By the Acting Chief, Wireless Telecommunications Bureau:

TABLE OF CONTENTS

I. SUMMARY OF ACTION ..................................................................................................................... 1
II. BACKGROUND AND DISH PETITION ............................................................................................. 5
III. DISCUSSION ...................................................................................................................................... 10
   A. Waiver Standard ............................................................................................................................ 11
   B. Waiver of Technical Rules ............................................................................................................. 12
      1. DISH Petition .......................................................................................................................... 12
      2. Application of Waiver Standard .............................................................................................. 18
      3. Technical Analysis .................................................................................................................. 24
   C. Election Period ............................................................................................................................... 38
   D. One-Year Waiver of the Final Build-Out Milestone ..................................................................... 41
   E. Waiver Conditions ....................................................................................................................... 44
   F. Other Record Matters ..................................................................................................................... 48
      1. Reimbursement of BAS Clearing Costs .................................................................................. 48
      2. NTCH Objections .................................................................................................................... 50
IV. ORDERING CLAUSES ....................................................................................................................... 55
APPENDIX – List of Comments and Reply Comments

I. SUMMARY OF ACTION

   1. With this Memorandum Opinion and Order, the Wireless Telecommunications Bureau (“Bureau”) grants waivers of the Commission’s rules, subject to certain conditions, in response to a petition filed by DISH Network Corporation to provide DISH with flexibility to use 20 megahertz of Advanced Wireless Services-4 (“AWS-4”) spectrum at 2000-2020 MHz (the “Lower AWS-4 Band”) for uplink or downlink operations. We also waive DISH’s final AWS-4 build-out milestone, extending the
deadline from seven to eight years. In granting this relief, we determine that, provided DISH complies with several conditions, the request meets our general waiver standard as well as requirements specific to wireless services.

2. The waiver is subject to DISH meeting the following two conditions. First, pursuant to commitments made in its waiver request, DISH must bid in the upcoming H Block auction “either directly or indirectly through an affiliated entity or designated entity, at least a net clearing price” equal to the aggregate reserve price set for that auction of $1.564 billion. Second, DISH must file its uplink or downlink election, which shall apply to all AWS-4 licenses, as soon as commercially practicable but no later than 30 months after the release date of this Memorandum Opinion and Order. Failure by DISH to comply with either of these conditions will automatically terminate the waivers granted in this order.

3. In the event that DISH first preserves its election ability and then elects to use its Lower AWS-4 Band spectrum for downlink operations, we specify the technical parameters such operations must meet to avoid causing harmful interference to licensees of nearby spectrum bands. These parameters are similar to those established for similar AWS and PCS downlink bands, including the AWS-1 downlink band.

4. In granting the DISH Petition, we decline to grant Sprint’s request that we impose a specific cost sharing payment condition upon DISH should it be a winning bidder in the H Block auction, because that payment requirement is already established by the Commission’s rules applicable to any winning bidder in that auction. We also decline to address in this particular adjudication Sprint’s request that we issue a blanket waiver to all future H Block licensees of certain H Block technical rules. Finally, we reject NTCH’s various arguments requesting that we deny or delay consideration of the DISH Petition.

II. BACKGROUND AND DISH PETITION

5. In 2012, the Commission’s AWS-4 Report and Order authorized full terrestrial use of the 2000-2020 MHz/2180-2200 MHz band, initially authorized only for Mobile Satellite Service (“MSS”) and its associated Ancillary Terrestrial Component (“ATC”). This action followed a 2011 Commission Order adding co-primary Fixed and Mobile terrestrial allocations to the 2 GHz MSS bands, which was

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1 See DISH Network Corporation, Petition for Waiver of Sections 27.5(j) and 27.53(h)(2)(ii) and Request for Extension of Time, WT Docket No. 13-225 (filed Sept. 9, 2013) (“DISH Petition”). DISH filed its waiver request on behalf of itself and its wholly owned subsidiaries Gamma Acquisitions L.L.C. and New DBSD Satellite Services G.P. Id. at 1. This order refers to DISH Network Corporation and these subsidiaries collectively as “DISH.”


3 See infra at ¶¶ 39-40.

4 MSS is a radiocommunications service involving transmission between mobile earth stations and one or more space stations. See 47 C.F.R. § 2.1(c). The ATC rules allowed authorized MSS operators to augment their satellite services with terrestrial facilities. See Flexibility for Delivery of Communications by Mobile Satellite Service Providers in the 2 GHz Band, the L-Band, and the 1.6/2.4 Bands, IB Docket Nos. 01-185, 02-364, Report and Order and Notice of Proposed Rulemaking, 18 FCC Red 1962, 1964 ¶ 1 (2003).

5 Fixed and Mobile Services in the Mobile Satellite Service Bands at 1525-1559 MHz and 1626.5-1660.5 MHz, 1610-1626.5 MHz and 2483.5-2500 MHz, and 2000-2020 MHz and 2180-2200 MHz, ET Docket No. 10-142, Report and Order, 26 FCC Red 5710 (2011) (“2 GHz Band Co-Allocation Order”).
intended to “lay the foundation for more flexible use of the band in the future, thereby promoting investment in the development of new services and additional innovative technologies.” In the *AWS-4 Report and Order*, the Commission further observed that there had been “little commercial use of th[e] [2000-2020 MHz and 2180-2200 MHz] spectrum for MSS and none for terrestrial (ATC) service,” and replaced the ATC rules with Part 27 flexible use rules for terrestrial operations. The AWS-4 rules designate the 2000-2020 MHz band for mobile and low power fixed (i.e., uplink) operations and the 2180-2200 MHz band for fixed and base station (i.e., downlink) operations. The Commission intended this pairing to parallel that of the 2 GHz MSS band, so as to “minimize the possibility that AWS-4 operations could interfere with 2 GHz MSS operations and . . . offer the greatest opportunity for synergies between the two mobile services.”

6 DISH is the sole holder of the 2 GHz MSS and corresponding AWS-4 licenses. DISH acquired the 2 GHz MSS licenses in 2012. In granting DISH’s applications for transfer of control, the International Bureau reiterated the Commission’s intent “to remove regulatory barriers in this band through a rulemaking to unleash more spectrum for mobile broadband.” Subsequently, in the *AWS-4 Report and Order*, the Commission determined that the public interest would be served through grant of AWS-4 operating authority to the existing MSS licensees in the band. Pursuant to this decision and Section 316 of the Communications Act, the Commission proposed to modify DISH’s MSS licenses to include the AWS-4 authorizations. On January 22, 2013, DISH accepted the proposed license modifications. On February 15, the Wireless Telecommunications Bureau and the International Bureau

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6 Id. at 5714, 5716 ¶¶ 8, 13.


8 See generally *AWS-4 Report and Order*, 27 FCC Rcd 16102. AWS-4 service refers to terrestrial wireless service in the 2000-2020 MHz and 2180-2200 MHz frequency bands. Id. at 16103 ¶ 1.

9 47 C.F.R. § 27.5(j) (“Two paired channel blocks of 10 megahertz each are available for assignment as follows: Block A: 2000-2010 MHz and 2180-2190 MHz; and Block B: 2010-2020 MHz and 2190-2200 MHz.”); *AWS-4 Report and Order*, 27 FCC Rcd at 1616 ¶ 33 (we “establish the AWS-4 spectrum band as 2000-2020 MHz uplink band paired with 2180-2200 MHz downlink band”).


11 The AWS-4 and associated MSS licenses are held by DISH subsidiaries Gamma Acquisitions L.L.C. (MSS call sign E060430, AWS-4 call signs T060430001 through T060430176) and New DBS Satellite Services G.P. (MSS call sign E070272, AWS-4 call signs T070272001 through T070272176).


15 Id. at 16164-73, 16220-22, 16224 ¶¶ 161-86, 319-22, 331-34.

16 Letter from Jeffrey H. Blum, Senior Vice President & Deputy General Counsel, DISH, to Marlene H. Dortch, Sec’y, Federal Communications Commission, WT Docket No. 12-70 (filed Jan. 22, 2013).
modified DISH’s MSS licenses to authorize DISH to provide AWS-4 service. The Wireless Telecommunications Bureau issued DISH these modified licenses on March 7, 2013.

7. In preparation for the H Block (1915-1920 MHz/1995-2000 MHz) Auction, on July 15, 2013, the Bureau released a Public Notice announcing Auction 96 and seeking comment on procedures for conducting the auction, including a proposal to set a reserve price and what factors should be considered in determining the reserve amount. On September 9, 2013, DISH filed an ex parte submission supporting the proposal to set a reserve price and suggesting that the H Block spectrum should be valued at “at least $0.50 per megahertz of bandwidth per population (“MHz-pop”) on a nationwide aggregate basis.” On September 13, 2013, the Bureau released the Auction 96 Procedures Public Notice establishing procedures and setting an aggregate reserve price of $1.564 billion. In doing so, the Bureau indicated that “the limited comment we received on this issue is generally supportive of our reserve price proposals, and we received no opposition to the use of a reserve,” and pointed to DISH’s estimated valuation of at least $0.50 per MHz-pop based on prior auction results, secondary market transactions, and financial institutions’ estimates as the basis for its calculation. On October 18, 2013, NTCH, Inc. filed a petition for reconsideration of the Auction 96 Procedures Public Notice seeking changes in the procedures and other relief. The Bureau subsequently denied NTCH’s petition. Auction 96 is scheduled to begin on January 22, 2014.

