

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

a. Space Station or Satellite Network Name: INTELSAT 19		e. Estimated Date of Placement into Service: 6/30/2012		i. Will the space station(s) operate on a Common Carrier Basis: N	
b. Construction Commencement Date: 6/12/2009		f. Estimated Lifetime of Satellite(s): 15 Years		j. Number of transponders offered on a common carrier basis:	
c. Construction Completion Date: 3/7/2012		g. Total Number of Transponders: 58		k. Total Common Carrier Transponder Bandwidth: MHz	
d1. Est Launch Date Begin: 4/27/2012	d2. Est Launch Date End: 5/31/2012	h. Total Transponder Bandwidth (no. transponders x Bandwidth) 2088 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)		
5925	M	6425	M	R	Fixed Satellite Service
3700	M	4200	M	T	Fixed Satellite Service
14000	M	14500	M	R	Fixed Satellite Service
12250	M	12750	M	T	Fixed Satellite Service

**S3. ORBITAL INFORMATION FOR GEOSTATIONARY SATELLITES ONLY:**

a. Nominal Orbital Longitude (Degrees E/W): 166 E		b. Alternate Orbital Longitude (Degrees E/W):		c. Reason for orbital location selection: REPLACE EXISTING INTELSAT 8 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): <u>      Degrees      </u> <u>      E/W      </u>	
d. Toward West:	0.05 Degrees	e. Toward East:		g. Westernmost:	h. Easternmost:
		0.05 Degrees			
i. Reason for service are selection (Optional):					

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**Page 2: NGSO Orbits**

**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**

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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	S		EAST ASIA, AUSTRALIA, HAWAII, WESTERN UNITED STATES
2	S		AUSTRALIA, NEW ZEALAND
3	S		EAST ASIA AND PACIFIC
4	S		WESTERN UNITED STATES, ALASKA, HAWAII, AND PACIFIC
5	S		PHILLIPINES, PAPUA NEW GUINEA, INDONESIA, NORTHERN AUSTRALIA
6	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 Iso- lation (dB)	(h) Polar- ization Switch- able? (Y/N)	(i) Polarization Alignment Rel. Equatorial Plane (Degrees)	(j) Service Area ID	Transmit			Receive				
										(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														
WHH	R	28.2	17.2	0.13	0.3	30	N	0	1				406	2.1	-108.8	29	1.16
WHV	R	29	28	0.13	0.3	30	N	90	1				495	2.1	-110	29	1.16
AHU	R	34	26	0.13	0.3	30	N	0	2				482	7.2	-102.9	24	1
AVU	R	34.1	26.1	0.13	0.3	30	N	90	2				488	7.2	-103	24	1
NWH	R	32.1	26.1	0.13	0.3	30	N	0	3				459	5.5	-98.4	24	1
NWV	R	32	26	0.13	0.3	30	N	90	3				451	5.5	-98.3	24	1
NEH	R	30.4	24.4	0.13	0.3	30	N	0	4				468	3.7	-95.9	24	1
NEV	R	30.4	24.4	0.13	0.3	30	N	90	4				466	3.7	-95.8	24	1
SWH	R	30.4	24.4	0.13	0.3	30	N	0	5				476	3.6	-98.2	24	1
WHH	T	25.9	17.9	0.13	0.3	26	N	0	1	1.6	45.1	42.4					
WHV	T	25.9	17.9	0.13	0.3	30	N	90	1	1.6	44.5	42.4					
AHD	T	32.9	26.9	0.13	0.3	30	N	0	2	2.3	89.1	52.4					
AVD	T	32.8	26.8	0.13	0.3	30	N	90	2	2.2	91.2	52.4					
NWH	T	31.5	25.5	0.13	0.3	30	N	0	3	2.2	91.8	51.1					
NWV	T	31.4	25.4	0.13	0.3	30	N	90	3	2.1	92.9	51.1					
NEH	T	28.9	22.9	0.13	0.3	30	N	0	4	2.2	90.6	48.5					
NEV	T	28.8	22.8	0.13	0.3	28	N	90	4	2.1	93.5	48.5					
SWV	T	29.3	23.3	0.13	0.3	27	N	90	5	2.5	85.9	48.6					
CMD	R	21	18.4	0.13	0.3		N	90	6				4925	-15.9	-108.3		
CMD	R	3	0.4	0.13	0.3		N		6				2150	-30.3	-93.9		
CMD	R	8	5.4	0.13	0.3		N		6				7987	-31	-93.2		
TLM	T	21	20	0.13	0.3		N	90	6	5.9	0.1	12.4					
TLMF	T	3	2	0.13	0.3		N		6	3.2	16.6	15.2					
TLMA	T	8	7	0.13	0.3		N		6	7.9	5.6	15.5					
UPC	T	24	23	0.13	0.3		N	0	6	4.8	0.1	15.2					
UPC	T	24	23	0.13	0.3		N	90	6	4.8	0.1	15.2					
UPK	T	24	23	0.13	0.3		N		6	5.8	0.3	18.2					

