consent of broadcasters before retransmitting their signals. Within local market areas broadcasters have an option to proceed under either the retransmission consent or the mandatory carriage requirements. These provisions were added by the Cable Television Consumer Protection and Competition Act of 1992,¹⁴ subsequent to the adoption of our last decision in this proceeding.

60. Under the mandatory carriage provisions, cable operators, subject to certain capacity based limitations, are generally required to carry the signals of local television stations on their cable systems.¹⁵ Section 614(b)(4)(B) of the Act requires that, at the time we prescribe standards for advanced television, we "initiate a proceeding to establish any changes in the signal carriage requirements of cable television systems necessary to ensure cable carriage of such broadcast signals of local commercial television stations which have been changed to conform with such * * * standards." While we have not yet prescribed standards for advanced television, in the sense of having defined or determined final standards, we believe it timely to begin our consideration of must-carry obligations at this point.

61. Clearly, during the transition period, at least the station's NTSC channel will be subject to must carry obligations. During the transition period, when, under our original plan, the NTSC channel would have been carrying 100% of the HDTV programming being aired on the conversion channel, there did not appear to be a must-carry problem because, as long as the two were carrying duplicative programming, the NTSC and commonly owned HDTV stations would not both have had to have been carried.¹⁶ But, if we change the simulcast requirement, programming on the NTSC and ATV channels might not be duplicative, and both might qualify for carriage. Additional issues are raised if the conversion channel is being used for the transmission of multiple SDTV program services. If carriage of all material being broadcast by the station were required,

 16 See Section 614(b)(5) of the Communications Act of 1934, as amended (47 U.S.C. § 534(b)(5)).

the dedication of, for instance, five cable channels (one for the NTSC programming and, for example, four multicast programs being offered on the conversion channel) might be required. Thus, a review of the must carry and retransmission consent rules now is an important component of this proceeding. In addition, it is necessary to clearly identify any issues regarding cable carriage that need to be factored into the ATV transitional rules, technical standards, and regulatory policies in order to facilitate the most productive possible interaction between ATV broadcasting and cable television service.

62. We seek comment on any relevant differences in rules or policies that might be needed both during the transition and as a consequence of ATV having replaced NTSC broadcasting. For instance, how should channel capacity be defined in a digital environment, i.e., in terms of channels, bandwidth, or bits of data per second? Does "on-channel" carriage have the same meaning in a digital as it does in an analog environment? Should "substantially duplicates" include duplication of programming in different transmission formats? Will changes in station coverage require changes in carriage obligations? Additionally, what is the meaning of "primary video" in the context of digital broadcast transmission?¹⁷ Is there appropriate parallel to line 21 of the vertical blanking interval of NTSC stations for ATV stations? What, if any, flexibility does the Commission have under Section 614(b)(4)(B) to modify requirements applied by the Communications Act to NTSC signals in the new digital environment? For example, does the Commission have authority to address "A/B" switch issues to enhance subscriber access to signals or portions of signals that may not receive carriage notwithstanding the existing prohibition? Is a revised definition of "basic tier" needed? Is a common retransmission/must carry election required for all of the video programming from an individual broadcast license in a market or just for

one "primary video" stream, as defined by the broadcast licensee? In the more flexible broadcast environment associated with digital transmission would changes be needed in the rules that mandate that local signals be carried in their entirety even if carried under the retransmission consent option? Are there other issues relating to the retransmission consent process that would need to be addressed?

63. A second set of issues relates to the technical interface and associated coast and rate issues. We expect that there will be parallel development of both cable and broadcast digital video communications. At the same time, it is inevitable that particular cable systems and particular broadcast markets will progress on different time schedules. Accordingly, issues will arise as to how digital broadcasts may be carried on cable systems that are still entirely analog in their opinions, are partially analog and partially digital, or that are entirely digital. With respect to each type of operation there are potential issues relating to headend equipment, transmission plant, subscriber premises equipment, and type of digital transmission system that may arise. Accordingly, we seek information on what technical modifications may be needed to enable cable systems to deliver ATV signals to subscribers and what costs may be associated with these modifications. How should digital broadcast programming be required to be carried? Should it be required to be carried digitally or would it be adequate to have it carried in whatever format the cable operator selects? Does "material degradation" in the statute require that HDTV signals be carried in an HDTV format? Further, we need to begin to consider and seek comment on what, if any, changes may be warranted in the rate regulation process, in the technical standards, or in other rules to account for the changes resulting from ATV carriage.

64. Assuming that an appropriate set of rules can be developed for application at the end of the transition period, an interim process is still needed to govern the transition from NTSC to ATV broadcasting. During the period when broadcast licensees are broadcasting in both the existing NTSC analog mode and in the new ATV mode, what should the carriage obligations be? Must both signals be carried and if not should the change from NTSC to the ATV signals be at the discretion of the cable operator or the broadcaster? Alternatively, should it be based on a fixed transition schedule or on an external event such as the market penetration of digital television

¹⁴ Pub. L. 102–385, 106 Stat. 1460, codified at 47 U.S.C. 521 *et seq.*

¹⁵ Although we recognize that there is an ongoing challenge to the constitutionality of the existing requirements, *Turner Broadcasting System* v. *FCC*, 114 S. Ct. 2445 (1994), we assume for purposes of this discussion the validity of the existing statutory provisions. Parties are welcome to comment on the implications of any of the issues involved in this proceeding in terms of the judicial sustainability of any future requirements.

¹⁷ Section 614 of the Act requires carriage of "the primary video, accompanying audio, and line 21 closed caption transmission" of each local commercial broadcast station carried on the cable system. Also required, to the extent technically feasible, is carriage of program-related material carried in the vertical blanking interval or on subcarriers. Similar requirements are found in Section 615 with respect to noncommercial educational stations. However, "[r]etransmission of other material in the vertical blanking interval or other nonprogram-related material (including teletext and other subscription and advertiser supported information services) shall be at the discretion of the cable operator."