

increased risk of interference is not worth the relatively small savings that could be realized by using a relaxed emission mask.

2. Licensing Issues

43. We adopt our proposal in the *DTS Notice*¹⁷⁸ to apply to DTS stations the Part 73 DTV licensing rules applicable to single-transmitter DTV stations,¹⁷⁹ as supported by the record.¹⁸⁰ We also conclude that DTS transmitters will not be separately licensed, but will be part of a linked group that will be covered by one construction permit and license. We find that this is a simple and efficient way to license DTS transmitters. DTS stations will use the same application filing and processing procedures applicable to single-transmitter DTV stations.¹⁸¹ Accordingly, DTS stations will also be subject to the rules recently established for DTV stations in the *Third DTV Periodic Report and Order*.¹⁸²

44. Specifically, stations will request authority to construct DTS facilities by filing a single application that includes either (1) a main transmitter and one or more additional transmitters that will collectively use the DTS technology, or (2) two or more smaller DTS transmitters. A station may add to its DTS network of transmitters using a minor change application for a construction permit to change a licensed DTV facility, or for a modified construction permit to change a DTV facility authorized by a construction permit. Such applications will be processed in accordance with the DTV processing rules and guidelines. We will revise FCC Forms 301, 340 and 302-DTV to accommodate requests for DTS systems.¹⁸³ Until the new rules and forms are effective, we will continue to accept DTS proposals under our interim policy to be evaluated as requests for STA.¹⁸⁴ We recognize that stations may wish to use DTS to ensure that their current analog viewers do not lose service after the station transitions to digital-only operation. A station that wishes to use DTS for this purpose need not wait for the final rules to take effect, but may apply under the interim policy and request a waiver under existing Commission rules, if necessary.¹⁸⁵ Stations that receive an STA to use DTS under the interim policy must file for a modification after the rules take effect and the forms are available in order to continue using DTS for their post-transition operations.

45. Principal community coverage requirement. As noted above, Part 73 will apply to DTS stations as they would to single-transmitter stations and this includes our principal community coverage requirement.¹⁸⁶ This rule, which commenters agree must also apply to full-

¹⁷⁸ *DTS Notice*, 20 FCC Rcd at 17802, 17807, ¶¶ 13, 28.

¹⁷⁹ See, e.g., 47 C.F.R. §§ 73.622-625.

¹⁸⁰ See, e.g., CDE comments at 2; KJLA et al comments at 2; MSTV comments at 3; MWG comments at 9; NAB Reply comments at 8; Smith comments at 4; TVPlus comments at 5.

¹⁸¹ See, e.g., 47 C.F.R. §§ 73.622-625.

¹⁸² See, e.g., *Third DTV Periodic Report and Order*, supra note 17, at Section V.D-F.

¹⁸³ See Appendix C – Form Changes.

¹⁸⁴ See *DTS Clarification Order*, 20 FCC Rcd at 17798-99, ¶¶ 4-6.

¹⁸⁵ See 47 C.F.R. § 1.3, and discussion of waiver policy in ¶ 28.

¹⁸⁶ See 47 C.F.R. § 73.625.

power DTS stations,¹⁸⁷ requires a DTV broadcast station to provide a specified signal contour over its community of license to ensure that local residents receive service (sometimes referred to as a predicted signal strength that is “noise-limited plus 7 dB”).¹⁸⁸ We will strictly enforce this requirement when evaluating DTS proposals and require that the coverage from one or more DTS transmitter(s) must provide principal community coverage as required in Section 73.625(a).¹⁸⁹ The record supports this conclusion.¹⁹⁰ However, we remain concerned that, in cases where DTS stations propose to use multiple transmitters to comply with Section 73.625(a), the interaction between the signals from the different transmitters may make reception difficult or impossible in some part of the overlapping coverage areas. Therefore, while we will afford DTS stations the flexibility to satisfy our principal community coverage requirement with multiple transmitters, we will disallow proposals that fail to address this concern.

3. Interference Rules and Calculations

46. Consistent with our decision to apply Part 73 to DTS stations, we will evaluate DTS proposals using the same interference standard adopted for DTV stations’ post-transition operations in the *Third DTV Periodic Report and Order*.¹⁹¹ As already noted, commenters generally support application of the Part 73 rules to DTS broadcasters.¹⁹²

47. Interference from DTS Stations. A DTS station must not cause more than 0.5 percent new interference to another station in accordance with Section 73.616 of the rules.¹⁹³ We will calculate interference from DTS stations based on the combined signals of all the DTS transmitters in a network.¹⁹⁴ In the *DTS Notice*, the Commission asked whether to calculate interference based on each DTS transmitter individually or, based more conservatively, on the combined signals of all the DTS transmitters.¹⁹⁵ Commenters generally support measuring the

¹⁸⁷ See, e.g., MSTV comments at 4; NAB comments at 3; Sunbelt comments at 2.

¹⁸⁸ See 47 C.F.R. § 73.625.

¹⁸⁹ See Appendix B – Rule Changes; 47 C.F.R. § 73.626(f)(4).

¹⁹⁰ See, e.g., MWG comments at 18-19; MSTV comments at 4 and reply at 2; Sunbelt comments at 2.

¹⁹¹ See 47 C.F.R. § 73.616.

¹⁹² Commenters raised other issues in the docket that we decline to address at this time. We will not address the issue of whether to adopt variable desired-to-undesired (D/U) interference ratios in situations where adjacent-channel transmitters are proposed to be located inside a desired station’s noise-limited service contour; see, e.g., MSTV comments at 7-8; NAB reply at 6; MWG reply at 6-8. We find that the comments submitted in this record do not provide an adequate basis on which to make a decision to retain the current D/U ratios or to change them. See *Third DTV Periodic Report and Order*, *supra* note 17, at ¶ 168. For the same reason, we also decline address comments seeking the conversion of our database’s coordinate data from the North American Datum of 1927 (NAD27) to the more recent North American Datum of 1983 (NAD83), see, e.g., CDE comments at 3; MWG reply at 13. However, we may address this issue in a future proceeding so we can consider the issue in the context of all media operations.

¹⁹³ 47 C.F.R. § 73.616. Section 73.616(e) states: “An application will not be accepted if it is predicted to cause interference to more than an additional 0.5 percent of the population served by another post-transition DTV station.”

¹⁹⁴ See Appendix B – Rule Changes; 47 C.F.R. § 73.626(f)(5).

