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:
INTELSAT 17		1/19/2011	N
b. Construction Commencement Date:		f. Estimated Lifetime of Satellite(s):	j. Number of transponders offered on a common carrier basis:
7/28/2008		16.2 Years	
c. Construction Completion Date:		g. Total Number of Transponders:	k. Total Common Carrier Transponder Bandwidth:
10/21/2010		49	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:
11/15/2010	2/15/2011	2674 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)		
5850	M	6425	M	R	Fixed Satellite Service
3625	M	4200	M	T	Fixed Satellite Service
13750	M	14500	M	R	Fixed Satellite Service
10950	M	11200	M	T	Fixed Satellite Service
11450	M	11700	M	T	Fixed Satellite Service
12500	M	12750	M	T	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:
66 E			REPLACE INTELSAT 702
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):			

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:

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

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		AFRICA, EUROPE, WEST ASIA, INDIA
2	S		EUROPE, AFRICA, ASIA, AUSTRALIA
3	S		GLOBAL
4	S		EUROPE, RUSSIA, NORTHERN CHINA
5	S		NORTHERN AFRICA, EUROPE, MIDDLE EAST
6	S		MID AND SOUTHERN AFRICA

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 Isolation (dB)	(h) Polarization Switchable? (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
HAU	R	27	21	0.16	0.16	30	N		1				645	-1.1	-103.5	24	1
HBU	R	27	21	0.16	0.16	30	N		1				645	-1.1	-103.5	24	1
LMU	R	26.4	16.4	0.16	0.16	22	N	90	2				660	-1.8	-100.2	24	1
LMU	R	26.4	16.4	0.16	0.16	23	N	0	2				660	-1.8	-100.2	24	1
GAU	R	20.6	16.6	0.16	0.16	30	N		3				692	-7.8	-97	24	1
GBU	R	20.6	16.6	0.16	0.16	30	N		3				692	-7.8	-97	24	1
RUU	R	34	28	0.16	0.16	30	N	90	4				630	6	-102.6	22	1
EMU	R	33.2	25.2	0.16	0.16	28.5	N	0	5				630	5.2	-103.7	22	1
AFU	R	34.8	28.8	0.16	0.16	30	N	90	6				645	6.7	-99.8	22	1
GSU	R	35	31	0.16	0.16	30	N	90	3				676	6.7	-103.5	22	1
HAD	T	25.2	21.2	0.16	0.16	30	N		1	3.5	28.8	39.8					
HBD	T	25.2	21.2	0.16	0.16	30	N		1	3.5	28.8	39.8					
LMD	T	24.6	16.6	0.16	0.16	25	N	0	2	3.5	28.8	39.2					
LMD	T	24.6	16.6	0.16	0.16	25	N	90	2	3.5	28.8	39.2					
GAD	T	20.6	16.6	0.16	0.16	30	N		3	2.2	38.9	36.5					
GBD	T	20.6	16.6	0.16	0.16	30	N		3	2.2	38.9	36.5					
RUD	T	33.5	27.5	0.16	0.16	30	N	0	4	2	95.5	53.3					
EMD	T	32.5	26.5	0.16	0.16	28.5	N	90	5	3.4	69.2	50.9					
AFD	T	33.6	27.6	0.16	0.16	30	N	0	6	3.3	70.8	52.1					
GSD	T	33.4	29.4	0.16	0.16	30	N	0	3	2	95.5	53.2					
CMD	R	20.6	16.6	0.16	0.16		N		3				18724	-22.1	-110.2		
CMD	R	2	-1	0.16	0.16		N		3				4813	-34.8	-97.5		
CMD	R	6	3	0.16	0.16		N		3				27064	-38.3	-94		
TLM	T	20.6	16.6	0.16	0.16		N		3	6.1	0.2	13.5					
TLM	T	13.2	10.2	0.16	0.16		N		3	5.3	13.3	13.2					
TLM	T	6	3	0.16	0.16		N		3	10	3.1	10.9					
UPC	T	20.5	17.5	0.16	0.16		N	0	3	4.2	0.15	12.3					
UPC	T	20.5	17.5	0.16	0.16		N	90	3	4.2	0.15	12.3					
UPK	T	22.9	15.9	0.16	0.16		N		3	5.1	0.31	17.8					

