

operations would cause interference to incumbent BRS systems operating in the 2150-2160 MHz band and, if so, what procedures and mechanisms such a rule should contain (*e.g.*, a “distance” table, such as Table 2 in Section 24.237 of our Rules, which identifies the distance from an AWS station within which a BRS station must be protected; the use of TIA TSB 10-F, or some comparable document, to determine when interference to BRS stations is expected to occur, *etc.*).<sup>154</sup> We asked commenters to provide information that could be used to develop criteria applicable to BRS operations, and to indicate whether and how TIA TSB 10-F could be used to determine the potential for interference to BRS systems. Alternatively, we asked those not favoring the use of a Section 24.237-type rule to specify procedures we could adopt to enable AWS licensees to determine whether their operations would cause interference to incumbent BRS systems.<sup>155</sup>

47. Commenters generally oppose the idea of using a Section 24.237-type rule or TIA TSB 10-F to determine whether an AWS entrant would interfere with a BRS incumbent’s system. Sprint Nextel and WCA contend that the point-to-point methodology contained in the analysis methods we proposed would be impracticable to apply to point-to-multipoint BRS systems, and CTIA contends that TIA TSB 10-F would not adequately address the interference potential of AWS entrants to BRS incumbents.<sup>156</sup>

48. A number of parties, including Sprint Nextel, WCA, and CTIA, propose that an AWS licensee that wants to deploy within line of sight of a BRS receive station hub (the parties define this geographic area as a “relocation zone”) be required to relocate the BRS system and the customers served by that system.<sup>157</sup> This technique simply determines whether an AWS facility’s transmit antenna can ‘see’ a BRS receive site. Sprint Nextel and WCA contend that the relocation zone approach is an appropriate interference analysis technique because an AWS base station that proposes to operate on any channel within line of sight of a centralized BRS channel 1 and/or 2/2A receive station hub would interfere with the BRS receive station hub as a result of the AWS signal exceeding the noise floor of the BRS receiver.<sup>158</sup> Sprint Nextel also believes that drawing a relocation zone around the centralized BRS channel 1 and 2 receive station offers a reliable and simple means of triggering new AWS entrants’ relocation obligations.<sup>159</sup> CTIA believes that the “bright-line” test for protection of BRS systems that the relocation zone proposal would provide is essential for an efficient transition and would facilitate the rapid roll-out of advanced services by allowing new entrants to quickly determine where they are free to deploy, while also providing new entrants the certainty they need to develop AWS deployment plans.<sup>160</sup>

49. Sprint Nextel and WCA note that the Commission previously developed a detailed technical explanation of how to conduct a line-of-sight analysis from a centralized BRS response station hub as part of the decision to permit two-way broadband services in the 2500-2690 MHz BRS/EBS band, and they ask us to look to this approach to determine potential AWS interference to a BRS receive station

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<sup>154</sup> See *AWS Fifth Notice*, 20 FCC Rcd at 15882, ¶ 29.

<sup>155</sup> *Id.*

<sup>156</sup> See Sprint Nextel Comments at 20-21; WCA Comments at 35; CTIA Comments at 5.

<sup>157</sup> See Sprint Nextel Comments at 26-27; WCA Comments at 35-36; CTIA Comments at 5-6; CTIA Reply at 3. WCA specifically proposes that the line-of-sight relocation obligation be applied to any AWS licensee operating in the 2110-2155 MHz band, while other commenters do not specify whether such a rule should be applied to new entrants that operate co-channel to BRS at 2150-2155 MHz as well as to those in the adjacent 2110-2150 MHz band. Compare WCA Comments at 35 with CTIA Reply at 3.

<sup>158</sup> See Sprint Nextel Comments at 14-17; WCA Comments at 35.

<sup>159</sup> See Sprint Nextel Comments at 26.

<sup>160</sup> See CTIA Comments at 5; CTIA Reply at 3.

hub.<sup>161</sup> In the case of those BRS licensees (and their lessees) that use the 2150-60/62 MHz band for the downstream transmission of video programming to subscribers' households, WCA also proposes requiring any AWS licensee that intends to operate within line of sight of such a BRS licensee's GSA to commence mandatory negotiations with the BRS licensee, and notes that such an approach would recognize that a subscriber could be located anywhere in the BRS licensee's GSA.<sup>162</sup> To determine whether a proposed AWS system has line of sight to a BRS licensee's GSA, WCA proposes, and BellSouth supports, using the methodology that was formerly codified in Section 21.902(f)(5)(2004) of the Commission's rules and that was previously used as part of conducting an interference analysis for BRS and EBS licensees.<sup>163</sup> Sprint Nextel suggests a slightly different approach in which the relocation zone would be based on a predicted area where AWS mobile receivers may experience harmful interference from a BRS transmitter.<sup>164</sup> WCA objects to using this relocation criteria, stating that because interference will occur at subscriber locations, BRS downstream video licensees have been authorized to serve subscribers at any location within the GSA, and they have traditionally received protection within the entire GSA, the test should be based on line of sight into a BRS GSA.<sup>165</sup>

50. T-Mobile expresses concerns that the use of a line-of-sight test to decide whether an AWS system will interfere with a BRS system may overestimate the potential interference from new AWS operations to incumbent BRS systems and recommends using a model "more based on real-world interference effects." It nevertheless recognizes that a line-of-sight test offers a measure of certainty and administrative convenience that should expedite the relocation and cost-sharing processes and which "greatly outweighs the over inclusive nature of such a methodology."<sup>166</sup> To the extent that we adopt the line-of-sight test embodied in the relocation zone proposal, T-Mobile asks us to specify a particular model for determining line of sight, as well as any other variable inputs into such a determination, in order to remove any ambiguity as to whether or not a threshold condition has been met.<sup>167</sup> US Cellular also expresses concerns that extension of the line-of-sight test to all new AWS entrants – especially to those that are not co-channel to BRS – could cause a significant delay in the commencement of service over the entire 2110-2155 MHz AWS spectrum band.<sup>168</sup>

51. As an initial matter, we conclude that relocation zones are appropriate for assessing the interference potential between new co-channel AWS entrants' operations and existing BRS facilities. In addition to being supported by many commenters, the line-of-sight approach embodied in the relocation zone approach will draw on the established methodology that was formerly set out in Part 21 of our

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<sup>161</sup> Sprint Nextel Comments at 29-30 and n.54; WCA Comments at 36. This methodology was set forth in "Methods for Predicting Interference from Response Station Transmitters and to Response Station Hubs and for Supplying Data on Response Station Systems. MM Docket 97-217," in Amendment of Parts 1, 21 and 74 to Enable Multipoint Distribution Service and Instructional Television Fixed Service Licensee to Engage in Fixed Two-Way Transmissions, MM Docket No. 97-217, *Report and Order on Further Reconsideration and Further Notice of Proposed Rulemaking*, Appendix D, 15 FCC Rcd 14566, 14610 (2000) ("*Two-Way R&O and FNRPM*").

<sup>162</sup> See WCA Comments at 36. See also BellSouth Reply at 2 (contending that an approach that does not take into account BRS subscriber locations is insufficient to protect BRS incumbent licensees' operations).

<sup>163</sup> See WCA Comments at 36-37. Section 21.902(f)(5)(2004) of the Commission's Rules determined line of sight based on the assumption that a BRS receiving antenna is installed 30 feet above ground level at each point in the GSA, determination of the actual height of the proposed station's transmitting antenna and actual terrain elevation data, and assumption of 4/3 Earth radius propagation conditions.

<sup>164</sup> Sprint Nextel Comments at 32-33.

<sup>165</sup> WCA Reply at 21.

<sup>166</sup> See T-Mobile Reply at 4-5.

<sup>167</sup> *Id.*

<sup>168</sup> US Cellular Reply at 3.

Rules, as well as previous Commission decisions regarding the BRS and EBS,<sup>169</sup> and will provide an easy-to-implement calculation that will afford new AWS entrants some certainty in planning new systems. Similarly, as Sprint Nextel notes, this approach will permit new AWS entrants to readily identify those areas that fall outside a relocation zone and in which they can rapidly deploy services without first having to relocate incumbent BRS operations.<sup>170</sup> We note that this approach is narrowly tailored insofar as each relocation zone will be unique to the geography and system characteristics of a particular BRS receive site.<sup>171</sup> To the extent that a relocation zone may require an AWS entrant to relocate some BRS systems that would not receive actual harmful interference, we agree with those commenters who assert that the administrative ease realized by implementing the relocation zone's "bright-line test" will serve to promote the rapid deployment of new AWS operations by eliminating complex and time consuming site-based analyses, and outweighs any disadvantages associated with any over inclusiveness.

52. To determine whether a proposed AWS base station will have line of sight to a BRS receive station hub, we will require AWS entrants that propose to implement co-channel operations in the BRS band (*i.e.*, AWS licensees using the upper five megahertz of channel block F – or the 2150-2155 MHz portion of the 2145-2155 MHz block, or the 2155-2162 MHz portion of the 2155-2175 MHz band) to use the methodology the Commission developed for licensees to employ when conducting interference studies from and to two-way MDS/TTFS systems.<sup>172</sup> This methodology, which was widely supported by commenters and has been successfully used by the Commission in the past, provides a detailed technical explanation of precisely how to conduct a line-of-sight analysis from a base station transmitter that accounts for topology.<sup>173</sup> Where the AWS entrant has determined that its station falls within the relocation zone under this methodology, then the AWS entrant must first relocate the co-channel BRS system that consists of that hub and associated subscribers before the AWS entrant may begin operation. In the particular case of an incumbent BRS licensee that uses channel(s) 1 and/or 2/2A for the delivery of video programming to subscribers, we recognize that the relocation zone approach will need to operate in a slightly different manner because potential interference from the AWS licensee would occur at the subscriber's location instead of at a BRS receive station hub.<sup>174</sup> In order to provide interference protection to subscribers in a manner that does not require disclosure of sensitive customer data, and to recognize that these BRS licensees may add subscribers anywhere within their licensed GSA, the most appropriate method to ascertain whether interference could occur to BRS systems providing one-way video delivery in channels 1 and/or 2/2A is to determine whether the AWS base station has line of sight to a co-channel BRS incumbent's GSA.<sup>175</sup> To make this determination, we will require co-channel AWS

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<sup>169</sup> See Amendment of Parts 1, 21 and 74 to Enable Multipoint Distribution Service and Instructional Television Fixed Service Licensee to Engage in Fixed Two-Way Transmissions, MM Docket No. 97-217, Appendix D, *Report and Order*, 13 FCC Rcd 19112, 19265 (1998).

<sup>170</sup> Sprint Nextel Comments at 27. We note that while the relocation zone proposal may serve as a reliable indicium of where interference to BRS licensees could be expected, a new entrant will remain responsible for resolving any actual harmful interference to incumbent BRS operations – including relocation of that incumbent licensee – if the new entrant's operations cause harmful interference and regardless of whether such interference was predicted under an interference zone analysis. See WCA Comments at 37, n.76.

<sup>171</sup> See, *e.g.*, Sprint Nextel Comments at 31.

<sup>172</sup> See *supra* note 161 (discussing the methodology contained in the *Two-Way R&O and FNRPM*).

<sup>173</sup> See Sprint Nextel Comments at 30.

<sup>174</sup> Two-way BRS systems are generally designed such that BRS channels 1 and/or 2/2A are used for the transmission of data from a subscriber's location back to the hub antenna and, accordingly, any interference would occur at the BRS receive station hub site. See WCA Comments at 2, n.4.

<sup>175</sup> For purposes of this determination, it does not matter whether an actual subscriber is in the line of sight of the AWS licensee's base station.

entrants to use the methodology that was formerly codified in Section 21.902(f)(5)(2004) of the Commission's rules.<sup>176</sup> This methodology is also supported by commenters and has been widely used by BRS and EBS licensees to ascertain whether a new entrant's proposed station will have line of sight to a BRS incumbent's GSA.<sup>177</sup> Because our relocation rules serve to protect incumbent BRS operations – and by extension, the subscribers of BRS video systems – from harmful interference caused by AWS licensees seeking early entry into the band, we conclude that the approach suggested by WCA and BellSouth best serves these interests because it will assure that all subscribers within a GSA are protected from harmful interference.

53. Although the relocation zone approach is well suited for new entrants that propose to implement co-channel operations in the BRS band, we conclude that simply using a line-of-sight methodology for determining the relocation obligations of adjacent channel (*e.g.*, AWS licensees using the lower five megahertz of channel block F – or the 2145-2150 MHz portion of the 2145-2155 MHz block) and non-adjacent channel AWS licensees (*e.g.*, AWS licensees using channel blocks A-E, from 2110-2145 MHz), is not appropriate.<sup>178</sup> In this situation, such AWS operations will not pose a large enough potential for interference to BRS incumbent licensees to warrant an automatic relocation obligation without first determining whether harmful interference to BRS will actually occur. There are a number of factors (*e.g.*, desired and undesired received signal levels, BRS receiving antenna angular and polarization discrimination, *etc.*) besides just having a line-of-sight path to a BRS receiver and a signal which exceeds the BRS receiver's noise floor that typically have been used in determining whether a new entrant will cause interference to an existing BRS station, and we conclude that we cannot discount these elements here.<sup>179</sup> For example, signal attenuation due to antenna directionality can mean that two stations can be within the line of sight of each other without causing harmful interference. For these reasons, we specifically reject the contention that any AWS base station in the 2.1 GHz band that proposes to operate within line of sight of a centralized BRS channel 1 and/or 2/2A receive station hub will always interfere with the BRS receive station hub.<sup>180</sup> Similarly, we do not believe that the potential for AWS intermodulation (*i.e.* interference caused when multiple signals from different frequency bands combine to create harmful interference in a particular frequency band – the band in which BRS operations are located, in this instance) or AWS cross-modulation (interference caused by the modulation of the carrier of a desired signal by an undesired signal) is so severe that either situation warrants special treatment.<sup>181</sup>

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<sup>176</sup> This rule was removed in conjunction with the restructuring of BRS and EBS in the 2496-2690 MHz band.

