FCC 312 Schedule S	FEDERAL COMMUNICATIONS COMMISSION SATELLITE SPACE STATION AUTHORIZATIONS (Technical and Operational Description)	Page 1: General, Frequency Bands, and GSO Orbit

S1. GENERAL INFORMATION Complete for all satellite applications.

a. Space Station or Satellite Network Name:		e. Estimated Date of Placement into Service:	i Will the space station(s) operate on a Common Carrier Basis:
DIRECTV 14		5/1/2014	N
b. Construction Commencement Date:		f. Estimated Lifetime of Satellite(s):	j. Number of transponders offered on a common carrier basis:
4/9/2010		15 Years	0
c. Construction Completion Date:		g. Total Number of Transponders:	k. Total Common Carrier Transponder Bandwidth:
1/1/2014		92	0 MHz
d1. Est Launch Date Begin:	d2. Est Launch Date End:	h. Total Transponder Bandwidth (no. transponders x Bandwidth)	l. Orbit Type: Mark all boxes that apply:
1/15/2014	3/1/2014	3312 MHz	[X] GSO [ ] 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)		
29500	M	30000	M	R	Fixed Satellite Service
19700	M	20200	M	T	Direct to Home in the Fixed Fixed Satellite Service

S3. ORBITAL INFORMATION FOR GEOSTATIONARY SATELLITES ONLY:

a. Nominal Orbital Longitude (Degrees E/W):	b. Alternate Orbital Longitude (Degrees E/W):		c. Reason for orbital location selection:
99.235 W			
Longitudinal Tolerance or E/W Station-Keeping: d. Toward West: 0.025 Degrees e. Toward East: 0.025 Degrees	f. Inclination Excursion or N/S Station-Keeping Tolerance: 0.05 Degrees	Range of orbital are in which adequate service can be provided (Optional): Degrees E/W 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:

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

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

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.
CONUS	S		CONUS+Alaska
CRBC	S		Area around Castle Rock, CO
LABC	S		Area around Los Angeles, CA
NWUF	S		Area around Moxee, WA
SWUF	S		Area around Tuscon, AZ
PR	S		Puerto Rico
HI	S		Hawaii

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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				
		(c) Peak (dBi)	(d) Edge (dBi)							(k) Input Losses (dB)	(l) Effective Output Power (W)	(m) Max. EIRP (dBW)	(n) System Noice 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
S1	R	54.6	52.6	0.035		27	Y		LABC				1318	23.4	-105	19	1
S2	R	54.9	52.9	0.035		27	Y		CRBC				1514	23.1	-105	19	1
S3	R	55.7	53.7	0.035		27	Y		SWUF				1349	24.4	-105	19	1
S4	R	54.7	52.7	0.035		27	Y		NWUF				1230	23.8	-105	19	1
NATL	T	37.7	29.7	0.1		27	Y		CONUS		123	58.6					
A01	T	52.6	46.6	0.035		27	N		CONUS	2.6	2.8	57					
A02	T	53	47	0.035		27	N		CONUS	2.5	4.1	59.1					
A03	T	51.4	45.4	0.035		27	N		CONUS	2.5	6	59.2					
A04	T	53.1	47.1	0.035		27	N		CONUS	2.8	1.8	55.6					
A05	T	51	45	0.035		27	N		CONUS	2.2	7.1	59.5					
A06	T	52	46	0.035		27	N		CONUS	2.5	3.9	57.9					
A07	T	52.4	46.4	0.035		27	N		CONUS	2.2	3.6	58					
A08	T	51	45	0.035		27	N		CONUS	3	6.5	59.1					
A09	T	53	47	0.035		27	N		CONUS	3	2.3	56.7					
A10	T	51.3	45.3	0.035		27	N		CONUS	2.5	6.3	59.3					
A11	T	52.5	46.5	0.035		27	N		CONUS	2.5	4.4	58.9					
A12	T	50.6	44.6	0.035		27	N		CONUS	3	4.2	56.8					
A13	T	50.8	44.8	0.035		27	N		CONUS	2.6	4.5	57.3					
A14	T	52.5	46.5	0.035		27	N		CONUS	2.6	3.4	57.8					
A15	T	52.5	46.5	0.035		27	N		CONUS	2.9	2.6	56.7					
A16	T	49.4	43.4	0.035		27	N		CONUS	2.5	5.8	57					
A17	T	50.7	44.7	0.035		27	N		CONUS	2.6	3.9	56.6					
A18	T	46.6	40.6	0.035		27	N		CONUS	2.3	7.6	55.4					
A19	T	49.5	43.5	0.035		27	N		CONUS	3	6	57.3					
A20	T	45.4	39.4	0.035		27	N		CONUS	2.4	7.1	53.9					
A21	T	49.4	43.4	0.035		27	N		CONUS	2.5	4.9	56.2					
A22	T	53	47	0.035		27	N		CONUS	3.2	1.1	53.5					
B01	T	50.8	44.8	0.035		27	N		CONUS	2.7	2.7	55.1					
B02	T	52.8	46.8	0.035		27	N		CONUS	2.6	3.2	57.8					

