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:
SES-6		7/15/2013	N
b. Construction Commencement Date:		f. Estimated Lifetime of Satellite(s):	j. Number of transponders offered on a common carrier basis:
5/17/2010		15 Years	0
c. Construction Completion Date:		g. Total Number of Transponders:	k. Total Common Carrier Transponder Bandwidth:
3/1/2013		80	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:
3/1/2013	5/31/2013	3714 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
6725	M	7025	M	R	Fixed Satellite Service
3625	M	4200	M	T	Fixed Satellite Service
4500	M	4800	M	T	Fixed Satellite Service
13.75	G	14.5	G	R	Fixed Satellite Service
10.95	G	12.2	G	T	Fixed Satellite Service
3625	M	4200	M	T	Direct to Home in the Fixed Fixed Satellite Service
4500	M	4800	M	T	Direct to Home in the Fixed Fixed Satellite Service
10.95	G	12.2	G	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:
40.5 W			The SES-6 satellite will replace and augment the services currently provided at 40.5 W.L. by the NSS-806 satellite.
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		-8 dB contour of beams NAUH and NAUV
SA2	S		-6 dB contour of beams ANUH and ANUV
SA3	S		-6 dB contour of beams BRUH and BRUV
SA4	S		-6 dB contour of beams SCUH and SCUV
SA5	S		-6 dB contours of beams ATEUH, ATEUV and ATWUV
SA6	S		-6 dB contour of beams CUR and CUL
SA7	S		-6 dB contour of beams NADH and NADV
SA8	S		-6 dB contour of beam ANDH
SA9	S		-6 dB contour of beams BRDH and BRDV
SA10	S		-6 dB contour of beams SCDH and SCDV
SA11	S		-6 dB contours of beams ATEDH, ATEDV and ATWDV
SA12	S		-6 dB contour of beams CDR and CDL
SA13	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) 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
NAU	R	35.4	27.4	0.11		29.5	N	0	SA1				562	7.9	-98	15	0.6
NAU	R	35.4	27.4	0.11		29.3	N	90	SA1				562	7.9	-98	15	0.6
ANU	R	34.7	28.7	0.11		29.6	N	0	SA2				550	7.3	-98	15	0.6
ANU	R	34.7	28.7	0.11		29.5	N	90	SA2				550	7.3	-98	15	0.6
BRU	R	33.9	27.9	0.11		30	N	0	SA3				575	6.3	-98	15	0.6
BRU	R	33.9	27.9	0.11		30	N	90	SA3				575	6.3	-98	15	0.6
SCU	R	33.6	27.6	0.11		27.5	N	0	SA4				537	6.3	-98	15	0.6
SCU	R	33.6	27.6	0.11		28.7	N	90	SA4				537	6.3	-98	15	0.6
ATEU	R	32.6	26.6	0.11		25.7	N	0	SA5				525	5.4	-95	15	0.6
ATEU	R	32.6	26.6	0.11		26.5	N	90	SA5				525	5.4	-95	15	0.6
ATW	R	32.4	26.4	0.11		25.4	N	90	SA5				525	5.2	-90	15	0.6
CUR	R	24.5	18.5	0.11		26.5	N		SA6				447	-2	-102	15	0.6
CUL	R	24.5	18.5	0.11		26.5	N		SA6				447	-2	-102	15	0.6
NAD	T	34.7	28.7	0.11		30	N	0	SA7	1.4	102	54.8					
NAD	T	34.7	28.7	0.11		30	N	90	SA7	1.4	102	54.8					
AND	T	33	27	0.11		30	N	0	SA8	1.6	98	52.9					
BRD	T	32.8	26.8	0.11		30	N	0	SA9	1.5	100	52.8					
BRD	T	32.8	26.8	0.11		30	N	90	SA9	1.5	100	52.8					
SCD	T	32.6	26.6	0.11		29.5	N	0	SA10	1.6	98	52.5					
SCD	T	32.6	26.6	0.11		29.5	N	90	SA10	1.6	98	52.5					
ATED	T	31.3	25.3	0.11		28.4	N	0	SA11	1.3	110	51.7					
ATED	T	31.3	25.3	0.11		26.6	N	90	SA11	1.5	110	51.7					
ATW	T	30.2	24.2	0.11		25.9	N	0	SA11	1.4	107	50.5					
CDR	T	26.5	20.5	0.11		28.9	N		SA12	1.7	49	43.4					
CDL	T	26.5	20.5	0.11		28.9	N		SA12	1.7	49	43.4					
TCU	R	20.2	17.2	0.11		30	N	0	SA13				830	-9			
TCU	R	20.2	17.2	0.11		30	N	90	SA13				830	-9			
TMD	T	23.3	18.3	0.11		30	N	0	SA13	1.7	0.6	21					
TMD	T	23.3	18.3	0.11		30	N	90	SA13	1.7	0.6	21					

