

FCC MAIL SECTION

Federal Communications Commission

FCC 99-166

JUL 16 11 20 AM '99

Before the
Federal Communications Commission
 DISPATCHED TO Washington, D.C. 20554

In the Matter of:)	
)	CS Docket No. 99-250
Petition for Rulemaking)	
To Amend Eligibility Requirements in Part 78)	RM-9257
Regarding 12 GHz Cable Television)	
Relay Service)	

NOTICE OF PROPOSED RULEMAKING

Adopted: July 9, 1999

Released: July 14, 1999

Comment Date: August 16, 1999

Reply Comment Date: September 20, 1999

By the Commission:

I. INTRODUCTION

1. In this Notice of Proposed Rulemaking ("Notice"), we seek comment on a proposal to amend the Commission's rules to allow private cable operators ("PCOs") and other multichannel video programming distributors ("MVPDs")¹ to use the frequencies in the 12 GHz band for the delivery of video programming. This proceeding was initiated by a petition for rulemaking ("Petition") filed with the Commission by OpTel, Inc. ("OpTel"), a private cable operator that provides video and other services to residential users primarily located in multiple dwelling units ("MDUs") on a shared tenant service basis. OpTel and other PCOs provide service which is similar to and competitive with service provided by franchised cable systems, but PCOs do not use hard-wired crossings of public rights-of-way, and, therefore, are not considered "cable systems."² Therefore, PCOs are not subject to local franchising and certain other regulations applicable to franchised cable operators. OpTel uses microwave licenses in U.S.

¹ "Multichannel video programming distributor" means a person such as, but not limited to, a cable operator, a multichannel multipoint distribution service, a direct broadcast satellite service, or a television receive-only satellite program distributor, who makes available for purchase, by subscribers or customers, multiple channels of video programming." 47 U.S.C. § 522(13).

²Section 602(7)(B) of the Communications Act defines a cable system as a facility consisting of a set of closed transmission paths and associated signal generation, reception, and control equipment that is designed to provide cable service which includes video programming and which is provided to multiple subscribers within a community, but such term does not include a facility that serves subscribers without using any public rights-of-way. See 47 U.S.C. § 522(7)(B).

cities to provide hub-to-hub links between its private cable systems.³ When PCOs need microwave links to serve multiple buildings from one central location, they apply to the Commission for a license to use 18 GHz⁴ or 23 GHz⁵ for video and other services pursuant to Part 101.⁶ Because of the shorter distances between links in the higher frequency bands, Optel prefers lower frequencies such as the 12 GHz Cable Television Relay Service ("CARS") frequency band which provides for longer paths with video capabilities. PCOs, however, are not eligible to use the 12 GHz CARS frequency band to provide video programming. In response to the petition, three comments, one supplemental comment, and an *ex parte* presentation were filed which were all in support of Optel's petition.⁷ Optel filed a consolidated reply.

2. For purposes of this Notice, the 12 GHz frequency band is defined as the band segment 12.70 - 13.20 GHz shared by CARS and other services. Currently, 12.70 GHz through 13.20 GHz is used by CARS licensees to provide point-to-point and point-to-multipoint⁸ video and related audio signals pursuant to Part 78 of the Commission's rules. Television broadcasters also use these frequencies, pursuant to Part 74, Subpart F, for Broadcast Auxiliary Stations ("BAS").⁹ BAS uses the 12.70 - 13.25 GHz spectrum for both fixed and short-range mobile transmissions. In news gathering operations, for example, these frequencies are used to transmit a signal from the scene of an event to a nearby vehicle ("TV truck"), where the signal is sent on to the TV station. The 12 GHz CARS band and the segment from 12.20-13.25 GHz is also shared with Fixed Satellite Service ("FSS") for earth-to-space communications.¹⁰

³Petition for Rulemaking of OpTel, Inc., filed April 1, 1998. Optel also filed a separate petition requesting the Commission to issue a waiver of Section 101.603 in order to allow Optel to transmit video entertainment material at the 11 GHz band (10.7 GHz - 11.7 GHz). The Commission has denied Optel's waiver request. See *Petition for Waiver of Section 101.603 of the Commission's Rules*, Order, DA 99-406, (WTB, rel. March 10, 1999). Optel noted that its waiver request involved a different frequency (11 GHz band) and issues different from those raised in this proceeding. See Reply Comments at 2.

⁴18.142 to 18.580 GHz.

⁵21.20 to 23.60 GHz.

⁶47 C.F.R. § 101.1 *et seq.*; specifically, § 101.603. When licensed under Part 101, PCOs are licensees of operational fixed services ("OFS").

⁷Comments were filed by the Independent Cable & Telecommunications Association and RCN Telecom Services, Inc. (also filed supplemental comments). Joint comments were filed by Alcatel Network Systems, Inc., Harris Corporation-Farion Division, and Digital Microwave Corporation (collectively the "Joint Commenters"). The *ex parte* presentation was made on behalf of RCN.

⁸By "point-to-multipoint," we refer to a service in which one or more transmitters at a hub distribute signals to multiple receiver sites, as specified in the CARS authorization. As used in this Notice, the term does not include transmissions to multiple, unspecified receiving locations. See also 47 C.F.R. §§ 78.104 and 78.105, which describe the authorized bandwidth and antenna systems to be used by CARS stations.

⁹See 47 C.F.R. § 74.600 *et seq.*

¹⁰See 47 C.F.R. §§ 2.106, 78.106 and 101.101.

3. We undertake this proceeding to address the proposed expanded use and spectrum sharing issues presented by Optel's petition to open the 12 GHz CARS band to PCOs such as Optel. Optel contends that PCOs need access to the 12 GHz CARS band to compete effectively with incumbent franchised cable systems. Optel also asserts that certain ongoing rulemaking proceedings threaten to limit PCOs' use of the 18 GHz band they currently use to distribute video programming to their customers, thus necessitating access to the 12 GHz CARS band to assure their continued existence and growth.

