

Before the
Federal Communications Commission
Washington, DC 20554

In the Matter of

Intelsat License LLC

Application to Modify Authorization for
Intelsat 902 (S2406)

File No. SAT-MOD- _____

APPLICATION OF INTELSAT LICENSE LLC
TO MODIFY AUTHORIZATION FOR INTELSAT 902

Intelsat License LLC (“Intelsat”), pursuant to Section 25.117 of the rules of the Federal Communications Commission (“Commission” or “FCC”),¹ hereby seeks to modify the authorization for the Intelsat 902 satellite (Call Sign S2406). Specifically, this modification seeks authority to (i) redeploy Intelsat 902 to, and operate the satellite in inclined orbit at, 50.1° W.L. (309.9° E.L.);² and (ii) further extend the Intelsat 902 license term, and to the extent necessary previously granted technical waivers,³ through April 30, 2024. Grant of this

¹ 47 C.F.R. § 25.117.

² Intelsat 902 began inclined orbit operations in 2019. *See* Letter from Cynthia J. Grady, Senior Counsel, Intelsat US LLC, to Marlene H. Dortch, Secretary, FCC, File No. SAT-MOD-20160816-00084 (Oct. 23, 2019).

³ Specifically, to the extent necessary, Intelsat seeks an extension of the previously granted waivers of 47 C.F.R. §§ 25.140(a) (previously codified at 47 C.F.R. § 25.140(b)(2)) and 25.202(g). *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 (2000), *recon. denied*, 15 FCC Rcd 25234 (2000), *further proceedings*, 16 FCC Rcd 12280 (2001) and 19 FCC Rcd 5266 (2004) (“*Intelsat Licensing Orders*”). *See also id.*, 15 FCC Rcd 15460, ¶ 153 and Appendix C. Due to rule changes since the *Intelsat Licensing Orders*, Intelsat is not seeking waiver extension for the following Commission rules, which have been

application will enable Intelsat to partially replace capacity previously provided at this nominal location by Intelsat 29e (Call Sign S2913).

In accordance with the Commission's rules, this application has been filed electronically as an attachment to FCC Form 312.⁴ Intelsat provides the technical information relating to the proposed modification on Schedule S and in narrative form in the attached Engineering Statement.⁵

Consistent with Section 1.62 of the Commission's rules,⁶ Intelsat will continue to operate the Intelsat 902 satellite pursuant to the terms and conditions of its expiring license until such time as the Commission makes a determination with respect to this request.

I. REQUEST TO RELOCATE INTELSAT 902 TO 50.1° W.L.

Intelsat requests authority to relocate Intelsat 902 to, and operate the satellite in inclined orbit at, 50.1° W.L. Intelsat 902 is currently licensed to operate at 62.0° E.L.⁷ and, pursuant to Special Temporary Authority, began drifting to 50.1° W.L. on November 15, 2019.⁸ The drift to 50.1° W.L. is expected to take approximately five months.

eliminated: 47 C.F.R. §§ 25.210(a)(1), 25.210(a)(3), 25.210(i), and 25.211(a) (rule sections as of the time of the 2000 grant).

⁴ 47 C.F.R. §§ 25.117(b), (c).

⁵ See 47 C.F.R. § 25.114.

⁶ 47 C.F.R. § 1.62 (permitting continued operations by a licensee where there is a proper and timely pending application for renewal of the license).

⁷ See *Policy Branch Information, Actions Taken*, Report No. SAT-01199, File No. SAT-MOD-20160816-00084 (Nov. 4, 2016) (Public Notice).

⁸ See *Satellite Policy Branch Information; Actions Taken*, Report No. SAT-01427, File No. SAT-STA-20191104-00125 (Nov. 15, 2019) (Public Notice); see also *Satellite Policy Branch*

During the drift of Intelsat 902, Intelsat will utilize only the satellite's telemetry, tracking, and command ("TT&C") frequencies and will follow industry practices for coordinating TT&C transmissions during the relocation process. The satellite's specific TT&C frequencies are as follows: 6173.7 MHz and 6176.3 MHz in the uplink; and 3947.5 MHz, 3948.0 MHz, 3952.0 MHz, and 3952.5 MHz in the downlink.

