

**S1. GENERAL INFORMATION** Complete for all satellite applications.

a. Space Station or Satellite Network Name: INTELSAT 29E		e. Estimated Date of Placement into Service: 1/12/2015		i. Will the space station(s) operate on a Common Carrier Basis: N	
b. Construction Commencement Date: 1/8/2012		f. Estimated Lifetime of Satellite(s): 12 Years		j. Number of transponders offered on a common carrier basis:	
c. Construction Completion Date: 1/6/2015		g. Total Number of Transponders: 59		k. Total Common Carrier Transponder Bandwidth: MHz	
d1. Est Launch Date Begin: 1/8/2012	d2. Est Launch Date End: 1/10/2015	h. Total Transponder Bandwidth (no. transponders x Bandwidth) 4913 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)		
3700	M	4200	M	T	Fixed Satellite Service
10700	M	10950	M	T	Fixed Satellite Service
10950	M	11200	M	T	Fixed Satellite Service
11200	M	11450	M	T	Fixed Satellite Service
11450	M	11700	M	T	Fixed Satellite Service
11700	M	12200	M	T	Fixed Satellite Service
12200	M	12500	M	T	Fixed Satellite Service
19700	M	20200	M	T	Fixed Satellite Service
5850	M	6725	M	R	Fixed Satellite Service
12750	M	13250	M	R	Fixed Satellite Service
13750	M	14500	M	R	Fixed Satellite Service
17300	M	17550	M	R	Fixed Satellite Service
29500	M	30000	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): 50 W		b. Alternate Orbital Longitude (Degrees E/W):		c. Reason for orbital location selection: Provide global service and service to the Americas and Europe.
Longitudinal Tolerance or E/W Station-Keeping: d. Toward West:                      0.05 Degrees		f. Inclination Excursion or N/S Station-Keeping Tolerance:		
Range of orbital are in which adequate service can be provided (Optional): <u>        </u> Degrees <u>        </u> E/W				

e. Toward East:	0.05 Degrees	0.05 Degrees	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:

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 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.
1	E		Global
2	E		South America
3	E		North America & Europe
4	E		North America
5	E		North America & Central America & Europe

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S7. SPACE STATION ANTENNA BEAM CHARACTERISTICS For each antenna beam provide:

(a) Beam ID	(b) T/R Mode	(c) 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 Noise 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
SAH	R	29.9	23.9	0.14	0.12	30	N	0	2			603	2.1	-108.1	28	1	
SAV	R	29.9	23.9	0.14	0.12	30	N	90	2			603	2.1	-108.1	28	1	
GU	R	22.8	17.8	0.14	0.12	30	N		1			646	-5.3	-114.8	28	1	
TAVU	R	31.5	27.5	0.14	0.12	30	N	90	3			617	3.6	-112.6	28	1	
CGH	R	33.4	23.4	0.14	0.12	30	N	0	4			537	6.1	-110.1	28	1	
CGV	R	33.4	23.4	0.14	0.12	30	N	90	4			537	6.1	-110.1	28	1	
G1H	R	40.8	36.8	0.14	0.12	30	N	0	4			631	12.8	-112.8	28	1	
G2H	R	40	36	0.14	0.12	30	N	0	2			617	12.1	-112.1	28	1	
G1V	R	40.9	36.9	0.14	0.12	30	N	90	4			631	12.9	-112.9	28	1	
G2V	R	40	36	0.14	0.12	30	N	90	2			631	12	-112	28	1	
SGH	R	41.8	37.8	0.14	0.12	30	N	0	2			724	13.2	-113.2	28	1	
SGV	R	41.1	37.1	0.14	0.12	30	N	0	2			692	12.7	-112.7	28	1	
U1H	R	43	39	0.14	0.12	30	N	0	5			589	15.3	-115.3	28	1	
U2H	R	42.3	38.3	0.14	0.12	30	N	0	2			661	14.1	-114.1	28	1	
U1VU	R	42.5	38.5	0.14	0.12	30	N	90	5			550	15.1	-115.1	28	1	
U2VU	R	41.9	37.9	0.14	0.12	30	N	90	2			631	13.9	-113.9	28	1	
SAH	T	26.8	22.8	0.14	0.12	30	N	0	2	2.4	40.3	42.9					
SAV	T	26.8	22.8	0.14	0.12	30	N	90	2	2.4	40.3	42.9					
GD	T	21.4	28.4	0.14	0.12	30	N		1	2.5	70.3	39.9					
TAH	T	29.7	25.7	0.14	0.12	30	N	0	3	2.4	86.3	49.1					
G1H	T	40.6	46.6	0.14	0.12	30	N	0	4	2	94.6	60.4					
G2H	T	37.9	33.9	0.14	0.12	30	N	0	2	2.1	92.5	57.6					
G5H	T	39	35	0.14	0.12	30	N	0	2	5.2	45.3	55.6					
G1V	T	40.9	36.9	0.14	0.12	30	N	90	4	2	94.6	60.7					
G2V	T	39.8	35.8	0.14	0.12	30	N	90	2	2	94.6	59.6					
G6V	T	38.8	34.8	0.14	0.12	30	N	90	2	5.1	46.4	55.5					
U1H	T	40.5	36.5	0.14	0.12	30	N	0	5	2	94.6	60.3					
U2H	T	41	37	0.14	0.12	30	N	0	2	2	94.6	60.8					
U1VD	T	42.7	38.7	0.14	0.12	30	N	90	5	2	94.6	62.5					

