certain for the proponent to seek reimbursement will encourage proponents to initiate transitions, which will ultimately lead to the rapid transition of the 2.5 GHz band. We decline, however, to adopt a rule requiring commercial licensees to reimburse the proponent within thirty days of receiving the invoice. We believe that this issue should be based on common commercial practices in the wireless telecommunications industry.

(ii) How long do reimbursement obligations last?

171. *Background.* Petitioners also debated whether the reimbursement obligation should be phased out over a period of years or tied to the license. IMLC reasons that because the benefit to a later-entering licensee is less than the benefit to the proponent, the Commission should adopt a rule that phases-out the reimbursement obligation over ten years.[449] WCA disagrees with IMLC's reasoning and argues that the BRS/EBS services are distinct from other services where the Commission phased out the reimbursement obligations. Here, WCA argues, the proponent must carry the costs of the transition until other licensees commence commercial service, plus they must carry the costs of EBS licensees, even though they do not have commercial access to EBS licensees' spectrum.[450] WCA stresses that even without a phase-out the proponent may never recover all of the costs of the transition.[451]

172. *Discussion.* We find that the cost-sharing obligations should be tied to the license because, as we stated above, the proponent bears a heavy burden in transitioning the 2.5 GHz band and may never be able to recover its costs.[452] Thus, when a license is transferred or assigned, the reimbursement obligation must be paid immediately, or the assignor/transferor and assignee/transferee remain jointly and severally liable to pay the reimbursement obligation. With regard to licenses that are partitioned or disaggregated, the parties to the partition or disaggregation must remain jointly and severally liable for repaying the proponent. We believe that establishing joint and several liability will provide maximum assurance that the proponent will be reimbursed and prevent the proponent from being harmed because the assignee/transferee is not able to pay. We further agree with Clearwire that an EBS license that is subsequently used for commercial service must reimburse the proponent for its pro rata share of the transition.[453] The proponent, however, must reimburse non-proponent commercial licensees the amount attributable to the costs of transitioning an EBS license that is subsequently used for commercial service. We decline to adopt Clearwire's recommendation to treat as a rule violation any failure to satisfy cost-sharing obligations established today.[454] We believe that the proponent has ample civil remedies to pursue any cost-sharing grievance.

(ii) Cost of EBS self-transitions

173. *Background.* Petitioners offer a variety of recommendations on how to recover the costs of self-transitioning EBS licensees. Although self-transitions will occur on a channel-by-channel or

[449] IMLC PFR Opposition at 9-10.

[450] WCA PFR Reply at 12, n. 37.

[451] *Id.*

[452] *See* Clearwire PFR at 5.

[453] *See id.*

[454] *See id.*

GSA-by-GSA basis, WCA nevertheless recommends that the Commission adopt a formula based on MHz/pops, which would allocate costs among commercial licensees and lessees based on spectrum and the population within the appropriate service area.[455] WCA further recommends that the Commission establish limits on the expenses that an EBS licensee can incur during a self-transition to assure that no EBS licensee "gold plates" its system.[456] WCA further recommends that the Commission clarify that where an EBS licensee engages in a commercial activity using its LBS or UBS spectrum, either directly or through leasing, it is responsible for reimbursing self-transition costs.[457]

174. CTN/NIA recommends that the expenses incurred by an EBS licensee to install upgraded downconverters should be reimbursed by any commercial entity that subsequently uses any LBS or UBS channels within any portion of the geographic areas served by the EBS licensee.[458] Other commenters recommend that the BTA authorization holder should reimburse EBS licensees that have self-transitioned even if the BTA authorization holder cannot be determined until after an auction.[459] BloostonLaw recommends that BRS and EBS licensees that self-transition bear their own transition costs.[460] IMWED recommends that downconverter replacement costs be borne by the operator that commences two-way service.[461]

175. *Discussion*. We agree with CTN and NIA that EBS licenses that self-transition should be able to recover their costs.[462] We also agree conceptually with CTN/NIA that the self-transition rules should parallel those adopted for a proponent-driven transition.[463] We believe that establishing inconsistent procedures for proponent-based transitions and self-transitions would cause confusion and could unintentionally discourage the prompt transition of this band.

176. We decline, however, to adopt all of the specific cost recovery procedures recommended by CTN and NIA.[464] We believe the best means of ensuring consistency between self-transitions and proponent-driven transitions is to require self-transitioning EBS licensees to send a Self-Transition Data Request. The Self-Transition Data Request must be sent to all BRS and EBS licensees in the BTA where the EBS licensee's GSA geographic center point is located, as well as other licensees whose GSAs overlap with the self-transitioning licensee. The Self-Transition Data Request contains the same

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[455] WCA PFR Opposition at 22.

[456] *Id.* at 21.

[457] *Id.* at 21-22.

[458] CTN/NIA PFR at 8-9.

[459] C&W Comments at 3-4; Pace Comments at 3-4; DBC Comments at 3; Speednet Comments at 3-4; WDBS Comments at 3-4.

[460] BloostonLaw Comments at 3-4.

[461] IMWED Reply Comments at 3.

[462] BRS licensees, commercial EBS licensees, and entities that lease EBS spectrum for a commercial purpose must pay their own self-transition costs.

[463] CTN/NIA PFR at 7.

[464] *See supra* n. 376.

information that is contained in the Pre-Transition Data Request which is used in the proponent-driven transition. EBS licensees may request reimbursement from all BRS licensees and lessees, entities that lease EBS spectrum for a commercial purpose, and commercial EBS licensees that are located in the BTA where the EBS licensee's GSA geographic center point is located, as well as other licensees whose GSAs overlap with the self-transitioning licensee. BRS licensees and lessees, entities that lease EBS spectrum for a commercial purpose, and commercial EBS licensees must pay a pro-rata share based on MHz/pops. The EBS licensee may seek reimbursement of the same costs that must be reimbursed in the proponent-based transition. The EBS licensee may request reimbursement after the EBS licensee has filed a modification application with the Commission. The cost-sharing obligation remains with the license. Thus, if a license with a reimbursement obligation is transferred or assigned, the reimbursement obligation must be paid immediately by the assignor or transferor, or the obligation remains with the license.

i. Dispute resolution

177. *Background.* Clearwire recommends that the Commission designate a clearinghouse as the first avenue of recourse for all transition-related disputes, including cost-sharing.[465] Clearwire argues that having an experienced clearinghouse with a full understanding of transition issues for EBS and BRS would be extremely useful for the industry, and would help to expedite problem-solving and deployment of wireless broadband services.[466] Clearwire notes that to implement the PCS cost-sharing scheme, the Commission selected a third party to serve, under delegated authority, as a neutral administrator (the PCIA Microwave Clearinghouse) of the cost-sharing plan, and to maintain cost and payment records.[467] They suggest that a similar process be used for the BRS /EBS transition.[468]

178. *Discussion.* We believe that most of the disputes that will occur in transitioning the 2.5 GHz band will occur while negotiating over the Transition Plan and over cost-reimbursements. With regard to disputes over the Transition Plan, we have urged the parties to the dispute to seek dispute resolution through a third party. With regard to other disputes that may arise, we decline to mandate the use of a clearinghouse, although we encourage the BRS/EBS community to use a clearinghouse if they believe that this would be the most expedient means of resolving disputes. Furthermore, we note that parties have several options to resolve disputes that may arise including mediation, the voluntary use of a clearinghouse, or pursuing civil remedies in the court system. We will consider mandating a clearinghouse or other appropriate mechanism for resolving cost-sharing disputes in the future if we find that there are an inordinate number of such disputes.

j. Bureau Reports

179. *Background.* In the *BRS/EBS R&O*, the Commission noted that it would closely monitor the transition of the 2.5 GHz band and take additional action if the rules and procedures adopted in the *BRS/EBS R&O* are not sufficient to facilitate the swift transition of the 2.5 GHz band.[469] The

[465] Clearwire PFR at 9.

[466] *Id.*

[467] *Id.*

[468] *Id.*

[469] *BRS/EBS R&O*, 19 FCC Rcd 14165, 14208 ¶ 103.

Commission then required WTB to report on July 10, 2006, January 10, 2008, and January 10, 2010 on the extent of the transition of the 2.5 GHz band.[470]

180. *Discussion.* Given that to date not one Initiation Plan has been filed with the Commission, we know that the transition of the 2.5 GHz band has not yet started. Thus, we extend the period for WTB to report to us. WTB must report to us on the status of the transition of the 2.5 GHz band at 18 months, three years, and five years after the effective date of the amended rules.

