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:
AMC-14		5/12/2008	N
b. Construction Commencement Date:		f. Estimated Lifetime of Satellite(s):	j. Number of transponders offered on a common carrier basis:
12/23/2003		15 Years	0
c. Construction Completion Date:		g. Total Number of Transponders:	k. Total Common Carrier Transponder Bandwidth:
1/31/2008		32	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:
3/12/2008	4/12/2008	768 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)		
17300	M	17800	M	R	Feeder Link for Broadcasting Satellite Service in FSS
12200	M	12700	M	T	Broadcasting Satellite Service - Video

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:
61.5 W			Consistent with Region 2 USA Plan and existing EchoStar license.
Longitudinal Tolerance or E/W Station-Keeping: d. Toward West: 0.05 Degrees e. Toward East: 0.05 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.
SA1	S		Cheyenne, WY
SA2	S		Gilbert, AZ and South Mountain, CA
SA3	S		CONUS
SA4	S		Visible Earth

FEDERAL COMMUNICATIONS COMMISSION **Page 4: Antenna Beams**
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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
CUR	R	47.5	43.5	0.14	0.11	30	N		SA1				970	18.6	-101.7	20	1
CUL	R	47.5	43.5	0.14	0.11	30	N		SA1				970	18.6	-101.7	20	1
GUR	R	47.5	45.5	0.14	0.11	30	N		SA2				970	18.6	-101.7	20	1
GUL	R	47.5	45.5	0.14	0.11	30	N		SA2				970	18.6	-101.7	20	1
CUP	R	38.6	35.6	0.14	0.11	30	N		SA1				1026	8.5	-98.6	20	1
CUP	R	38.6	35.6	0.14	0.11	30	N		SA1				1026	8.5	-98.6	20	1
GUP	R	38.6	35.6	0.14	0.11	30	N		SA2				1026	8.5	-98.6	20	1
GUP	R	38.6	35.6	0.14	0.11	30	N		SA2				1026	8.5	-98.6	20	1
CON	T	36.3	28.3	0.14	0.11	30	N		SA3	2.7	162.2	58.4					
CON	T	36.3	28.3	0.14	0.11	30	N		SA3	2.7	162.2	58.4					
CHU	R	28.4	20.4	0.14	0.11	30	N		SA3				708	-0.1	-92		
CHU	R	28.4	20.4	0.14	0.11	30	N		SA3				708	-0.1	-92		
CHD	T	25.5	17.5	0.14	0.11	30	N		SA3	7.5	0.18	18					
CHD	T	25.5	17.5	0.14	0.11	30	N		SA3	7.5	0.18	18					
OMN	R	3	-0.5	0.14	0.11	30	N	90	SA4				5012	-34	-80		
OMN	R	3	-0.5	0.14	0.11	30	N	0	SA4				5012	-34	-80		
OMN	T	3	-0.5	0.14	0.11	30	N	90	SA4	8.5	1.12	3.5					
OMN	T	3	-0.5	0.14	0.11	30	N	0	SA4	8.5	1.12	3.5					

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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
CUR	R	C	-61.5		CUR.gxt					
CUL	R	C	-61.5		CUL.gxt					
GUR	R	C	-61.5		GUR.gxt					
GUL	R	C	-61.5		GUL.gxt					
CUP	R	C	-61.5		CUPAR.gxt					
CUP	R	C	-61.5		CUPAL.gxt					
GUP	R	C	-61.5		GUPAR.gxt					
GUP	R	C	-61.5		GUPAL.gxt					
CON	T	C	-61.5		CONR.gxt					
CON	T	C	-61.5		CONL.gxt					
CHU	R	C	-61.5		CHUR.gxt					
CHU	R	C	-61.5		CHUL.gxt					
CHD	T	C	-61.5		CHDR.gxt					
CHD	T	C	-61.5		CHDL.gxt					

