


APPLICATION FOR EARTH STATION SPECIAL TEMPORARY AUTHORITY

APPLICANT INFORMATION Enter a description of this application to identify it on the main menu:
60-Day STA for TT&C

1. Applicant

Name:	RBC Signals, LLC	Phone Number:	404-803-7734
DBA Name:		Fax Number:	United States
Street:	2205 152nd Ave NE	E-Mail:	crichins@rbcsignals.com
City:	Redmond	State:	WA
Country:	USA	Zipcode:	98052
Attention:	Mr. Christopher Richins		

File # SES-STA-20180118-00042
Call Sign 1-26-18 **Grant Date** _____
(or other identifier)
Term Dates **From:** 1-26-18 **To:** 3-27-18
Approved: Paul E. Richins



Applicant: RBC Signals, LLC
File No SES-STA-20180118-00042
Call Sign: None
Special Temporary Authority (STA)

RBC Signals, LLC, is authorized from January 26, 2018, for 60 days, to operate a 3.57 meter Yagi antenna fixed earth station in Deadhorse, AK, to provide telemetry, tracking and command services to the U.S.-licensed Astranis Demosat-2 satellite in the 401.6-401.75 MHz frequency band (Earth-to-space) and (space-to-Earth) frequency band under the following conditions:

1. Operations must comply with pertinent conditions established in the FCC Experimental Licensing System (ELS) file number 1624-EX-ST-2017.
2. The Remote Control Point Location located at 2205 152nd Street NE, Redmond (King), Washington 98052, Tel.650-746-8744 must be available at all times to respond to interference issues and shut down operations if needed.
3. Operations shall be on an unprotected, non-interference basis with respect to other authorized stations, including federal stations.
4. This is not a grant of market access to the United States.
5. Any future requests or extensions will need to submit applications to the FCC, which will be re-coordinated with NTIA.
6. RBC Signals, LLC shall have no expectations that future operations will be approved.
8. Any action taken or expense incurred as a result of operations pursuant to this STA is solely at RBC Signals, LLC's risk.
9. Grant of this STA is without prejudice to any determination that the Commission may make regarding any future applications.

This grant 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.



File # SES-STA-20180118-00042
Call Sign _____ Grant Date 1/26/18
(or other identifier)
Term Dates
From: 1/26/18 To: 3/27/18
Approved: Paul E. Black

2. Contact	
Name: Carlos Nalda	Phone Number: 5713325626
Company: LMI Advisors	Fax Number:
Street: 2550 M Street NW Suite 345	E-Mail: cnalda@lmiadvisors.com
City: Washington	State: DC
Country: USA	Zipcode: 20037 -
Attention:	Relationship: Other
(If your application is related to an application filed with the Commission, enter either the file number or the IB Submission ID of the related application. Please enter only one.)	
3. Reference File Number or Submission ID	
4a. Is a fee submitted with this application?	
<input checked="" type="radio"/> If Yes, complete and attach FCC Form 159. If No, indicate reason for fee exemption (see 47 C.F.R. Section 1.1114).	
<input type="radio"/> Governmental Entity <input type="radio"/> Noncommercial educational licensee	
<input type="radio"/> Other (please explain):	
4b. Fee Classification CGX – Fixed Satellite Transmit/Receive Earth Station	
5. Type Request	
<input checked="" type="radio"/> Use, Prior to Grant <input type="radio"/> Change Station Location <input type="radio"/> Other	
6. Requested Use Prior Date 01/18/2018	
7. City/Deadhorse	
8. Latitude (dd mm ss.s b) 70 12 45.0 N	

9. State AK	10. Longitude (dd mm ss.s h) 148 24 29.0 W
11. Please supply any need attachments. Attachment 1: Narrative Attachment 2: Form 312 Schedule B Attachment 3:	
12. Description. (If the complete description does not appear in this box, please go to the end of the form to view it in its entirety.) 60-day STA to perform TT&C for the U.S.-licensed Astranis Demosat-2 from Deadhorse, AK.	
13. By checking Yes, the undersigned certifies that neither applicant nor any other party to the application is subject to a denial of Federal benefits that includes FCC benefits pursuant to Section 5301 of the Anti-Drug Act of 1988, 21 U.S.C. Section 862, because of a conviction for possession or distribution of a controlled substance. See 47 CFR 1.2002(b) for the meaning of "party to the application"; for these purposes. <input checked="" type="radio"/> Yes <input type="radio"/> No	
14. Name of Person Signing Christopher Richins	15. Title of Person Signing CEO
WILLFUL FALSE STATEMENTS MADE ON THIS FORM ARE PUNISHABLE BY FINE AND / OR IMPRISONMENT (U.S. Code, Title 18, Section 1001), AND/OR REVOCATION OF ANY STATION AUTHORIZATION (U.S. Code, Title 47, Section 312(a)(1)), AND/OR FORFEITURE (U.S. Code, Title 47, Section 503).	

