

August 3, 2021

Via IBFS

Marlene H. Dortch, Secretary
Federal Communications Commission
45 L Street NE
Washington, DC 20554

Re: Ligado Networks Subsidiary LLC, Application to Modify the AMSC-1 License to Permit Relocation from 106.5° W.L. to 107.3° W.L. (File Nos. SAT-MOD-20210316-00034, SAT-AMD-20210412-00049 and SAT-STA-20210719-00090)

Dear Ms. Dortch:

Pursuant to Section 1.65 of the Commission's rules, Ligado Networks Subsidiary, LLC hereby notifies the Commission that Innovation, Science and Economic Development Canada has authorized the permanent relocation of the AMSC-1/MSAT-2 satellite from 106.5° West Longitude to 107.3° West Longitude. Attached are copies of the authorizations permitting the operation of the space station and use of the assigned spectrum at the new orbital location.

Should there be questions regarding this matter, please contact the undersigned counsel.

Respectfully submitted,

s/ David S. Keir

Jeffrey J. Carlisle
David S. Keir
Counsel to Ligado Networks Subsidiary LLC

cc: Merissa Velez, International Bureau
Alyssa Roberts, International Bureau





RADIO LICENCE

Issued under the authority of the Minister of Industry in accordance with the *Radiocommunication Act* and Regulations made thereunder.

This licence may be modified before the expiry date shown. For the latest legal version and status of this licence, please consult the Innovation, Science and Economic Development Canada web site at <http://www.ic.gc.ca/spectrum>

EFFECTIVE DATE	EXPIRY DATE	LICENCE NUMBER	ACCOUNT NUMBER
April 1, 2019	March 31, 2022	010786901-002	061150000004
SERVICE TYPE		LICENCE HOLDER TYPE	
Satellite (Satellite)		Radiocommunication user	

Licence mailing address:

Authority to operate this (these) licensed station(s) is granted to:

Ligado Networks (Canada) Inc.
Attn: Beth Creary
1601 Telesat Court
Ottawa ON
K1B 1B9

Ligado Networks (Canada) Inc.
Attn: Beth Creary
1601 Telesat Court
Ottawa ON
K1B 1B9

THIS LICENCE AUTHORIZES THE OPERATION OF THE STATION(S) LISTED BELOW

LICENCE CONDITIONS

This licence authorizes the use of spectrum at the 107.3°W orbital position by MSAT-2 for the provision of mobile-satellite service (MSS) associated with the ITU filings CANSAT-67TTC and CANSAT-67TTCA.

This licence is subject to the research and development license condition and includes coverage of visible Earth, subject to Ligado Canada obtaining appropriate regulatory approvals in jurisdictions in which it intends to provide service.

This licence is subject to the fees set out in the Canadian Radiocommunication Regulations and expires on March 31, 2026.

Appendix N2 - Space station licences

The standard conditions of licence for space stations apply. Please see the complete text of the conditions and take note of any restrictions or limitations imposed.

A copy of the conditions of licence for space stations can be found at <http://www.ic.gc.ca/eic/site/smt-gst.nsf/eng/sf11150.html>. You can also navigate to the standard conditions of licence for space stations on our website: www.ic.gc.ca/spectrum-conditions.

Ligado Canada is also subject to the following conditions:

1. Feeder link earth stations shall be coordinated with terrestrial fixed services and be implemented in accordance with the Canadian Table of Frequency Allocations. Use of the feeder link spectrum shall be implemented in accordance with the provisions of Appendix 30B of the ITU Radio Regulations for the 107.3°W orbital position. The operation of feeder link earth stations must not cause harmful interference to the radio astronomy service operating in the adjacent frequency band of 10.68-10.7 GHz.

2. Authorization of any future operation of ancillary terrestrial component (ATC) mobile services will be subject to the Department's Radio Systems Policy, RP-023 - Spectrum and Licensing Policy to Permit Ancillary Terrestrial Mobile Services as Part of Mobile-Satellite Service Offerings, noting further technical standards will need to be developed. Also, as indicated in RP-023, the spectrum fees for ATC mobile services will be established in a future public consultation.