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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
WHH	R	C	166		whhu.gxt					
WHV	R	C	166		whvu.gxt					
AHU	R	C	166		ahu.gxt					
AVU	R	C	166		avu.gxt					
NWH	R	C	166		nwhu.gxt					
NWV	R	C	166		nwvu.gxt					
NEH	R	C	166		nehu.gxt					
NEV	R	C	166		nevu.gxt					
SWH	R	C	166		swhu.gxt					
WHH	T	C	166		whhd.gxt	-152	-150.8	-150.6	-150.5	-150.4
WHV	T	C	166		whvd.gxt	-152	-150.8	-150.6	-150.5	-150.4
AHD	T	C	166		ahd.gxt	-148	-145.5	-143	-140.5	-140.4
AVD	T	C	166		avd.gxt	-148	-145.5	-143	-140.5	-140.4
NWH	T	C	166		nwhd.gxt	-148	-145.5	-143	-141.8	-141.7
NWV	T	C	166		nwvd.gxt	-148	-145.5	-143	-141.8	-141.7
NEH	T	C	166		nehd.gxt	-148	-145.5	-144.5	-144.4	-144.3
NEV	T	C	166		nevd.gxt	-148	-145.5	-144.5	-144.4	-144.3
SWV	T	C	166		swvd.gxt	-148	-145.5	-144.4	-144.3	-144.2
CMD	R	C	166		cmdo.gxt					
CMD	R	C	166		cmdf.gxt					
CMD	R	C	166		cmda.gxt					
TLM	T	C	166		tlmo.gxt	-169.6	-169.5	-169.4	-169.3	-169.2
TLMF	T	C	166		tlmf.gxt	-166.8	-166.7	-166.6	-166.5	-166.4
TLMA	T	C	166		tlma.gxt	-166.5	-166.4	-166.3	-166.2	-166.1
UPC	T	C	166		upch.gxt	-156	-155.9	-155.8	-155.7	-155.6
UPC	T	C	166		upcv.gxt	-156	-155.9	-155.8	-155.7	-155.6
UPK	T	C	166		upkr.gxt	-153	-152.9	-152.8	-152.7	-152.6
WHH	T	X	166		whhd_xp.gxt					