FCC NOTICE REQUIRED BY THE PAPERWORK REDUCTION ACT

The public reporting for this collection of information is estimated to average 2 hours per response, including the time for reviewing instructions, searching existing data sources, gathering and maintaining the required data, and completing and reviewing the collection of information. If you have any comments on this burden estimate, or how we can improve the collection and reduce the burden it causes you, please write to the Federal Communications Commission, AMD-PERM, Paperwork Reduction Project (3060-0678), Washington, DC 20554. We will also accept your comments regarding the Paperwork Reduction Act aspects of this collection via the Internet if you send them to PRA@fcc.gov. PLEASE DO NOT SEND COMPLETED FORMS TO THIS ADDRESS.

Remember – You are not required to respond to a collection of information sponsored by the Federal government, and the government may not conduct or sponsor this collection, unless it displays a currently valid OMB control number or if we fail to provide you with this notice. This collection has been assigned an OMB control number of 3060-0678.

THE FOREGOING NOTICE IS REQUIRED BY THE PAPERWORK REDUCTION ACT OF 1995, PUBLIC LAW 104-13, OCTOBER 1, 1995, 44 U.S.C. SECTION 3507.

Approved by OMB
3060-0678

Date & Time Filed:
File Number: ---
Callsign/Satellite ID:

APPLICATION FOR EARTH STATION AUTHORIZATIONS	FCC Use Only
FCC 312 MAIN FORM FOR OFFICIAL USE ONLY	

APPLICANT INFORMATION

Enter a description of this application to identify it on the main menu:
DRAFT FORM TO SUPPORT 60-DAY STA REQUEST

1-8. Legal Name of Applicant			
Name:	RBC Signals, LLC	Phone Number:	404-803-7734
DBA Name:		Fax Number:	
Street:	2205 152nd Ave NE	E-Mail:	crichins@rbcsignals.com
City:	Redmond	State:	WA
Country:	USA	Zipcode:	98052 -
Attention:	Mr. Christopher Richins		
9-16. Name of Contact Representative			
Name:	Carlos Nalda	Phone Number:	5713325626
Company:	LMI Advisors	Fax Number:	
Street:	2550 M Street NW Suite 345	E-Mail:	cnalda@lmiadvisors.com
City:	Washington	State:	DC
Country:	USA	Zipcode:	20037-
Attention:	Mr. Carlos Nalda	Relationship:	Other

CLASSIFICATION OF FILING

17. Choose the button next to the classification that applies to this filing for both questions a. and b. Choose only one for 17a and only one for 17b.	
a. <input checked="" type="radio"/> a1. Earth Station (N/A) a2. Space Station	b. <input type="radio"/> b1. Application for License of New Station <input type="radio"/> b2. Application for Registration of New Domestic Receive-Only Station (N/A) b3. Amendment to a Pending Application (N/A) b4. Modification of License or Registration (N/A) b5. Assignment of License or Registration (N/A) b6. Transfer of Control of License or Registration (N/A) b7. Notification of Minor Modification (N/A) b8. Application for License of New Receive-Only Station Using Non-U.S. Licensed Satellite (N/A) b9. Letter of Intent to Use Non-U.S. Licensed Satellite to Provide Service in the United States <input checked="" type="radio"/> b10. Other (Please specify) <input type="radio"/> b11. Application for Earth Station to Access a Non-U.S. satellite Not Currently Authorized to Provide the Proposed Service in the Proposed Frequencies in the United States.
17c. Is a fee submitted with this application?	
<input type="radio"/> If Yes, complete and attach FCC Form 159. If No, indicate reason for fee exemption (see 47 C.F.R. Section 1.1114). <input type="radio"/> Governmental Entity <input type="radio"/> Noncommercial educational licensee <input checked="" type="radio"/> Other (please explain): DRAFT FORM	
17d. Fee Classification	
18. If this filing is in reference to an	19. If this filing is an amendment to a pending application enter:

existing station, enter: (a) Call sign of station: Not Applicable	(a) Date pending application was filed: Not Applicable	(b) File number of pending application: Not Applicable
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TYPE OF SERVICE