RADIO LICENCE

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This licence may be modified before the expiry date shown. For the latest legal version and status of this licence, please consult the Innovation, Science and Economic Development Canada web site at <http://www.ic.gc.ca/spectrum>

EFFECTIVE DATE	EXPIRY DATE	LICENCE NUMBER	ACCOUNT NUMBER
April 1, 2019	March 31, 2022	010786901-002	061150000004

STATION ID: 1

ASSOCIATED SATELLITE: MSAT

STATION TYPE

Space station in the
mobile-satellite service

STATION LOCATION

MSAT-2 - Geostationary satellite at 107.3°W

LICENSEE REFERENCE

STATION CONDITIONS

SEE LICENCE ADDENDUM BELOW.

FREQUENCY		EQUIVALENT VOICE CHANNEL (MAX)		BANDWIDTH AND EMISSION	POWER AND TYPE	CONDITIONS
TX	RX	TX	RX			
10.75000 GHz		24	0	200 MHz 5K00G1W	0.006 W EIRP	Feederlink
11.70100 GHz		24	0	300 kHz 300KG9W	4.467 W EIRP	TT&C telemetry
	13.12500 GHz	0	24	200 MHz 5K00G1W		Feederlink
	14.00050 GHz	0	24	1 MHz 1M00GXD		TT&C command

LICENCE ADDENDUM

This licence authorizes the licensee to establish and operate a radio station as described in the approved application, in accordance with specific items or conditions and applicable provisions of the *Radiocommunication Act* and its regulations. This authority should not be construed as approving the use of any antenna supporting structure which has not been approved by the Department of Transport from an aeronautical safety point of view. Except as provided in the regulations, no change in the apparatus or operations shall be made without the authority of the Minister, Innovation, Science and Economic Development Canada, and the licensee shall notify the Department in writing upon a change of address.

The Department may, at a future date, require the licensee to install filters, tone coding devices, reduce the effective radiated power and/or antenna height as appropriate.

Service indicates the category of service the station is authorized to perform.

For further information regarding your radio licence please contact your nearest Innovation, Science and Economic Development Canada District Office. The *Radiocommunication Act* and the Radiocommunication Regulations are available on Internet at:

Enquiries concerning this radio licence should be directed to your Innovation, Science and Economic Development Canada District Office.

You can consult our list of offices at :

<http://www.ic.gc.ca/eic/site/smt-gst.nsf/eng/sf01742.html>



SPECTRUM LICENCE

Issued under the authority of the Minister of Industry in accordance with the *Radiocommunication Act* and regulations made thereunder.

This licence may be amended by the Minister. For the latest version and status of this licence, please consult the Innovation, Science and Economic Development Canada website at <http://www.ic.gc.ca/spectrum>

EFFECTIVE DATE	EXPIRY DATE	LICENCE NUMBER	ACCOUNT NUMBER
March 19, 2019	March 31, 2022	010805940-001	061150000004

SERVICE TYPE	LICENCE HOLDER TYPE
Non-Auction / MSS Above 1 GHz	Radiocommunication user

Licence mailing address:

Authorization under this licence is granted to:

Ligado Networks (Canada) Inc.
Attn: Beth Creary
1601 Telesat Court
Ottawa ON
K1B 1B9

Ligado Networks (Canada) Inc.
Attn: Beth Creary
1601 Telesat Court
Ottawa ON
K1B 1B9

THIS LICENCE AUTHORIZES THE OPERATION OF THE SPECIFIED RADIO FREQUENCIES IN THE SERVICE AREA LISTED BELOW



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EFFECTIVE DATE	EXPIRY DATE	LICENCE NUMBER	ACCOUNT NUMBER
March 19, 2019	March 31, 2022	010805940-001	061150000004

LICENCE CONDITIONS

This licence authorizes the use of spectrum at the 107.3°W orbital position by MSAT-2 for the provision of mobile-satellite service (MSS) associated with the ITU filings CANSAT(107.3W)-L and CANSAT-67.

This licence includes coverage of visible Earth, subject to Ligado Canada obtaining appropriate regulatory approvals in jurisdictions in which it intends to provide service.

This licence expires on March 31, 2026.

Appendix N2 - Space station licences

The standard conditions of licence for space stations apply. Please see the complete text of the conditions and take note of any restrictions or limitations imposed.

