

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

In the Matter of)	
)	
Kitcomm Satellite Communications Ltd.)	File No. 85-SAT-LOI-98
)	
Letter of Intent to Provide Mobile)	
Satellite Services to the United States)	
Using a Constellation of Satellites in)	
Non-Geostationary Orbits)	
)	
Kitcomm Satellite Communications Ltd.)	File No. 123-SAT-MISC-98
)	
Request for Waiver of Section 25.137(c))	
of the Commission's Rules.)	

ORDER AND AUTHORIZATION

Adopted: March 31, 2004

Released: March 31, 2004

By the Chief, International Bureau:

I. Introduction

1. In this Order, we dismiss the Letter of Intent (LOI) filed by Kitcomm Satellite Communications Ltd. (Kitcomm) to use an Australian-licensed satellite system to provide Mobile Satellite Service (MSS) to users in the United States. We also dismiss as moot Kitcomm's request for a waiver of the Commission's processing round requirement. Kitcomm's proposed operations would affect the operations of other MSS systems now providing service. Consequently, until Kitcomm can demonstrate that its operations will not impact existing services or that it has successfully coordinated its operations with these other systems, we will not allow it to serve the U.S. market.

II. Background

2. Kitcomm is a Bermuda corporation which is indirectly controlled by Mr. James Kennett, an Australian citizen.¹ Kitcomm states that Mr. Kennett also indirectly controls Kitcomm Pty. Ltd (KPL), an Australian corporation which developed the technology underlying the Kitcomm satellite network. The Australian Communications

¹ Kitcomm Letter of Intent (LOI) at 2.

Authority (ACA) has issued licenses for the Kitcomm space stations.² Kitcomm further states that KPL has, by contract, granted Kitcomm all necessary rights and licenses to utilize the Kitcomm satellite network and to provide mobile data services. According to Kitcomm, the ACA and the Australian Government have approved the licensing arrangements between KPL and Kitcomm.³

3. Kitcomm plans to launch a constellation of 21 small, polar-orbiting satellites in three planes.⁴ These satellites will provide two-way communications and geolocation services between thousands of small, remote terminal units and gateway earth stations via the public switched telecommunications network. The system will operate in portions of the "L-band" frequencies, specifically, the 1525-1530 MHz frequency band in the space-to-Earth direction and the 1626.5-1631.5 MHz band in the Earth-to-space direction.⁵ Kitcomm acknowledges that other MSS systems are operating in the L-band. These systems are authorized by the United States, Russia, Canada, Mexico, and the United Kingdom. Three of these systems are authorized to provide service to customers in the United States.⁶ Kitcomm states that it has chosen a modulation scheme and network design that will not necessarily preclude other systems from sharing Kitcomm's proposed spectrum.⁷ According to Kitcomm, maintaining the status quo in the L-band constitutes warehousing of spectrum for an indeterminate amount of time.⁸

4. Motient, which holds the license for the U.S. L-band MSS system, opposes a grant of U.S. access to Kitcomm, arguing that doing so would adversely affect its current and planned operations. Globalstar, LEO One, and Space System License, Inc., a wholly-owned subsidiary of Motorola, Inc. (Motorola) and Iridium LLC (Iridium), also oppose Kitcomm's request. These parties assert that a grant of Kitcomm's application would interfere with existing L-band operations and should only be granted in

² See letter from Tara K. Giunta, Counsel, to Fern J. Jarmulnek, Deputy Chief, Satellite Division, FCC (Oct. 17, 2003).

³ *Id.*

⁴ *Id.* at 3.

⁵ *Id.*

⁶ See *Amendment of Parts 2, 22 and 25 of the Commission's Rules to Allocate Spectrum for and to Establish Other Rules and Policies Pertaining to the Use of Radio Frequencies in a Land Mobile Satellite Service for the Provision of Various Common Carrier Services*, Memorandum Opinion, Order, and Authorization, Gen. Docket No. 84-1234, 4 FCC Rcd 6041 (1989), Final Decision on Remand, 7 FCC Rcd 266 (1992) (*AMSC Authorization Order*); *Satcom Systems, Inc. and TMI Communications and Co.*, Order and Authorization, 14 FCC Rcd 20798 (1999) (*TMI Order*), *aff'd AMSC Subsidiary Corporation v. FCC*, 216 F.3d 1154 (D.C. Cir. 2000); *Comsat Corp. et al.*, Memorandum Opinion, Order, and Authorization, 16 FCC Rcd 21661 (2001) (*Inmarsat Access Order*).

⁷ Kitcomm LOI at 3.

