

S1. GENERAL INFORMATION Complete for all satellite applications.

a. Space Station or Satellite Network Name: HORIZONS 2		e. Estimated Date of Placement into Service: 12/30/2007		i. Will the space station(s) operate on a Common Carrier Basis: N	
b. Construction Commencement Date: 8/5/2005		f. Estimated Lifetime of Satellite(s): 15 Years		j. Number of transponders offered on a common carrier basis:	
c. Construction Completion Date: 8/31/2007		g. Total Number of Transponders: 20		k. Total Common Carrier Transponder Bandwidth: MHz	
d1. Est Launch Date Begin: 9/30/2007	d2. Est Launch Date End: 10/28/2007	h. Total Transponder Bandwidth (no. transponders x Bandwidth) 864 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)		
14000	M	14500	M	R	Fixed Satellite Service
11700	M	12200	M	T	Fixed Satellite Service

S3. ORBITAL INFORMATION FOR GEOSTATIONARY SATELLITES ONLY:

a. Nominal Orbital Longitude (Degrees E/W): 74.05 W		b. Alternate Orbital Longitude (Degrees E/W):		c. Reason for orbital location selection: Replaces the SBS-6 satellite.	
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			h. Easternmost:	
i. Reason for service are selection (Optional):					

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

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

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

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		Continental United States
2	S		Near Coast Atlantic Ocean and the Caribbean
3	S		Global

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

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 Isola- tion (dB)	(h) Polar- ization Switch- able? (Y/N)	(i) Polarization Alignment Rel. Equatorial Plane (Degrees)	(j) Service Area ID	Transmit			Receive			Input Attenuator (dB)	
										(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)	(q) Max. Value	(r) Step Size
		(c) Peak (dBi)	(d) Edge (dBi)														
CRH	R	35.6	29.6	0.11	0.11	30	N	0	1				480	8.8	-108.8	31	1
CRV	R	35.6	29.6	0.11	0.11	30	N	90	1				480	8.8	-108.8	31	1
ERH	R	35.4	29.4	0.11	0.11	30	N	0	2				437	9	-109	31	1
CTH	T	34.9	30.9	0.11	0.11	30	N	0	1	1.2	65	53					
CTV	T	34.9	30.9	0.11	0.11	30	N	90	1	1.2	65	53					
CTV	T	34.9	30.9	0.11	0.11	30	N	90	1	1.3	112	55.4					
ETV	T	36.1	32.1	0.11	0.11	30	N	90	2	1.4	62	54					
ETV	T	36.1	32.1	0.11	0.11	30	N	90	2	1.2	115	56.7					
CMD	R	35.6	25.6	0.11	0.11		N	0	1				12272	-5.3	-119.6		
CMD	R	35.6	25.6	0.11	0.11		N	90	1				12272	-5.3	-119.6		
CMD	R	2.8	-1.2	0.11	0.11		N		3				4192	-33.4	-91.5		
CMD	R	13.2	6.2	0.11	0.11		N		3				16308	-28.9	-96.1		
TLM	T	34.9	24.9	0.11	0.11		N	0	1	7.9	0.06	23					
TLM	T	2.9	-1.1	0.11	0.11		N		3	5.2	2.6	7					
TLM	T	13.3	6.3	0.11	0.11		N		3	7.6	1.5	15					
UPC	T	21	17	0.11	0.11		N		3	1	0.33	16.2					
UPC	T	21	17	0.11	0.11		N		3	1	0.33	16.2					

