

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

In the matter of)	
)	
INTELSAT LLC)	
)	File No.: SAT-MOD-20020919-
Application to Modify Authorization for)	00178
INTELSAT 805 to Allow the Provision of)	Call Sign: S2404
Fixed-Satellite Service Between Non-U.S.)	
Points in the 12.7-12.75 GHz Frequency Band)	
)	

ORDER AND AUTHORIZATION

Adopted: February 17, 2004

Released: February 18, 2004

By the Chief, Satellite Division, International Bureau:

I. INTRODUCTION

1. By this *Order*, we grant Intelsat LLC's (Intelsat) request to modify its license and operate the INTELSAT 805 satellite on a non-harmful interference basis, in the 12.7-12.75 GHz frequency band, in the space-to-Earth direction (downlink) to provide service to Columbia, Venezuela, Costa Rica, Ecuador, Panama, and El Salvador. In doing so, we also grant Intelsat's request to waive Section 25.202(a)(1)¹ of the Commission's rules. We find that this action will serve the public interest by enabling Intelsat to provide additional satellite services to fulfill consumer service demands without causing harm to existing spectrum users.

II. BACKGROUND

2. On August 8, 2001, the Commission granted Intelsat authority to operate 17 in-orbit C-band and Ku-band satellites then-owned and operated by the International Telecommunications Satellite Organization (INTELSAT).² The Commission also granted Intelsat authority to construct, launch, and operate 10 proposed satellites. INTELSAT launched the INTELSAT 805 satellite in 1998. The

¹ 47 C.F.R. § 25.202(a)(1).

² See *Application of Intelsat LLC for Authority to Operate, and to Further Construct, Launch, and Operate C-band and Ku-band Satellites that Form a Global Communications System in Geostationary Orbit*, Memorandum Opinion Order and Authorization, 15 FCC Rcd 15460, *recon. denied*, 15 FCC Rcd 25234 (2000), *further proceedings*, 16 FCC Rcd 12280 (2001) (*Intelsat LLC Orders*). Intelsat LLC is a U.S. corporation created by INTELSAT for the purpose of owning and operating INTELSAT's C-band and Ku-band satellites upon INTELSAT's privatization. For the purposes of this Order, the term "C-band" refers to the 3400 - 4200 MHz and 5850 - 6725 MHz frequency bands; the term "Ku-band" refers to the 10.70 - 12.75 GHz and 13.75 - 14.50 GHz frequency bands.

INTELSAT 805 satellite has the capability to operate in the C- and Ku-bands, including the 12.7-12.75 GHz band. The FCC authorized Intelsat to continue operating the INTELSAT 805 satellite at the 55.5° W.L. orbital location utilizing the C-band and Ku-band. Intelsat was authorized to operate the INTELSAT 805 satellite in the 12.7-12.75 GHz band.

3. On September 19, 2002, Intelsat filed a request to modify the INTELSAT 805 space station authorization, to add the 12.7-12.75 GHz frequency band for the provision of downlink fixed-satellite service (FSS) on a non-harmful interference basis to non-U.S. points in International Telecommunication Union (ITU) Region 2, where the band is allocated to the FSS in the Earth-to-space direction only.³ Intelsat, does not intend to offer service to the United States in this frequency band, instead it requests such authority in order to provide service to the countries of Columbia, Venezuela, Costa Rica, Ecuador, Panama, and El Salvador. Intelsat acknowledges that its proposed use of the 12.7-12.75 GHz band in Region 2 does not conform to the ITU Table of Frequency Allocations or Sections 2.106 and 25.202(a)(1) of the Commission's rules.⁴ Intelsat, therefore requests that the Commission waive these rule sections for the purposes of granting its modification request.⁵ The modification application was placed on Public Notice on October 4, 2002. No comments or opposition were filed in response to Intelsat's request.

III. DISCUSSION

4. Intelsat seeks authority to operate the INTELSAT 805 satellite in the 12.7-12.75 GHz band for space-to-Earth FSS operations. While ITU Regions 1 and 3 contain an FSS space-to-Earth allocation in the 12.7-12.75 GHz band, ITU Region 2 does not contain such an allocation. In Region 2 the 12.7-12.75 GHz band is allocated on a co-primary basis to the fixed service, FSS (Earth-to-space) and the mobile, except aeronautical mobile, service in the ITU Table of Frequency Allocations. In the U.S. Table of Allocations, set forth in Section 2.106 of the Commission's rules, the 12.7-12.75 GHz band is allocated on a co-primary basis to the fixed service, FSS (Earth-to-space) and the mobile services.⁶

5. Additionally, Section 4.4 of the ITU Radio Regulations states that "Administrations of Member States shall not assign to a station any frequency in derogation of the Table of Frequency Allocations in this Chapter or other provisions of these Regulations, except on the express condition that such a station, when using such a frequency assignment, shall not cause harmful interference to, and shall not claim protection from harmful interference caused by, a station operating in accordance with the provisions of the Constitution, the Convention and these Regulations."⁷ Intelsat argues that its proposed use is consistent with the ITU principle of Section 4.4, and therefore Intelsat should be able to provide service in the space-to-Earth direction in the 12.7-12.75 GHz band on a non-harmful interference basis to the co-primary services to the countries in South and Central America points from its U.S.-licensed satellite. It further contends that it does not intend to offer these services within the United States.⁸ Thus, Intelsat seeks a waiver of Section 2.106 of the FCC's rules to permit its proposed space-to-Earth

³ See *Application of Intelsat LLC to Modify Authorization for INTELSAT 805 to Allow the Provision of Fixed-Satellite Service Between Non-U.S. Points in the 12.7-12.75 GHz Band*, File No. SAT-MOD-20020919-00178, (filed September 19, 2002) (Application).

