

S1. GENERAL INFORMATION Complete for all satellite applications.

a. Space Station or Satellite Network Name: INTELSAT 5		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): Years		j. Number of transponders offered on a common carrier basis:	
c. Construction Completion Date:		g. Total Number of Transponders: 48		k. Total Common Carrier Transponder Bandwidth: MHz	
d1. Est Launch Date Begin:	d2. Est Launch Date End:	h. Total Transponder Bandwidth (no. transponders x Bandwidth) 1728 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	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)			
5925	M	6425	M	R	Fixed Satellite Service	
3700	M	4200	M	T	Fixed Satellite Service	
13998	M	14250	M	R	Fixed Satellite Service	
11450	M	11700	M	T	Fixed Satellite Service	
12750	M	13250	M	R	Fixed Satellite Service	
10700	M	10950	M	T	Fixed Satellite Service	
11200	M	11450	M	T	Fixed Satellite Service	

S3. ORBITAL INFORMATION FOR GEOSTATIONARY SATELLITES ONLY:

a. Nominal Orbital Longitude (Degrees E/W): 65.45 E		b. Alternate Orbital Longitude (Degrees E/W):		c. Reason for orbital location selection: PROVIDE C- AND KU-BAND SERVICE TO AFRICA, ASIA, EUROPE AND ;AUSTRALIA			
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:	0.05 Degrees			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:

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

**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, ASIA, EUROPE
2	S		AFRICA, MIDDLE EAST
3	S		EUROPE, NORTH AFRICA
4	S		GLOBAL

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 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													
PCH	R	28	20					0	1				0.6	-96.6	15	0.5
PCV	R	27.4	19.4					90	1				0.2	-96.2	15	0.5
PKH	R	28.3	20.3					0	1				2.9	-91.9	15	1
NKV	R	30.4	22.4					90	1				4.6	-93.6	15	1
PCH	T	25.8	19.8					0	1		41.6					
PCV	T	25.5	19.5					90	1		41					
CKH	T	34.9	28.9					0	2		54					
JKVD	T	33.3	27.3					90	3		52.6					
SKV	T	32.9	28.9					90	4		48.6					
CMD	R	22	17.9					0	4				-12.6	-104.8		
CMD	R	5	3.6						4				-25.3	-92.5		
CMD	R	2.1	-0.9					0	4				-22.4	-95		
TLM	T	20.4	17.8					0	4		9.2					
TLMP	T	5.8	5.2						4		10.2					
TLMB	T	1.6	-1.4					90	4		9					
UPC	T	18.6	15.6						4		11.4					
UPCL	T	18.6	15.6						4		11.4					

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
PCH	R	C	65.45		pchu.gxt					
PCV	R	C	65.45		pcvu.gxt					
PKH	R	C	65.45		pkhu.gxt					
NKV	R	C	65.45		nkvu.gxt					
PCH	T	C	65.45		pchd.gxt	-152	-151.6	-151.4	-151.3	-151.2
PCV	T	C	65.45		pcvd.gxt	-152.3	-152.2	-152	-151.9	-151.8
CKH	T	C	65.45		ckhd.gxt	-150	-147.5	-145	-142.5	-140
JKVD	T	C	65.45		jkvd.gxt	-150	-147.5	-145	-142.5	-140.2
SKV	T	C	65.45		skvd.gxt	-150	-147.5	-145	-144.3	-144.2
CMD	R	C	65.45		cmdg.gxt					
CMD	R	C	65.45		cmdp.gxt					
CMD	R	C	65.45	cmdb.pdf						
TLM	T	C	65.45		tlmg.gxt	-172	-171.9	-171.8	-171.7	-171.6
TLMP	T	C	65.45		tlmp.gxt	-171	-170.9	-170.8	-170.7	-170.6
TLMB	T	C	65.45	tlmb.pdf		-172.2	-172.1	-172	-171.9	-171.8
UPC	T	C	65.45	upcr.pdf		-159.8	-159.7	-159.6	-159.5	-159.4
UPCL	T	C	65.45	upcl.pdf		-159.8	-159.7	-159.6	-159.5	-159.4