U2VD	T	42.3	38.3	0.14	0.12	30	N	90	2	3.8	62.5	60.3					
CMD	R	20.9	18.3	0.14	0.12		N	90	1				152700	-31	-101		
CMD	R	20.9	18.3	0.14	0.12		N		1				152700	-31	-101		
CMD	R	13	10.4	0.14	0.12		N		1				4E+06	-52.9	-80		
TLM	T	20.6	18	0.14	0.12		N	90	1	4.8	0.2	13.4					
TLMP	T	13	10.4	0.14	0.12		N		1	7	2	16.1					
UPC	T	20.6	18	0.14	0.12		N		1	1.3	1.1	20.9					
UPK	T	26	21.9	0.14	0.12		N		1	1	0.6	24					
UPKL	T	26	21.9	0.14	0.12		N		1	1	0.6	24					

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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
SAH	R	C	-50		SAHU.gxt					
SAV	R	C	-50							
GU	R	C	-50							
TAVU	R	C	-50							
CGH	R	C	-50							
CGV	R	C	-50							
G1H	R	C	-50							
G2H	R	C	-50							
G1V	R	C	-50		G1VU.gxt					
G2V	R	C	-50		G2VU.gxt					
SGH	R	C	-50		SGHU.gxt					
SGV	R	C	-50		SGVU.gxt					
U1H	R	C	-50		U1HU.gxt					
U2H	R	C	-50		U2HU.gxt					
U1VU	R	C	-50		U1VU.gxt					
U2VU	R	C	-50		U2VU.gxt					
SAH	T	C	-50		SAHD.gxt	-152	-150.3	-150.1	-150	-149.9
SAV	T	C	-50		SAVD.gxt	-152	-150.3	-150.1	-150	-149.9
TAH	T	C	-50		TAHD.gxt					
G1H	T	C	-50		G1HD.gxt	-150.1	-149.9	-149.8	-149.7	-149.6
G2H	T	C	-50		G2HD.gxt	-155.9	-155.8	-155.6	-155.5	-155.4
G5H	T	C	-50		G5HD.gxt	-154.9	-154.7	-154.6	-154.5	-154.4
G1V	T	C	-50		G1VD.gxt	-150	-149.6	-149.5	-149.4	-149.3
G2V	T	C	-50		G2VD.gxt	-153.9	-153.8	-153.6	-153.5	-154.4
G6V	T	C	-50		G6VD.gxt	-155	-154.8	-154.7	-154.6	-154.5
U1H	T	C	-50		U1HD.gxt	-150	-147.5	-145	143.8	-143.7
U2H	T	C	-50		U2HD.gxt	-150	-147.5	-145	-143	-143.2
U1VD	T	C	-50		U1VD.gxt					





