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 32		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:
c. Construction Completion Date:		g. Total Number of Transponders: 80	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) 4222.5 MHz	l. Orbit Type: Mark all boxes that apply: [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)		
12750	M	13250	M	R	Fixed Satellite Service
13750	M	14500	M	R	Fixed Satellite Service
28650	M	30000	M	R	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
18850	M	20200	M	T	Fixed Satellite Service

S3. ORBITAL INFORMATION FOR GEOSTATIONARY SATELLITES ONLY:

a. Nominal Orbital Longitude (Degrees E/W): 43.1 W	b. Alternate Orbital Longitude (Degrees E/W):		c. Reason for orbital location selection: Replace existing Intelsat 9 spacecraft.
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.
1	S		Brazil
2	S		Europe
3	S		Atlantic Region
4	S		North America
5	S		North America and Central America
6	S		Caribbean
7	S		North America and Atlantic Region and Europe
8	S		Global
9	S		South America

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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
RHU	R	36.4	30.4	0.1	0.1	30	N	0	1					8.1	-98	1	1
RVUL	R	36.4	30.4	0.1	0.1	30	N	90	1					8.1	-98	1	1
B1HU	R	37.3	31.3	0.1	0.1	30	N	0	1					8.5	-98	1	1
B8HU	R	43.7	37.7	0.1	0.1	30	N	0	1					14.2	-98	1	1
BGH	R	41.5	35.5	0.1	0.1	30	N	0	1					12.8	-98	1	1
BGV	R	41.5	35.5	0.1	0.1	30	N	90	1					12.8	-98	1	1
U1VU	R	42.8	38.8	0.1	0.1	30	N	90	2					14	-106.4	1	1
U2H	R	42.8	38.8	0.1	0.1	30	N	0	3					13.9	-106.3	1	1
U3VU	R	42.9	38.9	0.1	0.1	30	N	90	3					14.2	-106.6	1	1
U4H	R	42.7	38.7	0.1	0.1	30	N	0	3					13.9	-106.3	1	1
U5H	R	42.8	38.8	0.1	0.1	30	N	0	4					14	-106.4	1	1
U6VU	R	43.6	39.6	0.1	0.1	30	N	90	4					14.4	-106.8	1	1
U7H	R	42.6	38.6	0.1	0.1	30	N	0	4					13.4	-105.8	1	1
U9VU	R	43.6	39.6	0.1	0.1	30	N	90	4					13.6	-106	1	1
UAV	R	42.8	38.8	0.1	0.1	30	N	90	4					13.6	-106	1	1
UBH	R	43.4	39.4	0.1	0.1	30	N	0	4					13.7	-106.1	1	1
UCV	R	42.6	38.6	0.1	0.1	30	N	90	4					13.4	-105.8	1	1
UDH	R	42.6	38.6	0.1	0.1	30	N	0	5					13.5	-105.9	1	1
UEV	R	42.8	38.8	0.1	0.1	30	N	90	6					14.1	-106.5	1	1
UFH	R	42.4	38.4	0.1	0.1	30	N	0	6					13.5	-105.9	1	1
UGV	R	42.8	38.8	0.1	0.1	30	N	90	6					14	-106.4	1	1
G9H	R	43.5	39.5	0.1	0.1	30	N	0	4					14.6	-107	1	1
G9V	R	43.6	39.6	0.1	0.1	30	N	90	4					14.6	-107	1	1
GBH	R	43.4	39.4	0.1	0.1	30	N	0	4					14.9	-107.3	1	1
GBV	R	43.4	39.4	0.1	0.1	30	N	90	4					15	-107.4	1	1
WBH	R	30.1	36.1	0.1	0.1	30	N	0	7					1.9	-102.3	1	1
NLH	T	36.9	26.9	0.1	0.1	30	N	0	1			55.9					
NLVD	T	36.9	26.9	0.1	0.1	30	N	90	1			55.9					
NEH	T	33.9	23.9	0.1	0.1	30	N	0	1			54					