2. Technical issues

a. Interference Protection Rules

(i) Receive sites

181. *Background.* Under the newly-adopted Section 27.1233(b)(3), a proponent is required to protect qualifying EBS receive sites, with compliance based upon the D/U ratios at the receive site. WCA indicates that Section 27.1233(b)(3), which was adopted based upon its own proposal, does not include other specific and essential elements of its proposal.[471] WCA asserts that these elements were designed to avoid unnecessary interference protection - protection that under the regulatory scheme of the *BRS/EBS R&O* could preclude proponents from completing the transition. Thus, WCA asserts that those elements should be adopted here on reconsideration.[472]

182. First, WCA urges that the Commission should adopt the policy embodied in former Section 74.903(a)(4) of its rules to allow the proponent, as part of a Transition Plan, to upgrade reception antennas at eligible EBS receive sites (based on zoning structural or environmental considerations) if necessary to achieve the required D/U benchmarks.[473] Further, the Commission should permit a Transition Plan that calls for the proponent to make other reasonable modifications at the receive site so as to assure that the appropriate protection is afforded. To avoid a requirement to protect EBS receive sites where the desired signal levels are unduly low, the proponent should not be required to provide D/U protection to any EBS receiver site that is not, prior to the transition, receiving a desired signal carrier level of $\geq$ -80 dBm.[474] Finally, only a predicted undesired signal level greater than -106.2 dBm should be considered in determining whether an undesired signal level is unduly high.

183. *Discussion.* We have reviewed WCA's request regarding the specific elements outlined above, which WCA asserts are needed to avoid unnecessary interference protection to EBS receive sites. After considering the nature of typical EBS systems, which are designed to provide quality signals to their receive sites, we have concluded that essentially all EBS receive sites within a station's GSA will receive a signal $\geq$ 80 dBm as proposed by WCA. Therefore, in keeping with our commitment to protect EBS receive sites, and to ensure that all EBS stations can provide continuous educational service to their authorized receive sites without any disruption of their programming, we will clarify that all

[470] *Id.*

[471] WCA PFR at 39.

[472] *Id.*

[473] *Id.*

[474] *Id.* at 39-40.

downconverters within the EBS GSA must be replaced regardless of the desired or undesired signal strength. In such instances where the proponent feels that it is necessary to replace an EBS receive antenna to ensure that the EBS site receives a higher desired signal, we will reinstitute the procedure established in former Section 74.903(a)(4) of the rules, and allow the proponent to upgrade the EBS reception equipment at such site(s).

(ii) Adjacent channel

184. *Background.* The Coalition's original proposal sought retention of the Commission's adjacent channel requirement, 0 dB D/U standards, for protection of operations in the MBS.[475] However, after further evaluation, the Coalition later advised the Commission that it believed the adjacent channel standards could safely be changed from 0 dB to -10 dB D/U, and could be employed whether the victim system was using analog or digital modulation.[476] The Coalition explained that given the widespread deployment of television receivers that could tolerate a -10 dB adjacent channel D/U signal ratio without suffering material signal degradation, it believed it would be overly preclusive to retain the 0 dB standard to protect the relatively few televisions receivers still in use that require such a high level of protection.[477] Inasmuch as the Commission did not adopt the Coalition's revised proposal, WCA requests, on reconsideration, that Section 27.1233(b)(3)(ii) be amended to reflect that at the time of transition, an eligible EBS receive site should be entitled to no better than a -10 dB adjacent channel D/U signal ratio protection standard.

185. The Coalition recognizes that EBS licensees still utilize television receivers, which cannot tolerate a -10 dB adjacent channel D/U signal ratio, and those receivers would therefore suffer material signal degradation if the -10 dB adjacent channel D/U signal ratio is adopted. However, Section 27.1233(b)(3) of the Commission's rules provides that in the event that the receive site uses receivers or is upgraded by the proponent (s) as part of the Transition Plan to use receivers that can tolerate negative adjacent channel D/U ratios, the actual adjacent channel D/U ratio at such receive site must equal or exceed such negative adjacent channel D/U ratio.

186. *Discussion.* Because the proponent will replace the existing television receivers that cannot tolerate a negative adjacent channel D/U ratio (-10 dB) during the transition, we are amending this section of the rules to allow a -10 dB adjacent channel D/U signal ratio for EBS receive sites that are transitioned. However, in instances where EBS stations utilize older television receivers that are not transitioned, the adjacent channel D/U ratio will remain 0 dB. This will ensure that non-transitioned EBS receive sites are afforded adjacent channel protection, and will also enable EBS stations to provide continuing education to those receive sites until they are ultimately transitioned.

b. Signal Strength Limits

187. *Background.* The newly adopted Section 27.55 of the Commission's rules permits a licensee to exceed the authorized signal level at its GSA boundary provided no constructed licensee that is providing service is affected. WCA opposes licensees operating on the LBS and UBS exceeding the authorized signal level at their GSA boundary without the consent of the adjacent licensee, and suggests

[475] *Id.* at 40.

[476] *Id.*

[477] *Id.*

instead that a licensee operating on LBS or UBS channels be required to limit its signal level to no greater than 47 dBμV/m beyond its GSA.[478] WCA renews this request in its Petition for Reconsideration and urges the Commission to repeal Section 27.55, and permit licensees to exceed the maximum permissible signal at its GSA boundary only when such licensee has obtained the consent of the affected co-channel licensee.[479]

188. Similarly, although Nextel supports allowing licensees operating on LBS and UBS channels to exceed the signal level at their GSA boundaries where no constructed licensees providing service are affected, Nextel is nonetheless concerned that Section 27.55 does not provide a mechanism for the new operator to notify an existing operating licensee of its existence. To remedy this problem, Nextel, like the Coalition, asserts that the Commission should permit licensees to exceed the maximum signal strength at the boundary only upon consent of the victim licensee.[480] IMLC supports allowing licensees to exceed the maximum signal strength at the boundary "where there are no licensees in operation or customers in the adjacent area to be protected, and the real customers are being denied service." [481]

189. *Discussion.* After reviewing the petitions, we conclude that the current rule sufficiently addresses WCA and other petitioners' concerns about harmful interference. Section 27.55 permits licensees to exceed the signal level where there is no affected licensee providing service. Section 27.55 also provides that when an affected licensee begins providing service, the licensee exceeding the signal level will be required to take whatever steps necessary to comply with the applicable power level at its GSA boundary, absent consent from the affected licensee, to continue exceeding the signal level at its border."

190. Thus, the rule sufficiently protects affected licensees and requires their consent as requested by WCA and Nextel. Therefore we decline to make any changes to the rule at this time.

c. Emission Limits

(i) Documented Interference Complaint Requirement

191. *Background.* Newly-adopted Section 27.53(l) sets forth the out-of-band emissions limits imposed on BRS and EBS licensees. WCA and Nextel urge the Commission to eliminate the requirement that a licensee receive a documented interference complaint before being subject to a stricter emission mask for base stations.[482] WCA also suggests that the written request certify that the requesting licensee intends to initiate service on the affected adjacent channel group on a date certain (not more than one year after the date of the notice) and that the licensee making the request must after the date certain specified in its request manage its system to provide the same stringent level of attenuation for the benefit of the recipient licensee. WCA has also submitted a variation on this proposal for base stations located

[478] *Id.* at 41.

[479] *Id.* at 42.

[480] Nextel PFR at 30-31.

[481] IMLC PFR Opposition at 3-4.

[482] WCA PFR at 44; Nextel PFR at 26-28.

within 1.5 km of each other.[483]

192. WCA asserts that the fundamental problem with the documented complaint approach adopted in the *BRS/EBS R&O* is that it requires the victim operator to actually suffer interference to its operation in markets where non-synchronized technologies are utilized.[484] Nextel supports WCA's position and states that stricter emission limits should apply upon the request of the victim licensee without the need to submit a formal interference complaint.[485] Moreover, it asserts that any LBS or UBS licensee should be able to invoke the more stringent dual mask set forth in Section 27.53(l)(2) so long as such licensee has a GSA overlapping the GSA of the recipient of the request, regardless of whether it is licensed to operate on a first adjacent channel.[486] Clearwire opposes elimination of the documented interference requirement.[487] Clearwire states adoption of unnecessary rules and procedures for resolving potential interference between systems would undermine the new regulatory structure for BRS and EBS.[488]

193. *Discussion.* We disagree with WCA and Nextel and conclude that the documented interference procedure is best for this band and should be retained. Historically in these services, licensees often submitted unsupported interference complaints which required the Commission to devote much of its time and resources to reviewing and responding to those matters. We believe that if the Commission had required that such interference complaints be supported, many complaints would not have been submitted. Furthermore, a documented interference complaint eliminates the situation where a licensee, without just cause, is unnecessarily required to modify its facilities. We also believe that a documented interference complaint will expedite a resolution between parties, as parties should endeavor to resolve such complaints, and employ the necessary stricter emission standards to remedy all harmful interference. Absent a frequency coordinator, a documented interference complaint served on another licensee also promotes better cooperation and coordination among the parties to resolve their differences, while they continue to provide service to the community. Accordingly, we deny WCA's request for reconsideration, and affirm our decision in the *BRS/EBS R&O* that, all complaints of out-of-band emissions into an adjacent facility must be documented and submitted to the licensee.