⁸ *Id.* at 5.

the context of a processing round. Space Systems License, Inc. also asserts that Kitcomm's request fails to comply with the Commission's out-of-band emissions requirement.

III. Discussion

A. DISCO II Framework

5. In the *DISCO II Order*,⁹ the Commission established the framework by which non-U.S. licensed satellite systems could obtain access to the United States market. Under this framework, non-U.S. licensed satellite systems seeking access to U.S. spectrum may request, through a letter of intent, that the Commission "reserve" spectrum for the system in anticipation of earth station applications to be filed to access the non-U.S. licensed satellite system.

6. The Commission set forth a public interest analysis applicable in evaluating requests to use non-U.S. licensed space stations to provide satellite service in the United States. This analysis considers the effect on competition in the United States,¹⁰ spectrum availability,¹¹ eligibility and operating (*e.g.*, technical) requirements,¹² and national security, law enforcement, foreign policy, and trade concerns.¹³ We consider spectrum availability first and dismiss Kitcomm's application on this ground.¹⁴

B. Spectrum Availability

7. In *DISCO II*, the Commission determined that, given the scarcity of geostationary orbit locations and spectrum resources, it would consider spectrum availability as a factor in determining whether to allow a foreign satellite to serve the

⁹ *Amendment of the Commission's Regulatory Policies to Allow Non-U.S. Licensed Satellites Providing Domestic and International Service in the United States*, Report and Order, IB Docket No. 96-111, 12 FCC Rcd 24094, 24174 (para. 186) (1997) (*DISCO II* or *DISCO II Order*).

¹⁰ *DISCO II*, 12 FCC Rcd at 24107-56 (paras. 30-145).

¹¹ *DISCO II*, 12 FCC Rcd at 24157-59 (paras. 146-50).

¹² *DISCO II*, 12 FCC Rcd at 24159-69 (paras. 151-74).

¹³ *DISCO II*, 12 FCC Rcd at 24169-72 (paras. 175-82).

¹⁴ In light of our dismissal of Kitcomm's LOI on spectrum availability grounds, we need not address other issues raised by Kitcomm or the commenters or complete our *DISCO II* analysis. However, we note that Kitcomm's application fails to comply with other requirements that apply to all space stations seeking to serve the U.S. market. Kitcomm did not provide space station antenna gain contours as required by Section 25.114(c) (7) of the Commission's rules, or the dimensions of its proposed space stations as required by Section 25.114(c) (12). 47 C.F.R. §§ 25.114(c) (7), (c) (12). Finally, the application contains no technical information regarding out-of-band emissions characteristics. See 47 C.F.R. §25.216.

United States.¹⁵ This is consistent with the Chairman's Note to the Basic Telecom Agreement, which states that WTO Members may exercise their domestic spectrum/frequency management policies when considering foreign entry. Thus, in *DISCO II*, we stated that when grant of access would create interference with U.S.-licensed systems, we may impose technical constraints on the foreign system's operations in the United States or, when conditions cannot remedy the interference, deny access.¹⁶

8. Under the Radio Regulations of the International Telecommunication Union (ITU), operators of satellite systems are required to coordinate their spectrum use to prevent interference to, and receive protection from, other systems. In North America and nearby international airspace and maritime areas, five satellite systems, which all operate in geostationary-satellite orbit (GSO), currently provide service in the L-band's 66 megahertz (33 megahertz in each transmission direction) MSS allocation. International coordination of the L-band frequencies has been difficult because the stated requirements of the five systems involved in the coordination far exceed the 66 megahertz of spectrum available.

9. In 1996, the operators of the five North American L-band systems signed a Memorandum of Understanding (MoU). The MoU specified that "[s]pectrum allocations to individual operators will be reviewed annually on the basis of actual usage and short-term projections of future need." Unlike most international coordinations that create permanent assignments of specific spectrum, the operators' assignments can change from year to year based on their marketplace needs. Significantly, each of the five operators received less spectrum than it had requested for its system, for its long-term use and, in some cases, less spectrum than it had been authorized to use by its respective administration. This includes Motient, which has not been able to coordinate all the spectrum for which it is licensed. While the operator-to-operator agreement expired in 1999, the five parties have continued to coordinate their operations informally and have been operating interference-free.

10. Opponents argue that a grant of Kitcomm's LOI request would interfere with existing L-band operations. Motient states that while it does not currently operate in the portion of the L-band that Kitcomm proposes to use—the "lower L-band"—its pending application for its second-generation MSS system proposes to use those frequencies.¹⁷ Moreover, Motient notes that both Inmarsat and the Mexican system operate on Kitcomm's proposed frequencies.¹⁸ According to Motient, the additional

¹⁵ *DISCO II*, 12 FCC Rcd at 24159 (para. 150).