¹⁹⁵ *DTS Notice*, 20 FCC Rcd at 17808, ¶ 30.

combined interference effect of multiple DTS transmitters.¹⁹⁶ For purposes of compliance with this rule, we adopt the root-sum-square (“RSS”) method of calculating interference from multiple DTS transmitters, rather than adding up the aggregate interference from each individual DTS transmitter, commonly referred to as a “direct summation” approach. This means that the combined field strength level at a given location is equal to the square root of the sum of the squared field strengths from each transmitter in the DTS network at that location.¹⁹⁷ We note that the RSS method differs from the direct summation method used under the interim rules. CDE and MWG advocated use of the RSS method.¹⁹⁸ MSTV and NAB suggested a direct summation approach, but did not address the RSS method.¹⁹⁹ We agree with CDE and MWG that the RSS method in virtually all situations will best approximate actual interference from multiple DTS transmitters and is less likely to overestimate interference.²⁰⁰ We will use the RSS method to calculate both adjacent channel and co-channel interference.²⁰¹

48. DTS protection from interference. As mentioned above, we are applying the same interference protection standard for DTS stations as we do for traditional single-transmitter DTV stations. Accordingly, a DTS station must be protected from interference in accordance with the criteria specified in Section 73.616 (*i.e.*, the 0.5 percent new interference standard).²⁰² To determine compliance with the interference protection requirements of Section 73.616, the population served by a DTS station shall be the population within the station’s combined coverage contour, excluding the population in areas that are outside (1) the DTV station’s authorized service area, (2) the Table of Distances area, and (3) the DTS coverage authorized under the waiver policy in paragraph 28 to prevent the loss of analog service. For DTS stations, a population within the combined coverage contour will be considered to have service if it is predicted, using the OET-69 methodology, to receive sufficient signal strength from at least one DTS transmitter individually.²⁰³ In other words, the field strengths of DTS transmitters in a network will not be combined for the purposes of determining service to a population within the station’s combined coverage contour. Section 73.616(e) also states that, “For this purpose, the population served by the station receiving additional interference does not include portions of the population within the noise-limited service contour of that station that are predicted to receive interference from the post-transition DTV allotment facilities of the applicant or portions of that population receiving masking interference from any other station.” For purposes of applying this provision to DTS stations, we will not consider self interference to be masking interference. In

¹⁹⁶ See, e.g., CDE reply at 1; MWG reply at 8; Paxson comments at 13; MSTV reply at 5.

¹⁹⁷ See Appendix B – Rule Changes; 47 C.F.R. § 73.626(f)(5)(ii).

¹⁹⁸ CDE reply at 1; Merrill Weiss reply at 8-11.

¹⁹⁹ MSTV comments at 5; NAB reply at 6. MSTV and NAB suggest aggregating the interference from individual co-channel DTS transmitters in making interference calculations.

²⁰⁰ CDE reply at 1; Merrill Weiss reply at 8-11. We agree with MWG, which states that “there is virtually no possibility that the receiver will coherently sum interfering signals from two undesired transmitters; summing the undesired signals would be overly pessimistic.” MWG reply at 3.

²⁰¹ See MWG reply at 8.

²⁰² See Appendix B – Rule Changes; 47 C.F.R. § 73.626(e).

²⁰³ *Id.*

the *DTS Notice*, we noted MWG's suggestion that, for purposes of analyzing interference from its neighbors, internal interference between DTS transmitters in a single system should be ignored, and sought comment on this issue.²⁰⁴ We received no additional comment on this issue. We agree with MWG and expect that a DTS system designed with good engineering practice should have minimal self interference. We may, however, revisit this issue if we are presented with evidence of significant self interference.

49. Changes to OET Bulletin No. 69. Commenters also state that we must modify the methodology in our OET Bulletin No. 69 (OET-69) to properly calculate interference from multiple DTS transmitters.²⁰⁵ Currently, our application processing software based on OET-69 methodology only considers interference from a single transmitter. We agree and will adapt our application processing software and OET-69 methodology to determine the combined impact from multiple transmitters.²⁰⁶ Specifically, we will modify OET 69 and our software implementing the methodologies described therein to consider interference to a station's service from the multiple DTV transmitters operated by a station using a DTS network. This change will not affect the current OET-69 method under which the interference impact to a station from other stations that operate from a single antenna are considered individually; rather the interference impact of multiple transmitters will be limited to only the DTS transmitters operated by a single station. This change will be issued in a forthcoming update of OET-69.

4. Synchronization Standard

50. As proposed in the *DTS Notice*,²⁰⁷ we will not require DTS transmitters to comply with a particular synchronization standard, such as that approved by the Advanced Television Systems Committee ("ATSC"),²⁰⁸ as long as the synchronization technology used is effective in minimizing interference within the system and otherwise will provide service to the population within a station's service area consistent with the Commission's rules. The record supports this conclusion.²⁰⁹ We agree with MSTV that the synchronization standard should be flexible to encourage the development and enhancement of synchronization technology.²¹⁰ Stations, of course, must continue to comply with the ATSC standards for digital television, as required by our rules.²¹¹

²⁰⁴ See *DTS Notice*, 20 FCC Rcd at 17808, ¶ 29-30; see also MWG comments in MB Docket No. 03-15 at 20.

²⁰⁵ See, e.g., MSTV comments at 5; NAB reply at 6.

²⁰⁶ See "Longley-Rice Methodology for Evaluating TV Coverage and Interference," OET Bulletin No. 69, February 6, 2004.

²⁰⁷ *DTS Notice*, 20 FCC Rcd at 17809, ¶ 34.

²⁰⁸ See ATSC Standard A/110A, "Synchronization Standard for Distributed Transmission" (dated July 19, 2005); http://www.atsc.org/standards/a_110a.pdf.

²⁰⁹ See, e.g., Harris comments at 5; MSTV comments at 12; Paxson comments at 14; Rohde & Schwarz and Samsung comments at 1-2. We note that CBA says that Class A and LPTV stations using DTS should not have to comply with the ATSC technical standard and that the Commission should allow experimentation with an alternative technical standard, such as COFDM. CBA comments at 4.

²¹⁰ MSTV comments at 12.

²¹¹ See 47 C.F.R. § 73.682(d).

51. We also agree with MSTV that the essential patents to employ the synchronization technology used in DTS should be licensed on a reasonable and nondiscriminatory (“RAND”) basis.²¹² Under RAND policies, patent holders commit themselves to offer their patents for licensing on RAND terms. In the *DTS Notice*,²¹³ the Commission noted that MWG has patent interests in the technology contained in the ATSC synchronization standard for DTS. By not requiring a particular synchronization standard, we seek to avoid requiring DTS broadcasters to use a patented technology. In cases where stations choose to use a patented technology, we expect that such use will be offered on RAND terms. We note that the ATSC patent policy requires a patent holder to file a statement with ATSC to disclose whether the patent holder will commit itself to offer its patents for licensing on RAND terms.²¹⁴ MWG has filed a patent statement in accordance with this policy to license its patents on RAND terms.²¹⁵ Consistent with our previous patent policy for DTV, we reiterate our expectation that the licensing of the patents for DTS technology will be on RAND terms and if a future problem is brought to our attention, we will consider it and take appropriate action.²¹⁶

E. Class A and Low Power DTS

52. First, we approve on an experimental basis the use of DTS technologies by a single digital Class A TV, digital LPTV or digital TV translator station to provide service within its authorized service area.²¹⁷ Second, as proposed in the *DTS Notice*, we permit a licensee of multiple digital Class A TV, digital LPTV, and/or digital TV translator stations to operate through interconnected single-frequency DTS networks, but will continue to separately license each station in this interconnected single-channel network.²¹⁸ In this section, we first discuss the use of DTS by a single digital Class A TV, digital LPTV and digital TV translator station to provide DTS service in the same manner as a full-power DTS station, *i.e.*, to provide service within the station’s authorized service area.²¹⁹ Then, we discuss the use of DTS by multiple Class A or low power stations to operate through interconnected single-frequency DTS networks.

53. Single-station DTS. We will allow low power stations to request an experimental license to use DTS to build out their digital facilities, as we offered to full power stations in 2004. However, at this time, we believe that it is premature and unnecessary to create DTS service rules for individual Class A and low power stations to use DTS in place of a single transmitter to provide service within the protected contour of the authorized station. In the *DTS*

²¹² MSTV comments at 12.