8. On September 9, 2013, contemporaneous with its filings in support of an agreement on interoperability in the 700 MHz band, DISH filed a waiver petition requesting the option to use the Lower AWS-4 Band either for downlink or uplink operations. DISH also requested a one-year extension of the final construction milestone for DISH’s AWS-4 licenses. DISH states that should the Commission grant these requests, it will commit to: (1) filing an election with the Commission stating whether it will use the AWS-4 2000-2020 MHz band for uplink or downlink “as soon as commercially practicable, but no later than 30 months after the grant of [its] petition”; and (2) “either directly or indirectly through an affiliated entity or designated entity, bidding at least a net clearing price equal to any

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19 Letter from Jeffrey H. Blum, Senior Vice President & Deputy General Counsel, DISH, to Marlene H. Dortch, Sec’y, Federal Communications Commission, AU Docket No. 13-178, at 1 (filed Sept. 9, 2013). In support of its proposal, DISH stated that the 2006 AWS-1 spectrum auction resulted in an average valuation of $0.54 per MHz-pop, and recent secondary market purchases of AWS spectrum valued it between $0.61 and $0.69 per MHz-pop, with financial institutions giving current estimates of the value of the H Block spectrum at between $0.62 and $1.00 per MHz-pop. Id.

20 Auction 96 Procedures PN, 28 FCC Rcd at 13064 ¶ 172.

21 Id. at 13064 ¶ 170, 172.


23 See Auction 96 Procedures PN Recon Order.

24 Letter from Jeffrey H. Blum, Senior Vice President & Deputy General Counsel, DISH, to Marlene H. Dortch, Sec’y, Federal Communications Commission, WT Docket No. 12-69 (filed Sept. 10, 2013).

25 DISH Petition at 2.

26 Id. at 16-19. The AWS-4 construction deadlines are specified in section 27.14(q) of the Commission’s rules. 47 C.F.R. § 27.14(q).
aggregate nationwide reserve price established by the Commission in the upcoming H Block auction (not to exceed the equivalent of $0.50 per MHz/POP).”

9. The Bureau gave public notice of the petition on September 13, 2013.28 Comments were due on September 30, 2013, and reply comments were due on October 10, 2013, but the latter deadline was extended to October 28, 2013.29 Three parties filed comments and two parties filed reply comments.30 AT&T expressed support for the DISH proposal because it would promote the Commission’s flexible use policies.31 NTCH expressed opposition to the proposal, as discussed below.32 Sprint does not oppose granting DISH’s request so long as the Commission can enforce DISH’s commitment to bid the $1.564 billion reserve price and DISH fulfills its cost-sharing obligations should it obtain an H Block license at auction.33 DISH agrees with Sprint’s position—stating that it “is uncontested”—that grant of the DISH Petition should be conditioned upon DISH bidding the aggregate reserve price in the H Block auction, but opposes Sprint’s request for a cost-sharing condition.34 DISH also opposes NTCH’s comments.35 Further, on December 13, 2013, DISH submitted an ex parte letter stating that, if its waiver request is granted and it elects to use the Lower AWS-4 Band for downlink, it commits to comply with the requirements of certain additional AWS technical rules.36

III. DISCUSSION

10. As explained below, we grant the DISH Petition with certain conditions. In so doing, we first review the claimed technical and other public interest benefits of DISH’s proposal, and examine whether the public interest benefits and unique circumstances posed by DISH’s request meet our waiver standard. We also identify the rules that must be waived in the event that the band is used for downlink and analyze the interference environment associated with a possible downlink election to identify the technical requirements necessary to ensure that harmful interference would not arise in the event of such an election. Next, we discuss the election period that accompanies our grant of DISH’s waiver, allowing it a specified period of time to elect whether to use the band as uplink or downlink. We then consider DISH’s request for a one-year extension or waiver of the final build-out requirement. Thereafter we enumerate and describe the express conditions that must be fulfilled for DISH to effectuate the relief granted herein. Finally, we examine Sprint’s request that we condition a waiver grant on DISH’s timely

27 DISH Petition at 1-2, 15. DISH states that its bidding commitment is contingent on the waiver being granted at least 30 days before the H Block auction commences. Id. at 2, 15.


30 See Appendix A.

31 AT&T Comments at 2 (capitalization omitted).

32 See generally NTCH Comments.

33 See Sprint Comments at 3-7; Sprint Reply at 2 (“In its comments, Sprint expressed narrow and qualified support for DISH’s waiver request, noting that the public interest benefits of revising the Commission’s AWS-4 technical rules were uncertain and that a grant of the waiver should be subject to two important conditions.”)

34 DISH Reply at 2-3.

35 Id. at 4-6.

36 Letter from Jeffrey H. Blum, Senior Vice President and Deputy General Counsel, DISH, to Marlene H. Dortch, Sec’y, Federal Communications Commission, WT Docket No. 13-225 (filed Dec. 13, 2013) (“DISH December 13 Letter”).
and complete reimbursement of the Broadcast Auxiliary Service (BAS) clearing expenses for any H Block licenses it may be granted in the H Block auction and examine the arguments raised by NTCH in opposition to the waiver request.

A. Waiver Standard

11. Waiver applicants are obligated to demonstrate “good cause” for obtaining a waiver of the Commission’s rules. Under this standard, waivers are appropriate only if “both (i) special circumstances warrant a deviation from the general rule, and (ii) such deviation will serve the public interest.” Section 1.925 of the Commission’s rules, which pertains to wireless radio services, further provides that “the Commission may grant a request for waiver if it is shown that: (i) The underlying purpose of the rule(s) would not be served or would be frustrated by application to the instant case, and that a grant of the requested waiver would be in the public interest; or (ii) in view of the unique or unusual factual circumstances of the instant case, application of the rule(s) would be inequitable, unduly burdensome or contrary to the public interest, or the applicant has no reasonable alternative.” The Bureau is addressing this waiver request under its delegated authority pursuant to Sections 0.131 and 0.331 of the Commission’s rules.

B. Waiver of Technical Rules

1. DISH Petition

12. The AWS-4 band plan places AWS-4 uplink spectrum immediately adjacent to downlink spectrum of another service (1995-2000 MHz, the “Upper H Block”). Because of these contrasting but adjacent uses, the AWS-4 rules impose carefully calibrated power and out-of-band emission (“OOBE”) limits on the 2000-2020 MHz band in order to protect operations in the adjacent 1995-2000 MHz band, and require AWS-4 licensees to accept limited interference from operations in that adjacent band. Correspondingly, the H Block rules impose restrictive OOBE limits on the 1995-2000 MHz band in order to protect operations in the 2005-2020 portion of the AWS-4 band.

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37 47 C.F.R. § 1.3.
38 See, e.g., Lazo Technologies, Inc., Order on Reconsideration, 26 FCC Red 16661, 16668 & n.56 (2011); see also Northeast Cellular Tel. Co. v. FCC, 897 F.2d 1164 (D.C. Cir. 1990).
39 47 C.F.R. § 1.925(b)(3). This rule applicable to wireless services requires “substantially the same” showing as 47 C.F.R. § 1.3. Barry P. Lunderville, Memorandum Opinion and Order, 28 FCC Red 665 ¶ 14 n.51 (2013).
40 47 C.F.R. §§ 0.131, 0.331.
42 H Block Report and Order, 28 FCC Red at 9508-13 ¶¶ 63-73. The OOBE limits from the Upper H Block were set such that “the overall interference imposed on the AWS-4 uplink operations [at 2000-2020 MHz] is no more than currently exists, to the greatest extent possible, without imposing a harsh and undue burden on Upper H Block downlink operations.” Id. at 9509 ¶ 66. To balance the utility of the H Block and the AWS-4 spectrum bands, the H Block OOBE limit was set at 43+10log(P) dB overall, with a tighter limit of 70+10log(P) dB imposed on emissions into the 2005-2020 MHz band. See id. at 9508-9513 ¶¶ 63-73. In balancing the needs of these bands, the Commission also required AWS-4 and 2 GHz MSS licensees to accept harmful interference from lawful Upper H Block operations if such interference is due to OOBE into the 2000-2005 MHz band or due to receiver overload into the 2000-2020 MHz band. See AWS-4 Report and Order, 27 FCC Red at 16135, 16160-61, 16220 ¶¶ 80-81, 149-51, 319.
13. DISH requests waiver of the Commission’s rules that specify that the Lower AWS-4 Band be used for uplink operations, asking that we provide it with the flexibility to elect whether to use this band for uplink or downlink operations. DISH commits to making this election as soon as commercially practicable, but no later than 30 months after any grant of its petition. Specifically, DISH seeks waivers of Commission rules 27.5(j) (specifying, inter alia, the AWS-4 frequencies and frequency pairings), 27.50(d)(7) (Lower AWS-4 Band power limits), 27.53(h)(2)(ii) (Lower AWS-4 Band out-of-band emission (OOBE) limits), 27.65 (Lower AWS-4 Band acceptance of interference from operations at 1995-2000 MHz), and “to the extent required . . . other technical AWS-4 rules . . . that impose technical requirements on AWS-4 uplink operations at 2000-2020 MHz, but would not on their face apply to DISH’s proposed downlink terrestrial operations in the 2000-2020 MHz band.”