(ii) Who can file a complaint

194. *Background.* Notwithstanding its opposition to the documented interference complaint procedure, WCA takes the position that any licensee operating on the LBS or UBS channels, that has an overlapping GSA, should be subject to filing a documented interference complaint against the interfering licensee.

195. *Discussion.* We agree with WCA that out-of-band emissions may emanate from any licensee in the band. However, the level of interference that would be most severe and most likely to

[483] WCA PFR at 45.

[484] *Id.* at 46-47.

[485] Nextel PFR at 26.

[486] WCA PFR at 47-48.

[487] Clearwire PFR Opposition at 4.

[488] *Id.* at 2-3.

affect a licensee would be from adjacent channel operations. Accordingly, we will maintain our emission requirements regarding a documented interference complaint only insofar as it is received from an adjacent channel licensee.

(iii) Deadline for interference complaints

196. *Background.* Nextel asserts that the Commission should establish deadlines to ensure licensees abate interference in a timely manner.[489] Accordingly, Nextel suggests there should be a 60-day deadline, after the interfering licensee receives a documented interference complaint from an adjacent channel operator, in which the interfering licensee must make the necessary adjustments to its operations.[490] Clearwire agrees with Nextel that licensees should be allowed 60 days to resolve the documented interference complaint.[491] Likewise, WCA also agrees that that Section 27.53(1) should be modified to establish a timeline for resolution of interference complaints.[492]

197. *Discussion.* We agree with the parties that licensees should be allowed sufficient time to mutually resolve any case of documented interference. In this connection, we encourage licensees to coordinate and cooperate to expeditiously resolve any documented interference complaint with regard to out-of-band emissions to minimize any disruption of service to the public. Licensees should keep in mind that rules are intended to resolve problems only when genuine attempts by both parties have failed. Accordingly, we are amending our rules to allow the interfering licensee, 60 days after receiving a documented interference complaint, to coordinate with affected licensee and resolve the situation by that time, if necessary, by employing a more rigorous emission mask.

(iv) User stations

198. *Background.* Section 27.53(l)(4) of the Commission's rules provides that "[f]or mobile digital stations, the attenuation factor shall not be less than 43 + 10 log (P) dB at the channel edge and 55 + 10 log (P) at 5.5 MHz from the channel edges." WCA supports this provision, which is consistent with its proposal earlier on in this proceeding. However, WCA believes that this requirement should be applied to all user stations, not just those that are mobile, asserting there is no logical reason why only mobile user stations should be subject to this requirement.[493] WCA further contends while the spectral mask adopted should be adequate in most situations, it does not sufficiently address the risk of interference caused by out-of-band emissions from fixed user stations that utilize a transmission antenna that is affixed to the outside of a building, non-antenna structure, appurtenance, fixed tower, mast or other structure installed outdoors for the purpose of supporting an antenna. These user stations will tend to be higher above ground level, and operate at a higher effective isotropic radiated power (EIRP) because of the use of higher gain antennas. WCA states its proposed change in emission standards will effectively address the potential for interference from those fixed user stations to base stations of another operator in the same market, without unduly restricting the ability of rural operators to deploy designs

[489] Nextel PFR at 18.

[490] *Id.* at 34.

[491] Clearwire PFR Opposition at 4.

[492] WCA PFR Opposition at 25-26.

[493] WCA PFR at 48.

that rely on higher-gain outdoor antenna installations.[494] Additionally, WCA asserts that the record before the Commission in this proceeding leaves no doubt that where licensees in the same market utilize non-synchronized technologies, interference is inevitable absent attenuation of out-of-band emissions from base stations by at least 67 + 10 log (P). Thus, WCA contends that the need for a more stringent restriction on out-of-band emissions is patent.[495]

199. Nextel proposes that the Commission amend Section 27.53(l) of the Commission's rules so that emission measurements are taken at the outermost edge of the combined channels as originally recommended by the Coalition. Nextel reasons, that this method of measuring emission limits, whereby all of the various out-of-band emissions are to be measured at the outermost edges of the combined channels where two or more channels licensed to one or more licensees are used as part of the same system, will avoid confusion and minimize disputes.[496]

200. Clearwire opposes WCA and Nextel's proposed amendment to this section, which calls for more restrictive masks even in the absence of documented interference. Clearwire reasons that the Commission's newly-adopted rules adequately protect against documented interference from out-of-band emissions and require licensees to resolve interference issues.[497] Clearwire further asserts that Nextel's proposal fails to provide any technical evidence to support more restrictive masks, especially for antennae mounted below 20 feet AGL. For antennae mounted below 20 feet, AGL emission will most likely be lost in ground clutter and/or terrain, and the associated losses will greatly reduce the likelihood of interference to neighboring systems.[498]

201. *Discussion*. We have reviewed the comments of the parties on these issues and are in agreement with Clearwire that the rules the Commission adopted in the *BRS/EBS R&O* are adequate to protect a licensee from out-of-band emissions. WCA also agrees that the spectral mask requirements which were adopted are adequate in most situations, except for certain types of antenna supporting structures. However, WCA did not provide any technical data in support of the antenna structures with which it was concerned. Clearwire notes, and we agree, that in the illustration present by WCA, where an antenna would be mounted less that 20 feet AGL, the emissions from such antenna structure will be mostly likely to be lost in ground clutter or terrain which would greatly reduce the likelihood of interference to neighboring systems. Since it has not been demonstrated by any party that the emission limits adopted in the *BRS/EBS R&O* for this service are inadequate, the emission limits will not be modified.

d. 2495-2496 MHz Guard Band

202. *Background*. WCA argues that to mitigate interference from BRS Channel No. 1 licensees the Commission created a guard band at 2495-2496 MHz and imposed certain spectral mask requirements on relocated BRS Channel No.1 licensees. WCA and Nextel believe that, on

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[494] *Id.* at 50.

[495] *Id.* at 46-47.

[496] Nextel PFR at 31.

[497] Clearwire PFR Opposition at 4.

[498] *Id.* at 5.

reconsideration, it is necessary to clarify one of those requirements, and eliminate the other.[499] First, WCA and Nextel ask the Commission to clarify that the one megahertz guard-band at 2495-2496 MHz is to be considered in measuring compliance by the BRS Channel No.1 licensee with its spectral mask requirements. According to WCA and Nextel, Section 27.53(l)(2) allows the MSS licensee to file a documented complaint and force the BRS Channel No. 1 licensee to meet the 67 + 10 log (P) mask for its base station and fixed user operations.[500] Read literally, this Section would require the BRS licensee to meet the 67 + log (P) requirements 3 MHz below 2496 MHz, the lower edge of its channel, and would deprive the BRS Channel No. 1 licensee of the benefit of the guard-band between 2495-2496 MHz. Accordingly, WCA asserts that Section 27.53(l)(2) should be amended to make clear that the more stringent 67 + 10 log (P) spectral mask only need be met at 2492 MHz, that is 3 MHz below the guard-band lower edge. WCA also seeks clarification of whether Section 27.53(l)(2) permits MSS licensees to file documented interference complaints against BRS Channel No. 1 licensees but precludes BRS Channel No.1 licensees from filing similar complaints against MSS licensees.[501]

203. *Discussion.* The 2500-2690 MHz band was expanded by five megahertz, from 2495-2690 MHz to accommodate BRS Channels No. 1 and No. 2/2A. Accordingly, BRS Channel No. 1 licensees will now operate on a new 6 MHz channel, 2496-2502 MHz, in the expanded band. The one megahertz guard-band, 2495-2496 MHz, was created to separate incumbent operations below 2495 MHz and new BRS Channel No. 1 licensees that would operate at 2496-2502 MHz. We reject WCA's argument to allow BRS Channel No. 1 licensees to measure out-of band emissions from the lower edge of the guard band, 2495 MHz, because WCA's procedure would be inconsistent with the Commission's approach with regard to other services regulated under Part 27. Under Rule Section 27.53(a)(6) the licensee is required to measure emission limits from "as close to the edges, both upper and lower, of the licensee's bands of operation as the design permits."[502] We see no reason to depart from this general policy in this case. Therefore, BRS Channel No. 1 licensees would be required to measure out-of-band emissions from the lower edge of their channel and meet the 67 + 10 log (P) standard 3 MHz from that edge.[503] Accordingly, BRS Channel 1 licensees must comply with the out-of-band emissions requirement of 67 + 10 log (P), at 2493 MHz, 3 MHz below its lower channel edge, when an adjacent channel interference complaint cannot be resolved.

204. As we stated earlier, all complaints of out-of-band emissions into an adjacent facility must be documented and submitted to the interfering licensee. We anticipate that any licensee receiving a documented interference complaint would coordinate and cooperate with an adjacent channel licensee to resolve the complaints of out-of-band emissions. Although the *BRS/EBS R&O* stated that MSS licensees may file a documented interference complaint against BRS Channel No. 1 licensees, we did not intend to imply by this statement that BRS Channel No. 1 licensees are precluded from filing documented

[499] WCA PFR at 50; Nextel PFR at 29-30.

[500] WCA PFR at 51; Nextel PFR at 30.