<sup>177</sup> See, *e.g.*, WCA Comments at 36-37.

<sup>178</sup> In the 2155-2175 MHz band, AWS stations operating on the 2160-2175 MHz portion of the band are co-channel with BRS channel 2 stations and are adjacent to BRS channel 2A stations. AWS stations operating on the 2162-2175 MHz portion of the 2155-2175 MHz band are adjacent to BRS channel 2 stations, but are non-adjacent to BRS channel 2A stations.

<sup>179</sup> See 47 C.F.R. § 21.902 (2004). See also "Methods for Predicting Interference from Response Station Transmitters and to Response Station Hubs and for Supplying Data on Response Station Systems. MM Docket 97-217," in *Two-Way R&O and FNRPM*, Appendix D, 15 FCC Rcd 14566, 14610, which required, *inter alia*, the use of a line-of-sight analysis along with the aggregate power of proposed response station transmitters and the characteristics of receive station hub receiving antennas in conducting an interference analysis for proposed MDS and ITFS response stations.

<sup>180</sup> See, *e.g.*, WCA Comments at 35. Similarly, in the case of a BRS licensee that provides downstream video programming, line of sight from an AWS station to a BRS GSA and a signal that exceeds the BRS receiver's noise floor will not always produce interference at a BRS subscriber's location.

<sup>181</sup> See Sprint Nextel February 7, 2006, *Ex Parte*, at 1. In the accompanying Engineering Statement of Robert Gheman, Jr., P.E., at 3, Sprint Nextel contends that BRS stations in the 2.1 GHz band will experience harmful interference due to cross modulation and/or intermodulation from AWS operations on any channel in the 2110-2155 MHz band.

For example, if there is only one AWS entrant operating on one non-adjacent channel within line of sight of a BRS system, co-channel and/or adjacent channel intermodulation products are not likely to occur.

54. Together, these factors lead us to conclude that a line-of-sight test for AWS entrants operating outside the 2150-2160/62 MHz band would be much more over inclusive than the application of such a test to in-band operations. We also find merit in the concerns expressed by US Cellular that expanding the scope of the relocation zone to encompass all AWS entrants could severely delay the deployment of valuable new AWS applications throughout the entire 2110-2155 MHz band, and conclude that the lost benefits associated with delayed AWS deployment would be significant.<sup>182</sup> Also, as a practical matter, determining whether an AWS entrant on an adjacent or non-adjacent channel will cause interference to an incumbent BRS station – particularly in the case of intermodulation – will necessarily be a complex matter potentially involving multiple AWS licensees and the BRS licensee, making the “bright line” test envisioned by the relocation zone particularly ill fitting. For these reasons, we conclude that we can best protect incumbent operations while not unduly restraining the ability of new entrants to rapidly deploy services in the band by not implementing a relocation zone for AWS entrants in the 2110-2150 MHz band or in the 2160/62-2175 MHz band, as applicable. We emphasize, however, that if any AWS system – regardless of where within the 2110-2175 MHz band – causes actual and demonstrable interference to a BRS system, then the AWS licensee is responsible for taking the necessary steps to eliminate the harmful interference, up to and including relocation of the BRS licensee.<sup>183</sup>

#### B. Relocation of FS in the 2160-2175 MHz Band

55. In the *AWS Fifth Notice*, we discussed how our *Emerging Technologies* relocation principles have been applied to past relocation decisions for AWS bands, and sought comment on the appropriate relocation procedures to adopt for FS incumbents in the 2160-2175 MHz band.<sup>184</sup> As originally adopted, our relocation procedures incorporated a voluntary period during which parties could negotiate relocation terms, but were under no obligation to do so. A mandatory negotiation period then followed, during which the incumbent licensee and new entrant were required to negotiate in good faith. If no relocation agreement had been reached after that period, the new entrant was free to involuntarily relocate the incumbent licensee, under the procedures outlined in the Rules.<sup>185</sup> In the *AWS Second R&O*, the Commission applied a modified version of these *Emerging Technologies* relocation procedures to the 2110-2150 MHz band.<sup>186</sup> Under these procedures, which were first adopted in ET Docket No. 95-18 for FS incumbents in the 2165-2200 MHz band, the Commission eliminated the voluntary negotiation period for relocation of FS incumbents by MSS in the 2165-2200 MHz band.<sup>187</sup> In addition, the Commission decided that a single mandatory negotiation period for the band would be triggered when the first MSS

<sup>182</sup> See US Cellular Reply at 2-3.

<sup>183</sup> See WCA Comments at 37, n.76 (contending that if an AWS system actually causes interference to a BRS system, the AWS licensee is responsible for curing that interference). This principle would also apply where two or more non-co-channel licensees' transmissions combine to cause interference to BRS operations. We distinguish this interference mitigation responsibility from the cost sharing responsibilities discussed *infra*. We agree with US Cellular that interference caused by new AWS licensees operating outside the BRS band should not trigger cost sharing obligations associated with the relocation of incumbent BRS operations. See US Cellular Reply at 4. Where AWS licensees are operating co-channel to BRS incumbents, the determination of whether and how non-co-channel band licensees are responsible for harmful interference to BRS incumbents is a complex and difficult determination for which no record has been developed.

<sup>184</sup> See *AWS Fifth Notice* at ¶ 30 (describing our relocation procedures as they were developed in the *Emerging Technologies* and *Microwave Cost Sharing* proceedings).

<sup>185</sup> See, e.g., 47 C.F.R. §§ 101.71-101.75.

<sup>186</sup> *AWS Second R&O*, 17 FCC Rcd at 23215, ¶ 42-46. The language of Section 101.73(d) was also amended to broaden its scope to include FS relocation by AWS.

<sup>187</sup> *Id.* at 12331, ¶ 46 and 12343, ¶ 86.

licensee informs, in writing, the first FS incumbent of its desire to negotiate.<sup>188</sup> More recently, in the *AWS Sixth R&O*, the Commission concluded that, consistent with its decision in the *AWS Second R&O*, it would be appropriate to apply the same procedures to the relocation of FS by AWS licensees in the 2175-2180 MHz paired band.<sup>189</sup>

56. We proposed to adopt a single mandatory negotiation period that would commence when the first new technology entrant informs the first FS licensee, in writing, of its desire to negotiate. We also sought comment as to whether a separate, individually triggered negotiation period for each incumbent licensee should be implemented in the band and, if so, whether such a ‘rolling’ negotiation approach should be adopted for the 2110-2150 MHz and 2175-2180 MHz bands in order to provide for a unified approach across the bands. We observed that one potential benefit of a rolling negotiation period approach is that it could afford a greater opportunity for FS incumbents and AWS licensees to engage in relocation negotiations and could promote a more equitable transition to AWS in the band, although we also noted that such an approach might result in more complex relocation timetables.<sup>190</sup> Finally, we proposed to adopt a ten-year sunset period to be triggered when the first AWS license is issued in the band, and asked whether and how we should harmonize existing relocation rules for Part 22 point-to-point microwave links and Part 101 fixed services.<sup>191</sup>

57. Commenters generally support our proposal to draw on existing relocation procedures for the 2160-2175 MHz band. For example, CTIA asserts that FS relocation from the 2160-2175 MHz band should be largely based on the procedures established for the relocation of incumbents in the 1.9 GHz band by PCS entrants.<sup>192</sup> It claims, for example, that the voluntary negotiation period has in the past been used to unduly delay relocations, and supports our proposal to forego the voluntary negotiation period and allow parties to immediately initiate mandatory negotiations.<sup>193</sup> Comsearch is opposed to rolling negotiation periods, contending that having different timeframes in different portions of the band is “complex and borderline unworkable,” and will make relocation issues more complex from the

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<sup>188</sup> See 47 C.F.R. 101.73(d). As then adopted, this section provided, in part, that “[m]andatory negotiations will commence when the Mobile-Satellite Service (MSS) licensee informs the fixed microwave licensee in writing of its desire to negotiate . . . .” In explaining the operation of this rule, the Commission stated that “[b]ecause FS microwave is not an integrated, dynamically coordinated service like BAS, we will not establish a particular start time for negotiations. Rather, we will adhere to our *Emerging Technologies* policy, which states that the negotiation period begins when the *first* licensee in the new service (here, MSS) informs the *first* licensee in the incumbent service (FS microwave), in writing, of its desire to negotiate.” (Emphasis added) As a result, there would be a single negotiation period that applied simultaneously to all FS incumbents. See *MSS Second R&O* at 12343, ¶ 86. This proceeding also established that the FS relocation rules would sunset ten years after the negotiations begin for the first FS licensee. *Id.* at ¶ 79-80 (citing *Microwave Cost Sharing First R&O and FNPRM*, 11 FCC Rcd 8825 at ¶ 65).

<sup>189</sup> *AWS Sixth R&O*, 19 FCC Rcd at 20754, ¶ 76. In the *AWS Third R&O*, the Commission reallocated the 1990-2000/2020-2025 MHz and 2165-2180 MHz bands from the Mobile Satellite Service for Fixed and Mobile services to support AWS. See generally, *AWS Third R&O and Third NPRM*, 18 FCC Rcd 2223. In these bands, the legacy incumbent FS operations had not been relocated at the time the band was reallocated from MSS to Fixed and Mobile service.

<sup>190</sup> *AWS Fifth Notice* at ¶ 38.

<sup>191</sup> *AWS Fifth Notice* at ¶ 34 (citing *AWS Sixth R&O*, 19 FCC Rcd at 20754, ¶ 76).

<sup>192</sup> See CTIA Reply at 2.

<sup>193</sup> CTIA Comments at 7. See also T-Mobile Comments at 4-5.

perspective of the incumbent licensees.<sup>194</sup> Instead, Comsearch suggests that the negotiation period should start from the date the first license is issued for a given block.<sup>195</sup>

58. The Commission's relocation policies were first adopted to promote the rapid introduction of new technologies into bands hosting incumbent FS licensees. Thus, we continue to believe, as a general matter, that the *Emerging Technologies* relocation procedures are particularly well suited for this band. Our review of the historic and current applications of our relocation procedures leads us to adopt the following: we will forgo the voluntary negotiation period and instead adopt a mandatory negotiation period to be followed by the right of the AWS licensee to trigger involuntary relocation procedures. Such an approach is consistent with recent relocation decisions, and we agree with commenters that the voluntary negotiation period may unduly hinder the deployment of valuable new AWS applications. We also adopt, as proposed, a ten-year sunset period for the 2160-2175 MHz band that will be triggered when the first AWS licensee is issued in the band. The sunset date is vital for establishing a date certain by which incumbent operations become secondary in the band, and the date the first license is issued will be both easy to determine and well known among licensees and incumbents in the band.<sup>196</sup>

59. We will also adopt 'rolling' negotiation periods, as proposed in the *AWS Fifth Notice*. Under this approach, a mandatory negotiation period will be triggered when an AWS licensee informs a FS licensee, in writing, of its desire to negotiate for the relocation of a specific FS facility. The result will be a series of independent mandatory negotiation periods, each specific to individual incumbent FS facilities. We conclude that this approach best serves both incumbent licensees and new AWS entrants, and is consistent with the process that was successfully employed for the relocation of FS incumbents by PCS entrants.<sup>197</sup> As several commenters note, AWS deployment in the band is likely to take place over an extended time period, as new licensees gradually build out facilities within their licensed geographic areas. If we were to establish a single mandatory negotiation period that ended for all licensees on the same day, new entrants that were not ready to deploy services would likely have no incentive to engage in negotiations with incumbent licensees during the mandatory negotiation period. The AWS licensees would instead likely invoke involuntary relocation procedures at the time they were actually ready to deploy service. Such an outcome would prevent many incumbent licensees from participating in the negotiation aspect of our relocation process, and would likely result in sudden or unexpected demands for relocation to be placed on them. We do not see how such a result serves the public interest or maintains the balance of equities built into the relocation process. While we recognize the complexities inherent in this approach discussed by Comsearch, we conclude that a rolling negotiation policy is the preferable approach because it will encourage relocations based on negotiated agreements and will minimize surprise or hardship for incumbent licensees.<sup>198</sup> Because, under this approach, a mandatory negotiation

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<sup>194</sup> See Comsearch Comments at 7.

<sup>195</sup> *Id.* This approach might result in a series of discrete negotiation periods, each based on the date the first license is issued in each block within the 2160-2175 MHz band. This plan would be similar to the approach used for PCS deployment, which set different negotiation periods for different blocks, but in which all licensees within a given block were subject to the same timetable.

<sup>196</sup> In the *AWS Fifth Notice*, we also asked whether we should establish different sunset dates. Because we have not yet determined how the 2155-2175 MHz band will be made available for assignment, there is no basis for us to establish sunset dates that are unique to discrete portions of the band.

