

S2926 SAT-LOI-20140617-00070
Satelites Mexicanos, S.A. de C.V.
SATMEX 9

IB2014001208



*with conditions

File # SAT-LOI-20140617-00070 **
Call Sign S2926 Grant Date 08/20/15
(or other identifier)
Term Dates see
From 08/20/15 To: conditions
Approved: Stephen J. Duall

Stephen J. Duall
Chief, Satellite Policy Branch

see also
SAT-AMD-20141119-00123

Approved by OMB
3060-0678

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APPLICATION FOR SATELLITE SPACE STATION AUTHORIZATIONS FCC 312 MAIN FORM FOR OFFICIAL USE ONLY	FCC Use Only
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APPLICANT INFORMATION

Enter a description of this application to identify it on the main menu:

RNSS Market Access Application

1-8. Legal Name of Applicant			
Name:	Satelites Mexicanos, S.A. de C.V.	Phone Number:	+52 55 2629 5800
DBA Name:		Fax Number:	+52 55 5580 3619
Street:	Av Paseo de la Reforma 222	E-Mail:	Hector.Fortis@satmex.com
City:	Juarez	State:	
Country:	Mexico	Zipcode:	-
Attention:	Mr Hector Fortis		

Satélites Mexicanos, S.A. de C.V.
IBFS File Nos. SAT-LOI-20140617-00070
and SAT-AMD-20141119-00123
Call Sign S2926

The request of Satélites Mexicanos, S.A. de C.V. (Satmex), IBFS File No. SAT-LOI-20140617-00070, as amended by SAT-AMD-20141119-00123, to access the United States market for the provision of radionavigation satellite service (RNSS) using the Satmex 9 space station (Call Sign S2935) is GRANTED.¹ The Satmex 9 space station will operate under the authority of Papua New Guinea at the 117° W.L. orbital location. The grant of market access is for use of the following frequencies at two earth stations in the U.S.: the 6628.27-6650.27 MHz, and 6679.42-6701.42 (Earth-to-space) frequency bands for feeder links, the 4198-4198.4 MHz and 4199.6-4200 MHz (space-to-Earth) frequency bands for antenna alignment and tracking, and the 1165.45-1187.45 MHz and 1564.42-1586.42 MHz (space-to-Earth) frequency bands for Federal Aviation Administration (FAA) Wide Area Augmentation System (WAAS) digital data.² Communications between U.S.-licensed earth stations and the Satmex 9 space station must be in accordance with the terms, conditions, and technical specifications set forth in Satmex's Letter of Intent, as amended, the Federal Communications Commission's rules not waived herein, and the following conditions:

1. Satmex's request for a waiver of Section 25.210(f) of the Commission's rules, 47 C.F.R. 25.210(f) is GRANTED. Section 25.210(f) requires that Fixed-Satellite Service (FSS) space stations employ full frequency re-use either through orthogonal polarization in the same beam and/or the use of spatially independent beams. The purpose of the rule, applicable only to Satmex's use of the C-band frequencies which operate in an FSS frequency allocation, is to ensure that space stations maximize the use of the spectrum. Granting Satmex a waiver of Section 25.210(f) would not prevent other licensees' use of the same spectrum through orthogonal polarization, preserving the maximum utilization of the spectrum.

2. Satmex's request for a waiver of Section 25.210(i) of the Commission's rules, 47 C.F.R. § 25.210(i), is GRANTED. Section 25.210(i) requires space station antennas in the FSS to be designed to meet a cross-polarization isolation of at least 30 dB within the primary coverage area of the antenna. This rule applies only to the C-band uplink of the Satmex 9 RNSS payload. Satmex states that the cross-polar isolation of the Satmex 9 RNSS C-band receive antenna is 23.3 dB, less than the 30 dB requirement in the rule. Satmex further states that the shortfall in the cross-polar isolation will not adversely impact the Satmex 9 RNSS mission or other users of the spectrum. Under this waiver, Satmex must accept any interference it may receive in the C-band from any other licensed user of the spectrum that complies with the Section 25.210(i).

3. Satmex's request for a waiver of Section 25.283 of the Commission's rules, 47 C.F.R. § 25.283(c) is GRANTED. The Satmex 9 space station is a Boeing model 702SP, that uses a xenon ion propulsion system that will remain pressurized at the satellite's end-of-life.

¹ The application was placed on Public Notice on December 12, 2014. Policy Branch Information Satellite Space Applications Accepted for filing, *Public Notice*, Report No. SAT-01058 (Dec. 12, 2014). No comments were filed in response to the Notice.

