Before the
FEDERAL COMMUNICATIONS COMMISSION
Washington, DC 20554

In the Matter of	)	
	)	
Empresa Argentina de Soluciones	)	
Satelitales S.A. Petition for Declaratory Ruling	)	File No.
To Add ARSAT-2 to the	)	Call Sign
Permitted Space Station List	)	
	)	
	)	

PETITION FOR DECLARATORY RULING

Empresa Argentina de Soluciones Satelitales S.A. ("ARSAT"), an Argentine corporation, respectfully files this Petition for a Declaratory Ruling pursuant to Section 25.137(c) of the Federal Communications Commission ("Commission") Rules to add the ARSAT-2 satellite at 81ºW to the Permitted Space Station List ("Permitted List").[1] ARSAT-2 will serve the United States in the C- and Ku- band.

The Commission allows non-U.S.-licensed satellites to be included on the Permitted List upon demonstrating compliance with Sections 25.114 and 25.137 of the Commission's Rules, assuming there are no other public interest concerns. This Petition and its associated attachments, including FCC Form 312 and Schedule S, provide the information required for the

[1] ARSAT-2 will be permanently located 81º W. However, the satellite is temporarily positioned at 81.1º W because satellite AMC-2 is currently located at 80.85º W. In order to ensure safe stationkeeping volume, ARSAT-2 will be maintained at 81.1º W until AMC-2 is repositioned in June 2016. ARSAT has coordinated stationkeeping and power levels with SES to ensure there is no possibility of collision or harmful interference during this period.

Commission to determine that the ARSAT-2 satellite meets the requirements of Sections 25.114 and 25.137 and is thus eligible to be on the Permitted List.

I. REQUIREMENT OF SECTION 25.114 AND 25.137 OF THE COMMISSION'S RULES

ARSAT-2 is licensed by Argentina and will be located at the 81º W orbital location. The 81º W orbital location is assigned to Argentina. Therefore, the Commission cannot license U.S. satellites in these frequency bands at this orbital location. Argentina is a member country of the WTO. In addition, Argentina and the United States have reached a bilateral agreement that allows Argentine satellites to offer FSS service in the United States, after those satellites have been coordinated with the United States.[2]

ARSAT is requesting to provide Fixed-Satellite Services ("FSS") covered by the WTO Telecom Agreement and "other FSS services" covered by the US-Argentina Bilateral Agreement. Given Argentina's membership in the WTO and the existing Bilateral Agreement with the United States, Argentina is not required to make the effective competitive opportunities showing pursuant to Section 25.137 of the Commission's Rules.[3] The relevant International

[2] Protocol Concerning the Transmission and Reception of Signals From Satellites for the Provision of Direct-to-Home Satellite Services and Fixed-Satellite Services in the United States of American and the Argentine Republic (June 5, 1998) (available at http://www.state.gov/documents/organization/112469.pdf) ("*US-Argentina Bilateral Agreement*").

[3] *See* 47 C.F.R. § 25.137(a)(2); *see also Amendment of the Commission's Regulatory Policies to Allow Non-U.S. Licensed satellites Providing Domestic and International Service in the United States*, Report and Order, IB Docket No. 96-111, 12 FCC Rcd 24094, ¶ 39 (1997) ("We adopt our proposal to apply a presumption in favor of entry in considering applications to access non-U.S. satellites licensed by WTO members to provide services covered by the U.S. commitments under the WTO Basic Telecom Agreement."); *Id*., ¶ 64 ("[W]e will not evaluate the effective competitive opportunities in the route market for non-U.S. satellites licensed by a WTO Member providing WTO covered services. Thus, we will not perform an ECO-Sat test on any route, whether a WTO route market or a non-WTO route market.").

Telecommunications Union ("ITU") network for the ARSAT-2 satellite has been notified under Article 11 of the ITU Radio Regulations and is recorded in the ITU Master Register.

ARSAT-2 is already on orbit and operating, and is the second geostationary satellite launched and operated by ARSAT. Therefore, it is not necessary for ARSAT to provide financial information for the Commission to determine that ARSAT is financially capable of building, launching, and operating its satellite.[4]

II. REQUEST FOR WAIVER OF SECTION 25.210(A)(3) OF THE COMMISSION'S RULES

ARSAT requests a waiver of Section 25.210(a)(3) of the Commission's Rules, which requires that the C-band payload on the space station providing service to the U.S. be capable of switching polarity upon ground command. The ARSAT-2 C-band transmission polarization sense is not switchable from the ground. The Commission has previously waived this rule in several cases for good cause for other non-U.S. licensed FSS operators requesting to add space stations to the Permitted Space Station List.