20. NATURE OF SERVICE: This filing is for an authorization to provide or use the following type(s) of service(s): Select all that apply:

a. Fixed Satellite
 b. Mobile Satellite
 c. Radiodetermination Satellite
 d. Earth Exploration Satellite
 e. Direct to Home Fixed Satellite
 f. Digital Audio Radio Service
 g. Other (please specify)
 NGSO

21. STATUS: Choose the button next to the applicable status. Choose only one.
 Common Carrier Non-Common Carrier

22. If earth station applicant, check all that apply.
 Using U.S. licensed satellites
 Using Non-U.S. licensed satellites

23. If applicant is providing INTERNATIONAL COMMON CARRIER service, see instructions regarding Sec. 214 filings. Choose one. Are these facilities:
 Connected to a Public Switched Network Not connected to a Public Switched Network N/A

24. FREQUENCY BAND(S): Place an "X" in the box(es) next to all applicable frequency band(s).
 a. C-Band (4/6 GHz) b. Ku-Band (12/14 GHz)
 c. Other (Please specify upper and lower frequencies in MHz.)
 Frequency Lower: 401.6 Frequency Upper: 401.75

TYPE OF STATION

25. CLASS OF STATION: Choose the button next to the class of station that applies. Choose only one.
 a. Fixed Earth Station
 b. Temporary-Fixed Earth Station
 c. 12/14 GHz VSAT Network
 d. Mobile Earth Station
 (N/A) e. Geostationary Space Station
 (N/A) f. Non-Geostationary Space Station
 g. Other (please specify)

26. TYPE OF EARTH STATION FACILITY: Choose only one.
 Transmit/Receive Transmit-Only Receive-Only N/A

PURPOSE OF MODIFICATION

27. The purpose of this proposed modification is to: (Place an 'X' in the box(es) next to all that apply.)
 Not Applicable

ENVIRONMENTAL POLICY

28. Would a Commission grant of any proposal in this application or amendment have a significant environmental impact as defined by 47 CFR 1.1307? If YES, submit the statement as required by Sections 1.1308 and 1.1311 of the Commission's rules, 47 C.F.R. §§ 1.1308 and 1.1311, as an exhibit to this application. A Radiation Hazard Study must accompany all applications for new transmitting facilities, major modifications, or major amendments. Yes No

ALIEN OWNERSHIP Earth station applicants not proposing to provide broadcast, common carrier, aeronautical en route or aeronautical fixed radio station services are not required to respond to Items 30-34.

29. Is the applicant a foreign government or the representative of any foreign government? Yes No

30. Is the applicant an alien or the representative of an alien? Yes No N/A

31. Is the applicant a corporation organized under the laws of any foreign government? Yes No N/A

32. Is the applicant a corporation of which more than one-fifth of the capital stock is owned of record or voted by aliens or their representatives or by a foreign government or representative thereof or by any corporation organized under the laws of a foreign country? Yes No N/A

33. Is the applicant a corporation directly or indirectly controlled by any other corporation of which more than one-fourth of the capital stock is owned of record or voted by aliens, their representatives, or by a Yes No N/A

foreign government or representative thereof or by any corporation organized under the laws of a foreign country?

34. If any answer to questions 29, 30, 31, 32 and/or 33 is Yes, attach as an exhibit an identification of the aliens or foreign entities, their nationality, their relationship to the applicant, and the percentage of stock they own or vote.

BASIC QUALIFICATIONS

35. Does the Applicant request any waivers or exemptions from any of the Commission's Rules? Yes No
If Yes, attach as an exhibit, copies of the requests for waivers or exceptions with supporting documents.