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
HAU	R	C	66		haul.gxt					
HBU	R	C	66		hbur.gxt					
LMU	R	C	66		lmuv.gxt					
LMU	R	C	66		lmuh.gxt					
GAU	R	C	66		gaul.gxt					
GBU	R	C	66		gbur.gxt					
RUU	R	C	66		ruuv.gxt					
EMU	R	C	66		emuh.gxt					
AFU	R	C	66		afuv.gxt					
GSU	R	C	66		gsuv.gxt					
HAD	T	C	66		hadr.gxt	-153.5	-153.4	-153.2	-153.1	-153
HBD	T	C	66		hbdl.gxt	-153.5	-153.4	-153.2	-153.1	-153
LMD	T	C	66		lmdh.gxt	-154.1	-154	-153.8	-153.7	-153.6
LMD	T	C	66		lmdv.gxt	-154.1	-154	-153.8	-153.7	-153.6
GAD	T	C	66		gadr.gxt	-156.8	-156.7	-156.5	-156.4	-156.3
GBD	T	C	66		gbdl.gxt	-156.8	-156.7	-156.5	-156.4	-156.3
RUD	T	C	66		rudh.gxt	-148	-145.5	-143	-140.5	-139.5
EMD	T	C	66		emdv.gxt	-148	-145.5	-143	-142	-141.9
AFD	T	C	66		afdh.gxt	-148	-145.5	-143	-140.8	-140.7
GSD	T	C	66		gsdh.gxt	-150	-147.5	-145	-142.5	-140
CMD	R	C	66		cmdc.gxt					
CMD	R	C	66	cmdw.pdf						
CMD	R	C	66	cmdm.pdf						
TLM	T	C	66		tlmc.gxt	-167.7	-167.6	-167.5	-167.4	-167.3
TLM	T	C	66	tlmw.pdf		-168	-167.9	-167.8	-167.7	-167.6
TLM	T	C	66	tlmm.pdf		-170.3	-170.2	-170.1	-170	-169.9
UPC	T	C	66	upch.pdf		-158.9	-158.8	-158.7	-158.6	-158.5
UPC	T	C	66	upcv.pdf		-158.9	-158.8	-158.7	-158.6	-158.5

UPK	T	C	66	upkr.pdf		-153.4	-153.3	-153.2	-153.1	-153
LMU	R	X	66	luvx.pdf						
LMU	R	X	66	luhx.pdf						
EMU	R	X	66	euhx.pdf						
LMD	T	X	66	lhdx.pdf						
LMD	T	X	66	lhdx.pdf						
EMD	T	X	66	edvx.pdf						

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:

(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)
AALU	72000	R	5890	L	C
BBLU	72000	R	5970	L	C
3LU	36000	R	6030	L	C
4VU	36000	R	6070	V	C
5VU	36000	R	6110	V	C
6VU	36000	R	6150	V	C
7VU	36000	R	6200	V	C
8VU	36000	R	6240	V	C
9LU	36000	R	6280	L	C
10LU	36000	R	6320	L	C
11LU	36000	R	6360	L	C
12LU	41000	R	6402.5	L	C
AARU	72000	R	5890	R	C
BBRU	72000	R	5970	R	C
3RU	36000	R	6030	R	C
4HU	36000	R	6070	H	C
5HU	36000	R	6110	H	C
6HU	36000	R	6150	H	C
7HU	36000	R	6200	H	C
8HU	36000	R	6240	H	C
9RU	36000	R	6280	R	C
10RU	36000	R	6320	R	C
11RU	36000	R	6360	R	C
12RU	36000	R	6402.5	R	C
AARD	72000	T	3665	R	C
BBRD	72000	T	3745	R	C
3RD	36000	T	3805	R	C
4HD	36000	T	3845	H	C
5HD	36000	T	3885	H	C
6HD	36000	T	3925	H	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
AHR	128	AALU	HAUL	AARD	HADR
BHR	128	BBLU	HAUL	BBRD	HADR
3HR	128	3LU	HAUL	3RD	HADR
4LH	125.6	4VU	LMUV	4HD	LMDH
5LH	125.6	5VU	LMUV	5HD	LMDH
6LH	125.6	6VU	LMUV	6HD	LMDH
7LH	125.6	7VU	LMUV	7HD	LMDH
8LH	125.6	8VU	LMUV	8HD	LMDH
9GA	129.8	9LU	GAUL	9RD	GADR
10GA	129.8	10LU	GAUL	10RD	GADR
11GA	129.8	11LU	GAUL	11RD	GADR
12GA	129.8	12LU	GAUL	12RD	GADR
AHL	128	AARU	HBUR	AALD	HBDL
BHL	128	BBRU	HBUR	BBLD	HBDL
3HL	128	3RU	HBUR	3LD	HBDL
4LV	125.6	4HU	LMUH	4VD	LMDV
5LV	125.6	5HU	LMUH	5VD	LMDV
6LV	125.6	6HU	LMUH	6VD	LMDV
7LV	125.6	7HU	LMUH	7VD	LMDV
8LV	125.6	8HU	LMUH	8VD	LMDV
9GB	129.8	9RU	GBUR	9LD	GBDL
10GB	129.8	10RU	GBUR	10LD	GBDL
11GB	129.8	11RU	GBUR	11LD	GBDL
12GB	129.8	12RU	GBUR	12LD	GBDL
4RR	132.8	4RVU	RUUV	4RHD	RUDH
5RR	132.8	5RVU	RUUV	5RHD	RUDH
6RR	132.8	6RVU	RUUV	6RHD	RUDH
7RR	132.8	7RVU	RUUV	7RHD	RUDH
8RR	132.8	8RVU	RUUV	8RHD	RUDH
1RR	132.8	1RVU	RUUV	1RHD	RUDH