At the 50.1° W.L. location, Intelsat 902 will be nominally co-located with Intelsat 9 (Call Sign S2380).⁹ The chart below illustrates the frequencies that (i) will be used by Intelsat 902 at 50.1° W.L.; (ii) will be used by Intelsat 9 at 50.0° W.L.; and (iii) were previously used by Intelsat 29e at 50.0° W.L. "Common Heritage" frequencies under the International Telecommunications Satellite Organization ("ITSO") Agreement are highlighted in gray.

Information; Actions Taken, Report No. SAT-01440, File No. SAT-STA-20191114-00132 (Jan. 17, 2020) (Public Notice).

⁹ Intelsat 9 is currently drifting to 50.0° W.L. *See, e.g., Satellite Policy Branch Information; Actions Taken*, Public Notice, Report No. SAT-01426, File No. SAT-STA-20190925-00100 (Nov. 8, 2019).

	Intelsat 902	Intelsat 9	Intelsat 29e
3625-3700 MHz	✓		
3700-4200 MHz	✓	✓	✓
5850-5925 MHz	✓		✓
5925-6425 MHz	✓	✓	✓
6425-6725 MHz			✓
10.7-10.95 GHz			✓
10.95-11.2 GHz	✓		✓
11.2-11.45 GHz			✓
11.45-11.7 GHz	✓	✓	✓
11.7-11.95 GHz ¹⁰		✓	✓
11.95-12.2 GHz		✓	✓
12.2-12.5 GHz			✓
12.75-13.25 GHz			✓
13.75-14.0 GHz			✓
14.0-14.5 GHz	✓	✓	✓
17.3-17.55 GHz			✓
19.7-20.2 GHz			✓
29.5-30.0 GHz			✓

II. REQUEST TO PARTIALLY FULFILL REPLACEMENT EXPECTANCY FOR INTELSAT 29e AT NOMINAL 50.0° W.L.

By relocating Intelsat 902 from 62.0° E.L. to 50.1° W.L., Intelsat intends to continue fulfilling its replacement expectancy for several C- and Ku-band frequencies previously utilized at the nominal 50.0° W.L. orbital location by Intelsat 29e. Following the in-orbit failure of Intelsat 29e and the full cessation of operations in all assigned frequencies bands due to back-to-back anomalies on April 7 and 9, 2019, Intelsat informed the Commission that it was not waiving or otherwise relinquishing its C-, Ku-, or Ka-band frequency assignments at the 50.0° W.L.

¹⁰ In accordance with the International Table of Allocations, Intelsat will only utilize the 11.7-11.95 GHz frequency band in Region 2.

location.¹¹ Intelsat further notified the FCC of its intention to bring satellites with C-, Ku-, and Ka-band capacity into operation at this location, including plans to relocate an on-orbit satellite with C- and Ku-band frequencies within 18 months to restore service to customers.¹² Intelsat therefore requested, to the extent necessary, that the Commission retain Intelsat's replacement expectancy at 50.0° W.L. while Intelsat prepared to bring satellites into operation at this location.¹³

Intelsat 902 is currently authorized to operate at 62.0° E.L. using most of the same C- and Ku-band frequencies as Intelsat 29e, including the following Common Heritage frequencies subject to the ITSO Agreement: 3700-4200 MHz, 5925-6425 MHz, 10950-11200 MHz, and 11450-11700 MHz. Intelsat began the drift of Intelsat 902 to 50.1° W.L. on November 15, 2019 and the satellite will arrive on-station in April 2020. Additionally, Intelsat is in the process of redeploying Intelsat 9, which will be nominally co-located with Intelsat 902.¹⁴ Intelsat 9 also operates in many of the same C- and Ku-band frequencies as Intelsat 29e. Together, Intelsat 902 and Intelsat 9 will operate in all the Common Heritage frequency bands previously licensed to Intelsat 29e.

¹¹ See Letter from Susan H. Crandall, Associate General Counsel, Intelsat US LLC, to Ms. Marlene H. Dortch, Secretary, FCC, File No. SAT-MOD-20160916-00091 (Jun. 28, 2019) ("Intelsat 29e Notification Letter").

