# Before the Federal Communications Commission Washington, D.C. 20554

In the matter of	)	
Waiver Requests By Clarity Media Systems, LLC To Operation CARS Stations At Flying J Travel	) ) )	
Plazas	)	DA 07-1946
	)	
	)	

#### **ORDER**

Adopted: May 2, 2007 Released: May 3, 2007

By the Chief, Media Bureau:

## I. INTRODUCTION

1. Clarity Media (Clarity) requests a waiver of the Cable Television Relay Service (CARS) rules, FCC Part 78, in order to create a new video programming service in the 2025-2110 MHz band. As discussed below, we deny Clarity's waiver request.

# II. BACKGROUND

- 2. The 2025-2110 MHz band is shared on a primary basis by CARS licensees and the Broadcast Auxiliary Service (BAS), which broadcasters use extensively for electronic news gathering (ENG).<sup>2</sup> The band is also used on a primary basis by other licensees, including Part 101 (fixed microwave) licensees, and NASA, which uses this band for command and control communications for various space-based missions.<sup>3</sup> The Department of Defense also may operate in this band at 11 locations nationwide.<sup>4</sup>
- 3. The Commission's Part 78 rules govern the licensing and operation of fixed and mobile CARS stations. CARS is principally a video transmission service used for intermediate links in a cable

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<sup>&</sup>lt;sup>1</sup> Clarity submitted 10 applications for CARS licenses on February 21, 2006 and an additional 248 CARS applications on January 24, 2007. Clarity's applications seek waivers of 47 C.F.R. §§ 78.1, 78.11, 78.18(a)(6), 78.36, 78.101, 78.103(e), and 78.107. Clarity also requests waivers of any rule not specifically listed for which the Commission determines that a waiver is required.

<sup>&</sup>lt;sup>2</sup> See 47 C.F.R. Part 74, Subpart F.

<sup>&</sup>lt;sup>3</sup> National Aeronautics and Space Administration Comments at 2. See also 47 C.F.R. § 2.106.

<sup>&</sup>lt;sup>4</sup> See Amendment of Part 2 of the Commission's Rules to Allocate Spectrum Below 3 GHz for Mobile and Fixed Services to Support the Introduction of New Advanced Wireless Services, Including Third Generation Wireless System, Seventh Report and Order, 19 FCC Rcd 21350 (2004). The Department of Defense locations are Prospect Harbor, ME; New Boston, NH; Cable Canaveral, FL; Buckley AFB, CO; Schriver AFB, CO; Kirtland AFB, NM; Pleasanton, CA; Laguna Peak, CA; Vandenberg AFB, CA; Oahu, HI; and Anderson AFB, Guam.

network. The underlying purpose of these rules is to "provide for the licensing and operation of fixed or mobile CARS stations used for the transmission of television and related audio signals, signals of standard and FM broadcast stations, signals of BRS/EBS fixed stations, and cablecasting from the point of reception to a terminal point from which the signals are distributed to the public by cable." 5

- 4. Clarity seeks CARS authorizations to provide a low power, multichannel digital television distribution service using the 2025 to 2110 MHz band at "Flying J" truck stop travel plazas. Using digital video compression, Clarity's proposed service will provide 70 channels of live or pre-recorded television programming to professional long-haul truck drivers and RV operators. Clarity plans to provide the service for no more than \$39 per month. Clarity proposes to operate its service on a secondary, non-interfering basis. Clarity proposes to limit potential interference by using a single transmitter with four degrees of electrical down-tilt to reduce signal transmissions towards the horizon. Clarity has also indicated that it would establish a toll-free hotline that other users of the band could call to request the temporary shut down of any of Clarity's transmission sites. 10
- 5. In July 2005, Clarity was granted an experimental license by the Commission's Office of Engineering and Technology (OET) to test its system at three locations: Frazier Park, California; Ogden, Utah; and North Salt Lake, Utah. Clarity conducted its experiments in September and October 2005 and submitted a 6-month progress report on its findings. Following the report, Clarity submitted ten CARS applications along with this waiver request. Clarity requests waivers of Sections 78.1 ("Purpose"), 78.11 ("Permissible Service"), 78.18(a)(6) ("Frequency Assignments"), 78.36 ("Frequency Coordination"), 78.101 ("Power Limitations"), 78.103(e) ("Emissions and Emission Limitations"), and 78.107 ("Equipment and Installation"). Clarity would also require a waiver of Section 78.13 ("Eligibility for License") to operate its proposed multichannel television distribution system.
- 6. The Media Bureau issued a *Public Notice* seeking comment on Clarity's waiver requests. <sup>14</sup> Fifteen comments and six reply comments were received. <sup>15</sup> Generally, commenters representing

<sup>6</sup> Clarity Waiver Request at 4, 18-19.