36. Has the applicant or any party to this application or amendment had any FCC station authorization or license revoked or had any application for an initial, modification or renewal of FCC station authorization, license, or construction permit denied by the Commission? If Yes, attach as an exhibit, an explanation of circumstances. Yes No

37. Has the applicant, or any party to this application or amendment, or any party directly or indirectly controlling the applicant ever been convicted of a felony by any state or federal court? If Yes, attach as an exhibit, an explanation of circumstances. Yes No

38. Has any court finally adjudged the applicant, or any person directly or indirectly controlling the applicant, guilty of unlawfully monopolizing or attempting unlawfully to monopolize radio communication, directly or indirectly, through control of manufacture or sale of radio apparatus, exclusive traffic arrangement or any other means or unfair methods of competition? If Yes, attach as an exhibit, an explanation of circumstances. Yes No

39. Is the applicant, or any person directly or indirectly controlling the applicant, currently a party in any pending matter referred to in the preceding two items? If yes, attach as an exhibit, an explanation of the circumstances. Yes No

40. If the applicant is a corporation and is applying for a space station license, attach as an exhibit the names, address, and citizenship of those stockholders owning a record and/or voting 10 percent or more of the Filer's voting stock and the percentages so held. In the case of fiduciary control, indicate the beneficiary(ies) or class of beneficiaries. Also list the names and addresses of the officers and directors of the Filer.

41. By checking Yes, the undersigned certifies, that neither applicant nor any other party to the application is subject to a denial of Federal benefits that includes FCC benefits pursuant to Section 5301 of the Anti-Drug Act of 1988, 21 U.S.C. Section 862, because of a conviction for possession or distribution of a controlled substance. *See 47 CFR 1.2002(b) for the meaning of "party to the application" for these purposes.* Yes No

42a. Does the applicant intend to use a non-U.S. licensed satellite to provide service in the United States? If Yes, answer 42b and attach an exhibit providing the information specified in 47 C.F.R. 25.137, as appropriate. If No, proceed to question 43. Yes No

42b. What administration has licensed or is in the process of licensing the space station? If no license will be issued, what administration has coordinated or is in the process of coordinating the space station?

43. Description. (Summarize the nature of the application and the services to be provided). Draft form to support 60-day STA request for TT&C for Astranis Demosat-2.

43a. Geographic Service Rule Certification

By selecting A, the undersigned certifies that the applicant is not subject to the geographic service or geographic coverage requirements specified in 47 C.F.R. Part 25. A

By selecting B, the undersigned certifies that the applicant is subject to the geographic service or geographic coverage requirements specified in 47 C.F.R. Part 25 and will comply with such requirements. B

By selecting C, the undersigned certifies that the applicant is subject to the geographic service or geographic coverage requirements specified in 47 C.F.R. Part 25 and will not comply with such requirements because it is not feasible as a technical matter to do so, or that, while technically feasible, such services would require so many compromises in satellite design and operation as to make it economically unreasonable. A narrative description and technical analysis demonstrating this claim are attached. C

CERTIFICATION

The Applicant waives any claim to the use of any particular frequency or of the electromagnetic spectrum as against the regulatory power of the United States because of the previous use of the same, whether by license or otherwise, and requests an authorization in accordance with this application. The applicant certifies that grant of this application would not cause the applicant to be in violation of the spectrum aggregation limit in 47 CFR Part 20. All statements made in exhibits are a material part hereof and are incorporated herein as if set out in full in this application. The undersigned, individually and for the applicant, hereby certifies that all statements made in this application and in all attached exhibits are true, complete and correct to the best of his or her knowledge and belief, and are made in good faith.

44. Applicant is a (an): (Choose the button next to applicable response.)

- Individual
- Unincorporated Association
- Partnership
- Corporation
- Governmental Entity
- Other (please specify)
LLC

45. Name of Person Signing Christopher Richins	46. Title of Person Signing CEO
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47. Please supply any need attachments.

Attachment 1:	Attachment 2:	Attachment 3:
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WILLFUL FALSE STATEMENTS MADE ON THIS FORM ARE PUNISHABLE BY FINE AND / OR IMPRISONMENT (U.S. Code, Title 18, Section 1001), AND/OR REVOCATION OF ANY STATION AUTHORIZATION (U.S. Code, Title 47, Section 312(a)(1)), AND/OR FORFEITURE (U.S. Code, Title 47, Section 503).