4. Additionally, on our own motion, we broaden this Notice to include consideration of the expanded use of the 12 GHz CARS band by other MVPDs. One of the Commission's most important goals is to promote and facilitate competition in the video distribution market, and, therefore, we seek comment on whether other types of MVPDs could use the CARS band to compete more effectively with cable systems and the other MVPDs that are currently eligible to use the CARS band. We also seek comment on the possible drawbacks of expanding CARS eligibility, particularly with respect to issues of spectrum management and allocation. We also note that Optel's petition is interrelated with other ongoing proceedings and that decisions to be made in those proceedings might affect PCOs' and MVPDs' use of the 12 GHz CARS band.¹¹

5. In particular we seek comment on spectrum issues raised by Optel's petition, such as the technical criteria necessary to ensure that PCOs' or other MVPDs' use of the 12 GHz CARS band would not interfere with existing users or unduly constrain future growth of incumbent cable services. We do not propose to make any changes in the technical and operational characteristics of CARS, which is a point-to-point and point-to-multipoint service, and we seek comment on whether PCOs and other MVPDs can operate successfully in the 12 GHz CARS band under the existing technical and operational requirements. We also seek comment on the appropriate eligibility criteria for PCOs or other MVPDs who wish to obtain a CARS license and whether, after becoming a CARS licensee, PCO systems or other MVPDs should be designated as co-primary users with incumbent cable system operators or as secondary users.¹²

II. BACKGROUND

6. A CARS station is defined as

[a] fixed or mobile station used for the transmission of television and related audio signals, signals of standard and FM broadcast stations,

¹¹See discussion of IB Docket No. 98-172 and ET Docket No. 98-206, *infra*.

¹²The Commission has explained that "a secondary service is allowed to use the band as long as its operations do not cause interference to any primary designated operations. If a secondary service operation causes interference to a primary service, the secondary service provider must cease operation [and] a service designated as primary is the only service given priority status to operate in a frequency band. A service designated as co-primary must share operations with other services designated as co-primary in the frequency band on a co-equal basis." See *Notice of Proposed Rulemaking, Redesignation of the 17.7-19.7 GHz Frequency Band, Blanket Licensing of Satellite Earth Stations in the 17.7-20.2 GHz and 27.5-30.0 GHz Frequency Bands, and the Allocation of Additional Spectrum in the 17.3-17.8 GHz and 24.75-25.25 GHz Frequency Bands for Broadcast Satellite Service Use*, FCC 98-235 (IB, rel. Sept. 18, 1998) at n.4 ("*Redesignation NPRM*"). In addition, secondary users must accept interference from primary users.

signals of instructional television fixed stations, and cablecasting from the point of reception to a terminal point from which the signals are distributed to the public.¹³

Licenses of CARS stations are authorized to relay signals for and to supply program material to cable television systems and other eligible entities using point-to-point and point-to-multipoint transmissions.¹⁴ Franchised cable systems and other eligible services use 18 GHz¹⁵ and 12 GHz¹⁶ for microwave relays pursuant to Part 78.¹⁷ These relay stations enable cable systems and other CARS licensees to transmit television and related audio signals from one point (*e.g.*, on one side of a river or mountain) to another point (*e.g.*, the other side of the river or mountain) or many points ("multipoint") via microwave. In this way, they allow a cable system to link a community divided by a geographic barrier without building additional headends. Part 78 of the Commission's rules governs the licensing and operations of fixed or mobile CARS stations.¹⁸ Section 78.11 authorizes CARS stations to relay television broadcast and low power television and related audio signals, AM and FM broadcast stations, Instructional Television Fixed Service ("ITFS") signals and cablecasting for use by cable television systems or other eligible systems.¹⁹ Section 78.13 of the Commission's rules specifies that a license for a CARS station can only be issued to owners and operators of cable television systems and qualified cable network-entities, licensees and conditional licensees of channels in the Multipoint Distribution Service ("MDS"), Multichannel, Multipoint Distribution Service ("MMDS"), and ITFS operators.²⁰

7. Part 101 of the Commission's rules governs the manner in which portions of the radio spectrum may be made available for use by private operational, common carrier, Local Multipoint Distribution Service ("LMDS"), and certain fixed microwave operations.²¹ PCOs currently obtain licenses under Part 101 for certain frequencies when their operations use microwave distribution.²² PCOs are permitted by Part 101 to use the 18 GHz (18.142 GHz-18.580 GHz) and 23 GHz (21.20 GHz - 23.60

¹³47 C.F.R. §78.5(a).

¹⁴See 47 C.F.R. § 78.11(a),(c),(d).

¹⁵17.70 to 19.70 GHz

¹⁶12.70 to 13.20 GHz

¹⁷47 C.F.R. §§ 78.1, 78.11, 78.13, 78.18.

¹⁸See 47 C.F.R. §78.1 *et seq.*

¹⁹47 C.F.R. §78.11.

²⁰47 C.F.R. §78.13.

²¹See 47 C.F.R. §101.1 *et seq.*

²²PCOs that do not use microwave frequencies to deliver services to their customers are not required to be licensed.

GHz) frequency bands to distribute video programming.²³ Optel states that it operates, through subsidiaries, private/cable/ telecommunications systems and franchised cable systems that provide service to over 314,000 homes in nine cities.²⁴ Optel's microwave facilities are based on a "hub-and-spoke" architecture. Optel and other PCOs currently use microwave links in the 18 GHz frequency band to interconnect their cable head-end and telephone switching facilities to residents of MDUs. In its simplest form, cable head-end and telephone switching facilities are located at a "hub" and 18 GHz microwave "spokes" are used to deliver video and telecommunications services to MDUs. Optel seeks to use the 12 GHz CARS band as an efficient means for "hub-to-hub" communications. By interconnecting hubs, the need for duplicative head-end and switching facilities is eliminated or substantially reduced, thus, Optel argues, reducing costs and enabling PCOs to compete more effectively with franchised cable systems.²⁵

8. Optel requests that the Commission add PCOs as eligible users of the band of frequencies from 12.70 GHz to 13.20 GHz, which comprise the 12 GHz CARS band. To allow PCOs to use the 12 GHz CARS band, Section 78.13 must be amended to include PCOs as an entity eligible for a CARS license. Optel also requests use of the frequency band segment from 13.20 to 13.25 GHz for delivery of video programming. However, 13.20 -13.25 GHz is not designated for CARS use but rather for television broadcast auxiliary service ("BAS"), including on-site mobile transmissions for electronic newsgathering. We are concerned about the compatibility of shared use of the spectrum between fixed PCOs and mobile BAS and we seek comment in this regard.²⁶ Further, we seek comment on any existing or future impact this sharing may have with BAS, especially as it relates to the required digital transition for broadcasters.