<sup>&</sup>lt;sup>5</sup> 47 C.F.R. § 78.1.

<sup>&</sup>lt;sup>7</sup> Clarity Reply Comments at 47. Clarity's reception equipment will cost under \$100 and may be offered to subscribers at a subsidized price. *See* Clarity Reply Comments at 46.

<sup>&</sup>lt;sup>8</sup> Secondary users must not cause harmful interference to primary services, nor can they claim protection from interference from a primary service. *See* 47 C.F.R. §2.105(c).

<sup>&</sup>lt;sup>9</sup> Clarity Waiver Request at 19.

<sup>&</sup>lt;sup>10</sup> See Letter dated January 18, 2007, from Clarity Media Systems LLC, to Marlene H. Dortch, FCC, Amendment to Clarity Media Systems Applications.

<sup>&</sup>lt;sup>11</sup> Experimental License File No. 0046-EX-PL-2005.

<sup>&</sup>lt;sup>12</sup> On January 18, 2007, Clarity withdrew the application for Waco, Texas. *See* Letter dated January 18, 2007, from Clarity Media Systems LLC, to Marlene H. Dortch, FCC, Amendment to Clarity Media Systems Applications. On January 24, 2007 Clarity filed an additional 248 applications.

<sup>&</sup>lt;sup>13</sup> 47 C.F.R. §§ 78.1, 78.11, 78.13, 78.18(a)(6), 78.36, 78.101, 78.102(e) and 78.107.

<sup>&</sup>lt;sup>14</sup> Waiver Requests by Clarity Media Systems, LLC to Operate CARS Stations at Flying J Travel Plazas, (MB rel. Aug. 25, 2006) (Public Notice) DA 06-1664, 2006 WL 2455731.

<sup>&</sup>lt;sup>15</sup> Eleven of fifteen comments oppose granting Clarity's waiver request. In support of its waiver request, Clarity submitted "Driver petitions in support of proposal of Clarity Media Systems" in which it surveyed drivers who logged onto the Internet over a 3-week period at various travel plazas and clicked on the survey. Out of 3,045 respondents, 3,030 responded affirmatively to the petition (99.5% support rate). In reply comments, five parties opposed the waiver while Clarity filed in support.

broadcast interests oppose Clarity's request, claiming that it could cause harmful interference to their BAS/ENG operations. <sup>16</sup> On the other hand, commenters representing children's groups claim that Clarity's proposal to publicize Amber Alerts <sup>17</sup> and provide other information regarding missing persons could help save lives. <sup>18</sup>

#### III. DISCUSSION

- 7. Under Section 1.3 of its rules, the Commission may grant waiver requests when "good cause" exists to do so. <sup>19</sup> Clarity points to the waiver standard established for Wireless Services in support of its waiver request. <sup>20</sup> Under Section 1.925(b)(3) of the Commission's rules, "good cause" exists where (1) the underlying purpose of the rule(s) would not be served or would be frustrated by application to the instant case, and that a grant of the requested waiver would be in the public interest; or (2) in view of the unique or unusual factual circumstances of the instant case, application of the rule(s) would be inequitable, unduly burdensome or contrary to the public interest, or the applicant has no reasonable alternative. <sup>21</sup> Clarity asserts that its waiver request meets both of these criteria. <sup>22</sup>
- 8. Waiver requests face "a high hurdle even at the starting gate" and must "plead with particularity the facts and circumstances which warrant such action" in demonstrating how the requested waiver would serve the public interest.<sup>23</sup> In considering a waiver request, the Commission does not "tolerate evisceration of a rule by waivers."<sup>24</sup> Furthermore, "[t]he agency may not act out of unbridled discretion or whim in granting waivers any more than in any other aspect of its regulatory function. The process viewed as a whole leads to a general rule, and limited waivers or exceptions granted pursuant to

<sup>&</sup>lt;sup>16</sup> The opposing parties filing comments were MSTV & NAB (filed joint comments), SBE, Lincoln Financial Media Company, Meredith Corporation, McGraw-Hill Broadcasting, The Dispatch Broadcast Group, Red River Broadcast Co., NASA, Fox, ABC, and Centex Television. Reply comments opposing the waiver were filed by MSTV & NAB (joint reply comments), Duhamel Broadcasting Enterprises, NCTA, Capitol Broadcasting Company, and Hubbard Broadcasting.

