Approved by OMB 3060-0678

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Callsign: S2695

SATMEX 6 at 113° W. L.

FCC APPLICATION FOR SPACE AND EARTH STATION:MOD OR AMD - MAIN FORM

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:

Amendment to Satmex 6 PSSL application to provide (1) a further description of its orbital avoidance plans and (2) an interference analysis for analog TV/FM signals, as requested by the Commission.

### 1-8. Legal Name of Applicant

Satelites Mexicanos S. A. de C. V. Phone Number: Name:

1152-55-2629-5871

**DBA** 

Fax Number:

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City:

State:

Country:

Mexico

Zipcode:

Attention: Mr Alonso A Picazo

See: SAT-PPLZ0060329-00039



(or other identifier)

4(OUD)A

## ATTACHMENT Conditions of Authorization IBFS File Nos. SAT-PPL-20060329-00030 and SAT-AMD-20060724-00080 August 4, 2006

Pursuant to Sections 303(r), 308, 309, and 310 of the Communications Act of 1934, as amended, 47 U.S.C. §§ 303(r), 308, 309, and 310, and Sections 0.261 and 25.137(c) of the Commission's rules, 47 C.F.R. §§ 0.261, and 25.137(c), the Petition for Declaratory Ruling filed by Satélites Mexicanos, S.A. de C.V. (Satmex), SAT-PPL-20060329-00030,¹ as amended by SAT-AMD-20060724-00080, to add its in-orbit C- and Ku-band Satellite, SATMEX 6, located at the 113° W.L. orbital location and which is licensed by Mexico, to the Commission's Permitted Space Station List IS GRANTED. Accordingly, each earth station with "ALSAT" designated as a point of communication IS GRANTED authority to provide Fixed Satellite Services (FSS) and FSS Direct-to-Home Service (DTH)² to, from, or within the United States, by accessing the SATMEX-6 satellite at the 113° W.L. orbital location in the 5925-6425 MHz (Earth-to-space), 3700-4200 MHz (space-to-Earth), 11.7–12.2 GHz (space-to-Earth) and 14.0–14.5 GHz (Earth-to-space) frequency bands, in accordance with the technical specifications set forth in the petition for declaratory ruling, the Commission's Rules, and subject to the following conditions:

- 1. Communications between ALSAT-designated routine earth stations and the SATMEX of satellite shall be in compliance with coordination agreements reached between Mexico and other Administrations.
- 2. Communications between ALSAT-designated routine earth stations and the SATMEX 6 satellite shall be in compliance with the operator arrangement reached between Satmex and Telesat Canada in 2003, and any future modifications to which the parties agree. See also 47 C.F.R. § 25.158 (b)(ii).

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aproved:

<sup>&</sup>lt;sup>1</sup> The Petition for Declaratory Ruling was placed on Public Notice on June 23, 2006. See Policy Branch Information, Satellite Space Applications Accepted for Filing, Public Notice, Report No. SAT-00371 (rel. June 23, 2006). One comment was filed by Telesat Canada. See Comment of Telesat Canada, filed July 21, 2006.

<sup>&</sup>lt;sup>2</sup> Because Mexico is a member of the World Trade Organization, and the United States and Mexico have a relevant bilateral agreement in place related to the provision of DTH services, Satmex may provide DTH services to the United States without having to provide a competitive opportunities analysis as required by 47 C.F.R. § 25.137(a). See also Agreement between the Government of the United States of American and the Government of the United Mexican States Concerning the Transmission and Reception from Satellites for the Provision of Satellite Services to Users in the United States of America and the United Mexican States, April 28, 1996, Article I and Protocol Concerning the Transmission and Reception of Signals from Satellites for the Provision of Direct-to-Home Satellite Services in the United States of America and the United Mexican States, November 8, 1996.