9. Optel's petition also requests amendment of Section 101.603(a)(2)²⁷ to add the 12 GHz band to those frequency bands on which PCO licensees may deliver video programming and Section 101.603(b)(3)²⁸ to include the 12 GHz band among those frequency bands that may be used to provide the final Radio Frequency ("RF") link in the chain of transmission of program material to cable television systems, MDS, or Master Antenna Television Systems ("MATVs").²⁹ As noted above, Sections 78.11 and 78.13 govern both the eligibility criteria and the permissible services for CARS licensees.³⁰ If at the conclusion of this rulemaking we determine to extend the use of the 12 GHz CARS band to PCOs and other MVPDs, procedurally it will be sufficient to amend Section 78.13 of the Commission's rules, which would be consistent with the Commission's previous amendments to Section 78 of its rules to extend

²³See 47 C.F.R. §101.603.

²⁴Petition at 2.

²⁵See Petition at 3.

²⁶See Petition at 1; 47 C.F.R. § 78.18(a) (Frequency Assignments for CARS stations) and 47 C.F.R. § 74.602(a) (Frequency Assignments for Television Broadcast Auxiliary Stations).

²⁷47 C.F.R. §101.603(a)(2).

²⁸47 C.F.R. §101.603(b)(3).

²⁹Petition at 1.

³⁰See paragraph 6, *supra*.

CARS eligibility to other service providers³¹ and would ensure that all users of this band for video distribution purposes are governed by the same rules and licensing criteria. No amendment to Part 101 is necessary. We note that amending Part 78 to make PCOs and other MVPDs eligible for 12 GHz CARS licenses would also make them eligible for CARS licenses in the 18 GHz band, as are other current CARS licenses.³²

III. DISCUSSION

10. Optel argues that CARS eligibility should be extended to PCO licensees because: (1) opening the 12 GHz CARS band to PCO licensees would enhance competition with the franchised cable industry; (2) the Commission has established precedent for extending CARS eligibility to other similar users such as MDS and MMDS operators;³³ and (3) the 18 GHz frequency band, because of technical difficulties and recent and pending Commission rulemakings, can no longer support the services provided by the PCO industry.³⁴ Optel also argues that, in the 12 GHz CARS band, it can provide more channels (up to 82 channels if the CARS band includes 13.20 GHz-13.25 GHz) and, therefore, can be more competitive with franchised cable systems.

A. Competition in the Video Programming Distribution Industry

11. Optel states that, as a PCO, it competes directly with incumbent franchised cable operators in its distribution of video programming.³⁵ RCN Telecom Services, Inc. ("RCN"), an operator of open video systems ("OVS"), supports Optel's petition and argues that extending CARS eligibility to PCO licensees would establish parity between franchised cable operators who use the CARS band to relay programming material and PCO licensees who would use the 12 GHz CARS band for similar purposes.³⁶ We seek comment on the effect on incumbent CARS licensees of permitting PCO licensees to use the 12 GHz CARS band. We seek comment as to whether the proposed use of the 12 GHz CARS band by Optel is consistent with the current channelization scheme for 12 GHz CARS licensees. The channelization scheme sets the upper and lower frequency boundaries for each assigned channel used in the CARS

³¹For example, MDS providers. See discussion paragraph 17, *infra*.

³²See 47 C.F.R. § 78.18(a)(4). Thus, a PCO could choose between applying for a license to use 18 GHz under Part 101, which can be used for data and voice, as well as video, or applying for a CARS license, which must be used principally for video. See 47 C.F.R. §§78.11(b) and 101.603.

³³See *Amendment of Parts 21, 43, 74, 78, and 94 of the Commission's Rules Governing Use of the Frequencies in the 2.1 and 2.5 GHz Bands Affecting: Private Operational-Fixed, Microwave Service, Multipoint Distribution Service, Multichannel Multipoint Distribution Service, Instructional Television Fixed Service, and Cable Television Relay Service*, 5 FCC Rcd 6410, 6423 (1990) ("CARS Order").

³⁴ See *Redesignation NPRM*, *supra* at n. 5.

³⁵Petition at 2.

³⁶*Id.* at 7.

band.³⁷ We further inquire as to whether there are other technical considerations or issues of spectrum congestion or coordination among licensees which should be considered.

12. Optel argues that, by opening the 12 GHz CARS band to PCO licensees, the Commission would enhance competition to incumbent franchised cable operators, promote more efficient use of the radio spectrum, and satisfy its public interest obligations consistent with the pro-competitive requirements of the Telecommunications Act of 1996.³⁸ We seek comment on the potential competitive effects resulting from the expansion of the CARS band to include PCO licensees.

13. Commenters agree with Optel's contentions with regard to the alleged competitive benefits of extending CARS eligibility to PCO licensees. Independent Cable & Telecommunications Association ("ICTA") states that Optel's request, if denied, would "[inhibit] the ability of private cable operators ("PCOs") to compete with franchised cable and unnecessarily limit[s] the ability of PCOs to service over 1.5 million subscribers ...".³⁹ ICTA states that PCOs present both current and future potential to provide effective competition to incumbent franchised cable operators. The Joint Commenters state that the grant of Optel's petition would "encourage more robust competition" in the distribution marketplace.⁴⁰ RCN believes that granting Optel's petition would result in increased competition for two reasons. First, RCN states that extending CARS eligibility to PCOs would satisfy the underlying goals of the 1996 Act by removing competitive obstacles and fostering competition.⁴¹ Second, RCN states that Optel correctly compares the status of PCO licensees with that of MDS licensees who were found to be competitors of franchised cable operators and eligible for CARS licenses.⁴²

14. We note that PCOs currently are permitted to use 18 GHz and 23 GHz for video, as well as for data and voice.⁴³ We seek comment on the costs for PCOs associated with the use of multiple frequency bands that they could use under the existing rules. Specifically, we request a detailed cost analysis and comparison, including equipment costs, comparing use of 18 GHz or 23 GHz versus use of the 12 GHz CARS band.