¹² *Id.*

¹³ *Id.*

¹⁴ See *Application of Intelsat License LLC to Modify Authorization for Intelsat 9*, File No. SAT-MOD-20200226-00019, (filed Feb. 26, 2020)..

While together, the Intelsat 902 and Intelsat 9 satellites will restore a majority of the lost Intelsat 29e capacity; however, they will not provide service in all frequency bands authorized to Intelsat 29e. Intelsat therefore requests, to the extent necessary, that the Commission continue to preserve Intelsat's replacement expectancy for the remaining frequency bands.¹⁵

III. REQUEST FOR EXTENSION OF LICENSE TERM

Intelsat seeks to further extend the license term for the Intelsat 902 satellite through April 30, 2024. Intelsat 902 was placed into service on October 15, 2001.¹⁶ The current September 30, 2022 license term expiration for Intelsat 902 is 19 months before the current expected end of service life of the satellite, which was most recently estimated to be April 2024. To the extent the satellite's projected end of service life is extended in the future, Intelsat will seek an additional extension of the license term.

III. PUBLIC INTEREST SHOWING

Grant of this modification application to relocate and extend the license term of Intelsat 902 is in the public interest because it will allow Intelsat to replace capacity at the nominal 50.0° W.L. orbital location, as well as provide that capacity beyond the satellite's current license term expiration date.

¹⁵ See *Application of Intelsat License LLC to Launch and Operate Intelsat 29e, a Replacement Satellite with New Frequencies*, Stamp Grant, File Nos. SAT-LOA-20130722-00097, SAT-AMD-20140718-00087 (May 21, 2015).

¹⁶ See Letter from Jennifer D. Hindin, Counsel for Intelsat LLC, to Ms. Magalie Roman Salas, FCC, File No. SAT-MOD-20010509-00038 (Oct. 17, 2001).

Grant of this relocation request will not result in an increased risk of harmful interference. As noted above, Intelsat will operate only the above-listed TT&C frequencies during the drift and will coordinate its TT&C transmissions with operators of satellites in the drift path. Should any interference occur during the drift, Intelsat will take all reasonable steps to eliminate such interference. Intelsat will operate Intelsat 902's communications payload and TT&C frequencies at 50.1° W.L. in conformance with existing coordination agreements and the FCC's rules governing operations vis-à-vis adjacent locations.

Grant of this relocation request will permit Intelsat to restore some of the capacity at the nominal 50.0° W.L. orbital location that was affected by the unforeseen loss of Intelsat 29e last year. The Intelsat 902 satellite is an on-orbit satellite with payloads that overlap many of Intelsat 29e's C- and Ku-band frequency bands.¹⁷ Additionally, grant of the further license term extension request will allow Intelsat to maximize the use of Intelsat 902, which has more than a year of useful life remaining beyond the current license term's expiration date. The Intelsat 902 satellite's subsystems and solar panels are functioning normally, and there are no single points of failure on the satellite that would affect the ability to de-orbit the satellite. Additionally, the satellite's TT&C functions are operating normally, and all the payload is operational. Extending the license term will promote the continued efficient use of orbital resources and is consistent with prior decisions by the Commission to extend satellite license terms.¹⁸

¹⁷ As mentioned above, the Intelsat 9 satellite will not be providing service in the 10.95-11.2 GHz band.

¹⁸ See, e.g., *Policy Branch Information; Actions Taken*, Public Notice, Report No. SAT-01199, DA 16-1251, File Nos. SAT-MOD-20180305-00019, SAT-MOD-20160805-00079,

IV. WAIVER REQUEST

Intelsat requests waiver of Section 2.106, Footnote NG52 of the U.S. Table of Allocations, which restricts use of the 10.95-11.2 GHz, and 11.45-11.7 GHz bands by non-federal Fixed Satellite Service (“FSS”) in the geostationary orbit to international systems only.¹⁹

Under Section 1.3 of the Commission’s rules, the Commission has authority to waive its rules “for good cause shown.”²⁰ Good cause exists if “special circumstances warrant a deviation from the general rule and such deviation will serve the public interest” better than adherence to the general rule.²¹ In determining whether waiver is appropriate, the Commission should “take into account considerations of hardship, equity, or more effective implementation of overall policy.”²² Additionally, a waiver of the Table of Allocations is generally granted “when there is little potential interference into any service authorized under the Table of Frequency allocations and when the nonconforming operator accepts any interference from authorized services.”²³

SAT-MOD-20160816-00084, and SAT-MOD-20160906-00088 (Nov. 4, 2016) (extending license terms of the Intelsat 9, Intelsat 904, Intelsat 902, and Intelsat 901 satellites, respectively).