NEV	T	33.9	23.9	0.1	0.1	30	N	90	1			54					
B1VD	T	38.3	34.3	0.1	0.1	30	N	90	1			54					
B2HD	T	42.1	38.1	0.1	0.1	30	N	0	1			54					
B2VD	T	42.1	38.1	0.1	0.1	30	N	90	1			54					
B3HD	T	41.8	37.8	0.1	0.1	30	N	0	1			54					
B3VD	T	41.8	37.8	0.1	0.1	30	N	90	1			54					
B4HD	T	41.9	37.9	0.1	0.1	30	N	0	1			54					
B4VD	T	41.9	37.9	0.1	0.1	30	N	90	1			54					
B5HD	T	41.1	37.1	0.1	0.1	30	N	0	1			54					
B5VD	T	41.1	37.1	0.1	0.1	30	N	90	1			54					
B6HD	T	41.7	37.7	0.1	0.1	30	N	0	1			54					
B6VD	T	41.7	37.7	0.1	0.1	30	N	90	1			54					
B7HD	T	42.3	38.3	0.1	0.1	30	N	0	1			54					
B7VD	T	42.3	38.3	0.1	0.1	30	N	90	1			54					
B8VD	T	42.1	38.1	0.1	0.1	30	N	90	1			54					
B9HD	T	39.5	35.5	0.1	0.1	30	N	0	1			54					
B9VD	T	39.5	35.5	0.1	0.1	30	N	90	1			54					
BAH	T	41.4	37.4	0.1	0.1	30	N	0	1			54					
BAV	T	41.4	37.4	0.1	0.1	30	N	90	1			54					
BBH	T	39.3	35.3	0.1	0.1	30	N	0	1			54					
BBV	T	39.3	35.3	0.1	0.1	30	N	90	1			54					
BCH	T	41.1	37.1	0.1	0.1	30	N	0	1			54					
BCV	T	41.1	37.1	0.1	0.1	30	N	90	1			54					
BDH	T	41.1	37.1	0.1	0.1	30	N	0	1			54					
BDV	T	41.1	37.1	0.1	0.1	30	N	90	1			54					
BEH	T	39.5	35.5	0.1	0.1	30	N	0	1			54					
BEV	T	39.5	35.5	0.1	0.1	30	N	90	1			54					
BFH	T	39.4	35.4	0.1	0.1	30	N	0	1			54					
BFVD	T	39.4	35.4	0.1	0.1	30	N	90	1			54					
BGH	T	39.4	35.4	0.1	0.1	30	N	0	1			54					
BGV	T	39.4	35.4	0.1	0.1	30	N	90	1			54					
BHH	T	38.1	34.1	0.1	0.1	30	N	0	1			54					
BHV	T	38.1	34.1	0.1	0.1	30	N	90	1			54					
BIHD	T	39.3	35.3	0.1	0.1	30	N	0	1			54					
BIVD	T	39.3	35.3	0.1	0.1	30	N	90	1			54					
BJHD	T	38.5	34.5	0.1	0.1	30	N	0	1			54					
BJVD	T	38.5	34.5	0.1	0.1	30	N	90	1			54					
BKH	T	40.4	36.4	0.1	0.1	30	N	0	1			54					
BKV	T	40.4	36.4	0.1	0.1	30	N	90	1			54					