[501] WCA PFR at 51.

[502] *See* 47 C.F.R. § 27.53(a)(6).

[503] *Id.* Neither WCA nor any other party challenges the Commission's decision to use 3 MHz from the appropriate reference frequency as a basis for determining compliance with out-of-band emission limits.

interference complaints against MSS licensees. Any licensee may file a documented interference complaint against another licensee at its own discretion. Although we believe it is very unlikely that MSS will cause interference to BRS Channel No. 1, in the event that interference is received by a BRS Channel No. 1 licensee from an MSS licensee, we expect that the licensees will fully cooperate and resolve any complaints of documented interference. Finally, the language that WCA asserts should be deleted in Sections 27.53(l)(2) and 27.53(l)(4), which applies to fixed and temporary fixed stations, and mobile digital stations, respectively, will not be deleted.

e. Geographic Service Areas

205. *Background.* WCA requests that the Commission modify Section 27.1206 to clarify how GSA boundaries will be established under certain circumstances. To avoid conflicts regarding GSA boundaries, WCA proposes that the Commission modify Section 27.1206 to clarify that a "great ellipses" should be used instead of straight lines or chords to "split the football." WCA argues that if ellipses are not employed, there will be areas, sometimes as wide as one kilometer that will not be assigned to either GSA.[504] WCA contends that specific knowledge about a licensee's territory is essential from license valuation and interference abatement, to accounting for regulatory fees.

206. WCA suggests the following outcomes under the circumstances described:[505]

- Where there is pending as of January 10, 2005 an application for a new incumbent station with a PSA that overlaps that of a licensed incumbent station, the GSA of the incumbent station is created by "splitting the football" and, if the pending application is ultimately dismissed or denied, the territory covered by the GSA of the applied-for station reverts to the BRS BTA holder (if a BRS application) or to EBS white space (if an EBS application).[506]

- Where there is pending as of January 10, 2005 an application for a modification that would impact the location/size of an incumbent station's GSA and the resulting splitting of a football with another station, the GSAs should be calculated by "splitting the football" based on the current authorizations, and if the modification is granted, the GSAs will be immediately redrawn upon the grant of the modification.

- Where there is pending as of January 10, 2005 an application for review or petition for reconsideration of the dismissal or denial of an application for a new or modified station that has a PSA overlapping another station's PSA, the facilities proposed in the dismissed or denied application should not be considered in establishing GSAs. However, the GSA of the incumbent licensee will be subject to carving back consistent with the "splitting the football" rules if the dismissed/denied application is reinstated.[507]

- Where there is pending as of January 10, 2005 an application for review or petition for reconsideration of the forfeiture or cancellation of a license that has a PSA overlapping another

[504] WCA PFR at 52.

[505] *Id.* at 52-53.

[506] *Id.* at 53.

[507] *Id.*

station's PSA, that license should not be considered in establishing GSAs. However, the GSAs of licensees with overlapping GSAs will be subject to carving back consistent with the "splitting the football" rules if the forfeited or cancelled license is reinstated.

- Where an incumbent station license was in existence as of January 10, 2005 and caused a splitting of the football, and that incumbent station license is later forfeited, the reclaimed territory reverts to the BRS BTA holder (if BRS spectrum) or to EBS white space (if EBS spectrum) regardless of whether the action/inaction that caused the forfeiture occurred prior to January 10, 2005.[508]

207. WCA asserts that with the adoption of the rule changes it has proposed and in its comments in response to the *FNPRM*, the Commission will have succeeded in dismantling the broadcast model regulatory scheme that plagued the 2.5 GHz band, and established a model that will promote the deployment of a wide variety of innovative service offerings.[509] Noting that the industry has not done a good job on its own to resolve boundary issues, Nextel recommends that the Commission adopt the Coalition's proposal in its entirety to resolve boundary issues. Nextel further notes that clarification of the GSA boundaries will limit disputes among overlapping GSA licensees.[510] In addition, Nextel states that the Commission should indicate whether licensees should account for Earth Curvature.[511]

208. *Discussion.* Although commenters to the *NPRM* and petitioners overwhelmingly supported the Coalition's method of "splitting the football," to bifurcate and define the GSA boundaries that would overlap,[512] WCA's more recent proposal to use ellipses received minimal support from other petitioners. Furthermore, we are not convinced that WCA's proposal is either necessary or beneficial. Therefore, the GSA boundaries that overlap will be defined by "splitting the football." We do conclude, however, that the above-outlined recommendations that WCA has presented as to how the GSA of pending applications (applications for new stations, applications for reconsideration, applications for review, etc.) that were on file January 10, 2005 should be defined would clarify situations that may commonly occur and would reduce disputes. Accordingly, we are adopting WCA's recommendations concerning the GSAs of pending applications on file January 10, 2005. In light of the record, we will retain the "splitting the football" methodology we adopted in the *BRS/EBS R&O.*

f. Modifications to Geographic Area Licensing

209. *Background.* Pursuant to Section 27.1206(a) of the Commission's rules, BRS and EBS licensees will be able to place transmitters anywhere within their GSA without prior authorization as long as their operations comply with applicable service rules. There is no requirement that notice be given to the Commission following construction of individual facilities, and compliance with the desired-to-undesired signal ratios will no longer be required. CTN and NIA do not oppose geographical area

[508] *Id.*

[509] *Id.* at 53-54.

[510] Nextel PFR at 20.

[511] *Id.* at 19.

[512] *See NPRM*, 18 FCC Rcd 6722, 6758-6759 ¶¶ 87-88. *See also BRS/EBS R&O*, 19 FCC Rcd 14165, 14192-14194 ¶¶ 59-67.

licensing *per se* but argue that the rules have two problems.[513]

210. First, beginning on January 10, 2005, the rules permit two-way mobile operations throughout the entire 2.5 GHz band even though the channels in the band are still interleaved (BRS and EBS stations will not have transitioned to the new band, which segregates MBS from LBS and UBS that are low power operations). For this reason, the Coalition Proposal precluded new development prior to the transition to the new band plan, and established the J and K guard bands to avoid post-transition adjacent channel interference to fixed EBS receive sites in the MBS.[514]

211. Second, with regard to fixed transmission facilities operations prior to transition to the new plan, the Commission deleted the old interference protection rules, which rely on desired-to-undesired (D/U) ratio protection for fixed EBS receive sites, applying instead, the same geographical area licensing rules which are designed to control interference among LBS and UBS licensees. Geographical area licensing rules alone are not adequate to control interference from fixed BRS and EBS transmitters, many of which will continue to operate at high sites. GSA protection alone is insufficient to protect MBS receive sites from changes made by BRS and EBS licensees.[515]

212. HITN supports the Commission's adoption of a geographical licensing scheme. HITN observes that the relocating of a MBS station from collocated facilities may cause adjacent channel interference to receive sites. HITN has found that claims of predicted interference within a GSA can be used in bad faith to unreasonably obstruct necessary relocations of high-power stations. However, where actual interference is identified on adjacent channels, HITN does not believe that it is unreasonable to undertake to provide filters at the affected receive site of such station.[516]

213. The Commission deleted the old interference protection rules (D/U) ratio protection for fixed EBS receive sites applying geographic area licensing rules, which were designed to control interference among LBS and UBS licensees. CTN and NIA argue that geographic area licensing alone is inadequate to control interference to fixed BRS and EBS transmitters, which will continue to operate at high power and high sights.[517] CTN and NIA ask the Commission to put all licensees on notice that if they elect to deploy two-way facilities on a pre-transition basis, they do so at their own risk. They also seek to require a streamlined D/U analysis in connection with deployment of or modified fixed transmitters throughout the 2.5 GHz band pre-transition, and in the MBS post-transition.[518] CTN and NIA further recommend that if the Commission chooses to permit such operations notwithstanding the risk of interference, it must ensure any licensee that elects to deploy such facilities is required to promptly address and resolve any actual interference that occurs.[519] CTN and NIA propose the following process to resolve interference from two-way operations deployed prior to transition:

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[513] CTN/ NIA PFR at 10-11.

[514] *Id.* at 11-12.

[515] *Id.* at 12.

[516] HITN PFR at 7.

[517] CTN/NIA PFR at 12.

[518] *Id.* at 13.

[519] *Id.*

(i) Require that prior to the commencement of two-way operations, the licensee or excess capacity lessee notify all other potentially affected EBS and BRS licensees of the operating parameters of two-way facilities.

(ii) Require that such notifications include a telephone number and e-mail address where a representative of the modifying party can be reached within 24 hours in the event that harmful interference is believed to be caused to the facilities of an affected party.

(iii) Require that upon being contacted by an affected party, the modifying party consult with the affected party and make good faith efforts to identify and eliminate the source of the interference.

