

**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: INTELSAT 33E		e. Estimated Date of Placement into Service:	i. Will the space station(s) operate on a Common Carrier Basis: N
b. Construction Commencement Date:		f. Estimated Lifetime of Satellite(s): 15 Years	j. Number of transponders offered on a common carrier basis: 0
c. Construction Completion Date:		g. Total Number of Transponders: 72	k. Total Common Carrier Transponder Bandwidth: 0 MHz
d1. Est Launch Date Begin:	d2. Est Launch Date End:	h. Total Transponder Bandwidth (no. transponders x Bandwidth) 4850 MHz	l. Orbit Type: Mark all boxes that apply: ☒ GSO ☐ NGSO

S2. OPERATING FREQUENCY BANDS Identify the frequency range and transmit/receive mode for all frequency bands in which this station will opera
Also indicate the nature of service(s) for each frequency band.

Frequency Band Limits				e. T/R Mode	Nature of Service(s): List all that apply to this band	f.
Lower Frequency (Hz)		Upper Frequency (Hz)				
a. Numeric	b. Unit (K/M/G)	c. Numeric	d. Unit (K/M/G)			
5.85	G	6.725	G	R	Fixed Satellite Service	
3.625	G	4.2	G	T	Fixed Satellite Service	
13.75	G	13.85	G	R	Fixed Satellite Service	
14.0	G	14.5	G	R	Fixed Satellite Service	
17.3	G	17.8	G	R	Fixed Satellite Service	
10.95	G	12.2	G	T	Fixed Satellite Service	
12.5	G	12.6	G	T	Fixed Satellite Service	
29.5	G	30.0	G	R	Fixed Satellite Service	
19.7	G	20.2	G	T	Fixed Satellite Service	
28.1	G	29.5	G	R	Fixed Satellite Service	
18.3	G	19.7	G	T	Fixed Satellite Service	

S3. ORBITAL INFORMATION FOR GEOSTATIONARY SATELLITES ONLY:

a. Nominal Orbital Longitude (Degrees E/W): 60 E	b. Alternate Orbital Longitude (Degrees E/W):	c. Reason for orbital location selection:
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): Degrees E/W a. Westernmost:

e. Toward East:	0.05 Degrees	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)**

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)
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NO NGSO DATA FILED

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

Page 3: Service Areas

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		Sub-Saharan Africa
2	S		Central Africa, Europe, Middle East, South Asia, Australia
3	S		Global
4	S		Africa, Europe, Middle East, Asia
5	S		Europe, Middle East, Asia
6	S		Europe, Middle East, Russia

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

Page 4: Antenna Beams

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				
		(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
CSLU	R	28	27	0.1	0.4	25	N		1					0.6	-108.3	1	1
CSR	R	27.9	26.9	0.1	0.4	27	N		1					0.6	-108.2	1	1
CSLD	T	26.6	25.6	0.1	0.4	27	N		1			42.2					
CSR	T	26.4	25.4	0.1	0.4	27	N		1			42.3					
CGL	R	20.7	16.7	0.1	0.4	27	N		3					-5.8	-110.2	1	1
CGR	R	20.7	16.7	0.1	0.4	27	N		3					-5.8	-110.2	1	1
CGL	T	20.8	16.8	0.1	0.4	27	N		3			36.3					
CGR	T	20.8	16.8	0.1	0.4	27	N		3			36.3					
CLRD	T	11.5	11.5	0.1	0.4	27	N		3			9.4					
TGV	T	20.1	16.1	0.1	0.4	27	N		903			13.7					
CGV	R	20	18	0.1	0.4	27	N		903					-6	-101	1	1
CULU	R	36.9	29.9	0.1	0.4	24	N		2					11.1	-111.8	1	1
CUR	R	36.9	29.9	0.1	0.4	24	N		2					11.1	-111.8	1	1
CULD	T	36	31.6	0.1	0.4	24	N		2			51.7					
CUR	T	36	31.6	0.1	0.4	24	N		2			51.6					
CUV	R	37.2	30.2	0.1	0.4	24	N		902					12.7	-112.9	1	1
CUH	T	34.2	29.8	0.1	0.4	24	N		02			50.4					
CUH	R	37.2	30.2	0.1	0.4	24	N		02					12.2	-111.8	1	1
CUV	T	34.3	29.9	0.1	0.4	24	N		902			50.1					
KUH	R	41.3	34.9	0.1	0.4	23.3	N		04					14.9	-115	1	1
KUV	R	41.1	34.7	0.1	0.4	23.8	N		904					14.6	-114.8	1	1
KUH	T	40.3	34.9	0.1	0.4	22.3	N		04			58.1					
KUV	T	40.3	34.9	0.1	0.4	22.4	N		904			57.6					
KWH	R	27.2	24.7	0.1	0.4	27	N		05					0.1	-106.1	1	1
KWV	R	27.2	24.7	0.1	0.4	27	N		905					0.1	-106.1	1	1
KWH	T	24.7	22.2	0.1	0.4	27	N		05			44.8					
KWV	T	24.8	22.3	0.1	0.4	27	N		905			45					
KLRD	T	18.1	18.1	0.1	0.4	25	N		3			16					
KLLD	T	19.4	19.4	0.1	0.4	25	N		3			16.8					