NEV	T	X	166							
SWV	T	X	166							

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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	36000	R	5945	H	C
CU003	36000	R	5985	H	C
CU005	36000	R	6025	H	C
CU007	36000	R	6065	H	C
CU009	36000	R	6105	H	C
CU011	36000	R	6145	H	C
CU013	36000	R	6185	H	C
CU015	36000	R	6225	H	C
CU017	36000	R	6265	H	C
CU019	36000	R	6305	H	C
CU021	36000	R	6345	H	C
CU023	36000	R	6385	H	C
CU002	36000	R	5965	V	C
CU004	36000	R	6005	V	C
CU006	36000	R	6045	V	C
CU008	36000	R	6085	V	C
CU010	36000	R	6125	V	C
CU012	36000	R	6165	V	C
CU014	36000	R	6205	V	C
CU016	36000	R	6245	V	C
CU018	36000	R	6285	V	C
CU020	36000	R	6325	V	C
CU022	36000	R	6365	V	C
CU024	36000	R	6405	V	C
CD001	36000	T	3720	V	C
CD003	36000	T	3760	V	C
CD005	36000	T	3800	V	C
CD007	36000	T	3840	V	C
CD009	36000	T	3880	V	C
CD011	36000	T	3920	V	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	134.4	CU001	WHHU	CD001	WHVD
C0003	134.4	CU003	WHHU	CD003	WHVD
C0005	134.4	CU005	WHHU	CD005	WHVD
C0007	134.4	CU007	WHHU	CD007	WHVD
C0009	134.4	CU009	WHHU	CD009	WHVD
C0011	134.4	CU011	WHHU	CD011	WHVD
C0013	134.4	CU013	WHHU	CD013	WHVD
C0015	134.4	CU015	WHHU	CD015	WHVD
C0017	134.4	CU017	WHHU	CD017	WHVD
C0019	134.4	CU019	WHHU	CD019	WHVD
C0021	134.4	CU021	WHHU	CD021	WHVD
C0023	134.4	CU023	WHHU	CD023	WHVD
C0002	134.8	CU002	WHVU	CD002	WHHD
C0004	134.8	CU004	WHVU	CD004	WHHD
C0006	134.8	CU006	WHVU	CD006	WHHD
C0008	134.8	CU008	WHVU	CD008	WHHD
C0010	134.8	CU010	WHVU	CD010	WHHD
C0012	134.8	CU012	WHVU	CD012	WHHD
C0014	134.8	CU014	WHVU	CD014	WHHD
C0016	134.8	CU016	WHVU	CD016	WHHD
C0018	134.8	CU018	WHVU	CD018	WHHD
C0020	134.8	CU020	WHVU	CD020	WHHD
C0022	134.8	CU022	WHVU	CD022	WHHD
C0024	134.8	CU024	WHVU	CD024	WHHD
AA001	133	KU001	AHU	KD001	AVD
AA003	133	KU003	AHU	KD003	AVD
AA005	133	KU005	AHU	KD005	AVD
AA007	133	KU007	AHU	KD007	AVD
AA009	133	KU009	AHU	KD009	AVD
AA011	133	KU011	AHU	KD011	AVD

CD013	36000	T	3960	V	C
CD015	36000	T	4000	V	C
CD017	36000	T	4040	V	C
CD019	36000	T	4080	V	C
CD021	36000	T	4120	V	C
CD023	36000	T	4160	V	C
CD002	36000	T	3740	H	C
CD004	36000	T	3780	H	C
CD006	36000	T	3820	H	C
CD008	36000	T	3860	H	C
CD010	36000	T	3900	H	C
CD012	36000	T	3940	H	C
CD014	36000	T	3980	H	C
CD016	36000	T	4020	H	C
CD018	36000	T	4060	H	C
CD020	36000	T	4100	H	C
CD022	36000	T	4140	H	C
CD024	36000	T	4180	H	C
KU001	36000	R	14034	H	T
KU003	36000	R	14074	H	T
KU005	36000	R	14114	H	T
KU007	36000	R	14154	H	T
KU009	36000	R	14194	H	T
KU011	36000	R	14234	H	T
KU013	36000	R	14274	H	T
KU015	36000	R	14314	H	T
KU017	36000	R	14354	H	T
KU019	36000	R	14394	H	T
KU021	36000	R	14434	H	T
KU023	36000	R	14474	H	T
KU002	36000	R	14034	V	T
KU004	36000	R	14074	V	T
KU006	36000	R	14114	V	T
KU008	36000	R	14154	V	T
KU010	36000	R	14194	V	T
KU012	36000	R	14234	V	T
KU014	36000	R	14274	V	T
KU016	36000	R	14314	V	T
KU018	36000	R	14354	V	T

