

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

In the Matter of)	
)	
Pacific Century Group, Inc.)	
)	IBSF: SAT-LOI-19971222-00217/00218
)	File Nos. 33/34-SAT-LOI-98
Letter of Intent as a Foreign Satellite)	Call Signs: S2330; S2331
Operator to Provide Fixed Satellite Services)	
in the Ka-band to the United States)	
)	

ORDER

Adopted: August 2, 2001

Released: August 3, 2001

By the Chief, International Bureau:

I. INTRODUCTION

1. By this Order, we reserve spectrum at two orbit locations from which Pacific Century Group, Inc. ("PCG") may provide satellite services to the United States in the Ka-band.¹ In doing so, we allow PCG to serve the United States from satellites to be authorized by the United Kingdom at the 62° W.L. and 71° W.L. orbit locations.² This will allow PCG an opportunity to provide U.S. and worldwide consumers access to a variety of competitive satellite communications services in a frequency band suitable for advanced broadband, interactive services.

II. BACKGROUND

2. PCG is one of 12 applicants seeking authority to operate geostationary satellite orbit ("GSO") satellites in the second Ka-band processing round. In May 1997, the International Bureau licensed 13 applicants to launch and operate satellite systems as part of the first Ka-band processing round ("First Round").³ In October 1997, the Bureau established a second processing round ("Second Round"), inviting interested parties to file applications on or before December 22, 1997 for consideration in this round. On that date, PGC filed a Letter of Intent ("LOI") to use foreign-licensed satellites to serve the

¹ For purposes of this Order, the terms "Ka-band" or "28 GHz band" refer to the space-to-Earth communications (downlink) in radio frequencies at 17.7-20.2 GHz and the corresponding Earth-to space communications (uplink) in frequencies at 27.5-30.0 GHz. We authorize PCG to operate in a portion of these frequency bands indicated in this Order.

² Second Round Assignment of Geostationary Satellite Orbit Locations to Fixed Satellite Service Space Stations in the Ka-band, *Order*, DA 01-1693 (Int'l Bur. rel. August 3, 2001) at ¶ 28 ("*Second Round GSO Assignment Order*").

³ The Bureau also licensed one non-geostationary-satellite orbit ("NGSO") Ka-band system. See Teledesic Corporation, Application for Authority to Construct, Launch and Operate a Low Earth Orbit Satellite System in the Domestic and International Fixed Satellite Service, *Order and Authorization*, 12 FCC Rcd 3154 (Int'l Bur. 1997).

United States under the procedures set forth in the Commission's *DISCO II Order*.⁴ The licenses awarded to the Second Round applicants, and in this case, our reservation of orbit locations for PCG, will enable new entrants to offer services competitive with those licensed in the First Round and will allow First Round licensees an opportunity to expand and improve the capabilities and service offerings of their licensed systems.

3. PCG is incorporated in the Cayman Islands, a British dependent territory. PCG is wholly owned by Pacific Century Group, a diversified group of companies based in Hong Kong.⁵ PCG is principally owned (over 90%) by Richard Li, a telecommunications venture capitalist with interests in telecommunications, retailing, hotel development and other commercial activities. PCG's "USA Network" will consist of four satellites co-located in two orbital locations. PCG requests authority to serve the United States from the 82° W.L. and 89° W.L. orbit locations pursuant to the United Kingdom's International Telecommunication Union ("ITU") filings on its behalf.⁶

4. PCG proposes to use its USA Network to provide non-common carrier services primarily for information service providers and business and residential users throughout the contiguous United States. The system will be part of a distribution platform for services provided over an integrated global network using terrestrial and satellite technologies. PCG intends to provide internet, multimedia-type communications, electronic commerce and other information-driven communications applications.⁷

5. PCG proposes to use spectrum in the 28.35-28.6 GHz and 29.25-30.0 GHz frequency bands for uplink (Earth-to-space) communications. PCG proposes to use spectrum in the 17.8-18.8 GHz and 19.7-20.2 GHz frequency bands for downlink (space-to-Earth) communications. PCG states that it understands that GSO FSS services have co-primary status with other services in certain portions of these bands and will take this status into account in its final selection of the specific operating bands.⁸ PCG also requests authority to conduct its tracking, telemetry and command during transfer orbit-operations in the C-band frequencies. PCG does not plan to use inter-satellite links.⁹

6. As noted in the *Second Round GSO Assignment Order*, PCG has ITU priority at its requested orbital locations, 82° W.L. and 89° W.L.¹⁰ In the First Round, however, the Commission authorized EchoStar Satellite Communications to operate at 83° W.L. and Orion Network Systems, now part of Loral Space Communications ("Loral"), to operate at 81° W.L. and 89° W.L.¹¹ In its LOI, PCG suggests

⁴ Amendment of the Commission's Regulatory Policies to Allow Non-U.S. Licensed Space Stations to Provide Domestic and International Satellite Service in the United States, *Report and Order*, 12 FCC Rcd 24094, 24173 (1997) ("*DISCO II Order*").