KLVD	T	38.7	33.3	0.1	0.4	25	N	90	3				16				
AWH	R	37.9	33.9	0.1	0.4	25	N	0	6					10.7	-104.6	1	1
AWV	R	38.7	34.7	0.1	0.4	25	N	90	6					11.6	-105.6	1	1
AGLU	R	21.7	17.7	0.1	0.4	27	Y		3					-7.2	-84.3	1	1
AGR	R	21.7	17.7	0.1	0.4	27	Y		3					-7.2	-84.3	1	1
AGLD	T	20.7	16.7	0.1	0.4	25	Y		3				34.5				
AGR	T	20.7	16.7	0.1	0.4	25	Y		3				34.5				
ALLD	T	21.2	18	0.1	0.4	25	Y		3				22.2				
ALRD	T	21.2	18	0.1	0.4	25	Y		3				22.2				
KGH	R	40.8	36.8	0.1	0.4	23	N	0	4					14.3	-108.2	1	1
KGV	R	42	38	0.1	0.4	25	N	90	4					14.9	-108.9	1	1
KGH	T	40.7	36.7	0.1	0.4	24.7	N	0	4				61.3				
KGV	T	38.7	34.7	0.1	0.4	23.8	N	90	4				59.4				
CLLD	T	11.5	11.5	0.1	0.4	25	N		3				9.4				
TPLD	T	7.6	7.6	0.1	0.4	22	N		3				15.4				
THLD	T	3.3	3.3	0.1	0.4	22	N		3				11.9				
CPLU	R	1.2	1.2	0.1	0.4	22	N		3					-21	-80	1	1
CHLU	R	4.8	4.8	0.1	0.4	22	N		3					-25	-80	1	1

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

Page 5: Beam Diagrams

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
CSR	R	C	60		CSRU.gxt					
CSLD	T	C	60		CSLD.gxt	-159.3	-159.1	-159	-158.9	-158.8
CSR	T	C	60		CSR.D.gxt	-159.3	-159.1	-159	-158.9	-158.8
CGL	R	C	60		CGLU.gxt					
CGR	R	C	60		CGRU.gxt					
CGL	T	C	60		CGLD.gxt	-159.3	-159.1	-159	-158.9	-158.8
CGR	T	C	60		CGRD.gxt	-159.3	-159.1	-159	-158.9	-158.8
TGV	T	C	60		TGVD.gxt	-168.3	-168.2	-168.1	-168	-167.9
CGV	R	C	60		CGVU.gxt					
CULU	R	C	60		CULU.gxt					
CUR	R	C	60		CURU.gxt					
CULD	T	C	60		CULD.gxt	-159.3	-159.1	-159	-158.9	-158.8
CUR	T	C	60		CURD.gxt	-159.3	-159.1	-159	-158.9	-158.8
CUV	R	C	60		CUVU.gxt					
CUH	T	C	60		CUHD.gxt	-159.3	-159.1	-159	-158.9	-158.8
CUH	R	C	60		CUHU.gxt					
CUV	T	C	60		CUVD.gxt	-159.3	-159.1	-159	-158.9	-158.8
KUH	R	C	60		KUHU.gxt					
KUV	R	C	60		KUVU.gxt					
KUH	T	C	60		KUHD.gxt	-150	-149.8	-149.7	-149.6	-149.5
KUV	T	C	60		KUVD.gxt	-150	-149.8	-149.7	-149.6	-149.5
KWH	R	C	60		KWHU.gxt					
KWV	R	C	60		KWVU.gxt					
KWH	T	C	60		KWHD.gxt	-150	-149.8	-149.7	-149.6	-149.5
KWV	T	C	60		KWVD.gxt	-150	-149.8	-149.7	-149.6	-149.5
AWH	R	C	60		AWHU.gxt					
AWV	R	C	60		AWVU.gxt					
AGLU	R	C	60		AGLU.gxt					