¹⁹ 47 C.F.R. § 2.106, n. NG52.

²⁰ 47 C.F.R. § 1.3; *WAIT Radio v. FCC*, 418 F.2d 1153, 1159 (D.C. Cir. 1969).

²¹ *Northeast Cellular Telephone Co. v. FCC*, 897 F.2d 1164, 1166 (D.C. Cir. 1990).

²² *WAIT Radio*, 418 F.2d at 1159.

²³ See *The Boeing Company*, Order and Authorization, 16 FCC Rcd 22645, ¶ 12 (2001); *Application of Fugro-Chance, Inc. for Blanket Authority to Construct and Operate a Private Network of Receive-Only Mobile Earth Stations*, Order and Authorization, 10 FCC Rcd 2860, 2860 (1995) (authorizing Mobile Satellite Service in the C-band). See also *Application of Motorola Satellite Communications, Inc. for Modification of License*, Order and Authorization, 11 FCC Rcd 13952, ¶ 11 (1996) (authorizing service to fixed terminals in bands allocated for mobile satellite service).

Good cause exists to waive the international-only requirement for the 10.95-11.2 GHz and 11.45-11.7 GHz bands on Intelsat 902. The purpose of NG52 is to limit the number of the FSS earth stations with which the co-primary Fixed Service (“FS”) station would need to coordinate.²⁴ The International Bureau has found that waiving NG52 would not undermine the purpose of the rules if the party seeking waiver: (1) will be utilizing earth stations that are receive-only in these bands and thus “not capable of causing interference into FS stations” operating in the bands; and (2) agrees to “accept any level of interference from FS stations” in these bands.²⁵

With respect to the 10.95-11.2 GHz and 11.45-11.7 GHz bands, grant of the requested waiver satisfies these criteria and would be consistent with precedent, including prior waiver of NG52 for Intelsat 29e at 50.0° W.L.²⁶ The earth stations communicating with Intelsat 902 will not transmit in this band, and Intelsat agrees to accept any level of interference into those earth stations from FS stations in the band. Intelsat will provide services in the 10.95-11.2 GHz and 11.45-11.7 GHz frequency bands in the United States and its territories only on a non-

²⁴ See *Amendment of Part 2 of The Commission’s Rules to Conform, to the Extent Practicable, with the Geneva Radio Regulations, as revised by the Space WARC, Geneva*, Report and Order, 26 RR 2d 1257 at ¶¶ 35-38 (1973). See also *EchoStar KuX Corporation Application for Authority to Construct, Launch and Operate a Geostationary Satellite Using the Extended Ku-band Frequencies in the Fixed-Satellite Service at the 83° W.L. Orbital Location*, Order and Authorization, 20 FCC Rcd 919, ¶ 9 (2004) (“*EchoStar Order*”).

²⁵ *EchoStar Order* at ¶ 13 (waiving the international-only restriction for passive, receive-only earth station operations in the 11.45-11.7 GHz band).

²⁶ See *Intelsat License LLC Application to Modify Authorization for Intelsat 29e*, Stamp Grant, File No. SAT-MOD-20160916-00091, Condition 20 (Jan. 26, 2017). See accord, *DIRECTV Enterprises, LLC, Fleet Management Notice for SKY-B1 Satellite*, Stamp Grant, File No. SAT-MOD-20170221-00019, Condition 10 (May 11, 2017).

interference/non-protected basis. Accordingly, the FSS earth stations operating in these bands pose no interference concern with respect to, and need not be coordinated with, co-frequency FS stations located within United States and its territories.

Intelsat also agrees to abide by customer notification requirements that the International Bureau has previously imposed when granting waivers of NG52.²⁷ Intelsat will inform its customers in writing, including any customers receiving end-user services from resellers accessing capacity on Intelsat 902, of the potential for interference from FS operations in the 10.95-11.2 GHz and 11.45-11.7 GHz bands.