<sup>197</sup> See 47 C.F.R. § 101.73(a) (stating that "[t]his mandatory negotiation period is triggered at the option of the ET licensee, but ET licensees may not invoke their right of mandatory negotiation until the voluntary negotiation period has expired").

<sup>198</sup> This approach also better matches the anticipated rollout of service across an AWS licensee's geographic area over an extended time period. Because the AWS licensee will trigger the mandatory negotiation, new entrants will be able to determine their own schedule for relocating incumbent systems. Moreover, we do not believe that this (continued....)

period could be triggered such that it would still be in effect at the sunset date, we further clarify that the sunset date shall supersede and terminate any remaining mandatory negotiation period that had not been triggered or had not yet run its course.

60. Because we are adopting a modified version of our relocation rules for the 2160-2175 MHz band, we will similarly modify our relocation procedures for the 2110-2150 MHz and 2175-2180 MHz bands to establish individually triggered mandatory negotiation periods and to modify the sunset date to be ten years after the first AWS license is issued in each band.<sup>199</sup> In the *AWS Fifth Notice*, we observed that it is desirable to harmonize the FS relocation procedures among the various AWS designated bands to the greatest extent feasible, because doing so “can be expected to foster a more efficient rollout of AWS and minimize confusion among the parties, and thereby serves the public interest.”<sup>200</sup> Harmonization is particularly significant in this instance, because the nature of FS operations may require the relocation of paired microwave links in the 2110-2150 MHz and 2160-2200 MHz bands.<sup>201</sup>

61. We also sought comment on how best to harmonize the separate relocation rules that currently exist for point-to-point microwave links under Parts 22 and 101 and that have diverged over time.<sup>202</sup> The *AWS Fifth Notice* described how, when the Commission determined that FS incumbents in the 2.1 GHz band would be subject to modified relocation procedures, the modifications were reflected in the Part 101 relocation rules but inadvertently not included in the Part 22 rules, although Part 22 point-to-point services also operated in the 2.1 GHz spectrum. In addition, we noted that the Commission recently determined that it would not renew the Part 22 point-to-point licenses in the 2110-2130 and 2160-2180 MHz bands, but instead allow all current Part 22 fixed service licenses in these bands to expire at the end of their current term.<sup>203</sup> Citing the benefits of consistent regulatory treatment among similar services, Comsearch and CTIA support application of the relocation rules contained in Part 101 to the relocation of Part 22 FS licensees by new AWS entrants the 2110-2130 MHz and 2160-2180 MHz bands.<sup>204</sup>

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approach will unduly delay the relocation process because AWS licensees have the ability to trigger the mandatory negotiation process well in advance of the date by which they intend to deploy service in a particular area.

<sup>199</sup> Thus, there potentially will be three separate sunset dates for the relocation of FS incumbents – one for the 2110-2150 MHz band, one for the 2160-2175 MHz band, and one for the 2175-2180 MHz band. In the case of paired microwave links, an AWS licensee will only be obligated to relocate those links in bands for which the sunset date has not yet passed.

<sup>200</sup> *AWS Fifth Notice* at ¶ 34 (citing *AWS Sixth R&O*, 19 FCC Rcd at 20754, ¶ 76).

<sup>201</sup> We note that this spectrum also includes the 2180-2200 MHz band, in which MSS licensees are responsible for the relocation of FS incumbents. Because the mandatory negotiation periods have already ended for licensees in the 2180-2200 MHz band, our decision to implement individual mandatory negotiation periods in the bands that will host new AWS licensees does not affect the negotiation or relocation process for licensees in the 2180-2200 MHz band. See 47 C.F.R. § 101.69(e).

<sup>202</sup> This distinction is because when the *Emerging Technologies* relocation rules were first adopted, fixed microwave services in the spectrum were regulated under Parts 21, 22, and 94, dealing with Common Carrier fixed point-to-point, fixed services supporting Paging and Radiotelephone, and Private Operational point-to-point, respectively. In 1996, the Commission merged the rules regulating Common Carrier and Private Operational services in Part 101.

<sup>203</sup> See Amendment of Part 22 of the Commission’s Rules to Benefit the Consumers of Air-Ground Telecommunications Services, WT Docket No. 03-103, Biennial Regulatory Review--Amendment of Parts 1, 22, and 90 of the Commission’s Rules, Amendment of Parts 1 And 22 of the Commission’s Rules To Adopt Competitive Bidding Rules For Commercial And General Aviation Air-Ground Radiotelephone Service, WT Docket No. 05-42, *Report and Order and Notice of Proposed Rulemaking*, 20 FCC Rcd 4403 at ¶ 159 (2005). In contrast, Part 101 FS licensees in *Emerging Technologies* spectrum are not currently prohibited from renewing their licenses.

<sup>204</sup> See CTIA Comments at 13-14; Comsearch Comments at 8.

62. Thus, we adopt our proposal to apply the most current *Emerging Technologies* relocation procedures to Part 22 licensees, and will modify Part 22 to align the relocation procedures in Part 101 to the AWS relocation of Part 22 FS licensees in the 2110-2130 MHz and 2160-2180 MHz bands. We reject, however, CTIA's request that we should not allow Part 101 licensees to renew their licenses, as is currently the case for Part 22 FS licensees.<sup>205</sup> We did not propose to prohibit Part 101 licensees from renewing their licenses, and an evaluation of whether the rationale for not renewing Part 22 FS licenses should be applied to Part 101 licenses in order to promote consistent regulatory treatment is beyond the record and scope of this proceeding. We do note, however, that all FS licenses operating in reallocated bands, regardless of whether they are licensed under Part 22 or Part 101, remain subject to the applicable relocation procedures in effect for the band, including the sunset date at which existing operations become secondary to new entrants. We also note that, pursuant to Section 553(b)(B) of the Administrative Procedure Act, we are amending our relocation rules for FS licensees to delete references to outdated requirements.<sup>206</sup>

63. Finally, we clarify that our decision to set forth the appropriate relocation procedures that new AWS entrants will follow when relocating FS incumbents in the 2160-2175 MHz band does not substitute for the establishment of service rules for the band (or a larger spectrum block that encompasses this band).<sup>207</sup> We continue to anticipate the issuance of a separate Notice of Proposed Rulemaking that will examine specific licensing and service rules that will be applicable to new AWS entrants in the band.

### C. Cost-sharing

64. In 1996, the Commission adopted a plan to allocate cost-sharing obligations stemming from the relocation of incumbent FS facilities then operating in the 1850-1990 MHz band (1.9 GHz band) by new broadband PCS licensees.<sup>208</sup> This cost-sharing regime created a process by which PCS entities that incurred costs for relocating microwave links could receive reimbursement for a portion of those costs from other PCS entities that also benefit from the spectrum clearance. In the *Microwave Cost Sharing* proceeding, the Commission stated that the adoption of a cost-sharing regime serves the public interest because it (1) distributes relocation costs more equitably among the beneficiaries of the relocation; (2) encourages the simultaneous relocation of multi-link communications systems; and (3) accelerates the relocation process, promoting more rapid deployment of new services.<sup>209</sup> In this section, we discuss the adoption of cost-sharing rules to identify the reimbursement obligations for AWS and MSS entrants benefiting from the relocation of incumbent FS operations in the 2110-2150 MHz and 2160-2200 MHz bands and AWS entrants benefiting from the relocation of BRS incumbents in the 2150-2160/62 MHz band.

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<sup>205</sup> CTIA Comments at 13-14.

<sup>206</sup> See 5 U.S.C. § 553(b)(B). We find good cause that notice and comment are unnecessary in this case because the requirements and references that are being deleted herein relate to the relocation and cost sharing obligations of PCS entrants to FS licensees in the 1850-1990 MHz band. These obligations terminated as of April 4, 2005. See "Broadband PCS Entities and Fixed Microwave Services Licensees Reminded of April 4, 2005 Sunset of Relocation Cost Compensation and Microwave Cost Sharing Rules," *Public Notice*, 20 FCC Rcd 5141 (WTB 2005).

<sup>207</sup> See ArrayComm Reply at 6 (setting forth its interest in the provision of TDD technologies in the band by new entrants, and expressing concern that the *AWS Fifth Notice* served to propose the adoption of service rules).

<sup>208</sup> See *supra* note 24.

<sup>209</sup> See *Microwave Cost Sharing First R&O and FNPRM*, 11 FCC Rcd 8825, at 8861, ¶ 71; Amendment to the Commission's Rules Regarding a Plan for Sharing the Costs of Microwave Relocation, WT Docket No. 95-157, *Notice of Proposed Rulemaking*, 11 FCC Rcd 1923, 1931, ¶ 16 (1995) ("*Microwave Cost Sharing Notice*"); see also *AWS Fifth Notice*, 20 FCC Rcd at 15885, ¶ 43.

## 1. Relocation of Incumbent FS Licensees in the 2110-2150 MHz and 2160-2200 MHz Bands

65. Currently, FS incumbents operate microwave links in the 2110-2150 MHz and 2160-2200 MHz bands, mostly composed of paired channels in the lower and upper bands (*i.e.*, 2110-2130 MHz with 2160-2180 MHz and 2130-2150 MHz with 2180-2200 MHz). Section 101.82 of the Commission's Part 101 relocation rules provides that when a new licensee in either of these bands relocates an incumbent paired FS link with one path in the 2110-2150 MHz band and the paired path in the 2160-2200 MHz band, the new licensee is entitled to reimbursement of fifty percent of its relocation costs from any subsequently entering new licensee which would have been required to relocate the same FS link, subject to a monetary "cap."<sup>210</sup> The *AWS Fifth Notice* explained that this rule applied to both new AWS licensees in the 2110-2150 MHz and 2160-2180 MHz bands, as well as to MSS licensees in the 2180-2200 MHz band.<sup>211</sup> We discuss AWS and MSS issues separately, below.

### a. Cost Sharing between AWS Licensees

66. *Background.* In the *AWS-2 Service Rules NPRM*, the Commission sought comment on whether it should adopt formal procedures for apportioning relocation costs among multiple AWS licensees in the 2110-2150 MHz and 2175-2180 MHz bands and, in particular, whether it should apply the cost-sharing rules in Part 24 that were used by new PCS licensees when they relocated incumbent FS links in the 1850-1990 MHz band.<sup>212</sup> In the *AWS Fifth Notice*, the Commission sought comment on the same issues in the 2160-2175 MHz band<sup>213</sup> and whether AWS licensees in the 2160-2175 MHz band should be subject to the same cost-sharing regime as it adopts to govern the relocation of FS incumbents in the 2110-2150 MHz and 2175-2180 MHz bands.<sup>214</sup>

67. In the *AWS Fifth Notice*, the Commission explained the details of how the Part 24 cost-sharing plan operated in the context of the relocation of FS microwave links from the 1.9 GHz band by PCS entrants.<sup>215</sup> Under the Part 24 plan, new entrants that incurred costs relocating an FS link were eligible to receive reimbursement from other entrants that also benefited from that relocation.<sup>216</sup> Relocators could submit their reimbursement claims to one of the private not-for-profit clearinghouses

<sup>210</sup> See 47 C.F.R. § 101.82. The rule recognizes that although a new licensee may not receive a direct benefit by relocating a link in one of the bands (*e.g.*, it is licensed to operate in one band but not both), it may relocate a paired link in that band in order to satisfy its obligation to provide comparable facilities to the incumbent FS licensee. Thus, the new licensee is entitled to reimbursement (50 percent of all reimbursable costs up to the cap) by another new licensee for relocating a link that otherwise it did not need to relocate to address interference. *Id.*

<sup>211</sup> See *AWS Fifth Notice*, 20 FCC Rcd at 15886, ¶ 44. Under the rule, reimbursement obligations are determined using the same interference analysis that governs relocation obligations. Moreover, the rule does not contemplate the use of a clearinghouse for administration.

<sup>212</sup> See Service Rules for Advanced Wireless Services in the 1915-1920 MHz, 1995-2000 MHz, 2020-2025 MHz and 2175-2180 MHz Bands; Service Rules for Advanced Wireless Services in the 1.7 GHz and 2.1 GHz Bands, WT Docket No. 04-356, WT Docket No. 02-353, *Notice of Proposed Rulemaking*, 19 FCC Rcd 19263, 19282-84, ¶¶ 46-49 (2004) ("*AWS-2 Service Rules NPRM*").

<sup>213</sup> See *AWS Fifth Notice*, 20 FCC Rcd at 15886, ¶ 45.

<sup>214</sup> See *id.*

<sup>215</sup> See *AWS Fifth Notice*, 20 FCC Rcd at 15886-87, ¶ 46. The pertinent rule provisions are set forth at Sections 24.239-24.253 of the Commission's Rules.