B03	T	52.7	46.7	0.035		27	N		CONUS	2.5	2.6	56.9						
B04	T	51.4	45.4	0.035		27	N		CONUS	2.7	3.9	57.3						
B05	T	52.3	46.3	0.035		27	N		CONUS	2.9	3.3	57.5						
B06	T	51.7	45.7	0.035		27	N		CONUS	2.4	7.1	60.1						
B07	T	52.2	46.2	0.035		27	N		CONUS	2.8	3.8	58						
B08	T	52.9	46.9	0.035		27	N		CONUS	2.5	3.5	58.3						
B09	T	50	44	0.035		27	N		CONUS	2.7	7.8	58.9						
B10	T	53.3	47.3	0.035		27	N		CONUS	2.9	1.2	54.2						
B11	T	50.5	44.5	0.035		27	N		CONUS	2.2	6.9	58.9						
B12	T	53	47	0.035		27	N		CONUS	2.9	3.4	58.3						
B13	T	51.4	45.4	0.035		27	N		CONUS	2.9	2.5	55.3						
B14	T	50.8	44.8	0.035		27	N		CONUS	1.9	6.6	59						
B15	T	53.3	47.3	0.035		27	N		CONUS	2.5	3.4	58.6						
B16	T	53.3	47.3	0.035		27	N		CONUS	2.3	1.3	54.5						
B17	T	53	47	0.035		27	N		CONUS	2.6	2.8	57.5						
B18	T	48.2	42.2	0.035		27	N		CONUS	2.9	6.9	56.6						
B19	T	47.6	41.6	0.035		27	N		CONUS	2.1	16.2	59.7						
B20	T	46.6	40.6	0.035		27	N		CONUS	2.1	14.8	58.3						
B21	T	48.3	42.3	0.035		27	N		CONUS	2.6	9.8	58.2						
B22	T	47.4	41.4	0.035		27	N		CONUS	2.3	10	57.4						
B23	T	52.1	46.1	0.035		27	N		PR	1.6	4.8	58.9						
B24	T	52.1	46.1	0.035		27	N		PR	1.7	4.8	58.9						
OSC	R	25.2	24.2	0.1		27	N		CONUS				11799	-15.5				
OST	T	24.2	23.2	0.1		27	N		CONUS	3	33.9	39.5						
C01	T	49.8	46.8	0.035		27	N		HI	2.6	5.5	57.2						

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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