V. INTELSAT ACCEPTS SECTION 316 PETITION CONDITIONS

Intelsat understands and accepts that its license to operate Intelsat 902 at 50.1° W.L. in the 3700-4200 MHz, 5925-6425 MHz, 10950-11200 MHz, and 11450-11700 MHz bands will be conditioned as follows:

- Intelsat shall remain a signatory to the Public Services Agreement between Intelsat and the ITSO that was approved by the ITSO Twenty-Fifth Assembly of Parties, as amended.
- No entity shall be considered a successor-in-interest to Intelsat under the ITSO Agreement for licensing purposes unless it has undertaken to perform the obligations of the Public Services Agreement approved by the Twenty-Fifth Assembly of Parties, as amended.²⁸

²⁷ See, e.g., *id.*; *Intelsat North America Request for Waiver*, Stamp Grant, File No. SAT-MOD-20050610-00122, Condition 3 (Sept. 30, 2005); *EchoStar Order* at ¶ 13.

²⁸ See *Petition of the International Telecommunications Satellite Organization under Section 316 of the Communications Act, as Amended*, Order of Modification, 23 FCC Rcd 2764, ¶¶ 11-13 (2008).

VI. 3625-3650 MHZ, 3650-3700 MHZ, 5850-5925 MHZ, 10950-11200 MHZ, AND 11450-11700 MHZ FREQUENCY BANDS

Intelsat understands that operations in the 3625-3650 MHz, 3650-3700 MHz, 5850-5925 MHz, 10950-11200 MHz, and 11450-11700 MHz frequency bands are subject to certain limitations and obligations, which Intelsat accepts and will fulfill. Specifically, for operation in the 3625-3650 MHz frequency band, Intelsat accepts the following condition:

- Intelsat's use of the 3625-3650 MHz (space-to-Earth) band is subject to footnote US245 of the United States Table of Frequency Allocations, 47 C.F.R. § 2.106 US245, which states that the use of the non-Federal fixed-satellite service in the 3600-3650 MHz band is limited to international inter-continental systems.

In the 3650-3700 MHz frequency band, Intelsat accepts the following condition:

- Intelsat's use of the 3650-3700 MHz (space-to-Earth) band is subject to footnote NG185 of the United States Table of Frequency Allocations, 47 C.F.R. § 2.106 NG185, which states that the use of the non-Federal fixed-satellite service in the 3650-3700 MHz band is limited to international inter-continental systems.

In the 5850-5925 MHz frequency band, Intelsat accepts the following condition:

- Intelsat's use of the 5850-5925 MHz band (Earth-to-space) is subject to footnote US245 of the United States Table of Frequency Allocations, 47 C.F.R. §2.106, US245, which states that the use of 5850-5925 MHz by the non-Federal fixed-satellite service is limited to international inter-continental systems and is subject to case-by-case electromagnetic compatibility analysis. Intelsat shall not claim protection from radiolocation transmitting stations operating in accordance with footnote G2.

In the 10950-11200 MHz frequency band, Intelsat accepts the following conditions:

- Operations in the 10950-11200 MHz frequency band shall comply with the terms of footnote US211 to the United States Table of Frequency Allocations, 47 C.F.R. § 2.106, US211, which urges applicants for airborne or space station assignments to take all practicable steps to protect radio astronomy observations in the adjacent bands from harmful interference.

In the 11450-11700 MHz frequency band, Intelsat accepts the following condition:

- Intelsat's use of the 11450-11700 MHz band (space-to-Earth) is subject to footnote US211 to the United States Table of Frequency Allocations, 47 C.F.R.

§ 2.106, US211, which urges applicants for airborne or space station assignments to take all practicable steps to protect radio astronomy observations in the adjacent bands from harmful interference.

VII. REQUEST FOR GRANT WITHOUT MILESONES OR A BOND

Because Intelsat 902 is already in-orbit and operating, grant of this modification application is not subject to milestone conditions, and Intelsat is not required to post a bond under Sections 25.164(a) and 25.165 of the Commission's rules.²⁹

VIII. CONCLUSION

For the reasons set forth above, Intelsat respectfully requests that the Commission grant this modification application.