AA013	133	KU013	AHU	KD013	AVD
AA015	133	KU015	AHU	KD015	AVD
AA017	133	KU017	AHU	KD017	AVD
AA019	133	KU019	AHU	KD019	AVD
AA021	133	KU021	AHU	KD021	AVD
AA023	133	KU023	AHU	KD023	AVD
AA002	132.9	KU002	AVU	KD002	AHD
AA004	132.9	KU004	AVU	KD004	AHD
AA006	132.9	KU006	AVU	KD006	AHD
AA008	132.9	KU008	AVU	KD008	AHD
AA010	132.9	KU010	AVU	KD010	AHD
AA012	132.9	KU012	AVU	KD012	AHD
AA014	132.9	KU014	AVU	KD014	AHD
AA016	132.9	KU016	AVU	KD016	AHD
AA018	132.9	KU018	AVU	KD018	AHD
AA020	132.9	KU020	AVU	KD020	AHD
AA022	132.9	KU022	AVU	KD022	AHD
AA024	132.9	KU024	AVU	KD024	AHD
AS001	132.7	KU001	AHU	KD001	SWVD
AS003	132.7	KU003	AHU	KD003	SWVD
AS005	132.7	KU005	AHU	KD005	SWVD
AS007	132.7	KU007	AHU	KD007	SWVD
AS019	132.7	KU019	AHU	KD019	SWVD
AS021	132.7	KU021	AHU	KD021	SWVD
AS023	132.7	KU023	AHU	KD023	SWVD
AW007	133.1	KU007	AHU	KD007	NWVD
EE019	129.7	KU019	NEHU	KD019	NEVD
EE021	129.7	KU021	NEHU	KD021	NEVD
EE023	129.7	KU023	NEHU	KD023	NEVD
EE025	129.7	KU025	NEHU	KD025	NEVD
EE027	129.7	KU027	NEHU	KD027	NEVD
EE029	129.7	KU029	NEHU	KD029	NEVD
EE031	129.7	KU031	NEHU	KD031	NEVD
EE033	129.7	KU033	NEHU	KD033	NEVD
EA019	129.6	KU019	NEHU	KD019	AVD
EA021	129.6	KU021	NEHU	KD021	AVD
EA023	129.6	KU023	NEHU	KD023	AVD
AE019	133.1	KU019	AHU	KD019	NEVD
AE021	133.1	KU021	AHU	KD021	NEVD



KU020	36000	R	14394	V	T
KU022	36000	R	14434	V	T
KU024	36000	R	14474	V	T
KU026	36000	R	14154	V	C
KU028	36000	R	14194	V	C
KU030	36000	R	14234	V	C
KU032	36000	R	14274	V	C
KU034	36000	R	14354	V	C
KU025	36000	R	14194	H	C
KU027	36000	R	14234	H	C
KU029	36000	R	14274	H	C
KU031	36000	R	14314	H	C
KU033	36000	R	14354	H	C
KD026	36000	T	12406	H	C
KD028	36000	T	12446	H	C
KD030	36000	T	12486	H	C
KD032	36000	T	12526	H	C
KD034	36000	T	12606	H	C
KD025	36000	T	12446	V	C
KD027	36000	T	12486	V	C
KD029	36000	T	12526	V	C
KD031	36000	T	12566	V	C
KD033	36000	T	12606	V	C
CMD1	1000	R	14000.5	V	T
CMD2	1000	R	14003	V	T
CMD3	1000	R	14000.5	L	T
CMD4	1000	R	14003	L	T
TLM1	500	T	12253.5	V	T
TLM2	500	T	12254	V	T
TLM3	500	T	12256	V	T
TLM4	500	T	12256.5	V	T
TLM5	500	T	12253.5	L	T
TLM6	500	T	12254	L	T
TLM7	500	T	12256	L	T
TLM8	500	T	12256.5	L	T
BNC1	25	T	3700.5	H	T
BNC2	25	T	4199.5	V	T
BNK1	25	T	12257	R	T
KD001	36000	T	12286	V	C

AE023	133.1	KU023	AHU	KD023	NEVD
EW019	129.3	KU019	NEHU	KD019	SWVD
EW021	129.3	KU021	NEHU	KD021	SWVD
EW023	129.3	KU023	NEHU	KD023	SWVD
EW025	129.7	KU025	NEHU	KD025	NWVD
EW027	129.7	KU027	NEHU	KD027	NWVD
EW029	129.7	KU029	NEHU	KD029	NWVD
EW031	129.7	KU031	NEHU	KD031	NWVD
EW033	129.7	KU033	NEHU	KD033	NWVD
EE026	129.5	KU026	NEVU	KD026	NEHD
EE028	129.5	KU028	NEVU	KD028	NEHD
EE030	129.5	KU030	NEVU	KD030	NEHD
EE032	129.5	KU032	NEVU	KD032	NEHD
EE034	129.5	KU034	NEVU	KD034	NEHD
EW026	129.5	KU026	NEVU	KD026	NEHD
EW028	129.5	KU028	NEVU	KD028	NEHD
EW030	129.5	KU030	NEVU	KD030	NEHD
EW032	129.5	KU032	NEVU	KD032	NEHD
EW034	129.5	KU034	NEVU	KD034	NEHD
WW007	130.5	KU007	NWHU	KD007	NWVD
WW025	130.5	KU025	NWHU	KD025	NWVD
WW027	130.5	KU027	NWHU	KD027	NWVD
WW029	130.5	KU029	NWHU	KD029	NWVD
WW031	130.5	KU031	NWHU	KD031	NWVD
WW033	130.5	KU033	NWHU	KD033	NWVD
WA007	130.4	KU007	NWHU	KD007	AVD
WS007	130.1	KU007	NWHU	KD007	SWVD
WE025	130.5	KU025	NWHU	KD025	NEVD
WE027	130.5	KU027	NWHU	KD027	NEVD
WE029	130.5	KU029	NWHU	KD029	NEVD
WE031	130.5	KU031	NWHU	KD031	NEVD
WE033	130.5	KU033	NWHU	KD033	NEVD
WA002	130.3	KU002	NWVU	KD002	AHD
WA004	130.3	KU004	NWVU	KD004	AHD
WA006	130.3	KU006	NWVU	KD006	AHD
WA008	130.3	KU016	NWVU	KD016	AHD
WA010	130.3	KU020	NWVU	KD020	AHD
WA012	130.3	KU022	NWVU	KD022	AHD
WA014	130.3	KU024	NWVU	KD024	AHD