OMN	R	9.1	-9.9	0		20	N		SA13				823	-20.1			
OMN	R	9.1	-9.9	0		20	N		SA13				823	-20.1			
OMN	T	8.8	-9.4	0		16	N		SA13	7.4	13.2	20					
OMN	T	8.8	-9.4	0		16	N		SA13	7.4	13.2	20					
BCN1	T	16.7	15.5	0.15		30	N	45	SA13	4.1	0.26	10.9					
BCN2	T	16.7	15.5	0.15		30	N	-45	SA13	4.1	0.26	10.9					

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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
NAU	R	C	-40.5		NAUH.gxt					
NAU	R	C	-40.5		NAUV.gxt					
ANU	R	C	-40.5		ANUH.gxt					
ANU	R	C	-40.5		ANUV.gxt					
BRU	R	C	-40.5							
BRU	R	C	-40.5							
SCU	R	C	-40.5							
SCU	R	C	-40.5							
ATEU	R	C	-40.5							
ATEU	R	C	-40.5							
ATW	R	C	-40.5							
CUR	R	C	-40.5							
CUL	R	C	-40.5							
NAD	T	C	-40.5							
NAD	T	C	-40.5							
AND	T	C	-40.5			-157.3	-156.7	-154.5	-152.5	-150.6
BRD	T	C	-40.5			-166.1	-165.3	-164.2	-163.1	-160
SCD	T	C	-40.5							
SCD	T	C	-40.5			-151.3	-150	-148.6	-147.3	-146.8
ATED	T	C	-40.5			-150	-149.7	-149.4	-149.3	-149.2
ATED	T	C	-40.5			-150	-149.7	-149.4	-149.3	-149.2
ATW	T	C	-40.5			-150	-149.7	-149.6	-149.5	-149.4
CDR	T	C	-40.5			-159.6	-159.2	-158.8	-158.3	-157.8
BRD	T	C	-40.5							
CDL	T	C	-40.5			-159.6	-159.2	-158.8	-158.3	-157.8
TCU	R	C	-40.5							
TCU	R	C	-40.5							
TMD	T	C	-40.5			-163.3	-163.2	-163	-162.9	-162.3

TMD	T	C	-40.5			-163.3	-163.2	-163	-162.9	-162.3
OMN	T	C	-40.5			-158.1	-158.1	-158.1	-158.1	-158.1
OMN	T	C	-40.5			-158.1	-158.1	-158.1	-158.1	-158.1
BCN1	T	C	-40.5			-153.5	-153.3	-153.1	-153	-152.9
BCN2	T	C	-40.5			-153.5	-153.3	-153.1	-153	-152.9