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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)
U0001	24000	R	17324	R	C
U0003	24000	R	17353.16	R	C
U0005	24000	R	17382.32	R	C
U0007	24000	R	17411.48	R	C
U0009	24000	R	17440.64	R	C
U0011	24000	R	17469.8	R	C
U0013	24000	R	17498.96	R	C
U0015	24000	R	17528.12	R	C
U0017	24000	R	17557.28	R	C
U0019	24000	R	17586.44	R	C
U0021	24000	R	17615.6	R	C
U0023	24000	R	17644.76	R	C
U0025	24000	R	17673.92	R	C
U0027	24000	R	17703.08	R	C
U0029	24000	R	17732.24	R	C
U0031	24000	R	17761.4	R	C
U0002	24000	R	17338.58	L	C
U0004	24000	R	17367.74	L	C
U0006	24000	R	17396.9	L	C
U0008	24000	R	17426.06	L	C
U0010	24000	R	17455.22	L	C
U0012	24000	R	17484.38	L	C
U0014	24000	R	17513.54	L	C
U0016	24000	R	17542.7	L	C
U0018	24000	R	17571.86	L	C
U0020	24000	R	17601.02	L	C
U0022	24000	R	17630.18	L	C
U0024	24000	R	17659.34	L	C
U0026	24000	R	17688.5	L	C
U0028	24000	R	17717.66	L	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
T0001	122.6	U0001	CUR	D0001	CONR
T0003	122.6	U0003	CUR	D0003	CONR
T0005	122.6	U0005	CUR	D0005	CONR
T0007	122.6	U0007	CUR	D0007	CONR
T0009	122.6	U0009	CUR	D0009	CONR
T0011	122.6	U0011	CUR	D0011	CONR
T0013	122.6	U0013	CUR	D0013	CONR
T0015	122.6	U0015	CUR	D0015	CONR
T0017	122.6	U0017	CUR	D0017	CONR
T0019	122.6	U0019	CUR	D0019	CONR
T0021	122.6	U0021	CUR	D0021	CONR
T0023	122.6	U0023	CUR	D0023	CONR
T0025	122.6	U0025	CUR	D0025	CONR
T0027	122.6	U0027	CUR	D0027	CONR
T0029	122.6	U0029	CUR	D0029	CONR
T0031	122.6	U0031	CUR	D0031	CONR
T0002	122.6	U0002	CUL	D0002	CONL
T0004	122.6	U0004	CUL	D0004	CONL
T0006	122.6	U0006	CUL	D0006	CONL
T0008	122.6	U0008	CUL	D0008	CONL
T0010	122.6	U0010	CUL	D0010	CONL
T0012	122.6	U0012	CUL	D0012	CONL
T0014	122.6	U0014	CUL	D0014	CONL
T0016	122.6	U0016	CUL	D0016	CONL
T0018	122.6	U0018	CUL	D0018	CONL
T0020	122.6	U0020	CUL	D0020	CONL
T0022	122.6	U0022	CUL	D0022	CONL
T0024	122.6	U0024	CUL	D0024	CONL
T0026	122.6	U0026	CUL	D0026	CONL
T0028	122.6	U0028	CUL	D0028	CONL

U0030	24000	R	17746.82	L	C
U0032	24000	R	17775.98	L	C
D0001	24000	T	12224	R	C
D0003	24000	T	12253.16	R	C
D0005	24000	T	12282.32	R	C
D0007	24000	T	12311.48	R	C
D0009	24000	T	12340.64	R	C
D0011	24000	T	12369.8	R	C
D0013	24000	T	12398.96	R	C
D0015	24000	T	12428.12	R	C
D0017	24000	T	12457.28	R	C
D0019	24000	T	12486.44	R	C
D0021	24000	T	12515.6	R	C
D0023	24000	T	12544.76	R	C
D0025	24000	T	12573.92	R	C
D0027	24000	T	12603.08	R	C
D0029	24000	T	12632.24	R	C
D0031	24000	T	12661.4	R	C
D0002	24000	T	12238.58	L	C
D0004	24000	T	12267.74	L	C
D0006	24000	T	12296.9	L	C
D0008	24000	T	12326.06	L	C
D0010	24000	T	12355.22	L	C
D0012	24000	T	12384.38	L	C
D0014	24000	T	12413.54	L	C
D0016	24000	T	12442.7	L	C
D0018	24000	T	12471.86	L	C
D0020	24000	T	12501.02	L	C
D0022	24000	T	12530.18	L	C
D0024	24000	T	12559.34	L	C
D0026	24000	T	12588.5	L	C
D0028	24000	T	12617.66	L	C
D0030	24000	T	12646.82	L	C
D0032	24000	T	12675.98	L	C
CMD1	1000	R	17793.5	R	T
CMD2	1000	R	17793.5	L	T
CMD3	1000	R	17793.5	V	T
CMD4	1000	R	17793.5	H	T
TLM1	1000	T	12694.5	R	T

