

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

a. Space Station or Satellite Network Name: INTELSAT 27		e. Estimated Date of Placement into Service: 6/30/2013		i. Will the space station(s) operate on a Common Carrier Basis: N	
b. Construction Commencement Date: 6/1/2010		f. Estimated Lifetime of Satellite(s): 15 Years		j. Number of transponders offered on a common carrier basis:	
c. Construction Completion Date: 10/12/2012		g. Total Number of Transponders: 49		k. Total Common Carrier Transponder Bandwidth: MHz	
d1. Est Launch Date Begin: 12/1/2012	d2. Est Launch Date End: 2/28/2013	h. Total Transponder Bandwidth (no. transponders x Bandwidth) 1748.813 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 oper  
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)		
5925	M	6425	M	R	Fixed Satellite Service
14000	M	14500	M	R	Fixed Satellite Service
292.835	M	317.33	M	R	Mobile-Satellite Service
3700	M	4200	M	T	Fixed Satellite Service
11450	M	11700	M	T	Fixed Satellite Service
11700	M	12200	M	T	Fixed Satellite Service
12500	M	12750	M	T	Broadcasting Satellite Service - Video
243.52	M	268.16	M	T	Mobile-Satellite Service

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

a. Nominal Orbital Longitude (Degrees E/W): 55.5 W		b. Alternate Orbital Longitude (Degrees E/W):		c. Reason for orbital location selection: REPLACE EXISTING INTELSAT 805 SPACECRAFT			
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: 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 initial 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		NORTH AND SOUTH AMERICA AND EUROPE
2	S		MEXICO, CENTRAL AMERICA, NORTHWEST SOUTH AMERICA
3	S		BRAZIL
4	S		UNITED STATES, MEXICO, CENTRAL AMERICA, CARIBBEAN, EUROPE
5	S		GLOBAL

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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 Isolation (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														
HHU	R	27.6	17.6	0.1	0.2	30	N	0	1				410	1.5	-107.5	28	1
HVUL	R	27.6	17.6	0.1	0.2	30	N	90	1				410	1.5	-107.5	28	1
AHUL	R	33.9	27.9	0.1	0.2	30	N	0	2				411	7.8	-107.8	28	1
BHUL	R	35.8	25.8	0.1	0.2	30	N	0	3				434	9.5	-110.5	28	1
BVUL	R	35.8	25.8	0.1	0.2	30	N	90	3				434	9.5	-110.5	28	1
NHU	R	29.6	21.6	0.1	0.2	30	N	0	4				334	4.4	-106.4	28	1
URU	R	15.5	11.5	0.3	0.1	30	N		5				525	-11.7	-155	37	
HHDL	T	24.7	18.7	0.1	0.2	30	N	0	1	1.2	56.2	42.2					
HVDL	T	24.7	18.7	0.1	0.2	30	N	90	1	1.2	56.2	42.2					
AVDL	T	32.3	26.3	0.1	0.2	30	N	90	2	1.2	114.8	52.9					
BHDL	T	33.9	25.9	0.1	0.2	30	N	0	3	1.1	117.5	54.6					
BVDL	T	33.9	25.9	0.1	0.2	30	N	90	3	1.1	117.5	54.6					
NVDL	T	27.2	19.2	0.1	0.2	30	N	90	4	1.3	112.2	47.7					
URD	T	16	14	0.3	0.1	30	N		5	4.2	19.5	28.9					
CMD	R	27.6	22.7	0.1	0.2		N	0	1				4097	-8.5	-117.9		
CMD	R	0	-2.6	0.1	0.2		N	0	5				2412	-33.8	-92.7		
CMD	R	1.5	0	0.1	0.2		N		5				2412	-32.3	-93.5		
TLM	T	24.7	20.1	0.1	0.2		N	90	1	5.9	0.1	15.8					
TLMB	T	0	-2.7	0.1	0.2		N	90	5	2.4	4	6					
TLMP	T	1.5	1.2	0.1	0.2		N		5	4.9	2.2	5					
UPC	T	12.3	9.7	0.1	0.2		N		5	1.3	0.59	10					
UPK	T	17.7	15.1	0.1	0.2		N		5	1	0.65	15.8					
UPKL	T	17.7	15.1	0.1	0.2		N		5	1	0.65	15.8					