U1H	T	42.1	38.1	0.1	0.1	30	N	0	2			61.1					
U2VD	T	42.4	38.4	0.1	0.1	30	N	90	3			61.6					
U3H	T	42.2	38.2	0.1	0.1	30	N	0	3			61.3					
U4VD	T	42.2	38.2	0.1	0.1	30	N	90	3			61.3					
U5VD	T	42	38	0.1	0.1	30	N	90	4			61.1					
U6H	T	42.5	38.5	0.1	0.1	30	N	0	4			61.4					
U7VD	T	42.2	38.2	0.1	0.1	30	N	90	4			61.2					
U9H	T	42.4	38.4	0.1	0.1	30	N	0	4			61.1					
UAH	T	42.1	38.1	0.1	0.1	30	N	0	4			61.1					
UBV	T	42.3	38.3	0.1	0.1	30	N	90	4			61					
UCH	T	41.9	37.9	0.1	0.1	30	N	0	4			61.1					
UDV	T	42	38	0.1	0.1	30	N	90	5			60.6					
UEH	T	42.2	38.2	0.1	0.1	30	N	0	6			61					
UFV	T	42.2	38.2	0.1	0.1	30	N	90	6			61.3					
UGH	T	42.3	38.3	0.1	0.1	30	N	0	6			61.2					
G9H	T	42.1	38.1	0.1	0.1	30	N	0	4			61					
G9V	T	42.1	38.1	0.1	0.1	30	N	90	4			60.7					
GBH	T	41.9	37.9	0.1	0.1	30	N	0	4			60.7					
GBV	T	41.9	37.9	0.1	0.1	30	N	90	4			60.5					
WBV	T	28.7	26.7	0.1	0.1	30	N	90	7			47.4					
CGH	R	23.4	16.3	0.1	0.1		N	0	8					-13.2	-113.7	1	1
CGV	R	23.4	16.3	0.1	0.1		N	90	8					-13.2	-113.7	1	1
CNR	R	8.6	-11.7	0.1	0.1		N		8					-21.8	-98.4	1	1
CNL	R	8.6	-11.7	0.1	0.1		N		8					-21.8	-98.4	1	1
CAR	R	8.6	-11.7	0.1	0.1		N		8					-20.8	-99	1	1
CALU	R	8.6	-11.7	0.1	0.1		N		8					-20.8	-99	1	1
TGV	T	22.1	16.3	0.1	0.1		N	90	8			14.8					
TNR	T	9.1	-10.4	0.1	0.1		N		8			19.3					
TNLD	T	9.1	-10.4	0.1	0.1		N		8			19.3					
TAR	T	9.1	-10.4	0.1	0.1		N		8			20.2					
TALD	T	9.1	-10.4	0.1	0.1		N		8			20.2					
UHD	T	22.1	16.3	0.1	0.1		N	0	8			18					
KAR	R	28.2	22.2	0.1	0.1	30	N		9					-0.5	-90	1	1
KALU	R	28.2	22.2	0.1	0.1	30	N		9					-0.5	-90	1	1
KAR	T	28.2	22.2	0.1	0.1	30	N		9			46.9					
KALD	T	28.2	22.2	0.1	0.1	30	N		9			46.9					

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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
RHU	R	C	-43.1							
RVUL	R	C	-43.1							
B1HU	R	C	-43.1							
B8HU	R	C	-43.1							
BGH	R	C	-43.1							
BGV	R	C	-43.1							
U1VU	R	C	-43.1							
U2H	R	C	-43.1							
U3VU	R	C	-43.1							
U4H	R	C	-43.1							
U5H	R	C	-43.1							
U6VU	R	C	-43.1							
U7H	R	C	-43.1							
U9VU	R	C	-43.1							
UAV	R	C	-43.1							
UBH	R	C	-43.1							
UCV	R	C	-43.1							
UDH	R	C	-43.1							
UEV	R	C	-43.1							
UFH	R	C	-43.1							
UGV	R	C	-43.1							
G9H	R	C	-43.1							
G9V	R	C	-43.1							
GBH	R	C	-43.1							
GBV	R	C	-43.1							
WBH	R	C	-43.1							
NLH	T	C	-43.1			-150	-147.5	-145.9	-145.8	-145.7
NLVD	T	C	-43.1			-150	-147.5	-145.9	-145.8	-145.7