²¹³ *DTS Notice*, 20 FCC Rcd at 17809, ¶ 34.

²¹⁴ See ATSC’s Patent Policy at http://www.atsc.org/policy_documents/B-4-2006-03-13_PATENT_POLICY.pdf.

²¹⁵ See Patent Statement of MWG to the ATSC (dated Dec. 17, 2002) at http://www.atsc.org/standards/patent_statements/mwg.pdf; see also MWG comments at 23.

²¹⁶ See *Advanced Television Systems and Their Impact Upon the Existing Television Broadcast Service*, MM Docket 87-268, Fourth Report and Order 11 FCC Rcd 17771, 17794, ¶ 55 (1996).

²¹⁷ *DTS Notice*, 20 FCC Rcd at 17809-10, ¶ 37.

²¹⁸ *DTS Notice*, 20 FCC Rcd at 17809-10, ¶ 36.

²¹⁹ The service area of a Class A TV station is defined by 47 C.F.R. § 73.6010(c) and (d). The service area of a digital LPTV or translator station is defined by 47 C.F.R. § 74.792.

Notice, the Commission generally sought comment on whether to allow Class A and low power stations to use DTS to provide service within their authorized service area. While noting that such stations may benefit from use of DTS technologies to overcome terrain limitations and avoid interference, the *DTS Notice* also noted that the service area of a Class A or LPTV station is typically much smaller than that of a DTV broadcast station and, thus, Class A and low power stations may have less need for distributed stations.²²⁰ The comments generally support allowing these stations to use DTS to serve authorized service areas.²²¹ For example, Holston Valley and Smith note that low power UHF stations can achieve large service contours, for which DTS would help overcome the same reception problems faced by full-power stations.²²² The CBA states that there will be Class A and LPTV licensees interested in experimenting with DTS technologies.²²³

54. The record is not instructive on the specific means to implement a Class A or secondary low power DTS service. We believe that low power stations should be able to use DTS for individual station operation. However, we do not have an adequate record at this time to resolve the technical issues for low power stations as they differ from full power stations. Nor do we have sufficient indication of widespread interest in DTS among individual low power stations to warrant initiating a further notice at this time. We recognize that low power stations generally serve a much smaller geographic area than most full power stations. Consequently, the likelihood of needing DTS to provide service is low. Moreover, Class A and low-power stations do not face the same DTV transition deadline as full-power stations,²²⁴ thereby reducing the urgency for post-transition low power DTS rules. Low power stations are in the early stages of transitioning to digital service and do not yet have a deadline for terminating analog service.²²⁵ To provide maximum flexibility, we will allow low power stations to request an experimental license to use DTS to build out their digital facilities, as we offered to full power stations in 2004.²²⁶ If there is demonstrated interest in or need for DTS as an alternative for individual low power stations on a permanent basis, we can initiate a rulemaking at that time. For now, Class A and low power stations that wish to experiment with DTS technologies may request STA on a case-by-case basis.

55. Interconnected Networks of Class A Stations. We permit a digital Class A TV licensee²²⁷ to use DTS technologies to operate a group of commonly-owned stations with

²²⁰ See *DTS Notice*, 20 FCC Rcd at 17810 ¶ 37.

²²¹ See, e.g., Coalition comments at 12; CBA at 1; Holston Valley comments at 1-2; LMFG comments at 1-2; MWG comments at 24; MSTV comments at 12-13; Smith comments at 5-6.

²²² Holston Valley comments at 2; Smith comments at 6. We note that the protected signal contour of a digital UHF low power station operating with the maximum permitted ERP of 15,000 watts at an antenna height of 152.4 meters (500 feet) is predicted to extend 49.9 kilometers (29.1 miles).

²²³ CBA comments at 1.

²²⁴ See *supra* note 7.

²²⁵ See *supra* note 23.

²²⁶ *Second DTV Periodic Report and Order*, 19 FCC Rcd at 18283, 18355-57, ¶¶ 9, 174-78.

²²⁷ See 47 U.S.C. § 336(f)(1). In the Community Broadcasters Protection Act of 1999 ("CBPA"), Congress directed the Commission to establish a Class A television service to provide a measure of primary status to certain LPTV (continued...)

contiguous predicted DTV noise-limited contours through interconnected single frequency networks that carry common locally-produced programming within the market area²²⁸ served by the station group.²²⁹ Because the rules now permit a digital Class A TV licensee to offer common locally-produced programming within the contiguous predicted DTV noise-limited contours of any of the digital Class A stations in a commonly-owned group,²³⁰ we find that we should permit the more spectrally-efficient single-frequency network of commonly-owned stations with contiguous predicted DTV noise-limited contours. Accordingly, we will not reject a digital application of a Class A station to change its channel on the basis of predicted interference to another commonly-owned station in the same market area. Applications for such digital Class A TV stations must be filed using the process proposed in the digital LPTV proceeding.²³¹ We will not otherwise permit single-frequency networks of commonly-owned digital Class A stations (*i.e.*, stations with non-contiguous contours) and we will separately license each station in the single-frequency network (*i.e.*, we will not issue a single DTS license for such interconnected stations).

56. In the *DTS Notice*, the Commission proposed to authorize Class A TV licensees to use DTS technologies to operate a single-frequency network of a group of commonly owned digital Class A stations.²³² Commenters were split on this proposal. One group of commenters support such single-channel networks of commonly-owned Class A stations because it would be

stations so that those stations could continue to operate during and after the DTV transition. In order to qualify for Class A status, an LPTV station was required to have broadcast a minimum of 18 hours per day and to broadcast an average of at least 3 hours of locally produced programming per week during the three month period preceding enactment of the CBPA. The CBPA directed that Class A licensees must be subject to the same license terms and renewal standards as full power television licensees, and that Class A licensees should be accorded primary status as television broadcasters as long as they continue to meet the requirements set forth in the statute. Class A TV stations are similar in many respects to LPTV stations; their operations are generally governed by the same technical standards. Unlike LPTV stations, Class A stations must comply with Part 73 regulations applicable to full-service TV broadcast stations, except for those that cannot apply for technical or other reasons. Class A stations also are afforded certain interference protection rights not available to LPTV stations. The Class A service rules (Part 73, Subpart J) also contain provisions for the operation of digital Class A TV stations. *Digital LPTV Report and Order*, 19 FCC Rcd at 19333-34, ¶ 4. There are currently approximately 567 Class A stations. See News Release, "Broadcast Station Totals as of December 31, 2006," 2007 WL 221575 (dated Jan. 26, 2007) ("Broadcast Station Totals"); also available at http://hraunfoss.fcc.gov/edocs_public/attachmatch/DOC-269784A1.doc.

²²⁸ The market area for locally produced programming of a digital Class A station is the area within the station's predicted DTV noise-limited contour, as defined in Section 73.622(e), based on the station's authorized facilities. See *Amendment of Parts 73 and 74 of the Commission's Rules to Establish Rules for Digital Low Power Television, Television Translator, and Television Booster Stations and to Amend Rules for Digital Class A Television Stations*, MB Docket No. 03-185, Report and Order, 19 FCC Rcd 19331 (2004) ("*Digital LPTV Report and Order*"). With respect to a group of commonly-owned stations, digital Class A stations whose predicted noise-limited contours are physically contiguous to each other comprise the market area for locally produced programming. See 47 C.F.R. § 73.6000(2).