AGR	R	C	60		AGRU.gxt					
AGLD	T	C	60		AGLD.gxt	-161.3	-161.1	-161	-160.9	-160.8
AGR	T	C	60		AGRD.gxt	-161.3	-161.1	-161	-160.9	-160.8
KGH	R	C	60		KGHU.gxt					
KGV	R	C	60		KGVU.gxt					
KGH	T	C	60		KGHD.gxt	-150	-149.8	-149.7	-149.6	-149.5
KGV	T	C	60		KGVD.gxt	-150	-149.8	-149.7	-149.6	-149.5
CSLU	R	C	60		CSLU.gxt					
CLRD	T	C	60			-153.9	-153.8	-153.6	-153.5	-153.4
KLRD	T	C	60			-152	-151.9	-151.7	-151.6	-151.5
KLLD	T	C	60			-152	-151.9	-151.7	-151.6	-151.5
KLVD	T	C	60			-148	-147.9	-147.7	-147.6	-147.5
ALLD	T	C	60			-128	-127.9	-127.8	-127.7	-127.5
ALRD	T	C	60			-117.1	-117	-116.9	-116.8	-116.6
CLLD	T	C	60			-153.9	-153.8	-153.6	-153.5	-153.4
TPLD	T	C	60			-166.6	-166.5	-166.4	-166.3	-166.2
THLD	T	C	60			-170.1	-170	-169.9	-169.8	-169.7

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

**Page 6: Channels and
Transponders**

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)
TLM2C	300	T	4198.25	L	T
TLM3C	300	T	4197.75	L	T
TLM4C	300	T	4197.25	L	T
CU001	72000	R	5898	L	C
CU003	72000	R	5978	L	C
CU005	72000	R	6058	L	C
CU007	72000	R	6138	L	C
CU002	72000	R	5898	R	C
CU004	72000	R	5978	R	C
CU006	72000	R	6058	R	C
CU008	72000	R	6138	R	C
SZU09	72000	R	5898	L	C
SZU11	72000	R	5978	L	C
SZU13	72000	R	6058	L	C
SZU15	72000	R	6138	L	C
SZU17	72000	R	6218	L	C
SZU19	72000	R	6298	L	C
SZU21	36000	R	6358	L	C
SZU23	36000	R	6398	L	C
SZU25	261000	R	6075	L	C
SZU10	72000	R	5898	R	C
SZU12	72000	R	5978	R	C
SZU14	72000	R	6058	R	C
SZU16	72000	R	6138	R	C
SZU18	72000	R	6218	R	C
SZU20	72000	R	6298	R	C
SZU22	36000	R	6358	R	C
SZU24	36000	R	6398	R	C
SZU26	261000	R	6075	R	C
CGU27	36000	R	6358	L	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		CU001	CULU		
TC002		CU003	CULU		
TC003		CU005	CULU		
TC004		CU007	CULU		
TC005		CU002	CURU		
TC006		CU004	CURU		
TC007		CU006	CURU		
TC008		CU008	CURU		
TC009		SZU09	CSLU		
TC010		SZU11	CSLU		
TC011		SZU13	CSLU		
TC012		SZU15	CSLU		
TC013		SZU17	CSLU		
TC014		SZU19	CSLU		
TC015		SZU21	CSLU		
TC016		SZU23	CSLU		
TC017		SZU25	CSLU		
TC018		SZU10	CSRU		
TC019		SZU12	CSRU		
TC020		SZU14	CSRU		
TC021		SZU16	CSRU		
TC022		SZU18	CSRU		
TC023		SZU20	CSRU		
TC024		SZU22	CSRU		
TC025		SZU24	CSRU		
TC026		SZU26	CSRU		
TC027		CGU27	CGLU		
TC028		CGU29	CGLU		
TC029		CGU28	CGRU		
TC030		CGU30	CGRU		