Section 1.3 of the Commission's Rules provides that the Commission may waive any of its rules if the petitioner shows "good cause," for example, circumstances in which waiver would better serve the public interest than would application of the rule.[5] In this case, the Commission's satellite policies are well served by the omission of payload polarization

[4] *Amendment of the Commission's Regulatory Policies To Allow Non-U.S.-Licensed Space Stations To Provide Domestic and International Satellite Service in the United States*, Report and Order, IB Docket No. 96-111, 12 FCC Rcd 24094, ¶ 191 (1997) ("*DISCO II Order*") (explaining that the presence of in-orbit satellites satisfies concerns about an operator's capabilities of building and operating a satellite).

[5] 47 C.F.R. § 1.3; *WAIT Radio v. FCC*, 418 F.2d 1153 (D.C. Cir. 1969); appeal after remand, 459 F.2d 1203 (D.C. Cir. 1972), *cert. denied*, 409 U.S. 1027 (1972); *Northeast Cellular Tel. Co. v. FCC*, 897 F.2d 1164 (D.C. Cir. 1990).

switching capabilities. First, this design decision reduces the technical risk by avoiding a single point of failure in each transponder's polarization. It also reduces the mass and cost of the satellite, as well as reducing input and output losses resulting in better performance. Furthermore, such capability is unnecessary because ARSAT-2 has completed coordination with operators of adjacent satellites and will operate in accordance with those agreements, which take into account the fixed polarization of its C-band transmissions. The Commission has granted this same waiver to several other non-U.S. satellite operators who have applied to be on the Permitted Space Station List under similar circumstances.[6]

In these Orders, the Commission concluded that waiving Section 25.210(a)(3) will not undercut the policies underlying the Commission's adoption of the rule and the Commission placed appropriate conditions on the waiver.[7] Consistent with relevant precedent, granting this waiver under Section 1.3 of the Commission's Rules is appropriate and would serve the public interest.

III. ADDING ARSAT-2 TO THE PERMITTED SPACE STATION LIST IS IN THE PUBLIC INTEREST

The Commission has found on several previous occasions that adding Central and South American satellites to the Permitted Space Station List was in the public interest.[8] For these

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[6] *See Telesat Canada, Petition for Declaratory Ruling*, Order, DA 00-2835**,** 15 FCC Rcd 24828, ¶¶ 16-17 (2000) ("*Telesat Canada Order*"); *see also* SAT-PPL-20060329-00030 and SAT-AMD-20060724-00080 (2006).

[7] *Telesat Canada Order*, ¶ 17.

[8] *See, e.g., Satélites Mexicanos, S.A. de C.V. Petition for Rulemaking*, Order, DA 00-1793, 15 FCC Rcd 19311 (2000) (adding Solidaridad 2 and Satmex 5 to the Permitted Space Station List at 113˚W and 116.8˚W, respectively); SAT-PPL-20060329-00030 and SAT-AMD-20060724-00080 (2006) (adding Satmex 6 to the Permitted Space Station List at 113º W); SAT-PDR-19991214-00131 and SAT-MOD-20060821-00090 (2006) (modifying orbital location of Solidaridad 2 to 114.9ºW on the Permitted Space Station List).

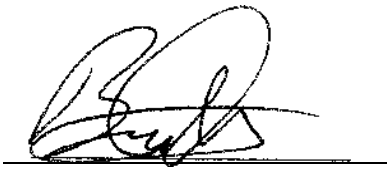
same reasons the public interest will be served by also adding the ARSAT-2 satellite to the Permitted Space Station List. Allowing the ARSAT-2 satellite to offer FSS will enhance competition in the United States. Thus, inclusion of ARSAT-2 on the Permitted Space Station List is in the public interest.

IV. CONCLUSION

For the reasons stated herein, ARSAT respectfully requests that the Commission add the ARSAT-2 satellite to the Permitted Space Station List.

Respectfully submitted,

EMPRESA ARGENTINA DE SOLUCIONES SATELITALES S.A.