SATELLITE EARTH STATION AUTHORIZATIONS FCC Form 312 - Schedule B:(Technical and Operational Description)

FOR OFFICIAL USE ONLY

Location of Earth Station Site			
E1: Site Identifier:	RBC-Deadhorse	E5: Call Sign:	
E2: Contact Name	Christopher Richins	E6: Phone Number:	650-746-8744
E3: Street:	DS12 Access Road	E7: City:	Deadhorse
E4: State	AK	E8: County:	North Slope Borough
E10: Area of Operation:	Deadhorse, Alaska		
E11: Latitude:	70 ° 12' 45.0 " N		
E12: Longitude:	148 ° 24' 29.0 " W		
E13: Lat/Lon Coordinates are:	<input type="radio"/> NAD-27	<input checked="" type="radio"/> NAD-83	<input type="radio"/> N/A
E14: Site Elevation (AMSL):	15.0 meters		

E15. If the proposed antenna(s) operate in the Fixed Satellite Service (FSS) with geostationary satellites, do(es) the proposed antenna(s) comply with the antenna gain patterns specified in Section 25.209(a) and (b) as demonstrated by the manufacturer's qualification measurement? If NO, provide a technical analysis showing compliance with two-degree spacing policy.	<input type="radio"/> Yes <input type="radio"/> No <input checked="" type="radio"/> N/A
E16. If the proposed antenna(s) do not operate in the Fixed Satellite Service (FSS), or if they operate in the Fixed Satellite Service (FSS) with non-geostationary satellites, do(es) the proposed antenna(s) comply with the antenna gain patterns specified in Section 25.209(a2) and (b) as demonstrated by the manufacturer's qualification measurements?	<input checked="" type="radio"/> Yes <input type="radio"/> No <input type="radio"/> N/A
E17. Is the facility operated by remote control? If YES, provide the location and telephone number of the control point.	<input checked="" type="radio"/> Yes <input type="radio"/> No
E18. Is frequency coordination required? If YES, attach a frequency coordination report as	<input type="radio"/> Yes <input checked="" type="radio"/> No
E19. Is coordination with another country required? If YES, attach the name of the country(ies) and plot of coordination contours as	<input type="radio"/> Yes <input checked="" type="radio"/> No
E20. FAA Notification - (See 47 CFR Part 17 and 47 CFR part 25.113(c)) Where FAA notification is required, have you attached a copy of a completed FCC Form 854 and or the FAA's study regarding the potential hazard of the structure to aviation? FAILURE TO COMPLY WITH 47 CFR PARTS 17 AND 25 WILL RESULT IN THE RETURN OF THIS APPLICATION.	<input type="radio"/> Yes <input checked="" type="radio"/> No

POINTS OF COMMUNICATION

Satellite Name: OTHER OTHER If you selected OTHER, please enter the following:	
E21. Common Name: DEMOSAT-2	E22. ITU Name:
E23. Orbit Location: NSGO	E24. Country: USA

POINTS OF COMMUNICATION (Destination Points)

E25. Site Identifier: RBC-Deadhorse	
E26. Common Name:	E27. Country: USA

ANTENNA

Site ID	E28. Antenna Id	E29. Quantity	E30. Manufacturer	E31. Model	E32. Antenna Size	E41/42. Antenna Gain Transmint and/or Recieve(____dBi at ____GHz)		
RBC-Deadhorse	YAGI-1	1	M2 Antenna Systems	400CP30A	3.57	16.2 dBi at 0.400		
E28. Antenna Id	E33/34. Diameter Minor/Major(meters)		E35. Above Ground Level (meters)	E36. Above Sea Level (meters)	E37. Building Height Above Ground Level (meters)	E38. Total Input Power at antenna flange (Watts)	E39. Maximum Antenna Height Above Rooftop (meters)	E40. Total EIRP for al carriers (dBW)
YAGI-1	0.025/3.57		15.0	0.0	0.0	8.93	0.0	25.7

FREQUENCY

E28. Antenna Id	E43/44. Frequency Bands(MHz)	E45. T/R Mode	E46. Antenna Polarization(H,V,L,R)	E47. Emission Designator	E48. Maximum EIRP per Carrier(dBW)	E49. Maximum ERIP Density per Carrier(dBW/4kHz)
YAGI-1	401.6 401.75	R	Right Hand Circular	33K0G1D	0.0	0.0
E50. Modulation and Services TT&C Downlink						
YAGI-1	401.6 401.75	R	Right Hand Circular	4K13G1D	0.0	0.0
E50. Modulation and Services TT&C Downlink						
YAGI-1	401.6 401.75	R	Right Hand Circular	99K1G1D	0.0	0.0
E50. Modulation and Services TT&C Downlink						
YAGI-1	401.6 401.75	T	Right Hand Circular	33K0G1D	25.7	16.5
E50. Modulation and Services TT&C Uplink						
YAGI-1	401.6 401.75	T	Right Hand Circular	4K13G1D	25.7	25.6
E50. Modulation and Services TT&C Uplink						
YAGI-1	401.6 401.75	T	Right Hand Circular	99K1G1D	25.7	11.8
E50. Modulation and Services TT&C Uplink						