<sup>&</sup>lt;sup>17</sup> Amber Alerts are a early warning system to help find abducted children. The Department of Justice has worked to create a seamless national network that notifies broadcasters and state transportation officials that a child has been abducted. *See* http://www.amberalert.gov/index.htm.

<sup>&</sup>lt;sup>18</sup> See KlassKids Foundation at 3, the Lost Children's Network at 3, and the Missing Children Task Force at 3. See also Clarity Reply Comments at 27-28.

<sup>&</sup>lt;sup>19</sup> 47 C.F.R. § 1.3.

<sup>&</sup>lt;sup>20</sup> Clarity Reply Comments at 7-8.

As noted, section 1.925(b)(3) is applicable to wireless telecommunications services, not to fixed or mobile CARS stations. 47 C.F.R. § 1.925(b)(3). Therefore, we will consider Clarity's request under Section 1.3 of the Commission's rules. 47 C.F.R. § 1.3. This makes no difference in the resolution of Clarity's request because there is no material difference between the waiver standard in Section 1.3 and the standard set forth in Section 1.925(b)(3). 47 C.F.R. § 1.3; WAIT Radio v. FCC, 418 F.2d 1153 (D.C. Cir. 1969). See also BellSouth v. FCC, 162 F.3d 1215, 1225, n.10 (D.C. Cir. 1999)(court found "virtual identity" between waiver standard established by WAIT Radio and broadband PCS waiver rules that would allow waiver grant upon a showing that "the underlying purpose of the rule will not be served, or would be frustrated . . . and grant of the waiver is otherwise in the public interest" or "unique facts and circumstances of a particular case render application of the rule inequitable, unduly burdensome or otherwise contrary to the public interest").

<sup>&</sup>lt;sup>22</sup> See Clarity Reply Comments at 9.

<sup>&</sup>lt;sup>23</sup> WAIT Radio, 418 F.2d at 1157.

<sup>&</sup>lt;sup>24</sup> *Id. at* 1159. *See also* ABC Comments at 5.

an appropriate general standard."25

- 9. CARS Rules. We conclude that the underlying purpose of the Part 78 CARS rules would not be served by a grant of this request. In essence, Clarity has requested that the Commission waive the rules that form the foundation of the CARS regulatory framework. As noted by Centex Television LP, Clarity "fails to explain exactly how it is that a waiver of the most fundamental aspects of the CARS rules would actually further the purpose and goals of those rules."<sup>27</sup> Nor does Clarity identify how the purpose of the rules would be frustrated by their strict application in this case.<sup>28</sup> Clarity argues that its proposed service would advance the underlying purpose of the CARS service by providing video programming, including locally originated channels, to underserved truck drivers. <sup>29</sup> This argument fails to recognize that although the ultimate purpose of an MVPD network may be to provide video programming, CARS is a relay service and only part of the delivery system. As the Commission has stated, "CARS is not used to provide service or relay signals directly to subscribers." Rather, it is designed as a "backhaul" system or network for cable operators to link communities that cannot otherwise be linked via coaxial cable, fiber optic cable or other technologies.<sup>31</sup> Indeed, Clarity acknowledges that CARS was not established to provide service directly to subscribers but claims that the Commission was just expressing the status quo at the time.<sup>32</sup> We disagree. Sections 78.1 and 78.11 of the Commission's rules clearly state that the CARS service is a "relay service." Clarity's proposal, therefore, does not serve the purpose of the Part 78 CARS rules.
- 10. <u>Harmful Interference</u>. Clarity has not demonstrated that its proposed system will not cause harmful interference to BAS/ENG operations. Clarity tested its system under its experimental license by raising and lowering the transmit power level, and asserts that no interference levels above the noise floor were caused to ENG reception.<sup>34</sup> However, Clarity's tests were not adequate. No attempt was made to actually receive a BAS signal at a fixed receive site or a mobile site (e.g., TV truck) while Clarity was testing its system; thus, we cannot conclude that operation of its system would not cause harmful interference at ENG receive sites.<sup>35</sup> Nor did Clarity provide received signal level measurements at any of the fixed BAS receive sites. Finally, although ENG operations will soon be migrating to a new digital band plan,<sup>36</sup> Clarity did not test its proposed system on digital ENG operations.<sup>37</sup>

<sup>&</sup>lt;sup>25</sup> WAIT Radio, 418 F.2d at 1159.