<sup>&</sup>lt;sup>3</sup> Telesat Canada did not oppose the application to the extent that operations of SATMEX 6 were conditioned upon compliance with the operator arrangement reached in 2003. See Comment of Telesat Canada, filed July 21, 2006. Ultimately, the operator arrangement between Telesat Canada and Satmex may result in an agreement between the respective licensing Administrations, Mexico and Canada. In that

- 3. Satmex's request for waiver of Section 25.210(a)(3), 47 C.F.R. 25.210(a)(3), of the Commission's rules is GRANTED as conditioned. Section 25.210(a)(3) requires that all space stations in the FSS used for domestic service in the C-band shall be capable of switching polarity upon ground command. This provision is required to permit U.S.- licensed satellites the flexibility to be assigned to different orbital positions and to mitigate potential interference between adjacent FSS systems transmitting analog TV signals. The transmission polarization of the C-band payload of the SATMEX 6 satellite cannot be reversed from the ground. Satmex indicates that it has completed coordination of the SATMEX 6 satellite with the operators of the adjacent satellites providing service to, from, or within the United States. Accordingly, we grant this waiver on the condition that the operation of SATMEX 6 is consistent with such adjacent operator arrangements. If no adjacent operator arrangement exists, 5 this waiver is further conditioned that operation of the SATMEX 6 shall not cause more interference to any system authorized to provide services to, from, or within the United States that is twodegree spacing compliant than would be caused if the SATMEX 6 complied with Section 25.210(a) (3). Further, if no adjacent operator arrangement exists, Satmex shall not claim protection against interference to its operations caused by any system authorized to provide services to, from or within the United States that is two-degree spacing compliant if such interference results from failure of the SATMEX 6 comply with Section 25.210(a)(3) of the Commission's rules, 47 C.F.R. § 25.210(a)(3). Grant of this waiver request is consistent with our precedent.6
- 4. Satmex's request for waiver of Section 25.210(i), 47 C.F.R. § 25.210(i) of the Commission's rules IS GRANTED as conditioned. Section 25.210(i) directs, "Space station antennas in the Fixed-Satellite Service must be designed to provide a cross-polarization isolation such that the ratio of the on axis co-polar gain to the crosspolar gain of the antenna in the assigned frequency band shall be at least 30 dB within its primary coverage area." Satmex indicates that the C-band North American and Hemispheric beams for SATMEX 6 provide cross-polarization isolation of at least 30 dB over approximately 98 percent of its service area and in the limited area where it does not meet the 30 dB cross-polarization isolation; the cross-polarization is at least 27 dB. This shortfall will not produce a significant

event, condition 1 would govern. Until such time, however, condition 2 ensures that no harmful interference will be experienced by an adjacent satellite operator.

<sup>&</sup>lt;sup>4</sup> Section 25.158(b)(3)(ii) provides that GSO-like applications can be granted only if the proposed system will not cause harmful interference to a previously licensed operations. SATMEX-6 is located less than 2 degrees away from Telesat Canada's ANIK F2 satellite at 111.1° W.L. orbital location. See Telesat Canada, DA 02-3490, Order, 17 FCC Rcd. 25287 (Int'l Bur., released Dec. 18, 2002).

<sup>&</sup>lt;sup>5</sup> The Federal Communications Commission does not always have access to such operator arrangements. Further, such arrangements can be set aside by the parties in the future.

<sup>&</sup>lt;sup>6</sup> See Telesat Canada, Petition for Declaratory Ruling For Inclusion of Anik F2 on the Permitted Space Station List, Order, 17 FCC Rcd. 25287, 25293 (para. 17) (2002).

increase in interference, except to SATMEX 6 itself. Accordingly, we grant this waiver with the condition that operation of the SATMEX 6 shall not cause more interference to any system authorized to provide services to, from or within the United States that is two-degree spacing compliant than would be caused if the SATMEX 6 complied with Section 25.210(i). Further, Satmex shall not claim protection against interference to its operations caused by any system authorized to provide services to, from or within the United States that is two-degree spacing compliant if such interference results from failure of SATMEX 6 to comply with Section 25.210(i) of the Commission's rules, 47 C.F.R. § 25.210(i). Grant of this waiver request is consistent with our precedent.