<sup>216</sup> The Part 24 cost sharing rules that applied to PCS entrants relocating FS incumbents from the 1850-1990 MHz band terminated on April 4, 2005. See 47 C.F.R. § 24.253; "Broadband PCS Entities and Fixed Microwave Services Licensees Reminded Of April 4, 2005 Sunset of Relocation Cost Compensation and Microwave Cost Sharing Rules," *Public Notice*, 20 FCC Rcd 5141 (WTB 2005). Our overview of the plan here thus describes how the plan operated prior to the sunset date.

designated by the Wireless Telecommunications Bureau (“WTB”) to administer the plan.<sup>217</sup> Specifically, new entrants filing a prior coordination notice (PCN)<sup>218</sup> were also required to submit their PCN to the clearinghouse(s) before beginning operations.<sup>219</sup> After receiving the PCN, a clearinghouse with a reimbursement claim on file determined whether the new entrant benefited from the relevant relocation using a Proximity Threshold Test.<sup>220</sup> Under the Proximity Threshold Test, a new entrant triggered cost-sharing obligations for a microwave link if all or part of the microwave link was initially co-channel with the PCS band(s) of any PCS entrant, a PCS relocater had paid to relocate the link, and the new PCS entrant was prepared to start operating a base station within a specified geographic distance of the relocated link.<sup>221</sup> The clearinghouse then used the cost-sharing formula specified in Section 24.243 of the Commission’s Rules to calculate the amount of the beneficiary’s reimbursement obligation.<sup>222</sup> This amount was subject to a cap of \$250,000 per relocated link, plus \$150,000 if a new or modified tower was required.<sup>223</sup> The beneficiary was required to pay reimbursement within 30 days of notification, with an equal share of the total going to each entrant that previously contributed to the relocation.<sup>224</sup> Payment

<sup>217</sup> See *Microwave Cost Sharing First R&O and FNPRM*, 11 FCC Rcd at 8878, Appendix A, ¶ 3; 47 C.F.R. § 24.243.

<sup>218</sup> See 47 C.F.R. § 101.103(d).

<sup>219</sup> See 47 C.F.R. § 24.249(a).

<sup>220</sup> See 47 C.F.R. § 24.247.

<sup>221</sup> See *id.*

<sup>222</sup> See 47 C.F.R. §§ 24.243, 24.249. The cost sharing formula calculates a benefiting entrant’s reimbursement obligation based on the total “actual” costs of relocation, the number of prior entrants that would have interfered with the link, and the number of months that have passed since the relocater first obtained reimbursement rights. 47 C.F.R. § 24.243. The number of months is factored in to depreciate the reimbursement obligation of new entrants over time, ensuring that early entrants, who receive a greater benefit from the relocation, also pay a larger share of the relocation costs. We note that “depreciation” for the purposes of cost sharing is to be distinguished from “depreciation” as used in the context of accounting for the cost of a microwave incumbent’s relocation, *i.e.*, depreciated cost or full replacement cost.

We also note that the *pro rata* cost sharing formula does not apply to a new entrant that relocates a link fully outside its market area or licensed frequency band. 47 C.F.R. § 24.245(c). In that circumstance, the relocater is entitled to 100 percent reimbursement of its costs from the next beneficiary without depreciation, subject to the reimbursement cap. See *Microwave Cost Sharing First R&O and FNPRM*, 11 FCC Rcd at 8884-5, Appendix A, ¶¶ 16-17. However, when the microwave link in question involves a paired transmit/receive channel system, with two separate paths in upper and lower spectrum bands, the full reimbursement rule may not be applicable. If the relocater is a new entrant in either of the paired channel frequency bands or market areas, *both* paths of the incumbent link will not be *fully outside* the relocater’s licensed frequency band or geographic license area. Section 24.243 describes an “interfering microwave link” as one that is in “all or part” of the relocater’s market area and frequency band. Therefore, a new entrant that interferes with one of the paths of the link will trigger relocation for that particular path but, to provide comparable facilities to the incumbent microwave operator, the entrant will nevertheless have to relocate both paths of the link. Under these circumstances, *pro rata* reimbursement under the Part 24 cost sharing plan would be available for the relocater of the link.

<sup>223</sup> See 47 C.F.R. § 24.243(b). We note that this cap applied only to reimbursement paid to an initial relocater by a subsequent new licensee beneficiary; it did not operate to limit an initial relocater’s responsibility for the costs of relocation, which was not subject to any cap. Self-relocating FS incumbents were also permitted to obtain reimbursement from benefiting entrants under the plan, subject to the same reimbursement cap. See 47 C.F.R. § 24.243.

<sup>224</sup> See 47 C.F.R. § 24.243; *Microwave Cost Sharing First R&O and FNPRM*, 11 FCC Rcd at 8880, Appendix A, ¶ 6.

obligations and reimbursement rights under the Part 24 cost-sharing plan can be superceded by a privately negotiated cost-sharing arrangement between licensees.<sup>225</sup>

68. Disputes over cost-sharing obligations under the rules were addressed, in the first instance, by the clearinghouse.<sup>226</sup> If the clearinghouse was unable to resolve the dispute, parties were encouraged to pursue alternative dispute resolution (ADR) alternatives such as binding arbitration.<sup>227</sup>

69. In the *AWS Fifth Notice*, the Commission explained that adopting the Part 24 cost-sharing plan for AWS entrants that relocate FS incumbents would have many benefits.<sup>228</sup> The Commission therefore proposed to adopt a cost-sharing plan for relocation of FS incumbents in the 2160-2175 MHz band based on the Part 24 plan and sought comment on this proposal.<sup>229</sup> In addition, the Commission also noted that it had sought comment on whether it should adopt the Part 24 plan to apportion relocation costs among multiple AWS licensees in the 2110-2150 MHz and 2175-2180 MHz bands.<sup>230</sup> Although the Commission recognized that Part 24 rules could be applied to the relocation of FS incumbents in the 2.1 GHz band without substantial changes, the *AWS Fifth Notice* nevertheless sought comment on whether some modifications to the Part 24 cost-sharing rules were appropriate, including specific changes suggested by PCIA in response to the *AWS-2 Service Rules NPRM*.<sup>231</sup> The Commission also sought comment on the procedures and qualifications criteria that should be used to select one or more private not-for-profit clearinghouses to administer the cost-sharing rules.<sup>232</sup> In addition, the Commission sought comment on the rules that should govern the operation of the clearinghouse(s).<sup>233</sup>

70. *Comments.* Most commenting parties support the adoption of the Part 24 cost-sharing framework for AWS entrants that benefit from the relocation of FS incumbents in the 2.1 GHz band.<sup>234</sup>

<sup>225</sup> For a more detailed discussion of the PCS cost sharing plan, see the *Microwave Cost Sharing* proceeding cited at note 208, *supra*.

<sup>226</sup> See 47 C.F.R. § 24.251.

<sup>227</sup> See *id.*

<sup>228</sup> See *AWS Fifth Notice*, 20 FCC Rcd at 15887, ¶ 47.

<sup>229</sup> See *AWS Fifth Notice*, 20 FCC Rcd at 15888, ¶ 47.

<sup>230</sup> See *AWS Fifth Notice*, 20 FCC Rcd at 15886, ¶ 45 (citing *AWS-2 Service Rules NPRM*, 19 FCC Rcd at 19282-84 ¶¶ 46-49). The Commission invited parties that previously filed comments in response to the *AWS-2 Service Rules NPRM* to incorporate those comments by reference in the instant docket. See *id.* at n.111.

<sup>231</sup> See *AWS Fifth Notice*, 20 FCC Rcd at 15888, ¶ 48. PCIA suggested that, in establishing a cost sharing plan for AWS relocation of FS, the Commission should modify the Part 24 plan by (1) establishing a rule requiring licensing data to be filed by all entities; (2) mandating that parties are required to act in good faith in connection with their responsibilities under the cost sharing plan; (3) providing that reasonable interest charges can be applied to cost sharing obligations; (4) creating an explicit mechanism for expedited appeal to the Commission from a disputed clearinghouse determination; and (5) according weight to the determinations of the clearinghouse in such an appeal. See *id.* (citing PCIA-The Wireless Infrastructure Association (PCIA) Comments, WT Docket No. 02-353 (filed Dec. 8, 2004) (PCIA Comments to *AWS-2 Service Rules NPRM*) at 5-6).

<sup>232</sup> See *AWS Fifth Notice*, 20 FCC Rcd at 15888, ¶ 49. The Part 24 plan delegates authority to WTB to assign the administration of the cost sharing rules to one or more private not-for-profit clearinghouses. See 47 C.F.R. § 24.241.

<sup>233</sup> See *AWS Fifth Notice*, 20 FCC Rcd at 15888, ¶ 49.

<sup>234</sup> See, e.g., PCIA Comments at 1-4; T-Mobile Comments at 2; Comsearch Comments at 2-3; CTIA Comments at 14. T-Mobile contends that there is broad support for the adoption of cost sharing policies based on the policies implemented in the 1.9 GHz band relocation proceedings and recommends that the Commission model the cost sharing procedures adopted in this proceeding after the 1.9 GHz band rules. See T-Mobile Reply at 2-3, 9-10. Similarly, PCIA states that the Commission should apply a cost sharing framework for AWS based upon the model used for Broadband PCS in the 1.9 GHz band. See PCIA Comments at 1-4. CTIA also supports the use of cost sharing, consistent with the prior 1.9 GHz band rules, in the 2.1 GHz band. See CTIA Comments at 14.

Several commenters, however, request that the Commission clarify specific aspects of the Part 24 cost-sharing rules.<sup>235</sup> For example, T-Mobile and PCIA urge the Commission to provide further certainty to relocating entities regarding what costs are compensable under Section 24.243(b) of the Commission's Rules.<sup>236</sup> A few commenting parties also propose specific modifications to the Part 24 clearinghouse rules. T-Mobile, for example, suggests that the Commission modify the rules pertaining to link registrations and site filings with the clearinghouse to promote efficient resolution of cost-sharing claims.<sup>237</sup> In particular, T-Mobile proposes that the Commission adopt a blanket rule requiring all entities constructing new sites or modifying existing sites to file site data in the form of a PCN with the clearinghouse and that the Commission also impose a continuing obligation on those entities to maintain the accuracy of the data on file with the clearinghouse.<sup>238</sup> Similarly, PCIA states that all licensees should be required to file data with the clearinghouse for all construction sites within 30 days of turning on any fixed base station at commercial power.<sup>239</sup> According to PCIA and T-Mobile, such a rule is necessary to address past instances where the Part 24 clearinghouse experienced difficulties obtaining PCN data from licensees that conducted their own interference studies to support their contention that, even though they fell within the Proximity Threshold Box, they nevertheless were not required to file PCNs with the clearinghouse because the links they would have interfered with had already been relocated.<sup>240</sup>

71. PCIA and T-Mobile contend that the presence of a new entrant's site within the Proximity Threshold Box, regardless of the potential for actual interference, should trigger a cost-sharing obligation.<sup>241</sup> T-Mobile and PCIA believe this policy should apply regardless of whether the site actually pre-dated the relocation because the new entrant will nevertheless benefit from the subsequent relocation.<sup>242</sup> According to PCIA, if a new entrant operates in a manner protecting an existing incumbent and the incumbent is then relocated, the pre-existing new entrant still benefits from the relocation and cost sharing is therefore appropriate.<sup>243</sup> In addition, PCIA and T-Mobile propose that the Commission clarify that a new entrant only may trigger a cost-sharing obligation for a relocated link once per license,

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<sup>235</sup> See T-Mobile Comments at 4-9; T-Mobile Reply at 6-7; PCIA Comments at 2-8; PCIA Reply at 5-6.

<sup>236</sup> See, e.g., T-Mobile Comments at 7-9; Comments at 7-8; PCIA Reply at 6. Specifically, T-Mobile contends that cash relocation payments should be compensable costs for purposes of cost sharing. See T-Mobile Comments at 7-8. T-Mobile also requests that the Commission clarify how costs involving alternative facilities should be documented for cost sharing and what constitutes prohibited "cost averaging" under the Part 24 rules. See T-Mobile Comments at 8; see also PCIA Comments at 7-8; PCIA Reply at 6 (asking the Commission to clarify that a rational division of non-link specific costs among several links relocated under a single contract is not prohibited "cost averaging").

<sup>237</sup> See T-Mobile Comments at 4-6.

<sup>238</sup> See T-Mobile Comments at 6.

<sup>239</sup> See PCIA Reply at 5.

<sup>240</sup> PCIA contends that the requirement to file such data with the clearinghouse needs to be specifically stated because such a requirement is currently contingent on whether a PCN for the site is required pursuant to 47 C.F.R. § 101.103(d). See PCIA Comments at 5-6. PCIA notes that, under 47 C.F.R. § 101.103(d), a PCN is required only if the facilities will affect or be affected by the proposed new site; thus the requirement to file a PCN with the clearinghouse would arguably not be triggered if all of the microwave links in an area have already been relocated. See PCIA Comments at 5, n.4; see also T-Mobile Comments at 6 (explaining that, because the requirement to file data was premised on PCNs, some licensees argued that, because they believed a site caused no interference, no PCN, and thus, no filing with the clearinghouse, was needed).

<sup>241</sup> See T-Mobile Comments at 5-6; PCIA Comments at 5-6; PCIA Reply at 6 (citing T-Mobile Comments at 5).