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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
HHU	R	C	-55.5		HHUL.gxt					
HVUL	R	C	-55.5		HVUL.gxt					
AHUL	R	C	-55.5		AHUL.gxt					
BHUL	R	C	-55.5		BHUL.gxt					
BVUL	R	C	-55.5		BVUL.gxt					
NHU	R	C	-55.5		NHUL.gxt					
URU	R	C	-55.5		URUL.gxt					
HHDL	T	C	-55.5		HHDL.gxt	-152	-151	-150.8	-150.7	-150.6
HVDL	T	C	-55.5		HVDL.gxt	-152	-151	-150.8	-150.7	-150.6
AVDL	T	C	-55.5		AVDL.gxt	-152.2	-152	-151.9	-151.8	-151.7
BHDL	T	C	-55.5		BHDL.gxt					
BVDL	T	C	-55.5		BVDL.gxt					
NVDL	T	C	-55.5		NVDL.gxt	-150	-147.5	-145.3	-145.2	-145.1
URDL	T	C	-55.5		URDL.gxt					
CMDR	R	C	-55.5		CMDR.gxt					
CMDB	R	C	-55.5		CMDB.gxt					
CMDP	R	C	-55.5		CMDP.gxt					
TLMR	T	C	-55.5		TLMR.gxt	-166.2	-166.1	-166	-165.9	-165.8
TLMB	T	C	-55.5		TLMB.gxt	-176	-175.9	-175.8	-175.7	-175.6
TLMP	T	C	-55.5		TLMP.gxt	-177	-176.9	-176.8	-176.7	-176.6
UPCR	T	C	-55.5		UPCR.gxt	-161.2	-161.1	-161	-160.9	-160.8
UPKR	T	C	-55.5		UPKR.gxt	-155.4	-155.3	-155.2	-155.1	-155
UPKL	T	C	-55.5		UPKL.gxt	-155.4	-155.3	-155.2	-155.1	-155

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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)
1CU	72000	R	5980	H	C
3CU	36000	R	6040	H	C
5CU	36000	R	6080	H	C
7CU	72000	R	6140	H	C
9CU	36000	R	6200	H	C
11CU	36000	R	6240	H	C
13CU	36000	R	6280	H	C
15CU	36000	R	6320	H	C
17CU	36000	R	6360	H	C
19CU	36000	R	6400	H	C
2CU	72000	R	5980	V	C
4CU	36000	R	6040	V	C
6CU	36000	R	6080	V	C
8CU	72000	R	6140	V	C
10CU	36000	R	6200	V	C
12CU	36000	R	6280	V	C
14CU	36000	R	6280	V	C
16CU	36000	R	6320	V	C
18CU	36000	R	6360	V	C
20CU	36000	R	6400	V	C
1CD	72000	T	3755	V	C
3CD	36000	T	3815	V	C
5CD	36000	T	3855	V	C
7CD	72000	T	3915	V	C
9CD	36000	T	3975	V	C
11CD	36000	T	4015	V	C
13CD	36000	T	4055	V	C
15CD	36000	T	4095	V	C
17CD	36000	T	4135	V	C
19CD	36000	T	4175	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
C0001	134.7	1CU	HHUL	1CD	HVDL
C0003	134.7	3CU	HHUL	3CD	HVDL
C0005	134.7	5CU	HHUL	5CD	HVDL
C0007	134.7	7CU	HHUL	7CD	HVDL
C0009	134.7	9CU	HHUL	9CD	HVDL
C0011	134.7	11CU	HHUL	11CD	HVDL
C0013	134.7	13CU	HHUL	13CD	HVDL
C0015	134.7	15CU	HHUL	15CD	HVDL
C0017	134.7	17CU	HHUL	17CD	HVDL
C0019	134.7	19CU	HHUL	19CD	HVDL
C0002	134.7	2CU	HVUL	2CD	HHDL
C0004	134.7	4CU	HVUL	4CD	HHDL
C0006	134.7	6CU	HVUL	6CD	HHDL
C0008	134.7	8CU	HVUL	8CD	HHDL
C0010	134.7	10CU	HVUL	10CD	HHDL
C0012	134.7	12CU	HVUL	12CD	HHDL
C0014	134.7	14CU	HVUL	14CD	HHDL
C0016	134.7	16CU	HVUL	16CD	HHDL
C0018	134.7	18CU	HVUL	18CD	HHDL
C0020	134.7	20CU	HVUL	20CD	HHDL
BB001	139.8	1KU	BHUL	1KD	BVDL
BB003	139.8	3KU	BHUL	3KD	BVDL
BB005	139.8	5KU	BHUL	5KD	BVDL
BB002	139.8	2KU	BVUL	2KD	BHDL
BB004	139.8	4KU	BVUL	4KD	BHDL
BB006	139.8	6KU	BVUL	6KD	BHDL
BB008	139.8	8KU	BVUL	8KD	BHDL
BB010	139.8	10KU	BVUL	10KD	BHDL
BB012	139.8	12KU	BVUL	12KD	BHDL
BB014	139.8	14KU	BVUL	14KD	BHDL