KD003	36000	T	12326	V	C
KD005	36000	T	12366	V	C
KD007	36000	T	12406	V	C
KD009	36000	T	12446	V	C
KD011	36000	T	12486	V	C
KD013	36000	T	12526	V	C
KD015	36000	T	12566	V	C
KD017	36000	T	12606	V	C
KD019	36000	T	12646	V	C
KD021	36000	T	12686	V	C
KD023	36000	T	12726	V	C
KD002	36000	T	12286	H	C
KD004	36000	T	12326	H	C
KD006	36000	T	12366	H	C
KD008	36000	T	12406	H	C
KD010	36000	T	12446	H	C
KD012	36000	T	12486	H	C
KD014	36000	T	12526	H	C
KD016	36000	T	12566	H	C
KD018	36000	T	12606	H	C
KD020	36000	T	12646	H	C
KD022	36000	T	12686	H	C
KD024	36000	T	12726	H	C

WW026	130.4	KU026	NWVU	KD026	NWHD
WW028	130.4	KU028	NWVU	KD028	NWHD
WW030	130.4	KU030	NWVU	KD030	NWHD
WW032	130.4	KU032	NWVU	KD032	NWHD
WW034	130.4	KU034	NWVU	KD034	NWHD
WE026	130.4	KU026	NWVU	KD026	NEHD
WE028	130.4	KU028	NWVU	KD028	NEHD
WE030	130.4	KU030	NWVU	KD030	NEHD
WE032	130.4	KU032	NWVU	KD032	NEHD
WE034	130.4	KU034	NWVU	KD034	NEHD
SS001	131.6	KU001	SWHU	KD001	SWVD
SS003	131.6	KU003	SWHU	KD003	SWVD
SS005	131.6	KU005	SWHU	KD005	SWVD
SS007	131.6	KU007	SWHU	KD007	SWVD
SS019	131.6	KU019	SWHU	KD019	SWVD
SS021	131.6	KU021	SWHU	KD021	SWVD
SS023	131.6	KU023	SWHU	KD023	SWVD
SA001	131.9	KU001	SWHU	KD001	AVD
SA003	131.9	KU003	SWHU	KD003	AVD
SA005	131.9	KU005	SWHU	KD005	AVD
SA007	131.9	KU007	SWHU	KD007	AVD
SA019	131.9	KU019	SWHU	KD019	AVD
SA021	131.9	KU021	SWHU	KD021	AVD
SA023	131.9	KU023	SWHU	KD023	AVD
SW007	132	KU007	SWHU	KD007	NWVD
SE019	132	KU019	SWHU	KD019	NEVD
SE021	132	KU021	SWHU	KD021	NEVD
SE023	132	KU023	SWHU	KD023	NEVD

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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		3.4	16
D2	10M3G7W	10300	4	6000	0.5		3.9	15.2
D3	100KG7W	100	4	64	0.5		3	14.8
D4	1M45G7W	1450	2	512	0.5		3.4	14.6
D5	400KG7W	400	2	128	0.5		3.4	15.3

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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	36M0F3F	36000	TV/FM	1					PAL	15.6	1.5		10	20.9