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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)
CU001	36000	R	5868	R	C
CU002	36000	R	5908	R	C
CU003	36000	R	5948	R	C
CU004	36000	R	5988	R	C
CU005	36000	R	6028	R	C
CU006	36000	R	6068	R	C
CU007	36000	R	6108	R	C
CU008	36000	R	6148	R	C
CU009	34000	R	6201	R	C
CU010	36000	R	6240	R	C
CU011	36000	R	6280	R	C
CU012	36000	R	6320	R	C
CU013	36000	R	6360	R	C
CU014	41000	R	6402.5	R	C
CU015	54000	R	6755	R	C
CU016	54000	R	6815	R	C
CU017	54000	R	6875	R	C
CU018	54000	R	6935	R	C
CU019	54000	R	6995	R	C
CU020	36000	R	5868	L	C
CU021	36000	R	5908	L	C
CU022	36000	R	5948	L	C
CU023	36000	R	5988	L	C
CU024	36000	R	6028	L	C
CU025	36000	R	6068	L	C
CU026	36000	R	6108	L	C
CU027	36000	R	6148	L	C
CU028	34000	R	6201	L	C
CU029	36000	R	6240	L	C
CU030	36000	R	6280	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
C0001	132	CU001	CUR	CD001	CDL
C0002	132	CU002	CUR	CD002	CDL
C0003	132	CU003	CUR	CD003	CDL
C0004	132	CU004	CUR	CD004	CDL
C0005	132	CU005	CUR	CD005	CDL
C0006	132	CU006	CUR	CD006	CDL
C0007	132	CU007	CUR	CD007	CDL
C0008	132	CU008	CUR	CD008	CDL
C0009	132	CU009	CUR	CD009	CDL
C0010	132	CU010	CUR	CD010	CDL
C0011	132	CU011	CUR	CD011	CDL
C0012	132	CU012	CUR	CD012	CDL
C0013	132	CU013	CUR	CD013	CDL
C0014	132	CU014	CUR	CD014	CDL
C0015	132	CU020	CUR	CD020	CDL
C0016	132	CU021	CUR	CD021	CDL
C0017	132	CU022	CUR	CD022	CDL
C0018	132	CU023	CUR	CD023	CDL
C0019	132	CU024	CUR	CD024	CDL
C0020	132	CU025	CUL	CD025	CDR
C0021	132	CU026	CUL	CD026	CDR
C0022	132	CU027	CUL	CD027	CDR
C0023	132	CU028	CUL	CD028	CDR
C0024	132	CU029	CUL	CD029	CDR
C0025	132	CU030	CUL	CD030	CDR
C0026	132	CU031	CUL	CD031	CDR
C0027	132	CU032	CUL	CD032	CDR
C0028	132	CU033	CUL	CD033	CDR
C0029	132	CU015	CUL	CD015	CDR
C0030	132	CU016	CUL	CD016	CDR

CU031	36000	R	6320	L	C
CU032	36000	R	6360	L	C
CU033	41000	R	6402.5	L	C
CU034	54000	R	6755	L	C
CU035	54000	R	6815	L	C
CU036	54000	R	6875	L	C
CU037	54000	R	6935	L	C
CU038	54000	R	6995	L	C
CD001	36000	T	3643	L	C
CD002	36000	T	3683	L	C
CD003	36000	T	3723	L	C
CD004	36000	T	3763	L	C
CD005	36000	T	3803	L	C
CD006	36000	T	3843	L	C
CD007	36000	T	3883	L	C
CD008	36000	T	3923	L	C
CD009	34000	T	3976	L	C
CD010	36000	T	4015	L	C
CD011	36000	T	4055	L	C
CD012	36000	T	4095	L	C
CD013	36000	T	4135	L	C
CD014	41000	T	4177.5	L	C
CD015	54000	T	4530	L	C
CD016	54000	T	4590	L	C
CD017	54000	T	4650	L	C
CD018	54000	T	4710	L	C
CD019	54000	T	4770	L	C
CD020	36000	T	3643	R	C
CD021	36000	T	3683	R	C
CD022	36000	T	3723	R	C
CD023	36000	T	3763	R	C
CD024	36000	T	3803	R	C
CD025	36000	T	3843	R	C
CD026	36000	T	3883	R	C
CD027	36000	T	3923	R	C
CD028	34000	T	3976	R	C
CD029	36000	T	4015	R	C
CD030	36000	T	4055	R	C
CD031	36000	T	4095	R	C

C0031	132	CU017	CUL	CD017	CDR
C0032	132	CU018	CUL	CD018	CDR
C0033	132	CU019	CUL	CD019	CDR
C0034	132	CU034	CUL	CD034	CDR
C0035	132	CU035	CUL	CD035	CDR
C0036	132	CU036	CUL	CD036	CDR
C0037	132	CU037	CUL	CD037	CDR
C0038	132	CU038	CUL	CD038	CDR
K0001	127	KU001	NAUV	KD001	NADH
K0002	127	KU002	NAUV	KD002	NADH
K0003	127	KU003	NAUV	KD003	NADH
K0004	127	KU004	NAUV	KD004	NADH
K0005	128	KU009	ANUH	KD001	NADH
K0006	128	KU010	ANUH	KD002	NADH
K0007	128	KU011	ANUH	KD003	NADH
K0008	128	KU012	ANUH	KD004	NADH
K0009	129	KU009	BRUH	KD001	NADH
K0010	129	KU010	BRUH	KD002	NADH
K0011	129	KU011	BRUH	KD003	NADH
K0012	129	KU012	BRUH	KD004	NADH
K0013	129	KU001	SCUV	KD001	NADH
K0014	129	KU002	SCUV	KD002	NADH
K0015	129	KU003	SCUV	KD003	NADH
K0016	129	KU004	SCUV	KD004	NADH
K0017	127	KU013	NAUH	KD013	NADV
K0018	127	KU014	NAUH	KD014	NADV
K0019	127	KU015	NAUH	KD015	NADV
K0020	127	KU016	NAUH	KD016	NADV
K0021	128	KU005	ANUV	KD013	NADV
K0022	128	KU006	ANUV	KD014	NADV
K0023	128	KU007	ANUV	KD015	NADV
K0024	128	KU008	ANUV	KD016	NADV
K0025	129	KU005	BRUV	KD013	NADV
K0026	129	KU006	BRUV	KD014	NADV
K0027	129	KU007	BRUV	KD015	NADV
K0028	129	KU008	BRUV	KD016	NADV
K0029	129	KU013	SCUH	KD013	NADV
K0030	129	KU014	SCUH	KD014	NADV
K0031	129	KU015	SCUH	KD015	NADV