By: 

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March 4, 2016

Attachment A

Regulatory Compliance Index

FCC Rule	**Rule Summary** (This column will be deleted prior to filing)	**Application/Exhibit Section No.**
25.114(c)(4)(i)	For each transmitting and receiving antenna beam, provide center frequencies, bandwidth, and polarization.	Schedule S
25.114(c)(4)(vi) or (vii)	Map of the proposed coverage area and Gain contours (numbers and maps)	Attachment B § 5
25.114(c)(8)	Calculated maximum power flux density levels within each coverage area and energy dispersal bandwidths, if any, needed for compliance with §25.208, for the angles of arrival specified in the applicable paragraph(s) of §25.208;	Attachment B - Annex 1 § 2 (supplemental information to Schedule S)
25.114(d)(1)	Overall description of system facilities, operations and services and explanation of how uplink frequency bands would be connected to downlink frequency bands	Narrative Statement; Attachment B, § 2
25.224(d)(6)	Public interest considerations in support of grant	Narrative Statement at III.
25.114(d)(7)	(Refers to §25.140(a)) Provide interference analysis showing compatibility with satellites within 2 degrees.	Attachment B - Annex 1§ 1
25.114(d)(14)(i-iv)	Orbital Debris Mitigation plan	Attachment B – Annex 2
25.137(a)(1)	Demonstrate that that U.S.-licensed satellite systems have effective competitive opportunities to provide analogous services in Argentina	Narrative at I
25.137(b)	Provide legal and technical information consistent with §25.114	Form 312; Narrative Statement; Attachment B
25.202(e)	Demonstrate frequency tolerance of 0.002 or better	Attachment B, § 7
25.202(f)(1-3)	Out of band emissions limits	Attachment B, § 7
25.208	Power Flux Density limits	Attachment B, Annex 1, § 2.0
25.210(a)(3)	Polarization requirements	Narrative Statement at II (Waiver Requested)
25.283	End of life disposal	Attachment B - Annex 2

ATTACHMENT B

Technical Information to Supplement Schedule S

1 SCOPE

This Attachment contains additional information required by §25.114(c) and other sections of the FCC §25 rules that cannot be entered into the Schedule S submission.

2 GENERAL DESCRIPTION (§25.114(d)(1))

The ARSAT-2 satellite will operate at 81° W orbital location (with a temporary location of 81.1° W until June 2016). The ARSAT-2 will provide FSS services to the United States using the conventional C- and Ku-band frequencies. The satellite employs 6 C-band transponders and 10 Ku-band transponders using both linear polarizations thereby providing dual frequency re-use.

The satellite has one C-band beam which provides coverage of most of the Americas, and two Ku-band beams: a North American beam and a South America beam. There is inter-connectivity between the two Ku beams.

3 FREQUENCY PLAN

Figures 3-1 and 3-2 show the C-band and Ku-band frequency plans, respectively.

Figure 3-1. C-Band Frequency Plan

Channel	UPLINK					DOWNLINK					LO	BW
	Coverage	MIN.	CENTER	MAX.	POL.	Coverage	MIN.	CENTER	MAX.	POL.		
		[MHz]	[MHz]	[MHz]	[V / H]		[MHz]	[MHz]	[MHz]	[V / H]	[MHz]	[MHz]
BC1	HEMI	-	-	-	-	HEMI	-	3700.25	-	V	-	-
BC2	HEMI	-	-	-	-	HEMI	-	3701.25	-	H	-	-
3	HEMI	6010.00	6046.00	6082.00	V	HEMI	3785.00	3821.00	3857.00	H	2225	72
4	HEMI	6010.00	6046.00	6082.00	H	HEMI	3785.00	3821.00	3857.00	V	2225	72
7	HEMI	6170.00	6206.00	6242.00	V	HEMI	3945.00	3981.00	4017.00	H	2225	72
8	HEMI	6170.00	6206.00	6242.00	H	HEMI	3945.00	3981.00	4017.00	V	2225	72
11	HEMI	6332.00	6376.00	6420.00	V	HEMI	4107.00	4151.00	4195.00	H	2225	88
12	HEMI	6332.00	6376.00	6420.00	H	HEMI	4107.00	4151.00	4195.00	V	2225	88