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

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	-73.95		CRH.gxt					
CRV	R	C	-73.95		CRV.gxt					
ERH	R	C	-73.95		ERH.gxt					
CTH	T	C	-73.95		CTHN.gxt	-150.2	-150.1	-149.9	-149.8	-149.7
CTV	T	C	-73.95		CTVN.gxt	-150.2	-150.1	-149.9	-149.8	-149.7
CTV	T	C	-73.95		CTVW.gxt	-150.2	-150.1	-149.9	-149.8	-149.7
ETV	T	C	-73.95		ETVN.gxt	-150.2	-150.1	-149.9	-149.8	-149.7
ETV	T	C	-73.95		ETVW.gxt	-150.2	-150.1	-149.9	-149.8	-149.7
CMD	R	C	-73.95		CMDH.gxt					
CMD	R	C	-73.95		CMDV.gxt					
CMD	R	C	-73.95	CMDO.pdf						
CMD	R	C	-73.95	CMDW.pdf						
TLM	T	C	-73.95		TLMH.gxt	-159	-158.9	-158.8	-158.7	-158.6
TLM	T	C	-73.95	TLMO.pdf		-175	-174.9	-174.8	-174.7	-174.6
TLM	T	C	-73.95	TLMW.pdf		-167	-166.9	-166.8	-166.7	-166.6
UPC	T	C	-73.95	UPCH.pdf		-150.1	-150	-149.9	-149.7	-149.6
UPC	T	C	-73.95	UPCV.pdf		-150.1	-150	-149.9	-149.7	-149.6

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

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)
CU001	36000	R	14020	V	C
CU002	36000	R	14060	V	C
CU003	36000	R	14100	V	C
CU004	36000	R	14140	V	C
CU005	36000	R	14180	V	C
CU006	36000	R	14220	V	C
CU007	36000	R	14260	V	C
CU008	36000	R	14300	V	C
CU009	36000	R	14340	V	C
CU010	36000	R	14380	V	C
CU011	36000	R	14420	V	C
CU012	36000	R	14460	V	C
CU013	72000	R	14058	H	C
CU014	72000	R	14138	H	C
CU015	72000	R	14218	H	C
CU016	72000	R	14298	H	C
CU017	36000	R	14360	H	C
CU018	36000	R	14400	H	C
CU019	36000	R	14440	H	C
CU020	36000	R	14480	H	C
EU013	72000	R	14058	H	C
EU014	72000	R	14138	H	C
EU015	72000	R	14218	H	C
EU016	72000	R	14298	H	C
EU017	36000	R	14360	H	C
EU018	36000	R	14400	H	C
EU019	36000	R	14440	H	C
EU020	36000	R	14480	H	C
CD001	36000	T	11720	H	C
CD002	36000	T	11760	H	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	135.8	CU001	CRV	CD001	CTHN
C0002	135.8	CU002	CRV	CD002	CTHN
C0003	135.8	CU003	CRV	CD003	CTHN
C0004	135.8	CU004	CRV	CD004	CTHN
C0005	135.8	CU005	CRV	CD005	CTHN
C0006	135.8	CU006	CRV	CD006	CTHN
C0007	135.8	CU007	CRV	CD007	CTHN
C0008	135.8	CU008	CRV	CD008	CTHN
C0009	135.8	CU009	CRV	CD009	CTHN
C0010	135.8	CU010	CRV	CD010	CTHN
C0011	135.8	CU011	CRV	CD011	CTHN
C0012	135.8	CU012	CRV	CD012	CTHN
C0013	138.2	CU013	CRH	CD013	CTVW
C0014	138.2	CU014	CRH	CD014	CTVW
C0015	138.2	CU015	CRH	CD015	CTVW
C0016	138.2	CU016	CRH	CD016	CTVW
C0017	135.8	CU017	CRH	CD017	CTVN
C0018	135.8	CU018	CRH	CD018	CTVN
C0019	135.8	CU019	CRH	CD019	CTVN
C0020	135.8	CU020	CRH	CD020	CTVN
E0013	138.5	EU013	ERH	ED013	ETVW
E0014	138.5	EU014	ERH	ED014	ETVW
E0015	138.5	EU015	ERH	ED015	ETVW
E0016	138.5	EU016	ERH	ED016	ETVW
E0017	135.8	EU017	ERH	ED017	ETVN
E0018	135.8	EU018	ERH	ED018	ETVN
E0019	135.8	EU019	ERH	ED019	ETVN
E0020	135.8	EU020	ERH	ED020	ETVN
CE013	138.3	CU013	CRH	ED013	ETVW
CE014	138.3	CU014	CRH	ED014	ETVW