15. We believe that Optel's petition presents an opportunity to consider expanding eligibility for the CARS band to MVPDs other than PCOs. Thus, on our own motion, this Notice seeks comment on expanding eligibility for the CARS band to entities such as OVS operators and others who provide video programming as their dominant service. An example of an MVPD which provides video programming as its dominant service is an MVPD that offers 60 channels of video programming and 2

³⁷See 47 C.F.R. § 78.18. See also ¶ 27, *infra*.

³⁸Petition at 6. See Telecommunications Act of 1996, Pub.L.No. 104-104, 110 Stat. 56, 104th Cong., 2d Sess. 1 (1996) (the "1996 Act").

³⁹ICTA Comments at 2.

⁴⁰Joint Comments at 3.

⁴¹RCN Comments at 5.

⁴²RCN Comments at 6. See also discussion *supra* at ¶ 6.

⁴³See 47 C.F.R. §§ 101.101 and 101.603.

channels of ancillary services. A principle stated in the past by the Commission that "use of the microwave radio spectrum should be governed by type of use rather than type of licensee" is applicable here.⁴⁴ Based on that principle, the Commission expanded eligibility for the CARS band to MDS licensees and further stated that similarly-situated entities should have parity of access to the spectrum.⁴⁵ In the *CARS Order*, the Commission stated that cable and wireless cable, respectively, have similar needs for CARS frequencies and there was no evidence to justify disparate treatment with regard to use of the CARS band. Thus the Commission amended Part 78 of its rules to extend CARS eligibility to MDS licensees on the condition that, "[t]o be eligible to apply for CARS facilities, a wireless cable operator must hold an MDS license or conditional license or hold an executed lease agreement with an MDS licensee or conditional licensee or an ITFS licensee or permittee."⁴⁶

16. We note that franchised cable systems that are currently eligible for CARS licenses generally are required to provide service to an entire community. In contrast, PCOs can select those areas and buildings where they wish to provide service and ignore less desirable areas or buildings. We seek comment on whether PCOs should have the same access to CARS stations without being required to provide the same level of service. In addition, we seek comment on the conflict that could arise where a franchised cable system may be unable to serve a part of a community which it is required to serve because a PCO already has the CARS license for those frequencies. We seek comment on whether PCOs and other MVPDs would first have to exhaust their spectrum usage in the 18 GHz and 23 GHz frequency bands, as provided by Part 101 of the Commission's rules, before being eligible to use the 12 GHz CARS band. We further seek comment on whether PCO use of the 12 GHz band for CARS should be limited to secondary use where it will not interfere with cable systems or MMDS licensees that have actual plans to use a CARS station. We inquire further as to whether there are other conditions or restrictions which should be imposed. For example, should we limit CARS eligibility to only those PCOs with a certain minimum number of subscribers?

B. Technical Limitations in the 18 GHz Band

17. Since 1991, PCO licensees have been permitted to distribute video programming using the 18 GHz band.⁴⁷ Optel states that it uses microwave distribution centers in the 18 GHz band to interconnect private cable systems to a central headend facility.⁴⁸ Optel maintains, however, that the 18 GHz band can no longer support the range of services offered by itself and other PCOs.⁴⁹ Optel argues

⁴⁴See *CARS Order*, 5 FCC Rcd at 6423.

⁴⁵*Id.*

⁴⁶*Id.*

⁴⁷See *Amendment of Part 94 of the Commission's Rules to Permit Private Video Distribution Systems of Video Entertainment Access to the 18 GHz Band*, 6 FCC Rcd 1270 (1991).

⁴⁸Petition at 2.

⁴⁹In the *Redesignation NPRM* the Commission noted: "There are tens of thousands of terrestrial fixed links currently licensed in the 17.7-19.7 GHz band. Terrestrial fixed service [including CARS] use of this band is expected to increase as a result of migration of users from the congested lower terrestrial fixed service bands to this band . . ." at ¶ 8.

that the propagation limitations of the 18 GHz band significantly restrict its ability to expand. Optel asserts that, absent access to the 12 GHz band, its costs to provide service over a large area would be substantially greater.⁵⁰

18. Optel maintains that the signal propagation characteristics (*e.g.*, the distance over which the signal remains strong) of the 18 GHz band make it unsuitable for widely distributed systems and limits growth within the PCO industry. Optel states that transmissions in the 18 GHz band have an effective range up to 8 miles and that, normally, PCOs can serve numerous individual communities or multiple-dwelling units from a single headend. Optel argues that, because of the technical limitations of the 18 GHz band, PCOs who wish to provide service outside of the 8 mile area would be forced to build a new headend closer to the outlying systems, add microwave relay stations, or abandon expansion projects altogether.⁵¹ RCN suggested in its comments that in one of its markets the propagation characteristics of the 18 GHz band only allows RCN to reach customers within an approximate 2-3 mile range of its central headend but the propagation characteristics of the 12 GHz CARS band would allow RCN to deliver its signals 25-30 miles away without signal degradation.⁵² While we recognize that there are some differences in the propagation characteristics of the spectrum at 12 and 18 GHz, we do not believe, based upon our experience, that the range differences are as significant as Optel and RCN suggest.⁵³ We seek comment on these estimates of effective range and the assertion that PCOs need additional range. If Optel's assertion is valid, should PCOs be required to demonstrate that they need to transmit over more than 10 miles before they are eligible for a CARS license? We also request comment on the impact to CARS operations, including franchised cable systems that are currently CARS licensees or may need access to CARS in the future, if PCO entities are allowed access to the 12.75-13.25 GHz band. Will cable systems' transition to fiber optics obviate their need for CARS stations thus lessening any potential negative impact and making more spectrum available to other applicants, such as PCOs and other MVPDs? We also seek comment on the technical impact on PCOs which continue to operate in the 18 GHz band.