⁴ *Id.* at 3-4.

⁵ *Id.*

⁶ 47 C.F.R. §2.106.

⁷ ITU Radio Regulations, Art. 4.4 (2001).

⁸ See Application at 3.

operations in this band. Additionally, Intelsat seeks a waiver of Section 25.202(a)(1) of the Commission's rules. Section 25.202(a)(1) does not identify the 12.7-12.75 GHz band as a "frequency available for use by the fixed-satellite service" in the space-to-Earth direction.

6. Intelsat asserts that granting the waivers would serve the public interest by allowing Intelsat to make full use of its existing, operating satellite. Intelsat states in its application that the INTELSAT 805 satellite already has the technical capability to use the 12.7-12.75 GHz frequencies, therefore, grant of these waivers would allow Intelsat to fill previously unused capacity on the satellite.⁹ Additionally, Intelsat argues that this available capacity would be used to fulfill service requirements of new customers in ITU Region 2, further serving the public interest in meeting growing consumer service needs.¹⁰ Lastly, Intelsat claims that the use of these frequencies will expand the presence of U.S. satellite operators in Latin America.

7. Section 1.3 of the Commission's rules authorizes the Commission to waive its rules for "good cause shown."¹¹ Waiver is appropriate only if special circumstances warrant a deviation from the general rule, and such deviation would better serve the public interest than would strict adherence to the general rule.¹² 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.¹³ In considering requests for non-conforming spectrum uses, the Commission has indicated that it would generally grant such waivers "when there is little potential for interference into any service authorized under the Table of Frequency Allocations and when the non-conforming operator accepts any interference from authorized services."¹⁴

8. We do not find that authorization of this service requires granting a waiver of Section 2.106, because the United States Table of Frequency Allocations applies only to operations in the United States and the insular areas listed in Section 2.105 (a) footnotes, 2, 3, and 4.¹⁵ Intelsat plans to provide service to the countries of Columbia, Venezuela, Costa Rica, Ecuador, Panama, and El Salvador. This service area in which Intelsat seeks to operate does not include jurisdiction of the United States or its possessions, therefore a waiver of Section 2.106 is not required.

9. However, we do find that Intelsat demonstrates that good cause exists for waiving Section 25.202(a)(1), and the waiver would otherwise serve the public interest. Specifically, granting this waiver would serve the public interest in promoting greater spectrum efficiency by allowing Intelsat to fully utilize available unused capacity on the INTELSAT 805 satellite and by expanding the presence of U.S. satellite operators in Latin America. We recognize that Intelsat's proposed use of the 12.7-12.75 GHz band might raise the possibility of potential interference concerns to other U.S. licensees. The beam

⁹ See Application at 5.

¹⁰ *Id.*

¹¹ See Section 1.3 of the Commission's rules, 47 C.F.R. §1.3. See also *WAIT Radio v. FCC*, 418 F.2d 1153 (D.C. Cir. 1969) (*WAIT Radio*); *Northeast Cellular Tel. Co. v. FCC*, 897 F.2d 1166 (D.C. Cir. 1990) (*Northeast Cellular*).

¹² *Northeast Cellular*, 897 F.2d at 1166.

¹³ *WAIT Radio*, 418 F.2d at 1157.

¹⁴ *Fugro-Chance, Inc.*, Order and Authorization, 10 FCC Rcd 2860, 2860 ¶ 2 (Int'l Bur. 1995) (authorizing non-conforming MSS in the C-band); See also *Motorola Satellite Communications, Inc.*, Order and Authorization, 11 FCC Rcd 13952, 13956 ¶ 11 (Int'l Bur. 1996) (authorizing service to fixed terminals in bands allocated to the mobile-satellite service).