⁵ PCC Letter of Intent, SAT-LOI-19971222-00217/00218, Filed December 22, 1997 ("*PCG LOI*") at Exhibit C, p.1

⁶ *PCG LOI* at 1.

⁷ *PCG LOI* at 2.

⁸ *PCG LOI*, Attachment C, at. 7.

⁹ *PCG LOI* at 2.

¹⁰ *Second Round GSO Assignment Order*, at ¶ 21.

¹¹ PCG also has ITU priority at the 75° W.L. orbital location and suggested it would accept a reservation to serve the United States at this location as well. See Letter to Magalie Roman Salas, Secretary FCC from Timothy Logue, Counsel for PCG, dated August 11, 2000. However, this location was licensed to Motorola, Inc. in the First Round.

that the Commission "realign" these First Round orbital assignments to accommodate PCG's ITU priority at its requested locations.¹²

7. Several First Round licensees and Second Round applicants filed petitions to deny or comments in response to PCG's LOI. TRW, Inc., asserts that PCG's LOI should not be considered in the Second Round. TRW argues that because PCG has ITU priority at its requested locations, reserving these locations for PCG in the Second Round will conflict with assignments in the First Round. Since PCG has not requested any locations available in the Second Round, TRW states that PCG's request to serve the United States from its ITU-filed locations of 82° W.L. and 89° W.L. is a coordination issue between the First Round licensees assigned to locations at or near those locations and PCG.¹³ Pegasus Development Corporation also claims we should deny PCG's LOI because PCG's requested locations are not available in the Second Round.¹⁴ Conversely, Loral Space & Communications, Inc. ("Loral") states that a realignment of First Round orbital locations would seriously disadvantage existing licensees. As a result, Loral states PCG's LOI should be treated on an equal basis with the second round applicants.¹⁵ Motorola, Inc. states that PCG failed to make the requisite financial showing, as required by the *DISCO II Order*. Finally, Hughes Communications Galaxy and Hughes Communications, Inc. state that PCG's requested locations conflict with the Commission's longstanding policy of requiring at least two-degree orbital spacing between licensees seeking to serve the same geographic area.¹⁶

III. DISCUSSION

A. Qualifications

8. All applicants requesting authority to launch and operate satellite space stations must present information sufficient to establish their legal, technical, and financial qualifications to hold a Commission license. These same requirements apply to requests to serve the United States using foreign-licensed satellites.¹⁷ The rules set forth in Part 25 of the Commission's rules govern all fixed satellite services ("FSS") including GSO FSS systems in the Ka-band frequencies. The Commission modified the Part 25 FSS rules in 1997 to incorporate the particular technical requirements for operations in the Ka-band frequencies.¹⁸ In this reservation of orbit locations, and in the licenses issued to Second Round FSS applicants in the Ka-band, we will generally apply all Part 25 FSS rules, specifically noting, however, where we decide not to apply existing rules.

9. Further, in *DISCO II*, the Commission stated that it would consider other public interest factors when evaluating requests by foreign-licensed satellites to serve the United States. In addition to the technical, legal, and financial requirements noted above, the *DISCO II* analysis also considers the effect on competition in the United States, spectrum availability, and national security, law enforcement,

¹² *PCG LOI* at 4.

¹³ Comments of TRW, Inc., Filed May 21, 1999. ("*TRW Comments*") at 5.

¹⁴ Pegasus Development Corporation, Consolidated Petition to Deny Filed May 21, 1999, at 14.

¹⁵ Comments of Loral Space & Communications LTD, Filed May 21, 1999, at 4.

¹⁶ Consolidated Petitions to Dismiss, Deny or Defer of Hughes Communication Galaxy, Inc. and Hughes Communications, Inc., Filed May 26, 1999, at 19.

¹⁷ *DISCO II Order*, 12 FCC Rcd at 24161.