<sup>&</sup>lt;sup>26</sup> Mobile CARS in the 2025-2110 MHz band is used for cablecasting and is very similar to BAS/ENG usage in this shared spectrum.

<sup>&</sup>lt;sup>27</sup> Centex Television Limited Partnership Comments at 13.

<sup>&</sup>lt;sup>28</sup> ABC Comments at 5.

<sup>&</sup>lt;sup>29</sup> Clarity Reply Comments at 14.

<sup>&</sup>lt;sup>30</sup> See Amendment of Eligibility Requirements in Part 78 Regarding 12 GHz Cable Television Relay Service, Report and Order ("CARS Eligibility Order"), 17 FCC Rcd 9930, 9932 (2002).

<sup>&</sup>lt;sup>31</sup> *Id* 

<sup>&</sup>lt;sup>32</sup> Clarity Reply Comments at 20 referring to the *CARS Eligibility Order*.

<sup>&</sup>lt;sup>33</sup> See 47 C.F.R. §§ 78.1, 78.11.

<sup>&</sup>lt;sup>34</sup> See Clarity Broadcasting Systems LLC Six-Month Progress Report to the Federal Communications Commission, December 22, 2005, Experimental License Call Sign WD3XPK, File Number 0046-EL-PL-2005 at 4-5. The report includes descriptions of the equipment Clarity used to test their system as well as some spectrum analyzer traces.

<sup>&</sup>lt;sup>35</sup> See also Hubbard Broadcasting, Inc. Reply Comments at 8: SBE Comments at 5.

<sup>&</sup>lt;sup>36</sup> The Commission has required a relocation of BAS/CARS licensees in the 1990-2025 MHz band to the existing 2025-2110 MHz BAS/CARS band. 47 C.F.R. § 78.40. *See also Improving Public Safety Communications in the 800* (continued....)

- 11. In addition to ENG related issues, NASA, a primary user of the band, has expressed concern about possible harmful interference both to and from Clarity's system, whether Clarity operates on a secondary basis or not.<sup>38</sup> NASA asserts that exclusion zones will need to be determined if Clarity operates in the band.<sup>39</sup> NASA also states because of the high powered signals it uses at uplink facilities in the 2025 -2110 MHz band, Clarity's receivers could experience significant disruption of operations within large areas surrounding uplink facilities.<sup>40</sup> Clarity has not addressed these concerns.
- 12. Although Clarity has made an effort to limit the amount of potential harmful interference to BAS and CARS facilities, <sup>41</sup> it is unclear how effective these measures will be. Interference to analog BAS reception from Clarity's digital system would look like noise with no identifying characteristics, making it difficult for broadcasters to determine the source. <sup>42</sup> The nature of the CARS and BAS/ENG services is spontaneous and unpredictable, as breaking news can occur at any location and at any time. As MSTV and NAB state, emergency information is critical in real-time. <sup>43</sup> It could take hours to determine the source of harmful interference, identify and contact a person with the skill and authority to shut down the Clarity system, successfully turn the system off, and reestablish the ENG link to the station. <sup>44</sup> Further, many broadcasters respond to the same event, which may require the use of all available channels. Clarity's proposal would occupy 84 MHz out of the 85 MHz in the BAS/ENG band,

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MHz Band Consolidating the 800 and 900 MHz Industrial/Land Transporation and Business Pool Channels, Memorandum Opinion and Order, 20 FCC Rcd 16015 (2005). The relocation deadline, as modified by Commission Seeks Comment on Ex Parte Presentations and Extends Certain Deadlines Regarding the 800 MHz Public Safety Interference Proceeding, (WT rel. Oct 22, 2004) (Public Notice) FCC 04-253, 69 FR 67880-03, is September 7, 2007.

<sup>&</sup>lt;sup>37</sup> Although no BAS operators were using the digital band plan or digital ENG equipment at Clarity's testing locations, a comprehensive interference analysis would need to consider digital ENG transmissions and prove that there is no threat of interference. Clarity's brief statement that digital COFDM signals are more robust and tolerant of interfering signals than analog signals, on its own, is not sufficient to address these concerns. *See* Clarity Reply Comments at 68.