C. Effect on PCOs of Other Ongoing Commission Rulemakings

19. Optel argues that recent changes in Commission rules and pending Commission rulemakings governing use of the 18 GHz band are likely to force PCO licensees to find another band from which to provide service.⁵⁴ By way of illustration, Optel asserts that the establishment of "exclusion zones" in connection with the relocation of the Digital Electronic Message Services ("DEMS") severely limits the ability of PCOs to compete with franchised cable operators in the Denver, CO and Washington,

⁵⁰Petition at 2.

⁵¹*Id.*

⁵²RCN Supplemental Comments at 2-3. Depending upon path conditions, it has been the Commission's experience that CARS stations in the 12 GHz frequency band using Amplitude Modulated Links (AML) can travel 11-15 miles and, in the 18 GHz frequency band, 8-11 miles. We note that section 78.108 of the Commission's rules requires minimum path lengths of 5 km between the end points of a fixed link using the 12 GHz CARS band. See 47 C.F.R. § 78.108.

⁵³Petition at 2.

⁵⁴Petition at 5.

D.C. markets.⁵⁵ DEMS systems are point-to-multipoint microwave networks designed to communicate information between a fixed main station and a number of fixed user terminals and are governed by Part 101 of the Commission's rules.⁵⁶ At the request of the National Telecommunications and Information Administration ("NTIA"), the DEMS relocation proceeding established permanent exclusion and coordination zones applicable to terrestrial fixed operations in the 17.8-19.7 GHz band in the Washington, D.C. and Denver, CO areas.⁵⁷ NTIA made this request to protect Department of Defense facilities from interference.⁵⁸ In response, the Commission prohibited non-federal terrestrial fixed operations in the 17.8-19.7 GHz band in the Washington and Denver areas in certain locations, and required prior Commission coordination with the Federal Government to permit non-federal terrestrial fixed use of that band in those two areas in other locations.⁵⁹ We note that the areas encompassed by the exclusion zones are limited in size relative to the areas encompassed by the coordination zones. Therefore, we question whether the effect of these zones on PCOs is so widespread or significant as to warrant granting use of the 12 GHz CARS band, as Optel contends, particularly given the availability of the 23 GHz band for comparable service.

20. Optel also argues that its future use of the 18.142 GHz-18.580 GHz segment of the 18 GHz band is impaired by the *Notice of Proposed Rulemaking, Redesignation of the 17.7-19.7 GHz Frequency Band, Blanket Licensing of Satellite Earth Stations in the 17.7-20.2 GHz and 27.5-30.0 GHz Frequency Bands, and the Allocation of Additional Spectrum in the 17.3-17.8 GHz and 24.75-25.25 GHz Frequency Bands for Broadcast Satellite Service Use ("Redesignation NPRM")*⁶⁰ that would resegment the 18 GHz band and grant blanket licenses to FSS operators.⁶¹ The 17.70-19.70 GHz band is currently allocated for shared use between satellite services and terrestrial fixed services. The shared use of this spectrum prevents either service from achieving ubiquitous deployment and requires coordination of each individual operation. In order to promote the growth of satellite and terrestrial fixed services in the 17.70-

⁵⁵Petition at 5.

⁵⁶See *Amendment of Parts 2, 21, 74 and 94 of the Commission's Rules to Allocate Spectrum at 18 GHz for, and to Establish other Rules and Policies Pertaining to the Use of Radio in Digital Electronic Message Services, and for other Common Carrier, Private Radio, and Broadcast Auxiliary Services; and to establish Rules and Policies for the Private Radio Use of Digital Termination Systems at 10.6 GHz*, 54 R.R.2d 1091 (1983). The Commission recently established new rules relocating DEMS from the 18.82-18.92 GHz and 19.16-19.26 GHz bands to spectrum above 24 GHz. See *In the Matter of Amendment of the Commission's Rules to Relocate the Digital Electronic Message Service From the 18 GHz Band to the 24 GHz Band and to Allocate the 24 GHz Band for Fixed Service*, Order, ET Docket No. 97-99, 12 FCC Rcd 3471 (1997); *recon. denied*, Memorandum Opinion and Order, 13 FCC Rcd 15147 (1998).

⁵⁷See *In the Matter of Amendment of the Commission's Rules to Relocate the Digital Electronic Message Service From the 18 GHz Band to the 24 GHz Band and to Allocate the 24 GHz Band for Fixed Service*, Order, ET Docket No. 97-99, 13 FCC Rcd 3581 (1998).

⁵⁸*Id.* at ¶ 1.

⁵⁹*Id.* at ¶ 4 and Rules Appendix.

⁶⁰FCC 98-235 (IB, rel. Sept. 18, 1998).

⁶¹*Redesignation NPRM*, see n. 11, *supra*.

19.70 GHz band, the Commission proposed to separate terrestrial fixed service operations from the operations of non-government ubiquitously deployed FSS earth stations into dedicated sub-bands.⁶² Optel and other PCOs, as terrestrial fixed service operators, would be affected by the Commission's proposed actions. Specifically, the Commission proposed blanket licensing of geostationary orbit ("GSO")/FSS earth stations to operate in the 18.30-18.55 GHz, 19.70-20.20 GHz, 28.35-28.60 GHz, and 29.50-30.00 GHz bands.⁶³ As part of this segmentation plan, the Commission proposed that existing fixed operations in the 18.30-18.55 and 18.80-19.30 GHz bands would maintain their primary status, but that future fixed applications in this frequency range would only be granted on a secondary basis to satellite services. Under this proposal, terrestrial fixed service systems, including PCOs, would lose their current co-primary status in the 18.30 GHz-18.55 GHz and 18.80 GHz-19.30 GHz bands but gain primary status in 17.70 - 18.30 GHz.⁶⁴ The Commission stated that fixed services could continue to file for authorization to use these bands, but after the issuance of the *Redesignation NPRM* on September 18, 1998, such applications would be accorded secondary status to promote exclusive use of this spectrum by satellite operations. However, based on the concerns raised by PCOs with respect to their interim operations in the 18 GHz band, the Commission released an *Order* on February 10, 1999 modifying its proposed co-primary status cut-off deadline for PCO applicants that meet certain criteria until the release date of a Report and Order in this proceeding.⁶⁵