Figure 3-2. Ku-Band Frequency Plan

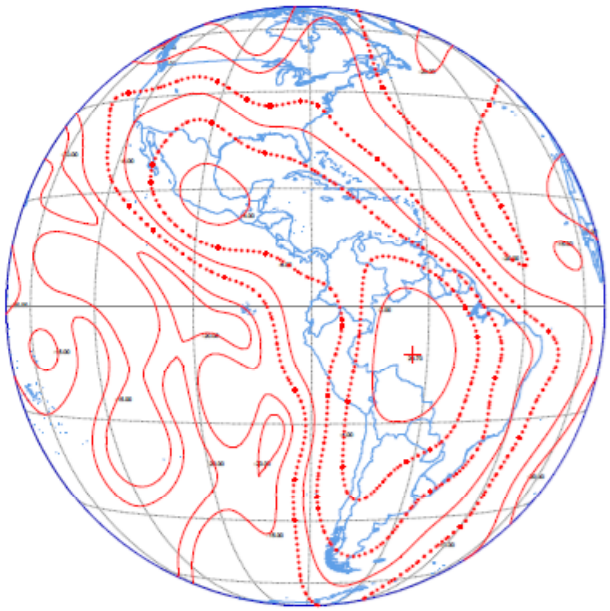
Channel	UPLINK					DOWNLINK					LO	BW
	Coverage	MIN.	CENTER	MAX.	POL.	Coverage	MIN.	CENTER	MAX.	POL.		
		[MHz]	[MHz]	[MHz]	[V / H]		[MHz]	[MHz]	[MHz]	[V / H]	[MHz]	[MHz]
17	SA	13840.000	13858.000	13876.000	V	SA	11541.000	11559.000	11577.000	H	2299.00	36.000
18	SA	13840.000	13858.000	13876.000	H	SA	11541.000	11559.000	11577.000	V	2299.00	36.000
19	SA	13880.000	13898.000	13916.000	V	SA	11581.000	11599.000	11617.000	H	2299.00	36.000
20	SA	13880.000	13898.000	13916.000	H	SA	11581.000	11599.000	11617.000	V	2299.00	36.000
21	SA	13920.000	13938.000	13956.000	V	SA	11621.000	11639.000	11657.000	H	2299.00	36.000
22	SA	13920.000	13938.000	13956.000	H	SA	11621.000	11639.000	11657.000	V	2299.00	36.000
23	SA	13960.000	13978.000	13996.000	V	SA	11661.000	11679.000	11697.000	H	2299.00	36.000
24	SA	13960.000	13978.000	13996.000	H	SA	11661.000	11679.000	11697.000	V	2299.00	36.000
TM 1	SA & NA	-	-	-	-	SA & NA	11701.625	11701.750	11701.875	V	-	0.250
TC 1	SA	14001.350	14001.750	14002.150	H	SA	-	-	-	-	-	0.800
1	SA	14014.000	14050.000	14086.000	V	SA	11715.000	11751.000	11787.000	H	2299.00	72.000
2	SA	14014.000	14050.000	14086.000	H	SA	11715.000	11751.000	11787.000	V	2299.00	72.000
3	SA or NA	14094.000	14130.000	14166.000	V	SA or NA	11795.000	11831.000	11867.000	H	2299.00	72.000
4	SA or NA	14094.000	14130.000	14166.000	H	SA or NA	11795.000	11831.000	11867.000	V	2299.00	72.000
5	SA or NA	14174.000	14210.000	14246.000	V	SA or NA	11875.000	11911.000	11947.000	H	2299.00	72.000
6	SA or NA	14174.000	14210.000	14246.000	H	SA or NA	11875.000	11911.000	11947.000	V	2299.00	72.000
7	SA or NA	14254.000	14290.000	14326.000	V	SA or NA	11955.000	11991.000	12027.000	H	2299.00	72.000
8	SA or NA	14254.000	14290.000	14326.000	H	SA or NA	11955.000	11991.000	12027.000	V	2299.00	72.000
9	SA or NA	14334.000	14370.000	14406.000	V	SA or NA	12035.000	12071.000	12107.000	H	2299.00	72.000
10	SA or NA	14334.000	14370.000	14406.000	H	SA or NA	12035.000	12071.000	12107.000	V	2299.00	72.000
11	NA	14414.000	14450.000	14486.000	V	NA	12115.000	12151.000	12187.000	H	2299.00	72.000
12	NA	14414.000	14450.000	14486.000	H	NA	12115.000	12151.000	12187.000	V	2299.00	72.000
TC 2	SA	14499.200	14499.600	14500.000	V	SA	-	-	-	-	-	0.800
TM 2	SA & NA	-	-	-	-	SA & NA	12198.125	12198.250	12198.375	H	-	0.250

