

Before the
Federal Communications Commission
Washington, DC 20554

In the Matter of

Intelsat License LLC

Application to Modify Authorization for
JCSAT-RA

Call Sign S2960

File No. _____

**APPLICATION OF INTELSAT LICENSE LLC
TO MODIFY AUTHORIZATION FOR JCSAT-RA**

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 JCSAT-RA satellite (Call Sign S2960), a C- and Ku-band satellite licensed at the 169.0° E.L. orbital location² and currently operating at 168.9° E.L. pursuant to special temporary authority.³ Specifically, Intelsat seeks to extend the license term for the JCSAT-RA satellite, and a previously granted waiver, through December 31, 2024.

In accordance with Section 25.117(c) of the FCC’s rules, this application has been filed electronically as an attachment to FCC Form 312.⁴ Intelsat incorporates by reference the information previously provided regarding the operations of JCSAT-RA.⁵ Consistent with

¹ 47 C.F.R. § 25.117.

² See *Policy Branch Information; Actions Taken*, Public Notice, Report No. SAT-01330, Call Sign S2960, File No. SAT-LOA-20160411-00035 (July 13, 2018).

³ See *Policy Branch Information; Actions Taken*, Public Notice, Report No. SAT-01426, Call Sign S2960, File No. SAT-STA-20190920-00097 (Nov. 8, 2019).

⁴ 47 C.F.R. § 117(c).

⁵ See Intelsat License LLC, Application for Authority to Drift and to Operate JCSAT-RA, an In-Orbit Satellite, at 169.0° E.L., Call Sign S2960, File No. SAT-LOA-20160411-00035

Section 1.62 of the Commission’s rules, Intelsat will continue to operate the JCSAT-RA 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.⁶

I. REQUEST FOR EXTENSION OF LICENSE TERM

Intelsat seeks to extend the license term for the JCSAT-RA satellite, as well as the previously granted waiver of Section 2.106 concerning operations in the 12.2-12.7 GHz and 12.7-12.75 GHz bands, through December 31, 2024. JCSAT-RA was launched on August 21, 2009 by SKY Perfect JSAT Corporation (“JSAT”) under the licensing administration of Japan. Intelsat acquired control of JCSAT-RA in 2017 through a commercial agreement with JSAT. Intelsat re-flagged the satellite to the authority of the United States and obtained FCC approval to operate the satellite at 169.0° E.L. through December 31, 2019.⁷ Intelsat subsequently received Commission approval to drift JCSAT-RA to, and operate the satellite at, 168.9° E.L. through the end of its license term.⁸ This expiration date is well before the expected end of maneuver life of the satellite, which was most recently estimated to be the end of 2024. Should the satellite’s projected end-of-service life be further extended in the future, Intelsat will seek an additional license extension.

(filed Apr. 11, 2016); Intelsat License LLC, Application for Extension of Special Temporary Authority to Operate JCSAT-RA at 168.9° E.L., Call Sign S2960, File No. SAT-STA-20190920-00097 (filed Sept. 20, 2019) (“Application for JCSAT-RA License”).

⁶ 47 C.F.R. § 1.62.

⁷ *See supra* n.2.

⁸ *See supra* n.3.

II. PUBLIC INTEREST SHOWING

Grant of this modification application to extend the license term will serve the public interest by enabling customers to continue receiving service from JCSAT-RA beyond the current license term expiration date of December 31, 2019. The JCSAT-RA satellite subsystems and solar panels are functioning normally, and there are no single points of failure on JCSAT-RA that would result in an inability to de-orbit the satellite. Additionally, the satellite's TT&C functions are operating normally and most of the payload is operational. Extending the license term will promote the continued efficient use of orbital resources and is consistent with recent decisions by the Commission to extend satellite license terms.⁹

III. POST-MISSION DISPOSAL PLAN

If Intelsat remains the licensee of JCSAT-RA at the end of the satellite's maneuver life, it will dispose of the satellite by moving it to an altitude of 272 kilometers above the geostationary arc.¹⁰ For that purpose, 10.2 kilograms of hydrazine have been reserved. The reserved fuel figure was determined by the spacecraft manufacturer and provided for in the propellant budget. This figure was calculated taking into account the expected mass of the satellite at the end of life and the required delta-velocity to achieve the desired orbit. The fuel gauging uncertainty has been taken into account in these calculations.

⁹ See e.g., *Policy Branch Information; Actions Taken*, Public Notice, Report No. SAT-01383, Call Sign S2253, File No. SAT-MOD-20181231-00095 (Apr. 19, 2019) (granting license extension for Galaxy 11, based on the satellite's current projected end of service).

¹⁰ Intelsat's orbital debris statement in its 2016 licensing application incorrectly stated JCSAT-RA will be disposed by moving it to an altitude of 300 kilometers above the geostationary arc, but correctly provided the minimum perigee disposal altitude under the Inter-Agency Space Debris Coordination Committee ("IADC") formula, which was at most 272 kilometers. See *Application for JCSAT-RA License, Engineering Statement* at 6-7. Intelsat herein updates the post-mission disposal height of JCSAT-RA to correlate with the height calculated using the IADC formula.

In calculating the disposal orbit, simplifying assumptions have been used as permitted under the Commission's Orbital Debris Report and Order.¹¹ For reference, the effective area to mass ratio (Cr^*A/M) of the JCSAT-RA spacecraft is 0.037 m²/kg, resulting in a minimum perigee disposal altitude under the IADC formula of at most 272 kilometers above the geostationary arc. Accordingly, the JCSAT-RA planned disposal orbit complies with the FCC's rules.

IV. CONCLUSION

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

Respectfully submitted,

Intelsat License LLC

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¹¹ *Mitigation of Orbital Debris*, Second Report and Order, 19 FCC Rcd 54581 (2004).

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 June 29, 2018), 0008216564 (granted June 28, 2018) and 0037-EX-TU-2018 (granted June 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 indirectly wholly owned by 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 October 16, 2019.

Name: BCP
Address: Heritage Hall, Le Marchant Street, St Peter Port, Guernsey, Channel Islands
Citizenship: Guernsey
Indirect Interest: Approximately 39-40%¹

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