<sup>&</sup>lt;sup>38</sup> NASA Comments at 5. During the launch process of NASA's space-based missions, NASA uses these frequencies for essential communications. It is also an emergency band if a space craft starts to tumble during its mission. *See* NASA Comments at 3.

<sup>&</sup>lt;sup>39</sup> *Id* 

<sup>&</sup>lt;sup>40</sup> *Id.* Current uplink sites are Berkeley, CA; Blossom Point, MD; Chantilly, VA; Dulles, VA; Fairbanks, AK, Fairmont, WV; Goldstone, CA; Greenbelt, MD; Kamaoa, HI; South Point, HI; Laurel, MD; Merrit Island, FL; Poker Flat, AK; Wallops Island, VA; White Sands, NM.

<sup>&</sup>lt;sup>41</sup> See Clarity Media Waiver Request, Exhibit 1, p 49. For example, Clarity has proposed to use emergency shut-off procedures when interference to BAS or CARS communications is detected. Clarity also provides updated and detailed procedures that are outlined under their operating protocol. Clarity has also engineered its system to use downward tilting antennas to limit radiation towards the horizon and has proposed to lower their operating power from 0.5 watts per channel to 0.2 watts per channel. See Letter dated January 18, 2007 from Clarity Media Systems, to Marlene H. Dortch, FCC, Amendment to Clarity Media Systems Applications, at 6.

<sup>&</sup>lt;sup>42</sup> See SBE Comments at 5. As noted above, there is no information available on record regarding digital-to-digital interference. In addition, the possibility that entities other than Clarity could request similar waivers would further increase interference concerns and make it even more difficult for broadcasters to determine the source of interference. Other similar service waivers could come from other chains of truck stop travel plazas, RV parks, campgrounds, etc., adding hundreds and perhaps thousands of potential new users which would further restrict viability of the 2 GHz band for ENG use.

<sup>&</sup>lt;sup>43</sup> MSTV and NAB Joint Comments at 5.

<sup>44</sup> See id.

leaving broadcasters no room to switch channels if they experience unidentifiable interference on one or more channels. In short, because of the tight timeframes and changing physical environments in which ENG services operate, they have an extremely limited ability to remedy any interference problems that may arise. Thus, Clarity's proposed 24-hour hotline for shutting down service in case of interference does not assuage our concerns here. 46

- 13. <u>Public Interest.</u> We are not convinced that the potential benefits cited by Clarity outweigh the cost to the public in terms of potential harmful interference to BAS, CARS, and NASA communications. Clarity claims that its proposal could achieve several potential public interest benefits, including facilitating efforts to save children's lives in abduction and exploitation crimes, locate missing persons, and capture criminals.<sup>47</sup> To promote Amber Alerts, Clarity plans to include programming services such as CNN, Fox News, CNBC, and MSNBC, which regularly carry Amber Alerts and other missing person information.<sup>48</sup> In addition, Clarity proposes to originate a Safety, Security and Alert channel which will be available for the continuous national posting of missing or wanted individuals and dissemination of significant public security and highway emergency information.<sup>49</sup>
- 14. Some commenters believe that Clarity's proposed system would assist in the search and rescue of missing persons, including abducted and missing children. On the other hand, MSTV and NAB note that "along with radio, local television is *the* primary distribution means for Amber Alerts...local television stations deliver Amber Alerts and associated coverage...to the public." The Commission welcomes additional methods of distributing Amber Alerts to supplement the news media. However, installing them at the risk of interfering with broadcast station coverage that is distributing the same alerts to a much wider audience is not prudent. We agree with several commenters that the public interest is better served by ensuring that viewers are able to receive breaking local news, including natural and unnatural disasters, and coverage of live events through the services provided by the primary users of the 2025 to 2110 MHz band. In this case, the Commission's Part 78 rules protect CARS licensees and their co-primary BAS/ENG counterparts. Clarity has failed to establish that granting this waiver request would not subject these primary services to additional harmful interference, or how such additional interference would produce countervailing public interest benefits.
- 15. <u>Reasonable Alternatives.</u> Clarity has also failed to establish "good cause" by demonstrating that that it has no reasonable alternative. <sup>53</sup> Among other alternatives, Clarity could purchase spectrum at auction, <sup>54</sup> pursue using unlicensed spectrum, <sup>55</sup> install cable at its truck stops, or negotiate spectrum

<sup>50</sup> See KlassKids Foundation Comments, Lost Children's Network Comments, and The Missing Children Task Force Comments.