¹⁵ 47 C.F.R. §2.105, footnote 2, 3 and 4.

edges of the satellite downlink footprint overlap Puerto Rico, a U.S. territory.¹⁶ Additionally, the 12.7-12.75 GHz band in Region 2 overlaps with the authorized microwave point-to-point Cable Auxiliary Service (CARS) band, the 12.7-13.25 GHz band.¹⁷ Intelsat has provided interference studies conducted by COMSEARCH. One study specifically addressed potential interference to existing, proposed and prior coordinated microwave facilities, including CARS and Broadcast Auxiliary Service (BAS) licensees within the islands of Puerto Rico and the Virgin Islands. After analyzing the COMSEARCH studies, we conclude that Intelsat's proposed use of the 12.7-12.75 GHz band between non-U.S. points from its U.S. licensed satellite will not cause harmful interference to other authorized U.S. users of that band.¹⁸ Intelsat has also provided potentially affected licensees with frequency coordination information and has agreed to obtain any necessary non-U.S. authorizations to provide its service to users in other countries. Intelsat also states that it will agree to operate in this band on a non-harmful interference basis.¹⁹

10. Under the circumstances presented, we find that a grant of Intelsat's application to modify its license and operate the INTELSAT 805 satellite in the 12.7-12.75 GHz bands in the space-to-Earth direction will not cause harmful interference to services operating in conformance with the Table of Allocations and will serve the public interest.

IV. ORDERING CLAUSES

11. Accordingly, pursuant to Section 0.261 of the Commission's rules on delegation of authority, we grant Intelsat's request to modify its license, (File Number SAT-MOD-20020919-00178, Call Sign S2404) and operate the INTELSAT 805 satellite at 55.5° W.L. in the frequency band 12.7-12.75 GHz in the space-to-Earth direction, subject to the following conditions:

- 1) Intelsat shall not cause any harmful interference to existing and future authorized users operating in accordance with the U.S. Table of Frequency Allocations and shall accept any interference from authorized users, including CARS operators, BAS operators, Private Operational Fixed Point-to-Point Service (OFS) operators and Common Carrier Local TV Transmission Service (LTTS) operators.;
- 2) In the event of harmful interference to any authorized services operating in accordance with the ITU Table of Frequency Allocations resulting from Intelsat's use of the 12.7-12.75 GHz band in Region 2, Intelsat shall immediately cease operations in that band;
- 3) Before operating in the 12.7-12.75 GHz frequency band in the space-to-Earth direction, Intelsat shall coordinate with any potentially affected terrestrial users in the United States, its Possessions and Territories;
- 4) Intelsat will prepare any necessary submissions to the International Telecommunication Union and to affected administrations for the completion of the appropriate notification obligations for these frequency assignments in accordance

¹⁶ See Letter from Thomas S. Dombrowsky, Counsel, Wiley, Rein and Fielding, to Ron Netro, Wireless Telecommunications Bureau, dated June 12, 2003. (providing supplemental COMSEARCH study) (Supplement) at 13.

¹⁷ *Id.*

¹⁸ See Application at 3 and 4. See Supplement at 4 and 5.

¹⁹ *Id.*

with the ITU Radio Regulations, indicating their operation in accordance with Article 4;

- 5) Intelsat shall not provide service to the United States or its territories in the 12.7-12.75 GHz frequency band;
- 6) Intelsat is required to inform its customers in writing, including end-users receiving service from resellers accessing capacity on INTELSAT 805, that service;
 - a.) shall be discontinued should a report of harmful interference resulting from this service occur;
 - b.) is being provided pursuant to authority subject to a non-harmful interference basis, and that the customers therefore are not protected from harmful interference resulting from services that are allocated to this frequency band;
- 7) In the event that Intelsat receives any report of harmful interference, Intelsat shall inform the Commission of this and provide details of how it has been resolved;
- 8) To further protect services in this band, the power flux density limits (PFD) at the surface of the Earth for transmissions from the satellite in the band 12.7 to 12.75 GHz shall not exceed $-138 \text{ dB(W/ m}^2\text{)}$ per 4 kHz in the service area²⁰;
- 9) The service area is limited to the countries of Colombia, Venezuela, Costa Rica, Ecuador, Panama and El Salvador and the beam shall be pointed such that the PFD limits at the surface of the Earth do not exceed the following:
 - 148 $\text{dB(W/m}^2\text{)}$ per 4 kHz for Elevation angles 5° or less.
 - 148 + 0.5(θ - 5) $\text{dB(W/ m}^2\text{)}$ per 4 kHz for Elevation angles $5^\circ \leq \theta \leq 25^\circ$.
 - 138 $\text{dB(W/ m}^2\text{)}$ per 4 kHz for Elevation angles from 25° to 90° .

12. IT IS FURTHER ORDERED that Intelsat is afforded thirty days to decline this authorization as conditioned. Failure to respond within this period will constitute formal acceptance of the authorization as conditioned.

²⁰ The band 12.7 - 12.75 GHz is allocated to FSS (space-to-Earth) in ITU regions 1 and 3. These co-primary FSS allocations are shared with terrestrial services in ITU region 3 and in certain countries in ITU region 1. Article 21.16 of the International Radio Regulations imposes power flux density (PFD) limits on satellite downlink transmissions in this band in order to protect terrestrial services. As Intelsat's non-conforming downlink transmissions are also in a terrestrial service band, we impose the same PFD limits on Intelsat's downlink transmissions in this band.

13. 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. Petitions for reconsideration under Section 1.106 or application 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 the release of this order (*see* 47 C.F.R. §1.4(b)(2)).

FEDERAL COMMUNICATIONS COMMISSION

Thomas S. Tycz
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