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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/m2/Hz)	(o) Assoc. Stn Rec. G/T (dB/K)
C0001	SE023		A1	1	36000	IS19 Schedule	4000	60.2	13.6	23.6	34.4	42.4	-149.7	28.4
C0001	SE023		A1	1	36000	NOTE.txt	4000	58.1	15.8	23.8	44.4	52.4	-139.7	29
C0001	SE023		A1	1	36000	NOTE.txt	4000	56.9	15	23	42.5	48.5	-143.6	33.5
C0001	SE023		A1	1	36000	NOTE.txt	4000	56.9	18.6	24.6	44.4	52.4	-139.7	31.4
C0001	SE023		A1	1	36000	NOTE.txt	4000	60.2	17.3	23.3	42.5	48.5	-143.6	33.5
C0001	SE023	D1		1	36000	NOTE.txt		53.4	14.6	24.6	34.4	42.4	-158.5	21
C0001	SE023	D1		1	36000	NOTE.txt		58.1	16.4	24.4	40.8	48.8	-152.1	27.1
C0001	SE023	D1		1	36000	NOTE.txt		56.9	15	23	42.5	48.5	-152.4	25.4
C0001	SE023	D1		1	36000	NOTE.txt		56.9	16.2	22.2	40.8	48.8	-152.1	29
C0001	SE023	D1		1	36000	NOTE.txt		56.9	17.6	23.6	42.5	48.5	-152.4	25.4
C0001	SE023	D2		3	10300	NOTE.txt		49.4	11	21	25.7	33.7	-160.7	23.6
C0001	SE023	D2		3	10300	NOTE.txt		56.9	10.4	16.4	34.3	42.3	-152.1	27.1
C0001	SE023	D2		2	10300	NOTE.txt		58.1	11.1	19.1	33.8	39.8	-154.6	27.1
C0001	SE023	D2		3	10300	NOTE.txt		56.9	7.8	15.8	34.3	42.3	-152.1	25.4
C0001	SE023	D2		2	10300	NOTE.txt		60.2	11	17	33.3	39.3	-155.1	29
C0001	SE023	D3		238	100	NOTE.txt		49.4	-7.6	2.4	7.1	15.1	-159.8	20.9
C0001	SE023	D3		328	100	NOTE.txt		56.9	-12.4	-4.4	14.1	22.1	-152.8	25.4
C0001	SE023	D3		240	100	NOTE.txt		56.9	-9	-1	13.6	19.6	-155.3	27.1
C0001	SE023	D3		315	100	NOTE.txt		56.9	-9.6	-3.6	14.3	22.3	-152.6	27.1
C0001	SE023	D3		258	100	NOTE.txt		60.2	-9	-3	13.3	19.3	-155.6	29
C0001	SE023	D4		20	1450	NOTE.txt		56.9	-0.4	7.6	26.1	34.1	-152.9	25.4
C0001	SE023	D4		22	1450	NOTE.txt		56.9	1.2	9.2	23.8	29.8	-157.2	29
C0001	SE023	D4		20	1450	NOTE.txt		56.9	2.4	8.4	26.3	34.3	-152.7	27.1
C0001	SE023	D4		16	1450	NOTE.txt		60.2	2.9	8.9	25.2	31.2	-155.8	29
C0001	SE023	D5		90	400	NOTE.txt		49	-4.6	3.4	14	22	-159	33.5
C0001	SE023	D5		90	400	NOTE.txt		52.7	-4.4	3.6	14	20	-161	33.5
C0001	SE023	D5		90	400	NOTE.txt		49.7	-1.2	4.8	15.5	23.5	-157.5	33.5
C0001	SE023	D5		90	400	NOTE.txt		52.7	-2	4	12.9	18.9	-162.1	37

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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, NW			
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): 2395	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): 5541	S15f. Length (m): 26.1	S15i. Payload: 0.917
S15d. Mass of fuel, in orbit, at beginning of life (kg): 1086	S15g. Width (m): 8	S15j. Bus: 0.858
S15e. Deployed Area of Solar Array (square meters): 74.4	S15h. Height (m): 9	S15k. Total: 0.786

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): 10896	(f): 10896	(k): 10896	(p): 10896
Bus (Watts):	(b): 2541	(g): 1299	(l): 2541	(q): 1299
Total (Watts):	(c): 13437	(h): 12195	(m): 13437	(r): 12195
Solar Array (Watts):	(d): 14924	(i): 13516	(n): 14602	(s): 13226
Depth of Battery Discharge (%):	(e) 67.8 %	(j) %	(o) 72.3 %	(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.**