7HD	36000	T	3975	H	C
8HD	36000	T	4015	H	C
9RD	36000	T	4055	R	C
10RD	36000	T	4095	R	C
11RD	36000	T	4135	R	C
12RD	41000	T	4177.5	R	C
AALD	72000	T	3665	L	C
BBLD	72000	T	3745	L	C
3LD	36000	T	3805	L	C
4VD	36000	T	3845	V	C
5VD	36000	T	3885	V	C
6VD	36000	T	3925	V	C
7VD	36000	T	3975	V	C
8VD	36000	T	4015	V	C
9LD	36000	T	4055	L	C
10LD	36000	T	4095	L	C
11LD	36000	T	4135	L	C
12LD	41000	T	4177.5	L	C
1RVU	72000	R	13795	V	C
2RVU	72000	R	13875	V	C
3RVU	72000	R	13955	V	C
4RVU	72000	R	14045	V	C
5RVU	72000	R	14125	V	C
6RVU	72000	R	14205	V	C
7RVU	72000	R	14295	V	C
8RVU	72000	R	14375	V	C
1MHU	72000	R	13795	H	C
2MHU	72000	R	13875	H	C
3MHU	72000	R	13955	H	C
4MHU	72000	R	14045	H	C
5MHU	72000	R	14125	H	C
6MHU	72000	R	14205	H	C
7MHU	72000	R	14295	H	C
8MHU	72000	R	14375	H	C
AMHU	36000	R	14440	H	C
BMHU	36000	R	14480	H	C
1AVU	72000	R	13795	V	C
2AVU	72000	R	13875	V	C
3AVU	72000	R	13955	V	C

2RR	132.8	2RVU	RUUV	2RHD	RUDH
3RR	132.8	3RVU	RUUV	3RHD	RUDH
4MM	133.3	4MHU	EMUH	4MVD	EMDV
5MM	133.3	5MHU	EMUH	5MVD	EMDV
6MM	133.3	6MHU	EMUH	6MVD	EMDV
7MM	133.3	7MHU	EMUH	7MVD	EMDV
8MM	133.3	8MHU	EMUH	8MVD	EMDV
AMM	133.3	AMHU	EMUH	AMVD	EMDV
BMM	133.3	BMHU	EMUH	BMVD	EMDV
1MM	133.3	1MHU	EMUH	1MVD	EMDV
2MM	133.3	2MHU	EMUH	2MVD	EMDV
3MM	133.3	3MHU	EMUH	3MVD	EMDV
4AA	127.9	4AVU	AFUV	4AHD	AFDH
5AA	127.9	5AVU	AFUV	5AHD	AFDH
6AA	127.9	6AVU	AFUV	6AHD	AFDH
7AA	127.9	7AVU	AFUV	7AHD	AFDH
8AA	127.9	8AVU	AFUV	8AHD	AFDH
1AA	127.9	1AVU	AFUV	1AHD	AFDH
2AA	127.9	2AVU	AFUV	2AHD	AFDH
3AA	127.9	3AVU	AFUV	3AHD	AFDH
ASS	133.3	ASVU	GSUV	ASHD	GSDH
BSS	133.3	BSVU	GSUV	BSHD	GSDH
AMS	134.7	AMHU	EMUH	ASHD	GSDH
BMS	134.7	BMHU	EMUH	BSHD	GSDH
1RA	131.5	1RVU	RUUV	1AHD	AFDH
2RA	131.5	2RVU	RUUV	2AHD	AFDH
3RA	131.5	3RVU	RUUV	3AHD	AFDH
1AR	129.2	1AVU	AFUV	1RHD	RUDH
2AR	129.2	2AVU	AFUV	2RHD	RUDH
3AR	129.2	3AVU	AFUV	3RHD	RUDH
ASM	131.6	ASVU	GSUV	AMVD	EMDV
BSM	131.6	ASVU	GSUV	BMVD	EMDV