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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	72000	R	5970	H	C
CU002	72000	R	6050	H	C
CU003	72000	R	6130	H	C
CU004	72000	R	6220	H	C
CU005	36000	R	6280	H	C
CU006	36000	R	6320	H	C
CU007	36000	R	6360	H	C
CU008	36000	R	6400	H	C
CU009	112000	R	5986	V	C
CU010	112000	R	6110	V	C
CU011	112000	R	6234	V	C
CU012	112000	R	6358	V	C
AU001	500000	R	29750	R	C
CU013	500000	R	6100	R	C
CU014	375000	R	6537.5	H	C
CU015	500000	R	6100	V	C
CU016	375000	R	6537.5	V	C
KU001	375000	R	13062.5	V	C
KU002	375000	R	13062.5	V	C
KU003	250000	R	13875	H	C
KU004	250000	R	13875	V	C
KU005	500000	R	13000	H	C
KU006	500000	R	13000	V	C
KU007	250000	R	13125	V	C
KU008	125000	R	13062.5	H	C
KU009	250000	R	12875	H	C
AU002	250000	R	17425	V	C
AU003	250000	R	17425	H	C
KU010	62500	R	14156.25	V	C
KU011	125000	R	14062.5	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
TC001	131.6	CU001	SAHU	CD001	SAVD
TC002	131.6	CU002	SAHU	CD002	SAVD
TC003	131.6	CU003	SAHU	CD003	SAVD
TC004	131.6	CU004	SAHU	CD004	SAVD
TC005	131.6	CU005	SAHU	CD005	SAVD
TC006	131.6	CU006	SAHU	CD006	SAVD
TC007	131.6	CU007	SAHU	CD007	SAVD
TC008	131.6	CU008	SAHU	CD008	SAVD
TC009	131.6	CU009	SAVU	CD009	SAHD
TC010	131.6	CU010	SAVU	CD010	SAHD
TC011	131.6	CU011	SAVU	CD011	SAHD
TC012	131.6	CU012	SAVU	CD012	SAHD
TA013	161.4	AU001	GU	AD001	GD
TC014	133.9	CU013	CGHU	KD001	G1HD
TC015	133.9	CU013	CGHU	KD002	U1VD
TC016	133.9	CU013	CGHU	KD003	U1VD
TC017	133.9	CU013	CGHU	KD004	U1HD
TC018	133.9	CU014	CGHU	KD005	U1VD
TC019	133.9	CU014	CGHU	KD006	U1HD
TC020	133.9	CU014	CGHU	KD007	U1VD
TC021	133.9	CU015	CGVU	KD006	U1HD
TC022	133.9	CU015	CGVU	KD002	U1VD
TC023	133.9	CU015	CGVU	KD007	U1VD
TC024	133.9	CU015	CGVU	KD004	U1HD
TC025	133.9	CU015	CGVU	KD004	U1HD
TC026	133.9	CU016	CGVU	KD008	U1HD
TC027	133.9	CU016	CGVU	KD009	U1HD
TC028	133.9	CU016	CGVU	KD007	U1VD
TK029	135.5	KU001	G1HU	KD006	U1HD
TK030	135.5	KU001	G1HU	KD005	U1VD

KU012	125000	R	14437.5	V	C
KU013	187500	R	14281.25	V	C
KU014	125000	R	14312.5	V	C
KU015	62500	R	14343.75	V	C
KU016	62500	R	14406.25	H	C
KU017	62500	R	14468.75	H	C
KU018	62500	R	14343.75	H	C
KU019	187500	R	14093.75	H	C
KU020	62500	R	14281.25	V	C
KU021	125000	R	14062.5	V	C
KU022	62500	R	14093.75	H	C
KU023	62500	R	14406.25	V	C
KU024	62500	R	14468.75	V	C
KU025	62500	R	14031.25	H	C
KU026	62500	R	14031.25	V	C
KU027	62500	R	14218.75	V	C
KU028	125000	R	14187.5	H	C
KU029	62500	R	14281.25	H	C
KU030	125000	R	14312.5	H	C
KU031	62500	R	14093.75	V	C
KU032	250000	R	14125	H	C
KU033	125000	R	14437.5	H	C
KU034	62500	R	14301.25	V	C
KU035	125000	R	14125	V	C
CD001	72000	T	3745	V	C
CD002	72000	T	3825	V	C
CD003	72000	T	3905	V	C
CD004	72000	T	3995	V	C
CD005	36000	T	4055	V	C
CD006	36000	T	4095	V	C
CD007	36000	T	4135	V	C
CD008	36000	T	4175	V	C
CD009	112000	T	3761	H	C
CD010	112000	T	3885	H	C
CD011	112000	T	4009	H	C
CD012	112000	T	4133	H	C
AD001	500000	T	19950	L	C
KD001	250000	T	10825	H	C
KD002	125000	T	11887.5	V	C