CGU29	36000	R	6398	L	C
CGU28	36000	R	6358	R	C
CGU30	36000	R	6398	R	C
CU032	184000	R	6030.5	V	C
CU034	184000	R	6235.5	V	C
CU031	369000	R	6133	L	C
CU033	261000	R	6575	L	C
CU036	369000	R	6133	R	C
CU038	261000	R	6575	R	C
CU035	184000	R	6235.5	L	C
CU040	184000	R	6235.5	L	C
CU037	184000	R	6035.5	H	C
CU039	184000	R	6235.5	H	C
CU041	261000	R	6575	H	C
CU043	184000	R	6035.5	H	C
CU045	184000	R	6235.5	H	C
CMD1A	1200	R	6422	V	T
CMD1B	1200	R	6422	L	T
CMD3A	1200	R	6424.5	V	T
CMD3B	1200	R	6424.5	L	T
CMD2	1200	R	5850.5	L	T
CMD4	1200	R	5853	L	T
CD001	72000	T	3673	R	C
CD003	72000	T	3753	R	C
CD005	72000	T	3833	R	C
CD007	72000	T	3913	R	C
CD002	72000	T	3673	L	C
CD004	72000	T	3753	L	C
CD006	72000	T	3833	L	C
CD008	72000	T	3913	L	C
SZD09	72000	T	3673	R	C
SZD11	72000	T	3753	R	C
SZD13	72000	T	3833	R	C
SZD15	72000	T	3913	R	C
SZD17	72000	T	3993	R	C
SZD19	72000	T	4073	R	C
SZD21	36000	T	4133	R	C
SZD23	36000	T	4173	R	C
SZD10	72000	T	3673	L	C

TC031		CU032	CUVU		
TC032		CU034	CUVU		
TC033		CU031	CULU		
TC034		CU033	CULU		
TC035		CU036	CURU		
TC036		CU038	CURU		
TC037		CU035	CULU		
TC038		CU040	CURU		
TC039		CU037	CUHU		
TC040		CU039	CUHU		
TC041		CU041	CUHU		
TC042		CU043	CUHU		
TC043		CU045	CUHU		
TC050				CD001	CURD
TC044				CD003	CURD
TC045				CD005	CURD
TC046				CD007	CURD
TC047				CD002	CULD
TC048				CD004	CULD
TC049				CD006	CULD
TC057				CD008	CULD
TC051				SZD09	CSRD
TC052				SZD11	CSRD
TC053				SZD13	CSRD
TC054				SZD15	CSRD
TC055				SZD17	CSRD
TC056				SZD19	CSRD
TC064				SZD21	CSRD
TC058				SZD23	CSRD
TC059				SZD10	CSLD
TC060				SZD12	CSLD
TC061				SZD14	CSLD
TC062				SZD16	CSLD
TC063				SZD18	CSLD
TC071				SZD20	CSLD
TC065				SZD22	CSLD
TC066				SZD24	CSLD
TC067				CGD27	CGRD
TC068				CGD29	CGRD

SZD12	72000	T	3753	L	C
SZD14	72000	T	3833	L	C
SZD16	72000	T	3913	L	C
SZD18	72000	T	3993	L	C
SZD20	72000	T	4073	L	C
SZD22	36000	T	4133	L	C
SZD24	36000	T	4173	L	C
CGD27	36000	T	4133	R	C
CGD29	36000	T	4173	R	C
CD032	184000	T	3805.5	H	C
CD034	184000	T	4010.5	H	C
CD031	369000	T	3908	R	C
CD036	369000	T	3908	L	C
CD035	184000	T	4010.5	R	C
CD040	184000	T	4010.5	R	C
CD037	184000	T	3805.5	V	C
CD043	184000	T	3805.5	V	C
ULPC1	25	T	3626.29	R	C
ULPC5	25	T	3628.89	L	C
TLM1A	300	T	4198.75	V	T
TLM1B	300	T	4198.75	L	T
TLM2A	300	T	4198.25	V	T
TLM2B	300	T	4198.25	L	T
TLM3A	300	T	4197.75	V	T
TLM3B	300	T	4197.75	L	T
TLM4A	300	T	4197.25	V	T
TLM4B	300	T	4197.25	L	T
KUU01	97200	R	14058	H	C
KUU02	97200	R	14166	H	C
KUU03	97200	R	14334	H	C
KUU04	97200	R	14442	H	C
KUUW1	27000	R	14235	H	C
KUUW2	27000	R	14265	H	C
KUU06	97200	R	14166	V	C
KUU07	97200	R	14334	V	C
KUU08	97200	R	14442	V	C
KUUW3	27000	R	14235	V	C
KUUW4	27000	R	14265	V	C
KEU40	81000	R	13800	H	C