² See IBFS File Nos. SES-MFS-20140630-00546 and SES-MFS-20140630-00548, granted contemporaneously.

Satélites Mexicanos, S.A. de C.V.
IBFS File Nos. SAT-LOI-20140617-00070
and SAT-AMD-20141119-00123
Call Sign S2926

Satmex projects the amount of xenon remaining at end-of-life to be 4.2 Kg, in a single tank with volume of roughly 233 liters, and at a pressure between 40 and 80 psi.³ We grant this waiver based on the information submitted by Satmex, but find that this information is not sufficient to support a finding that the underlying purpose of Section 25.283(c) would be served. This action is without prejudice to possible future license or grant requirements in connection with other space craft of the same manufacturing series.

4. This grant is based upon the applicant's statement that Papua New Guinea authorities will register the Satmex 9 space object with the United Nations. Applicant is requested to submit written confirmation that appropriate registration documents have been filed with the United Nations Office of Outer Space Affairs, within 10 days after filing, or to report the status of document preparation not later than six months following launch.

5. This grant of market access for the Satmex 9 space station will be null and void with no further action on the Commission's part if the space station is not constructed, launched, and placed into operation in accordance with the milestone schedule in Section 25.164 and the bond requirement in Section 25.165 of the Commission's rules following the date of grant as follows:

- a. Satmex must file a bond with the Commission in the amount of \$3 million, pursuant to the procedures set forth in 47 C.F.R. § 25.165, within 30 days of this grant of U.S. market access;
- b. Enter into a binding non-contingent contract to construct Satmex 9 within one year (August 20, 2016);
- c. Complete critical design review within two years (August 20, 2017);
- d. Commence construction within three years (August 20, 2018);
- e. Launch and begin operations within five years (August 20, 2020).

6. This grant of market access will terminate in the event that the Satmex 9 space station is relocated from the 117° W.L. orbital location or ceases to operate.

7. Satmex is afforded 30 days from the date of this action to decline this grant of U.S. market access, as conditioned. Failure to respond within this period will constitute formal acceptance of this grant, as conditioned.

8. This action is taken pursuant to Section 0.261 of the Commission's rules on delegated authority, 47 C.F.R. § 0.261, and is effective immediately. Petitions for reconsideration under Section 1.106 or applications 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 public notice indicating that this action was taken.


³ The rated burst pressure of the tank is 7300 psi.

Satélites Mexicanos, S.A. de C.V.
IBFS File Nos. SAT-LOI-20140617-00070
and SAT-AMD-20141119-00123
Call Sign S2926

Satmex's request for a waiver of Section 25.131(j) of the Commission's rules, 47 C.F.R. § 25.131(j), to permit radionavigation satellite service terminals to receive transmissions over L1 and L5 GPS frequencies (1564.42-1586.42 and 1165.45-1187.45 MHz, respectively) from the wide area augmentation system transmitter on the Satmex 9 satellite, without obtaining a U.S. license, is also GRANTED. This action is based on the following findings and conclusions:

- a. The RNSS signals offered by this non-U.S. licensed satellite are provided pursuant to a contract with the Federal Aviation Administration (FAA) for use in connection with the FAA's Wide Area Augmentation System (WAAS), and will further the FAA's goals of improving functionality and reliability of the Global Positioning System.
- b. This action has been coordinated with the National Telecommunications and Information Administration.

SAT-LOI-20140617-00070
File # SAT-AMD-20141119-00123

 GRANTED* International Bureau *with conditions	Call Sign <u>S2926</u> Grant Date <u>08/20/15</u>
	(or other identifier)
	Term Dates <u>see</u>
	From <u>08/20/15</u> To: <u>conditions</u>
Approved: <u>Stephen J. Duall</u> Stephen J. Duall Chief, Satellite Policy Branch	

9-16. Name of Contact Representative

Name:	Brian D. Weimer	Phone Number:	202-469-4904
Company:	Sheppard Mullin Richter & Hampton LLP	Fax Number:	202-312-9446
Street:	1300 I Street NW 11th Floor East	E-Mail:	bweimer@sheppardmullin.com
City:	Washington	State:	DC
Country:	USA	Zipcode:	20005 -
Attention:		Relationship:	Legal Counsel

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.

- (N/A) a1. Earth Station
- a2. Space Station

b.