²²⁹ See proposed rule section 47 C.F.R. § 73.6023 in Appendix A to the *Notice*. We will not issue a single DTS license for such interconnected stations.

²³⁰ See 47 C.F.R. § 73.6000(2).

²³¹ See *supra* note 23.

²³² See *DTS Notice*, 20 FCC Rcd at 17809, ¶ 36.

spectrally efficient.²³³ The other group of commenters oppose such networks, claiming that it would in effect change the regulatory status of Class A TV stations.²³⁴ Specifically, MSTV and NAB assert that allowing Class A TV licensees to use DTS to operate such single-channel networks throughout a station's market area would convert such networks into a single Class A "super" station that would change the regulatory relationship between full-power and Class A stations.²³⁵

57. We conclude that our current rules permit Class A stations to use of a single-frequency DTS network to interconnect. Therefore, to the extent that Class A stations may now offer service throughout the contiguous predicted DTV noise-limited contours of a commonly-owned group of digital Class A stations, we will allow it. When there are commonly-owned stations in the same market, the individual stations operate on different TV channels in order to avoid interference to reception. Use of a common channel in a Class A station group using DTS technologies would promote spectrum efficiency and may also provide an alternative for licensees whose stations may someday face channel displacement and possible cessation of operation. We also note that our rules do not now preclude licensees from operating such commonly-owned stations on the same channel, albeit with the potential for interference.²³⁶ Use of DTS technology could significantly lessen the interference risk among such stations depending on local conditions. Moreover, each of the commonly-owned Class A stations in the same market is separately licensed and, with certain exceptions, must satisfy the regulatory requirements for a Class A station. That is, the operation of each of the Class A stations in such networks would, in most respects, be the same as their operation as stand-alone digital stations with regard to protected service area, permitted ERP, and minimum hours of operation. These stations would be authorized with the same regulatory status accorded stand-alone digital Class A stations under the existing Class A interference standards.²³⁷

58. We find that the above provisions for use of DTS technologies do not alter the statutory status of Class A stations. The Commission established the Class A television service pursuant to the Community Broadcasters Protection Act of 1999 ("CBPA") in order to preserve low-power community television service.²³⁸ Class A stations provide locally-originated

²³³ See, e.g., CBA comments at 1; Holston Valley comments at 1-2; LMFG comments at 1-2; MWG comments at 24.

²³⁴ See, e.g., MSTV comments at 12 reply at 7; Paxson comments at 15; NAB reply at 9.

²³⁵ MSTV comments at 13 and reply at 7; NAB reply at 9. Paxson adds that Class A licensees should not be given such an opportunity to expand throughout a market area unless full-power broadcasters are also allowed the opportunity to serve an entire DMA. Paxson comments at 15.

²³⁶ A change in channel not related to channel displacement is a major change for which an application can only be filed in an established filing window.

²³⁷ See 47 C.F.R. Part 73, subpart J.

²³⁸ See 47 U.S.C. § 336(f)(1). Congress directed the Commission to establish a Class A TV service to provide a measure of primary status to certain LPTV stations so that those stations could continue to operate during and after the DTV transition. The CBPA directed that Class A licensees must be subject to the same license terms and renewal standards as full power television licensees, and that Class A licensees should be accorded primary status as television broadcasters as long as they continue to meet the requirements set forth in the statute. Class A TV stations are similar in many respects to LPTV stations; their operations are generally governed by the same technical standards. Unlike LPTV stations, Class A stations must comply with Part 73 regulations applicable to full-service (continued....)

programming, often to rural and urban communities that have either no or little access to such programming. Such stations are owned by a wide variety of licensees, including minorities, women, educational organizations and small businesses, and often provide niche programming to residents of specific ethnic, racial, and interest communities. The Class A service promotes diversity and localism in television broadcasting. The CBPA provided Class A eligibility for licensees of commonly-owned LPTV stations broadcasting common local programming produced in the combined market area of these stations.

59. Interconnected Networks of Low Power Stations. We permit digital LPTV and TV translator stations to interconnect through the use of a single-frequency DTS network. We find that they can do so within the framework of their service rules.²³⁹ Unlike Class A networks, low power networks do not raise any policy considerations because they involve only secondary service. Moreover, these low power stations have no minimum coverage obligations.

V. CONCLUSION

60. By this Report and Order, we adopt rules for DTV broadcasters' use of DTS technologies. The rules we adopt herein will apply to DTV operations after the February 17, 2009 transition date. These rules will improve DTV stations' ability to serve all viewers in their service areas. In particular, DTS will benefit viewers who would not otherwise be reached by conventional means. We recognize that some stations may need to use DTS to provide digital service to current analog viewers who are within the station's Grade B contour after they terminate analog broadcasting. We will accept requests for waivers from the rules we are adopting, as well as deviations from the Interim Policy, to permit and expedite service for viewers in these areas who would otherwise lose service from the station, and, in particular, if the viewers would be without service from any affiliate of the same network.

VI. PROCEDURAL MATTERS

A. Final Regulatory Flexibility Analysis

61. As required by the Regulatory Flexibility Act of 1980 ("RFA"),²⁴⁰ the Commission has prepared a Final Regulatory Flexibility Analysis ("FRFA") relating to this Report and Order. The FRFA is set forth in Appendix D.

B. Final Paperwork Reduction Act Analysis

62. This Report and Order was analyzed with respect to the Paperwork Reduction Act of 1995 ("PRA")²⁴¹ and contains modified information collection requirements, including

TV broadcast stations, except for those that cannot apply for technical or other reasons. Class A stations also are afforded certain interference protection rights not available to LPTV stations. The Class A service rules (Part 73, Subpart J) also contain provisions for the operation of digital Class A TV stations. *Digital LPTV Report and Order*, 19 FCC Rcd at 19333-34 ¶ 4.

²³⁹ See 47 C.F.R. Part 74, Subpart G.

²⁴⁰ See 5 U.S.C. § 603. The RFA, see 5 U.S.C. § 601 et. seq., has been amended by the Small Business Regulatory Enforcement Fairness Act of 1996 ("SBREFA"), Pub. L. No. 104-121, Title II, 110 Stat. 847 (1996). The SBREFA was enacted as Title II of the Contract With America Advancement Act of 1996 ("CWAAA").

²⁴¹ The Paperwork Reduction Act of 1995 ("PRA"), Pub. L. No. 104-13, 109 Stat 163 (1995) (*codified in Chapter 35 of Title 44 U.S.C.*).

changes to FCC Forms 301 and 340 to accommodate applications for DTS systems.²⁴² The information collection requirements adopted in this Report and Order will be submitted to OMB for final review under Section 3507(d) of the PRA, and OMB and the public will be afforded an opportunity to file comments on the modified information collection requirements contained in this proceeding.²⁴³ In addition, pursuant to the Small Business Paperwork Relief Act of 2002 ("SBPRA"),²⁴⁴ the Commission sought specific comment in the *DTS Notice*²⁴⁵ on how it might "further reduce the information collection burden for small business concerns with fewer than 25 employees." We received no comment on this issue.