<sup>&</sup>lt;sup>45</sup> See Red River Broadcast Company Comments at 4-5. Analog BAS channels occupy 17 MHz and digital BAS channels occupy 12 MHz.

<sup>&</sup>lt;sup>46</sup> See Clarity Media Systems LLC, Amendment, FCC Form 327 (filed January 18, 2007) detailing Clarity's revised proposed operating protocol.

<sup>&</sup>lt;sup>47</sup> Clarity Reply Comments at 22-35. Clarity lists 17 potential public interest benefits.

<sup>&</sup>lt;sup>48</sup> Clarity Reply Comments at 28.

<sup>&</sup>lt;sup>49</sup> *Id.* at 29.

<sup>&</sup>lt;sup>51</sup> MSTV & NAB Joint Reply Comments at 8-9.

<sup>&</sup>lt;sup>52</sup> See Centex Television Limited Partnership Comments at 13, ABC Comments at 15, Lincoln Financial Media Comments at 2, Red River Broadcast Company Comments at 5, and MSTV & NAB Joint Comments at 2.

<sup>&</sup>lt;sup>53</sup> Clarity Reply Comments at 37-48.

<sup>&</sup>lt;sup>54</sup> See http://wireless.fcc.gov/auctions for upcoming auction information.

<sup>&</sup>lt;sup>55</sup> See Meredith Corporation at 7, ABC Comments at 9.

leases.<sup>56</sup> Clarity cites cost and the burden of negotiations as the main reasons it is unable to pursue other options.<sup>57</sup> We reject these grounds to justify waivers that have the potential to inflict harm on incumbent users.

#### IV. CONCLUSION

16. In conclusion, we deny Clarity's waiver request. Clarity has not met its burden of demonstrating how its waiver request serves the public interest. Accordingly, we dismiss Clarity's CARS applications.

## V. ORDERING CLAUSES

17. Accordingly, **IT IS ORDERED** that, pursuant to Section 309 of the Communications Act of 1934, as amended, 47 U.S.C. § 309, and Section 1.3 of the Commission's rules, 47 C.F.R. § 1.3, the request for waiver filed by Clarity Media Systems LLC of Sections 78.1, 78.11, 78.13, 78.18(a)(6), 78.101, 78.103(e), and 78.107, of the Commission's rules, **IS DENIED** and the applications **DISMISSED**.

18. This action is taken pursuant to authority delegated by Section 0.283 of the Commission's Rules 58

FEDERAL COMMUNICATIONS COMMISSION

Monica Shah Desai Chief, Media Bureau

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<sup>&</sup>lt;sup>56</sup> See Meredith Corporation Comments at 7, McGraw-Hill Broadcasting Company, Inc Comments at 8, The Dispatch Broadcast Group Comments Engineering Statement at 1, NASA Comments at 2, Centex Television LP Comments at 11-14, ABC Comments at 9, Society of Broadcast Engineers Comments at 18, MSTV & NAB Joint Comments at 15, NCTA Reply Comments at 1-2. Through secondary markets the Commission has enabled licensees to engage in spectrum leasing agreements. See In the Matter of Promoting Efficient Use of Spectrum Through Elimination of Barriers to the Development of Secondary Markets, Second Report and Order, Order on Reconsideration, and Second Further Notice of Proposed Rulemaking, 19 FCC Rcd 17503 (2004).

<sup>&</sup>lt;sup>57</sup> Clarity Reply Comments at 37-48. We note that several new technologies for delivering mobile video and alternate methods for viewing video are currently under development, such as Qualcomm's MediaFlo (*see* http://www.qualcomm.com/mediaflo/index.shtml, visited Feb 2, 2007), Verizon's VCAST (*see* http://www.qualcomm.com/mediaflo/index.shtml, visited Feb 2, 2007), IEEE 802.11(n) (*see* http://www.eetimes.com/news/latest/showArticle.jhtml?articleID=196902685, visited Feb 2, 2007), and IPTV through broadband (*see* http://www.pcmag.com/article2/0,1895,1995820,00.asp, visited Feb 2, 2007). Devices such as Apple's iPod are also made for mobile video (*see* http://www.apple.com/ipod, visited Feb 5, 2007). *See also The Twelfth Annual Report on the Annual Assessment of the Status of Competition in the Market for the Delivery of Video Programming*, MB Docket No. 05-255, 2006 WL 521465.

<sup>&</sup>lt;sup>58</sup> 47 C.F.R. § 0.283.