4 PREDICTED SPACE STATION ANTENNA GAIN CONTOURS (§25.114(d)(3))

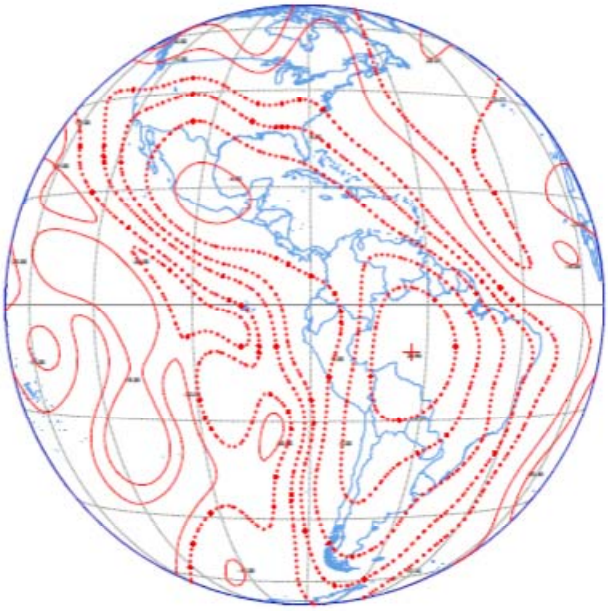
The ARSAT-2 antenna gain contours for the receive and transmit beams, as required by §25.114(d)(3), are given in GXT format and embedded in the associated Schedule S submission.