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: 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	V	C
CU003	36000	R	5985	V	C
CU005	36000	R	6025	V	C
CU007	36000	R	6065	V	C
CU009	36000	R	6105	V	C
CU011	36000	R	6145	V	C
CU013	36000	R	6185	V	C
CU015	36000	R	6225	V	C
CU017	36000	R	6265	V	C
CU019	36000	R	6305	V	C
CU021	36000	R	6345	V	C
CU023	36000	R	6385	V	C
CU002	36000	R	5945	H	C
CU004	36000	R	5985	H	C
CU006	36000	R	6025	H	C
CU008	36000	R	6065	H	C
CU010	36000	R	6105	H	C
CU012	36000	R	6145	H	C
CU014	36000	R	6185	H	C
CU016	36000	R	6225	H	C
CU018	36000	R	6265	H	C
CU020	36000	R	6305	H	C
CU022	36000	R	6345	H	C
CU024	36000	R	6385	H	C
CD001	36000	T	3720	H	C
CD003	36000	T	3760	H	C
CD005	36000	T	3800	H	C
CD007	36000	T	3840	H	C
CD009	36000	T	3880	H	C
CD011	36000	T	3920	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
C0001	121.9	CU001	PCVU	CD001	PCHD
C0003	121.9	CU003	PCVU	CD003	PCHD
C0005	121.9	CU005	PCVU	CD005	PCHD
C0007	121.9	CU007	PCVU	CD007	PCHD
C0009	121.9	CU009	PCVU	CD009	PCHD
C0011	121.9	CU011	PCVU	CD011	PCHD
C0013	121.9	CU013	PCVU	CD013	PCHD
C0015	121.9	CU015	PCVU	CD015	PCHD
C0017	121.9	CU017	PCVU	CD017	PCHD
C0019	121.9	CU019	PCVU	CD019	PCHD
C0021	121.9	CU021	PCVU	CD021	PCHD
C0023	121.9	CU023	PCVU	CD023	PCHD
C0002	121.4	CU002	PCHU	CD002	PCVD
C0004	121.4	CU004	PCHU	CD004	PCVD
C0006	121.4	CU006	PCHU	CD006	PCVD
C0008	121.4	CU008	PCHU	CD008	PCVD
C0010	121.4	CU010	PCHU	CD010	PCVD
C0012	121.4	CU012	PCHU	CD012	PCVD
C0014	121.4	CU014	PCHU	CD014	PCVD
C0016	121.4	CU016	PCHU	CD016	PCVD
C0018	121.4	CU018	PCHU	CD018	PCVD
C0020	121.4	CU020	PCHU	CD020	PCVD
C0022	121.4	CU022	PCHU	CD022	PCVD
C0024	121.4	CU024	PCHU	CD024	PCVD
K0001	126.3	KU001	PKHU	KD001	CKHD
K0002	126.3	KU002	PKHU	KD002	CKHD
K0003	126.3	KU003	PKHU	KD003	CKHD
K0004	126.3	KU004	PKHU	KD004	CKHD
K0005	126.3	KU005	PKHU	KD005	CKHD
K0006	126.3	KU006	PKHU	KD006	CKHD

CD013	36000	T	3960	H	C
CD015	36000	T	4000	H	C
CD017	36000	T	4040	H	C
CD019	36000	T	4080	H	C
CD021	36000	T	4120	H	C
CD023	36000	T	4160	H	C
CD002	36000	T	3720	V	C
CD004	36000	T	3760	V	C
CD006	36000	T	3800	V	C
CD008	36000	T	3840	V	C
CD010	36000	T	3880	V	C
CD012	36000	T	3920	V	C
CD014	36000	T	3960	V	C
CD016	36000	T	4000	V	C
CD018	36000	T	4040	V	C
CD020	36000	T	4080	V	C
CD022	36000	T	4120	V	C
CD024	36000	T	4160	V	C
KU001	36000	R	12769	H	C
KU002	36000	R	12811	H	C
KU003	36000	R	12853	H	C
KU004	36000	R	12895	H	C
KU005	36000	R	12937	H	C
KU006	36000	R	12979	H	C
KU007	36000	R	13026	H	C
KU008	36000	R	13067	H	C
KU009	36000	R	13108	H	C
KU010	36000	R	13149	H	C
KU011	36000	R	13190	H	C
KU012	36000	R	13231	H	C
KU013	36000	R	14019	H	C
KU014	36000	R	14060	H	C
KU015	36000	R	14101	H	C
KU016	36000	R	14142	H	C
KU017	36000	R	14183	H	C
KU018	36000	R	14224	H	C
KU019	36000	R	12769	V	C
KU020	36000	R	12811	V	C
KU021	36000	R	12853	V	C