14. DISH asserts that waiving the necessary technical rules to permit terrestrial downlink use of the 2000-2020 MHz band would increase the utility of this AWS-4 spectrum. Further, DISH claims that “more flexible use of AWS-4 spectrum may allow it to best optimize its 2 GHz satellite and terrestrial services.” DISH also contends that the waiver would provide “increase[d] protection and utility” to the Upper H Block because, should DISH decide to use 2000-2020 MHz for downlink, it “would commit . . . to accept a less restrictive OOBE limit on H Block emissions above 2000 MHz.” DISH states that “the requested flexibility would have no adverse operational impact on any other Commission licenses.” DISH proposes conditioning grant of the waivers it seeks on standard power and OOBE limits generally applicable to high-power downlink operations where adjacent-band usage is compatible. DISH additionally “commits to comply with any requirements imposed on DISH as an AWS licensee pursuant to Sections 27.1133, 27.55(a)(1), 27.50(d)(3), and 27.50(d)(10) of the Commission’s rules.”

15. DISH also argues that grant of the waiver could enhance the utility and value of adjacent bands, H and J Blocks, with the potential to provide substantial economic benefits from harmonized PCS/AWS operations. Specifically, with regard to the 2020-2025 MHz band (formerly the “Lower J Block”), which the Commission has proposed designating for uplink use in the AWS-3 proceeding, DISH argues that, if 2000-2020 MHz were a downlink band, “the lower J Block could also be auctioned for downlink operations” in a manner “analogous to the existing AWS-1 downlink and the BAS arrangement, which has a successful co-existence track record.”

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43 DISH Petition at 1-2.
44 Id. at 2 n.2; see 47 C.F.R. §§ 27.5(j), 27.50(d), 27.53(h)(2)(ii), 27.65.
45 DISH Petition at 9-10.
46 Id. at 13 (footnote omitted).
47 Id. at 14.
48 Id. at 2.
49 Id. at 11.
50 DISH December 13 Letter.
51 DISH Petition at 14.
53 DISH Petition at 15-16.
16. Overall, DISH concludes, “[t]he requested flexibility may permit AWS-4 operations in the 2000-2020 MHz band to be harmonized and co-directional with operations in the PCS band, and the H and J Blocks, thus providing up to 30 MHz of contiguous downlink spectrum.” DISH suggests that this spectrum harmonization could facilitate commercial deployment of the new spectrum, and reduce user equipment complexity and cost. Further, DISH states its commitment to bid “at least a net clearing price” equal to the aggregate reserve price of $1.564 billion in the H block auction would provide critical funding for the nationwide, interoperable public safety broadband network to be operated by the First Responder Network Authority (FirstNet).

17. Finally, DISH asserts that grant of its waiver would result in several non-technical benefits, including accelerated broadband deployment, increased supply of downlink spectrum, increased wireless broadband competition, enhanced 700 MHz interoperability, and increased revenues from the H and J Block auctions.

2. Application of Waiver Standard

18. After consideration of the DISH Petition and the record compiled in this proceeding, we conclude that, subject to the conditions outlined below, the technical rule waivers sought by DISH are warranted based on the unique factual circumstances of DISH’s status as a licensee of both AWS-4 and 2 GHz MSS licenses. In these circumstances, application of the rules for which DISH seeks a waiver would be both unduly burdensome and contrary to the public interest.

19. As noted above, the central purposes of the Commission’s proceedings leading to the AWS-4 Report and Order have been to lay the foundation for more flexible use of this band, and to promote investment in new and innovative mobile broadband services by unleashing more spectrum for these critical services. We agree with AT&T that the DISH Petition “falls squarely within the scope of the Commission’s highly successful flexible use policy.” Flexibility encourages research, innovation, and investment, spurs the development of new technologies and their deployment to customers, and overall encourages efficient use of spectrum. By affording licensees the flexibility to make fundamental choices about service offerings, taking into account market factors such as consumer demand, availability of technology, and competition, the Commission’s approach tends to result in efficient and highly-valued uses of spectrum. Typically, the Commission limits technical flexibility only where needed to prevent harmful interference to other users of the spectrum. The Commission followed this approach in the

54 Id. at 16.

55 Id. While DISH seeks the ability to elect to use both AWS-4 bands for downlink operations, it does not seek any waiver of the configuration of the 2 GHz MSS band plan. DISH acknowledges that its proposal “may introduce certain MSS/AWS-4 interference issues,” but maintains that, due to its common control of both MSS and AWS-4 networks, it will be able to mitigate interference and use its MSS facilities dynamically to augment terrestrial services. Id. at 12-14. Specifically, DISH states that “[o]nly DISH is in a position to implement a unified reverse-mode solution.” Id. at 13 n.25.

56 DISH Petition at 2.

57 Id. at 3-5.

58 AT&T Comments at 2.


AWS-4 Report and Order, stating that its aim in establishing technical rules is to maximize the flexible use of the spectrum while appropriately protecting operations in adjacent and nearby bands from harmful interference.61

20. We find that a grant of the DISH request for flexibility to use the 2000-2020 MHz band for either uplink or downlink would meet these policy objectives of the AWS-4 Report and Order, provided the spectrum use conforms to the interference protections discussed below. Grant of the request would also serve a variety of other public interest goals described below, by obviating in the event of downlink use the need for certain interference limitations that would otherwise govern both AWS-4 and adjacent H Block operations, by promoting a variety of statutory goals underlying both the service rules for H Block licenses to be offered at auction and the auction procedures for the bidding scheduled to begin in January 2014,62 and by furthering the intent of the Spectrum Act to use the proceeds of the H Block auction to help finance the construction of a nationwide public safety broadband network (FirstNet).63 Two aspects of the rules established in the Commission’s AWS-4 Report and Order—the rules designating the 2000-2020 MHz band for uplink operations and the 2180-2200 MHz band for downlink and the determination that same-band, separate operator sharing between mobile satellite and terrestrial operations remained “impractical”—were intended to minimize the possibility of interference between terrestrial and satellite services. Because DISH controls both of these networks and all of the associated spectrum and possesses the singular ability to design, integrate, and direct the operations of both terrestrial and satellite services, we conclude that these unique circumstances warrant a deviation from the rule in light of the corresponding reduction of interference constraints between AWS-4 and H Block operations resulting from the alignment of downlinks in these two services, and the substantial additional public interest benefits from such a waiver.

21. Beyond the benefits inherent in flexibility, the technical waivers DISH seeks offer the potential for compelling public interest benefits, including improved spectrum management. Should the Lower AWS-4 Band be used for downlink, it would effectively serve as an extension of the broadband PCS and H Block downlink bands, collectively at 1930-2000 MHz. This is analogous to the Commission’s finding in the H Block Report and Order that “[a]s the 1930-1995 MHz PCS band is used for downlink transmissions, the 1995-2000 MHz band [also used for downlink transmissions], in many respects, will operate as an extension of the PCS band.”64 Band plan harmonization unshackles the 2000-2020 MHz band from restrictive technical limits, potentially opening the band to more effective use.65

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62 See 47 U.S.C. § 309(j)(3)(A) (“development and rapid deployment of new technologies, products, and services for the benefit of the public, including those residing in rural areas”), 309(j)(3)(C) (“recovery for the public of a portion of the value of the public spectrum resources made available for commercial use”), 309(j)(3)(D) (“efficient and intensive use of the electromagnetic spectrum”), 309(j)(4)(F) (reserve price or minimum bid required absent Commission determination that it is not in the public interest). We observe that the Bureau established a reserve price after carefully considering the record it received on its proposal to do so, mindful of its obligation to promote recovery for the public of a portion of the value of the spectrum resource under Section 309(j)(3)(C).


64 H Block Report and Order, 28 FCC Rcd at 9493 ¶ 21.

65 See Sprint Comments at 4; Sprint Reply at 3-4. According to DISH, implementation of the terrestrial band plan change may also open the door to possible harmonization of the 2020-2025 MHz band (also referred to as the J Block), if that band were ultimately devoted to downlink operations. DISH Petition at 15-16. However, the Commission has currently proposed to use this band for uplink. See AWS-3 Notice of Proposed Rulemaking, 28 FCC Rcd at 11497 ¶ 35. Because that question will be resolved in WT Docket No. 12-185 based on the record in that proceeding, we do not rely in our decision here on any such potential harmonization.
Indeed, the Commission previously suggested the benefits of this type of band plan harmonization when it proposed making 1995-2025 MHz a PCS expansion downlink band in the *AWS-4 Notice of Inquiry*.