21. Regardless of what specific action the Commission takes in IB Docket No. 98-172, we anticipate that future use of the 18 GHz band by terrestrial services, such as PCOs, will be limited by increasing use by satellite systems, either on a co-frequency basis, as the rules currently provide, or on the basis of the band segmentation proposed in the *Redesignation NPRM*. We have already sought comment on -- and will address -- in IB Docket No. 98-172 the question of which of these alternatives would maximize the public benefit derived from the 18 GHz band. For purposes of this Notice concerning the 12 GHz CARS band, we seek comment on whether the increasing constraints that will be presented for terrestrial services at 18 GHz warrants making the 12 GHz CARS band available for PCO service, or whether other alternatives, such as 23 GHz, or use of fiber optic cable, can reasonably provide necessary capacity.

⁶² Specifically, the *Redesignation NPRM* proposed to provide primary designations for: (1) terrestrial fixed services use in the 17.7-18.3 GHz band; (2) Geostationary Orbit Fixed Satellite Service ("GSO/FSS") use in the 18.3-18.55 GHz band; and, (3) Non-Geostationary Orbit Fixed Satellite Service ("NGSO/FSS") use in the 18.8-19.3 GHz band. Further it proposed to retain the co-primary designations for: (1) terrestrial fixed service use and GSO/FSS use in the 18.55-18.8 GHz band; and, (2) terrestrial fixed service use and Mobile Satellite Service Feeder Link ("MSS/FL") use in the 19.3-19.7 GHz band. In bands where the terrestrial fixed service would lose its current co-primary status (18.3-18.55 GHz and 18.8-19.3 GHz), the *Redesignation NPRM* proposed to grandfather existing terrestrial fixed service operations.

⁶³*Redesignation NPRM* at ¶ 44.

⁶⁴*Id.* at ¶ 2.

⁶⁵*See In the Matter of Redesignation of the 17.7-19.7 GHz Frequency Band, Blanket Licensing of Satellite Earth Stations in the 17.7-20.2 GHz and 27.5-30.0 GHz Frequency Bands, and the Allocation of Additional Spectrum in the 17.3-17.8 GHz and 24.75-25.25 GHz Frequency Bands for Broadcast Satellite Service Use, Order, FCC No. 99-18 (IB, rel. Feb. 11, 1999).*

22. *NGSO 12 GHz NPRM*. We also note that *In the Matter of Amendments of Parts 2 and 25 of the Commission's Rules to Permit Operation of NGSO FSS Systems Co-Frequency with GSO and Terrestrial Systems in the Ku-Band Frequency Range and Amendment of the Commission's Rules to Authorize Subsidiary Terrestrial Use of the 12.2-12.7 GHz Band by Direct Broadcast Satellite Licensees and Their Affiliates, Notice of Proposed Rulemaking ("NGSO 12 GHz NPRM ")*,⁶⁶ the Commission recently proposed to allow non-geostationary orbit ("NGSO") FSS systems to operate in the United States in the 10.70-12.70 GHz band for NGSO space-to-earth ("downlinks") and in the 12.75-13.25 GHz, 13.80-14.50 GHz bands for NGSO earth-to-space links ("uplinks"). Among other issues regarding various bands between 10.7 and 17.8 GHz, the *NGSO 12 GHz NPRM* responds to a petition from SkyBridge LLC ("SkyBridge") asking the Commission to allow NGSO FSS gateway earth station uplinks in the CARS frequencies at 12.75-13.25 GHz on a co-primary basis, subject to appropriate coordination and spectrum sharing requirements.⁶⁷ The *NGSO 12 GHz NPRM* acknowledged the Optel Petition and requested comment on the spectrum sharing compatibility between new NGSO FSS operations and Optel's proposed use of the spectrum.⁶⁸

23. As noted in the *NGSO 12 GHz NPRM*, 12.75-13.25 GHz is currently subject to heavy usage.⁶⁹ Optel's request for use of the 12 GHz CARS band and that of SkyBridge, if granted, could greatly increase the terrestrial use of the 12 GHz band, although Optel's use of the 12 GHz CARS band for point-to-point and point-to-multipoint relay of signals will not differ from the current use of the band by CARS licensees. Spectrum sharing issues with respect to the proposed NGSO FSS operations in the 12.75-13.25 GHz band will be considered in ET Docket No. 98-206. Consideration of these issues need not be repeated in this docket. We invite comment in this proceeding only on any additional issues specifically related to the question of expanding CARS eligibility.

D. Other Issues

24. Section 309(j) of the Telecommunications Act of 1996, requires the Commission to implement a system of competitive bidding when mutually exclusive applications are accepted for filing for any initial license or permit involving use of the spectrum.⁷⁰ Currently CARS licenses are not auctioned. However, if the Commission determines that opening the CARS band to PCOs and other MVPDs creates mutually exclusive applications, the CARS spectrum would be subject to auction.

⁶⁶FCC 98-310, ET Docket No. 98-206, RM-9147, RM-9245 (rel. Nov. 24, 1998).

⁶⁷Northpoint Technology ("Northpoint") filed a petition for rulemaking with the Commission to permit secondary terrestrial use of the 12.20 GHz-12.70 GHz band by direct broadcast service ("DBS") licensees and their affiliates to allow retransmission of local television programming and provision of one-way broadband data to DBS receivers. See *Public Notice, Northpoint Technology Petition for Rulemaking*, RM-9245, Report No. 2265, March 23, 1998. The Northpoint petition has been combined with the *NGSO 12 GHz NPRM*. See *NGSO 12 GHz NPRM* at 4. Northpoint's proposed use of 12.20-12.70 GHz does not directly conflict with the 12 GHz CARS band, but changes in the use of this adjacent band could have an indirect effect on the 12 GHz CARS band.