4AVU	72000	R	14045	V	C
5AVU	72000	R	14125	V	C
6AVU	72000	R	14205	V	C
7AVU	72000	R	14295	V	C
8AVU	72000	R	14375	V	C
ASVU	36000	R	14440	V	C
BSVU	36000	R	14480	V	C
4RHD	72000	T	10995	H	C
5RHD	72000	T	11075	H	C
6RHD	72000	T	11155	H	C
7RHD	72000	T	11495	H	C
8RHD	72000	T	11575	H	C
1RHD	72000	T	12547	H	C
2RHD	72000	T	12627	H	C
3RHD	72000	T	12707	H	C
4MVD	72000	T	10995	V	C
5MVD	72000	T	11075	V	C
6MVD	72000	T	11155	V	C
7MVD	72000	T	11495	V	C
8MVD	72000	T	11575	V	C
AMVD	36000	T	11640	V	C
BMVD	36000	T	11680	V	C
1MVD	72000	T	12547	V	C
2MVD	72000	T	12627	V	C
3MVD	72000	T	12707	V	C
4AHD	72000	T	10995	H	C
5AHD	72000	T	11075	H	C
6AHD	72000	T	11155	H	C
7AHD	72000	T	11495	H	C
8AHD	72000	T	11575	H	C
1AHD	72000	T	12547	H	C
2AHD	72000	T	12627	H	C
3AHD	72000	T	12707	H	C
ASHD	36000	T	11640	H	C
BSHD	36000	T	11680	H	C
CMD1	1000	R	6173.7	L	T
CMD2	1000	R	6176.3	L	T
CMD3	1000	R	6173.7	L	T
CMD4	1000	R	6176.3	L	T

CMD5	1000	R	6173.7	L	T
CMD6	1000	R	6176.3	L	T
TLM1	500	T	3947.5	R	T
TLM2	500	T	3952.5	R	T
TLM3	500	T	3947.5	R	T
TLM4	500	T	3952.5	R	T
TLM5	500	T	3947.5	R	T
TLM6	500	T	3952.5	R	T
UPC1	25	T	3950	H	T
UPC2	25	T	3950.5	V	T
UPC3	25	T	11198	R	T
UPC4	25	T	11452	R	T
UPC5	25	T	12502	R	T

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	72M0G7W	72000	4	49138	0.5		3.4	17.9
D2	41M0G7W	41000	4	27981	0.5		3.4	13.2
D3	36M0G7W	36000	4	24575	0.5		3.4	18.1
D4	10M3G7W	10300	4	6000	0.5		3.9	16.9
D5	100KG7W	100	4	64	0.5		3	16.9
D6	1M45G7W	1450	2	512	0.5		3.4	14.7
D7	400KG7W	400	2	128	0.5		3.4	14.1