(iv) Require that absent the consent of the affected party, the modifying party must shut down its two-way facilities if it cannot eliminate interference with five (5) days of being contacted by the affected party.[520]

214. *Discussion.* The Commission deleted the technical standards (D/U ratios) that applied to EBS stations when the new rules that established GSA's were adopted for the new band. CTN and NIA contend that geographical licensing alone is inadequate to control interference for EBS stations which will continue to operate with high power. We note, however, that in the hypothetical example offered by CTN and NIA, the hypothetical base station could not be built by the licensee because it would actually be within the GSA of the EBS licensee.[521] Moreover, despite the fact that there have been several markets where two-way operations currently exist, we are unaware of any interference complaints that have been submitted to the Commission. It therefore appears that to the extent there have been any interference problems, the parties have been able to resolve those issues without Commission intervention. We therefore decline to adopt the rules requested by CTN and NIA. However, we will take prompt and decisive action in those instances where interference is caused to EBS operations and the two-way operator is unable or unwilling to resolve the problem promptly.

g. Unlicensed Operations

215. *Background.* Many parties seek reconsideration of the Commission's decision to allow low-power Part 15 unlicensed devices in the 2655-2690 MHz portion of the band.[522] Nextel observes that, "the fact that massively under-deployed types of operations managed to co-exist in the 2500-2655 MHz band in the past says nothing about whether licensed and unlicensed uses can continue to coexist in the 2655-2690 MHz band in the future, particularly where both uses are expected to grow substantially.[523] In addition, petitioners contend allowing unlicensed devices to operate in the band limits the exclusive rights of BRS and EBS licensees to make full use of the spectrum, inhibits their ability to

[520] *Id.* at 13-14.

[521] The GSAs of the respective stations were incorrectly calculated by CTN and NIA.

[522] *See BRS/EBS R&O*, 19 FCC Rcd 14165, 14218 ¶ 139.

[523] Nextel PFR at 23.

permit uses in the secondary market, and chills investment.[524]

216. Clearwire agrees with Nextel and WCA that the Commission should reconsider its decision to introduce new unlicensed uses into the band, reasoning that the BRS and EBS services are undergoing a major transition, and allowing new unknown services into the band will further complicate the transition and heighten the risk of future interference.[525] It further notes that affording underlay rights could detrimentally affect the quality of EBS and BRS operators to build service, technically constrain deployments, complicate interference problems, and negatively impact the flexibility of EBS and BRS licensees for technical innovation.[526]

217. Similarly, Luxon Wireless states that the Commission should reconsider its decision to allow unlicensed operations in the 2655-2690 MHz band, asserting that permitting unlicensed devices to operate in the band will undermine a licensee's ability to use its spectrum flexibly, is premature in the absence of comprehensive testing, would harm investment in advanced services, and will chill innovation. Luxon asserts that it has a strong interest in seeing that its network and business operations are not compromised by a regulatory environment that could strip licensees of one of their greatest benefits -- exclusive use.[527] A better solution would be to allow the market to function as the Commission intends by requiring prospective operators of unlicensed devices to negotiate with incumbent licensees to obtain access to spectrum that would operate in the licensee's authorized service area.[528] NY3G supports and agrees with the petitioners that have asked the Commission to prohibit low-power unlicensed operations in the 2655-2690 MHz band, asserting that low power operations would add an additional layer of complexity that would delay deployment in this band by licensed operators, and would undermine the evolution of the new band plan.[529] Grand Wireless adds that it has not been established that unlicensed operators need additional spectrum (beyond what the Commission has already provided) especially in rural areas.[530]

218. *Discussion.* We have reviewed and considered the comments of the parties on permitting low-power unlicensed operations in the 2655-2690 MHz portion of the band. We acknowledge that in any new service, there will always be concerns regarding impermissible interference. Nonetheless, we reiterate that there have been significant advances in technology that make it feasible to design new types of unlicensed equipment that would not cause interference to any existing services. Also, as noted in the *BRS/EBS R&O*, equipment could be designed to avoid interference by monitoring spectrum before transmitting.[531] We emphasize, once again, that unlicensed operations under our Part 15 rules are subject to the condition that the transmitters do not cause interference to authorized services. Further, there were

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[524] *See* BellSouth PFR Opposition at 23-24.

[525] Clearwire PFR Opposition at 15.

[526] *Id.* at 15-16.

[527] Luxon Wireless PFR Opposition at 9.

[528] *Id.*

[529] NY3G PFR Opposition at 3.

[530] Grand Wireless PFR at 2.

[531] *See BRS/EBS R&O*, 19 FCC Rcd 14165, 14217 ¶ 135.

no comments to this proceeding that included any technical analyses which would indicate permitting low-power unlicensed operation in the band would cause impermissible interference to stations that would operate in the UBS. Accordingly, we continue to permit low-power unlicensed operations in the 2655-2690 MHz portion of the band in accordance with Part 15 of our rules, as described in and to the extent indicated in the *BRS/EBS R&O.*

h. Minimum Performance Requirements for EBS receive sites

219. *Background.* WCA and Nextel urge the Commission to adopt a rule that EBS receive sites must meet minimum standards in order to receive interference protection. They assert that the omission of minimum standards from the rule was likely an oversight. However, if the omission was not an oversight, the Commission should reconsider its decision to protect poorly performing EBS receive sites during transition as unfair to BRS licensees and inconsistent with spectrum-policy recommendations.[532] The pre-transition desired signal should be greater than -80 dBm and the undesired signal should be greater than -106.2 dBm.

220. *Discussion.* As we have stated in the *BRS/EBS R&O*, all downconverters within the GSA of all EBS stations will be replaced during transition regardless of the desired or undesired signal received at their receive sites. Moreover, we indicated earlier that EBS stations are typically designed to provide a quality signal, $\geq$ 80 dBm as proposed by WCA and Nextel, to their receive sites. Inasmuch as the desired signal of a typical EBS system exceeds the value proposed by WCA and Nextel, we find it unnecessary to establish a minimum service signal in the EBS at this time. Accordingly, we will not adopt the minimum signal levels proposed.

i. Miscellaneous Corrections to Sections 27.5 and 27.1221

221. *Background.* CTN and NIA note that in Section 27.5(i) of the Commission's rules, the footnote to (i)(2) states "the 125 kHz channels previously associated with these channels have been reallocated to Channel H3 in the upper band segment."[533] However, the frequencies are actually on channel G3. They further note that Section 27.1221(a) appears to contain a typographical error that omits interference protection to EBS on a station-by-station basis.[534]

222. *Discussion.* We agree with CTN and NIA. Accordingly, we are amending the footnote to Section 27.5 (i) (2) to read: "No 125 kHz channels are provided for operation in this service. The 125 kHz channels previously associated with these channels have been reallocated to channel G3 in the UBS." We are also correcting Section 27.1221(a) to refer to interference protection for both BRS and EBS on a station-by-station basis.

3. Minimum usage requirements

223. *Background.* IMWED requests that the Commission provide guidance on how EBS licensees should reserve 5% of the capacity of their channels for instructional programming.[535] IMWED

[532] Nextel PFR at 25.

[533] CTN/NIA PFR at 21.

[534] *Id.* at 22-23.

[535] IMWED PFR at 7.

recommends that the Commission mandate that the percentage minimum apply to overall system data throughput at all times at all locations.[536] IMWED further maintains that a stronger standard is no less than 5% of full-day measured system throughput with data transmitted at such locations and times as the EBS licensee specifies in its discretion.[537] BellSouth asks the Commission to reject IMWED's proposal to have the Commission define how to measure the 5% minimum reservation, pointing out that the Commission has already acknowledged that defining capacity is "difficult to measure in light of the varied forms that such usage can take," and that the best course is to rely on the good faith efforts of EBS licensees to meet the requirements.[538] Similarly, Luxon Wireless argues that this proposal would unnecessarily limit the ability of operators and licensees to craft flexible market-specific solutions to meet their own capacity needs.[539]

224. IMWED further recommends that the minimum usage requirement should be raised because a service that is 95% commercial cannot legitimately be characterized as educational.[540] IMWED notes that this is not a new issue, and notes that in preparation of the Commission's Fixed Two Way Order,[541] the industry devised a joint compromise which recommended an initial 5% floor, and the licensee had to retain the ability to reclaim at least a further 5% of capacity annually until such time as it used 25% of channel capacity for education.[542] IMWED seeks adoption of that joint compromise because: 1) it avoids the inefficiency of having a significant amount of throughput remain idle; 2) it provides for the gradual recapture of capacity, which protects an operator and its customers from sudden swings in available capacity; and 3) it insulates the educational community that locks up spectrum for 15 years despite a growing need for more.[543]

225. No commenters support IMWED's proposal. For example, Nextel asserts that raising the minimum usage requirements would create an artificial educational use requirement that bears no relationship to the actual goals of these licensees.[544] Nextel also points out that the current limits allow licensees to receive nearly full value for their spectrum for commercial leases and to use the revenues to fund the production of programming and the provision of other educational and instructional services.[545] Nextel argues that EBS licensees remain free to negotiate lease agreements that dedicate more channel

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[536] *Id.*

[537] *Id.*

[538] BellSouth PFR Opposition at 9 citing *Two-Way Order* at 19162. *See also* Luxon Wireless PFR Opposition at 4.