Respectfully submitted,

Intelsat License LLC

By: /s/ Susan H. Crandall

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March 26, 2020

²⁹ See 47 C.F.R. §§ 25.164(a) and 25.165.

Exhibit A

FCC Form 312, Response to Question 34: Foreign Ownership

The Commission previously approved Intelsat's ownership structure, including foreign ownership.¹ There have been no material changes to Intelsat's ownership since the *2018 Pro Forma*.

¹ See *Intelsat Holdings, Ltd. and Serafina Holdings Limited, Consolidated Application for Consent to Transfer of Control of Holders of Title II and Title III Authorizations*, Memorandum Opinion and Order, 22 FCC Rcd 22151 (2007) ("*Intelsat-Serafina Order*"); *Intelsat Application for Pro Forma Transfer of Control*, File Nos. SAT-T/C-20180627-00048, SAT-T/C-20180627-00049, SES-T/C-20180627-01430, SES-T/C-20180627-01436, SES-T/C-20180627-01433 (granted Jun. 29, 2018), 0008216564 (granted Jun. 28, 2018) and 0037-EX-TU-2018 (granted Jun. 29, 2018) ("*2018 Pro Forma*").

Exhibit B

FCC Form 312, Response to Question 40: Officers, Directors, and Ten Percent or Greater Shareholders

The officers and directors/managers of Intelsat License LLC are as follows:

Officers:

David Tolley, Chairman
José Toscano, Deputy Chairman
Michelle Bryan, Secretary
Mirjana Hervy, Director, Finance

Board of Managers:

David Tolley
José Toscano
Michelle Bryan

The business address of all Intelsat License LLC officers and members of the Board of Managers is: 4 rue Albert Borschette L-1246 Luxembourg.

Intelsat License LLC is a Delaware limited liability company that is indirectly wholly owned by Intelsat S.A. Specifically, Intelsat License LLC is wholly owned by Intelsat License Holdings LLC, also a Delaware limited liability company. Intelsat License Holdings LLC is wholly owned by Intelsat Ventures S.à r.l., a Luxembourg company, which is in turn wholly owned by Intelsat Alliance LP, a Delaware limited partnership. Intelsat Alliance LP is managed by one general partner and two limited partners—Intelsat Genesis GP LLC, Intelsat Genesis Inc, and Intelsat Jackson Holdings S.A., respectively. Intelsat Genesis GP LLC is a Delaware limited liability company, which is a wholly owned subsidiary of Intelsat Genesis Inc., a Delaware corporation. Intelsat Genesis Inc. is a wholly owned subsidiary of Intelsat Jackson Holdings S.A., a Luxembourg company. Intelsat Jackson Holdings S.A. is wholly owned by Intelsat Connect Finance S.A., a Luxembourg company, which in turn is wholly owned by Intelsat Envision Holdings LLC, a Delaware limited liability company. Intelsat Envision Holdings LLC is wholly owned by Intelsat (Luxembourg) S.A., a Luxembourg company. Intelsat (Luxembourg) S.A. is wholly owned by Intelsat Investments S.A., a Luxembourg company, which in turn is wholly owned by Intelsat Holdings S.A., a Luxembourg company. Intelsat Holdings S.A. is wholly owned by Investment Holdings S.à r.l., a Luxembourg company. Intelsat Investment Holdings S.à r.l. is wholly owned by Intelsat S.A., a Luxembourg company. Each of these entities may be contacted at the following address: 4 rue Albert Borschette, L-1246 Luxembourg.

Intelsat S.A. is a publicly traded company. To the best of Intelsat's knowledge, and with the exception of BC Partners Holdings Limited ("BCP"), described below, no person or entity holds a ten percent or greater ownership interest in Intelsat S.A. as of March 1, 2020.

Name: BCP
Address: Heritage Hall, Le Marchant Street, St Peter Port, Guernsey, Channel Islands
Citizenship: Guernsey
Indirect Interest: Approximately 34%¹

¹ The exact indirect interest held by BCP is subject to fluctuation as Intelsat S.A.'s stock is publicly traded.