

**S1. GENERAL INFORMATION** Complete for all satellite applications.

a. Space Station or Satellite Network Name: AMAZONAS-2		e. Estimated Date of Placement into Service:		i. Will the space station(s) operate on a Common Carrier Basis: N	
b. Construction Commencement Date: 2/16/2007		f. Estimated Lifetime of Satellite(s): 15 Years		j. Number of transponders offered on a common carrier basis:	
c. Construction Completion Date:		g. Total Number of Transponders: 10		k. Total Common Carrier Transponder Bandwidth: MHz	
d1. Est Launch Date Begin: 6/1/2009	d2. Est Launch Date End: 11/30/2009	h. Total Transponder Bandwidth (no. transponders x Bandwidth) 540 MHz		i. Orbit Type: Mark all boxes that apply: <input checked="" type="checkbox"/> GSO <input type="checkbox"/> NGSO	

**S2. OPERATING FREQUENCY BANDS** Identify the frequency range and transmit/receive mode for all frequency bands in which this station will operate. Also indicate the nature of service(s) for each frequency band.

Frequency Band Limits				e. T/R Mode	f. Nature of Service(s): List all that apply to this band
Lower Frequency (.Hz)		Upper Frequency (.Hz)			
a. Numeric	b. Unit (K/M/G)	c. Numeric	d. Unit (K/M/G)		
6725	M	7025	M	R	Fixed Satellite Service
4500	M	4800	M	T	Fixed Satellite Service

**S3. ORBITAL INFORMATION FOR GEOSTATIONARY SATELLITES ONLY:**

a. Nominal Orbital Longitude (Degrees E/W): 61 W		b. Alternate Orbital Longitude (Degrees E/W):		c. Reason for orbital location selection: This position was granted by French administration.	
Longitudinal Tolerance or E/W Station-Keeping:		f. Inclination Excursion or N/S Station-Keeping Tolerance:		Range of orbital are in which adequate service can be provided (Optional): Degrees      E/W	
d. Toward West:	0.05 Degrees	e. Toward East:		g. Westernmost:	
	0.05 Degrees	0.07 Degrees		h. Easternmost:	
i. Reason for service are selection (Optional):					

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S4. ORBITAL INFORMATION FOR NON-GEOSTATIONARY SATELLITES ONLY

S4a. Total Number of Satellites in Network or System:

S4c. Celestial Reference Body (Earth, Sun, Moon, etc.):

S4b. Total Number of Orbital Planes in Network or System:

S4d. Orbit Epoch Date:

For each Orbital Plane Provide:

(e) Orbital Plane No.	(f) No. of Satellites in Plane	(g) Inclination Angle (degrees)	(h) Orbital Period (Seconds)	(i) Apogee (km)	(j) Perigee (km)	(k) Right Ascension of the Ascending Node (Deg.)	(l) Argument of Perigee (Degrees)	Active Service Arc Range (Degrees)		
								(m) Begin Angle	(n) End Angle	(o) Other

S5. INITIAL SATELLITE PHASE ANGLE For each satellite in each orbital plane, provide the intital phase angle.

(a) Orbital Plane No.	(b) Satellite Number	(c) Initial Phase Angle (Degrees)

**NO NGSO DATA FILED**

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S6. SERVICE AREA CHARACTERISTICS for each service area provide:

(a) Service Area ID	(b) Type of Associated Station (Earth or Space)	(c) Service Area Diagram File Name (GXT File)	(d) Service Area Description. Provide list of geographic areas (state postal codes or ITU 3-ltr codes), satellites or Figure No. of Service Area Diagram.
1	S	AMA-2.gxt	01

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S7. SPACE STATION ANTENNA BEAM CHARACTERISTICS For each antenna beam provide:

(a) Beam ID	(b) T/R Mode	Isotropic Antenna Gain		(e) Pointing Error (Degrees)	(f) Rotational Error (Degrees)	(g) Min. Cross- Polar Iso- lation (dB)	(h) Polar- ization Switch- able? (Y/N)	(i) Polarization Alignment Rel. Equatorial Plane (Degrees)	(j) Service Area ID	Transmit			Receive				
										(k) Input Losses (dB)	(l) Effective Output Power (W)	(m) Max. EIRP (dBW)	(n) System Noise Temp (k)	(o) G/T Max. Gain Pt. (db/K)	(p) Min. Saturation Flux Density (dBW/m2)	Input Attenuator (dB)	
		(q) Max. Value	(r) Step Size														
CRH	R	25.5	15.5	0.05	0.05	30	N	0	1				446	-1	-97	20	1
CRV	R	25.5	15.5	0.05	0.05	30	N	90	1				446	-1	-97	20	1
CTH	T	25.3	15.3	0.05	0.05	30	N		0	1.5	15.7	41					
CTV	T	25.3	15.3	0.05	0.05	30	N	90	1	1.5	15.7	41					

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S8. ANTENNA BEAM DIAGRAMS For each beam pattern provide the reference to the graphic image and numerical data:  
Also provide the power flux density levels in each beam that result from the emission with the highest power flux density.