CD032	36000	T	4135	R	C
CD033	41000	T	4177.5	R	C
CD034	54000	T	4530	R	C
CD035	54000	T	4590	R	C
CD036	54000	T	4650	R	C
CD037	54000	T	4710	R	C
CD038	54000	T	4770	R	C
KU001	54000	R	14040	V	C
KU002	54000	R	14100	V	C
KU003	54000	R	14160	V	C
KU004	54000	R	14220	V	C
KU005	54000	R	14280	V	C
KU006	54000	R	14340	V	C
KU007	54000	R	14400	V	C
KU008	54000	R	14460	V	C
KU009	54000	R	14040	H	C
KU010	54000	R	14100	H	C
KU011	54000	R	14160	H	C
KU012	54000	R	14220	H	C
KU013	54000	R	14280	H	C
KU014	54000	R	14340	H	C
KU015	54000	R	14400	H	C
KU016	54000	R	14460	H	C
KD001	54000	T	11750	H	C
KD002	54000	T	11810	H	C
KD003	54000	T	11870	H	C
KD004	54000	T	11930	H	C
KD005	54000	T	11990	H	C
KD006	54000	T	12050	H	C
KD007	54000	T	12110	H	C
KD008	54000	T	12170	H	C
KD009	54000	T	11750	V	C
KD010	54000	T	11810	V	C
KD011	54000	T	11870	V	C
KD012	54000	T	11930	V	C
KD013	54000	T	11990	V	C
KD014	54000	T	12050	V	C
KD015	54000	T	12110	V	C
KD016	54000	T	12170	V	C

K0032	129	KU016	SCUH	KD016	NADV
K0033	127	KU001	NAUV	KD009	BRDV
K0034	127	KU002	NAUV	KD010	BRDV
K0035	127	KU003	NAUV	KD011	BRDV
K0036	127	KU004	NAUV	KD012	BRDV
K0037	127	KU009	NAUH	KD009	BRDV
K0038	127	KU010	NAUH	KD010	BRDV
K0039	127	KU011	NAUH	KD011	BRDV
K0040	127	KU012	NAUH	KD012	BRDV
K0041	127	KU005	NAUV	KD005	ANDH
K0042	127	KU006	NAUV	KD006	ANDH
K0043	127	KU007	NAUV	KD007	ANDH
K0044	127	KU008	NAUV	KD008	ANDH
K0045	127	KU013	NAUH	KD005	ANDH
K0046	127	KU014	NAUH	KD006	ANDH
K0047	127	KU015	NAUH	KD007	ANDH
K0048	127	KU016	NAUH	KD008	ANDH
K0049	127	KU005	NAUV	KD005	BRDH
K0050	127	KU006	NAUV	KD006	BRDH
K0051	127	KU007	NAUV	KD007	BRDH
K0052	127	KU008	NAUV	KD008	BRDH
K0053	127	KU013	NAUH	KD005	BRDH
K0054	127	KU014	NAUH	KD006	BRDH
K0055	127	KU015	NAUH	KD007	BRDH
K0056	127	KU016	NAUH	KD008	BRDH
K0057	127	KU001	NAUV	KD001	SCDH
K0058	127	KU002	NAUV	KD002	SCDH
K0059	127	KU003	NAUV	KD003	SCDH
K0060	127	KU004	NAUV	KD004	SCDH
K0061	127	KU009	NAUH	KD001	SCDH
K0062	127	KU010	NAUH	KD002	SCDH
K0063	127	KU011	NAUH	KD003	SCDH
K0064	127	KU012	NAUH	KD004	SCDH
K0065	127	KU005	NAUV	KD013	SCDV
K0066	127	KU006	NAUV	KD014	SCDV
K0067	127	KU007	NAUV	KD015	SCDV
K0068	127	KU008	NAUV	KD016	SCDV
K0069	127	KU001	NAUH	KD013	SCDV
K0070	127	KU002	NAUH	KD014	SCDV