22. These benefits, however, would be insufficient to support grant of a waiver if the proposed operation would cause harmful interference to other services. DISH asserts that the proposed downlink operation would not adversely affect other licensees. Our review, coupled with the technical requirements we set forth below, confirms that assertion. Because DISH is the sole 2 GHz MSS/AWS-4 licensee, as noted above, it can manage co-existence of its integrated MSS/AWS-4 service, as well as any co-channel AWS-4 interference that may arise; and there are no other licensees in this band that might be adversely affected by the waivers sought. And as discussed further below, we find that the interests of operators in adjacent bands can be fully protected in the event of a downlink election by technical conditions common to similarly situated high-power downlink operations, in lieu of the technical requirements premised on low-power uplink operation that now apply to the 2000-2020 MHz band. Moreover, downlink election would result in increased spectrum utilization and efficiency as it would obviate the need for technical constraints designed to address interference associated with uplink use in the band.

23. In light of the above findings, we conclude that DISH has justified a waiver based on the special circumstances described above, the consistency of its proposals with the core purpose of the AWS-4 rules to provide flexible use terrestrial spectrum, the potential for reduced risk of interference between the Lower AWS-4 Band and the adjacent Upper H Block, the benefits from effectively extending the PCS and H Block downlink bands, and the additional public interest benefit of DISH committing to bid “at least a net clearing price equal to any aggregate reserve . . . in the upcoming H block auction (not to exceed [1.564 billion]).” In setting $1.564 billion as the aggregate reserve price for the H Block auction, the Bureau observed that it would help contribute to meeting the statutory goal of recovery for the public of a portion of the value of the spectrum resource, which in this case will contribute to funding FirstNet, as contemplated by the Spectrum Act. Therefore, we find that DISH’s commitment in this regard would further the public interest. Moreover, granting a waiver in this instance will potentially enhance wireless broadband competition, encourage innovation, speed up broadband deployment, and increase the supply of in-demand downlink spectrum to be used on an unpaired basis or paired with non-AWS-4 spectrum. Accordingly, we find it in the public interest and consistent with sections 1.3 and 1.925 of the Commission’s rules, as well as the underlying purpose of the rules from which DISH seeks relief, to waive the Commission’s technical rules for the Lower AWS-4 Band to permit the election of downlink use of this band, subject to the specific conditions below, and that application of these rules in this unique circumstance would be unduly burdensome.

3. Technical Analysis

24. Having determined that there is good cause to waive the rules to provide AWS-4 licensees with flexibility to use the Lower AWS-4 Band for downlink operations, we must clearly identify which specific technical rules we are waiving and the requirements necessary for downlink use of this
band. We agree with Sprint that we “should not permit DISH to decide which technical rules it wishes to comply with,”71 and rather must specify those requirements ourselves.72 Only by doing so will we provide the necessary certainty for AWS-4 licensees to use the Lower AWS-4 Band for downlink operations (should they so elect), as well as ensure that adjacent and nearby bands are appropriately protected from harmful interference from downlink operations in the Lower AWS-4 Band.73

25. **Waiver of technical limitations designed for uplink use.** We agree with DISH that rules 27.5(j) (as it pertains to the pairing of AWS-4 spectrum blocks), 27.50(d)(7), 27.52(h)(2)(ii), and 27.65 are either inappropriate or unnecessary should the Lower AWS-4 Band be used for downlink operations. First, section 27.5(j) requires, inter alia, that 2000-2010 MHz and 2180-2190 MHz operate as paired frequencies with 2010-2020 MHz and 2190-2200 MHz, respectively.74 To the extent that channel blocks A and B for the Lower AWS-4 Band at 2000-2020 MHz are ultimately used for downlink operations, there is no need to require the blocks to be used in a paired manner with their counterparts in the Upper AWS-4 Band at 2180-2200 MHz. While DISH could choose to aggregate operations of different downlink blocks, it could also choose to operate them as distinct bands, including, perhaps, pairing either or both spectrum bands with non-AWS-4 uplink bands.75 Second, section 27.50(d)(7) specifies the power limits for uplink operations in the Lower AWS-4 Band.76 Although power limits for downlink operations will be necessary, the limits set in section 27.50(d)(7) were based on the use of mobile uplink in the band, not on the use of base or fixed stations for downlink operations in the band.77 Accordingly, the limits in this section are not appropriate should downlink operations be used in the band. Third, 27.53(h)(2)(ii) sets forth the OOB limits for operations in the Lower AWS-4 Band.78 The Commission adopted this rule because of concerns that uplink use of the 2000-2020 MHz band would harm future downlink operations in the adjacent 1995-2000 MHz band,79 concerns that would be obviated if both 1995-2000 MHz and 2000-2020 MHz bands were used for downlink. Fourth, section 27.65 requires that terrestrial operations in 2000-2020 MHz accept certain interference described in section 27.65(a).80 This requirement was premised on a scenario in which base-to-mobile operations in the 1995-2000 MHz band might cause interference to base station receivers in the 2000-2020 MHz band.81 Such a scenario would not occur if the 2000-2020 MHz band is used for downlink operations. Accordingly, we determine that waiving these four rules in the event of downlink operations in the Lower AWS-4 Band is appropriate for all of the foregoing reasons, and because the purpose of the rules premised on uplink operations would not be served by their application to downlink operations.82 We have also examined the remainder of the

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71 See Sprint Reply at 5.
72 See Sprint Comments at 4 (“the Commission should ensure . . . it has the ability to enforce DISH’s commitments and ensure its compliance with the Commission’s rules”).
73 See AWS-4 Report and Order, 27 FCC Rcd at 16124 ¶ 55 (the Commission’s “aim in establishing technical rules is to maximize the flexible use of spectrum while appropriately protecting operations in neighboring bands.”); AT&T Comments at 2 (“flexibility should be allowed, but only consistent with interference constraints”).
74 47 C.F.R. § 27.5(j)(1).
75 See DISH Petition at 3-4.
76 47 C.F.R. § 27.50(d)(7).
78 47 C.F.R. § 27.53(h)(2)(ii).
80 47 C.F.R. § 27.65.
81 AWS-4 Report and Order, 27 FCC Rcd at 16160-61 ¶¶ 149-50.
Commission’s AWS-4 rules and determine that no additional rules need to be waived in order for the Lower AWS-4 Band to be used for downlink operations. The following table lists the technical rules we waive in this order.

### AWS-4 Technical Rules Conditionally Waived

<table>
<thead>
<tr>
<th>Part 27 Rule Section</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>27.5(j)</td>
<td>AWS-4 Frequency pairings</td>
</tr>
<tr>
<td>27.53(h)(2)(ii)</td>
<td>OOBE limits on AWS-4 mobiles (uplink)</td>
</tr>
<tr>
<td>27.50(d)(7)</td>
<td>Power limits on uplink</td>
</tr>
<tr>
<td>27.65(a)</td>
<td>Acceptance of Interference in 2000-2020 MHz</td>
</tr>
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26. **Technical requirements for downlink use.** In support of its waiver request, DISH states that it “would commit . . . to operate any future downlink terrestrial fixed or base stations in the 2000-2020 MHz band consistent with the technical requirements applicable to other fixed/base stations in the AWS-4 band at 2180-2200 MHz and adjacent operational PCS/AWS bands.”

DISH proposes to operate downlink operations in the Lower AWS-4 Band at power levels consistent with those set forth in sections 27.50(d)(1) and (d)(2) of the Commission’s rules and subject to OOBE limits consistent with those specified in sections 27.53(h)(1) and (h)(3) of the Commission’s rules. DISH also proposes to operate downlink operations in the Lower AWS-4 Band in a manner consistent with the requirements on an AWS licensee of “Sections 27.1133, 27.55(a)(1), 27.50(d)(3), and 27.50(d)(10) of the Commission’s rules with respect to [the Lower AWS-4 Band].” Sprint argues that, if DISH is allowed to operate the Lower AWS-4 Band as downlink, DISH should be required to follow many of the requirements that apply to Part 27 services in general and Upper H Block operations in particular. Sprint asserts that DISH should be required to meet power requirements that apply to adjacent downlink operations in the Upper H Block, such as (1) section 27.50(d)(5), which contains an equipment authorization requirement and an average power measurement requirement, and (2) section 27.50(d)(6), which contains peak transmit power measurement requirements.

Sprint further argues that DISH should be required to coordinate high-powered Lower AWS-4 downlink operations with adjacent H Block licensees located within 120 kilometers, which would mirror a requirement in the Commission’s rules that Upper H Block licensees coordinate such operations with adjacent PCS G Block licensees. In addition, Sprint argues that we should require DISH to comply with certain rules that generally apply to all Part 27 services, including sections 27.53(i) and 27.53(n), which enable the Commission to require greater attenuation when an emission outside an AWS operator’s authorized bandwidth causes harmful interference.

(Continued from previous page)
argues that we should require DISH to comply with all the technical rules in Subpart C of Part 27 and “other appropriate sections” of our technical rules.\(^92\)

27. In waiving the above rules, we agree with Sprint that AWS-4 licensees must continue to comply with all applicable Commission rules not expressly waived by this order. For example, we continue to require, as the Commission determined in the *AWS-4 Report and Order*, that “any licensee of AWS-4 operating authority . . . comply with other [non-Part 27] rule parts that pertain generally to wireless communications services.”\(^93\) DISH must also continue to comply with all Part 27 requirements, technical or otherwise, except those waived in this order. These include, but are not limited to, sections 27.50(d)(5)-(6), 27.53(i), and 27.53(n) of the Commission’s rules cited by Sprint.\(^94\) Thus, if DISH elects to use 2000-2020 MHz for terrestrial downlink operations, it will be subject to any rules that are generally applicable to downlink operations, except to the extent they are expressly waived by this order.