NEH	T	C	-43.1			-150	-147.9	-147.8	-147.7	-147.6
NEV	T	C	-43.1			-150	-147.9	-147.8	-147.7	-147.6
B1VD	T	C	-43.1							
B2HD	T	C	-43.1			-150	-147.9	-147.8	-147.7	-147.6
B2VD	T	C	-43.1			-150	-147.9	-147.8	-147.7	-147.6
B3HD	T	C	-43.1			-150	-147.9	-147.8	-147.7	-147.6
B3VD	T	C	-43.1			-150	-147.9	-147.8	-147.7	-147.6
B4HD	T	C	-43.1			-150	-147.9	-147.8	-147.7	-147.6
B4VD	T	C	-43.1			-150	-147.9	-147.8	-147.7	-147.6
B5HD	T	C	-43.1			-150	-147.9	-147.8	-147.7	-147.6
B5VD	T	C	-43.1			-150	-147.9	-147.8	-147.7	-147.6
B6HD	T	C	-43.1			-150	-147.9	-147.8	-147.7	-147.6
B6VD	T	C	-43.1			-150	-147.9	-147.8	-147.7	-147.6
B7HD	T	C	-43.1			-150	-147.9	-147.8	-147.7	-147.6
B7VD	T	C	-43.1			-150	-147.9	-147.8	-147.7	-147.6
B8VD	T	C	-43.1							
B9HD	T	C	-43.1							
B9VD	T	C	-43.1							
BAH	T	C	-43.1			-150	-147.9	-147.8	-147.7	-147.6
BAV	T	C	-43.1							
BBH	T	C	-43.1							
BBV	T	C	-43.1							
BCH	T	C	-43.1			-150	-147.9	-147.8	-147.7	-147.6
BCV	T	C	-43.1			-150	-147.9	-147.8	-147.7	-147.6
BDH	T	C	-43.1							
BDV	T	C	-43.1			-150	-147.9	-147.8	-147.7	-147.6
BEH	T	C	-43.1			-150	-147.9	-147.8	-147.7	-147.6
BEV	T	C	-43.1			-150	-147.9	-147.8	-147.7	-147.6
BFH	T	C	-43.1							
BFVD	T	C	-43.1							
BGH	T	C	-43.1			-150	-147.9	-147.8	-147.7	-147.6
BGV	T	C	-43.1			-150	-147.9	-147.8	-147.7	-147.6
BHH	T	C	-43.1			-150	-147.9	-147.8	-147.7	-147.6
BHV	T	C	-43.1			-150	-147.9	-147.8	-147.7	-147.6
BIHD	T	C	-43.1							
BIVD	T	C	-43.1							
BJHD	T	C	-43.1			-150	-147.9	-147.8	-147.7	-147.6
BJVD	T	C	-43.1							
BKH	T	C	-43.1							

BKV	T	C	-43.1							
U1H	T	C	-43.1							
U2VD	T	C	-43.1							
U3H	T	C	-43.1							
U4VD	T	C	-43.1							
U5VD	T	C	-43.1							
U6H	T	C	-43.1							
U7VD	T	C	-43.1							
U9H	T	C	-43.1							
UAH	T	C	-43.1							
UBV	T	C	-43.1							
UCH	T	C	-43.1							
UDV	T	C	-43.1							
UEH	T	C	-43.1							
UFV	T	C	-43.1							
UGH	T	C	-43.1							
G9H	T	C	-43.1			-150	-149.5	-149.4	-149.3	-149.2
G9V	T	C	-43.1			-150	-149.5	-149.4	-149.3	-149.2
GBH	T	C	-43.1							
GBV	T	C	-43.1							
WBV	T	C	-43.1							
CGH	R	C	-43.1							
CGV	R	C	-43.1							
CNR	R	C	-43.1							
CNL	R	C	-43.1							
CAR	R	C	-43.1							
CALU	R	C	-43.1							
TGV	T	C	-43.1			-172	-171.9	-171.8	-171.7	-171.6
TNR	T	C	-43.1			-167.5	-167.4	-167.3	-167.2	-167.1
TNLD	T	C	-43.1			-167.5	-167.4	-167.3	-167.2	-167.1
TAR	T	C	-43.1			-166.6	-166.5	-166.4	-166.3	-166.2
TALD	T	C	-43.1			-166.6	-166.5	-166.4	-166.3	-166.2
UHD	T	C	-43.1			-153.2	-153.1	-153	-152.9	-152.8
KAR	R	C	-43.1							
KALU	R	C	-43.1							
KAR	T	C	-43.1							
KALD	T	C	-43.1							