TK031	135.5	KU001	G1HU	KD010	U1HD
TK032	135.5	KU002	G1VU	KD009	U1HD
TK033	135.5	KU002	G1VU	KD011	U1HD
TK034	135.5	KU002	G1VU	KD004	U1HD
TK035	135.1	KU003	G1HU	KD012	TAHD
TK036	135.1	KU003	G1HU	KD013	TAHD
TK037	135.1	KU003	G1HU	KD014	TAHD
TK038	135.5	KU003	G1HU	KD006	U1HD
TK039	135.5	KU004	G1VU	KD015	U1HD
TK040	135.5	KU004	G1VU	KD010	U1HD
TK041	133.8	KU005	G2HU	KD016	U2VD
TK042	135.6	KU005	G2HU	KD017	U2HD
TK043	133.8	KU005	G2HU	KD018	U2VD
TK044	135.6	KU005	G2HU	KD009	U2HD
TK045	133.8	KU005	G2HU	KD005	U2VD
TK046	135.6	KU005	G2HU	KD019	U2HD
TK047	135.6	KU006	G2VU	KD020	U2HD
TK048	133.8	KU006	G2VU	KD021	U2VD
TK049	133.8	KU006	G2VU	KD022	U2VD
TK050	133.8	KU006	G2VU	KD018	U2VD
TK051	135.6	KU006	G2VU	KD004	U2HD
TK052	133.8	KU006	G2VU	KD005	U2VD
TK053	133.8	KU006	G2VU	KD023	U2VD
TK054	133.8	KU004	G2VU	KD023	U2VD
TK055	133.8	KU004	G2VU	KD016	U2VD
TK056	133.8	KU007	G2VU	KD023	U2VD
TK057	133.8	KU007	G2VU	KD016	U2VD
TK058	135.6	KU008	G2HU	KD024	U2HD
TK059	135.6	KU008	G2HU	KD025	U2HD
TK060	133.8	KU009	G2HU	KD005	U2VD
TK061	133.8	KU009	G2HU	KD002	U2VD
TA062	135.9	AU002	SGVU	KD005	U2VD
TA063	135.9	AU002	SGVU	KD010	U2HD
TA064	137.5	AU003	SGHU	KD026	U2HD
TA065	137.5	AU003	SGHU	KD025	U2HD
TA066	135.7	AU003	SGHU	KD021	U2VD
TK067	136.9	KU010	U1VU	KD027	U1HD
TK068	134.3	KU011	U2HU	KD023	U2VD
TK069	136.3	KU012	U2VU	KD004	U2HD

KD003	125000	T	12012.5	V	C
KD004	125000	T	11887.5	H	C
KD005	125000	T	11762.5	V	C
KD006	125000	T	12137.5	H	C
KD007	125000	T	12137.5	V	C
KD008	62500	T	11168.75	H	C
KD009	125000	T	11512.5	H	C
KD010	125000	T	11762.5	H	C
KD011	187500	T	11043.75	H	C
KD012	36000	T	11970	H	C
KD013	36000	T	12010	H	C
KD014	36000	T	12050	H	C
KD015	125000	T	11637.5	H	C
KD016	125000	T	11637.5	V	C
KD017	62500	T	11606.25	H	C
KD018	62500	T	11856.25	V	C
KD019	187500	T	11731.25	H	C
KD020	62500	T	11543.75	H	C
KD021	62500	T	11918.75	V	C
KD022	62500	T	11731.25	V	C
KD023	125000	T	11512.5	V	C
KD024	62500	T	11668.75	H	C
KD025	62500	T	11481.25	H	C
KD026	125000	T	11575	H	C
KD027	62500	T	12106.25	H	C
KD028	250000	T	10825	V	C
KD029	250000	T	11325	H	C
KD030	250000	T	11325	V	C
KD031	300000	T	12350	H	C
KD032	300000	T	12350	V	C
KD033	500000	T	10950	V	C
KD034	500000	T	10950	H	C
KD035	125000	T	11262.5	V	C
KD036	250000	T	12325	H	C
KD037	250000	T	12325	V	C
CMD1	1000	R	6422	V	T
CMD2	1000	R	6422	L	T
CMD3	1000	R	6424.5	V	T
CMD4	1000	R	6424.5	L	T