28. In addition, we condition DISH’s waiver on further technical requirements necessary to govern the operation of downlink operations in the Lower AWS-4 Band. These requirements are necessary to prevent downlink operations from causing harmful interference to co-channel or adjacent or nearby operations. DISH has committed to comply with these requirements if it elects to use the Lower AWS-4 Band for downlink operations.\(^95\) First, to avoid the possibility of co-channel interference in the event that the Lower AWS-4 Band is used for downlink operations, field-strength limits are necessary to prevent harmful interference between geographically adjacent licensees operating in the same spectrum.\(^96\) We find that the required field-strength limits in 27.55(a)(1) should apply to downlink operations in the 2000-2020 MHz band in the same manner that they apply to downlink operations in the AWS-4 2180-2200 MHz band and other similar downlink AWS and wireless communications service bands.\(^97\) Accordingly, we impose these limits on downlink operations as waiver conditions.

29. Second, for downlink operations in the Lower AWS-4 Band, and to avoid harmful interference into adjacent and nearby bands, DISH has conditioned its request for relief on application of the power-limit requirements contained in section 27.50(d)(1), which specifies base or fixed equivalent isotropically radiated power (EIRP) in rural areas, and in section 27.50(d)(2), which specifies base or fixed EIRP in non-rural areas.\(^98\) We agree that this condition is appropriate and necessary to ensure against harmful interference, and we accordingly adopt it as a condition of grant of the waivers provided here. These are the same power limits that the Commission has consistently adopted for base stations in other AWS services, and are substantially similar to the power limits for PCS base stations.\(^99\) We also require AWS-4 licensees to coordinate with all Government and non-Government satellite entities operating in the 2025-2110 MHz band to the same extent that AWS-1 downlink operations in the 2110-2155 MHz band are required to coordinate with such operations in that band as specified in rule

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\(^92\) 47 C.F.R. Part 27. Sprint also argues that our waiver grant should include (1) a waiver of certain out-of-band emissions limits on H Block licensees in the event that DISH elects to use lower AWS-4 as downlink, see 47 C.F.R. § 27.53(h)(2)(iv), and should be conditioned on DISH complying with certain cost-sharing rules, see 47 C.F.R. §§ 1021 (cost-sharing reimbursement obligation of licenses at 1915-1920 MHz), 1031 (cost-sharing reimbursement obligation of licenses at 1995-2000 MHz). See Sprint Reply at 6. We address these arguments below. See *infra* at ¶¶ 34-37, 48-49.

\(^93\) See, e.g., *AWS-4 Report and Order*, 27 FCC Rcd at 16203-04 ¶¶ 277-78.

\(^94\) Sprint Reply at 5.

\(^95\) DISH Petition at 10-12; DISH December 13 Letter.

\(^96\) *C.f. AWS-4 Report and Order*, 27 FCC Rcd at 16154 ¶ 125.

\(^97\) 47 C.F.R. § 27.55(a)(1).

\(^98\) 47 C.F.R. § 27.50(d)(1), (d)(2); see DISH Petition at 11.

\(^99\) *H Block Report and Order*, 28 FCC Rcd at 9504-06 ¶¶ 53, 57.
27.50(d)(3).100 AWS downlink operations in the 2000-2020 MHz band would create substantially the same interference environment for operations in the 2025-2110 MHz band as do AWS downlink operations in the 2110-2155 MHz band. In addition to setting power limits for AWS-1 operations to protect operations in the 2025-2110 MHz band, the Commission established coordination requirements for AWS-1 licensees to protect certain operations in the 2025-2110 MHz band, which are set forth in rule 27.50(d)(3).101 As DISH acknowledges, those coordination requirements have proven successful for avoiding harmful interference.102 We therefore condition the waivers granted here on compliance with the same requirement on AWS-4 licensees in the event they elect to use the Lower AWS-4 Band for downlink operations.103

30. Third, we similarly determine that, in a downlink scenario, 2000-2020 MHz licensees should be required, as a condition of DISH’s waiver, to coordinate with adjacent 1995-2000 MHz licensees in the same manner that section 27.50(d)(10) requires 1995-2000 MHz H Block licensees to coordinate with adjacent 1990-1995 MHz (PCS G Block) licensees.104 Just as the Commission found in the H Block Report and Order that advanced coordination of high-powered Upper H Block downlink operations was consistent with the Commission’s statutory obligation to protect an adjacent band,105 we determine here that advanced coordination of high-powered Lower AWS-4 operations would be consistent with protecting the adjacent Upper H Block band. Thus, if DISH elects to use the Lower AWS-4 Band for downlink, licensees operating a base or fixed station in the 2000-2020 MHz band utilizing a power greater than 1640 watts EIRP and greater than 1640 watts/MHz EIRP are required to coordinate in advance with all Upper H Block licensees authorized to operate on adjacent frequency blocks in the 1990-1995 MHz band within 120 kilometers of the base or fixed station operating in this band.

31. Fourth, we clarify the OOBE limits that would apply to downlink use of the Lower AWS-4 Band, and we impose them as a condition of DISH’s waiver. Unlike for power limits, where waiver of the rule applicable to the Lower AWS-4 Band would leave us without a specific limit absent our specifying the applicable limit in this order, the manner in which the OOBE limit rule—27.53(h)—is drafted results in application of a specific OOBE limit for downlink use of the band. Specifically, by

100 See 47 C.F.R. § 27.50(d)(3).
103 In requiring compliance with this requirement, we clarify that AWS-4 licensees need not follow the coordination requirements in section 27.50(d)(3) pertaining to the Broadband Radio Service in the 2155-2160 MHz band because the Lower AWS-4 Band is not proximate to the 2155-2160 MHz Band.

In addition, we observe that the 2020-2025 MHz band, which is located between the Lower AWS-4 Band and the 2025-2110 MHz band is currently unassigned and service rules for that band are subject to an on-going proceeding. See AWS-3 Notice of Proposed Rulemaking, 28 FCC Rcd at 11497 ¶ 35.
104 47 C.F.R. § 27.50(d)(10). The Commission’s rules also contain similar rules requiring coordination between adjacent AWS-1 block operations in the 2110-2155 band and requiring coordination between adjacent AWS-4 blocks in the 2180-2200 MHz band. 47 C.F.R. § 27.50(d)(3), (8).
105 H Block Report and Order, 28 FCC Rcd at 9504-05 ¶ 53.
operation of our waiving the additional requirement of section 27.53(h)(2)(ii), the general OOB
protection levels specified in 27.53(h)(1) and the OOB measurement procedure specified in 27.53(h)(3)
apply by their own terms to the 2000-2020 MHz band.

DISH confirms its understanding that the requirements contained in these rule sections would apply to downlink use of the Lower AWS-4 Band and commits to operate by these OOB limits if downlink use of the Lower AWS-4 Band is elected.

Finally, for the same reasons that we determine above to apply the coordination requirements of section 27.50(d)(3) to downlink operations in the Lower AWS-4 Band, we condition any use of the Lower AWS-4 Band for downlink operations on compliance with the protection and coordination requirements in section 27.1133 for previously licensed BAS and Cable Television Radio Service (CARS) operations in the 2025-2110 MHz band. These requirements include an obligation to protect BAS and CARS operations and an obligation to coordinate planned stations with those operations before constructing and operating any base or fixed station. We believe that these coordination and protection requirements will provide needed protection for BAS and CARS operations against OOB and overload interference from potential AWS-4 downlink operations in 2000-2020 MHz. For example, section 27.53(h) of the Commission’s rules sets a general OOB limit of 43 + 10 \log_{10}(P) dB for both AWS bands. In setting this protection level for AWS-1 downlink operations, however, the Commission also determined that it would be insufficient to protect BAS and CARS operations in the 2025-2110 MHz from harmful interference from AWS-1 downlink operations absent the additional coordination and protection requirements. Thus, just as the Commission found coordination and protection requirements necessary to avoid harmful interference from AWS-1 operations to BAS and CARS operations in the 2025-2110 MHz band, we find it appropriate to apply the same requirements here should DISH use the Lower AWS-4 Band for downlink operations.

We summarize the specific technical requirements that will apply to downlink operations in the Lower AWS-4 Band below in Section E (Waiver Conditions).