⁶⁸See *NGSO 12 GHz NPRM* at ¶ 35.

⁶⁹There are more than 105,000 terrestrial operations in the 12.70-13.25 GHz band. *NGSO 12 GHz NPRM* at ¶ 32.

⁷⁰See Telecommunications Act of 1996, Pub.L. No. 104-104, 110 Stat. 56, 47 U.S.C. § 309(j).

Alternatively, the Commission could adopt priority of use rules, which would avoid mutual exclusivity and the auctioning of the CARS spectrum.⁷¹ We seek comment on the effect of auctioning CARS spectrum or adopting priority of use rules. We also seek comment on the applicability of our Part 1 auction rules to this service in the event we decide to award CARS licenses through competitive bidding. We also seek comment on whether we should adopt a minimum subscriber requirement to avoid permitting a PCO with a small number of subscribers to use a CARS station that could have been licensed, instead, to a cable system serving significantly more subscribers. Another option for consideration and comment is granting PCOs and other MVPDs secondary, but not primary, eligibility for using the 12 GHz CARS band, as discussed in paragraph 5, above.

25. Some PCOs currently use 18 GHz or 23 GHz to bundle data, voice, video and other services in one package for their customers. The 12 GHz CARS band must be used principally for the delivery of video programming.⁷² We do not propose to change the principal use of CARS as a tool for relaying video programming between and among the components of a cable or other eligible system.⁷³ However, we seek comment on whether and to what extent CARS licensees should be permitted to provide voice or data using the 12 GHz CARS band provided the principal use remains the delivery of video programming and subject to existing technical and operating requirements.

26. On our own motion, we also seek comment on the realignment and the reassignment of the channel frequency assignments set forth in Section 78.18(a) of the Commission's rules to provide for more efficient use of channels by facilitating continuous channel transmissions. Specifically, we seek comments on: 1) designating the unassigned guard band (12.9465-12.9525 GHz) as channel C43, and the unassigned second guard band (13.0057-13.0125) as channel D43; and 2) allowing CARS operators to slightly shift the frequencies of channels C04-C10, channels D04-D10, channels E04-E10, and channels F04-F10 to produce 6 - 6 MHz video channels for each channel group (i.e., C group, D group, E group, and F group). Currently, applicants must seek waivers for a change in the frequency assignments pursuant to Section 78.18 of the Commission's rules for such minor frequency shifts and to use the guard band. We additionally seek comment on whether other changes in frequency assignments are necessary to provide for more seamless and efficient use of the CARS frequency spectrum.

IV. PROCEDURAL MATTERS

A. Initial Regulatory Flexibility Analysis

27. As required by Section 603 of the Regulatory Flexibility Act, 5 U.S.C. § 603, the Commission is incorporating an Initial Regulatory Flexibility Analysis ("IRFA") of the expected impact on small entities of the policies and proposals in this Notice of Proposed Rulemaking. Written public comments concerning the effect of the proposals in the NPRM, including the Initial Regulatory Flexibility Act, on small businesses are requested. Comments must be identified as responses to the IRFA and must

⁷¹See 47 U.S.C. § 309(j)(6)(E). See also *Implementation of Sections 309(j) and 337 of the Communications Act of 1934 as Amended*, WT Docket No. 99-87, RM-9332 and RM 9405 (FCC 99-52, released March 25, 1999).

⁷²See 47 C.F.R. § 78.11(d).

⁷³For example, a CARS licensee must provide video programming as its dominant service, but may also offer other services; such as 60 channels of video programming and 2 channels of ancillary services.

be filed by the deadlines for the submission of comments in this proceeding. The Secretary shall send a copy of this NPRM, including the IRFA, to the Chief Counsel for Advocacy of the Small Business Administration in accordance with paragraph 603(a) of the Regulatory Flexibility Act.

28. *Reasons Why Agency Action is Being Considered.* This NPRM is in response to a petition for rulemaking filed by Optel.

29. *Need for Action and Objectives of the Proposed Rule Change.* We undertake this proceeding to address the spectrum sharing and technical issues presented by Optel's petition. Optel's petition, if granted, could increase competition to incumbent, franchised cable operators, particularly with regard to video programming service to multi-dwelling units. While we desire to promote competition and innovation by allowing for new services or additional spectrum use, we also need to consider the competing interests of the incumbent services in the 12 GHz CARS band. We also need to consider the impact on PCOs of recent and pending Commission rulemakings involving the 18 GHz band. Thus we seek comment on whether the proposed blanket licensing of GSO/FSS operators in the 18 GHz will unduly constrain future growth of incumbent PCO users.

30. *Legal Basis.* The authority for the action proposed for this rulemaking is contained in Sections 4(i)-(j), 303(c), (f), (g), and (r), and 309(j) of the Communications Act of 1934, as amended.⁷⁴

31. *Description and Estimate of the Number of Small Entities Impacted.* The IRFA 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 proposed rules. The IRFA defines the term "small entity" as having the same meaning as the terms "small business," "small organization," and "small business concern" under Section 3 of the Small Business Act. Under the Small Business Act, a small business concern is one which: (1) is independently owned and operated; (2) is not dominant in its field of operation; and (3) satisfies any additional criteria established by the Small Business Administration.

32. The proposal to permit PCOs to use the 12 GHz CARS band applies to all private cable system operators. The Commission has developed, with the approval of the Small Business Administration ("SBA"), its own definition of a small cable system operator for rate regulation purposes. Under the Commission's rules, a "small cable company" is one serving fewer than 400,000 subscribers nationwide. Based on our most recent information, we estimate that there were 3,400 private cable operators serving multiple dwelling units⁷⁵ that qualified as small cable companies. Some of those companies may have grown to serve from 800,000 to 1.5 million subscribers,⁷⁶ and others may have been involved in transactions that caused them to be combined with other cable operators. Consequently, we estimate that there are fewer than 3,400 small entity cable system operators that may be affected by the decisions and rules we are adopting.

⁷⁴47 U.S.C. §§ 154(i)-(j).

⁷⁵Annual Assessment of the Status of Competition in Markets for the Delivery of Video Programming, Fourth Annual Report, 13 FCC Rcd 1034, 1087 (1998).