¹⁸ *Rulemaking to Amend Parts 1, 2, 21, and 25 of the Commission's Rules to Redesignate the 27.5-29.5 GHz Frequency Band, to Reallocate the 29.5-30.0 GHz Frequency Band, to Establish Rules and Policies for Local Multipoint Distribution Service and for Fixed Satellite Services ("Ka-Band FSS Rules Order")*, 12 FCC Rcd 22310 (1997), Memorandum Opinion and Order, FCC 01-172 (rel. May 25, 2001) (order on petitions for clarification or reconsideration).

foreign policy, and trade concerns.¹⁹ We evaluate PCG's request under this framework.

1. Number of Orbit Locations

10. The Commission's Part 25 FSS rules include a limit on the number of orbit locations that may initially be assigned to a qualified GSO FSS applicant.²⁰ The rules also limit the number of additional, expansion orbit locations that may be assigned to applicants with previously licensed systems using the same frequency bands.²¹ Generally, the Commission may grant a waiver of its rules in a particular case only if the relief requested would not undermine the policy objective of the rule in question, and would otherwise serve the public interest.²² The Commission waived the assignment rules in the first Ka-Band GSO FSS round because the applicants had agreed to an arrangement that accommodated all pending applications for space stations and left room for additional assignments.²³ In the Second Round, we have determined that we can also accommodate all pending requests for space stations, with room for additional entry. We therefore again waive application of the Commission rule limiting GSO FSS orbit locations.²⁴ Consequently, we will not, as some applicants request, limit the number of assignments to Second Round applicants.

2. Technical Qualifications

11. Applicants for FSS space station authorizations must meet the technical qualification requirements set forth in the Commission's Part 25 rules. These requirements are designed primarily to implement two-degree orbital spacing between GSO FSS satellites. The Commission's two-degree orbital spacing policy, which was established in 1983, was designed to maximize the number of satellites in orbit by ensuring that satellites in geostationary-satellite orbit can operate without causing harmful interference to other GSO satellites located as close as two degrees.²⁵

12. In the *Ka-Band FSS Rules Order*, the Commission adopted its proposal to extend its two-degree spacing policy between in-orbit satellites to space stations in the Ka-band.²⁶ We believe that it remains in the public interest to maximize the number of satellites that can be accommodated in orbit by extending the Commission's existing two-degree GSO spacing policy to Ka-band orbital assignments in the Second Round. All GSO FSS licensees in this Second Round, and PCG, will therefore be required to be two-degree GSO spacing compliant.

13. PCG states its system can be operated in a two-degree spacing environment.²⁷ Our review of PCG's LOI finds nothing to preclude operation in a two-degree spacing environment. The Second Round Ka-band applications, and this LOI, were received subsequent to the *Ka-Band FSS Rules Order* but prior

¹⁹ *DISCO II*, 12 FCC Rcd at 24107-56 (competition considerations), 24157-59 (spectrum availability), and 24169-72 (national security/law enforcement issues).

²⁰ 47 C.F.R. § 25.140(e).

²¹ 47 C.F.R. § 25.140(f).

²² *Wait Radio v. FCC*, 418 F.2d 1153, 1157 (D.C. Cir.1969).

²³ *Ka-Band FSS Rules Order*, 12 FCC Rcd at 22320 ¶ 24.

²⁴ For a more detailed discussion see *Second Round GSO-Band Assignment Order* at ¶ 17.

²⁵ *Licensing of Space Stations in the Domestic Fixed-Satellite Service*, 54 Rad. Reg. 2d (P&F) 577, 589 (1983) ("Two-Degree Spacing Order").

²⁶ *Ka-Band FSS Rules Order*, 12 FCC Rcd at 22320 ¶ 23.

²⁷ *PCG LOI* at ¶ 3.9.2.

to the *18 GHz Band Report and Order*.²⁸ In both orders, rules affecting two-degree orbital spacing were adopted. We remind PCG of its continuing obligation to meet all Part 25 rules governing system operations, including Sections 25.202 (frequencies, frequency tolerance, and emission limitations), 25.208 (power flux-density limits) and 25.210 (technical requirements for space stations in the Fixed Satellite Service).²⁹ Further, PCG must meet the current Ka-band power flux-density ("PFD") limits of Sections 2.106 US255 and 25.208, which were adopted after PCG filed its LOI.³⁰ As a condition of this authorization, PCG must meet these revised PFD limits. Financial Qualifications