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S9. SPACE STATION CHANNELS For each frequency channel 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)
R0001	36000	R	29530	R	C
R0003	36000	R	29570	R	C
R0005	36000	R	29610	R	C
R0007	36000	R	29650	R	C
R0009	36000	R	29690	R	C
R0011	36000	R	29730	R	C
R0013	36000	R	29770	R	C
R0015	36000	R	29810	R	C
R0017	36000	R	29850	R	C
R0019	36000	R	29890	R	C
R0021	36000	R	29930	R	C
R0023	36000	R	29970	R	C
R0002	36000	R	29530	L	C
R0004	36000	R	29570	L	C
R0006	36000	R	29610	L	C
R0008	36000	R	29650	L	C
R0010	36000	R	29690	L	C
R0012	36000	R	29730	L	C
R0014	36000	R	29770	L	C
R0016	36000	R	29810	L	C
R0018	36000	R	29850	L	C
R0020	36000	R	29890	L	C
R0022	36000	R	29930	L	C
R0024	36000	R	29970	L	C
T0001	36000	T	19730	R	C
T0003	36000	T	19770	R	C
T0005	36000	T	19810	R	C
T0007	36000	T	19850	R	C
T0009	36000	T	19890	R	C
T0011	36000	T	19930	R	C

S10. SPACE STATION TRANSPONDERS For each transponder provide:

(a) Transponder ID	(b) Transponder Gain (dB)	Receive Band		Transmit Band	
		(c) Channel No.	(d) Beam ID	(e) Channel No.	(f) Beam ID
NAT9	120	R0009	S1	T0009	NATL
NAT10	120	R0010	S1	T0010	NATL
NAT11	120	R0011	S1	T0011	NATL
NAT12	120	R0012	S1	T0012	NATL
NAT13	120	R0013	S1	T0013	NATL
NAT14	120	R0014	S1	T0014	NATL
NAT15	120	R0015	S1	T0015	NATL
NAT16	120	R0016	S1	T0016	NATL
NAT17	120	R0017	S1	T0017	NATL
NAT18	120	R0018	S1	T0018	NATL
NAT19	120	R0019	S1	T0019	NATL
NAT20	120	R0020	S1	T0020	NATL
NAT21	120	R0021	S1	T0021	NATL
NAT22	120	R0022	S1	T0022	NATL
NAT23	120	R0023	S1	T0023	NATL
NAT24	120	R0024	S1	T0024	NATL
A01-1	120	R0006	S4	T0006	A01
A02-1	120	R0002	S3	T0002	A02
A02-2	120	R0012	S3	T0004	A02
A03-1	120	R0015	S3	T0007	A03
A03-2	120	R0021	S3	T0005	A03
A04-1	120	R0007	S3	T0007	A04
A05-1	120	R0004	S4	T0004	A05
A05-2	120	R0018	S4	T0002	A05
A06-1	120	R0002	S2	T0002	A06
A06-2	120	R0020	S2	T0004	A06
A06-3	120	R0024	S2	T0008	A06
A07-1	120	R0002	S4	T0002	A07
A08-1	120	R0005	S4	T0005	A08
A08-2	120	R0015	S4	T0007	A08

T0013	36000	T	19970	R	C
T0015	36000	T	20010	R	C
T0017	36000	T	20050	R	C
T0019	36000	T	20090	R	C
T0021	36000	T	20130	R	C
T0023	36000	T	20170	R	C
T0002	36000	T	19730	L	C
T0004	36000	T	19770	L	C
T0006	36000	T	19810	L	C
T0008	36000	T	19850	L	C
T0010	36000	T	19890	L	C
T0012	36000	T	19930	L	C
T0014	36000	T	19970	L	C
T0016	36000	T	20010	L	C
T0018	36000	T	20050	L	C
T0020	36000	T	20090	L	C
T0022	36000	T	20130	L	C
T0024	36000	T	20170	L	C
CMD1	800	R	28351	L	T
CMD2	800	R	28353	L	T
TLM1	800	T	18799	L	T
TLM2	800	T	18799.5	L	T
BCN	0.001	R	29997	L	T