5 MAP OF COVERAGE AREA

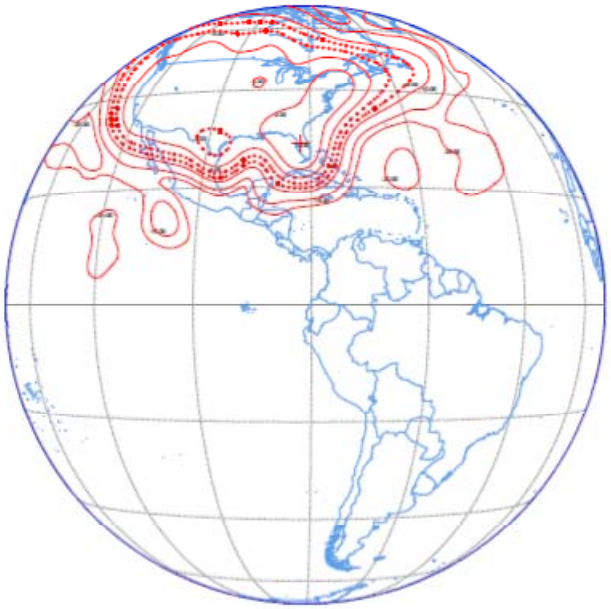
SA1 HEMIUH



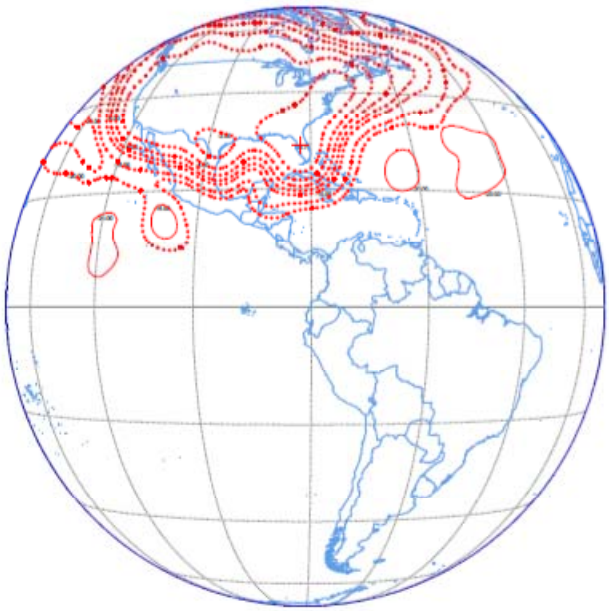
SA1 HEMIUV



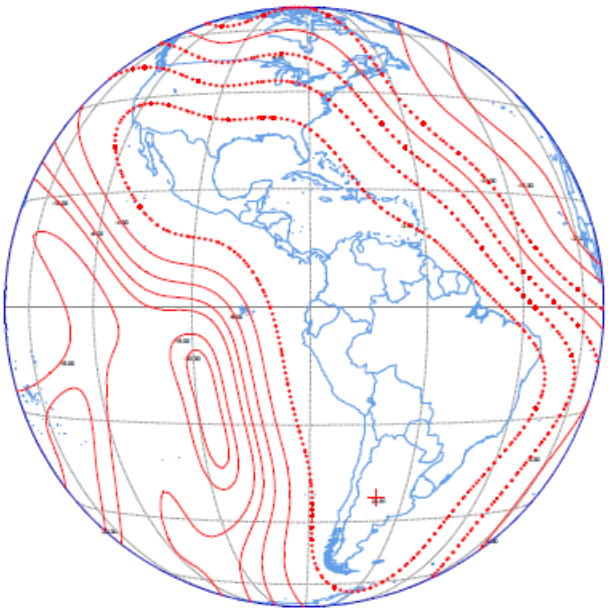
SA2 NAMUH



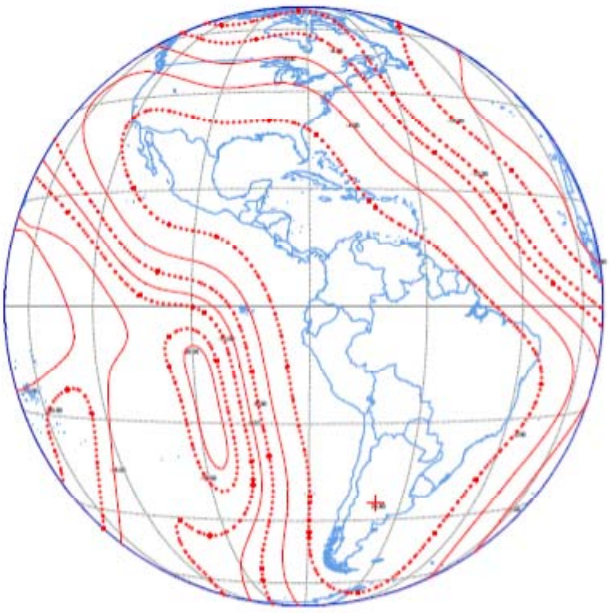
SA2 NAMUV



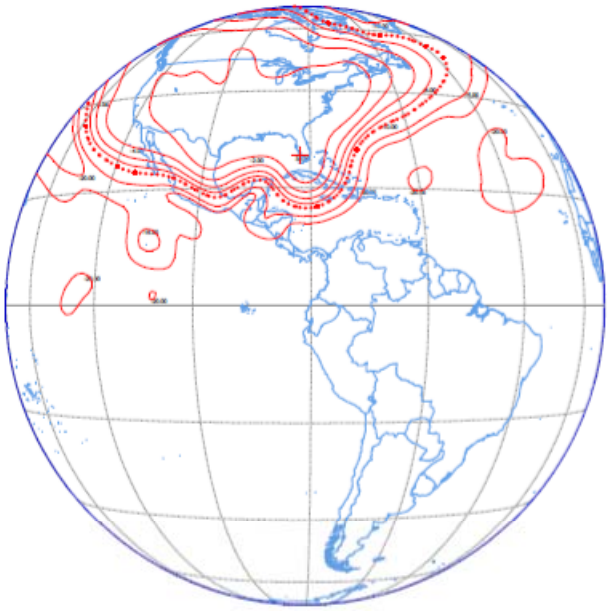
SA3 HEMIDH



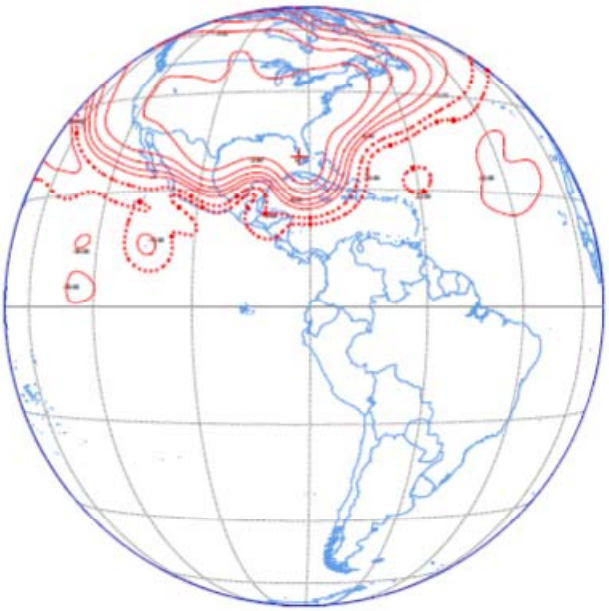
SA3 HEMIDV



SA4 NAMDH



SA4 NAMDV



6 SERVICES TO BE PROVIDED (§25.114(d)(4))

The ARSAT-2 satellite will provide digital FSS services. Representative link budgets, which include details of the transmission characteristics, performance objectives and earth station characteristics, are provided in the associated Schedule S submission.

7 TT&C CHARACTERISTICS (§25.114(c)(4)(i) & §25.114(c)(9))

The ARSAT-2 TT&C sub-system provides for communications during pre-launch, transfer orbit and on-station operations, as well as during spacecraft emergencies. Ku-band telecommand transmissions are received by the spacecraft through a near omni-directional antenna during both transfer orbit and emergency operations. When on-station, TC is conducted via the Ku-band South America beam while TM is conducted via a global horn.