C. Congressional Review Act

63. The Commission will send a copy of this Report and Order in a report to be sent to Congress and the Government Accountability Office, pursuant to the Congressional Review Act.²⁴⁶

D. Additional Information

64. For more information on this Report and Order, please contact Evan Baranoff, Policy Division, Media Bureau at (202) 418-7142, Gordon Godfrey, Engineering Division, Media Bureau at (202) 418-2193, or John Gabrysch, Engineering Division, Media Bureau at (202) 418-7152.

VII. ORDERING CLAUSES

65. Accordingly, IT IS ORDERED that, pursuant to Sections 1, 4(i) and (j), 7, 301, 302, 303, 307, 308, 309, 316, 319, 324, 336, and 337 of the Communications Act of 1934, 47 U.S.C §§ 151, 154(i) and (j), 157, 301, 302, 303, 307, 308, 309, 316, 319, 324, 336, and 337, this Report and Order IS ADOPTED, and the Commission's rules ARE AMENDED as set forth in Appendix B, and SHALL BE EFFECTIVE 30 days after publication of the summary of the Report and Order in the Federal Register, EXCEPT that the information collection requirements contained in section 73.626(f) of the rules and the changes to FCC Forms 301 and 340 are subject to the PRA and are not effective until approved by the OMB. The Commission will publish a notice in the Federal Register announcing when OMB approval for these forms and information collections have been received and these rules will take effect.

66. IT IS FURTHER ORDERED that, pursuant to Section 5(c) of the Communications Act of 1934, 47 U.S.C. § 155(c), the Chief, Media Bureau, is GRANTED DELEGATED AUTHORITY to review and process requests and applications to use DTS technologies.

²⁴² See *supra* ¶ 44. See also OMB Control Nos. 3060-0027 (Form 301) and 3060-0029 (Form 340).

²⁴³ 44 U.S.C. § 3507(d).

²⁴⁴ The Small Business Paperwork Relief Act of 2002 ("SBPRA"), Pub. L. No. 107-198, 116 Stat 729 (2002) (codified in Chapter 35 of title 44 U.S.C.); see 44 U.S.C. 3506(c)(4).

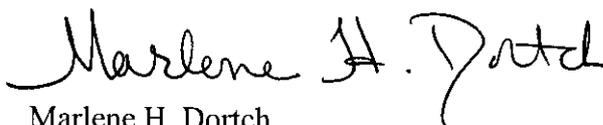
²⁴⁵ See *DTS Notice*, 20 FCC Rcd at 17812, ¶ 43.

²⁴⁶ See 5 U.S.C. § 801(a)(1)(A). The Congressional Review Act is contained in Title II, § 251, of the CWAAA; see Pub. L. No. 104-121, Title II, § 251, 110 Stat. 868.

67. IT IS FURTHER ORDERED that, pursuant to the Congressional Review Act, 5 U.S.C. § 801(a)(1)(A), the Commission SHALL SEND a copy of this Report and Order in a report to Congress and the General Accounting Office.

68. IT IS FURTHER ORDERED that the Reference Information Center, Consumer Information Bureau, shall send a copy of this Report and Order, including the Final Regulatory Flexibility Analysis, to the Chief Counsel for Advocacy of the Small Business Administration.

FEDERAL COMMUNICATIONS COMMISSION



Marlene H. Dortch
Secretary

APPENDIX A

List of Commenters

COMMENTS

1. Alliance for Local Broadcasters ("Alliance") (filed 02/06/06).
2. Association of Public Television Stations ("APTS") (filed 02/06/06).
3. Coalition for DTS¹ ("Coalition") (Joint Comments filed 02/06/06).
4. Cohen, Dippell and Everist, P.C. ("CDE") (filed 02/06/06).
5. Community Broadcasters Association ("CBA") (filed 02/06/06).
6. Harris Corporation ("Harris") (filed 02/06/06).
7. Holston Valley Broadcasting Corporation ("Holston Valley") (filed 02/06/06).
8. KJLA, LLC (KJLA), KMVD Licensee Co., LLC (KMVD), and Rancho Palos Verdes Broadcasters, Inc. (RPVB) ("KJLA, LLC et al") (Joint Comments filed 02/06/06).
9. LIN Television Corporation ("LIN") (filed 02/06/06).
10. Louis Martinez Family Group ("LMFG") (filed 02/06/06).
11. Merrill Weiss Group LLC ("MWG") (late filed 02/07/06).
12. Association for Maximum Service Television, Inc. ("MSTV") (filed 02/06/06).
13. National Association of Broadcasters ("NAB") (filed 02/06/06).
14. New America Foundation, *et al.*² (includes Media Access Project, "MAP") ("NAF, *et al.*") (Joint Comments filed 02/06/06).
15. Owens, Whitney (filed 02/06/06).
16. Paxson Communications Corporation ("Paxson")³ (filed 02/06/06).
17. Reading Broadcasting, Inc. ("RBI") (filed 02/06/06).
18. Rohde & Schwarz, Inc. and Samsung (Joint Comments) (filed 02/06/06).
19. Siete Grande Television, Inc. ("Siete Grande") (filed 02/06/06).
20. Smith, Thomas C. ("Smith") (filed 02/06/06).
21. SunBelt Television, Inc. ("SunBelt") (filed 02/06/06).
22. The Pennsylvania State University ("PSU") (filed 02/06/06).
23. TVPlus LLC (filed 02/06/06).

¹ The Coalition members include: Tribune Broadcasting Company, Media General, Inc., Clear Channel Television, Meredith Broadcast Group, California Oregon Broadcasting, Inc., Holston Valley Broadcasting Corporation, Reading Broadcasting, Inc., Oklahoma Land Company LLC, and Axcera, LLP.

² The complete list of commenters jointly filing with the New America Foundation (NAF) in this pleading include: Acorn Active Media Foundation (Acorn), Action Coalition for Media Education, Alliance for Community Media, Benton Foundation, Center for Digital Democracy (CDD), Center for Neighborhood Technology, Champaign-Urbana Community Wireless Network (CUWiN), Citizens for Independent Public Broadcasting, Common Cause, Consumer Federation of America (CFA), FreeNetworks.org, Free Press, Future of Music Coalition, Hawaii Consumers, MediaChannel.org, Media Access Project (MAP), Media Alliance, Prometheus Radio Project, Reclaim the Media, and Tribal Digital Village.

³ Paxson changed its name last year to ION Media Networks ("ION").

REPLY COMMENTS

1. CDE (filed 03/07/06).
2. Coalition (late filed 03/10/06).
3. Cox Broadcasting, Inc. (filed 03/07/06).
4. KJLA, LLC et al (filed 03/07/06).
5. MWG (late filed 03/08/06).
6. MSTV (filed 03/07/06).
7. NAB (filed 03/07/06).
8. Paxson (filed 03/07/06).
9. Reading (filed 03/07/06).
10. TVPlus LLC (filed 03/07/06).
11. Word of God Fellowship, Inc. (filed 03/07/06).
12. Wireless Internet Provider's Association (filed 02/27/06).

APPENDIX B

Rule Changes

The Federal Communications Commission proposes to amend 47 C.F.R. Part 73 as set forth below:

PART 73—RADIO BROADCAST SERVICES

1. The authority citation for Part 73 continues to read as follows:

Authority: 47 U.S.C. 154, 303, 334 and 336.

2. Part 73, Subpart E, is revised by adding new Section 73.626 to read as follows:

§73.626 DTV Distributed Transmission Systems.