Waiver of Upper H Block Technical Rules. Sprint argues that the grant of DISH’s waiver should specify that, if DISH elects to use the 2000-2020 MHz band as downlink, a waiver will be granted to “all future H Block licensees and . . . Section 27.53(h)(2)(iv) of the rules will not apply.” Sprint states that, because this technical rule in the Upper H Block exists to prevent interference to adjacent band uplink operations, if the Lower AWS-4 Band were used for downlink, this H Block rule would be unnecessary. In such a scenario, Sprint states, “the normal base station OOB requirements in

106 47 C.F.R. § 27.53(h)(1), (h)(3). In waiving section 27.53(h)(2)(ii), above, and applying the general OOB limit set forth in section 27.53(h)(1) instead, if downlink is elected, we clarify that we are not requiring DISH to apply the requirements of section 27.53(h)(2)(i) to downlink operations in the Lower AWS-4 Band. See 47 C.F.R. § 27.53(h)(1)-(2)(ii). Section 27.53(h)(2)(i) applies specifically to operations in the 2180-2200 MHz band. 47 C.F.R. § 27.53(h)(2)(i).

107 See DISH Petition at 11-12.

108 47 C.F.R. § 27.1133 (“AWS operators must protect previously licensed Broadcast Auxiliary Service (BAS) or Cable Television Radio Service (CARS) operations in the adjacent 2025-2110 MHz band.”) Arguably, this rule would apply to downlink use of the Lower AWS-4 Band on its own terms without an additional express determination here. We need not reach that issue insofar as we affirmatively require the protection and coordination requirements contained therein to apply to downlink use of the Lower AWS-4 Band.


110 In applying these requirements to downlink use of the Lower AWS-4 Band, we acknowledge that such requirements will not apply should DISH elect not to use the Lower AWS-4 Band for downlink use.

111 Sprint Reply at 8.

112 Sprint Comments at 8.
27.53(h)(1) would then apply automatically, as would be appropriate when downlink base stations operate on adjacent frequencies." DISH, while not responding to Sprint’s proposal, stated in its Petition that, should the waiver be granted, it would agree “to accept a less restrictive OOB limit on H Block emissions above 2000 MHz” under an operator-to-operator agreement or FCC regulatory action.

35. We decline to address in this particular adjudication Sprint’s request that, in the event DISH elects to use the Lower AWS-4 Band for downlink operations, we waive for all future H Block licensees the OOB limit specified in section 27.53(h)(2)(iv) of the Commission’s rules. We do not believe that the instant DISH waiver proceeding regarding requirements for AWS-4 licensees is the appropriate proceeding in which to address waivers of the technical rules applicable to future H Block licensees.

36. We recognize that, as Sprint asserts, the H Block rule it asks the Commission to waive imposes a tighter OOB limit than is typically set forth in the Commission’s rules and was adopted to address a technical issue arising from the specific interference environment in which uplink operations in the Lower AWS-4 Band would need to coexist with downlink operations in the adjacent Upper H Block. Specifically, in the H Block Report and Order, the Commission found that “a stricter OOB limit is warranted because the Upper H Block (downlink) is adjacent to the AWS-4 / 2 GHz MSS uplink band.” Should DISH elect to use the Lower AWS-4 Band for downlink purposes, the interference environment effectively would consist of one continuous downlink band from 1930-2020 MHz, comprised of PCS, H Block, and AWS-4 spectrum. The rules and requirements in place would then require OOB protections of all adjacent blocks within this spectrum range, including (pursuant to this waiver order) from the Lower AWS-4 Band into the Upper H Block, at a level of $43 + 10 \log_{10}(P)$ dB. The only exception in the Commission’s rules to this consistent OOB limit between adjacent blocks would be the section 27.53(h)(2)(iv) requirement that operations in the Upper H Block attenuate OOB at $70 + 10 \log_{10}(P)$ dB into 2005-2020 MHz. Such a discrepancy pertaining solely to the Upper H Block rules would appear to be unnecessary if downlink is elected in the adjacent Lower AWS-4 Band. Indeed, DISH has recognized that the OOB limits for Upper H Block emissions into the Lower AWS-4 Band could be relaxed if it is granted the flexibility, and so elects, to use the Lower AWS-4 Band for downlink operations. Thus, absent the potential for harmful interference to adjacent Lower AWS-4 Band operations, it would appear appropriate to examine whether to relax the OOB limits on the Upper H Block.

37. We find, however, that it is premature to address this request to waive the H Block OOB requirements in this order, given that the H Block auction has not yet occurred and that it is not yet clear if the AWS-4 band will be used for uplink or downlink. To the extent that Sprint, or any other party, desires a waiver or change of any of the H Block rules in light of this order, or DISH’s subsequent actions pursuant to the order, it may file an appropriate request.

C. Election Period

38. In seeking flexibility to determine whether to use the AWS-4 2000-2020 MHz band for uplink or downlink operations, DISH commits that, as soon as commercially practicable but no later than 30 months after grant of its petition, it will file an election stating which option it chooses. DISH

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113 Id. at 8.
114 DISH Petition at 14.
115 H Block Report and Order, 28 FCC Rcd at 9513 ¶ 73 (adopting an OOB limit of $70 + 10 \log_{10}(P)$ dB into 2005-2020 MHz); see generally H Block Report and Order, 28 FCC Rcd at 9503-9516 ¶¶ 49-80; Sprint Comments at 8.
116 DISH Petition at 14.
117 Id. at 1-2.
maintains that it needs this flexibility in order to “obtain[] a degree of certainty as to the availability of new uplink spectrum, and the extent to which such spectrum would be suitable for pairing.”

39. We condition DISH’s waiver on making an election in accordance with this time limitation. DISH states that it needs this time to fully evaluate its options for putting the spectrum to its best use. No party substantively responded to this rationale, and the only party to comment on this election time frame, NTCH, neither comments on the utility of the potential use of the Lower AWS-4 Band as downlink, nor addresses DISH’s argument that it needs this time to ensure its ability to find new uplink spectrum for pairing with 2000-2020 MHz downlink spectrum. Rather, NTCH argues that an election period extending beyond the upcoming H-Block auction would unfairly advantage DISH in that auction, because DISH’s “unilateral control [of] the technical configuration of the adjacent [AWS-4] band” would create uncertainty about the value of the H Block during the auction. We are unpersuaded by NTCH’s argument. Rather, DISH correctly observes that neither of its election options would decrease the value of the H Block; the only possible change would be an increase resulting from the improved usability described above. Moreover, regardless of which election DISH ultimately makes, the interference environment is known now and H Block licensees will receive appropriate interference protections from AWS-4 licensees. In addition, all H Block bidders should be aware of DISH’s request for the waiver granted in this order, and should be able to take the terms of the waiver into account in their bidding strategies. Thus, we are not persuaded that the length of the election period will create uncertainty with regard to the interference protection environment or give DISH any advantage in that regard.

40. In granting DISH as long as is commercially practicable, up to 30 months, to make its uplink or downlink election, we clarify that the election is a one-time, irrevocable event, and that it must be filed in the manner described below. Once DISH determines how it will utilize the band, nearby licensees must have the certainty of knowing how the band will be utilized, for uplink operations or for downlink operations. Thus, the election must occur only once. Further, the election must, as DISH states, “apply uniformly to all AWS-4 licenses in the nation.” Accordingly, DISH’s waiver is conditioned on its filing an election within 30 months of the date of the release of this order, as DISH has proposed.

118 DISH Reply at 4-5 n.14.
119 See DISH Petition at 4; DISH Reply at 4 n.14.
121 NTCH Comments at 4-5.
122 That is, neither option would subject the Upper H Block to more stringent technical requirements than now apply, and neither would adversely affect the interests of potential bidders in the H-Block auction.
123 See DISH Reply at 4; see also NTCH Comments at 4.
124 See Auction 96 Procedures PN Recon Order at ¶ 19 (“Auction 96 applicants can assess the impact of existing rules and the possible impact, if any, of the technical changes proposed by DISH. Prior to an auction, we consistently advise bidders that they are solely responsible for conducting due diligence . . . upon a license being offered at auction, including pending matters. Thus, we urge bidders to consider any pending challenges or waiver requests in determining whether and how much to bid on licenses at auction.”) (internal citation omitted); see also Auction 96 Procedures PN, 28 FCC Rcd at 13033-34 ¶¶ 41-45; Auction 96 Comment PN, 28 FCC Rcd at 10016-17 ¶¶ 11-14 (rel. July 16, 2013).
125 See infra Section III.E. (Waiver Conditions).
126 DISH Reply at 5.
D. One-Year Waiver of the Final Build-Out Milestone

41. **Background.** DISH also seeks a one-year extension or waiver of the final construction milestone for its AWS-4 licenses.\(^{127}\) Section 27.14(q) states that AWS-4 licensees must provide coverage and service to at least (1) 40 percent of their aggregate license areas’ population within four years (interim build-out requirement),\(^{128}\) and (2) 70 percent of the population in each of their license areas within seven years (final build-out requirement).\(^{129}\) DISH seeks only a one-year waiver of the final build-out requirement deadline, which would allow it eight years rather than seven years to meet the final build-out requirement.\(^{130}\)

42. DISH justifies its request by stating that electing to use the Lower AWS-4 Band for downlink operations would engender new and additional work for network design and the development of base stations for use in the band.\(^{131}\) DISH observes that the Commission has previously extended construction milestones due to band reconfigurations and technical changes.\(^{132}\) It argues that the brief extension it seeks would promote the public interest by spurring broadband deployment, making more efficient use of available spectrum, and encouraging innovation.\(^{133}\) DISH also notes that it does not seek an extension of the applicable interim build-out milestone that applies to the 2000-2020 MHz band.\(^{134}\)

43. **Discussion.** Under the waiver standard articulated above, we grant the one-year waiver DISH requests. In adopting the AWS-4 performance requirements, the Commission observed it “establishes performance requirements to promote the productive use of spectrum, to encourage licensees to provide service to customers expeditiously, and to promote the provision of innovative services throughout the license area(s), including in rural areas.”\(^{135}\) Other than NTCH’s objection, which is conclusory and merely ancillary to its opposition to the waiver of the uplink provision described below, no party opposed a one-year waiver of the final build-out deadline.\(^{136}\) Under the unique circumstances of this case, because DISH must make a determination about whether to use the Lower AWS-4 Band for

\(^{127}\) DISH Petition at 16-19.