[539] Luxon Wireless PFR Opposition at 4.

[540] IMWED PFR at 8.

[541] *See* Amendment of Parts 21 and 74 to Enable Multipoint Distribution Service and Instructional Television Fixed Service Licensees to Engage in Fixed Two-Way Transmissions, *Report and Order*, 13 FCC Rcd 19112, 19157 ¶¶ 86-87 (1998) (*Two-Way R&O*).

[542] IMWED PFR at 8-9.

[543] *Id.* at 9.

[544] Nextel PFR Opposition at 26.

[545] *Id.*

capacity to educational programming than the Commission's minimum requirements.[546]

226. Similarly, Sprint argues that IMWED has not demonstrated why the 5% standard is inadequate to preserve the educational nature of EBS.[547] For example, the higher compression rates of digital technology enable an EBS licensee using digital systems to provide more programming using its reserved 5% of its channel capacity than an analog EBS licensee would be able to provide reserving 25% of its channel capacity.[548] Sprint further argues that the proposal also contradicts the Commission's market oriented approach for EBS leases, and imposes opportunity costs in the form of lost lease revenues that might otherwise be used to achieve the licensees' overall educational missions more efficiently.[549]

227. *Discussion.* We reject IMWED's proposal and decline to specify the manner in which the 5% minimum usage requirement should be applied. We agree with the arguments proffered by Nextel and Sprint, and other commenters such as BellSouth and Luxon, that IMWED's proposal to increase the minimum educational usage requirements is unnecessary, unsupported by the record, and should be rejected.[550] As BellSouth correctly points out, the Commission has already rejected this idea.[551] Furthermore, we agree with Luxon that the Commission's reasons for rejecting this proposal in 1998 are even more applicable today, as it promotes flexibility in accommodating the needs of EBS licensees that have different educational goals and different spectrum requirements while safeguarding the primary educational purpose of the ITFS spectrum allocation.[552] Moreover, in a climate where the Commission is making great strides towards making its rules flexible and granting maximum flexibility to licensees, to reconsider this long-resolved issue in a manner that would impede upon such flexibility would do a great disservice to the public interest. We continue to believe defining capacity is difficult, and in any event unnecessary. Therefore, we decline to make any changes to the minimum educational usage requirements for EBS licensees. We will continue to rely on the good faith efforts of EBS licensees to meet these requirements.

228. CTN and NIA point out that the language in section 27.1214(c), which states a licensee must reserve 5% of the capacity of its channels for instructional purposes is technically inaccurate and should read, as does section 27.1203(b), that the reservation must be for "educational uses consistent with Section 27.1203(b) and (c) of the rules." We agree and will amend the rules accordingly.

4. Cable/ILEC Cross Ownership

229. *Background.* In the *BRS/EBS R&O*, the Commission amended its rules to allow cable operators and ILECs to acquire or lease BRS or EBS spectrum. The Commission stated that eligibility

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[546] *Id.*

[547] Sprint PFR Opposition at 7.

[548] *Id.* at 7-8.

[549] *Id.* at 8.

[550] BellSouth PFR Opposition at 8.

[551] *Id.* at 8-9.

[552] Luxon Wireless PFR Opposition at 4.

restrictions are only imposed when they can effectively address a significant likelihood of substantial competitive harm in specific markets.[553] In this instance, the Commission found that opponents to the proposed rule change did not show a significant likelihood of substantial competitive harm from allowing BRS/EBS leasing or acquisition by cable companies or ILECS. However, cable operators are still prohibited from acquiring BRS or EBS spectrum for the purpose of providing video service.[554]

230. In their petitions, Speednet, C&W Enterprises, DBC, WDBS, and Pace assert that the Commission did not have sufficient market information on which to base the rule change.[555] They propose that cable operators and ILECs be required to provide the relevant market information because small operators in the BRS and EBS band have modest budgets.[556] Alternatively, DBC and WDBS request that the Commission restrict cable operators and ILECs from spectrum access and ownership in the MBS channels of BRS, asserting that the MBS channels are designated as high power video channels.[557]

231. *Discussion.* We find that there is no basis to reconsider our decision to allow cable operators and ILECs to acquire or lease BRS or EBS spectrum. Under Commission precedent, eligibility restrictions are only imposed when a significant likelihood of substantial competitive harm exists in specific markets, and when those restrictions are an effective way to address those competitive harms.[558] We affirm our conclusion that opponents have not supplied relevant market information to show a significant likelihood of substantial competitive harm in specific markets, and therefore have not shown that this standard is met.

232. Further, we continue to conclude that Section 613(a) of the Act was not intended to prohibit cable operators from acquiring or leasing BRS or EBS spectrum for the provision of broadband data service. In the *BRS/EBS R&O*, we carefully considered Section 613(a) of the Act[559] and the legislative intent behind that law, concluding that Congress intended to encourage competition in the video distribution market.[560] We applied that conclusion by continuing to prevent cable operators to acquire BRS/EBS licenses outright for the purpose of providing MVPD service, and by retaining the ban on cable operators leasing BRS/EBS spectrum within their franchise areas to supply MVPD service. The

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[553] *BRS/EBS R&O*, 19 FCC Rcd. 14165, 14232 ¶ 175.

[554] *BRS/EBS R&O*, 19 FCC Rcd 14165, 14230-14231, ¶¶ 171-172; 47 U.S.C. § 553(a).

[555] C&W PFR at 5; DBC PFR at 5; WDBS PFR at 5; Pace PFR at 5.

[556] PACE PFR at 5; SpeedNet PFR at 5; C&W PFR at 5-6; DBC PFR at 6; WDBS PFR at 5.

[557] DBC PFR at 6; WDBS PFR at 5-6.

[558] *See, e.g.*, Amendment of the Commission's Rules Regarding the 37.0-38.6 GHz and 38.6-40.0 GHz Bands, ET Docket No. 95-183, Implementation of Section 309(J) of the Communications Act – Competitive Bidding, 37.0-38.6 GHz and 38.6-40.0 GHz Bands, PP Docket No. 93-253, *Third Notice of Proposed Rulemaking*, 19 FCC Rcd. 8232, 8245-8246, ¶ 33 (2004); Allocations and Service Rules for the 71-76 GHz, 81-86 GHz and 92-95 GHz Bands, WT Docket No. 02-146, *Notice of Proposed Rulemaking*, 17 FCC Rcd. 12182, 12211-12212, ¶¶ 77-78 (2002).

[559] 47 U.S.C. § 553(a).

[560] *See BRS/EBS R&O*, 19 FCC Rcd. 14165, 14231 ¶¶ 172-174.

decision follows congressional intent,[561] and will promote competition in the high-speed wireless market.

5. Mutually exclusive applications

233. *Background.* In the *BRS/EBS R&O*, we dismissed each mutually exclusive BRS/EBS application that was not subject to a settlement agreement to eliminate the mutual exclusivity as of April 2, 2003, the release date of the *NPRM*.[562] We stated that the Commission has used this approach for services that transitioned to geographic licensing, rejecting a suggestion that the Commission auction the mutually exclusive channels to the highest-bidding mutually exclusive applicant.[563]

234. Eleven dismissed applicants filed Petitions for Reconsideration of the dismissal.[564] Many petitioners made procedural arguments, contending that their applications were not mutually exclusive because the Commission should have dismissed the other mutually exclusive applications.[565] A number of petitioners from South Florida requested reconsideration based on a Marketwide Settlement Agreement filed with the Commission.[566]

235. HITN and Santa Rosa Junior College argue that we did not meet our statutory obligations under Section 309 of the Act.[567] In their view, the Commission should not have treated the mutually exclusive applications as a procedural matter, but rather as a substantive matter.[568] Similarly, the North American Catholic Educational Programming Foundation, Inc. (NACEPF) argues that the Commission did not provide a reasonable analysis in dismissing the mutually exclusive applications. Further, HITN and Santa Rosa Junior College argue that the mutually exclusive applications in the EBS are not comparable to the applications dismissed in the Maritime Communications Rulemaking because the applicants in this case are non-commercial, there are only a small number of mutually exclusive applications, and the affected areas are easily defined.[569]

236. *Discussion.* With one exception, we affirm the dismissal of the applications. We are not persuaded by arguments that mutual exclusivity no longer exists because other applications should have been dismissed prior to the release of the *NPRM*. HITN, NACEPF, and Santa Rosa Junior College argue that the Commission's decision to dismiss mutually exclusive applications was not a well-reasoned decision in the public interest. Our precedent of dismissing pending mutually exclusive applications

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[561] *See* S. REP.NO. 102-92, at 46-47 (1991), *reprinted in* 1992 U.S.C.C.A.N. 1133, 1179-1180.

[562] *NPRM*, 18 FCC Rcd 6722, 6813-14, ¶ 228. *See also BRS/EBS R&O*, 19 FCC Rcd. 14165, 14264 n. 572.