2CD	72000	T	3755	H	C
4CD	36000	T	3815	H	C
6CD	36000	T	3855	H	C
8CD	72000	T	3915	H	C
10CD	36000	T	3975	H	C
12CD	36000	T	4015	H	C
14CD	36000	T	4055	H	C
16CD	36000	T	4095	H	C
18CD	36000	T	4135	H	C
20CD	36000	T	4175	H	C
1KU	77000	R	14042.5	H	C
3KU	72000	R	14125	H	C
5KU	72000	R	14205	H	C
7KU	54000	R	14280	H	C
9KU	27000	R	14325	H	C
11KU	27000	R	14355	H	C
13KU	27000	R	14385	H	C
15KU	27000	R	14415	H	C
17KU	27000	R	14445	H	C
19KU	27000	R	14475	H	C
2KU	77000	R	14042.5	V	C
4KU	72000	R	14125	V	C
6KU	36000	R	14190	V	C
8KU	36000	R	14230	V	C
10KU	36000	R	14270	V	C
12KU	36000	R	14310	V	C
14KU	36000	R	14350	V	C
16KU	36000	R	14390	V	C
18KU	36000	R	14430	V	C
20KU	36000	R	14470	V	C
27KU	54000	R	14280	H	C
29KU	27000	R	14325	H	C
31KU	27000	R	14355	H	C
33KU	27000	R	14385	H	C
35KU	27000	R	14415	H	C
37KU	27000	R	14445	H	C
39KU	27000	R	14475	H	C
1KD	77000	T	11742.5	V	C
3KD	72000	T	11825	V	C

BB016	139.8	16KU	BVUL	16KD	BHDL
BB018	139.8	18KU	BVUL	18KD	BHDL
BB020	139.8	20KU	BVUL	20KD	BHDL
NN027	139.8	27KU	NHUL	27KD	NVDL
NN029	139.8	29KU	NHUL	29KD	NVDL
NN031	139.8	31KU	NHUL	31KD	NVDL
NN033	139.8	33KU	NHUL	33KD	NVDL
NN035	139.8	35KU	NHUL	35KD	NVDL
NN037	139.8	37KU	NHUL	37KD	NVDL
NN039	139.8	39KU	NHUL	39KD	NVDL
AA001	138.9	1KU	AHUL	1KD	AVDL
AA003	138.9	3KU	AHUL	3KD	AVDL
AA005	138.9	5KU	AHUL	5KD	AVDL
AA007	139	7KU	AHUL	7KD	AVDL
AA009	139	9KU	AHUL	9KD	AVDL
AA011	139	11KU	AHUL	11KD	AVDL
AA013	139	13KU	AHUL	13KD	AVDL
AA015	139	15KU	AHUL	15KD	AVDL
AA017	139	17KU	AHUL	17KD	AVDL
AA019	139	19KU	AHUL	19KD	AVDL
AX027	138.9	1KU	AHUL	21KD	AVDL
AX029	138.9	3KU	AHUL	23KD	AVDL
AX031	138.9	5KU	AHUL	25KD	AVDL
1U	163.5	1UU	URUL	1UD	URDL
2U	163.5	1UU	URUL	2UD	URDL
3U	163.5	1UU	URUL	3UD	URDL
4U	163.5	1UU	URUL	4UD	URDL
5U	163.5	1UU	URUL	5UD	URDL
7U	163.5	1UU	URUL	7UD	URDL
8U	163.5	1UU	URUL	8UD	URDL
9U	163.5	1UU	URUL	9UD	URDL
10U	163.5	1UU	URUL	10UD	URDL