14. The Commission's FSS rules require that an applicant for a new fixed-satellite system possess sufficient financial resources to cover the construction, launch, and first year operating costs of each proposed satellite.³¹ We have waived these rules, however, in those cases where we can accommodate all pending applications. The Commission's financial qualification rules are designed to prevent under-capitalized licensees from holding valuable orbit spectrum resources to the exclusion of others while they attempt to arrange financing to construct and launch the licensed system. Where all applicants can be accommodated, however, granting a license to an under-capitalized applicant will not prevent another applicant from going forward.³² In addition, there is a pro-competition public interest benefit in licensing all applicants, if possible. We waived the financial qualification rules for the First Round applicants because all of those applicants could be accommodated in the available orbital locations and there were additional orbital locations available for future entrants.³³ In the accompanying *Second Round GSO Assignment Order*, we also determine that we can accommodate all pending Second Round applicants' requests for FSS space stations in the Ka-band and still have some orbital locations available for future entrants. We therefore waive the financial qualification requirements for Second Round applicants. Consequently, it is unnecessary to rule on PCG's financial qualifications. Motorola's comments regarding PCG's financial qualifications are therefore moot.

3. Competition Considerations

15. In the *DISCO II Order*, the Commission established a rebuttable presumption that entry by non-U.S.-licensed satellites licensed by World Trade Organization ("WTO") members to provide services covered by U.S. commitments under the WTO Agreement on Basic Telecommunications Services (Basic Telecom Agreement) will promote competition in the U.S. market.³⁴ These commitments include the fixed-satellite service, except for direct-to-home ("DTH") service, Direct Broadcast Satellite Service ("DBS") and Digital Audio Radio Service ("DARS"). For non-covered DTH, DBS, and DARS services, the Commission stated that it would determine whether foreign entry furthered competition in the U.S. market by examining whether U.S. satellites have effective competitive opportunities in the market of the

²⁸ *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 Frequency Bands for Broadcast Satellite-Service Use*, FCC 00-212, 15 FCC Rcd 13430 (2000) ("*18 GHz Band Report and Order*").

²⁹ 47 C.F.R. §§ 25.202, 25.208 and 25.210.

³⁰ 47 C.F.R. §§ 2.106 US255 and 25.208.

³¹ 47 C.F.R. § 25.140(b)-(e).

³² See generally *Amendment of the Commission's Rules to Establish Rules and Policies pertaining to a Mobile Satellite Service in the 1610-1626/2483.5-2500 MHz Frequency Bands, Report and Order*, 9 FCC Rcd 5936 at ¶ 26 (1994) ("*Big LEO Report and Order*").

³³ See *Ka-Band FSS Rules Order*, 12 FCC Rcd at 22318.

³⁴ *DISCO II Order*, 12 FCC Rcd at 24169-72.

foreign satellite's licensing administration and in all route markets (the "ECO-SAT test").³⁵ Thus, Section 25.137(a) of the Commission's rules requires foreign entities filing "letters of intent" seeking to provide non-covered WTO services in the U.S. market to submit with their applications:

...information demonstrating that U.S.-licensed satellite systems have effective competitive opportunities in which the non-U.S. licensed space station is licensed; and (2) all countries in which communications with [a] U.S. earth station will originate or terminate. The applicant bears the burden of showing that there are no practical or legal constraints that limit or prevent access of the U.S. satellite system in the relevant foreign markets.³⁶

16. The United Kingdom, a WTO-member, is the "sponsoring administration" for PCG's satellites.³⁷ PCG states that it intends to provide fixed-satellite service directly to individual customers in the United States through receive-only earth stations located outside its customers' premises.³⁸ Service provided directly to customers' premises is not covered by the United States WTO Basic Telecom Agreement Commitments. PCG, as a foreign-authorized satellite system, has not provided the required ECO-SAT showing that U.S.-licensed space stations have effective competitive opportunities to provide DTH services in the United Kingdom or in the route markets PCG intends to serve. PCG states only that the "U.K. maintains one of the most open telecommunications markets in the world..."³⁹ While this may be true, PCG has not given us the information needed to conduct the required ECO-SAT test. Consequently, we will not authorize PCG to provide DTH service to the United States at this time. We will entertain such a request, however, when it is properly filed. In contrast, consistent with U.S. commitments under the WTO Basic Telecom Agreement, we will presume that allowing PCG to provide any "non-DTH" fixed satellite services in the United States will further competition in the U.S. market.