KU017	36000	R	13770	V	C
KU018	36000	R	13810	V	C
KU019	36000	R	13850	V	C
KU020	36000	R	13890	V	C
KU021	36000	R	13930	V	C
KU022	36000	R	13970	V	C
KU023	36000	R	13770	H	C
KU024	36000	R	13810	H	C
KU025	36000	R	13850	H	C
KU026	36000	R	13890	H	C
KU027	36000	R	13930	H	C
KU028	36000	R	13970	H	C
KD017	36000	T	11480	H	C
KD018	36000	T	11520	H	C
KD019	36000	T	11560	H	C
KD020	36000	T	11600	H	C
KD021	36000	T	11640	H	C
KD022	36000	T	11680	H	C
KD023	36000	T	11480	V	C
KD024	36000	T	11520	V	C
KD025	36000	T	11560	V	C
KD026	36000	T	11600	V	C
KD027	36000	T	11640	V	C
KD028	36000	T	11680	V	C
KU029	72000	R	13795	V	C
KU030	72000	R	13875	V	C
KU031	72000	R	13955	V	C
KU032	72000	R	13795	H	C
KU033	72000	R	13875	H	C
KU034	72000	R	13955	H	C
KU035	216000	R	14125	V	C
KD029	72000	T	10995	H	C
KD030	72000	T	11075	H	C
KD031	72000	T	11155	H	C
KU036	216000	R	14375	H	C
KD032	72000	T	10995	V	C
KD033	72000	T	11075	V	C
KD034	72000	T	11155	V	C
KD035	216000	T	11325	H	C

K0071	127	KU003	NAUH	KD015	SCDV
K0072	127	KU004	NAUH	KD016	SCDV
K0073	127	KU017	NAUV	KD017	ANDH
K0074	127	KU018	NAUV	KD018	ANDH
K0075	127	KU019	NAUV	KD019	ANDH
K0076	127	KU020	NAUV	KD020	ANDH
K0077	127	KU021	NAUV	KD021	ANDH
K0078	127	KU022	NAUV	KD022	ANDH
K0079	127	KU023	NAUH	KD023	BRDV
K0080	127	KU024	NAUH	KD024	BRDV
K0081	127	KU025	NAUH	KD025	BRDV
K0082	127	KU026	NAUH	KD026	BRDV
K0083	127	KU027	NAUH	KD027	BRDV
K0084	127	KU028	NAUH	KD028	BRDV
K0085	127	KU023	NAUH	KD023	SCDV
K0086	127	KU024	NAUH	KD024	SCDV
K0087	127	KU025	NAUH	KD025	SCDV
K0088	127	KU026	NAUH	KD026	SCDV
K0089	127	KU027	NAUH	KD027	SCDV
K0090	127	KU028	NAUH	KD028	SCDV
K0091	127	KU029	ATEUV	KD029	ATWDH
K0092	127	KU030	ATEUV	KD030	ATWDH
K0093	127	KU031	ATEUV	KD031	ATWDH
K0094	127	KU032	ATEUH	KD032	ATEDV
K0095	127	KU033	ATEUH	KD033	ATEDV
K0096	127	KU034	ATEUH	KD034	ATEDV
K0097	122	KU035	ATWUV	KD035	ATEDH
K0098	127	KU036	ATEUH	KD036	ATEDV
TCM1		TC1	TCUV		
TCM2		TC2	TCUH		
TCM3		TC3	OMNUR		
TCM4		TC4	OMNUL		
TCM5		TC5	OMNUR		
TCM6		TC6	OMNUL		
TLM1				TM1	TMDH
TLM2				TM2	TMDV
TLM3				TM3	TMDH
TLM4				TM4	TMDV
TLM5				TM5	TMDH