CD003	36000	T	11800	H	C
CD004	36000	T	11840	H	C
CD005	36000	T	11880	H	C
CD006	36000	T	11920	H	C
CD007	36000	T	11960	H	C
CD008	36000	T	12000	H	C
CD009	36000	T	12040	H	C
CD010	36000	T	12080	H	C
CD011	36000	T	12120	H	C
CD012	36000	T	12160	H	C
CD013	72000	T	11758	V	C
CD014	72000	T	11838	V	C
CD015	72000	T	11918	V	C
CD016	72000	T	11998	V	C
CD017	36000	T	12060	V	C
CD018	36000	T	12100	V	C
CD019	36000	T	12140	V	C
CD020	36000	T	12180	V	C
ED013	72000	T	11758	V	C
ED014	72000	T	11838	V	C
ED015	72000	T	11918	V	C
ED016	72000	T	11998	V	C
ED017	36000	T	12060	V	C
ED018	36000	T	12100	V	C
ED019	36000	T	12140	V	C
ED020	36000	T	12180	V	C
CMD1	1000	R	14000.5	H	T
CMD2	1000	R	14499.5	V	T
CMD3	1000	R	14000.5	L	T
CMD4	1000	R	14499.5	L	T
TLM1	500	T	12196	H	T
TLM2	500	T	12198.625	H	T
TLM3	500	T	12196	R	T
TLM4	500	T	12198.625	R	T
ULPC1	8	T	11701.5	V	C
ULPC2	8	T	12198	H	C

CE015	138.3	CU015	CRH	ED015	ETVW
CE016	138.3	CU016	CRH	ED016	ETVW
CE017	135.6	CU017	CRH	ED017	ETVN
CE018	135.6	CU018	CRH	ED018	ETVN
CE019	135.6	CU019	CRH	ED019	ETVN
CE020	135.6	CU020	CRH	ED020	ETVN
EC013	138.4	EU013	ERH	CD013	CTVW
EC014	138.4	EU014	ERH	CD014	CTVW
EC015	138.4	EU015	ERH	CD015	CTVW
EC016	138.4	EU016	ERH	CD016	CTVW
EC017	136	EU017	ERH	CD017	CTVN
EC018	136	EU018	ERH	CD018	CTVN
EC019	136	EU019	ERH	CD019	CTVN
EC020	136	EU020	ERH	CD020	CTVN

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

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	60M3G7W	60266	4	73726	0.75		6.1	15.3
D2	30M1G7W	30133	4	36863	0.75		6.1	15.3
D3	6M77G7W	6771.1	4	6000	0.5		3.9	15
D4	1M82G7W	1819.2	4	1544	0.5		3	13.4
D5	75K4G7W	75.4	4	64	0.5		3	13.4
D6	1M23G7W	1229	2	512	0.5		3.4	13.3
D7	307KG7W	307	2	128	0.5		3.4	18.2