(a) Beam ID	(b) T/R Mode	(c) Co-or Cross Polar Mode ("C" or" X")	(d) GSO Ref. Orbital Longitude (Deg. E/W)	(e) NGSO Antenna Gain Contour Description (Figure/Table/ Exhibit)	(f) GSO Antenna Gain Contour Data (GXT File)	Max. Power Flux Density (dBW/M2/Hz)				
						At Angle of Arrival above horizontal (for emission with highest PFD)				
						(g) 5 Deg	(h) 10 Deg	(i) 15 Deg	(j) 20 Deg	(k) 25 Deg
CRH	R	C	-61		Copol G_T_H.gxt					
CRH	R	X	-61		Cross G_T_H.gxt					
CTH	T	C	-61		Copol PIRE_H.gxt	-157.68	-157.68	-157.68	-157.68	-157.68
CTH	T	X	-61		Cross PIRE_H.gxt					
CRV	R	C	-61		Copol G_T_V.gxt					
CRV	R	X	-61		Cross G_T_V.gxt					
CTV	T	C	-61		Copol PIRE_V.gxt	-157.68	-157.68	-157.68	-157.68	-157.68
CTV	T	X	-61		Cross PIRE_V.gxt					

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S9. SPACE STATION CHANNELS For each frequency channel provide: S10. SPACE STATION TRANSPONDERS For each transponder provide:

(a) Channel No.	(B) Assigned Bandwidth (kHz)	(c) T/R Mode	(d) Center Frequency (MHz)	(e) Polarization (H, V, L, R)	(f) TTC or Comm Channel (T or C)
CT1	54000	T	4532.5	V	C
CT2	54000	T	4592.5	V	C
CT3	54000	T	4652.5	V	C
CT4	54000	T	4712.5	V	C
CT5	54000	T	4772.5	V	C
CT6	54000	T	4532.5	H	C
CT7	54000	T	4592.5	H	C
CT8	54000	T	4652.5	H	C
CT9	54000	T	4712.5	H	C
CT10	54000	T	4772.5	H	C
CR1	54000	R	6755	H	C
CR2	54000	R	6815	H	C
CR3	54000	R	6875	H	C
CR4	54000	R	6935	H	C
CR5	54000	R	6995	H	C
CR6	54000	R	6755	V	C
CR7	54000	R	6815	V	C
CR8	54000	R	6875	V	C
CR9	54000	R	6935	V	C
CR10	54000	R	6995	V	C

(a) Transponder ID	(b) Transponder Gain (dB)	Receive Band		Transmit Band	
		(c) Channel No.	(d) Beam ID	(e) Channel No.	(f) Beam ID
1	124	CR1	CRH	CT1	CTV
2	124	CR2	CRH	CT2	CTV
3	124	CR3	CRH	CT3	CTV
4	124	CR4	CRH	CT4	CTV
5	124	CR5	CRH	CT5	CTV
6	124	CR6	CRV	CT6	CTH
7	124	CR7	CRV	CT7	CTH
8	124	CR8	CRV	CT8	CTH
9	124	CR9	CRV	CT9	CTH
10	124	CR10	CRV	CT10	CTH

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S11. DIGITAL MODULATION PARAMETERS For each digital emission provide:

(a) Digital Mod. ID	(b) Emission Designator	(c) Assigned Bandwidth (kHz)	(d) No. of Phases	(e) Uncoded Data Rate (kbps)	(f) FEC Error Correction Coding Rate	(g) CDMA Processing Gain (dB)	(h) Total C/N Performance Objective (dB)	(i) Single Entry C/I Objective (dB)
1	60K0G7W	70	8	64	0.6667		8	20.2
2	1M50G7W	1700	8	2048	0.6667		8	20.2
3	6M80G7W	7500	4	8448	0.75		9	21.2
4	33M0G7W	36000	4	45000	0.875		7.4	19.6





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S13. TYPICAL EMISSIONS For each planned type of emission provide:

Associated Transponder ID Range (a) Start    (b) End		Modulation ID		(e) Carriers per Transponder	(f) Carrier Spacing (kHz)	(g) Noise Budget Reference (Table No.)	(h) Energy Dispersal Bandwidth (kHz)	Receive Band (Assoc. Transmit Stn)			Transmit Band (This Space Station)			
		(c) Digital (Table S11)	(d) Analog (Table S12)					(i) Assoc. Stn. Max. Antenna Gain (dBi)	Assoc. Station Transmit Power (dBW) (j) Min.    (k) Max.		EIRP (dBW) (l) Min.    (m) Max.		(n) Max. Power Flux Density (dBW/m <sup>2</sup> /Hz)	(o) Assoc. Stn Rec. G/T (dB/K)
1	10	1		635		LINK_BUDGET		48.4	-8	2	4.3	10.3	-164.2	24.5
1	10	1		481		LINK_BUDGET		48.4	-7	3	6	12	-162.5	23
1	10	2		28		LINK_BUDGET		48.4	6.2	16.2	18	24	-167.3	26.5
1	10	2		14		LINK_BUDGET		48.4	10	20	21	27	-161.3	23
1	10	3		5		LINK_BUDGET		48.4	12.4	23.4	25.7	31.7	-163	26.5
1	10	4		1		LINK_BUDGET		48.4	15.7	25.7	28.8	34.8	-166.7	31

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S14. Is the space station(s) controlled and monitored remotely? If Yes, provide the location and telephone number of the TT and C control point(s): Yes

**Remote Control (TT C) Location(s):**

S14a: Street Address: PRAIA DO FLAMENGO 200			
S14b. City: RIO DE JANEIRO	S14c. County: BRAZIL	S14d. State/Country	S14e. Zip Code: 22210-030
S14f. Telephone Number: +552198582255		S14g. Call Sign of Control Station (if appropriate):	

**Remote Control (TT C) Location(s):**

S14a: Street Address: CARRETERA M 220, KM 1,800			
S14b. City: ARGANDA DEL REY	S14c. County: SPAIN	S14d. State/Country	S14e. Zip Code: 28500
S14f. Telephone Number: +34918700160		S14g. Call Sign of Control Station (if appropriate):	

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S15. SPACECRAFT PHYSICAL CHARACTERISTICS:

S15a. Mass of spacecraft without fuel (kg): 2505	Spacecraft Dimensions (meters)	Probability of Survival to End of Life (0.0 - 1.0)
S15b. Mass of fuel and disposables at launch (kg): 2931		
S15c. Mass of spacecraft and fuel at launch (kg): 5436	S15f. Length (m): 28	S15i. Payload: 0.91
S15d. Mass of fuel, in orbit, at beginning of life (kg): 861	S15g. Width (m): 8.6	S15j. Bus: 0.86
S15e. Deployed Area of Solar Array (square meters): 71.41	S15h. Height (m): 6.7	S15k. Total: 0.78

S16. SPACECRAFT ELECTRICAL CHARACTERISTICS:

Spacecraft Subsystem	Electrical Power (Watts) At Beginning of Life		Electrical Power (Watts) At End of Life	
	At Equinox	At Solstice	At Equinox	At Solstice
Payload (Watts):	(a): 12020	(f): 12020	(k): 12020	(p): 12020
Bus (Watts):	(b): 2408	(g): 1016	(l): 2386	(q): 1011
Total (Watts):	(c): 14428	(h): 13036	(m): 14406	(r): 13031
Solar Array (Watts):	(d): 16006	(i): 14348	(n): 15380	(s): 13966
Depth of Battery Discharge (%):	(e) 65 %	(j) %	(o) 69 %	(t) %

S17. CERTIFICATIONS:

a. Are the power flux density limits of § 25.208 met?	<input checked="" type="checkbox"/> YES	<input type="checkbox"/> NO	<input type="checkbox"/> N/A
b. Are the appropriate service area coverage requirements of § 25.143(b)(ii) and (iii), or § 25.145(c)(1) and (2) met?	<input checked="" type="checkbox"/> YES	<input type="checkbox"/> NO	<input type="checkbox"/> N/A
c. Are the frequency tolerances of § 25.202(e) and the out-of-band emission limits of § 25.202(f)(1), (2) and (3) met?	<input checked="" type="checkbox"/> YES	<input type="checkbox"/> NO	<input type="checkbox"/> N/A

**In addition to the information required in this Form, the space station applicant is required to provide all the information specified in Section 25.114 of the Commission's rules, 47 C.F.R § 25.114.**