<sup>242</sup> See *id.*

<sup>243</sup> See PCIA Comments at 5-6; PCIA Reply at 6 (citing T-Mobile Comments at 5).

regardless of the size of the license.<sup>244</sup> PCIA also asks the Commission to adopt a rule stating that, once triggered, deconstruction of a site does not relieve an entity of cost-sharing requirements – an obligation, once triggered, can not be “de-triggered.”<sup>245</sup> However, PCIA does suggest that the Commission allow, in cases of bankruptcy or disputes, subsequent triggers to reduce their liabilities to other cost-sharing participants by “paying around” a prior trigger.<sup>246</sup>

72. PCIA and T-Mobile both contend that relocating entities should not be required to file link registrations within 10 days of relocation<sup>247</sup> because the depreciation factor that is calculated into the Part 24 cost-sharing formula<sup>248</sup> provides them with a market incentive to promptly register to minimize the amount of deprecation that would otherwise accrue with the passage of time.<sup>249</sup> In addition, PCIA and T-Mobile argue that the Commission should not require a clearinghouse to maintain all documentary evidence.<sup>250</sup> Rather, PCIA and T-Mobile propose that the Commission require carriers to provide only uniform cost data at the time of filing with the clearinghouse, with supporting documentation to be made available to subsequent triggers upon request.<sup>251</sup>

73. In addition, PCIA and T-Mobile request that the Commission establish certain procedures to govern those instances where disagreements arise over cost-sharing obligations. Specifically, PCIA proposes that the Commission define what constitutes “good faith” in the context of cost sharing, especially where an entrant that subsequently triggers a cost-sharing obligation complains that the initial

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<sup>244</sup> See T-Mobile Comments at 5 (contending that the Commission should definitively rule that a new entrant may trigger a cost sharing obligation for a relocated link only once per license, regardless of the size of the license); PCIA Comments at 6 (same); PCIA Reply at 6. According to PCIA, “numerous disputes arose as to why larger area licensees did not trigger an obligation for each BTA where sites were in the proximity box.” PCIA Comments at 6. Therefore, it contends that the Commission should categorically affirm the “one license – one trigger” rule. See *id.*

<sup>245</sup> See PCIA Comments at 5-6; PCIA Reply at 6. An entrant triggering a cost sharing obligation, pursuant to the Commission’s Rules, would be required to fulfill that obligation in full and not be permitted to avoid that obligation by deconstructing its facilities.

<sup>246</sup> See PCIA Comments at 7; PCIA Reply at 6. PCIA explains its proposal with a hypothetical example that presumes “Relocator A pays \$X to relocate a microwave link, benefits from the relocation, and that link is triggered by Carrier B, Carrier B would owe Relocator A \$X/2, not considering depreciation. If the link is then triggered by Carrier C, Carrier C would owe (not including depreciation), \$X/6 to both Relocator A and Carrier B, with the net result that each pays \$X/3.” PCIA Comments at 7. According to PCIA, “[i]f Carrier B files for bankruptcy, it is arguable that, under the bankruptcy laws, Carrier B may have its debt of \$X/2 to Relocator A extinguished, yet still legally pursue collection of \$X/6 from Carrier C (as occurred in the 1.9 GHz band).” *Id.* Therefore, PCIA contends that the Commission should “clarify that carriers are permitted to pay around carriers in financial distress and commensurately reduce their obligations. Thus, in the example above, Carrier C should be permitted to pay Relocator A \$X/6 as well as the \$X/6 owed to Carrier B, thus reducing Carrier B’s obligation to Relocator A to \$X/3. This results in a far more equitable distribution of sharing payments.” *Id.*

<sup>247</sup> See 47 C.F.R. § 24.245(a), (b).

<sup>248</sup> See 47 C.F.R. §§ 24.243, 24.249. The cost sharing formula calculates a benefiting entrant’s reimbursement obligation based on the total “actual” costs of relocation, the number of prior entrants that would have interfered with the link, and the number of months that have passed since the relocater first obtained reimbursement rights. See 47 C.F.R. § 24.243. The number of months is factored in to depreciate the reimbursement obligation of new entrants over time, ensuring that early entrants, who receive a greater benefit from the relocation, also pay a larger share of the relocation costs.

<sup>249</sup> See T-Mobile Comments at 6-7; PCIA Comments at 6; PCIA Reply at 6.

<sup>250</sup> See PCIA Comments at 7; T-Mobile Comments at 7.

<sup>251</sup> See PCIA Comments at 7; T-Mobile Comments at 7. Under this approach, licensees themselves, not the clearinghouse, will be responsible for maintaining documentation of cost issues, with link registrants required to maintain documentation until the sunset date. See T-Mobile Comments at 4.

party that undertook the relocation overpaid.<sup>252</sup> According to PCIA, the Commission should also explicitly state in the rules that a clearinghouse has the authority to order the payment of a cost-sharing amount from one entity to another.<sup>253</sup> To discourage disputes designed to defer cost-sharing payments, T-Mobile asks the Commission to approve the charging of interest on cost-sharing obligations starting 60 days after the invoice date.<sup>254</sup> Moreover, both PCIA and T-Mobile propose that the Commission adopt a procedure to issue expedited rule interpretations in the event that cost sharing and relocation disputes arise.<sup>255</sup> PCIA argues that an expedited procedure would avoid lengthy disputes.<sup>256</sup> PCIA therefore contends that the Commission should establish a process whereby a clearinghouse will be able to refer a question of interpretation to the Commission and promptly receive a public response, thereby lessening the potential for disputes.<sup>257</sup>

74. *Discussion.* We believe that adopting rules based on the Part 24 cost-sharing plan for AWS entrants that benefit from the relocation of FS incumbents by other AWS entrants would accelerate the relocation process and promote rapid deployment of new advanced wireless services in the 2.1 GHz band. In the *AWS Fifth Notice*, the Commission noted that the Part 24 plan was devised to accommodate new cellular type systems licensed by geographic areas and incumbent FS point-to-point operations.<sup>258</sup> The relocation of FS by AWS licensees presents very similar circumstances; further, the Part 24 plan has a proven record of success.<sup>259</sup> Moreover, the Commission has recognized that refinements to the details of the plan, made in response to numerous questions that have been addressed since the Part 24 plan's inception in 1996, reduce the likelihood that further clarification will be necessary if the Commission adopts this regime for new AWS entrants.<sup>260</sup> For these reasons, the Commission explained in the *AWS Fifth Notice* that it expected the adoption of these rules to expedite the relocation of FS incumbents and the introduction of new services.<sup>261</sup> We continue to believe that adopting the Part 24 cost-sharing rules, with minor modifications, serves the public interest because it will distribute relocation costs more equitably among the beneficiaries of the relocation, encourage the simultaneous relocation of multi-link communications systems, and accelerate the relocation process, thereby promoting more rapid deployment of new services.

75. We also find substantial support in the record for applying a cost-sharing framework for AWS in the 2.1 GHz band that is based upon the Part 24 plan used for Broadband PCS.<sup>262</sup> In the *AWS*

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<sup>252</sup> See PCIA Comments at 7-8; PCIA Reply at 6. PCIA also proposes that the Commission clarify that relocatees retain the discretion to decide how to use their relocation funds and need not submit receipts or proof of expenditures. See PCIA Comments at 7-8; PCIA Reply at 6; see also T-Mobile Comments at 8 (arguing that relocating entities are not required to document, beyond the submission of a relocation contract, how the incumbent actually uses relocation funds).

<sup>253</sup> See PCIA Comments at 5; PCIA Reply at 5.

<sup>254</sup> See T-Mobile Comments at 9.

<sup>255</sup> See T-Mobile Comments at 5; PCIA Comments at 4.

<sup>256</sup> See PCIA Comments at 4.

<sup>257</sup> See *id.*

<sup>258</sup> See *AWS Fifth Notice*, 20 FCC Rcd at 15887-88, ¶ 47.

<sup>259</sup> The Commission has found that the Part 24 cost sharing rules have promoted "an efficient and equitable relocation process . . ." See *Microwave Cost Sharing Memorandum Opinion and Order on Reconsideration*, 15 FCC Rcd at 14003, ¶ 8.

<sup>260</sup> See *AWS Fifth Notice*, 20 FCC Rcd at 15888, ¶ 47.

<sup>261</sup> See *id.*

<sup>262</sup> See, e.g., PCIA Comments at 1-4; T-Mobile Comments at 2; Comsearch Comments at 2-3; CTIA Comments at 14.

*Fifth Notice*, the Commission emphasized that “it is desirable to harmonize the FS relocation procedures among the various AWS designated bands to the greatest extent feasible.”<sup>263</sup> The Commission specifically noted that relocation procedures that are consistent throughout the band can be expected to foster a more efficient rollout of AWS and minimize confusion among the parties, and thereby serve the public interest.<sup>264</sup> After thoroughly reviewing the record,<sup>265</sup> we conclude that the Commission should apply the Part 24 cost-sharing rules, as herein modified, to the instant relocation of FS incumbents by AWS entrants in the 2.1 GHz band. We also incorporate the Part 24 cost-sharing provisions for voluntary self-relocating FS incumbents to obtain reimbursement from those AWS licensees benefiting from the self-relocation.<sup>266</sup> Incumbent participation will provide FS incumbents in the 2.1 GHz band with the flexibility to relocate themselves and the right to obtain reimbursement of their relocation costs, adjusted by depreciation, up to the reimbursement cap, from new AWS entrants in the band.<sup>267</sup> We also find that incumbent participation will accelerate the relocation process by promoting system wide relocations and result in faster clearing of the 2.1 GHz band, thereby expediting the deployment of new advanced wireless services to the public.<sup>268</sup> Therefore, we will require AWS licensees in the 2.1 GHz band to reimburse FS incumbents that voluntarily self-relocate from the 2110-2150 MHz and 2160-2200 MHz bands and AWS licensees will be entitled to *pro rata* cost sharing from other AWS licensees that also benefited from the self-relocation. Accordingly, subject to the clarifications and modifications explained below, we adopt rules in Appendix A based on the formal cost-sharing procedures codified in Part 24 of our rules to apportion relocation costs among AWS licensees in the 2110-2150 MHz, 2160-2175 MHz, and 2175-2180 MHz bands.<sup>269</sup>

76. As noted above, we find that the record in this proceeding warrants certain modifications to the Part 24 cost-sharing plan that we believe will help distribute cost-sharing obligations equitably among the beneficiaries of the relocation and also encourage and accelerate the relocation process. Specifically, with respect to cost-sharing obligations on MSS operators for FS incumbent self-relocation in the 2180-2200 MHz band, we recognize that the Commission previously declined to impose cost sharing on MSS operators for voluntary self-relocation by FS incumbents in that band.<sup>270</sup> Accordingly, for FS incumbents that elect to self-relocate their paired channels in the 2130-2150 MHz and 2180-2200

<sup>263</sup> *AWS Fifth Notice*, 20 FCC Rcd at 15883, ¶ 34.

<sup>264</sup> *See id.*

<sup>265</sup> As noted above, the *AWS Fifth Notice* invited parties that previously filed comments in response to the *AWS-2 Service Rules NPRM* to incorporate those comments by reference. *See AWS Fifth Notice*, 20 FCC Rcd at 15886, n.111. We have taken comments filed in WT Docket No. 02-353 addressing this issue fully into consideration in concluding that the goals of this proceeding and the public interest would best be served by adopting cost sharing rules that will be uniformly applied to AWS entrants in the 2110-2150 MHz, 2160-2175 MHz, and 2175-2180 MHz bands. *See, e.g.*, T-Mobile Comments, WT Docket No. 02-353 (filed Dec. 8, 2004); PCIA Comments to *AWS-2 Service Rules NPRM*; CTIA Reply Comments, WT Docket No. 02-353 (filed Feb. 8, 2005).

<sup>266</sup> *See, e.g.*, 47 C.F.R. §§ 24.239, 24.245.

<sup>267</sup> *See Microwave Cost Sharing Second R&O*, 12 FCC Rcd at 2717-8, ¶¶ 25-28; 47 C.F.R. § 24.243.

<sup>268</sup> *See Microwave Cost Sharing Second R&O*, 12 FCC Rcd at 2717-18, ¶¶ 25-29.

<sup>269</sup> In doing so, we note that service rules have not yet been adopted in the 2160-2175 MHz band, which is part of a twenty megahertz band of spectrum that has been allocated and designated for AWS. *See Amendment of Part 2 of the Commission's Rules to Allocate Spectrum Below 3 GHz for Mobile and Fixed Services to Support the Introduction of New Advanced Wireless Services, including Third Generation Wireless Systems*, ET Docket No. 00-258, *Eighth Report and Order*, 20 FCC Rcd 15866 (2005).

<sup>270</sup> *See MSS Third R&O*, 18 FCC Rcd at 23673, ¶ 73 (a reimbursement scheme for voluntary self-relocation was not envisioned by the MSS/FS relocation plan and thus a cost sharing plan for MSS reimbursing FS incumbents who voluntarily relocate was not warranted). The cost sharing obligations for MSS downlink space-to-Earth operations in the 2180-2200 MHz band are governed by 47 C.F.R. § 101.82.

MHz bands (with AWS in the lower band and MSS in the upper band), we will impose cost-sharing obligations on AWS licensees but not on MSS operators. Where a voluntarily relocating microwave incumbent relocates a paired microwave link with paths in the 2130-2150 MHz and 2180-2200 MHz bands, it is entitled to partial reimbursement from the first AWS beneficiary, equal to fifty percent of its actual costs for relocating the paired link, or half of the reimbursement cap, whichever is less. This amount is subject to depreciation. For purposes of applying the cost-sharing formula relative to other AWS licensees that benefit from the self-relocation, the fifty percent attributable to the AWS entrant shall be treated as the entire cost of the link relocation,<sup>271</sup> and depreciation shall run from the date on which the clearinghouse issues the notice of an obligation to reimburse the voluntarily relocating microwave incumbent.