FREQUENCY COORDINATION

E28. Antenna Id	E51. Satellite Orbit Type	E52/53. Frequency Limits(MHz)	E54/55. Range of Satellite Arc E/W Limit	E56. Earth Station Azimuth Angle Eastern Limit	E57. Antenna Elevation Angle Eastern Limit	E58. Earth Station Azimuth Angle Western Limit	E59. Antenna Elevation Angle Western Limit	E60. Maximum EIRP Density toward the Horizon(dBW/4kHz)
YAGI-1	Non-Geostationary	401.6 401.75	0.0/ 0.0	0.0	5.0	360.0	5.0	25.6

REMOTE CONTROL POINT LOCATION
REMOTE CONTROL POINT LOCATION

E61. Call Sign NOTE: Please enter the callsign of the controlling station, not the callsign for which this application is being filed.	E65. Phone Number 650-746-8744
E62. Street Address	

2205 152nd Street NE			
E63. City Redmond	E67. County King	E64/68. State/Country WA/ USA	E66. Zip Code 98052

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THE FOREGOING NOTICE IS REQUIRED BY THE PAPERWORK REDUCTION ACT OF 1995, PUBLIC LAW 104-13, OCTOBER 1, 1995, 44 U.S.C. SECTION 3507.

**Before the
FEDERAL COMMUNICATIONS COMMISSION
Washington, DC 20554**

In the Matter of

Application of RBC Signals LLC for a)	
60-Day Special Temporary Authorization)	Call Sign:
To Operate an Earth Station To Provide)	
Tracking, Telemetry & Command to a)	File No.:
U.S.-Licensed Satellite)	

REQUEST FOR SPECIAL TEMPORARY AUTHORITY

RBC Signals LLC (“RBC Signals”), pursuant to Section 25.120 of the Commission’s rules, 47 C.F.R. § 25.120, respectfully requests an expedited 60-day special temporary authorization (“STA”) to operate the previously-licensed Yagi ground station (the “400 MHz Yagi”) at an existing facility in Deadhorse, Alaska, to communicate with the U.S.-licensed Astranis Demosat-2 satellite, a low-Earth orbit (“LEO”) non-geostationary satellite orbit (“NGSO”) cubesat operated by Astranis Space Technologies Corp. (“Astranis”). RBC Signals seeks to perform tracking, telemetry and command (“TT&C”) for the Astranis Demosat-2 in the 401.6-401.75 MHz band (Earth-to-space/space-to-Earth) and requests expedited grant of this 60-day STA due to unforeseen and unidentified interference at Astranis’ currently authorized TT&C site.

The proposed TT&C operations are virtually identical to those already authorized at the RBC Signals facility in Deadhorse, Alaska,¹ and thus there is no material change in the potential for interference from RBC Signals’ authorized operations at that location. Accordingly, grant of the requested STA – which is necessitated by extraordinary and unforeseen circumstances that prevent proper functioning of Astranis’ original TT&C site – will serve the public interest,

¹ See RBC Signals, LLC, File Nos. SES-STA-20170613-00643 (“*RBC Signals 60-day STA*”) and SES-STA-20170731-00848 (“*RBC Signals 180-day STA*”). These authorizations enabled RBC Signals to provide TT&C support for the 3 Diamonds NGSO satellites in the 401-402 MHz band.

convenience and necessity.

I. DISCUSSION

TT&C for the Astranis Demosat-2 satellite was to be supported from a site in Fairbanks, Alaska, pursuant to Astranis' experimental authorization.² Unknown interference has forced Astranis to seek TT&C support from a different facility and it has partnered with RBC Signals, which is able to provide immediate support for the Astranis Demosat-2 mission using its currently authorized TT&C earth station in Deadhorse, Alaska. Grant of this STA request is critical for the ongoing reliability of the Astranis mission and will allow for the short-term continuation of services while RBC Signals and Astranis attempt to address the interference issue at the Fairbanks facility and secure regular authority for TT&C operations from Deadhorse (should they be unsuccessful in resolving the issues in Fairbanks).