\(^{128}\) See 47 C.F.R. § 27.14(q)(1) ("An AWS-4 licensee shall provide terrestrial signal coverage and offer terrestrial service within four (4) years from the date of the license to at least forty (40) percent of the total population in the aggregate service areas that it has licensed in the 2000-2020 MHz and 2180-2200 MHz bands ("AWS-4 Interim Build out Requirement.").

\(^{129}\) See 47 C.F.R. § 27.14(q)(2) (“An AWS-4 licensee shall provide terrestrial signal coverage and offer terrestrial service within seven (7) years from the date of the license to at least to at least seventy (70) percent of the population in each of its license areas in the 2000-2020 MHz and 2180-2200 MHz bands ("AWS-4 Final Build out Requirement.").

\(^{130}\) DISH Petition at 5.

\(^{131}\) Id. at 17 ("The potential conversion of the 2000-2020 MHz spectrum to downlink use presents a number of technical challenges. Among other things, DISH will need to initiate work for a new standard from the 3rd Generation Partnership Project ("3GPP") and will need to restart work to design devices and base stations, and make substantial changes to its network planning.").

\(^{132}\) DISH Petition at 18 (citing Improving Public Safety Communications in the 800 MHz Band, WT Docket No. 02-55, ET Docket No. 00-258, ET Docket No. 95-18, Report and Order, Fifth Report and Order, Fourth Memorandum Opinion and Order, and Order, 19 FCC Rcd. 14969 ¶ 205 (2004); 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, 13700 ¶ 121 (2012)).

\(^{133}\) DISH Petition at 19.

\(^{134}\) Id. at 5.

\(^{135}\) AWS-4 Report and Order, 27 FCC Rcd at 16173-74 ¶ 187.

\(^{136}\) NTCH Comments at 1, 5.
uplink or downlink operations, allowing it an extra year to complete its final build-out requirement is a reasonable accommodation to ensure that it has sufficient time to assess how this band might be put to more efficient use, without unduly delaying completion of the required full build-out due to the limited, one-year nature of the extension. DISH does not seek a waiver of the interim build-out deadline. In the AWS-4 proceeding, DISH committed to “aggressively build-out a broadband network” using AWS-4 spectrum and the Commission stated that it “expect[ed] this commitment to be met.” Furthermore, given the public interest benefits we have found in waiving the technical rules for DISH, we find that those same public interest benefits would support the limited waiver of the final build-out deadline that we grant today. We observe that DISH’s circumstances are readily distinguishable from cases where applicants have had an extended period of time to build out and made a choice not to build facilities.

E. Waiver Conditions

44. If DISH elects to use the Lower AWS-4 Band for terrestrial downlink operations, such use will be subject to any rules that are generally applicable to AWS downlink operations, except to the extent they are expressly waived by this order, as well as all applicable license conditions and the following express conditions.

45. Election period. We require DISH to submit or cause to be submitted as soon as commercially practicable but no later than 30 months from the release date of this Memorandum Opinion and Order a filing(s) in WT Docket 13-225 and in the Universal Licensing System (ULS) for all AWS-4 licenses, stating unequivocally its election—applicable to all AWS-4 licenses—of either uplink or downlink operations (but not both) at 2000-2020 MHz. Failure to meet this condition will terminate the waivers granted herein, without the need for further agency action. Notwithstanding that the election will not be made for up to 30 months, the election when made by DISH shall be binding on all AWS-4 licensees who are AWS-4 licensees on the release date of this Memorandum Opinion and Order or at any time thereafter.

46. H Block Auction Commitment. Given our public interest analysis of DISH’s bidding commitment in the H Block auction, we grant this waiver on the express condition that DISH fulfill its commitment to bid “at least a net clearing price” equal to the aggregate reserve price of $1.564 billion in the H Block auction. Failure by DISH to meet this commitment will terminate the waivers granted herein, without the need for further agency action.

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137 DISH Petition at 17.
138 AWS-4 Report and Order, 27 FCC Rcd at 16176 ¶ 194 (quoting DISH AWS-4 Comments at 18).
140 See supra ¶¶ 26-27.
141 See supra ¶¶ 24-25.
142 See supra ¶¶ 38-40.
143 See supra ¶¶ 20, 23.
47. **Downlink Operations in 2000-2020 MHz.** If DISH does elect to use 2000-2020 MHz for downlink operations, in place of the rules waived above, the following requirements (based on our technical analysis detailed above), shall apply.\(^{144}\)

<table>
<thead>
<tr>
<th>Technical Issue</th>
<th>Requirement</th>
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| **Power Limits**                        | (1) The EIRP limits for rural and non-rural areas set forth in rule sections 27.50(d)(1)-(2); and  
   (2) Coordination with 1995-2000 MHz licensees in the same manner that rule section 27.50(d)(10) requires 1995-2000 MHz licensees to coordinate with 1990-1995 MHz licensees. |
| **OOBE Limits**                         | The OOBE limit set forth in rule section 27.53(h)(1), with the measurement procedure set forth in rule 27.53(h)(3). |
| **Power Strength Limits**               | The field strength limits set forth in rule section 27.55(a)(1).            |
| (Co-Channel Interference)               |                                                                             |
| **Coordination with and protection of certain operations in the 2025-2110 MHz band** | The coordination and protection requirements set forth in rule sections 27.50(d)(3) and 27.1133. |

**F. Other Record Matters**

1. **Reimbursement of BAS Clearing Costs**

48. **Background.** Sprint requests that the Commission condition its grant of the DISH Petition upon “DISH’s timely and complete reimbursement to Sprint of the BAS clearing expenses for any H Block licenses that DISH may be granted through the H Block auction.”\(^{145}\) DISH opposes such a condition because the Commission has already imposed a reimbursement obligation on all winning bidders in the H Block auction.\(^{146}\) DISH argues that the Commission should not apply a different enforcement regime to one prospective licensee (DISH).\(^{147}\) It also states unequivocally that it does not object to Sprint’s being reimbursed under the terms outlined in the *H Block Report and Order*.\(^{148}\) Sprint responds, stating that DISH’s past challenges to the Commission’s cost-sharing rules show that the Commission should attach conditions to its grant of the waiver to assure that DISH will complete its obligations in a timely and complete manner.\(^{149}\)

49. **Discussion.** We decline to impose a specific cost-sharing reimbursement condition on our grant of DISH’s waiver request. When granting relief to a licensee, the Commission generally declines to impose conditions that require that licensee to comply with rules and policies that it is already obligated to follow.\(^{150}\) As DISH explains, in the instant case a fully enforceable cost-sharing rule already

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\(^{144}\) See supra ¶¶ 26-33.

\(^{145}\) Sprint Comments at 5-6.

\(^{146}\) DISH Reply at 3-4.

\(^{147}\) Id. at 4.

\(^{148}\) Id.

\(^{149}\) Sprint Reply at 7.

\(^{150}\) See, e.g., *Applications of Softbank Corp., Starburst II, Inc., Sprint Nextel Corporation, and Clearwire Corporation For Consent to Transfer Control of Licenses and Authorizations*, 28 FCC Rcd 9642, 9674 ¶ 81 (2013) ("consistent with Commission precedent, we conclude that such conditions [which would require the companies to (continued….)

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applies to any and all H Block winning bidders. Thus, to the extent that DISH (directly or indirectly) is a winning bidder at the H Block auction, it (as well as any other winning bidders) will be required by the terms of the H Block Report and Order and the rules promulgated thereunder to make the relevant cost-sharing payments. We are not persuaded by Sprint’s argument that DISH’s past challenges to the application of Commission cost-sharing rules and policies show that we must attach extra conditions here. Rather, we expect all H Block winning bidders to follow the applicable Commission bidding and other requirements. We believe that, as explained in the H Block Report and Order, the Commission’s existing enforcement mechanisms are adequate tools to address any issues regarding a failure to make required cost-sharing payments.

2. NTCH Objections

50. Background. NTCH raises a number of objections to our granting the DISH Petition. First, NTCH observes that it has a pending reconsideration petition before the Commission and that, while the issues raised in that petition “remain[] up in the air, the Commission cannot usefully evaluate the instant [DISH] waiver request.” NTCH requests that the Commission resolve its reconsideration petition before resolving the DISH Petition. Second, NTCH asserts that the Commission is moving too “hastily” and implies that the comment cycle was insufficient, particularly as the proceeding raises interference issues that can normally take months or years to resolve. Third, NTCH claims that there is “the appearance of impropriety in the dealings between DISH and the Commission.” Fourth, NTCH asserts that the DISH Petition should be treated as a petition for rulemaking, not as a waiver request. DISH responds that NTCH fails to address the public interest benefits of DISH’s petition, and that past practice and precedent have allowed the Commission discretion in addressing similar (or even broader) waivers than DISH’s requested relief.