4. Spectrum Availability

17. In the *DISCO II Order*, the Commission also determined that, given the scarcity of GSO locations and spectrum resources, it would consider spectrum availability as a factor in determining whether to allow a foreign-licensed satellite to serve the United States.⁴⁰ As explained in the *Second Round GSO Assignment Order*, we assign PCG the 71° W.L. and 62° W.L., orbit locations in the Second Round. Because of the First Round orbit location assignments to EchoStar and Loral, the orbit locations

³⁵ *DISCO II Order*, 12 FCC Rcd at 24136-37.

³⁶ 47 C.F.R. § 25.137(a).

³⁷ The United Kingdom does not issue satellite licenses. Rather, it requires a prospective satellite operator to demonstrate it is technically, legally and financially qualified to implement its proposed system in accordance with the schedule in its business plan and to submit information required to begin the international coordination process under the auspices of the International Telecommunication Union ("ITU"). If satisfied with the showing, the United Kingdom will file the information with the ITU and will pursue international frequency coordination for the proposed system. See U.S. ElectroDynamics, Inc., For Authority to Construct and Operate Five Transmit/Receive Earth Stations at Brewster, Washington for Operation with the ICO Medium Earth Orbit Satellites, *Order and Authorization*, DA 99-1249 (Int'l Bur./OET, rel. June 23, 1999) at ¶ 6.

³⁸ See *PCG LOI* at 4 and Attachment C at 5. The Ka-band spectrum on which the PCG satellites will operate is not allocated for DBS or DARS, but only for FSS. PCG has not requested, nor will we authorize it, to provide Direct Broadcasting or Digital Audio Radio services in the United States using its Ka-band system.

³⁹ *PCG LOI* at 4.

⁴⁰ *DISCO II Order*, 12 FCC Rcd at 24159.

requested by PCG are not available.⁴¹ These First Round authorizations were granted before the *DISCO II Order* framework was adopted, allowing foreign space stations to serve the U.S. market. As noted in the *Second Round GSO Assignment Order*, existing U.S.-licensed satellite systems are not expected to change their licensed operating parameters to accommodate additional non-U.S. systems.⁴² Consequently, because we are not assigning PCG to 82° W.L. or 89° W.L., the issues raised in the comments and petitions are moot.

5. Other Public Interest Issues

18. Under *DISCO II*, we also consider national security, law enforcement, foreign policy, and trade concerns when evaluating a request for access into the U.S. satellite market.⁴³ Nothing in the record before us raises any such concerns.

B. Spectrum Assignments

1. Service Links

19. In the *28 GHz Band First Report and Order*, the Commission adopted a band segmentation plan that designated one gigahertz of spectrum in each transmission direction for GSO FSS Ka-band systems.⁴⁴ For uplink (Earth-to-space) transmissions, the Commission designated 250 megahertz of spectrum between 28.35 and 28.6 GHz, 250 megahertz of spectrum between 29.25 and 29.5 GHz (shared on a co-primary basis with non-geostationary satellite orbit, mobile satellite service feeder links), and 500 megahertz of spectrum between 29.5 and 30.0 GHz for GSO FSS operations. For downlink (space-to-Earth) communications, the Commission designated 1100 megahertz of spectrum between 17.7 and 18.8 GHz for GSO FSS operations (shared on a co-primary basis with terrestrial fixed-service) and 500 megahertz of spectrum between 19.7 and 20.2 GHz for primary GSO FSS operations. The Commission later refined the downlink plan for the frequency band between 17.7 and 18.8 GHz, by designating 280 megahertz of spectrum between 18.3 and 18.58 GHz for co-primary GSO FSS and terrestrial fixed operations, and 220 megahertz of spectrum between 18.58 and 18.8 GHz for primary GSO FSS operations.⁴⁵

20. In its application, PCG proposes to use 1000 megahertz of spectrum in the 28.35-28.6 GHz and 29.25-30.0 GHz frequency bands for its service uplinks. PCG's request is consistent with the 28 GHz band plan, and we will therefore authorize PCG to operate in these frequencies, subject to the sharing rules adopted in the *28 GHz Band First Report and Order*.

⁴¹ Because EchoStar and Loral are authorized to operate at 83° W.L. and 81° W.L. respectively, the 82° W.L. orbit location requested by PCG is not available as a result of the Commission's two degree spacing policy. See *Second Round GSO Assignment Order* at ¶¶ 7-8. As previously noted, Loral is also authorized to operate at 89° W.L.

⁴² *Second Round GSO Assignment Order* at ¶ 26.

⁴³ *DISCO II*, 12 FCC Rcd at 24170-72.