K0007	126.5	KU007	PKHU	KD007	CKHD
K0008	126.5	KU008	PKHU	KD008	CKHD
K0009	126.5	KU009	PKHU	KD009	CKHD
K0010	126.5	KU010	PKHU	KD010	CKHD
K0011	126.5	KU011	PKHU	KD011	CKHD
K0012	126.5	KU012	PKHU	KD012	CKHD
K0013	123.7	KU013	PKHU	KD013	SKVD
K0014	123.7	KU014	PKHU	KD014	SKVD
K0015	123.7	KU015	PKHU	KD015	SKVD
K0016	123.7	KU016	PKHU	KD016	SKVD
K0017	123.7	KU017	PKHU	KD017	SKVD
K0018	123.7	KU018	PKHU	KD018	SKVD
K0019	126.1	KU019	NKVU	KD019	JKVD
K0020	126.1	KU020	NKVU	KD020	JKVD
K0021	126.1	KU021	NKVU	KD021	JKVD
K0022	126.1	KU022	NKVU	KD022	JKVD
K0023	126.1	KU023	NKVU	KD023	JKVD
K0024	126.1	KU024	NKVU	KD024	JKVD

KU022	36000	R	12895	V	C
KU023	36000	R	12937	V	C
KU024	36000	R	12979	V	C
KD001	36000	T	11219	H	C
KD002	36000	T	11261	H	C
KD003	36000	T	11303	H	C
KD004	36000	T	11345	H	C
KD005	36000	T	11387	H	C
KD006	36000	T	11429	H	C
KD007	36000	T	10727	H	C
KD008	36000	T	10768	H	C
KD009	36000	T	10809	H	C
KD010	36000	T	10850	H	C
KD011	36000	T	10891	H	C
KD012	36000	T	10932	H	C
KD013	36000	T	11476	V	C
KD014	36000	T	11517	V	C
KD015	36000	T	11558	V	C
KD016	36000	T	11599	V	C
KD017	36000	T	11640	V	C
KD018	36000	T	11681	V	C
KD019	36000	T	11219	V	C
KD020	36000	T	11261	V	C
KD021	36000	T	11303	V	C
KD022	36000	T	11345	V	C
KD023	36000	T	11387	V	C
KD024	36000	T	11429	V	C
CMD1	1000	R	14498	H	T
CMD2	1000	R	13999	R	T
CMD3	1000	R	14498	H	T
TLM1	500	T	11451	H	T
TLM2	500	T	11452	H	T
TLM3	500	T	11451	R	T
TLM4	500	T	11452	R	T
TLM5	500	T	11451	V	T
TLM6	500	T	11452	V	T
UPC1	25	T	11454	R	T
UPC2	25	T	11454	L	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	36M0G7W	36000	4	24575	0.5		3.4	14.9
D2	10M3G7W	10300	4	6000	0.5		3.9	12.6
D3	100KG7W	100	4	64	0.5		3	11.9
D4	1M45G7W	1450	2	512	0.5		3.4	11.8
D5	400KG7W	400	2	128	0.5		3.4	12.1

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	15.6	1.5		10	19

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 (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)		EIRP (dBW)		(n) Max. Power Flux Density (dBW/m ² /Hz)	(o) Assoc. Stn Rec. G/T (dB/K)
(j) Min.	(k) Max.			(l) Min.	(m) Max.									
C0001	C0024		A1	1	36000	IS5 Scheduld S	4000	58.4	15.9	23.9	35	41	-151.1	23.6
C0001	C0024	D1		1	36000	NOTE.txt		51	15.3	23.3	35	41	-159.9	19.2
C0001	C0024	D2		2	10300	NOTE.txt		49.4	10.8	18.8	27.6	33.6	-160.8	19.2
C0001	C0024	D3		267	100	NOTE.txt		49.4	-9.6	-1.6	7.2	13.2	-161.7	19.2
C0001	K0018		A1	1	36000	NOTE.txt	4000	56.8	15.5	23.5	44.6	48.6	-143.5	28.3
K0013	K0018	D1		1	36000	NOTE.txt		56.8	15.5	23.5	44.6	48.6	-152.3	22
K0013	K0018	D2		2	10300	NOTE.txt		56.8	6.6	14.6	37.3	41.3	-153.1	22
K0013	K0018	D3		237	100	NOTE.txt		56.8	-13.5	-5.5	17.3	21.3	-153.6	22
K0013	K0018	D4		24	1450	NOTE.txt		56.8	-3.7	4.3	27.1	31.1	-155.9	24.7
K0013	K0018	D5		90	400	NOTE.txt		48.9	-6.1	1.9	16.8	20.8	-160.2	32.8

**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, D.C.	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)**

**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?:	<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.						