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

Page 8: Analog Modulation

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	20.8

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

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 ² /Hz)	(o) Assoc. Stn Rec. G/T (dB/K)
C0001	C0020		A1	1		H2_SCHEDUL	4000	56.9	14.4	20.4	39.1	43.1	-149.1	33.1
C0001	C0020	D2		1		H2_SCHEDUL		56.9	16.2	22.2	40.8	44.8	-156.1	26.7
C0001	C0020	D3		3	10300	H2_SCHEDUL		56.9	1.7	7.7	34	38	-156.4	26.7
C0001	C0020	D4		15	2325	H2_SCHEDUL		56.9	-3.8	2.2	28.5	32.5	-156.2	25
C0001	C0020	D5		360	100	H2_SCHEDUL		56.9	-17.6	-11.6	14.7	18.7	-156.2	25
C0001	C0020	D6		24	1450	H2_SCHEDUL		56.9	-5.6	0.4	26.7	30.7	-156.3	25
C0013	C0016		A1	2	36000	H2_SCHEDUL	4000	56.9	12.1	18.1	39.1	43.1	-149	34.6
C0013	C0016	D1		1		H2_SCHEDUL		56.9	17	23	43.8	47.8	-156.1	26.7
C0013	C0016	D3		7	10300	H2_SCHEDUL		56.9	0.3	6.3	34	38	-156.4	26.7
C0013	C0016	D4		31	2325	H2_SCHEDUL		56.9	-5.2	0.8	28.5	32.5	-156.2	25
C0013	C0016	D5		720	100	H2_SCHEDUL		56.9	-19	-13	14.7	18.7	-156.2	25
C0013	C0016	D6		49	1450	H2_SCHEDUL		56.9	-7	-1	26.7	30.7	-156.3	25
C0013	C0016	D7		180	400	H2_SCHEDUL		49	-8.4	2.4	17.4	21.4	-159.6	33.1
E0017	E0020		A1	1		H2_SCHEDUL	4000	56.9	13.2	19.2	39.1	43.1	-149	33.1
E0017	E0020	D2		1		H2_SCHEDUL		56.9	14.9	20.9	40.8	44.8	-156.1	26.7
E0017	E0020	D3		3	10300	H2_SCHEDUL		56.9	4.6	10.6	34.1	38.1	-156.3	26.7
E0017	E0020	D4		15	2325	H2_SCHEDUL		56.9	-0.9	5.1	28.6	32.6	-156.1	25
E0017	E0020	D5		360	100	H2_SCHEDUL		56.9	-14.7	-8.7	14.8	18.8	-156.1	25
E0017	CE020	D6		24	1450	H2_SCHEDUL		56.9	-2.7	3.3	26.8	30.8	-156.2	25
E0017	E0020	D7		90	400	H2_SCHEDUL		49	-4.1	1.9	17.5	21.5	-159.5	33.1
E0013	E0016		A1	2	36000	H2_SCHEDUL	4000	56.9	10.5	16.5	39.1	43.1	-149	34.6
E0013	E0016	D1		1		H2_SCHEDUL		56.9	15.2	21.2	43.8	47.8	-156.1	26.7
E0013	E0016	D3		7	10300	H2_SCHEDUL		56.9	2.9	8.9	34.1	38.1	-156.3	26.7
E0013	E0016	D4		31	2325	H2_SCHEDUL		56.9	-2.7	3.3	28.5	32.5	-156.2	25
E0013	E0016	D5		720	100	H2_SCHEDUL		56.9	-16.5	-10.5	14.7	18.7	-156.2	25
E0013	E0016	D6		49	1450	H2_SCHEDUL		56.9	-4.5	1.5	26.7	30.7	-156.3	25
E0013	E0016	D7		180	400	H2_SCHEDUL		49	-5.8	0.2	17.5	21.5	-159.5	33.1
CE017	CE020		A1	1		H2_SCHEDUL	4000	56.9	13.4	19.4	39.1	43.1	-149	33.1
CE017	CE020	D2		1		H2_SCHEDUL		56.9	15.1	21.1	40.8	44.8	-156.1	26.7