⁴⁴ *Rulemaking to Amend parts 1, 2, 21, and 25 of the Commission's Rules to Redesignate the 27.5-29.5 GHz Frequency Band, to Reallocate the 29.5-30.0 GHz Frequency Band, to Establish Rules and Policies for Local Multipoint Distribution Service and for Fixed Satellite Services, First Report and Order and Fourth Notice of proposed Rulemaking*, FCC 96-311, 11 FCC Rcd 19005 (1996) ("*28 GHz Band First Report and Order*").

⁴⁵ *18 GHz Band Report and Order*, 15 FCC Rcd 13430. Stations operating in primary services are protected against interference from stations of "secondary" services. Moreover, stations operating in a secondary service cannot claim protection from harmful interference from stations of a primary service. "Co-Primary" services have equal rights to operate in particular frequencies. See 47 C.F.R. §§ 2.104(d) and 2.105(c).

21. In its application, PCG proposes to use 1000 megahertz of spectrum in the 17.8-18.8 GHz and 19.7-20.2 GHz frequency bands for its service downlink bands. We grant this request consistent with the 18 GHz Band Plan.⁴⁶ Specifically, we authorize PCG to operate its service downlinks in one gigahertz of spectrum in the 18.3-18.8 GHz and 19.7-20.2 GHz frequency bands. Because the 280 megahertz of spectrum at 18.3-18.58 GHz is to be shared on a co-primary basis with terrestrial fixed services, GSO FSS operations in this band must be coordinated with these terrestrial operations.

22. In addition, PCG must coordinate with U.S. Government systems in accordance with footnote US334 to the Table of Frequency Allocations.⁴⁷ This footnote requires coordination of commercial systems with U.S. Government GSO and NGSO FSS systems that are presently operating in the 17.8-20.2 GHz frequency bands. The Government systems operate in accordance with the power flux-density limits contained in the current ITU Radio Regulations.⁴⁸ Additionally, PCG must also comply with footnote US255 to the Table of Frequency Allocations that contains power flux-density limits to protect the Earth exploration satellite service (passive) for the 18.6-18.8 GHz band.⁴⁹

2. Tracking, Telemetry and Command

23. Under the Commission's rules, tracking, telemetry and command ("TT&C") operations may be provided in the frequency bands in which the particular satellite will be providing service.⁵⁰ PCG proposes to conduct its command carrier operations in 2.5 megahertz of the 5850-5870 MHz, 5925-5945 MHz, 6405-6425 MHz, and 6705-6725 MHz frequency bands, and to conduct telemetry links in 100 kilohertz of the 3400-3420 MHz, 3680-3700 MHz, 3700-3720 MHz and 4180-4200 MHz frequency bands.⁵¹ All of these requested operations are within the C-band frequencies, which are not the system's service band. Thus, the request is not consistent with Section 25.202 of the rules.⁵² As the Commission recently indicated, this rule serves the valid purpose of simplifying coordination among satellites at

⁴⁶ See *28 GHz Band First Report and Order*, 11 FCC Rcd 19005, as modified in *18 GHz Band Report and Order*, 15 FCC Rcd at 13443, ¶ 28.

⁴⁷ See 47 C.F.R. § 2.106 US334.

⁴⁸ See *18 GHz Report and Order*, 15 FCC Rcd at 13473 ¶ 90. The power flux-density limits in the 18.3-18.6 GHz band are -115/-105 dB (W/m²) in any one megahertz band, depending upon the angle of arrival. There are currently no power flux-density limits in the 19.7-20.2 GHz band. See Letter from William T. Hatch, National Telecommunications and Information Administration, to Dale Hatfield, Chief, Office of Engineering and Technology, Federal Communications Commission (March 29, 2000).

⁴⁹ 47 C.F.R. § 2.106 US255, (as revised in the *18 GHz Band Report and Order*, 15 FCC Rcd at 13489) states: In addition to any other applicable limits, the power flux-density across the 200 MHz band 18.6-18.8 GHz produced at the surface of the Earth by emissions from a space station under assumed free-space propagation conditions shall not exceed -95db(W/m²) for all angles of arrival. This limit may be exceeded by up to 3 dB for no more than 5% of the time.

⁵⁰ 47 C.F.R. § 25.202(g).

⁵¹ *PCG LOI*, Attachment C, at 14. The Commission has proposed to modify Section 25.202 to permit TT&C operations in the 3.65-3.7 GHz frequencies, if the applicant makes a "particularized showing of need." Amendment of the Commission's Rules with Regard to the 3650-3700 MHz transfer band, *First Report and Order and Second Notice of Proposed Rulemaking*, 15 FCC Rcd 20488, 20539 (2000).