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

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					PAL	16.6	1.5		10	24.3

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		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)			
								(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)
(a) Start	(b) End	(c) Digital (Table S11)	(d) Analog (Table S12)						(j) Min.	(k) Max.	(l) Min.	(m) Max.		
AHR	BSM		A1	2	36000	IS17 SCHEDUL	4000	54.1	18.3	24.3	31.6	35.6	-156.5	28.4
AHR	BSM	D1		1	72000	NOTE.txt		52.8	16.6	22.6	35.8	39.8	-164.1	19.2
AHR	BSM	D4		4	10300	NOTE.txt		51	12.4	18.4	25.5	29.5	-164.9	19.2
AHR	BSM	D5		521	100	NOTE.txt		51	-8	-2	5.1	9.1	-165.8	19.2
AHR	BSM		A1	1	36000	NOTE.txt	4000	58.4	14.3	24.3	31.2	39.2	-152.9	31
AHR	BSM	D3		1	36000	NOTE.txt		54.1	14.6	24.6	31.2	39.2	-161.7	19.2
AHR	BSM	D4		3	10300	NOTE.txt		54.1	13.9	23.9	22.2	30.2	-164.2	21
AHR	BSM	D5		237	100	NOTE.txt		54.1	-4.4	5.6	3.9	11.9	-163	19.2
AHR	BSM		A1	1	36000	NOTE.txt	4000	55.4	19.5	23.5	32.5	36.5	-155.6	26.2
AHR	BSM	D2		1	41000	NOTE.txt		51	17.9	21.9	32.5	36.5	-165	19.2
AHR	BSM	D4		2	10300	NOTE.txt		51	17.4	21.4	24.7	28.7	-165.7	19.2
AHR	BSM	D5		295	100	NOTE.txt		51	-3	1	4.3	8.3	-166.6	19.2
AHR	BSM		A1	2	36000	NOTE.txt	4000	56.9	11.9	17.9	39.3	45.3	-146.8	33.1
AHR	BSM	D1		1	72000	NOTE.txt		56.9	18.6	24.6	45.8	51.8	-152.1	18.8
AHR	BSM	D4		5	10300	NOTE.txt		56.9	-4.8	1.2	35.2	41.2	-153.2	22.3
AHR	BSM	D5		541	100	NOTE.txt		56.9	-25.1	-19.1	14.9	20.9	-154	22.3
AHR	BSM	D6		34	1450	NOTE.txt		56.9	-13.1	-7.1	26.9	32.9	-154.1	22.3
AHR	BSM	D7		180	400	NOTE.txt		46.4	-7.7	-1.7	11.8	17.8	-163.2	33.1
AHR	BSM		A1	2	36000	NOTE.txt	4000	56.9	14.7	20.7	39.3	45.3	-146.8	33.1
AHR	BSM	D1		1	72000	NOTE.txt		56.9	17.4	23.4	45.8	51.8	-152.1	22.3
AHR	BSM	D4		5	10300	NOTE.txt		56.9	-3.2	2.8	34.7	40.7	-153.7	22.3
AHR	BSM	D5		593	100	NOTE.txt		56.9	-23.4	-17.4	14.5	20.5	-154.4	22.3
AHR	BSM	D6		37	1450	NOTE.txt		56.9	-11.4	-5.4	26.5	32.5	-154.5	22.3
AHR	BSM	D7		180	400	NOTE.txt		46.4	-11	-5	16.4	22.4	-158.6	33.1
AHR	BSM		A1	2	36000	NOTE.txt	4000	56.9	17.5	23.5	41.3	47.3	-144.8	31
AHR	BSM	D1		1	72000	NOTE.txt		56.9	17.3	23.3	45.8	51.8	-152.1	22.3
AHR	BSM	D4		5	10300	NOTE.txt		56.9	2	8	34	40	-154.4	22.3
AHR	BSM	D5		536	100	NOTE.txt		56.9	-18.3	-12.3	13.7	19.7	-155.2	22.3
AHR	BSM	D6		33	1450	NOTE.txt		56.9	-6.3	-0.3	25.7	31.7	-155.3	22.3