TC069				CD032	CUHD
TC070				CD034	CUHD
TC080				CD031	CURD
TC072				CD036	CULD
TC073				CD035	CURD
TC074				CD040	CULD
TC075				CD037	CUVD
TC085				CD043	CUVD
TK001		KUU01	KUHU		
TC078		KUU02	KUHU		
TC079		KUU03	KUHU		
TK004		KUU04	KUHU		
TK002		KUUW1	KWHU		
TK003		KUUW2	KWHU		
TK007		KUU05	KUVU		
TK005		KUU06	KUVU		
TK006		KUU07	KUVU		
TK010		KUU08	KUVU		
TK008		KUUW3	KWVU		
TK009		KUUW4	KWVU		
TK013		KEU40	KUHU		
TK011		GWU01	KGVU		
TK015		GWU02	KGHU		
TA001		KAU01	AGRU		
TK014		KAU02	AGLU		
TA003		KAU03	AWVU		
TA004		KAU04	AWHU		
TA002				KUD01	KUVD
TK022				KUD02	KUVD
TK023				KUD03	KUVD
TK016				KUD04	KUVD
TK017				KUDW1	KWVD
TK018				KUDW4	KWVD
TK019				KUD05	KUHD
TK020				KUD06	KUHD
TK021				KUD07	KUHD
TK030				KUD08	KUHD
TK031				KUDW5	KWHD
TK024				KUDW8	KWHD

GWU01	441000	R	17550	V	C
GWU02	441000	R	17550	H	C
KAU01	1900000	R	29050	R	C
KAU02	1900000	R	29050	L	C
KAU03	441000	R	29750	V	C
KAU04	441000	R	29750	H	C
ULPC2	25	T	10951.29	R	C
ULPC3	25	T	11698.68	L	C
ULPC4	25	T	12503.37	V	C
ULP6A	25	T	20199.5	R	C
ULP6B	25	T	20199.5	L	C
KUD01	97200	T	11008	V	C
KUD02	97200	T	11116	V	C
KUD03	97200	T	11534	V	C
KUD04	97200	T	11642	V	C
KUDW1	27000	T	11185	V	C
KUDW4	27000	T	11465	V	C
KUD05	97200	T	11008	H	C
KUD06	97200	T	11116	H	C
KUD07	97200	T	11534	H	C
KUD08	97200	T	11642	H	C
KUDW5	27000	T	11185	H	C
KUDW8	27000	T	11465	H	C
KBD01	111600	T	11764	V	C
KBD02	111600	T	11888	V	C
KBD03	111600	T	12012	V	C
KBD04	111600	T	12136	V	C
KBD05	111600	T	11764	H	C
KBD06	111600	T	11888	H	C
KBD07	111600	T	12012	H	C
KBD08	111600	T	12136	H	C
KED40	81000	T	12550	V	C
GWD01	441000	T	11950	H	C
GWD02	441000	T	11950	V	C
GWD03	216000	T	11075	H	C
GWD04	216000	T	11575	H	C
GWD06	194400	T	11588	V	C
KAD01	1900000	T	19250	L	C
KAD02	1900000	T	19250	R	C

TK025				KBD01	KUVD
TK026				KBD02	KUVD
TK027				KBD03	KUVD
TK028				KBD04	KUVD
TK029				KBD05	KUHD
TK038				KBD06	KUHD
TK039				KBD07	KUHD
TK032				KBD08	KUHD
TK033				KED40	KUVD
TK034				GWD01	KGHD
TK035				GWD02	KGVD
TK036				GWD03	KGHD
TK037				GWD04	KGHD
TK046				GWD05	KGVD
TK047				GWD06	KGVD
TA005				KAD01	AGLD
TA006				KAD02	AGRD

GWD05	194400	T	11062	V	C
KUU05	97200	R	14058	V	C
CDG28	36000	R	4133	L	C
CDG30	36000	R	4173	L	C
TLM1C	300	T	4198.75	L	T

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

Page 7: Digital Modulation

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						
D2	9M00G7W	9000						
D3	1M43G7W	1434						
D4	820KG7W	820						

Page 8: Analog Modulation

(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 Componder, 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						

Page 9: Typical Emissions

[illegible]

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

Page 10: TT and C

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: 7900 Tysons One Place			
S14b. City: McLean	S14c. County: Fairfax	S14d. State/Country VA	S14e. Zip Code: 22102
S14f. Telephone Number: 703-559-7701		S14g. Call Sign of Control Station (if appropriate):	

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

**Page 11:
Characteristics and
Certifications**

S15. SPACECRAFT PHYSICAL CHARACTERISTICS:

S16. SPACECRAFT ELECTRICAL CHARACTERISTICS:

S17. CERTIFICATIONS:

a. Are the power flux density limits of § 25.208 met?	☒ 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	☒ 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?	☒ 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.			

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