- b1. Application for License of New Station
- (N/A) 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
- b9. Letter of Intent to Use Non-U.S. Licensed Satellite to Provide Service in the United States
- b10. Replacement Satellite Application - no new frequency bands
- b11. Replacement Satellite Application - new frequency bands (Not eligible for streamlined processing)
- b12. Petition for Declaratory Ruling to be Added to the Permitted List
- (N/A) b13. Other (Please specify)

17c. Is a fee submitted with this application?

If Yes, complete and attach FCC Form 159.

If No, indicate reason for fee exemption (see 47 C.F.R. Section 1.1114).

Governmental Entity Noncommercial educational licensee

Other (please explain): No fee required

17c. Fee Classification BNY – Space Station (Geostationary)

18. If this filing is in reference to an existing station, enter:

(a) Call sign of station:

Not Applicable

19. If this filing is an amendment to a pending application enter:

(a) Date pending application was filed:

Not Applicable

(b) File number of pending application:

Not Applicable

TYPE OF SERVICE

<p>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:</p> <p><input type="checkbox"/> a. Fixed Satellite</p> <p><input type="checkbox"/> b. Mobile Satellite</p> <p><input type="checkbox"/> c. Radiodetermination Satellite</p> <p><input type="checkbox"/> d. Earth Exploration Satellite</p> <p><input type="checkbox"/> e. Direct to Home Fixed Satellite</p> <p><input type="checkbox"/> f. Digital Audio Radio Service</p> <p><input checked="" type="checkbox"/> g. Other (please specify) Radionavigation Satellite Service (RNSS)</p>	
<p>21. STATUS: Choose the button next to the applicable status. Choose only one.</p> <p><input type="radio"/> Common Carrier <input checked="" type="radio"/> Non-Common Carrier</p>	<p>22. If earth station applicant, check all that apply.</p> <p>Not Applicable</p>
<p>23. If applicant is providing INTERNATIONAL COMMON CARRIER service, see instructions regarding Sec. 214 filings. Choose one. Are these facilities:</p> <p><input type="radio"/> Connected to a Public Switched Network <input type="radio"/> Not connected to a Public Switched Network <input checked="" type="radio"/> N/A</p>	
<p>24. FREQUENCY BAND(S): Place an "X" in the box(es) next to all applicable frequency band(s).</p> <p><input checked="" type="checkbox"/> a. C-Band (4/6 GHz) <input type="checkbox"/> b. Ku-Band (12/14 GHz)</p> <p><input checked="" type="checkbox"/> c. Other (Please specify upper and lower frequencies in MHz.)</p> <p>Frequency Lower: Frequency Upper: (Please specify additional frequencies in an attachment)</p>	

TYPE OF STATION

25. CLASS OF STATION: Choose the button next to the class of station that applies. Choose only one.

- (N/A) a. Fixed Earth Station
- (N/A) b. Temporary-Fixed Earth Station
- (N/A) c. 12/14 GHz VSAT Network
- (N/A) d. Mobile Earth Station
- e. Geostationary Space Station.
- f. Non-Geostationary Space Station
- g. Other (please specify)

26. TYPE OF EARTH STATION FACILITY: Not Applicable

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?	<input type="radio"/> Yes <input checked="" type="radio"/> No
30. Is the applicant an alien or the representative of an alien?	<input checked="" type="radio"/> Yes <input type="radio"/> No <input type="radio"/> N/A
31. Is the applicant a corporation organized under the laws of any foreign government?	<input checked="" type="radio"/> Yes <input type="radio"/> No <input type="radio"/> 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?	<input checked="" type="radio"/> Yes <input type="radio"/> No <input type="radio"/> 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 foreign government or representative thereof or by any corporation organized under the laws of a foreign country?	<input checked="" type="radio"/> Yes <input type="radio"/> No <input type="radio"/> N/A
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.	Questions 34 & 40

BASIC QUALIFICATIONS

35. Does the Applicant request any waivers or exemptions from any of the Commission's Rules?
If Yes, attach as an exhibit, copies of the requests for waivers or exceptions with supporting documents.

Yes No

Technical Annex

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? Papua New Guinea

43. Description. (Summarize the nature of the application and the services to be provided). (If the complete description does not appear in this box, please go to the end of the form to view it in its entirety.)

Satmex seeks to provide radionavigation satellite services in the United States in order to support the next generation Wide Area Augmentation System that is part of the U.S. Global Positioning System.

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)

45. Name of Person Signing
Hector Fortis

46. Title of Person Signing
Director, International Regulatory

47. Please supply any need attachments.

1: Question 24

2:

3:

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).

Completed Schedule S

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