A08-3	120	R0017	S4	T0001	A08
A09-1	120	R0005	S2	T0005	A09
A09-2	120	R0015	S2	T0007	A09
A10-1	120	R0004	S3	T0004	A10
A10-2	120	R0010	S3	T0002	A10
A11-1	120	R0010	S4	T0002	A11
A11-2	120	R0020	S4	T0004	A11
A12-1	120	R0007	S4	T0007	A12
A12-2	120	R0013	S4	T0005	A12
A13-1	120	R0007	S1	T0007	A13
A14-1	120	R0016	S4	T0007	A14
A14-2	120	R0021	S4	T0005	A14
A15-1	120	R0004	S2	T0004	A15
A15-2	120	R0018	S2	T0002	A15
A16-1	120	R0013	S2	T0005	A16
A16-2	120	R0023	S2	T0007	A16
A17-1	120	R0013	S3	T0005	A17
A18-1	120	R0012	S2	T0004	A18
A18-2	120	R0016	S2	T0008	A18
A19-1	120	R0007	S2	T0007	A19
A19-2	120	R0021	S2	T0005	A19
A20-1	120	R0005	S3	T0005	A20
A20-2	120	R0023	S3	T0007	A20
A21-1	120	R0006	S1	T0005	A21
A22-1	120	R0005	S1	T0006	A22
B01-1	120	R0001	S3	T0001	B01
B01-2	120	R0011	S3	T0003	B01
B02-1	120	R0008	S3	T0008	B02
B03-1	120	R0008	S1	T0008	B03
B04-1	120	R0003	S3	T0003	B04
B04-2	120	R0017	S3	T0001	B04
B05-1	120	R0009	S3	T0001	B05
B05-2	120	R0019	S3	T0003	B05
B06-1	120	R0008	S4	T0008	B06
B06-2	120	R0022	S4	T0006	B06
B07-1	120	R0003	S4	T0003	B07
B08-1	120	R0006	S3	T0006	B08
B08-2	120	R0016	S3	T0008	B08
B09-1	120	R0011	S2	T0003	B09

B09-2	120	R0017	S2	T0001	B09
B10-1	120	R0023	S4	T0008	B10
B11-1	120	R0014	S4	T0006	B11
B11-2	120	R0024	S4	T0008	B11
B12-1	120	R0006	S2	T0006	B12
B13-1	120	R0009	S4	T0001	B13
B13-2	120	R0019	S4	T0003	B13
B14-1	120	R0001	S4	T0001	B14
B14-2	120	R0011	S4	T0003	B14
B15-1	120	R0014	S3	T0006	B15
B16-1	120	R0012	S4	T0004	B16
B17-1	120	R0008	S2	T0008	B17
B17-2	120	R0022	S2	T0006	B17
B18-1	120	R0001	S2	T0001	B18
B18-2	120	R0019	S2	T0003	B18
B19-1	120	R0010	S2	T0002	B19
B19-2	120	R0014	S2	T0006	B19
B20-1	120	R0003	S2	T0003	B20
B20-2	120	R0009	S2	T0001	B20
B21-1	120	R0003	S1	T0004	B21
B22-1	120	R0001	S1	T0001	B22
B23-1	120	R0002	S1	T0002	B23
B24-1	120	R0004	S1	T0003	B24
CMD1		CMD1	OSC		
CMD2		CMD2	OSC		
TLM1				TLM1	OST
TLM2				TLM2	OST
PR009	120	R0009	S1	T0009	B24
PR011	120	R0011	S1	T0011	B24
PR013	120	R0013	S1	T0013	B24
PR015	120	R0015	S1	T0015	B24
PR017	120	R0017	S1	T0017	B24
PR019	120	R0019	S1	T0019	B24
PR021	120	R0021	S1	T0021	B24
PR023	120	R0023	S1	T0023	B24
PR010	120	R0010	S1	T0010	B23
PR012	120	R0012	S1	T0012	B23
PR014	120	R0014	S1	T0014	B23
PR016	120	R0016	S1	T0016	B23

PR018	120	R0018	S1	T0018	B23
PR020	120	R0020	S1	T0020	B23
PR022	120	R0022	S1	T0022	B23
PR024	120	R0024	S1	T0024	B23
HI009	120	R0009	S1	T0009	C01
HI010	120	R0010	S1	T0010	C01
HI011	120	R0011	S1	T0011	C01
HI012	120	R0012	S1	T0012	C01
HI013	120	R0013	S1	T0013	C01
HI014	120	R0014	S1	T0014	C01
HI015	120	R0015	S1	T0015	C01
HI016	120	R0016	S1	T0016	C01
HI017	120	R0017	S1	T0017	C01
HI018	120	R0018	S1	T0018	C01
HI019	120	R0019	S1	T0019	C01
HI020	120	R0020	S1	T0020	C01
HI021	120	R0021	S1	T0021	C01
HI022	120	R0022	S1	T0022	C01
HI023	120	R0023	S1	T0023	C01
HI024	120	R0024	S1	T0024	C01
BCN		BCN	S2		