A copy of the conditions of licence for space stations can be found at <http://www.ic.gc.ca/eic/site/smt-gst.nsf/eng/sf11150.html>. You can also navigate to the standard conditions of licence for space stations on our website: www.ic.gc.ca/spectrum-conditions.

Appendix N3 - Mobile Satellite Service (MSS) provider licences

The standard conditions of licence apply to this authorization. Please see the complete text of the conditions and take note of any restrictions or limitations imposed.

A copy of the conditions of licence for MSS service providers can be viewed at <http://www.ic.gc.ca/eic/site/smt-gst.nsf/eng/sf11149.html>. You can also navigate to the standard MSS conditions of licence on our website: www.ic.gc.ca/spectrum-conditions.

In addition to N2 and N3, the following conditions apply:

- Service link operations shall be restricted to those band segments allotted to Ligado Canada by means of:
 - the 2017 Quadrilateral Coordination Agreement by and Among Inmarsat Global Limited, Ligado Global Limited, Ligado Networks (Canada) Inc., and Telecomunicaciones de México;
 - the 1999 Operating Agreement for Geostationary Mobile-Satellite Systems Operating in the Bands 1525-1544/1545-1559 and 1626.5 1645.5/1646.5 1660.5 MHz, originally established at Mexico City, Mexico, in June 1996, or any subsequent amendments to this operating agreement, and;
 - the 2008 Understanding between the Department of Industry (Canada), the Federal Communications Commission (USA) and the Office of Communications (UK) for the Coordination of Satellite Networks Operating in the L Frequency Band.
- In accordance with No. 5.357A of the ITU Radio Regulations, in the bands 1545-1555 MHz and 1646.5-1656.5 MHz, stations of mobile satellite systems shall give priority to accommodating the spectrum requirements of the aeronautical mobile-satellite (R) service providing transmissions of messages with priorities 1 to 6 as described in Article 44.
- In accordance with No. 5.353A of the ITU Radio Regulations, in the bands 1530-1544 MHz and 1626.5-1645.5 MHz, maritime mobile-satellite distress, urgency and safety communications shall have priority access and immediate availability over all other mobile-satellite communications. Communications with stations not participating in the global maritime distress and safety system (GMDSS) shall not cause unacceptable interference to, or claim interference from, distress, urgency and safety communications of the GMDSS.
- Authorization of any future operation of ancillary terrestrial component (ATC) mobile services will be subject to the Department's Radio Systems Policy, RP-023 - Spectrum and Licensing Policy to Permit Ancillary Terrestrial Mobile Services as Part of Mobile-Satellite Service Offerings, noting further technical standards will need to be developed. Also, as indicated in RP-023, the spectrum fees for ATC mobile services will be established in a future public consultation.

SERVICE AREA
Canada

SERVICE AREA ID
1-001



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March 19, 2019	March 31, 2022	010805940-001	061150000004

FREQUENCIES		SPECTRUM (MHz)	CONDITIONS
FROM	TO		
1 631.5000 MHz	1 660.5000 MHz	3.8690 MHz	L Earth to space / Terre vers espace
1 530.0000 MHz	1 559.0000 MHz	3.8690 MHz	L space to Earth / espace vers Terre



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AREA DESCRIPTION

This is the Tier 1 map for a National Service Area. The map illustrates the boundaries of the Tier 1-01. Provinces and territories contained within the boundaries of Tier 1-01 include: Newfoundland and Labrador, Prince Edward Island, Nova Scotia, New Brunswick, Québec, Ontario, Manitoba, Saskatchewan, Alberta, British Columbia, Yukon, Northwest Territories and Nunavut. |Ceci est une carte de lotissement pour le niveau 1 de la zone de service national. La carte illustre les limites de la zone de service 1-01. Les provinces et territoires contenus dans les limites de la zone de service 1-01 comprennent : Terre-Neuve et Labrador, l'Île-du-Prince-Édouard, Nouvelle-Écosse, Nouveau-Brunswick, Québec, Ontario, Manitoba, Saskatchewan, Alberta, Colombie-Britannique, Yukon, Territoires du Nord-Ouest et Nunavut.





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LICENCE APPENDICES

Please direct enquiries concerning this licence to your local district office. Contact information can be found at <http://www.ic.gc.ca/eic/site/smt-gst.nsf/eng/sf01742.html>