257 of the Communications Act—Elimination of Market Barriers, WT Docket No. 96-1148, *Report and Order and Further Notice of Proposed Rulemaking,* 11 FCC Rcd 21831, 21870 ¶¶ 76-77 (1996).

[771] *See* Service Rules for the 746-764 and 776-794 MHz Bands, and Revisions to Part 27 of the Commission's Rules, WT Docket No. 99-168, *First Report and Order*, 15 FCC Rcd 476, 506-08 ¶ 73-78 (2000) (*Upper 700 MHz First Report and Order)*; Reallocation and Service Rules for 698-746 MHz Spectrum Band, *Report and Order*, 17 FCC Rcd 1022, 1079-81 (2002).

[772] *See AWS-1 Service Rules Report and Order*, 18 FCC Rcd at 25193-95 ¶¶ 80-83.

[773] *AWS-4 NPRM,* 27 FCC Rcd at 3601 ¶ 121; *see* Service Rules for the 698-746, 747-762 and 777-792 MHz Bands, WT Docket Nos. 06-150, 01-309, 03-264, 06-169, 96-86, CC Docket No. 94-102, PS Docket No. 06-229, *Report and Order and Further Notice of Proposed Rulemaking* 22 FCC Rcd 8064 at 8093-94 ¶ 75-77 (2007) (*700 MHz First Report and Order*); *WRS Renewals NPRM and Order,* 25 FCC Rcd at 6997-98, 7002-09 ¶¶ 2, 16-32.

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."[774]

265. The Commission proposed that applicants for renewal of AWS-4 spectrum rights file a "renewal showing," in which they demonstrate that they have been and are continuing to provide service to the public, and are compliant with the Commission's rules and policies and with the Communications Act.[775] The Commission proposed that the same factors that were discussed in the *700 MHz First Report and Order* and in the *WRS Renewals NPRM and Order*, such as the level and quality of service, whether service was ever interrupted or discontinued, and whether service has been provided to rural areas and to qualifying tribal lands, should be considered when evaluating renewal showings for the AWS-4 band, and sought comment on this approach.[776] The Commission also requested that commenters discuss and quantify the costs and benefits of this approach, including on competition, innovation, and investment.[777]

266. In the *AWS-4 NPRM*, the Commission also proposed that AWS-4 spectrum holders meet three and seven-year performance obligations and sought comment on whether licensees should obtain a renewal expectancy for subsequent license terms, if they continue to provide at least the level of service demonstrated at the seven-year performance benchmark through the end of any subsequent license terms.[778] The Commission asked commenters to discuss and quantify the costs and benefits of this approach, including on competition, innovation, and investment.[779]

267. The Commission further proposed prohibiting the filing of mutually exclusive renewal applications[780] and proposed that if a license is not renewed, the associated spectrum would be returned to the Commission for reassignment.[781] The Commission sought comment on these proposals, including the costs and benefits of these proposals.[782]

268. No comments were filed in this proceeding on the issue of renewal criteria.

269. *Discussion*. 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."[783] We find that all licensees of spectrum in the AWS-4 band seeking renewal of their authorizations at the end of their license term must

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[774] *AWS-4 NPRM*, 27 FCC Rcd at 3601 ¶ 121.

[775] *Id.* at 3602 ¶ 122; *see WRS Renewals NPRM and Order*, 25 FCC Rcd at 6997-98, 7002-09 ¶¶ 2, 16-32.

[776] *AWS-4 NPRM*, 27 FCC Rcd at 3601-02 ¶ 121-22; *see 700 MHz First Report and Order*, 22 FCC Rcd at 8093 ¶ 75; *see WRS Renewals NPRM and Order*, 25 FCC Rcd at 6997-98, 7002-09 ¶¶ 2, 16-32; *see also WRS Renewals NPRM and Order*, 25 FCC Rcd at 7043 App. A (proposed rule 1.949(c)(4)).

[777] *AWS-4 NPRM*, 27 FCC Rcd at 3602 ¶ 122.

[778] *Id.* at 3602 ¶ 123.

[779] *Id.* at 3602 ¶ 123.

[780] *AWS-4 NPRM*, 27 FCC Rcd at 3602 ¶ 124 (citing *WRS Renewals NPRM and Order*, 25 FCC Rcd at 6998, 7012-13 ¶¶ 3, 40-42; *700 MHz First Report and Order*, 22 FCC Rcd at 8093-8094 ¶¶ 76-77).

[781] *AWS-4 NPRM*, 27 FCC Rcd at 3602 ¶ 124 (citing *WRS Renewals NPRM and Order*, 25 FCC Rcd at 6998, 7013-14 ¶¶ 3, 43-44; *700 MHz First Report and Order*, 22 FCC Rcd at 8093 ¶ 76).

[782] *AWS-4 NPRM*, 27 FCC Rcd at 3602 ¶ 124.

[783] 47 U.S.C. § 308(b).