¹⁶ *Id.*

¹⁷ Motient Opposition at 3. Since the time it filed its comments, Motient received authority to expand its "upper L-band" operations into the "lower L-band." See *Establishing Rules and Policies for the Use of Spectrum for Mobile Satellite Service in the Upper and Lower L-band*, Report and Order, 17 FCC Rcd 2704 (2002).

¹⁸ Motient Opposition at 5.

congestion in the L-band would make it less likely that it would ever be able to coordinate the full complement of spectrum to which it is licensed. Leo One also contends that Kitcomm's operation in the bands, even on a non-harmful interference basis, would consume spectral resources, thus limiting or precluding the use by other parties.¹⁹

11. We agree that allowing Kitcomm's non-geostationary satellite orbit (NGSO) system would interfere with existing GSO U.S. operations in the lower L-band. Both Motient and Inmarsat are providing service in the United States in the lower L-band. The Commission granted Motient a license for an "upper L-band" system in 1989 and a license to expand into the "lower L-band" in 2002.²⁰ Subsequently, the Commission authorized Inmarsat, a foreign-authorized system, to provide service in the United States because its operations had been coordinated with Motient's and therefore would not impact Motient's service.²¹

12. In contrast, Kitcomm has not coordinated its proposed operations with either Motient or Inmarsat nor has Australia, the licensing administration of Kitcomm's system, asked to participate in L-band coordination with the five other operating systems. Indeed, by Kitcomm's admission, its operations would impact existing operators. Kitcomm states that it has chosen a modulation scheme and network design that will "not necessarily" preclude the use of these frequencies by other users.²² Moreover, Kitcomm has not provided any technical analyses demonstrating that its operations will not cause harmful interference to or protect incumbent MSS operators.

13. Further, our analysis indicates that Kitcomm's proposed system is likely to cause harmful interference to existing L-band operators.²³ Specifically, Kitcomm proposes to use Direct Sequence Spread Spectrum techniques for modulation, which spreads the transmitted message at very low power across the five megahertz of lower L-band spectrum in which Kitcomm proposes to operate. This modulation technique creates the possibility that once a Kitcomm NGSO satellite appears in the view of earth stations accessing the MSS GSO satellites authorized to provide service in the United States, brief but unacceptable co-channel interference may be caused to other MSS

¹⁹ Leo One Petition to Deny at 6.

²⁰ See Lower L-band Order, 17 FCC Rcd 2704.

²¹ *Inmarsat Access Order*, 16 FCC Rcd at 21698 (para. 71). Similarly, the Commission granted TMI, the Canadian MSS licensee, authority to provide MSS in the U.S. market in the upper L-band because it operated on spectrum coordinated for the Canadian MSS system and would not interfere with or affect Motient's (then AMSC's) existing operations. *TMI Order*, 14 FCC Rcd at 20810 (para. 25).

²² Kitcomm LOI at 2.

²³ Specifically, Globalstar states that it has been demonstrated that licensing one CDMA system in specific spectrum reduces the potential to license additional CDMA systems. See *Globalstar Opposition* at 6 [citing *Report of the MSS Above 1 GHz Negotiated Rulemaking Committee*, Final Report of the Majority of the Active Participants of Informal Working Group 1, at § 5 (April 6, 1993)].

operators that are authorized to provide service in the United States. Consequently, granting Kitcomm authority to access the United States would adversely impact service now being provided to U.S. customers. We can think of no technical constraints that we can readily place on Kitcomm's operations that would remedy inter-system interference, nor has Kitcomm suggested any. Thus, until Kitcomm has successfully coordinated its system or can demonstrate that its operations will not impact existing services, we will not allow it to serve the U.S. market.

IV. Conclusion and Ordering Clauses

14. We find that the dismissal of Kitcomm's request to serve the United States will ensure that existing L-band operations will continue without interference.

15. Accordingly, IT IS ORDERED that Kitcomm Application File Nos. 85-SAT-LOI-98 and 123-SAT-MISC-98 are DISMISSED.

16. IT IS FURTHER ORDERED THAT the petitions to deny and/or oppositions to Kitcomm's LOI and waiver request filed by Globalstar, LEO One, and Motient, and Space Systems License, Inc. ARE GRANTED to the extent set forth herein.

17. This Order is issued pursuant to Section 0.261 of the Commission's rules on delegated authority, 47 C.F.R. §0.261, and is effective upon release.

FEDERAL COMMUNICATIONS COMMISSION



Donald Abelson
Chief
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