[563] *BRS/EBS R&O*, 19 FCC Rcd. 14165, 14264-14265 ¶ 263.

[564] *See* Petitions for Reconsideration and Clarification of Action in Rulemaking Proceeding, *Public Notice*, Report No. 2691 (rel. Jan. 31, 2005).

[565] *See, e.g.*, Florida Atlantic University PFR at 4; Michigan Center School District PFR at 2; Creighton University PFR at 2.

[566] *See, e.g.*, WBSWP PFR at Exhibit 1.

[567] HITN PFR at 8; Santa Rosa Junior College PFR at 6.

[568] HITN PFR at 8; Santa Rosa Junior College PFR at 6.

[569] *See* HITN PFR at 16; Santa Rosa Junior College PFR at 10-14.

when converting to geographic area licensing is well established.[570] The public interest is served by an efficient transition toward geographic licensing, and dismissing mutually exclusive applications in the current instance furthers that public interest goal. Additionally, dismissal of these mutually exclusive applications resolves these long-standing issues that had shown no signs of solution by settlement. The *NPRM* set forth in very clear terms that if the mutual exclusivity had not been resolved as of the release date, the mutually exclusive applications would be dismissed.[571] Therefore, we will not reinstate any dismissed applications unless the petitioner had filed an approved settlement agreement before the release date of the *NPRM*.

237. Upon further contemplation, we conclude that we will only reinstate the dismissed applications if the petitioner had filed an approved settlement agreement before the release date of the *NPRM*. We note that a series of applicants in South Florida filed petitions for reconsideration based upon a Marketwide Settlement Agreement filed on May 24, 1995.[572] We deny those petitions because the settlement could not be implemented as proposed. Specifically, the application filed by the School Board of Palm Beach County (File No. 19950524DM) to relocate EBS Station KZB29 was mutually exclusive with an application filed by the School Board of Miami-Dade County (File No. 19950915HW) to move EBS Station KTB85 to the G channel group. Because the Marketwide Settlement Agreement contemplated a series of interdependent channel switches and transmitter site relocations, the failure of the Marketwide Settlement Agreement to resolve the mutual exclusivity on the G channel group renders the agreement defective. Therefore, we will not reinstate any of the applications that were the subject of that settlement agreement.

238. We also reject arguments from applicants who argue that their applications should not have been mutually exclusive because the application they were mutually exclusive with was defective.[573] The pertinent consideration is that, as of the date of the *NPRM*, a mutually exclusive application was pending.

239. Petitioner Shekinah Network presented evidence in its Petition for Reconsideration that it had filed, and the Commission approved, a settlement agreement before the April 2, 2003 deadline.[574] We will therefore grant Shekinah's petition and reinstate its application.

6. Leasing Issues

240. We have before us a Petition for Reconsideration and a separate Petition for Extraordinary Relief filed by the IMWED. IMWED has also filed Reply Comments and a Consolidated

[570] *See, e.g.*, Revision of Part 22 and Part 90 of the Commission's Rules to Facilitate Future Development of Paging Systems, WT Docket No. 96-18, *Second Report and Order and Second Further Notice of Proposed Rule Making*, 12 FCC Rcd. 2732, 2739, ¶ 6 (1997); Amendment of the Commission's Rules Regarding Maritime Communications, PR Docket No. 92-257, *Second Report and Order and Second Further Notice of Proposed Rule Making*, 12 FCC Rcd. 16949, 17015-17016 (1997).

[571] *BRS/EBS NPRM*, 18 FCC Rcd. 6722, 6813-14, ¶ 228.

[572] *See* Florida Atlantic University PFR; School Board of Palm Beach County; Florida PFR; Southern Florida Instructional Television, Inc. PFR; WBSWP Licensing Corporation PFR.

[573] *See* Concord Community Schools PFR; Creighton University PFR; Michigan Center School District PFR.

[574] Shekinah Network PFR at Attachment B.

Opposition to Petitions for Reconsideration in this proceeding.[575] In these combined pleadings, IMWED asks the Commission to: 1) prohibit the inclusion of license purchase rights in EBS lease agreements; 2) require that all EBS excess capacity leases be filed with the Commission in unredacted form, or, in the alternative, be made available by EBS licensees for public inspection; and 3) retain the current 15-year maximum term for EBS lease agreements.

241. Leasing has been a staple of EBS since 1983, and has represented the Commission's pioneering movements toward flexible use. Although this flexible use policy has led to a reduction in the proportion of EBS channel capacity used for educational purposes, it has nonetheless served the very critical function of providing much needed revenue to educational entities, while allowing such institutions the autonomy to utilize the proceeds in the manner that suited its particular needs. Such revenue has enabled educational institutions to fund the construction of stations and to develop educational programming.

242. In the *BRS/EBS NPRM*, the Commission stated that it did not propose to prevent licensees from entering into new lease arrangements, and that it preferred to let the market determine the outcome of such arrangements without imposing limits, unless specific reasons justified a contrary policy. The Commission also proposed to relieve ITFS operators of the burden of filing copies of every channel lease agreement with the Commission, with the proviso that licensees retain copies of channel lease agreements in their files and make them available to the Commission upon request.

243. In 2003, the Commission took significant steps to facilitate the development of Secondary Markets in spectrum usage rights involving wireless radio services when it adopted the *Secondary Markets Report and Order* and *Further Notice of Proposed Rulemaking*.[576] In that *Report and Order*, the Commission established policies and rules to enable spectrum users to gain access to licensed spectrum by entering into different types of spectrum leasing arrangements with licensees in most wireless radio services.[577] In the *BRS/EBS R&O*, the Commission extended the rules and policies adopted in the *Secondary Markets Report and Order* to the BRS/EBS spectrum. Furthermore, the Commission grandfathered existing EBS leases, so long as the leases remained in effect and were not materially changed. Moreover, the Commission allowed pre-existing ITFS leases to remain in effect for up to fifteen years, consistent with then current rules,[578] but limited the spectrum lease term to the length of the license term in question. Finally, the Commission retained the following EBS substantive use requirements.

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[575] In the Sprint-Nextel Merger Proceeding, IMWED asserted that the combined entity should not be able to hold EBS leases for longer than 15 years, and that EBS leases should automatically be filed at the Commission in unredacted form. The Commission concluded that IMWED's concerns relating to the Sprint-Nextel merger would be more appropriately addressed herein. Applications of Nextel Communications, Inc. and Sprint Corporation for Consent to Transfer Control of Licenses and Authorizations, *Memorandum Opinion and Order* , WT Docket No. 05-63, FCC 05-148 at ¶ 153 n. 350 (rel. Aug. 8, 2005).

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

[577] *See generally Secondary Markets Report and Order*, 18 FCC Rcd at 20607-82 ¶¶ 1-194.

[578] *BRS/EBS R&O*, 19 FCC Rcd 14165, 14233-14234 ¶ 180.

> "(i) there must be certain minimum educational uses of ITFS spectrum (typically, a minimum of 20 hours per 6 MHz channel per week); (ii) for analog facilities, there must be a right to recapture an additional amount of capacity for educational purposes (typically, 20 more hours per channel per week); for digital facilities, the licensee must reserve at least 5% of its transmission capacity for educational purposes; (iii) the lease term may not exceed 15 years; (iv) the ITFS licensee must retain responsibility for compliance with FCC rules regarding station construction and operation; (v) only the ITFS licensee can file FCC applications for modifications to its station's facilities; and (vi) the ITFS licensee must retain some right to acquire the ITFS transmission equipment, or comparable equipment, upon termination of the lease agreement."[579]

The Commission stated that it believed that the continued application of these substantial use limitations, as well as the retention of ITFS eligibility requirements would facilitate the traditional educational purposes of ITFS. The *BRS/EBS R&O* did not, however, address the issue of requiring licensees to file leases with the Commission.

a. License Purchase Rights

244. *Background.* IMWED's first concern relates to prohibiting the inclusion of license purchase rights in EBS lease agreements. IMWED states that it is concerned that for-profit operators commonly seek to insert provisions in EBS lease agreements that give them the right to purchase the EBS license in the event that the Commission changes eligibility standards.[580] IMWED argues that it is inappropriate for commercial entities to be lining up EBS purchase deals when the Commission has barred the commercial purchase of EBS spectrum, and that these actions ensure that the eligibility question can never be resolved hence creating a lasting incentive to subvert the Commission's policy.[581] IMWED further argues that since the Commission has unambiguously held that EBS licenses may not be sold to commercial entities, and has determined that EBS should be preserved as an educational service, it would be counterproductive to create a constituency of organizations that hold purchase options on EBS spectrum that cannot be exercised until the eligibility restriction is lifted.[582] Such a constituency, IMWED contends, would badger every future Commission until the constituency's members could cash in such options.[583]

245. WCA urges rejection of IMWED's proposed ban on purchase options, stating that IMWED has failed to establish any harm to the public interest in allowing EBS licensees to provide such purchase options, which are generally recognized by the Commission as benign vehicles that do not raise eligibility concerns until they are exercised.[584] Similarly, BellSouth contends that IMWED ignores the fact that such a clause would be effective only if the Commission changed its eligibility rules to permit

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[579] *Id.* at 14234 ¶ 181.