TT&C operations will be conducted from Argentine territory. ARSAT does not seek Commission authorization for TT&C transmissions. Contact details for the control stations are provided below:

Nominal station
Av. Juan Domingo Peron 7934
Benavidez, Buenos Aires
Argentina B1621BGZ
+54 11 58112600

Backup station
Ruta Provincial E96 Km10
Departamento de Punilla, Bosque Alegre
Coordinates: -31.606319, -64.568644
Cordoba, Argentina 5187
+54 11 58112600

8 SATELLITE TRANSPONDER FREQUENCY RESPONSES (§25.114(c)(4)(vii))

The transponder frequency responses specified over the various channel bandwidths are shown in Tables 7-1 through 7-3. In addition, the frequency tolerances of §25.202(e) and the out-of-band emission limits of §25.202(f)(1), (2) and (3) will be met.

Table 7-1. 72 MHz C-Band Transponder Frequency Response

Frequency Offset from channel center	Maximum Amplitude Variation relative to maximum gain (dBpp)		Comments
	Receive	Transmit	
CF +/- 20 MHz	0.3	0.39	In Band
CF +/- 28 MHz	0.3	0.51	
CF +/- 32 MHz	0.5	0.57	
CF +/- 36 MHz	0.7	0.63	
Frequency Offset from channel center	**IMUX Rejection (dB)**	**OMUX Rejection (dB)**	**Comments**
	Receive	Transmit	
CF +/- 44 MHz	19.1	19.6	Out of Band
CF +/- 45 MHz	25.0	21.1	
CF +/- 80 MHz	49.4	33.3	

Table 7-2. 88 MHz C-Band Transponder Frequency Response

Frequency Offset from channel center	Maximum Amplitude Variation relative to maximum gain (dBpp)		Comments
	Receive	Transmit	
CF +/- 24.4 MHz	0.3	0.42	In Band
CF +/- 34.2 MHz	0.3	0.55	
CF +/- 39.1 MHz	0.4	0.62	
CF +/- 44 MHz	0.7	0.69	
Frequency Offset from channel center	**IMUX Rejection (dB)**	**OMUX Rejection (dB)**	**Comments**
	Receive	Transmit	
CF +/- 54 MHz	22.7	20.0	Out of Band
CF +/- 55 MHz	30.7	23.1	
CF +/- 90 MHz	51.1	33.1	

Table 7-3. 72 MHz Ku-Band Transponder Frequency Response

Frequency Offset from channel center	Maximum Amplitude Variation relative to maximum gain (dBpp)		Comments
	Receive	Transmit	
CF +/- 24 MHz	0.4	0.45	In Band
CF +/- 28 MHz	0.5	0.48	
CF +/- 32 MHz	0.9	0.51	
CF +/- 36 MHz	1.3	0.64	
Frequency Offset from channel center	**IMUX Rejection (dB)**	**OMUX Rejection (dB)**	**Comments**
	Receive	Transmit	
CF +/- 44 MHz	21.4	22.6	Out of Band
CF +/- 45 MHz	27.4	19.5	
CF +/- 80 MHz	51.4	28.7	

9 INTERFERENCE AND PFD ANALYSES (§25.140(b)(2) & (§25.114(c)(8))

The interference and PFD analyses are contained in Annex 1 to this Attachment.

10 ORBITAL DEBRIS MITIGATION PLAN (§ 25.114(d)(5))

The Orbital Debris Mitigation Plan is contained in Annex 2 to this Attachment.

11 ESTIMATED OPERATIONAL LIFETIME AND RELIABILITY

The satellite is designed for a lifetime of 15 years. The probability of the entire satellite successfully operating to that date is estimated at 0.7 based upon a bus reliability of better than 0.78 and a payload reliability better than 0.9. These numbers are based on a detailed reliability analysis performed by the spacecraft manufacturer of all critical components in the satellite bus and payload.

11 ITU FILING

The ARSAT-2 has been notified and recorded in the ITU's Master Register as P-P-SAT-1.[9]

[9] ITU SNL Part B Query Result for P-P-SAT-1 (available at http://www.itu.int/net/ITU-R/space/snl/bresult/radvance.asp?sel_satname=P-P-SAT-1).

ANNEX 1

INTERFERENCE AND PFD ANALYSES

1.0 Interference Analyses (§§ 25.114(d)(7), 25.140(a))

There are 3 C-/Ku-band operational satellites within two degrees away from the 81° W orbital location to be occupied by ARSAT-2. As previously mentioned, AMC-2 currently operates at the 80.85° W, but will be relocated in June 2016. Table 1-1 below summarizes the nearby satellites. The purpose of this section is to demonstrate compatibility between the operations of networks within two degrees.