77. We also decline commenters' suggestion<sup>272</sup> that we eliminate in its entirety the Part 24 requirement that a relocater or self-relocating microwave incumbent file documentation of its relocation agreement or discontinuance of service to the clearinghouse. We believe that continuing to require relocators or self-relocators to submit such documentation within a certain time period expedites the reimbursement process. We do, however, believe that extending the deadline for such filings from 10 business days to 30 calendar days reasonably balances the concerns raised by commenters and the Commission's goal of expediting the clearing of the 2.1 GHz band.<sup>273</sup> We will, therefore, require AWS relocators in the 2.1 GHz band to file their reimbursement requests with the clearinghouse within 30 calendar days of the date the relocator signs a relocation agreement with an incumbent. Consistent with the Part 24 approach of imposing the same obligations on self-relocators seeking reimbursement that apply to relocators,<sup>274</sup> we will also require self-relocating microwave incumbents in the 2.1 GHz band to file their reimbursement requests with the clearinghouse within 30 calendar days of the date that they submit their notice of service discontinuance with the Commission.

78. We will also require all AWS licensees in the 2.1 GHz band that are constructing a new site or modifying an existing site to file site-specific data with the clearinghouse prior to initiating operations for a new or modified site.<sup>275</sup> The site data must provide a detailed description of the proposed site's spectral frequency use and geographic location.<sup>276</sup> We will also impose a continuing duty on those entities to maintain the accuracy of the data on file with the clearinghouse. We find that such an approach will ensure fairness in the process and preclude new AWS entrants from conducting independent interference studies for the purpose or effect of evading the requirement to file site-specific data with the clearinghouse prior to initiating operations.<sup>277</sup>

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<sup>271</sup> See *AWS Fifth Notice*, 20 FCC Rcd at 15889, ¶ 50, n.129.

<sup>272</sup> T-Mobile Comments at 6-7; PCIA Comments at 6; PCIA Reply at 6.

<sup>273</sup> See, e.g., *Microwave Cost Sharing First R&O and FNPRM*, 11 FCC Rcd at 8827, ¶ 1, 8861-2, ¶ 71 (cost sharing plan will promote expeditious clearing of the band in an equitable and efficient manner, which benefits microwave incumbents as well as PCS licensees); *Microwave Cost Sharing Second R&O*, 12 FCC Rcd at 2708, ¶ 6, 2716, ¶ 25 (allowing incumbents to self-relocate and obtain reimbursement rights will further expedite clearing of the band by giving microwave incumbents the option of avoiding time-consuming negotiations).

<sup>274</sup> See *Microwave Cost Sharing Second R&O*, 12 FCC Rcd at 2717, ¶ 26.

<sup>275</sup> See PCIA Reply at 5.

<sup>276</sup> The site-specific data must at least include the applicant's name and address, the name of the transmitting base station, the geographic coordinates corresponding to that base station, the frequencies and polarizations to be added, changed, or deleted, and the emission designator. Because this information is included in the prior coordination notice (PCN) required by 47 C.F.R. § 101.103(d), entities can satisfy the site data filing requirement by submitting their PCN to the clearinghouse instead.

<sup>277</sup> However, we will continue to require entrants and licensees to comply with the coordination requirements set forth in Parts 24, 27, and 101 of the Commission's Rules. See, e.g., 47 C.F.R. § 24.237 (PCS licensees must coordinate their frequency usage with co-channel or adjacent channel FS incumbents before initiating operations (continued....))

79. Utilizing the site-specific data submitted by AWS licensees, the clearinghouse determines the cost-sharing obligations of each AWS entrant by applying the Proximity Threshold Test.<sup>278</sup> We find that the presence of an AWS entrant's site within the Proximity Threshold Box, regardless of whether it predates or postdates relocation of the incumbent, and regardless of the potential for actual interference, will trigger a cost-sharing obligation.<sup>279</sup> Accordingly, any AWS entrant that engineers around the FS incumbent will trigger a cost-sharing obligation once relocation of the FS incumbent occurs.<sup>280</sup> We recognize that the Proximity Threshold Test may limit a licensee's ability to engineer around the transmission of the former microwave link to avoid relocation reimbursement obligations.<sup>281</sup> However, we reiterate that the benefits that the Proximity Threshold Test provides in terms of ease of administration outweigh any burden that use of the test will impose on other entrants that are required to share in the relocation costs.<sup>282</sup> The Proximity Threshold Test is a bright-line test that does not require extensive engineering studies or analyses, and it yields consistent, predictable results by eliminating the variations – and thus disputes – which can be associated with the use of interference standards such as the TIA TSB 10-F.<sup>283</sup> We find that the use of such a bright-line test in this context will expedite the relocation process by facilitating cost-sharing, minimizing the possibility of disputes that may arise through the use of other standards or tests, and encouraging new entrants to relocate incumbent licensees in the first instance.

80. We agree with commenting parties and adopt a rule that precludes entrants that have triggered a cost-sharing obligation, pursuant to the rules adopted herein, from avoiding that obligation by deconstructing or modifying their facilities.<sup>284</sup> We find that such a policy will promote the goals of this proceeding and encourage the relocation of incumbents. Moreover, it will significantly reduce the possibility of disagreements over cost sharing among entrants, thereby expediting the entire process and affording all entrants a level playing field with respect to their business expectations. We do not find, however, that the record in this proceeding demonstrates a need to specifically incorporate the phrase “one trigger-one license” into the triggering language of Section 24.243 of the Commission's Rules. The

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from any base stations); 47 C.F.R. § 27.1131 (all AWS licensees, prior to initiating operations, must coordinate their frequency usage with co-channel and adjacent channel incumbent, Part 101 fixed point-to-point microwave licensees in the 2110-2155 MHz band, in accordance with 47 C.F.R. § 24.237); 47 C.F.R. § 101.103(d) (proposed frequency usage must be prior coordinated with existing licensees).

<sup>278</sup> See discussion *supra* para. 67.

<sup>279</sup> See, e.g., *Microwave Cost Sharing First R&O and FNPRM*, 11 FCC Rcd at 8892-3, Appendix A ¶¶ 32-33 (The Proximity Threshold Test is less expensive and easier to administer than the interference criteria of TIA TSB 10-F because under the test, a PCS base station will either fall inside the reimbursement “box” or out of it.)

<sup>280</sup> Because, as explained below, we are relying on the use of a bright-line test to determine whether an entrant benefits from the relocation of an FS incumbent, AWS licensees have no incentive to “engineer around” an FS incumbent that has already been relocated. In that instance, the AWS entrant will nonetheless trigger a cost sharing obligation pursuant to the Proximity Threshold Test.

<sup>281</sup> In the *Microwave Cost Sharing First R&O*, the Commission explained the benefits of adopting a bright-line test in its decision to move away from the TIA TSB 10-F interference standard toward a more streamlined, simplified process of determining interference for purposes of our cost sharing plan. See *Microwave Cost Sharing First R&O and FNPRM*, 11 FCC Rcd at 8892, Appendix A ¶ 33.

<sup>282</sup> See *Microwave Cost Sharing First R&O and FNPRM*, 11 FCC Rcd at 8892, Appendix A ¶ 33; see also 47 C.F.R. § 24.239 (requiring all entrants that benefit from the clearance of spectrum by other entrants to contribute to such relocation costs).

<sup>283</sup> See, e.g., *Microwave Cost Sharing First R&O and FNPRM*, 11 FCC Rcd at 8892, Appendix A ¶ 33.

<sup>284</sup> Once an entrant submits its site-specific data with the clearinghouse and triggers a cost sharing obligation because it is within the Proximity Threshold “box,” it is required to pay its cost sharing obligations in full. The “post-trigger” deconstruction or modification of the entrant's facilities will neither eliminate nor mitigate such payment obligations.

rule already explicitly states that the *pro rata* reimbursement formula is based on the number of entities that would have interfered with the link and we do not find that further clarification is required.<sup>285</sup>

81. We also fail to find sufficient support in the record for PCIA's contention that we should allow, in cases of bankruptcy or disputes, subsequent triggers to reduce their liabilities to other cost-sharing participants by "paying around" a prior trigger.<sup>286</sup> Similarly, we reject T-Mobile's proposal that the Commission explicitly approve the charging of interest on cost-sharing obligations starting 60 days after the invoice date.<sup>287</sup> We do not believe that the record supports this request. We also decline to adopt a rule that explicitly states, as suggested by PCIA,<sup>288</sup> that a clearinghouse has the authority to order the payment of a cost-sharing amount from one entity to another.<sup>289</sup> Rather, we intend to use the full realm of enforcement mechanisms available to us to ensure that reimbursement obligations are satisfied.<sup>290</sup> In response to T-Mobile's inquiry regarding the proper method of accounting for recurring charges in reimbursement claims, we clarify that, even if the compensation to the incumbent is in the form of a commitment to pay five years of charges, the relocater is entitled to seek immediate reimbursement of the present value lump sum amount, provided it has entered into a legally binding agreement to pay the charges.<sup>291</sup> The relocater may not seek reimbursement of the present value of future charges that it is not contractually bound to pay.

82. Consistent with precedent,<sup>292</sup> we establish a specific date on which the cost-sharing plans that we adopt here will sunset. We find that the sunset date for cost sharing purposes is the date on which the relocation obligation for the subject band terminates.<sup>293</sup> We realize that the sunset dates for the 2110-2150 MHz, 2160-2175 MHz, 2175-2180 MHz bands may vary among the bands.<sup>294</sup> However, we find that establishing sunset dates for cost sharing purposes that are commensurate with the sunset date for AWS relocation obligations in each band appropriately balances the interests of all affected parties and ensures the equitable distribution of costs among those entrants benefiting from the relocations. We reiterate, however, that AWS entrants that trigger<sup>295</sup> a cost-sharing obligation prior to the sunset date must satisfy their payment obligation in full.

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<sup>285</sup> See 47 C.F.R. § 24.243.

<sup>286</sup> See PCIA Comments at 7; see *infra*, note 39 (discussing PCIA's proposal).

<sup>287</sup> See T-Mobile Comments at 9. Specifically, "T-Mobile suggests that the Commission explicitly approve the charging of interest on cost sharing obligations starting 60 days after the invoice date as long as interest charges conform with the IRS default rate." *Id.*

<sup>288</sup> See PCIA Comments at 5; PCIA Reply at 5.

<sup>289</sup> Consistent with the Part 24 rules, entrants will be required to satisfy their cost sharing obligations within 30 days of receiving written notification of the amount due. See, e.g., 47 C.F.R. § 24.249.

<sup>290</sup> See, e.g., *Microwave Cost Sharing First R&O and FNPRM*, 11 FCC Rcd at 8865, ¶ 80.

<sup>291</sup> See T-Mobile Comments at 8. Under the FS comparable facilities requirement, a relocater must compensate a relocated incumbent for any increased recurring costs by paying the recurring costs for a five year period, or else paying the present value of these payments in a lump sum using current interest rates. As the compensation for increased recurring charges represents part of the actual costs of relocation, relocators are entitled to seek reimbursement of the compensation from other beneficiaries. See *Microwave Cost Sharing First R&O and FNPRM*, 11 FCC Rcd at 8842, ¶ 31.

<sup>292</sup> See 47 C.F.R. § 24.253.

<sup>293</sup> Specifically, in this *Ninth R&O*, for the 2110-2150 MHz, 2160-2175 MHz, and 2175-2180 MHz bands, we establish relocation sunset dates of ten years after the first AWS license is issued in each band. See *supra* ¶¶ 58-60.

<sup>294</sup> For this reason, we clarify that the sunset date(s) for cost sharing purposes is governed by the relocation sunset date(s) for the AWS band(s) in which the relocated FS link(s) was located.

<sup>295</sup> We clarify that a clearinghouse determines when an entrant triggered a cost sharing obligation pursuant to the Proximity Threshold Test adopted herein and explained above. Regardless of the reason, entrants that somehow (continued....)

83. Under Part 24, WTB has delegated authority to assign the administration of the cost-sharing rules to one or more private not-for-profit clearinghouses.<sup>296</sup> As the Commission noted in the *AWS Fifth Notice*, management of the Part 24 cost-sharing rules by third-party clearinghouses has been highly successful.<sup>297</sup> Indeed, the *AWS Fifth Notice* recognized that two commenters on the *AWS-2 Service Rules NPRM* have already expressed interest in becoming clearinghouses for the AWS relocation of FS incumbents in the 2110-2150 MHz and 2175-2180 MHz bands.<sup>298</sup> We therefore adopt the Part 24 clearinghouse rules and delegate to WTB the authority to select one or more entities to create and administer a neutral, not-for-profit clearinghouse to administer the cost-sharing plan for the FS incumbents in the 2.1 GHz band. The selection criteria will be established by WTB. WTB shall issue a Public Notice announcing the criteria and soliciting proposals from qualified parties. Once WTB is in receipt of such proposals, and the opportunity for public comment on such proposals has elapsed, WTB will make its selection. When WTB designates an administrator for the cost-sharing plan, it shall announce the effective date of the cost-sharing rules.