TK070	136.3	KU013	U2VU	KD019	U2HD
TK071	136.3	KU014	U2VU	KD010	U2HD
TK072	136.9	KU015	U1VU	KD001	G1HD
TK073	136.6	KU016	U1HU	KD001	G1HD
TK074	136.6	KU017	U1HU	KD028	G1VD
TK075	136.9	KU010	U1VU	KD028	G1VD
TK076	136.6	KU018	U1HU	KD028	G1VD
TK077	136.9	KU010	U1VU	KD028	G1VD
TK078	136.6	KU019	U1HU	KD029	G1HD
TK079	136.9	KU020	U1VU	KD029	G1HD
TK080	136.9	KU012	U1VU	KD030	G1VD
TK081	136.9	KU021	U1VU	KD030	G1VD
TK082	136.9	KU015	U1VU	KD031	G1HD
TK083	136.9	KU010	U1VU	KD031	G1HD
TK084	136.6	KU022	U1HU	KD031	G1HD
TK085	136.9	KU023	U1VU	KD031	G1HD
TK086	136.9	KU010	U1VU	KD031	G1HD
TK087	136.9	KU024	U1VU	KD032	G1VD
TK088	136.6	KU025	U1HU	KD032	G1VD
TK089	136.6	KU022	U1HU	KD032	G1VD
TK090	136.9	KU026	U1VU	KD032	G1VD
TK091	145.4	KU027	TAVU	KD032	G1VD
TK092	136.1	KU028	U2HU	KD033	G2VD
TK093	136.1	KU011	U2HU	KD033	G2VD
TK094	136.3	KU010	U2VU	KD033	G2VD
TK095	136.1	KU016	U2HU	KD033	G2VD
TK096	136.1	KU029	U2HU	KD033	G2VD
TK097	136.1	KU016	U2HU	KD033	G2VD
TK098	136.2	KU021	U2VU	KD034	G2HD
TK099	136	KU030	U2HU	KD034	G2HD
TK100	136	KU030	U2HU	KD034	G2HD
TK101	136.2	KU031	U2VU	KD034	G2HD
TK102	136	KU029	U2HU	KD034	G2HD
TK103	136.3	KU013	U2VU	KD030	G2VD
TK104	136.3	KU012	U2VU	KD030	G2VD
TK105	136	KU032	U2HU	KD029	G2HD
TK106	136	KU032	U2HU	KD029	G2HD
TK107	136.3	KU023	U2VU	KD035	G2VD
TK108	136.3	KU026	U2VU	KD035	G2VD

CMD5	1000	R	5850.5	L	T
CMD6	1000	R	5853	L	T
TLM1	500	T	3701.25	V	T
TLM2	500	T	3701.75	V	T
TLM3	500	T	3702.25	V	T
TLM4	500	T	3702.75	V	T
TLM5	500	T	3701.25	L	T
TLM6	500	T	3701.75	L	T
TLM7	500	T	3702.25	L	T
TLM8	500	T	3702.75	L	T
UPCR	25	T	3700.25	R	C
UPKR	25	T	11451.3	R	C
UPKL	25	T	11951.3	L	C
AU004	500000	R	29750	L	C
AD002	500000	T	19950	R	C

TK109	136.1	KU030	U2HU	KD028	G2VD
TK110	136.1	KU033	U2HU	KD028	G2VD
TK111	133.1	KU014	U2VU	KD036	G5HD
TK112	132.9	KU030	U2HU	KD036	G5HD
TK113	133.2	KU034	U2VU	KD037	G6VD
TK114	133.2	KU035	U2VU	KD037	G6VD
TK115	133	KU017	U2HU	KD037	G6VD
TA116	161.4	AU004	GU	AD002	GD