(Continued from previous page)
51. **Discussion.** We are not persuaded by NTCH’s arguments that we should delay or deny DISH’s request. We respond to each of NTCH’s arguments in turn. First, we disagree with NTCH’s assertion that we should defer our consideration of DISH’s request. Rather, we conclude that there is merit to waiving the applicable technical rules for the Lower AWS-4 Band at this time.\(^{161}\) Specifically, waiving the rule now is consistent with our overall spectrum management obligation and will provide DISH, the licensee at 2000-2020 MHz, with the ability to develop its plan to utilize the AWS-4 spectrum most efficiently. Delaying action on the waiver would not advance the Commission’s policy goal of promoting deployment of broadband service in this band. Thus, by granting DISH Petition at this time, we maximize the opportunity for planning and flexibility that DISH seeks through its request, and also do so in advance of the January 2014 H Block auction so as to permit DISH to “develop [its] business plans.”\(^{162}\) The NTCH reconsideration petitions remain pending and will be resolved in separate proceedings.

52. Second, we disagree with NTCH that the comment cycle was insufficient. In this case, DISH filed its waiver request on September 9, 2013; the Commission released a public notice seeking comment on the petition on September 13, 2013; the public notice specified that comments were due on September 30, 2013, and that reply comments would be due on October 10, 2013. Following the intervening closure of the Commission, on October 17, 2013, the Commission extended the reply comment deadline until October 28, 2013.\(^{163}\) There is no set pleading cycle for waiver requests specified in the Communications Act or the Commission’s rules. NTCH, which filed comments on the original deadline, does not make any demonstration that it has been denied a meaningful opportunity to be heard on DISH’s petition. In this case, we have thoroughly considered the record in support of and in opposition to DISH’s request, and we conclude that the time period allowed did not preclude interested parties from obtaining a meaningful opportunity to be heard.

53. Third, we reject NTCH’s argument about “the appearance of impropriety” in addressing the DISH Petition. The terms and conditions requested by DISH in connection with its waiver are contained in the DISH Petition, as well as in its filing dated September 10, 2013, in the lower 700 MHz interoperability proceeding (WT Docket No. 12-69). We are addressing the DISH Petition based on the public record before us and our analysis thereof, which is explained throughout the course of this order. All interested parties, including NTCH, have had an opportunity to review these terms and commitments and to comment on whether the Commission should grant the DISH Petition on these terms, as well as to suggest additional terms or conditions, as did Sprint. We have addressed DISH’s proposal based on the

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\(^{161}\) To the extent that NTCH may be arguing that we are precluded from addressing the DISH Petition because of either of its pending petitions for reconsideration, such a claim would be without merit. The AWS-4 rules are legally in effect and DISH, as the present AWS-4 licensees, is bound by those rules. The fact that a reconsideration of those rules is pending in the AWS-4 docket does not stay or postpone the legal effect of those rules. 47 U.S.C. § 405(a) (“No [petition for reconsideration before the Commission] shall excuse any person from complying with or obeying any order, decision, report, or action of the Commission, or operate in any manner to stay or postpone the enforcement thereof, without the special order of the Commission.”); 47 C.F.R. § 1.429(k) (“the filing of a petition for reconsideration shall not excuse any person from complying with any rule or operate in any manner to stay or postpone its enforcement”); see also 47 U.S.C. § 154(j); FCC v. Schreiber, 381 U.S. 279, 289 (1965) (Congress has “delegat[ed] to the Commission power to resolve subordinate questions of procedure” and “has left largely to [the Commission’s] judgment the determination of the manner of conducting its business which would most fairly and reasonably accommodate the proper dispatch of its business and the ends of justice.”) (internal quotation marks omitted); FCC v. Pottsville Broadcasting Co., 309 U.S. 134 (1940) (applying the principle from Schreiber); City of Angels Broadcasting, Inc. v. FCC, 745 F.2d 656, 664 (D.C. Cir. 1984) (noting the Commission’s “wide discretion in fashioning its own procedures” under Section 4(j) of the Act as recognized in Schreiber). These statutory policies also apply to petitions for reconsideration of non-rulemaking actions. See 47 C.F.R. § 1.106(n).


\(^{163}\) See supra ¶9.
public interest benefits set forth in its filings and the comments received and our independent evaluation of the interference questions and public interest considerations discussed above. Thus, we reject NTCH’s assertions that DISH’s proposal and our consideration of it have not been transparent to the public. Further, we do not find it inappropriate to consider DISH’s commitment to ensure that the H Block auction satisfies the aggregate reserve price, because we traditionally evaluate requests for waiver of the Commission’s rules using a public interest calculus. As discussed above, we have set a reserve price pursuant to the policies in the statute after considering the record. Regardless of NTCH’s wholly speculative claims about what parties may or may not participate in the H Block auction, the fact that DISH has undertaken to ensure that the auction successfully meets that reserve price (which also furthers an added statutory goal of providing funding for FirstNet) is an additional public interest benefit to be considered in connection with evaluation of its waiver request.

54. Fourth, we disagree with NTCH that DISH’s request must be addressed by rulemaking rather than adjudication. Indeed, we have granted similar waivers of the Commission’s technical rules when the waiver allowed licensees to operate in a manner not contemplated by the rules. As the courts have made clear, the Commission’s “discretion to proceed in difficult areas through general rules is intimately linked to the existence of a safety valve procedure for consideration of an application for exemption based on special circumstances.” To the extent NTCH is suggesting that such an adjudicatory approach to technical rules based on individual facts and circumstances is somehow inapplicable to services in which there is only one (or a small number) of licensees, it is inconsistent with this basic corollary to the Commission’s rulemaking authority. As noted above, we have determined that the unique situation we have described warrants a deviation from one aspect of those rules. That determination is well within the scope of our waiver authority under sections 1.3 and 1.925 of the Commission’s rules. NTCH has also had a full and fair opportunity to comment on DISH’s proposal and makes no showing of prejudice from our decision to address that proposal based on the particular facts and circumstances of DISH’s AWS-4 and 2 GHz MSS license holdings in accordance with our well established rules governing waivers, and after notice and opportunity to comment.

IV. ORDERING CLAUSES

55. ACCORDINGLY, IT IS ORDERED, pursuant to Section 4(i) of the Communications Act of 1934, as amended, 47 U.S.C. § 154(i), and Sections 1.3 and 1.925 of the Commission’s Rules, 47 C.F.R. §§ 1.3, 1.925, that the Petition for Waiver of Sections 27.5(j) and 27.53(h)(2)(ii) and Request for Extension of Time filed by DISH Network Corporation on September 9, 2013 IS GRANTED subject to the conditions indicated herein.

56. IT IS FURTHER ORDERED that AWS-4 licenses of Gamma Acquisitions L.L.C., call signs T060430001 through T060430176, and the AWS-4 licenses of New DBSD Satellite Services G.P., call signs TO70272001 through T070272176, SHALL BE REFERRED to the Wireless

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164 See NTCH Comments at 3.

165 See generally RC Technologies, Memorandum Opinion and Order, 25 FCC Rcd 124 (WTB 2010) (granting a waiver of certain technical rules that would otherwise prevent the entity seeking a waiver from using lower and upper segments of a band, instead of the just the middle segment of the band); see also State of Alaska, Memorandum Opinion and Order, 18 FCC Rcd 16315, 16323-24 (WTB 2003) (waiving certain technical rules where the purpose of the rule was to avoid interference and granting the waiver would not increase the potential for harmful interference to other licensees).

166 WAIT Radio v. FCC, 418 F.2d 1153, 1157 (D.C. Cir. 1969) (citing, e.g., United States v. Storer Broadcasting Co., 351 U.S. 192, 204-05 (1956)).

167 This is also not a case, like Tribune Co. v. FCC, 133 F.3d 61 (D.C. Cir. 1998), where the licensee sought to challenge the validity of the rule itself, or a well-established waiver policy.
Telecommunications Bureau, Broadband Division, for processing consistent with this Memorandum Opinion and Order.

57. IT IS FURTHER ORDERED that this Memorandum Opinion and Order, or a summary thereof, SHALL BE PUBLISHED in the Federal Register.

58. IT IS FURTHER ORDERED that this Memorandum Opinion and Order SHALL BE EFFECTIVE upon release.

59. This action is taken under delegated authority pursuant to Sections 0.131 and 0.331 of the Commission’s rules, 47 C.F.R. §§ 0.131, 0.331.

FEDERAL COMMUNICATIONS COMMISSION

Roger C. Sherman
Acting Chief, Wireless Telecommunications Bureau
APPENDIX

List of Comments and Reply Comments

Comments
AT&T Inc.
NTCH, Inc.
Sprint Corporation

Reply Comments
DISH Network Corporation
Sprint Corporation