T0030	122.6	U0030	CUL	D0030	CONL
T0032	122.6	U0032	CUL	D0032	CONL
T0033	122.6	U0001	GUR	D0001	CONR
T0035	122.6	U0003	GUR	D0003	CONR
T0037	122.6	U0005	GUR	D0005	CONR
T0039	122.6	U0007	GUR	D0007	CONR
T0041	122.6	U0009	GUR	D0009	CONR
T0043	122.6	U0011	GUR	D0011	CONR
T0045	122.6	U0013	GUR	D0013	CONR
T0047	122.6	U0015	GUR	D0015	CONR
T0049	122.6	U0017	GUR	D0017	CONR
T0051	122.6	U0019	GUR	D0019	CONR
T0053	122.6	U0021	GUR	D0021	CONR
T0055	122.6	U0023	GUR	D0023	CONR
T0057	122.6	U0025	GUR	D0025	CONR
T0059	122.6	U0027	GUR	D0027	CONR
T0061	122.6	U0029	GUR	D0029	CONR
T0063	122.6	U0031	GUR	D0031	CONR
T0034	122.6	U0002	GUL	D0002	CONL
T0036	122.6	U0004	GUL	D0004	CONL
T0038	122.6	U0006	GUL	D0006	CONL
T0040	122.6	U0008	GUL	D0008	CONL
T0042	122.6	U0010	GUL	D0010	CONL
T0044	122.6	U0012	GUL	D0012	CONL
T0046	122.6	U0014	GUL	D0014	CONL
T0048	122.6	U0016	GUL	D0016	CONL
T0050	122.6	U0018	GUL	D0018	CONL
T0052	122.6	U0020	GUL	D0020	CONL
T0054	122.6	U0022	GUL	D0022	CONL
T0056	122.6	U0024	GUL	D0024	CONL
T0058	122.6	U0026	GUL	D0026	CONL
T0060	122.6	U0028	GUL	D0028	CONL
T0062	122.6	U0030	GUL	D0030	CONL
T0064	122.6	U0032	GUL	D0032	CONL
T0065	128.4	U0001	CUPAR	D0001	CONR
T0067	128.4	U0003	CUPAR	D0003	CONR
T0069	128.4	U0005	CUPAR	D0005	CONR
T0071	128.4	U0007	CUPAR	D0007	CONR
T0073	128.4	U0009	CUPAR	D0009	CONR

TLM2	1000	T	12694.5	L	T
TLM3	1000	T	12698.5	R	T
TLM4	1000	T	12698.5	L	T
TLM5	1000	T	12694.5	V	T
TLM6	1000	T	12694.5	H	T
TLM7	1000	T	12698.5	V	T
TLM8	1000	T	12698.5	H	T

T0075	128.4	U0011	CUPAR	D0011	CONR
T0077	128.4	U0013	CUPAR	D0013	CONR
T0079	128.4	U0015	CUPAR	D0015	CONR
T0081	128.4	U0017	CUPAR	D0017	CONR
T0083	128.4	U0019	CUPAR	D0019	CONR
T0085	128.4	U0021	CUPAR	D0021	CONR
T0087	128.4	U0023	CUPAR	D0023	CONR
T0089	128.4	U0025	CUPAR	D0025	CONR
T0091	128.4	U0027	CUPAR	D0027	CONR
T0093	128.4	U0029	CUPAR	D0029	CONR
T0095	128.4	U0031	CUPAR	D0031	CONR
T0066	128.4	U0002	CUPAL	D0002	CONL
T0068	128.4	U0004	CUPAL	D0004	CONL
T0070	128.4	U0006	CUPAL	D0006	CONL
T0072	128.4	U0008	CUPAL	D0008	CONL
T0074	128.4	U0010	CUPAL	D0010	CONL
T0076	128.4	U0012	CUPAL	D0012	CONL
T0078	128.4	U0014	CUPAL	D0014	CONL
T0080	128.4	U0016	CUPAL	D0016	CONL
T0082	128.4	U0018	CUPAL	D0018	CONL
T0084	128.4	U0020	CUPAL	D0020	CONL
T0086	128.4	U0022	CUPAL	D0022	CONL
T0088	128.4	U0024	CUPAL	D0024	CONL
T0090	128.4	U0026	CUPAL	D0026	CONL
T0092	128.4	U0028	CUPAL	D0028	CONL
T0094	128.4	U0030	CUPAL	D0030	CONL
T0096	128.4	U0032	CUPAL	D0032	CONL
T0097	128.4	U0001	GUPAR	D0001	CONR
T0099	128.4	U0003	GUPAR	D0003	CONR
T0101	128.4	U0005	GUPAR	D0005	CONR
T0103	128.4	U0007	GUPAR	D0007	CONR
T0105	128.4	U0009	GUPAR	D0009	CONR
T0107	128.4	U0011	GUPAR	D0011	CONR
T0109	128.4	U0013	GUPAR	D0013	CONR
T0111	128.4	U0015	GUPAR	D0015	CONR
T0113	128.4	U0017	GUPAR	D0017	CONR
T0115	128.4	U0019	GUPAR	D0019	CONR
T0117	128.4	U0021	GUPAR	D0021	CONR
T0119	128.4	U0023	GUPAR	D0023	CONR