84. We will continue to require participants in the cost-sharing plan to submit their disputes to the clearinghouse for resolution in the first instance. Where parties are unable to resolve their issues before the clearinghouse, parties are encouraged to use expedited ADR procedures, such as binding arbitration, mediation, or other ADR techniques.<sup>299</sup> We decline, however, to institute the procedures suggested by some commenting parties<sup>300</sup> that would permit the clearinghouse to refer requests for declaratory rulings and policy interpretations to the Commission for expedited consideration because we are not convinced that a special procedure is warranted. We do, however, agree with PCIA and T-Mobile that a clearinghouse should not be required to maintain all documentary evidence.<sup>301</sup> Except for the independent third party appraisal of the compensable relocation costs for a voluntarily relocating microwave incumbent<sup>302</sup> and documentation of the relocation agreement or discontinuance of service required for a relocater or self-relocater's reimbursement claim,<sup>303</sup> both of which must be submitted in their entirety, we will require participants in the cost-sharing plan to only provide the uniform cost data requested by the clearinghouse subject to the continuing requirements that relocaters and self-relocaters maintain documentation of cost-related issues until the sunset date and provide such documentation, upon request, to the clearinghouse, the Commission, or entrants that trigger a cost-sharing obligation. In addition, we will also require that parties of interest contesting the clearinghouse's determination of specific cost-sharing obligations must provide evidentiary support to demonstrate that their calculation is reasonable and made in good faith. Specifically, these parties are expected to exercise due diligence to obtain the information necessary to prepare an independent estimate of the relocation costs in question and to file the independent estimate and supporting documentation with the clearinghouse.<sup>304</sup>

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evade notifying the clearinghouse of the fact that they triggered a cost sharing obligation will nevertheless be responsible for the full payment of their obligation.

<sup>296</sup> 47 C.F.R. § 24.241.

<sup>297</sup> See *AWS Fifth Notice*, 20 FCC Rcd at 15888, ¶ 49.

<sup>298</sup> See PCIA Comments to *AWS-2 Service Rules NPRM* at 6-8; CTIA Reply to *AWS-2 Service Rules NPRM* at 12-13.

<sup>299</sup> See 47 C.F.R. § 24.251.

<sup>300</sup> See T-Mobile Comments at 5; PCIA Comments at 4.

<sup>301</sup> See PCIA Comments at 7; T-Mobile Comments at 4.

<sup>302</sup> See 47 C.F.R. § 24.245(b).

<sup>303</sup> See 47 C.F.R. § 24.245(a)(1)-(2).

<sup>304</sup> We will also continue to utilize the list of compensable costs enumerated in Section 24.243(b) as the starting point for determining reimbursement for incumbent microwave facilities. This is consistent with the Commission's conclusion in the *Microwave Cost Sharing First R&O* that the list "should be illustrative, not exhaustive, because (continued....)

85. We reject PCIA's contention that the Commission should specifically define what constitutes "good faith" in the context of cost sharing.<sup>305</sup> New entrants and incumbent licensees are expected to act in good faith in all matters relating to the cost-sharing process herein established. Although the Commission has generally required "good faith" in the context of parties' participation in negotiations,<sup>306</sup> self-relocating incumbents benefit through their participation in the cost-sharing regime and therefore are expected to act in good faith in seeking reimbursement for recoverable costs in accordance with the Commission's Rules. We find that the question of whether a particular party was acting in good faith is best addressed on a case-by-case basis. By retaining sufficient flexibility to craft an appropriate remedy for a given violation in light of the particular circumstances at hand,<sup>307</sup> we can ensure that any party who violates our good faith requirements, either by acting in bad faith or by filing frivolous or harassing claims of violations, will suffer sufficient penalties to outweigh any advantage it hoped to gain by its violation.<sup>308</sup>

**b. Cost Sharing Triggers and Clearinghouse for AWS, MSS/ATC**

86. *Background.* Mobile-Satellite Service (MSS) is allocated to the 2180-2200 MHz band. FS links in this band are paired with FS links in the 2130-2150 MHz band, which is designated for AWS. Cost sharing between MSS and AWS licensees in these paired bands is governed by section 101.82. This rule provides that when a new licensee in either of these bands relocates an incumbent paired FS link with one path in one band and the paired path in the other band, the new licensee is entitled to reimbursement of fifty percent of its relocation costs (*i.e.*, the total cost of relocating both paths) subject to a monetary "cap," from any subsequently entering new licensee that would have been required to relocate the same FS link.<sup>309</sup>

87. The Commission adopted relocation rules for MSS that recognize the unique characteristics of a satellite service. For example, unlike a new terrestrial entrant such as AWS that can clear the band on a link-by-link basis, MSS (space-to-Earth) must clear all incumbent FS operations in the 2180-2200 MHz band within the satellite service area if interference will occur.<sup>310</sup> Thus, the relocation obligations and cost sharing among MSS new entrants in the 2180-2200 MHz are relatively straightforward and can function without a clearinghouse or formal cost-sharing procedures.<sup>311</sup>

88. In the *AWS Fifth Notice*, the Commission noted that Section 101.82 establishes a cost-sharing obligation between MSS and AWS that is reasonable and relatively easy to implement, and

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some actual relocation expenses might not fit neatly into one of these categories." See *Microwave Cost Sharing First R&O*, 11 FCC at 8886-7, ¶ 20. Therefore, specific questions as to compensable costs will be addressed on a case-by-case basis through the clearinghouse process enumerated above.

<sup>305</sup> See PCIA Comments at 7-8; PCIA Reply at 6.

<sup>306</sup> See, *e.g.*, *Emerging Technologies R&O and MO&O*, 8 FCC Rcd 6589, 6595, ¶¶ 15-16 (1993); *Microwave Cost Sharing First R&O and FNPRM*, 11 FCC Rcd at 8838, ¶¶ 20-22; *MSS Second R&O*, 15 FCC Rcd 12315, ¶ 47.

<sup>307</sup> See *id.*

<sup>308</sup> See *id.*

<sup>309</sup> See *AWS Fifth Notice*, 20 FCC Rcd at 15889, ¶ 50 (*citing* 47 C.F.R. § 101.82). The rule recognizes that although a new licensee may not receive a direct benefit by relocating a link in one of the bands (*e.g.*, it is licensed to operate in one band but not both), it may relocate a paired link in that band in order to satisfy its obligation to provide comparable facilities to the incumbent FS licensee. Thus, the new licensee is entitled to reimbursement (50 percent of all reimbursable costs up to the cap) by another new licensee for relocating a link that otherwise it did not need to relocate to address interference. *Id.*

<sup>310</sup> *Id.*

<sup>311</sup> See *id.* (*citing* *MSS Second R&O*, 15 FCC Rcd 12315, 12345-47, ¶¶ 95-102 (any subsequently entering licensee that cannot demonstrate that it would not have interfered with the microwave link is required to participate in reimbursing the relocater and depreciation does not apply)).

because it does not depreciate cost-sharing obligations, it provides MSS licensees with additional assurance of cost recovery. Furthermore, the Commission stated that it did not wish to change the relocation and cost-sharing rules applicable to MSS, because MSS licensees are currently in the midst of the implementation and relocation process. The Commission also sought comment on whether MSS entrants entitled to reimbursement under Section 101.82 should submit their reimbursement claims to an AWS clearinghouse, including any procedures adopted for filing such claims.<sup>312</sup> The Commission believed that this approach would relieve MSS licensees of the burden of identifying the AWS licensees who would be obligated to pay relocation costs, and sought comment on this proposal.

89. *Comments.* Most commenters support using a neutral clearinghouse to facilitate reimbursement of MSS ancillary terrestrial component (ATC) base stations<sup>313</sup> and AWS operators that relocate incumbent FS licensees, although TMI/Terrestar state that MSS operators should have the right (but not the obligation) to obtain reimbursement through the clearinghouse arrangement.<sup>314</sup> PCIA agrees with TMI/Terrestar that MSS operators should retain the right to negotiate their own agreements for reimbursement with AWS licensees or other incumbents.<sup>315</sup> TMI/TerreStar also note that Section 101.82 does not expressly refer to ATC and asks us to make clear in the rules that MSS is entitled to cost sharing for microwave links that are relocated for ATC operations.<sup>316</sup> TMI/TerreStar add that if a clearinghouse will resolve MSS-AWS and AWS-AWS reimbursement claims, then the Commission should delegate the task of selecting a clearinghouse jointly to the International Bureau (which licenses MSS) and to the WTB (which licenses AWS).<sup>317</sup> In addition, TMI/TerreStar suggest that we require the clearinghouse to publish all of its policy and procedures on the Internet, subject to appropriate security provisions, to ensure neutrality and transparency.<sup>318</sup> According to TMI/TerreStar, any clearinghouse-based reimbursement option should be available to MSS operators for as long as needed, *i.e.*, should not sunset until at least January 1, 2015, because incumbent microwave licensees in the 2180-2200 MHz band will be co-primary until December 2013, and the need to relocate incumbent microwave links may not be known until MSS begins operating across the full MSS downlink band.<sup>319</sup>

90. Commenters that specifically address cost-sharing procedures in the context of MSS also recommend using the Part 24 cost-sharing procedures instead of Section 101.82. Comsearch, PCIA, TMI/TerreStar, and T-Mobile state that the Part 24 Proximity Threshold Test should be used for determining when a later-entering AWS or ATC licensee is obliged to reimburse an AWS, ATC, or MSS

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<sup>312</sup> *Id.*

<sup>313</sup> For additional information on MSS ATC, *see generally* Flexibility for Delivery of Communications by Mobile Satellite Service Providers in the 2 GHz Band, the L-Band, and the 1.6/2.4 GHz Bands, IB Docket No. 01-185, *Report and Order and Notice of Proposed Rulemaking*, 18 FCC Rcd 1962 (2003), *Order on Reconsideration*, 18 FCC Rcd 13590 (2003).

<sup>314</sup> TMI/TerreStar Comments at 4. "While the current rules establish an unambiguous basis for sharing relocation costs among the initial MSS and subsequent AWS licensees, the *AWS Fifth Notice* recognizes that the rules do not provide an express mechanism for implementing this regime. TMI/TerreStar consequently support the FCC's proposal to grant MSS licensees the right (but not the obligation) to obtain reimbursements through the Part 24 clearinghouse arrangement that has been proposed for resolving claims for shared relocation costs among AWS licensees." *Id.*

<sup>315</sup> PCIA Reply at 2-3, n.6.

<sup>316</sup> TMI/TerreStar at 5-6.

<sup>317</sup> TMI/Terrestar Comments at 6-7.

<sup>318</sup> TMI/TerreStar Comments at 7.

<sup>319</sup> *Id.* TMI/TerreStar state that some incumbent microwave licensees may not be relocated until after TMI/Terrestar begin service in 2008; also, that the identity of AWS licensees in some paired microwave bands may not be known until after 2008.

(space station) licensee which has previously relocated a terrestrial microwave facility.<sup>320</sup> According to T-Mobile, the “benefits in terms of administrative ease for a licensee (or cost-sharing clearinghouse) vastly outweigh the marginal inclusion or exclusion of particular facilities under a bright line test versus an actual [predicted] interference test” under Section 101.82.<sup>321</sup>

91. Several commenters offer additional suggestions that focus on the MSS cost-sharing obligation to AWS. PCIA proposes that cost sharing should be triggered for all previously relocated co-channel links when MSS initiates downlink operations.<sup>322</sup> PCIA also asks us to make clear in Section 101.82 that microwave licensees may self-relocate and obtain reimbursement if an emerging technology (ET) licensee later triggers the former link.<sup>323</sup> Comsearch avers that Section 101.82 does not contemplate the possibility that more than two licensees may be required to relocate a fixed microwave link whereas the Part 24 cost-sharing regime includes a cost-sharing formula to account for multiple relocators.<sup>324</sup>

92. Comsearch also notes that it is quite likely that AWS licensees will undertake significant relocation efforts before MSS licensees, in which case the non-depreciating reimbursement obligation of Section 101.82 will be a burden on MSS licensees rather than an “additional assurance of cost recovery.”<sup>325</sup> As such, Comsearch recommends the Part 24 cost-sharing formula, which includes depreciation, as the simplest to implement and the most equitable to all parties.<sup>326</sup> Comsearch and PCIA further recommend that we require MSS operators to file prior coordination notices (PCNs) so the clearinghouse can accurately track sharing obligations as they relate to third parties. PCIA states that the task of a clearinghouse is to identify cost sharing as between licensees, identify the amounts registered with the clearinghouse for link relocation, and apply set formulas in the rules for depreciation and sharing.<sup>327</sup> Comsearch urges reconsideration of the relocation and cost-sharing rules applicable to MSS<sup>328</sup> and proposes that MSS licensees coordinate all satellite downlink and ATC design proposals and register all incumbent links subject to reimbursement with the clearinghouse using procedures similar to Part 24.<sup>329</sup> Comsearch explains that while a clearinghouse would be useful to MSS licensees looking to

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<sup>320</sup> Comsearch Comments at 7, n.10; PCIA Reply at 3; TMI/Terrestar *Ex Parte*, filed Feb. 3, 2006, at 2-3; T-Mobile Reply at 5. *See also* TMI/TerreStar Comments at 6 (“[T]he FCC should expressly harmonize the AWS-AWS and MSS-AWS standards . . . [to the] fixed and easily administered . . . ‘Proximity Threshold Test’ . . . and not the MSS-MSS interference showing criteria stated in Section 101.82. [A]dopting such criteria is essential for the efficient operation of the clearinghouse and will benefit all concerned . . . .”); TMI/TerreStar *Ex Parte*, filed Feb. 3, 2006, at 3 (“So far as cost sharing between MSS space segment providers is concerned, Section 101.82 should continue to apply as the Proximity Threshold Test is plainly inapposite.”).

<sup>321</sup> T-Mobile Reply at 5.

<sup>322</sup> PCIA Reply at 3, n.9.

<sup>323</sup> PCIA Reply at 3-4.

<sup>324</sup> Comsearch Comments at 4.

<sup>325</sup> Comsearch Comments at 2-3 (quoting *AWS Fifth Notice*, 20 FCC Rcd at 15889, ¶ 50).

<sup>326</sup> Comsearch Comments at 3.