AHR	BSM	D7		180	400	NOTE.txt		46.4	-8.5	-2.5	13	19	-162	33.1
AHR	BSM		A1	2	36000	NOTE.txt	4000	56.9	17.7	23.7	41.3	47.3	-144.8	28.6
AHR	BSM	D1		1	72000	NOTE.txt		56.9	17.5	23.5	45.8	51.8	-152.1	22.3
AHR	BSM	D4		5	10300	NOTE.txt		56.9	-0.8	5.2	34	40	-154.4	22.3
AHR	BSM	D5		534	100	NOTE.txt		56.9	-21.1	-15.1	13.7	19.7	-155.2	22.3
AHR	BSM	D6		33	1450	NOTE.txt		56.9	-9.1	-3.1	25.8	31.8	-155.2	22.3
AHR	BSM	D7		180	400	NOTE.txt		46.4	-9.3	-3.3	15	21	-160	33.1
AHR	BSM		A1	2	36000	NOTE.txt	4000	56.9	12.5	20.5	38.3	44.3	-147.8	34.6
AHR	BSM	D1		1	72000	NOTE.txt		56.9	15.3	23.3	44.9	50.9	-153	22.3
AHR	BSM	D4		5	10300	NOTE.txt		56.9	-2.1	5.9	32.6	38.6	-155.8	25
AHR	BSM	D5		554	100	NOTE.txt		56.9	-22.3	-14.3	12.4	18.4	-156.5	25
AHR	BSM	D6		34	1450	NOTE.txt		56.9	-10.3	-2.3	24.4	30.4	-156.6	25
AHR	BSM	D7		180	400	NOTE.txt		49	-11.5	-3.5	15.3	21.3	-159.7	33.1
AHR	BSM		A1	2	36000	NOTE.txt	4000	56.9	12.7	16.7	38.3	44.3	-147.8	34.6
AHR	BSM	D3		1	36000	NOTE.txt		56.9	16.8	20.8	42.8	48.8	-152.1	22.3
AHR	BSM	D4		2	10300	NOTE.txt		56.9	-3.7	0.3	35.8	41.8	-152.6	22.3
AHR	BSM	D5		266	100	NOTE.txt		56.9	-24	-20	15.6	21.6	-153.3	22.3
AHR	BSM	D6		16	1450	NOTE.txt		56.9	-12	-8	27.6	33.6	-153.4	22.3
AHR	BSM	D7		90	400	NOTE.txt		46.4	-10.3	-6.3	18.7	24.7	-156.3	33.1
AHR	BSM		A1	1	36000	NOTE.txt	4000	56.9	18.2	22.2	48	52	-140.1	25
AHR	BSM	D3		1	36000	NOTE.txt		56.9	14.2	18.2	44.8	48.8	-152.1	18.8
AHR	BSM	D4		3	10300	NOTE.txt		56.9	-1.5	2.5	38.4	42.4	-152	18.8
AHR	BSM	D5		360	100	NOTE.txt		56.9	-21.7	-17.7	18.1	22.1	-152.8	18.8
AHR	BSM	D6		24	1450	NOTE.txt		56.9	-9.7	-5.7	30.1	34.1	-152.9	18.8
AHR	BSM	D7		90	400	NOTE.txt		42.9	-6.5	-2.5	19.3	23.3	-157.7	33.1
AHR	BSM		A1	1	36000	NOTE.txt	4000	56.9	18	26	48	52	-140.1	25
AHR	BSM	D3		1	36000	NOTE.txt		56.9	14	22	44.8	48.8	-152.1	18.8
AHR	BSM	D4		3	10300	NOTE.txt		56.9	0.2	8.2	38.2	42.2	-152.2	18.8
AHR	BSM	D5		360	100	NOTE.txt		56.9	-20.1	-12.1	17.9	21.9	-153	18.8
AHR	BSM	D6		24	1450	NOTE.txt		56.9	-8.1	-0.1	29.9	33.9	-153.1	18.8
AHR	BSM	D7		90	400	NOTE.txt		42.9	-5.4	2.6	18.6	22.6	-158.4	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): Yes

Remote Control (TT C) Location(s):

S14a: Street Address: 3400 INTERNATIONAL DRIVE, N.W.			
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)

S15. SPACECRAFT PHYSICAL CHARACTERISTICS:

S15a: Mass of spacecraft without fuel (kg): 2466	Spacecraft Dimensions (meters)	Probability of Survival to End of Life (0.0 - 1.0)
S15b. Mass of fuel and disposables at launch (kg): 3146		
S15c. Mass of spacecraft and fuel at launch (kg): 5612	S15f. Length (m): 26.1	S15i. Payload: 0.921
S15d. Mass of fuel, in orbit, at beginning of life (kg): 1072	S15g. Width (m): 9.2	S15j. Bus: 0.845
S15e. Deployed Area of Solar Array (square meters): 74.3	S15h. Height (m): 7.7	S15k. Total: 0.778

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): 8752	(f): 8752	(k): 8752	(p): 8752
Bus (Watts):	(b): 2459	(g): 1192	(l): 2459	(q): 1192
Total (Watts):	(c): 11211	(h): 9944	(m) 11211	(r): 9944
Solar Array (Watts):	(d): 12405	(i): 11328	(n): 12216	(s): 11155
Depth of Battery Discharge (%):	(e) 58.8 %	(j) %	(o) 62.7 %	(t) %

S17. CERTIFICATIONS:

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