5KD	72000	T	11905	V	C
7KD	54000	T	11980	V	C
9KD	27000	T	12025	V	C
11KD	27000	T	12055	V	C
13KD	27000	T	12085	V	C
15KD	27000	T	12115	V	C
17KD	27000	T	12145	V	C
19KD	27000	T	12175	V	C
2KD	77000	T	11742.5	H	C
4KD	72000	T	11825	H	C
6KD	36000	T	11890	H	C
8KD	36000	T	11930	H	C
10KD	36000	T	11970	H	C
12KD	36000	T	12010	H	C
14KD	36000	T	12050	H	C
16KD	36000	T	12090	H	C
18KD	36000	T	12130	H	C
20KD	36000	T	12170	H	C
27KD	54000	T	11480	V	C
29KD	27000	T	11525	V	C
31KD	27000	T	11555	V	C
33KD	27000	T	11585	V	C
35KD	27000	T	11615	V	C
37KD	27000	T	11645	V	C
39KD	27000	T	11675	V	C
CMD1	1000	R	5925.5	H	T
CMD2	1000	R	6424.5	L	T
TM1	500	T	3701.25	V	T
TM2	500	T	3701.75	V	T
TM3	500	T	3702.25	V	T
TM4	500	T	3702.75	V	T
TM5	500	T	3701.25	L	T
TM6	500	T	3701.75	L	T
TM7	500	T	3702.25	L	T
TM8	500	T	3702.75	L	T
UPC1	25	T	3700.25	R	T
UPK1	25	T	11696.5	R	T
UPK2	25	T	12500.5	L	T
21KD	77000	T	12547.5	V	C



23KD	72000	T	12630	V	C
25KD	72000	T	12710	V	C
1UU	24495	R	305.0825	R	C
1UD	2065	T	251.3675	R	C
2UD	2390	T	254.73	R	C
3UD	2065	T	257.8675	R	C
4UD	728	T	265.599	R	C
5UD	1425	T	267.4475	R	C
7UD	340	T	260.53	R	C
8UD	700	T	261.95	R	C
9UD	380	T	263.75	R	C
10UD	720	T	243.88	R	C

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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)
D1	77M0G7W	77000	4	52563	0.5		3.4	17.2
D2	72M0G7W	72000	4	49150	0.5		3.4	13.7
D3	54M0G7W	54000	4	36862	0.5		3.4	16.7
D4	10M3G7W	10300	4	6000	0.5		3.9	17.2
D5	100KG7W	100	4	64	0.5		3	16.7
D6	1M45G7W	1450	2	512	0.5		3.4	16.3
D7	400KG7W	400	2	128	0.5		3.4	15.8

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S12. ANALOG MODULATION PARAMETERS For each analog emission provide:

(a) Analog Mod. ID	(b) Emission Designator	(c) Assigned Bandwidth (kHz)	(d) Signal Type	(e) Channels per Carrier	Multi-channel Telephony				(j) Video Standard NTSC, PAL, etc.	(k) Video Noise- Weighting (dB)	(l) Video and SCPC/FM Modulation Index	(m) SCPC/FM Compander, Preemphasis, and Noise Weighting (dB)	(n) Total C/N Performance Objective (dB)	(o) Single Entry C/I Objective (dB)
					(f) Ave. Companded Talker Level (dBm0)	(g) Bottom Baseband Freq. (MHz)	(h) Top Baseband Freq. (MHz)	(i) RMS Modulation Index						
A1	36M0F3F	36000	TV/FM	1					NTSC	12.8	2.6		10	21.7
A2	24M0F3F	24000	TV/FM	1					NTSC	12.8	2.6		10	22.8