CE017	CE020	D3		3	10300	H2_SCHEDUL		56.9	4.7	10.7	34	38	-156.4	26.7
CE017	CE020	D4		15	2325	H2_SCHEDUL		56.9	-0.7	5.3	28.6	32.6	-156.1	25
CE017	CE020	D5		360	100	H2_SCHEDUL		56.9	-14.5	-8.5	14.8	18.8	-156.1	25
CE017	CE020	D6		24	1450	H2_SCHEDUL		56.9	-2.5	3.5	26.8	30.8	-156.2	25
CE017	CE020	D7		90	400	H2_SCHEDUL		49	-3.9	2.1	17.5	21.5	-159.5	33.1
CE013	CE020		A1	2	36000	H2_SCHEDUL	4000	56.9	10.7	16.7	39.1	43.1	-149	34.6
CE013	CE016	D1		1		H2_SCHEDUL		56.9	15.4	21.4	43.8	47.8	-156.1	26.7
CE013	CE016	D3		7	10300	H2_SCHEDUL		56.9	2.2	8.2	34.2	38.2	-156.2	26.7
CE013	CE016	D4		31	2325	H2_SCHEDUL		56.9	-3.4	2.6	28.6	32.6	-156.1	25
CE013	CE016	D5		720	100	H2_SCHEDUL		56.9	-17.2	-11.2	14.8	18.8	-156.1	25
CE013	CE016	D6		49	1450	H2_SCHEDUL		56.9	-5.2	0.8	26.8	30.8	-156.2	25
CE013	CE016	D7		180	400	H2_SCHEDUL		49	-6.4	-0.4	17.7	21.7	-159.3	33.1
EC017	EC020		A1	1		H2_SCHEDUL	4000	56.9	14.2	20.2	39.1	43.1	-149	33.1
EC017	EC020	D2		1		H2_SCHEDUL		56.9	16	22	40.8	44.8	-156.1	26.7
EC017	EC020	D3		3	10300	H2_SCHEDUL		56.9	1.5	7.5	34	38	-156.4	26.7
EC017	EC020	D4		15	2325	H2_SCHEDUL		56.9	-4	2	28.5	32.5	-156.2	25
EC017	EC020	D5		360	100	H2_SCHEDUL		56.9	-17.8	-11.8	14.7	18.7	-156.2	25
EC017	EC020	D6		24	1450	H2_SCHEDUL		56.9	-5.8	0.2	26.7	30.7	-156.3	25
EC017	EC020	D7		90	400	H2_SCHEDUL		49	-7.2	-1.2	17.4	21.4	-159.6	33.1
EC013	EC016		A1	1		H2_SCHEDUL	4000	56.9	11.9	17.9	39.1	43.1	-149	34.6
EC013	EC016	D1		1		H2_SCHEDUL		56.9	16.8	22.8	43.8	47.8	-156.1	26.7
EC013	EC016	D3		7	10300	H2_SCHEDUL		56.9	0.1	6.1	34	38	-156.4	26.7
EC013	EC016	D4		31	2325	H2_SCHEDUL		56.9	-5.4	0.6	28.5	32.5	-156.2	25
EC013	EC016	D5		720	100	H2_SCHEDUL		56.9	-19.2	13.2	14.7	18.7	-156.2	25
EC013	EC016	D6		49	1450	H2_SCHEDUL		56.9	-7.2	-1.2	26.7	30.7	-156.3	25
EC013	EC016	D7		180	400	H2_SCHEDUL		49	-8.5	-2.5	17.5	21.5	-159.5	33.1
C0001	C0020	D7		90	400	H2_SCHEDUL		49	-7	-1	17.4	21.4	-159.6	33.1

**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): #Error

Remote Control (TT C) Location(s):

S14a: Street Address: 3400 International Drive, N.W.			
S14b. City: Washington, D.C.	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)**

S15. SPACECRAFT PHYSICAL CHARACTERISTICS:

S15a. Mass of spacecraft without fuel (kg): 1018	Spacecraft Dimensions (meters)	Probability of Survival to End of Life (0.0 - 1.0)
S15b. Mass of fuel and disposables at launch (kg): 1296		
S15c. Mass of spacecraft and fuel at launch (kg): 2314	S15f. Length (m): 18.1	S15i. Payload: 0.882
S15d. Mass of fuel, in orbit, at beginning of life (kg): 430	S15g. Width (m): 3.9	S15j. Bus: 0.858
S15e. Deployed Area of Solar Array (square meters): 19.6	S15h. Height (m): 8	S15k. Total: 0.756

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): 3280	(f): 3280	(k): 3280	(p): 3280
Bus (Watts):	(b): 859	(g): 598	(l): 859	(q): 598
Total (Watts):	(c): 4139	(h): 3878	(m): 4139	(r): 3878
Solar Array (Watts):	(d): 5494	(i): 4924	(n): 5192	(s): 4751
Depth of Battery Discharge (%):	(e) 51.5 %	(j) %	(o) 58.8 %	(t) %

S17. CERTIFICATIONS:

a. Are the power flux density limits of § 25.208 met?	<input type="checkbox"/> YES	<input type="checkbox"/> NO	<input checked="" 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.