KD036	216000	T	11325	V	C
TC1	1200	R	14000	V	T
TC2	1200	R	14449	H	T
TC3	1200	R	14000	R	T
TC4	1200	R	14000	L	T
TC5	1200	R	14499	R	T
TC6	1200	R	14499	L	T
TM1	400	T	11700.5	H	T
TM2	400	T	11700.5	V	T
TM3	400	T	11701	H	T
TM4	400	T	11701	V	T
TM5	400	T	12199.5	H	T
TM6	400	T	11700.5	R	T
TM7	400	T	11700.5	L	T
TM8	400	T	11701	R	T
TM9	400	T	11701	L	T
TM10	400	T	12199.5	R	T
TM11	400	T	12199.5	L	T
BCN1	25	T	3947.5	H	T
BCN2	25	T	4500.1	V	T

TLM6				TM6	OMNDR
TLM7				TM7	OMNDL
TLM8				TM8	OMNDR
TLM9				TM9	OMNDL
TLM10				TM10	OMNDR
TLM11				TM11	OMNDL
BCN1				BCN1	BCN1
BCN2				BCN2	BCN2

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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	48K6G7W	48.6	4	56	0.691		5.7	17.9
D2	1M34G7W	1340	4	1544	0.691		5.7	17.9
D3	6M33G7W	6330	4	8448	0.801		5.8	18
D4	27M0G7W	27000	4	28828	0.641		3.9	16.1
D5	36M0G7W	36000	4	41505	0.691		5.7	17.9
D6	36M0G7W	36000	8	76502	0.841		6.5	18.7
D7	54M0G7W	54000	8	114754	0.841		6.5	18.7
D8	72M0G7W	72000	8	153005	0.841		6.5	18.7
D9	32M4G7W	32400	4	1024	0.325	16	-10.8	1.4
D10	32M4G7W	32400	4	5120	0.325	8	-4.7	5.3

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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	1M20F9D	1200		1									10	22.2
A2	400KG9D	400		1									10	22.2
A3	25K0N0N	25		1									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)			
								(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.		
C0001	C0028	D1		617	58	LB1.docx		47.4	0.1	0.6	10.9	16.9	-156.4	18.1
C0001	C0028	D2		22	1608	LB2.docx		47.4	11.1	17.1	21.9	27.9	-159.8	23.6
C0001	C0028	D3		4	7596	LB3.docx		47.4	17.6	23.6	28.4	34.4	-160	23.6
C0001	C0028	D4		1		LB4.docx		53.5	14.2	20.2	37.4	43.4	-157.3	20
C0001	C0028	D5		1		LB5.docx		50.1	20.6	26.6	37.4	43.4	-158.5	21.9
C0001	C0028	D6		1		LB6.docx		50.1	21.6	27.6	37.4	43.4	-158.5	23.6
C0029	C0038	D1		925	58	LB7.docx		48.4	-0.9	-5.1	10.9	16.9	-156.4	19.5
C0029	C0038	D2		33	1608	LB8.docx		48.4	8.5	14.5	20.3	26.3	-161.4	25
C0029	C0038	D3		7	7596	LB9.docx		48.4	14.2	20.2	26	32	-162.4	27.6
C0029	C0038	D4		2	27000	LB10.docx		54.4	13.6	19.6	31.4	37.4	-163.3	25
C0029	C0038	D5		1		LB11.docx		51	30.86	36.86	37.4	43.4	-158.5	23.3
C0029	C0038	D7		1		LB12.docx		51	31	37	37.4	43.4	-160.3	25
K0001	K0072	D1		925	58	LB13.docx		43.2	-6.6	1.4	18.6	26.9		20.9
K0001	K0072	D2		33	1608	LB14.docx		46.7	7.7	15.7	29.4	37.7		26.9
K0001	K0072	D3		7	7596	LB15.docx		49.2	14.4	22.4	35.1	43.4		24.4
K0001	K0072	D4		2	27000	LB16.docx		53	9.5	17.5	40.5	48.8		26.9
K0001	K0072	D5		1		LB17.docx		57.3	12.5	20.5	46.5	54.8		20.9
K0001	K0072	D7		1		LB18.docx		57.3	23.7	31.7	46.5	54.8		26.9
K0073	K0090	D1		617	58	LB19.docx		54.5	-7	-1	20.5	26.5		20.6
K0073	K0090	D2		22	1608	LB20.docx		54.5	1.6	9.6	30.1	36.5		26.7
K0073	K0090	D3		4	7596	LB21.docx		54.5	9	17	37.5	43.9	-150.3	25.1
K0073	K0090	D4		1		LB22.docx		54.5	13.9	21.9	45.3	51.7	-148.8	20.6
K0073	K0090	D5		1		LB23.docx		57.1	16.1	24.1	46.5	52.9	-148.8	20.6
K0091	K0096	D2		44	1608	LB24.docx		54.5	9.8	15.8	33.1	40.3	-148.1	20.3
K0091	K0096	D3		9	7596	LB25.docx		54.5	10.1	16.1	32	39.2	-156	29.7
K0091	K0096	D5		2	36000	LB26.docx		54.5	14.6	20.6	38.5	45.7	-157.1	29.7
K0091	K0096	D10		2	36000	LB27.docx		57.1	15.4	18.4	39.4	46.6	-155.6	15
K0091	K0096	D8		1		LB28.docx		54.5	21.3	27.3	44.5	51.7	-154	28.2
K0091	K0096	D10		2	36000	LB29.docx		57.1	14	20	38.5	45.7	-156.6	15