- (a) A DTV station may be authorized to operate multiple synchronized transmitters on its assigned channel to provide service consistent with the requirements of this section. Such operation is called a distributed transmission system (DTS). Except as expressly provided in this section, DTV stations operating a DTS facility must comply with all rules applicable to DTV single-transmitter stations.
- (b) For purposes of compliance with this section, a station's "authorized service area" is defined as the area within its predicted noise-limited service contour determined using the facilities authorized for the station in a license or construction permit for non-DTS, single-transmitter-location operation.
- (c) *Table of Distances.* The following Table of Distances describes (by channel and zone) a station's maximum service area that can be obtained in applying for a DTS authorization.

Channel	Zone	F(50,90) field strength	Distance from reference point
2-6	1	28 dBu	108 km. (67 mi.)
2-6	2 and 3	28 dBu	128 km. (80 mi.)
7-13	1	36 dBu	101 km. (63 mi.)
7-13	2 and 3	36 dBu	123 km. (77 mi.)
14-51	1, 2 and 3	41 dBu	103 km. (64 mi.)

- (1) DTV station zones are defined in § 73.609.

- (2) *DTS reference point.* A station's DTS reference point is established in the FCC Order that created or made final modifications to the Post-Transition DTV Table of Allotments, § 73.622(i), and the corresponding facilities for the station's channel assignment as set forth in that FCC Order.

- (d) *Determining DTS Coverage.* The coverage for each DTS transmitter is determined based on the F(50,90) field strength given in the Table of Distances (in paragraph (c) of this

section), calculated in accordance with § 73.625(b). The combined coverage of a DTS station is the logical union of the coverage of all DTS transmitters.

- (e) *DTS protection from interference.* A DTS station must be protected from interference in accordance with the criteria specified in § 73.616. To determine compliance with the interference protection requirements of § 73.616, the population served by a DTS station shall be the population within the station's combined coverage contour, excluding the population in areas that are outside both the DTV station's authorized service area and the Table of Distances area (in paragraph (c) of this section). Only population that is predicted to receive service by the method described in 73.622(e)(2) from at least one individual DTS transmitter will be considered.
- (f) *Applications for DTS.* An application proposing use of a DTS will not be accepted for filing unless it meets all of the following conditions:
- (1) The combined coverage from all of the DTS transmitters covers all of the applicant's authorized service area;
 - (2) Each DTS transmitter's coverage is contained within either the DTV station's Table of Distances area (pursuant to paragraph (c) of this section) or its authorized service area, except where such extension of coverage beyond the station's authorized service area is of a minimal amount and necessary to meet the requirements of paragraph (f)(1) of this section;
 - (3) Each DTS transmitter's coverage is contiguous with at least one other DTS transmitter's coverage;
 - (4) The coverage from one or more DTS transmitter(s) is shown to provide principal community coverage as required in § 73.625(a);
 - (5) The "combined field strength" of all the DTS transmitters in a network does not cause interference to another station in excess of the criteria specified in § 73.616, where the combined field strength level is determined by a "root-sum-square" calculation, in which the combined field strength level at a given location is equal to the square root of the sum of the squared field strengths from each transmitter in the DTS network at that location.
 - (6) Each DTS transmitter must be located within either the DTV station's Table of Distances area or its authorized service area.

3. Part 73, Subpart J, is revised by adding new Section 73.6023 to read as follows:

§73.6023 Distributed transmission systems.

Station licensees may operate a commonly owned group of digital Class A stations with contiguous predicted DTV noise-limited contours (pursuant to § 73.622(e)) on a common television channel in a distributed transmission system.

APPENDIX C

Changes to FCC Forms 301 and 340

The Federal Communications Commission revises FCC Form 301 and FCC Form 340 to accommodate the use of DTS. The revised forms will contain the following questions:

SECTION III.E. – DTS Engineering

GENERAL QUESTIONS. Complete the following questions that relate to the proposed DTS facility as a whole.

1. Channel Number: _____
2. Zone: I II III
3. Reference Point Coordinates for Table of Distances, in accordance with Section 73.626(c) of the rules:
 _____ ° _____ ' _____ " N S Latitude
 _____ ° _____ ' _____ " E W Longitude
4. File Number for Current Authorized Service Area: _____
5. The proposed DTS facility will operate on the DTV channel for this station as established in the Post-Transition DTV Table of Allotments, 47 C.F.R. Section 73.622(i). Yes No
6. The proposed DTV station satisfies the interference protection provisions of 47 C.F.R. Sections 73.616 and 73.626. Yes No (If "No," attach as an Exhibit justification.)
7. The proposed DTV station satisfies the coverage requirement in 47 C.F.R. Section 73.625 and, therefore, will encompass the allotted principal community. Yes No (If "No," attach as an Exhibit justification.)
8. The proposed DTS facility satisfies the requirements in 47 C.F.R. Section 73.626 in the following respects:
 - a. The combined coverage from all of the DTS transmitters in the proposed DTS facility covers all of the station's authorized service area, as required in 47 C.F.R. Section 73.626(f)(1). Yes No (If "No," attach as an Exhibit justification.)
 - b. Each DTS transmitter's coverage is contained within either the DTV station's Table of Distances area (47 C.F.R. Section 73.626 (c)) or its authorized service area, except where such coverage is of a minimal amount and necessary to meet the requirements of 47 C.F.R. Section 73.626(f)(1). Yes (coverage entirely contained station's authorized service area) Yes (but coverage exceeds station's authorized service area by "minimal amount") No (Attach as an Exhibit a justification if "No" or if "Yes but coverage exceeds station's authorized service area by minimal amount".)
 - c. Each DTS transmitter's coverage is contiguous with at least one other DTS transmitter's coverage, as required in 47 C.F.R. Section 73.626(e)(3). Yes No (If "No," attach as an Exhibit justification.)

- d. The coverage from one or more DTS transmitter(s) in the DTS facility provide(s) principal community coverage, as required in 47 C.F.R. Section 73.626(e)(4). Yes (one transmitter provides principal community coverage) Yes (multiple transmitters provide principal community coverage) No (If "No," or if "Yes, multiple transmitters provide principal community coverage," attach as an Exhibit justification.)
- e. The combined field strength of all of the DTS transmitters in the proposed DTS facility do not cause interference to another station in excess of the criteria specified in 47 C.F.R. Section 73.616, as required in 47 C.F.R. Section 73.626(e)(5). Yes No (If "No," attach as an Exhibit justification.) (Note: The combined field strength level shall be determined by a "root-sum-square" calculation, where the combined field strength level at a given location is equal to the square root of the sum of the squared field strengths from each transmitter in the DTS network at that location.)
- f. Each DTS transmitter in the proposed DTS facility is located within either the DTV station's Table of Distances area or its authorized service area. Yes No (If "No," attach as an Exhibit justification.)
9. Environmental Protection Act.
- a. The proposed DTS facility will not have a significant environmental impact, including exposure of workers or the general public to levels of RF radiation exceeding the limits specified in 47 C.F.R. Sections 1.1307 and 1.1310. Yes No
- b. Submit in an Exhibit the following for each transmitter site in the proposed DTS facility:
(If "Yes," provide a brief explanation for each site of why an Environmental Assessment is not required. Also describe in the Exhibit the steps that will be taken to limit RF radiation exposure to the public and to persons authorized access to each transmitter site. Note: By checking "Yes" to this question, the applicant also certifies that it, in coordination with other users of each transmitter site, will reduce power or cease operation as necessary to protect persons having access to each site, transmitter or antenna from radio frequency electromagnetic exposure in excess of FCC guidelines.)
(If "No," provide an Environmental Assessment as required by 47 C.F.R. Section 1.1311.)
10. The proposed DTS facility satisfies the requirements of 47 C.F.R. Section 73.1030 regarding notification to radio astronomy installations, radio receiving installations and FCC monitoring stations. Yes No
11. The antenna structures to be used by the proposed DTS facility have been registered with the Commission and will not require re-registration to support the proposed antennas, OR the FAA has previously determined that the proposed antenna structures will not adversely effect safety in air navigation and these structures qualify for later registration under the Commission's phased registration plan, OR the proposed installation on these antenna structures do not require notification to the FAA pursuant to 47 C.F.R. Section 17.7.