T0121	128.4	U0025	GUPAR	D0025	CONR
T0123	128.4	U0027	GUPAR	D0027	CONR
T0125	128.4	U0029	GUPAR	D0029	CONR
T0127	128.4	U0031	GUPAR	D0031	CONR
T0098	128.4	U0002	GUPAL	D0002	CONL
T0100	128.4	U0004	GUPAL	D0004	CONL
T0102	128.4	U0006	GUPAL	D0006	CONL
T0104	128.4	U0008	GUPAL	D0008	CONL
T0106	128.4	U0010	GUPAL	D0010	CONL
T0108	128.4	U0012	GUPAL	D0012	CONL
T0110	128.4	U0014	GUPAL	D0014	CONL
T0112	128.4	U0016	GUPAL	D0016	CONL
T0114	128.4	U0018	GUPAL	D0018	CONL
T0116	128.4	U0020	GUPAL	D0020	CONL
T0118	128.4	U0022	GUPAL	D0022	CONL
T0120	128.4	U0024	GUPAL	D0024	CONL
T0122	128.4	U0026	GUPAL	D0026	CONL
T0124	128.4	U0028	GUPAL	D0028	CONL
T0126	128.4	U0030	GUPAL	D0030	CONL
T0128	128.4	U0032	GUPAL	D0032	CONL
TC1		CMD1	CHUR		
TC2		CMD2	CHUL		
TC3		CMD3	OMNUV		
TC4		CMD4	OMNUH		
TM1				TLM1	CHDR
TM2				TLM2	CHDL
TM3				TLM3	CHDR
TM4				TLM4	CHDL
TM5				TLM5	OMNDV
TM6				TLM6	OMNDH
TM7				TLM7	OMNDV
TM8				TLM8	OMNDH

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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	24M0G7W	24000	4	27647	0.6912		5.7	28
D2	24M0G7W	24000	4	30719	0.768		6.6	28
D3	25M8G7W	25800	8	41200	0.6389		7.5	28

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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	1M00F2D	1000											10	22.2
A2	1M00G2D	1000											9	21.2

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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.		
T0001	T0064	D1		1		LB1.doc		65.8	-0.8	19.2	47.7	58.4		13.2
T0001	T0064	D2		1		LB2.doc		65.8	-0.8	19.2	47.7	58.4		13.2
T0001	T0064	D3		1		LB3.doc		65.8	-0.8	19.2	47.7	58.4		13.2
T0065	T0128	D1		1		LB4.doc		65.8	-0.8	19.2	47.7	58.4		13.2
T0065	T0128	D2		1		LB5.doc		65.8	-0.8	19.2	47.7	58.4		13.2
T0065	T0128	D3		1		LB6.doc		65.8	-0.8	19.2	47.7	58.4		13.2
TC1	TC2		A1	1		CMD1 LB.doc		65.8	5.1	22.1				0.1
TC3	TC4		A1	1		CMD2 LB.doc		64.2	19.1	39.1				-34
TM1	TM4		A2	1		TLM1 LB.doc					10	18		40
TM5	TM8		A2	1		TLM2 LB.doc					0	3.5		48.4

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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: Grand Junction			
S14b. City: Grand Junction	S14c. County:	S14d. State/Country CO	S14e. Zip Code: 81505
S14f. Telephone Number: 970-241-8300	S14g. Call Sign of Control Station (if appropriate): E890537		

Remote Control (TT C) Location(s):

S14a: Street Address: Woodbine TT&C			
S14b. City: Mt. Airy	S14c. County:	S14d. State/Country MD	S14e. Zip Code: 21771
S14f. Telephone Number: 410-549-4300	S14g. Call Sign of Control Station (if appropriate): E7169		

Remote Control (TT C) Location(s):

S14a: Street Address: Vernon Valley			
S14b. City: Sussex	S14c. County:	S14d. State/Country NJ	S14e. Zip Code: 07461
S14f. Telephone Number: 973-823-6000	S14g. Call Sign of Control Station (if appropriate): WB81		

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S15. SPACECRAFT PHYSICAL CHARACTERISTICS:

S15a: Mass of spacecraft without fuel (kg): 1999	Spacecraft Dimensions (meters)	Probability of Survival to End of Life (0.0 - 1.0)
S15b. Mass of fuel and disposables at launch (kg): 2134		
S15c. Mass of spacecraft and fuel at launch (kg): 4133	S15f. Length (m): 7.3	S15i. Payload: 0.8964
S15d. Mass of fuel, in orbit, at beginning of life (kg): 694	S15g. Width (m): 3	S15j. Bus: 0.8953
S15e. Deployed Area of Solar Array (square meters): 71.2	S15h. Height (m): 1.9	S15k. Total: 0.8026

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): 8712	(f): 8712	(k): 8712	(p): 8712
Bus (Watts):	(b): 1873	(g): 1042	(l): 1960	(q): 1073
Total (Watts):	(c): 10586	(h): 9754	(m) 10672	(r): 9786
Solar Array (Watts):	(d): 14394	(i): 12956	(n): 12358	(s): 11239
Depth of Battery Discharge (%):	(e) 73.9 %	(j) %	(o) 74.1 %	(t) %

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.