K0097	K0098	D9		6	36000	LB30.docx		37.1	12.3	18.3	23.5	30.7	-171.6	33.6
K0097	K0098	D9		6	36000	LB31.docx		37.3	12.3	18.3	23.7	30.9	-171.4	33.6
K0097	K0098	D2		134	1608	LB32.docx		57.4	4.6	10.6	20.3	27.5	-160.9	31.6
K0097	K0098	D3		28	7596	LB33.docx		54.8	10.8	16.8	27	34.2	-161	31.6
K0097	K0098	D5		6	36000	LB34.docx		54.8	15.5	21.5	33.7	40.9	-161.8	31.6
K0097	K0098	D8		3	72000	LB35.docx		54.8	18.5	24.5	36.7	43.9	-161.9	33.6
K0097	K0098	D8		1		LB36.docx		57.4	24.4	30.4	44.5	51.7	-154	29.2
TCM1	TCM2		A1	1		TC_OS.docx		59.7	10.2	13.2				
TCM3	TCM6		A1	1		TC_TE.docx		59.7	20.3	30.3				
TLM1	TLM5		A2	1		TM_OS.docx					16	21	-157.1	34
TLM6	TLM11		A2	1		TM_TE.docx					1.8	20	-158.1	34
BCN1	BCN2		A3	1		BCN.docx					6.4	10.9	-151.2	23.7

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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: 8000 Gainsford Ct.			
S14b. City: Bristow	S14c. County:	S14d. State/Country VA	S14e. Zip Code: 20136
S14f. Telephone Number: 703-367-7300	S14g. Call Sign of Control Station (if appropriate):		

Remote Control (TT C) Location(s):

S14a: Street Address: L-6815 Chateau de Betzdorf			
S14b. City: Betzdorf	S14c. County:	S14d. State/Country	S14e. Zip Code:
S14f. Telephone Number: 352-710-725-8253	S14g. Call Sign of Control Station (if appropriate):		

Remote Control (TT C) Location(s):

S14a: Street Address: Arquiva Chalfront			
S14b. City: Gerrards Cross	S14c. County:	S14d. State/Country	S14e. Zip Code: SL9 8TW
S14f. Telephone Number: 44 8708 798 787	S14g. Call Sign of Control Station (if appropriate):		

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S15. SPACECRAFT PHYSICAL CHARACTERISTICS:

S15a: Mass of spacecraft without fuel (kg): 2767	Spacecraft Dimensions (meters)	Probability of Survival to End of Life (0.0 - 1.0)
S15b. Mass of fuel and disposables at launch (kg): 3340		
S15c. Mass of spacecraft and fuel at launch (kg): 6114	S15f. Length (m): 23	S15i. Payload: 0.85
S15d. Mass of fuel, in orbit, at beginning of life (kg): 3750	S15g. Width (m): 10	S15j. Bus: 0.84
S15e. Deployed Area of Solar Array (square meters): 70	S15h. Height (m): 8	S15k. Total: 0.72

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): 11624	(f): 11624	(k): 11624	(p): 11624
Bus (Watts):	(b): 1411	(g): 1319	(l): 1239	(q): 1022
Total (Watts):	(c): 13035	(h): 12943	(m) 12863	(r): 12646
Solar Array (Watts):	(d): 16275	(i): 14462	(n): 15040	(s): 13693
Depth of Battery Discharge (%):	(e) 73 %	(j) %	(o) 76 %	(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.