⁵² See Amendment of the Commission's Rules with Regard to the 3650-3700 MHz transfer band, *First Report and Order and Second Notice of Proposed Rulemaking*, 15 FCC Rcd at 20539 (the rule "effectively limits FSS operators to operating TT&C links in the same frequency bands as their FSS operations").

adjacent orbital locations, and promoting efficient spectrum use.⁵³ PCG has not provided a showing to demonstrate that a waiver of Section 25.202(g) for TT&C operations outside its service band would be consistent with the basic purpose of the rule, or that the public interest otherwise requires a waiver. Thus we deny PCG's request. PCG should be aware that the 3400-3600 megahertz band is not available in the United States and its possessions for fixed-satellite service operations.⁵⁴ PCG should also be aware that there are potential allocation and electromagnetic compatibility issues in the 5850-5925 MHz band, therefore, the band may not be available to support its TT&C requirements.⁵⁵

C. Regulatory Treatment

24. In the *DISCO I Order*, the Commission determined that all fixed-satellite service operators in the C-band and Ku-band could elect to operate on a common carrier or non-common carrier basis.⁵⁶ The Commission extended this treatment to satellite operators in the Ka-band in the *Ka-Band FSS Rules Order*.⁵⁷ Consequently, Second Round Ka-band applicants may elect their regulatory status. PCG has elected to operate on a non-common carrier basis, and we authorize it to do so.⁵⁸

D. License Conditions

1. Milestone Schedule

25. As in all other satellite services, all Second Round Ka-band licensees will be required to adhere to a strict timetable for system implementation. PCG must meet these milestones as well. This ensures that systems are built in a timely manner and that the orbit-spectrum resource is not being held by entities unable or unwilling to proceed with their plans. The implementation schedules for GSO FSS systems in the Ka-band will generally track the schedules imposed in other satellite services.

26. Specifically, Section 25.145(f) of the Commission's rules requires Ka-band GSO FSS licensees "[1] to begin construction of [their] first satellite within one year of grant, [2] to begin construction of the remainder within two years of grant, [3] to launch at least one satellite into each of [their] assigned orbit locations within five years of grant, and [4] to launch the remainder of [their] satellites by the date required by the International Telecommunication Union to assure international recognition and protection of those satellites."⁵⁹ Failure to meet any of these construction milestones will render those satellite authorizations null and void without further action by the Commission. PCG is also responsible for ensuring it meets the applicable ITU "bring into use" dates.

⁵³ *Id.* at ¶¶ 129-130.

⁵⁴ See Letter to Regina Keeney, Chief, International Bureau, from William T. Hatch, Acting Assoc. Administrator, Office of Spectrum Management, NTIA, dated September 9, 1998.

⁵⁵ 47 C.F.R. § 2.106 US245; NTIA Report 83-115, Spectrum Resource Assessment in the 5650-5925 MHz Band, and FCC 77-349, 42 FR 27756 (rel. May 23, 1977) (which includes a discussion of the sharing issues between the radiolocation and fixed-satellite service operations in the 5850-5925 MHz band).

⁵⁶ See Amendment to the Commission's Regulatory Policies Governing Domestic Fixed Satellites and Separate International Satellite Systems and DBSC Petition for Declaratory Rulemaking Regarding the Use of Transponders to Provide International DBS Service, *Report and Order*, 11 FCC Rcd 2429, 2436 (1996) ("*DISCO I Order*").

⁵⁷ *Ka-Band Service Rules Order*, 12 FCC Rcd 22333 at ¶¶ 58-60.

⁵⁸ *PCG LOI* at 2.

⁵⁹ 47 C.F.R. § 25.145(f). See also *Ka-Band FSS Rules Order*, 12 FCC Rcd at 22334-35 ¶ 61 & n.77.

2. Reporting Requirements

27. We will follow the Part 25 rules for reporting requirements for FSS systems, including an annual report describing the status of satellite construction and anticipated launch dates, and a detailed description of the use made of each transponder on each of the in-orbit satellites.⁶⁰ PCG must file this report on June 30 of each year, containing information current as of May 31 of that year.

3. International Coordination

28. Because we are not granting PCG a license for its space station operations, the United Kingdom remains the responsible administration to follow ITU Radio Regulation procedures in filing for and coordinating PCG's satellites with other affected administrations.