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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)
M1	36M0G7W	36000	4	28960	0.4827		3	15.2
M2	36M0G7W	36000	4	34800	0.58		3.8	16
M3	36M0G7W	36000	4	38720	0.6453		4.7	16.9
M4	36M0G7W	36000	4	46480	0.7747		6.4	18.6
M5	36M0G7W	36000	8	52190	0.5799		7.7	19.9
M6	36M0G7W	36000	8	58070	0.6452		8.5	20.7

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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						
CMD	800KF2D	800		1									10.5	22.7
TLM	800KF2D	800		1									10.5	22.7

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

Associated Transponder ID Range		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)			
(a) Start	(b) End	(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/m2/Hz)	(o)Assoc. Stn Rec. G/T (dB/K)
									(j) Min.	(k) Max.	(l) Min.	(m) Max.		
NAT9	NAT24	M3		1				66.7	0.6	6.6	50.6	58.6	-119	18.4
A01-1	B24-1	M1		1				66.7	0.6	7.2	60.2	47.5	-118	18.4
A01-1	B24-1	M2		1				66.7	0.6	7.2	60.2	47.5	-118	18.4
A01-1	B24-1	M3		1				66.7	0.6	7.2	60.2	47.5	-118	18.4
A01-1	B24-1	M4		1				66.7	0.6	7.2	60.2	47.5	-118	18.4
A01-1	B24-1	M5		1				66.7	0.6	7.2	60.2	47.5	-118	18.4
A01-1	B24-1	M6		1				66.7	0.6	7.2	60.2	47.5	-118	18.4
CMD1	CMD2		CMD	1				66.7	-0.3	25.7				
TLM1	TLM2		TLM	1							38.3	39.5	-122.9	41.3
PR009	PR024	M3		1				66.7	0.6	6.6	56.9	58.9	-118.7	18.4
HI009	HI024	M3						66.7	0.6	6.6	54.2	57.2	-120.5	18.4

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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: 1600 Forbes Way			
S14b. City: Long Beach	S14c. County: Los Angeles	S14d. State/Country CA	S14e. Zip Code: 90810
S14f. Telephone Number: 310 525 5590	S14g. Call Sign of Control Station (if appropriate):		

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S15. SPACECRAFT PHYSICAL CHARACTERISTICS:

S15a: Mass of spacecraft without fuel (kg): 3573.1	Spacecraft Dimensions (meters)	Probability of Survival to End of Life (0.0 - 1.0)
S15b. Mass of fuel and disposables at launch (kg): 2929.3		
S15c. Mass of spacecraft and fuel at launch (kg): 6502.4	S15f. Length (m): 32.4	S15i. Payload: 0.8659
S15d. Mass of fuel, in orbit, at beginning of life (kg): 407.8	S15g. Width (m): 9.93	S15j. Bus: 0.8354
S15e. Deployed Area of Solar Array (square meters): 89	S15h. Height (m): 8.41	S15k. Total: 0.7234

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): 16820	(f): 16820	(k): 15350	(p): 15350
Bus (Watts):	(b): 3475	(g): 1823	(l): 3423	(q): 1940
Total (Watts):	(c): 20295	(h): 18643	(m) 18773	(r): 17290
Solar Array (Watts):	(d): 21826	(i): 18643	(n): 20001	(s): 18027
Depth of Battery Discharge (%):	(e) 78.3 %	(j) 78.3 %	(o) 71.8 %	(t) 71.8 %

S17. CERTIFICATIONS:

a. Are the power flux density limits of § 25.208 met?:	[ ] YES	[ ] NO	[X] 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?	[ ] YES	[ ] NO	[X] 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?	[X] YES	[ ] NO	[ ] 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.