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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	36M0G7W	36000	4	24575	0.5		3.36	10.6
D2	10M3G7W	10300	4	6000	0.5		3.87	12.8
D3	100KG7W	100	4	64	0.5		2.99	12.1
D4	112MG7W	112000	4	76455	0.5		3.36	9.7
D5	62M5G7W	62500	4	42665	0.5		3.36	13.5
D6	1M45G7W	1450	2	512	0.5		3.4	12
D7	125MG7W	125000	4	85329	0.5		3.36	10.2
D8	67M7G7W	67711	4	60052	0.5		3.4	18.7
D9	400KG7W	400	2	128	0.5		3.4	11.5



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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 <sup>2</sup> /Hz)	(o) Assoc. Stn Rec. G/T (dB/K)
TC001	TK115	D3		1117	100	IS-29e Schedul		49.6	-10.5	-0.5	18	22	-152.9	22.3
TC001	TK115	D2		10	10300	NOTE.txt		49.6	9.8	19.8	38.3	42.3	-152.1	22.3
TC001	TK115	D7		1	125000	NOTE.txt		58.6	13	23	50.2	54.2	-152.1	22.3
TC001	TK115	D3		807	100	NOTE.txt		49.4	-9.9	-3.9	6.3	10.3	-164.6	21
TC001	TK115	D2		7	10300	NOTE.txt		49.4	10.5	16.5	26.7	30.7	-163.7	21
TC001	TK115	D4		1	112000	NOTE.txt		52.8	17	23	38.9	42.9	-162.9	21
TC001	TK115		A1	2	36000	NOTE.txt	4000	52.8	18.5	24.5	32.1	36.1	-156	33
TC001	TK115	D3		625	100	NOTE.txt		56.8	-20.9	-16.9	18.1	22.1	-152.8	24.7
TC001	TK115	D2		6	10300	NOTE.txt		56.8	-0.6	3.4	38.3	42.3	-152.1	24.7
TC001	TK115	D6		43	1450	NOTE.txt		56.8	-8.8	-4.8	30.1	34.1	-152.9	24.7
TC001	TK115	D9		156	400	NOTE.txt		48.9	-9	-5	22	26	-155	32.8
TC001	TK115	D5		1	62500	NOTE.txt		56.87	6.5	10.5	47.2	51.2	-152.1	28.3
TC001	TK115	D3		244	100	NOTE.txt		56.7	-18.2	-14.2	16.1	20.1	-154.8	25
TC001	TK115	D2		2	10300	NOTE.txt		56.7	2	6	36.3	40.3	-154.1	25
TC001	TK115	D1		1	36000	NOTE.txt		56.7	14.9	18.9	44.8	48.8	-152.1	22.3
TC001	TK115	D8		1	67711	NOTE.txt		67.1	8.4	13.4	36.9	39.9	-164.3	39.3
TC001	TK115	D2		6	10300	NOTE.txt		67.1	-1.7	3.3	28.8	31.8	-162.6	39.3
TC001	TK115	D3		1688	100	NOTE.txt		67.1	-15.9	-10.9	4.6	7.6	-167.2	39.3

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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: 3400 International Drive			
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):	



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S15. SPACECRAFT PHYSICAL CHARACTERISTICS:

S15a. Mass of spacecraft without fuel (kg): 2946	Spacecraft Dimensions (meters)	Probability of Survival to End of Life (0.0 - 1.0)
S15b. Mass of fuel and disposables at launch (kg): 3354		
S15c. Mass of spacecraft and fuel at launch (kg): 6300	S15f. Length (m): 43.7	S15i. Payload: 0.65
S15d. Mass of fuel, in orbit, at beginning of life (kg): 874	S15g. Width (m): 9.2	S15j. Bus: 0.88
S15e. Deployed Area of Solar Array (square meters): 70.3	S15h. Height (m): 6.7	S15k. Total: 0.572

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): 10900	(f): 10900	(k): 10900	(p): 10900
Bus (Watts):	(b): 2976	(g): 1940	(l): 2910	(q): 1698
Total (Watts):	(c): 13876	(h): 12840	(m): 13810	(r): 12598
Solar Array (Watts):	(d): 15996	(i): 14927	(n): 15922	(s): 14700
Depth of Battery Discharge (%):	(e) 65.7 %	(j) %	(o) 73 %	(t) %

S17. CERTIFICATIONS:

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