5. This action is issued 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.

<sup>&</sup>lt;sup>7</sup> Star One S.A.; Petition for Declaratory Ruling to Add The Star One C1 Satellite at 65° W.L. to the Permitted Space Station List, *Order*, 19 FCC Rcd 16334 (Sat. Div. 2004) (finding that the impact on neighboring satellite systems of a 3-5 dB difference from the required cross polarization isolation ratio would be negligible).

9-16. Name of Contact Representative

Name: Dr. Richard J. Barnett/Carmen

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Ochoa

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Attention: Dr. Richard J. Barnett

Relationship:

### **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.

o al. Earth Station

a2. Space Station

(N/A) 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

O (N/A) b4. Modification of License or Registration

b5. Assignment of License or Registration

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

(N/A) b10. Other (Please specify)

Governmental Entity Noncomme	159. If No, indicate reason for fee exemption (se	
17d.  Fee Classification CWY – Space Station A	Amendment(Geostationary)	
18. If this filing is in reference to an existing station, enter:	19. If this filing is an amendment to a pending apmodification please enter only the file number:	oplication enter both fields, if this filing is a
(a) Call sign of station: S2695	(a) Date pending application was filed:	(b) File number:
	03/29/2006	SATPPL2006032900030

# TYPE OF SERVICE

20. NATURE OF SERVICE: This filing is for an authorization to provide	e 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)	
_	
21. STATUS: Choose the button next to the applicable status. Choose	22. If earth station applicant, check all that apply.
only one.	Using U.S. licensed satellites
Common Carrier Non-Common Carrier	Using Non-U.S. licensed satellites
23. If applicant is providing INTERNATIONAL COMMON CARRIER s facilities:	service, see instructions regarding Sec. 214 filings. Choose one. Are these
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 a	pplicable 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: Frequency Upper: (Please specify addition	nal frequencies in an attachment)

# TYPE OF STATION

5. 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
e. Geostationary Space Station
f. Non-Geostationary Space Station
g. Other (please specify)
6. TYPE OF EARTH STATION FACILITY:
Transmit/Receive Transmit-Only Receive-Only N/A
For Space Station applications, select 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.)
a — authorization to add new emission designator and related service
b — authorization to change emission designator and related service
c — authorization to increase EIRP and EIRP density
d — authorization to replace antenna
e — authorization to add antenna
f — authorization to relocate fixed station
g — authorization to change frequency(ies)
h — authorization to add frequency
i — authorization to add Points of Communication (satellites & Double
j — authorization to change Points of Communication (satellites & amp; countries)
k — authorization for facilities for which environmental assessment and
radiation hazard reporting is required
1 — authorization to change orbit location
m — authorization to perform fleet management
n — authorization to extend milestones
o Other (Please specify)

# **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.	0	Yes	● 1	No			
ALIEN OWNERSHIP Earth station applicants not proposing to provide broadcast, common carrier, aeron aeronautical fixed radio station services are not required to respond to Items 30–34.	autic	al en	rou	te or	O N/A		
29. Is the applicant a foreign government or the representative of any foreign government?	0	Yes	•	No			
30. Is the applicant an alien or the representative of an alien?	•	Yes	0	No	0	N/A	
31. Is the applicant a corporation organized under the laws of any foreign government?	•	Yes	0	No	0	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	0	No	0	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?	Yes O No 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.	Question 34 (let)
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
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 explination 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 explination of circumstances.	O Yes	No 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	O Yes	No 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 exhinit, an explanation of the circumstances.	O Yes	<b>●</b> 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.	Question 40 (let	)

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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	O 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	O No
Question 42a		(let)
42b. What administration has licensed or is in the process of licensing the space station? If no license will be issued coordinated or is in the process of coordinating the space station? Mexico	d, what administr	ration has

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.)

Amendment to the Satmex application to add the Satmex 6 network to the Commission's Permitted Space Station List. Specifically this amendment provides (1) a further description of the Satmex 6 orbital avoidance plans and (2) an interference analysis for analog TV/FM signals, as requested by the Commission.

AMD Main & Attach