RBC Signals has conferred with Commission staff regarding the emergency nature of this situation and received verbal and email confirmation from Commission staff to immediately begin TT&C operations on a non-interference basis.³ RBC Signals files this request to secure formal 60-day STA authority and will file an application for regular authority for these operations shortly.⁴

RBC Signals' short-term TT&C operations, which are conducted on an unprotected and non-interference basis and only as-needed to communicate with the satellite as it passes over the Deadhorse earth station (between one and six times per day), are identical to the operations

² See Astranis Space Technologies Corp., File Nos. 1624-EX-ST-2017 and 0113-EX-ST-2017, Call Sign WL9XAF (“*Astranis Experimental Authorization*”).

³ See Email Correspondence with Paul Blais, Chief, Systems Analysis Branch, Satellite Division, International Bureau, *RE: URGENT – Astranis Satellite TT&C Issue* (Jan. 17, 2018).

⁴ RBC Signals will soon file an application for regular authority for its Deadhorse, Alaska, facility that will include TT&C support for the Astranis Demosat-2 satellite.

previously described in the *Astranis Experimental License* application.⁵ RBC Signals incorporates by reference the satellite and earth station information previously provided by Astranis, and provides the draft FCC Form 312 Schedule B for information relating to the operating parameters of the 400 MHz Yagi with Astranis Demosat-2.

The proposed TT&C operations are also consistent with the TT&C operations already authorized by the Commission and conducted by RBC Signals at the Deadhorse facility.⁶ RBC Signals' existing operations in the 401-402 MHz band at Deadhorse have not caused interference to other users of the band and RBC Signals will work with Commission, NTIA, and NOAA staff to ensure that the additional Astranis Demosat-2 operations will not create any increase in potential interference to current or future government users. If RBC Signals learns that its operations are causing harmful interference to others, it will suspend or modify its operations to immediately resolve such interference.

The United States Table of Frequency Allocations ("Table of Allocations"), Section 2.106 of the Commission's rules, 47 C.F.R. § 2.106, provides that the 401-402 MHz band is shared on a co-primary basis between meteorological aids and space operations services. RBC Signals seeks to perform TT&C uplink and downlink operations in the 401.6-401.75 MHz band pursuant to the co-primary space operations allocation in this band.⁷

The public interest would be served by a grant at the earliest practicable time of a 60-day STA to allow RBC Signals to perform TT&C functions for the Astranis Demosat-2 satellite using

⁵ See Astranis Space Technologies Corp., File Nos. 1624-EX-ST-2017 and 0113-EX-ST-2017, Call Sign WL9XAF, Updated Narrative and Attachments (filed on Aug. 8, 2017).

⁶ See *RBC Signals 60-day STA* and *RBC Signals 180-day STA*.

⁷ See 47 C.F.R. § 2.1 (defining "space operations" as "a radiocommunication service concerned exclusively with the operation of spacecraft, in particular space tracking, space telemetry, and space telecommand.").

the 400 MHz Yagi in Deadhorse, Alaska. Grant of this STA request will further the public interest by ensuring that RBC Signals' can provide immediate and critical TT&C support for the Astranis Demosat-2 satellite, thus enabling the continued control of this U.S.-licensed satellite and facilitating the development of next-generation satellite technologies. The proposed operations will cause no increase in interference to existing user of the band and RBC Signals acknowledges that any action on the requested STA will not affect the Commission's ultimate determination with respect to any forthcoming application for longer-term earth station authority for these operations.

II. CONCLUSION

As discussed herein, grant of the requested STA is warranted by unique and unforeseen circumstances and would strongly serve the public interest. In view of these circumstances, and because the proposed operations are essentially identically to those already authorized at the Deadhorse facility, RBC Signals respectfully requests grant of this 60-day STA pursuant to Section 25.120 of the Commission's rules, 47 C.F.R. § 25.120, at the earliest practicable time.⁸

⁸ 47 C.F.R. § 25.120(a). The Commission may authorize RBC Signals to commence operations under this STA sooner than 3 working days "upon due showing of extraordinary reasons... which could not have been earlier foreseen by the applicant."