TECHNICAL SPECIFICATIONS. Ensure that the specifications below are accurate. Contradicting data found elsewhere in this application will be disregarded. All items must be completed. The response "on file" is not acceptable.

TECH BOX (site-specific questions). Complete the following questions for each transmitter site in the proposed DTS facility.

1. DTS Site Number (x of total number of sites): ___ of ___
2. Antenna Location Coordinates: (NAD 27):
 ___° ___', ___" N S Latitude
 ___° ___', ___" E W Longitude
3. Antenna Structure Registration Number: _____
 Not Applicable FAA Notification Filed with FAA
4. Antenna Location Site Elevation Above Mean Sea Level: _____ meters
5. Overall Tower Height Above Ground Level: _____ meters
6. Height of Radiation Center Above Ground Level: _____ meters
7. Height of Radiation Center Above Average Terrain: _____ meters
8. Maximum Effective Radiated Power (average power): _____ kW
9. Antenna Specifications:
 - a. Manufacturer: _____ Model: _____
 - b. Electrical Beam Tilt: _____ degrees Not Applicable
 - c. Mechanical Beam Tilt: _____ degrees toward azimuth _____ degrees True Not Applicable
 - d. Polarization: Horizontal Circular Elliptical
 - e. Directional Antenna Relative Field Values: Not applicable (Nondirectional)
 Rotation: _____° No rotation

[Degree Value Grid]

If a directional antenna is proposed for this site, the requirements of 47 C.F.R. Section 73.625(c) must be satisfied. Exhibit required.

[Exhibit No. ___]

- f. Elevation Pattern: Does the proposed antenna propose elevation radiation patterns that vary with azimuth for reasons other than the use of mechanical beam tilt?
 Yes No
- g. **Required Exhibit:** Attach as an Exhibit all data specified in 47 C.F.R. Section 73.625(c). [Exhibit No. ___]

The vertical (elevation) plane radiation pattern data shall be submitted in Office Open XML ("Excel Spreadsheet") format with the first column containing depression angle values and second (and subsequent, when applicable) column(s) containing relative field values. When applicable, the first row shall list the azimuth angle being tabulated. The range of depression angles shall be 10 degrees above horizontal (-10 degrees depression) to 90 degrees below horizontal (90 degrees depression) and shall include data points spaced not more than 0.5-degree between -5 and 10 degrees depression angle, and not more than 5 degrees elsewhere. All pattern minima and maxima shall be included. Additional elevation plane data may be included

following the column corresponding to 350 degrees TN so that the direction(s) of maximum and minimum radiation are provided. A relative field value of 1 shall correspond to the azimuth and depression angles corresponding to the direction of maximum ERP.

APPENDIX D

Final Regulatory Flexibility Act Analysis

1. As required by the Regulatory Flexibility Act ("RFA")¹ an Initial Regulatory Flexibility Analysis ("IRFA") was incorporated in the *Notice of Proposed Rulemaking* ("*DTS Notice*") to this proceeding.² The Commission sought written public comment on the proposals in the *DTS Notice*, including comment on the IRFA.³ The Commission received no comments on the IRFA. This present Final Regulatory Flexibility Analysis ("FRFA") conforms to the RFA.⁴

A. Need for, and Objectives of, the Report and Order

2. This Report and Order adopts rules for the use of distributed transmission system ("DTS") technologies.⁵ The rules adopted in this Report and Order will allow DTV station licensees and permittees to use DTS technologies where feasible in place of a single transmitter to provide service as authorized. In summary, we take the following actions to authorize and implement DTS service:

- We define a DTS service area as being comparable to that of a station's single transmitter facility, and, to implement this approach, we will determine a station's potential maximum authorized service area using the "Table of Distances" proposed in our DTS Notice.
- We adopt a waiver policy to permit a station to use DTS if doing so will enable it to continue to serve its existing analog viewers who would otherwise lose service as a result of its transition to digital service.
- We require that DTS transmitters be located within either the DTV station's Table of Distances area or its authorized service area.
- We adopt rules to prohibit stations from using DTS to "cherry-pick" service.
- We afford primary regulatory status to the multiple transmitters used in a DTS network within the areas that such DTS transmitters are authorized to serve.
- We apply to DTS stations the Part 73 licensing and technical rules that apply to DTV single-transmitter stations.

¹ See 5 U.S.C. § 603. The RFA, see 5 U.S.C. § 601 - 612., has been amended by the Small Business Regulatory Enforcement Fairness Act of 1996 ("SBREFA"), Pub. L. No. 104-121, Title II, 110 Stat. 847 (1996).

² *DTS Notice*, 20 FCC Rcd at 17811 and 17817, ¶ 41 and app. B.

³ *Id.*

⁴ See 5 U.S.C. § 604.

⁵ A DTV distributed transmission system would employ multiple synchronized transmitters spread around a station's service area. Each transmitter would broadcast the station's DTV signal on the same channel, relying on the performance of "adaptive equalizer" circuitry in DTV receivers to cancel or combine the multiple signals plus any reflected signals to produce a single signal. See *supra* ¶ 4.

- We will evaluate DTS proposals using the same interference standard adopted for DTV stations' post-transition operations in the Third DTV Periodic Report and Order. We also adopt the root-sum-square ("RSS") method of calculating interference from multiple DTS transmitters.
- We permit a licensee of multiple digital Class A TV, digital LPTV, and/or digital TV translator stations to operate through interconnected single-frequency DTS networks, but will continue to separately license each station in this interconnected single-channel network.
- We approve on an experimental basis the use of DTS technologies by a single digital Class A TV, digital LPTV or digital TV translator station to provide service within its authorized service area.

We find that these rules will improve some DTV stations' ability to serve more of their viewers within their service areas. For example, we expect that DTS will be especially useful in mountainous areas where single transmitters have been unable to reach viewers in valleys or those blocked by elevated terrain. Furthermore, DTS may be a useful tool for stations to prevent some loss of service to existing analog viewers resulting from changes to the station's service area in the transition to digital service. These rules will apply to post-transition operations (*i.e.*, operations after February 17, 2009). DTS proposals related to pre-transition operations will continue to be evaluated under the Commission's interim policy.