<sup>327</sup> PCIA Reply at 2-3, n.6. “MSS licensees, like others, should be free to negotiate alternative arrangements, but that does not obviate the need to file data with the clearinghouse to accurately track sharing obligations as they relate to third parties.” *Id.*

<sup>328</sup> Comsearch Comments at 2. Comsearch acknowledges the Commission’s conclusion not to change the relocation and cost sharing rules applicable to MSS, because MSS licensees are “currently in the midst of the implementation and relocation process.” *Id.* (quoting *AWS Fifth Notice*, 20 FCC Rcd at 15889, ¶ 50). However, Comsearch disagrees and urges reconsideration because Comsearch “does not believe that any significant relocation efforts by MSS licensees have already taken place [and] because it is quite likely that AWS licensees will undertake significant relocation efforts before MSS licensees.” *Id.*

quickly recover any reimbursement claims, it would also serve an equally important role for AWS licensees by identifying any MSS cost-sharing obligations.<sup>330</sup>

93. *Discussion.* Based on the record before us, we conclude that MSS operators will have different cost-sharing obligations for microwave links that are relocated for space-to-Earth downlink operations than for microwave links that are relocated for MSS ATC operations. As noted above, we had previously adopted rules (*see* Section 101.82) for MSS cost sharing based on an interference criteria (TIA Technical Services Bulletin 86 (TIA TSB 86)), and the *AWS Fifth Notice* did not propose to change these relocation and cost-sharing obligations because the MSS operators were already in the midst of implementing these processes. The *AWS Fifth Notice* did, however, seek comment on whether MSS operators should use a clearinghouse for cost sharing. The relocation and cost-sharing obligations triggered by space-to-Earth links is relatively straightforward to implement because the MSS operator will relocate all incumbent microwave operations within the satellite service area before it begins operations if interference will occur. The MSS operator and the AWS licensees can therefore easily identify the parties with whom they will share costs.<sup>331</sup> We thus conclude here that we will not require MSS operators to use a clearinghouse for microwave links relocated for space-to-Earth downlinks and we will continue to apply the relocation and cost-sharing obligations provided in Section 101.82 to MSS operators that relocate microwave links for space-to-Earth downlink operations. We further conclude that MSS operators that relocate microwave links for space-to-Earth downlink operations should have the right, but not the obligation, to submit their claims for reimbursement (from AWS licensees) to the AWS clearinghouse pursuant to the procedures we adopt herein. As TMI/TerreStar and PCIA note, using the clearinghouse for reimbursement claims is voluntary in that MSS operators retain the right to enter into private cost-sharing agreements with AWS licensees. We clarify that if an MSS operator submits a claim to the clearinghouse, the interference criteria for determining cost-sharing obligations for an MSS space-to-Earth downlink is TIA TSB 86.

94. As TMI/TerreStar notes, the MSS cost-sharing obligations previously codified in Section 101.82 do not address MSS/ATC. Unlike MSS space-to-Earth downlinks which present relatively straightforward relocation and cost-sharing obligations, ATC operations will trigger incumbent microwave relocations on a link-by-link basis in the same way as AWS operations. We find that, since Section 101.82 is silent as to reimbursement for microwave links relocated for ATC base stations, it is appropriate to adopt a specific rule for ATC reimbursement for relocated terrestrial microwave facilities. Based on the record before us, we conclude that MSS operators that relocate microwave links for ATC operations will be required to use a clearinghouse for cost sharing and thus will have the same cost-sharing obligations as AWS entrants. The Commission previously determined that cost sharing would be determined using the relevant interference modeling<sup>332</sup> and that TIA TSB 10-F, or its successor standard, is an appropriate standard for purposes of triggering relocation obligations by new terrestrial (ATC or AWS) entrants in the 2 GHz band.<sup>333</sup> The Commission also noted that procedures other than TIA TSB

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<sup>329</sup> Comsearch Comments at 2, 5-6; Comsearch Reply at 4-5 (“All entities should be required to file site data with the clearinghouse using the prior coordination notice (PCN) method [and required to] maintain the accuracy of any data. This rule should apply to all MSS downlink designs and ATC deployments . . . to effectively monitor cost sharing obligations due from any later entering MSS systems.”).

<sup>330</sup> Comsearch Comments at 6 (noting that Commission has identified TIA TSB 86 as the applicable standard for use in determining relocation obligations in the case of satellite downlink interference into terrestrial receivers, and identified TIA TSB 10-F as an appropriate standard for ATC systems) (*citing MSS Second R&O*, 15 FCC Rcd at 12345-47 ¶ 78 and *MSS Third R&O*, 18 FCC Rcd 23638, 23672, ¶ 70).

<sup>331</sup> As discussed herein, an AWS licensee’s cost sharing obligation would be based on the Proximity Threshold Test.

<sup>332</sup> *MSS Second R&O*, 15 FCC Rcd at 12346, ¶ 97.

<sup>333</sup> *MSS Third R&O*, 18 FCC Rcd at 23672, ¶¶ 70-71 *citing MSS Second R&O*, 15 FCC Rcd at 12346, ¶ 97, n.160 (in the case of terrestrial new service/FS interference, the relevant standard is found in TIA TSB 10-F or any standard successor).

10-F that follow generally acceptable good engineering practices are also acceptable.<sup>334</sup> For the same reasons discussed above in the context of intra-AWS cost sharing,<sup>335</sup> and based on the record before us, we conclude that the Proximity Threshold Test is an acceptable alternative to TIA TSB 10-F to determine interference for purposes of AWS-to-ATC and ATC-to-AWS cost sharing, and we adopt its use here as well.<sup>336</sup>

95. Furthermore, the Commission has specifically concluded that MSS terrestrial operations are technically similar to PCS and that TIA TSB 10-F is a relevant standard for determining whether a new ATC base station must relocate an incumbent microwave operation.<sup>337</sup> Given that the Proximity Threshold Test used for PCS, and now AWS cost-sharing obligations, is an acceptable alternative to TIA TSB 10-F to determine interference for purposes of cost sharing, we find it reasonable to also use this test for triggering ATC to AWS cost-sharing obligations. Under this approach, reimbursement is only triggered if all or part of the relocated microwave link was initially co-channel with the licensed band(s) of the AWS or ATC operator.<sup>338</sup> The Proximity Threshold Test will be easier to administer than TIA TSB 10-F and does not require extensive engineering studies or analyses, and it yields consistent, predictable results by eliminating the variations which can be associated with the use of TIA TSB 10-F.<sup>339</sup>

96. Given that AWS and ATC are terrestrial operations, we agree that MSS participation in the clearinghouse process should be mandatory for ATC operations so that the clearinghouse can accurately track cost-sharing obligations as they relate to all terrestrial operations. Thus, MSS operators must file notices of operation with the clearinghouse for all ATC base stations following the same rules and procedures that that will govern all AWS base stations. On the other hand, we find that the record before us provides no technical basis for adopting PCIA's proposal that, when MSS initiates space-to-Earth operations, cost sharing should be triggered nationwide automatically (rather than based on an interference analysis) for all previously relocated co-channel links. Moreover, the Commission previously concluded that TIA TSB 86 is the appropriate standard for purposes of triggering both relocation and cost-sharing obligations of new MSS downlink (space-to-Earth) operations.<sup>340</sup>

97. We decline TMI/TerreStar's suggestion to delegate the task of selecting a clearinghouse(s) jointly to WTB and the International Bureau. Our clearinghouse decisions today will impose mandatory requirements only on terrestrial operations and we believe that delegating authority to one bureau will promote consistency and uniformity. We also note that, as was the case for PCS, all entities interested in serving as a clearinghouse will have an opportunity to apply. Further, although WTB will oversee the selection of a clearinghouse(s), the International Bureau's expertise in mobile satellite

<sup>334</sup> *MSS Third R&O*, 18 FCC Rcd at 23672, ¶ 71, n.186 (citing 47 C.F.R. § 101.105(c)).

<sup>335</sup> See *supra* ¶ 79.

<sup>336</sup> See, e.g., *Microwave Cost Sharing First R&O and FNPRM*, 11 FCC Rcd at 8892, Appendix A ¶¶ 32-33. Thus, the Proximity Threshold Test will be used to determine (1) when an AWS licensee is obliged to reimburse an MSS (including ATC) operator that relocated a microwave link, and (2) when an ATC operator is obliged to reimburse an AWS licensee that relocated a microwave link.

<sup>337</sup> *MSS Third R&O*, 18 FCC Rcd at 23672, ¶ 70.

<sup>338</sup> See, e.g., *Microwave Cost Sharing First R&O and FNPRM*, 11 FCC Rcd at 8893-94, Appendix A ¶¶ 33-34. (excluding adjacent channel interference as a trigger for cost sharing greatly simplifies the cost sharing plan and eliminates many possible disagreements over whether a system would have caused or experienced adjacent channel interference).

<sup>339</sup> See, e.g., *id.* at 8893, ¶ 33 (a base station will either fall inside the reimbursement "box" or outside of it and this approach will permit existing and prospective providers to project their cost sharing obligations more accurately).

<sup>340</sup> *MSS Second R&O*, 15 FCC Rcd at 12340-41, ¶ 78 (adopted TIA TSB 86 as the standard for assessing interference) and *id.*, 15 FCC Rcd at 12346, ¶ 97 (MSS licensee will not be required to reimburse initial licensee for relocation expenses where interference modeling in accordance with TIA TSB 86 indicates that MSS licensee could have successfully shared spectrum with a FS microwave incumbent).

licensing remains fully available to that bureau, if needed. Moreover, as was the case for the PCS clearinghouse, the selection process as well as the appropriate clearinghouse(s) policies and procedures will be public, likely available on the Internet, to ensure neutrality and transparency.

98. Under Section 101.79, MSS is not required to pay relocation costs after the relocation rules sunset, *i.e.*, ten years after the mandatory negotiation period began for MSS/ATC licensees in this service.<sup>341</sup> For MSS/ATC, the relocation sunset date will be December 8, 2013.<sup>342</sup> Under Part 101, new cost-sharing obligations under Section 101.82 sunset along with the relocation sunset. Nonetheless, TMI/TerreStar's concern that any clearinghouse-based reimbursement option should be available until at least December 31, 2014, appears to be satisfied because, as discussed above, the AWS cost-sharing obligation sunset will not occur until after 2015.<sup>343</sup>

99. We decline the suggestion to impose an obligation on MSS to share costs with self-relocating FS incumbents because the proposal is beyond the scope of the *AWS Fifth Notice*. We further note that the Commission previously concluded that a reimbursement scheme for voluntary self-relocation was not envisioned by the MSS/FS relocation plan and that initiating a plan for MSS reimbursing those who voluntarily relocate was not warranted.<sup>344</sup> Similarly, we decline the suggestion to adopt Part 24 depreciation for AWS/MSS cost sharing both because it is beyond the scope of the *Fifth Notice* and because the Commission concluded in 2000 that the Part 24 amortization formula, whereby the amount of reimbursement owed by later entrants diminishes over time, is irrelevant to AWS/MSS cost sharing. The Commission explained that the amortization schedule is intended to account for the competitive advantage that the first provider to the market enjoys over later entrants and that the competitive advantage of early entry does not factor into this case.<sup>345</sup> The record before us presents no basis for reversing this earlier conclusion. Thus, as noted in the *AWS Fifth Notice*, the Part 24 plan formula, *e.g.*, depreciation, will not govern reimbursement due to an MSS licensee who requests reimbursement from an MSS or AWS licensee, or to reimbursement due to an AWS licensee who requests reimbursement from an MSS licensee under Section 101.82. If an AWS licensee reimburses an MSS licensee under Section 101.82, this sum shall be treated as the entire actual cost of the link relocation for purposes of applying the cost-sharing formula relative to other AWS licensees that benefit.<sup>346</sup> In such instances, the AWS licensee must register the link with a clearinghouse within 30 calendar days of making the payment to the MSS operator.<sup>347</sup>

100. The suggestion to require MSS/ATC to coordinate with FS incumbents is similarly beyond the scope of the *AWS Fifth Notice*, which focused on whether MSS should participate in the terrestrial clearinghouse. The *AWS Fifth Notice* expressly declined to revisit the MSS relocation and cost-sharing matters decided between 2000 and 2003 and directly stated that new MSS licensees would continue to follow the cost-sharing approach set forth in Section 101.82.<sup>348</sup> Comsearch's point that it is no longer a certainty that MSS will begin operations before AWS is well taken. Nonetheless, as noted in the *AWS Fifth Notice*, the relocation process adopted for MSS is already underway. In this connection, we note that the mandatory negotiation period for non-public safety and public safety incumbents ended

<sup>341</sup> See 47 C.F.R. § 101.79(a).

<sup>342</sup> See *MSS Third R&O*, 18 FCC Rcd at 23678; *recon. denied*, 19 FCC Rcd 20720 (2004).

<sup>343</sup> See *supra* ¶ 82.

<sup>344</sup> See *MSS Third R&O*, 18 FCC Rcd at 23673, ¶ 73.

<sup>345</sup> *MSS Second R&O*, 15 FCC Rcd at 12347, ¶ 101.

<sup>346</sup> See *AWS Fifth Notice*, 20 FCC Rcd at 15889, ¶ 50, n.129.

<sup>347</sup> See *supra* ¶ 77.

<sup>348</sup> See *AWS Fifth Notice*, 20 FCC Rcd at 15888-89, ¶¶ 47, n.124, 50.