⁷⁶Annual Assessment of the Status of Competition in Markets for the Delivery of Video Programming, Fifth Annual Report, FCC 98-335 (rel. Dec. 23, 1998).

33. *Reporting, Recordkeeping, and Other Compliance Requirements.* The Commission is not proposing to impose additional reporting or recordkeeping requirements.

34. *Significant Alternatives Which Minimize the Impact on Small Entities and are Consistent with Stated Objectives.* The NPRM solicits comments on all alternatives to Optel's request which would minimize any adverse impact on small entities.

35. *Federal Rules which Overlap, duplicate, or Conflict with the Commission's Proposal.* None.

36. *Report to Congress.* The Commission shall send a copy of this IRFA along with this Notice in a report to Congress pursuant to the Small Business Regulatory Enforcement Fairness Act of 1996, codified at 5 U.S.C. §801(a)(1)(A). A copy of this IRFA will also be published in the Federal Register.

B. Paperwork Reduction Act Statement

37. The requirements proposed in this Notice have been analyzed with respect to the Paperwork Reduction Act of 1995 (the "1995 Act") and do not impose new or modified information collection requirements on the public.

C. Ex Parte Rules

38. This proceeding will be treated as a "permit-but-disclose" proceeding subject to the "permit-but-disclose" requirements under Section 1.1206(b) of the rules. 47 C.F.R. 1.1206(b), as revised. Ex parte presentations are permissible if disclosed in accordance with Commission rules, except during the Sunshine Agenda period when presentations, ex parte or otherwise, are generally prohibited. Persons making oral ex parte presentations are reminded that a memorandum summarizing a presentation must contain a summary of the substance of the presentation and not merely a listing of the subjects discussed. More than a one or two sentence description of the views and arguments presented is generally required. See 47 C.F.R. 1.1206(b)(2), as revised. Additional rules pertaining to oral and written presentations are set forth in Section 1.1206(b).

D. Filing of Comments and Reply Comments

39. Pursuant to applicable procedures set forth in Sections 1.415 and 1.419 of the Commission's Rules, 47 C.F.R. §§ 1.415 and 1.419, interested parties may file comments on or before August 16, 1999 and reply comments on or before September 20, 1999. Comments may be filed using the Commission's Electronic Comment Filing System ("ECFS") or by filing paper copies.⁷⁷ Comments filed through the ECFS can be sent as an electronic file via the Internet to <<http://www.fcc/e-file/ecfs.html>>. Generally, only one copy of an electronic submission must be filed. If multiple docket or rulemaking numbers appear in the caption of this proceeding, however, commenters must transmit one electronic copy of the comments to each docket or rulemaking number referenced in the caption. In completing the transmittal screen, commenters should include their full name, Postal service mailing address, and the applicable docket or rulemaking number. Parties may also submit an electronic comment

⁷⁷See *Electronic Filing of Documents in Rulemaking Proceedings*, 63 Fed. Reg. 24,121 (1998).

by Internet e-mail. To get filing instructions for e-mail comments, commenters should send an e-mail to ecfs@fcc.gov, and should include the following words in the body of the message, "get form<your e-mail address." A sample form and directions will be sent in reply.

40. Parties who choose to file by paper must file an original and four copies of each filing. If participants want each Commissioner to receive a personal copy of their comments, an original plus nine copies must be filed. If more than one docket or rulemaking number appears in the caption of this proceeding commenters must submit two additional copies for each additional docket or rulemaking number. All filings must be sent to the Commission's Secretary, Magalie Roman Salas, Office of the Secretary, Federal Communications Commission, 445 12th Street, S.W., Washington, D.C. 20554. The Cable Services Bureau contacts for this proceeding is Carolyn Fleming at (202) 418-7200 and Eloise Gore at (202) 418-7200, TTY (202) 418-7172, or at cfleming@fcc.gov or egore@fcc.gov.

41. Parties who choose to file by paper should also submit their comments on diskette. Parties should submit diskettes to Carolyn Fleming, Cable Services Bureau, 445 12th Street N.W., Room 4-A802, Washington, D.C. 20554. Such a submission should be on a 3.5 inch diskette formatted in an IBM compatible form using MS DOS 5.0 and WordPerfect 5.1 or compatible software. The diskette should be accompanied by a cover letter and should be submitted in "read only" mode. The diskette should be clearly labelled with the party's name, proceeding (including the lead docket number in this case, CS Docket No. 99-250), type of pleading (comments or reply comments), date of submission, and the name of the electronic file on the diskette. The label should also include the following phrase "Disk Copy - Not an Original." Each diskette should contain only one party's pleadings, referable in a single electronic file. In addition, commenters must send diskette copies to the Commission's copy contractor, International Transcription Service, 1231 20th Street, N.W., Washington, D.C. 20036.

42. There was an *ex parte* presentation made in this proceeding pursuant to 47 C.F.R. § 1.1204(b)(1).

V. ORDERING CLAUSES

43. Accordingly, **IT IS ORDERED** that, pursuant to Sections 4(i)-(j) of the Communications Act of 1934, as amended, 47 U.S.C. §§ 154(i)-(j), 303(c), (f), and (r), and 309(j), **NOTICE IS HEREBY GIVEN** of the proposed amendments to Part 78 of the Commission's rules, in accordance with the proposals, discussions, and statements of issues contained in this Notice of Proposed Rulemaking, and that **COMMENT IS SOUGHT** regarding such proposals, discussions, and statements of issues.

44. **IT IS FURTHER ORDERED** that the Commission's Office of Public Affairs, Reference Operations Division, shall send a copy of this Notice of Proposed Rulemaking, including the Initial Regulatory Flexibility Analysis, to the Chief Counsel for Advocacy of Small Business Administration, in accordance with paragraph 603(a) of this regulatory Flexibility Act. Pub. L. No. 96-354, 94 Stat. 1164, 5 U.S.C. §§ 601 *et seq.* (1981).

FEDERAL COMMUNICATIONS COMMISSION


Magalie Roman Salas *WFC*
Secretary