Table 1. Satellites within Two Degrees of ARSAT-2

Loc.	**Status**	**Name**	**Operator**	24 Ku-band transponders
83 W	active	AMC 9	SES S.A.	32 Ku-band transponders
82 W	active	Nimiq 4	Telesat Canada Ltd.	24 Ku-band and 24 C-band transponders.
80.85 W	active	AMC 2 (GE 2)	SES S.A.	26 Ku-band (2 beams) and 10 C-band (hemi beam) equivalent transponders
81.1 W	active	ARSAT 2	ARSAT	
81 W	planned	ARSAT 3	ARSAT	24 active Ku-band transponders
79 W	active	Sky-Mexico 1	DirecTV, Inc.	24 Ku-band transponders

Tables 2 through 3 provide a summary of the C-band and Ku-band transmission parameters, respectively, derived from the ARSAT-2 link budgets that are embedded in the Schedule S form. Table 4 provides a summary of the C-band and Ku-band transmission parameters (antenna envelope, power densities, etc.) coordinated with adjacent satellites in the frame of generic agreements.

Table 2. ARSAT-2 Typical C-Band Transmission Parameters

Carrier ID	Emission Designator	Assigned Bandwidth (MHz)	Tx E/S Gain (dBi)	Uplink EIRP (dBW)	Downlink EIRP (dBW)	Rx E/S Gain (dBi)	C/I Criterion (dB)
1	60K0G7W	0.06	45.3	9.08	7.7	38	18.5
2	4M50G7W	4.5	45.3	27.83	26.8	38.0	19.2
3	9M00G7W	9.0	45.3	30.83	29.8	38.0	19.2
4	18M0G7W	18.0	45.3	33.83	32.8	38.0	19.2
7	36M0G7W	36.0	45.3	36.83	35.8	38.0	19.2
8	72M0G7W	72.0	51.4	39.84	41.9	38.0	21.9
9	88M0G7W	88.0	51.4	40.74	41.9	40.0	21.9

Table 3. ARSAT-2 Typical Ku-Band Transmission Parameters

Carrier ID	Emission Designator	Assigned Bandwidth (MHz)	Tx E/S Gain (dBi)	Uplink EIRP (dBW)	Downlink EIRP (dBW)	Rx E/S Gain (dBi)	C/I Criterion (dB)
1	60K0G7W	0.06	49.5	-2.22	18.1	41.3	18.5
2	4M50G7W	4.5	49.5	16.48	36.8	41.3	19.2
3	9M00G7W	9.0	49.5	19.48	39.8	41.3	19.2
4	18M0G7W	18.0	49.5	22.48	42.8	41.3	19.2
7	36M0G7W	36.0	49.5	25.48	45.8	41.3	20.9
8	72M0G7W	72.0	56.9	27.17	51.9	41.3	23.2

Table 4. Transmission Parameters agreed with adjacent slots for generic coordination

Ground station antenna envelope: 29 – 25 log

C band EIRP downlink density: -33 dBW/Hz

C band uplink power density (at antenna flange): -38.7 dBW/Hz

Ku band EIRP downlink density: -22.6 dBW/Hz

Ku band uplink power density (at antenna flange): -50 dBW/Hz

2.0 C-Band PFD Analyses (§ 25.114(d)(5))

ARSAT will operate the ARSAT-2 satellite such that all C-band downlink transmissions will comply with the PFD limits of §25.208(a). The maximum C-band downlink EIRP density that

will be transmitted is -36.6 dBW/Hz. Table Z shows the maximum PFD levels that will occur at various angles of arrival using a downlink EIRP density of -32 dBW/Hz and demonstrates compliance with §25.208.

Table Z. Maximum C-Band PFD Levels on ground of ARSAT-2

Angle of Arrival	Applicable PFD Limit for Angle of Arrival (dBW/m2/4 KHz)	Spreading Loss (dBW/m2)	Gain Contour (dB)	Worst Case PFD Level at Angle of Arrival (dBW/m2/4 KHz)	PFD Margin (dB)
0°	-152.0	-163.4	-2.5	-159.9	7.9
5°	-152.0	-163.3	-2.4	-159.8	7.8
10°	-149.5	-163.2	-2.3	-159.5	10.0
15°	-147.0	-163.0	-2.0	-159.1	12.1
20°	-144.5	-162.9	-1.7	-158.7	14.2
25°	-142.0	-162.8	-1.3	-158.2	16.2
72° (Peak)	-142.0	-162.1	-0.2	-156.4	14.4