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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)		EIRP (dBW)		(n) Max. Power Flux Density (dBW/m <sup>2</sup> /Hz)	(o) Assoc. Stn Rec. G/T (dB/K)
(j) Min.	(k) Max.			(l) Min.	(m) Max.									
C0001	AX031		A1	2	36000	IS27 LINK BUD	4000	58.4	14	24	32	38	-154.1	24.7
C0001	AX031	D2		1	72000	NOTE.txt		60.2	14.2	24.2	36.2	42.2	-161.7	21
C0001	AX031	D4		4	10300	NOTE.txt		49.4	10.1	20.1	26	32	-162.4	26.4
C0001	AX031	D5		516	100	NOTE.txt		49.4	-10.3	-0.3	5.6	11.6	-163.3	36.6
C0001	AX031		A1	2	36000	NOTE.txt	4000	56.9	15	21	40.7	46.7	-145.4	32.8
C0001	AX031	D1		1	77000	NOTE.txt		56.9	17.7	23.7	46.1	52.1	-152.1	19.2
C0001	AX031	D4		5	10300	NOTE.txt		56.9	2.5	8.5	35.9	41.9	-152.5	22.3
C0001	AX031	D5		577	100	NOTE.txt		56.9	-17.6	-11.6	15.8	21.8	-153.1	26.7
C0001	AX031	D6		36	1450	NOTE.txt		56.9	-5.6	0.4	27.8	33.8	-153.2	25
C0001	AX031	D7		192	400	NOTE.txt		49	-6.7	-0.7	18.8	24.8	-156.2	25
C0001	AX031		A1	1	36000	NOTE.txt	4000	56.9	11.3	21.3	44.1	52.1	-140	36.3
C0001	AX031	D1		1	77000	NOTE.txt		56.9	13.3	23.3	44.1	52.1	-152.1	28.4
C0001	AX031	D4		7	10300	NOTE.txt		56.9	2.2	12.2	34	42	-152.4	33.1
C0001	AX031	D5		671	100	NOTE.txt		56.9	-17	-7	14.8	22.8	-152.1	25
C0001	AX031	D6		42	1450	NOTE.txt		56.9	-5	5	26.8	34.8	-152.2	25
C0001	AX031	D7		192	400	NOTE.txt		49	-6.5	3.5	17.4	25.4	-155.6	33.1
C0001	AX031		A2	2	24000	NOTE.txt	4000	60.3	13	21	33.5	41.5	-150.6	28.3
C0001	AX031	D3		1	54000	NOTE.txt		57	15.5	23.5	39.7	47.7	-155	21
C0001	AX031	D4		3	10300	NOTE.txt		57	7.8	15.8	30.7	38.7	-155.7	26.4
C0001	AX031	D5		358	100	NOTE.txt		57	-12.3	-4.3	10.6	18.6	-156.3	25
C0001	AX031	D6		32	1450	NOTE.txt		57	-1.8	6.2	21.1	29.1	-157.9	34.6
C0001	AX031	D7		135	400	NOTE.txt		57	-6.6	1.4	12.1	20.1	-160.9	25
C0001	AX031	D1		1	77000	NOTE.txt		56.8	17.3	23.3	46.9	52.9	-151.3	22.8

**FEDERAL COMMUNICATIONS COMMISSION**  
**SATELLITE SPACE STATION AUTHORIZATIONS**  
**FCC Form 312 - Schedule S: (Technical and Operational Description)**

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: 3400 INTERNATIONAL DRIVE, NW			
S14b. City: WASHINGTON	S14c. County:	S14d. State/Country DC	S14e. Zip Code: 20008
S14f. Telephone Number: 202-944-7701		S14g. Call Sign of Control Station (if appropriate):	

**FEDERAL COMMUNICATIONS COMMISSION  
SATELLITE SPACE STATION AUTHORIZATIONS  
FCC Form 312 - Schedule S: (Technical and Operational Description)**

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S15. SPACECRAFT PHYSICAL CHARACTERISTICS:

S15a. Mass of spacecraft without fuel (kg): 2821	Spacecraft Dimensions (meters)	Probability of Survival to End of Life (0.0 - 1.0)
S15b. Mass of fuel and disposables at launch (kg): 3663		
S15c. Mass of spacecraft and fuel at launch (kg): 6484	S15f. Length (m): 36.4	S15i. Payload: 0.911
S15d. Mass of fuel, in orbit, at beginning of life (kg): 607	S15g. Width (m): 9.2	S15j. Bus: 0.86
S15e. Deployed Area of Solar Array (square meters): 52.8	S15h. Height (m): 7	S15k. Total: 0.783

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): 8416	(f): 8416	(k): 8416	(p): 8416
Bus (Watts):	(b): 1991	(g): 1153	(l): 2083	(q): 1013
Total (Watts):	(c): 10407	(h): 9569	(m): 10499	(r): 9429
Solar Array (Watts):	(d): 13279	(i): 11662	(n): 11579	(s): 10323
Depth of Battery Discharge (%):	(e) 64.9 %	(j) %	(o) 73.7 %	(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 type="checkbox"/> YES	<input type="checkbox"/> NO	<input checked="" 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.**