B. Summary of Significant Issues Raised by Public Comments in Response to the IRFA

3. There were no comments filed that specifically addressed the rules and policies proposed in the IRFA.

C. Description and Estimate of the Number of Small Entities to Which the Rules Will Apply

1. Entities Directly Affected By Rules

4. The RFA directs the Commission to provide a description of and, where feasible, an estimate of the number of small entities that will be affected by the rules adopted herein.⁶ The RFA generally defines the term "small entity" as having the same meaning as the terms "small business," "small organization," and "small government jurisdiction."⁷ In addition, the term "small business" has the same meaning as the term "small business concern" under the Small Business Act.⁸ A small business concern is one which: (1) is independently owned and operated;

⁶ *Id.* § 603(b)(3).

⁷ 5 U.S.C. § 601(6).

⁸ *Id.* § 601(3) (incorporating by reference the definition of "small business concern" in 15 U.S.C. § 632). Pursuant to 5 U.S.C. § 601(3), the statutory definition of a small business applies "unless an agency, after consultation with the Office of Advocacy of the Small Business Administration and after opportunity for public comment, establishes one or more definitions of such term which are appropriate to the activities of the agency and publishes such definition(s) in the Federal Register." 5 U.S.C. § 601(3).

(2) is not dominant in its field of operation; and (3) satisfies any additional criteria established by the SBA.⁹

5. The rules adopted by this Report and Order will permit DTV broadcast stations to use DTS technologies where feasible in place of a single transmitter to provide service as authorized. We adopt our tentative conclusion in the *DTS Notice* that only television broadcast station licensees and permittees will be directly affected by the rules adopted herein.¹⁰ Therefore, in this FRFA, we consider the impact of the rules on small television broadcast stations. A description of such small entities, as well as an estimate of the number of such small entities, is provided below.

6. Television Broadcasting. The rules and policies adopted herein apply to television broadcast licensees and potential licensees of television service. The SBA defines a television broadcast station as a small business if such station has no more than \$14.0 million in annual receipts.¹¹ Business concerns included in this industry are those “primarily engaged in broadcasting images together with sound.”¹² The Commission has estimated the number of licensed commercial television stations to be 1,376.¹³ According to Commission staff review of the BIA Financial Network, MPro Television Database (“BIA”) on March 30, 2007, about 986 of an estimated 1,374 commercial television stations¹⁴ (or about 72 percent) have revenues of \$14.0 million or less and thus qualify as small entities under the SBA definition. The Commission has estimated the number of licensed NCE television stations to be 380.¹⁵ We note, however, that, in assessing whether a business concern qualifies as small under the above definition, business (control) affiliations¹⁶ must be included. Our estimate, therefore, likely overstates the number of small entities that might be affected by our action, because the revenue figure on which it is based does not include or aggregate revenues from affiliated companies. The Commission does not compile and otherwise does not have access to information on the

⁹ 15 U.S.C. § 632. Application of the statutory criteria of dominance in its field of operation and independence are sometimes difficult to apply in the context of broadcast television. Accordingly, the Commission’s statistical account of television stations may be over-inclusive.

¹⁰ *DTS Notice*, 20 FCC Rcd at 17818, app. B.

¹¹ See 13 C.F.R. § 121.201, NAICS Code 515120.

¹² *Id.* This category description continues, “These establishments operate television broadcasting studios and facilities for the programming and transmission of programs to the public. These establishments also produce or transmit visual programming to affiliated broadcast television stations, which in turn broadcast the programs to the public on a predetermined schedule. Programming may originate in their own studios, from an affiliated network, or from external sources.” Separate census categories pertain to businesses primarily engaged in producing programming. See Motion Picture and Video Production, NAICS code 512110; Motion Picture and Video Distribution, NAICS Code 512120; Teleproduction and Other Post-Production Services, NAICS Code 512191; and Other Motion Picture and Video Industries, NAICS Code 512199.

¹³ See News Release, “Broadcast Station Totals as of December 31, 2006,” 2007 WL 221575 (dated Jan. 26, 2007) (“*Broadcast Station Totals*”); also available at <http://www.fcc.gov/mb/>.

¹⁴ We recognize that this total differs slightly from that contained in *Broadcast Station Totals*, *supra* IRFA note 11; however, we are using BIA’s estimate for purposes of this revenue comparison.

¹⁵ See *Broadcast Station Totals*, *supra* IRFA note 11.

¹⁶ “[Business concerns] are affiliates of each other when one concern controls or has the power to control the other or a third party or parties controls or has to power to control both.” 13 C.F.R. § 121.103(a)(1).

revenue of NCE stations that would permit it to determine how many such stations would qualify as small entities.

7. In addition, an element of the definition of "small business" is that the entity not be dominant in its field of operation. We are unable at this time to define or quantify the criteria that would establish whether a specific television station is dominant in its field of operation. Accordingly, the estimate of small businesses to which rules may apply do not exclude any television station from the definition of a small business on this basis and are therefore over-inclusive to that extent. Also as noted, an additional element of the definition of "small business" is that the entity must be independently owned and operated. We note that it is difficult at times to assess these criteria in the context of media entities and our estimates of small businesses to which they apply may be over-inclusive to this extent.

8. Class A TV, LPTV, and TV translator stations. The rules and policies adopted herein also apply to licensees of Class A TV stations, low power television (LPTV) stations, and TV translator stations, as well as to potential licensees in these television services. The same SBA definition that applies to television broadcast licensees would apply to these stations. The SBA defines a television broadcast station as a small business if such station has no more than \$14.0 million in annual receipts.¹⁷ Currently, there are approximately 567 licensed Class A stations, 2,227 licensed LPTV stations, and 4,518 licensed TV translators.¹⁸ Given the nature of these services, we will presume that all of these licensees qualify as small entities under the SBA definition. We note, however, that under the SBA's definition, revenue of affiliates that are not LPTV stations should be aggregated with the LPTV station revenues in determining whether a concern is small. Our estimate may thus overstate the number of small entities since the revenue figure on which it is based does not include or aggregate revenues from non-LPTV affiliated companies. We do not have data on revenues of TV translator or TV booster stations, but virtually all of these entities are also likely to have revenues of less than \$14.0 million and thus may be categorized as small, except to the extent that revenues of affiliated non-translator or booster entities should be considered.

2. Entities Not Directly Affected By Rules

9. We adopt our tentative conclusion that the rules adopted herein will not directly affect any other types of entities other than television broadcast station licensees and permittees.¹⁹ In the *DTS Notice*, we invited comment on this tentative conclusion, but received no comments on this issue. In particular, out of an abundance of caution, we invited comment from any small cable operators or small multichannel video programming distributors (MVPDs)²⁰ who believed they might be directly affected by the proposed rules contained in the *DTS Notice*.²¹ Because the rules adopted herein pertain only to the technology employed in

¹⁷ See 13 C.F.R. § 121.201, NAICS Code 515120.

¹⁸ See *Broadcast Station Totals*, *supra* IRFA note 11.

¹⁹ *DTS Notice*, 20 FCC Rcd at 17818-19, app. B.

²⁰ MVPDs include such entities as Direct Broadcast Satellite (DBS) providers, private cable operators (PCOs), also known as satellite master antenna television (SMATV) systems, home satellite dish (HSD) services, multipoint distribution services (MDS)/multichannel multipoint distribution service (MMDS), Instructional Television Fixed Service (ITFS), local multipoint distribution service (LMDS) and open video systems (OVS).

²¹ *DTS Notice*, 20 FCC Rcd at 17819-22, app. B.