4. Earth Station Licensing

29. In the *DISCO II Order*, the Commission stated that it would not issue a separate and duplicative U.S. license for a non-U.S. space station.⁶¹ Instead, the Commission indicated that it would license earth stations located within the U.S. territory to communicate with particular non-U.S. satellites. Thus, PCG or an earth station operator must file applications to license transmit and receive, and receive-only earth stations. To impose the least burdensome requirements while fulfilling our regulatory responsibilities, PCG may request a "blanket" license for large numbers of technically identical receive only antennas.⁶²

IV. CONCLUSION

30. Upon review of PCG's application, we find that PCG is qualified to provide service to the United States and that, pursuant to Section 309 of the Communications Act of 1934, as amended, 47 U.S.C. § 309, we will reserve two orbit locations from which PCG may provide service using its proposed satellites. As specified in the *Second Round GSO Assignment Order*, we have reserved PCG the 62° W.L. and 71° W.L. orbital locations.

V. ORDERING CLAUSES

31. IT IS ORDERED that the Letter of Intent, File No. SAT-LOI-19971222-00217/00218 is GRANTED IN PART, as discussed above, and Pacific Century Group, Inc. is RESERVED. Ka-band spectrum to operate four GSO FSS satellites, to provide fixed-satellite service, except for direct-to-home service, in the 18.3-18.8 GHz and 19.7-20.2 GHz, 28.35-28.6 GHz and 29.25-30 GHz frequency bands at the 62° W.L., and 71° W.L. orbital locations.

32. IT IS FURTHER ORDERED that Pacific Century Group's reservation shall become NULL and VOID with no further action on the Commission's part in the event the space station is not constructed, launched, and placed into operation in accordance with the technical parameters and terms and conditions of this reservation by the dates that follow. Pacific Century Group is also responsible for meeting the relevant ITU bring-into-use dates for the reserved locations.

⁶⁰ See 47 C.F.R. § 25.210(1)(1)(2)(3).

⁶¹ *DISCO II Order*, 12 FCC Rcd at 24174.

⁶² *DISCO II Order*, 12 FCC Rcd at 24181. Equipment manufacturers, service suppliers or electronic retailers may also file blanket license applications. See also 47 C.F.R. § 25.138.

	<u>Construction Commenced</u>	<u>Launch and Operate</u>
First satellite	August 2002	August 2006
Remaining satellites	August 2003	By ITU "Bring Into Use" Date

33. IT IS FURTHER ORDERED that Pacific Century Group must coordinate its Ka-band downlink operations serving the United States with U.S. Government systems in accordance with footnote US334 to the Table of Frequency Allocations, 47 C.F.R. § 2.106, and in accordance with the *18 GHz Report and Order*, 15 FCC Rcd at 13473 ¶ 90.

34. IT IS FURTHER ORDERED, that Pacific Century Group shall conduct its operations pursuant to this authorization in a manner consistent with the power flux-density requirements of 47 C.F.R. § 2.106 US255 and 47 C.F.R. § 25.208.


35. IT IS FURTHER ORDERED that no earth stations shall be authorized to operate with the Pacific Century Group Ka-band system until Pacific Century Group has demonstrated that it is in compliance with the International Telecommunication Union's due diligence procedures. Pacific Century Group must also coordinate its service to the United States with all foreign satellites also providing service to the United States.

36. IT IS FURTHER ORDERED that the temporary assignment of any orbital location to Pacific Century Group is subject to change by summary order of the Commission on 30 days notice and does not confer any permanent right to use the orbit and spectrum. Neither this reservation nor any right granted by this reservation, shall be transferred, assigned or disposed of in any manner, voluntarily or involuntarily, or by transfer of control of any corporation holding this reservation to any person except upon application to the Commission and upon a finding by the Commission that the public interest, convenience and necessity will be served thereby.

37. IT IS FURTHER ORDERED that Pacific Century Group is afforded 30 days from the date of the release of this order to decline this reservation of orbit assignments as conditioned. Failure to respond within that period will constitute formal acceptance of the reservation as conditioned.

38. This Order is issued pursuant to Section 0.261 of the Commission's rules on delegations of authority, 47 C.F.R. § 0.261, and is effective upon release. Petitions for reconsideration under Section 1.106 or applications for review under Section 1.115 of the Commission's rules, 47 C.F.R. §§ 1.106, 1.115, may be filed within 30 days of the date of public notice of this Order (*see* 47 C.F.R. § 1.4(b)(2)).

FEDERAL COMMUNICATIONS COMMISSION


Donald Abelson
Chief, International Bureau