[580] IMWED PFR at 10.

[581] *Id.*

[582] IMWED PFR Reply at 11.

[583] *Id.* at 11-12.

[584] WCA PFR Opposition at 41-42.

commercial entities to hold EBS licenses, and absent such a clause the lessee would have no way to ensure it could retain access to the spectrum should the licensee elect to sell its license, leaving the lessee nothing to show for its substantial long-term investment.[585]

246. C&W, DBC, SpeedNet, and WDBS also oppose IMWED's request to prohibit license purchase rights from being included in EBS leases, arguing that market factors should determine the finer points of lease agreements, and that the safeguards now incorporated in the rules are adequate.[586] Sprint notes that the Commission has elected to retain its EBS eligibility restrictions in the *BRS/EBS R&O*, rendering IMWED's proposal unnecessary.[587] Sprint contends, however, that if at some point in the future the Commission elects to remove the eligibility restrictions, EBS entities understand how best to utilize their spectrum resources to meet their own unique and vital education missions, and they should then be permitted to dispose of their spectrum in whatever manner they see fit.[588]

247. *Discussion.* We agree with the substantial majority of commenters that IMWED's proposal to prohibit purchase option provisions in EBS leases is unnecessary. Of particular importance to this analysis, as opponents of IMWED's request correctly point out, is the fact that the Commission has reaffirmed its commitment to preserving the educational nature of EBS hence maintaining eligibility restrictions in the band. Inasmuch as the Commission's recent ruling in the *BRS/EBS R&O* continues to prevent commercial entities from becoming EBS licensees, and we have no intention of revisiting EBS eligibility, the purchase options provisions can have no practical effect.

248. Banning purchase option provisions in EBS leases is also unwarranted because the Commission has repeatedly stated that it prefers to let the market forces operate and determine outcomes instead of imposing limits, unless specific reasons justify a contrary policy. Here, IMWED has not provided a reason that would justify Commission intrusion in a private contractual arrangement. Although we agree with IMWED's view that such provisions are "inappropriate", IMWED fails to demonstrate that they result in any real public interest harm. As previously indicated, the *BRS/EBS R&O* retained EBS eligibility restrictions that generally bar commercial entities from becoming license holders in this band. Although IMWED states that such arrangements are counterproductive, IMWED has failed to establish that any real harm results from these provisions to purchase a license at a future time, which, unless and until exercised, do not actually convey EBS licenses. Furthermore, even if the Commission were to revise its rules, such provisions could not be exercised without Commission approval. Thus, in the extremely unlikely event that EBS license eligibility is expanded to include commercial entities, the Commission will still have the opportunity to review the transaction and decide whether allowing such a transfer would be in the public interest. Consequently, we deny IMWED's request to ban purchase options from EBS lease agreements.

b. Filing of Excess Capacity Leases

249. *Background.* IMWED next requests that the Commission require that all EBS excess

[585] BellSouth PFR Opposition at 10, citing IMWED PFR at 10.

[586] C&W PFR Opposition at 3; DBC PFR Opposition at 2; SpeedNet PFR Opposition at 3; WDBS PFR Opposition at 3.

[587] Sprint PFR Opposition at 3, citing *BRS/EBS R&O* at ¶ 152.

[588] Sprint PFR Opposition at 3.

capacity leases be filed with the Commission in unredacted form, or, in the alternative, be made available by EBS licensees for public inspection. IMWED argues that such a requirement is necessitated by the fact that numerous excess capacity lease provisions bear upon the public interest obligations of EBS licensees, since they govern facilities, operations, and financial support that influence educational service.[589] IMWED posits that if leases continue to be available for public inspection, it is likely that abusive practices will come to light promptly, and many may be deterred entirely.[590] IMWED denies Nextel's suggestion that the public filing of leases could lead to collusion, arguing that each lease would be finalized prior to filing so the lease terms could not be altered following disclosure due to collusion with another entity.[591] IMWED maintains that colluding licensees would be in such close contact that they would share information outside of Commission processes.[592] Given the prevalence of electronic filing, IMWED maintains that it is not unduly burdensome to attach a file containing the text of a lease.[593]

250. WCA argues that the Commission should reject IMWED's proposal that all leases of EBS excess capacity be filed with the Commission without the redaction of commercially sensitive information, stating that the Commission in the Secondary Markets proceeding has recognized that the submission of unredacted leases is dangerous as they could disclose a company's business plans or sensitive information to its competitors.[594] BellSouth states that IMWED ignores the fact that: (1) lessors and lessees are already required to make numerous certifications certifying compliance with Commission rules and eligibility restrictions before spectrum leasing activities can commence, thus assuring the Commission that the leasing arrangement is legal; and (2) the licensee and the lessee must retain a copy of the lease in their files and submit copies to the Commission upon request.[595] BellSouth, C&W, DBC, SpeedNet, and WDBS characterize IMWED's request as an attempt to gain access to the financial leasing terms of other EBS licensees for its own negotiating purposes.[596] Sprint characterizes IMWED's proposal as both inefficient and burdensome.[597]

251. *Discussion.* We agree with commenters that IMWED's proposal to require licensees to file unredacted copies of EBS leases should be rejected. First, we conclude that requiring licensees to file unredacted copies of leases would not provide a public interest benefit in this case. We reject IMWED's concern that requiring such filings protects the public interest by bringing abusive practices to light because there is no evidence in the record that abusive practices exist in EBS leases. Furthermore,

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[589] IMWED PFR Reply at 9-10.

[590] *Id.* at 10.

[591] *Id.*

[592] *Id.*

[593] *Id.* at 10-11.

[594] WCA PFR Opposition at 35 and 37 citing *Secondary Markets Report and Order*, 18 FCC Rcd at 20669, 20660.

[595] BellSouth PFR Opposition at 13.

[596] BellSouth PFR Opposition at 13; C&W PFR Opposition at 3-4; DBC PFR Opposition at 2-3; SpeedNet PFR Opposition at 4; WDBS PFR Opposition at 3-4.

[597] Sprint PFR Opposition at 4.

in the twenty plus years since EBS leasing commenced, the Commission has not discovered any evidence that abusive practices exist and are so pervasive as to necessitate heightened scrutiny. Instead, we believe that any concern whatsoever regarding the contents of a lease agreement is adequately addressed by requiring licensees to make copies of such leases available to the Commission upon request.

252. Moreover, we reject IMWED's assertion that the burden of filing such leases is essentially cured by the prevalence of electronic filing because the ease of filing does not dissipate the actual burden of an unnecessary filing. Information collection roles for the Commission should not be imposed unless it is established that such a role would bring important benefits that would not otherwise be adequately addressed.[598] Here, IMWED has not established a need for nor set forth any public interest benefits of such collection that are not adequately addressed by a policy where the Commission can inspect such agreements upon request.

253. Furthermore, we conclude that requiring licensees to file unredacted leases is problematic insofar as such leases may contain commercially sensitive information. The Commission has long been sensitive to protecting confidential financial, commercial, or proprietary information.[599] We agree with commenters that IMWED has failed to establish any justification for requiring licensees to file documents that could reveal such sensitive information. Consequently, we will not impose an automatic filing requirement for EBS leases. All such leases must, however, be made available for inspection by the Commission upon its request.

c. Limitation on Length of EBS Leases

254. *Background.* As indicated above, IMWED's Petition requests that the Commission retain the 15-year lease limitation. IMWED argues that retention of this limitation is necessary because EBS licensees' educational needs change over time, and thus leasing arrangements that exceed 15 years eliminate the flexibility needed to respond to changing circumstances.[600] IMWED states that commercial entities often argue that longer lease terms are required for them to recover their capital investments, but notes that rights of first refusal are not barred in EBS agreements, and thus incumbent lessees can be assured of renewal upon the expiration of a 15-year term.[601] IMWED notes that several EBS licensees have entered into lease agreements that extend beyond 15 years.[602] IMWED argues that a 15-year limit will not cripple the leasing of EBS excess capacity as argued by several parties.[603] IMWED states that it has years of experience in leasing excess capacity of EBS systems and argues that a 15-year term with a "right of first refusal" would give a lessee access to spectrum for 30 years.[604] IMWED further argues that maximizing revenue should not be the goal of EBS licensees if it is to the detriment of responsive

[598] *See Secondary Markets Report and Order,* 18 FCC Rcd 20604, 20681 ¶ 197 (2003).

[599] *See id.*

[600] IMWED PFR Opposition at 15.

[601] *Id.* at 16.

[602] *See Ex Parte* Letter from John B. Schwartz, Director to IMWED to Marlene H. Dortch, Federal Communications Commission (dated Jan. 10, 2006) at 2 (IMWED *Ex Parte*).

[603] *Id.*

[604] *Id.*