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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)
T1U	112000	R	12810	H	C
T2U	27000	R	12971	H	C
T3U	112000	R	13049.5	H	C
T4U	112000	R	13178.5	H	C
T5U	112000	R	13807.5	H	C
T6U	108000	R	13930.5	H	C
T7U	50000	R	14041.2	H	C
T8U	28000	R	14084.25	H	C
T9U	28000	R	14115.15	H	C
T10U	12000	R	14138.05	H	C
T11U	28000	R	14160.95	H	C
T12U	28000	R	14191.85	H	C
T13U	50000	R	14234.9	H	C
T14U	108000	R	14320.2	H	C
T15U	36000	R	14400.2	H	C
T16U	36000	R	14440.2	H	C
T17U	27000	R	14476.5	H	C
T18U	112000	R	12810	V	C
T19U	112000	R	13052.5	V	C
T20U	112000	R	13177.5	V	C
T21U	56000	R	13778.5	V	C
T22U	56000	R	13841	V	C
T23U	108000	R	13932.5	V	C
T24U	14000	R	14016.2	V	C
T25U	14000	R	14032.8	V	C
T26U	28000	R	14056.4	V	C
T27U	28000	R	14087	V	C
T28U	28000	R	14117.6	V	C
T29U	28000	R	14148.2	V	C
T30U	50000	R	14191.1	V	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
1	1	T5U	GBHU	T18D	UBVD
2	1	T5U	G9HU	T18D	UBVD
3	1	T6U	GBHU	T19D	U7VD
4	1	T6U	G9HU	T19D	U7VD
5	1	T7U	UBHU	T10D	GBVD
6	1	T7U	UBHU	T10D	G9VD
7	1	T8U	U2HU	T10D	GBVD
8	1	T8U	U2HU	T10D	G9VD
9	1	T9U	U5HU	T10D	GBVD
10	1	T9U	U5HU	T10D	G9VD
11	1	T10U	UDHU	T10D	GBVD
12	1	T10U	UDHU	T10D	G9VD
13	1	T11U	U4HU	T10D	GBVD
14	1	T11U	U4HU	T10D	G9VD
15	1	T12U	U7HU	T10D	GBVD
16	1	T12U	U7HU	T10D	G9VD
17	1	T13U	UFHU	T10D	GBVD
18	1	T13U	UFHU	T10D	G9VD
19	1	T14U	GBHU	T12D	U5VD
20	1	T14U	G9HU	T12D	U5VD
21	1	T15U	GBHU	T13D	WBVD
22	1	T15U	G9HU	T13D	WBVD
23	1	T16U	GBHU	T14D	WBVD
24	1	T16U	G9HU	T14D	WBVD
25	1	T17U	WBHU	T15D	GBVD
26	1	T17U	WBHU	T15D	G9VD
27	1	T21U	GBVU	T5D	UEHD
28	1	T21U	G9VU	T5D	UEHD
29	1	T22U	GBVU	T7D	UAHD
30	1	T22U	G9VU	T7D	UAHD

T31U	50000	R	14245	V	C
T32U	104000	R	14328	V	C
T33U	104000	R	14441.5	V	C
B1U	36000	R	12772	H	C
B2U	36000	R	12812	H	C
B3U	36000	R	12852	H	C
B4U	36000	R	12892	H	C
B5U	36000	R	12932	H	C
B6U	36000	R	12972	H	C
B7U	36000	R	13022	H	C
B8U	36000	R	13062	H	C
B9U	36000	R	13102	H	C
B10U	36000	R	13142	H	C
B11U	36000	R	13182	H	C
B12U	36000	R	13222	H	C
B13U	36000	R	13774	H	C
B14U	36000	R	13814	H	C
B15U	36000	R	13854	H	C
B16U	36000	R	13894	H	C
B17U	36000	R	13934	H	C
B18U	36000	R	13974	H	C
B19U	36000	R	14020	H	C
B20U	36000	R	14060	H	C
B21U	36000	R	14100	H	C
B22U	36000	R	14140	H	C
B23U	36000	R	14180	H	C
B24U	36000	R	14220	H	C
B25U	36000	R	14260	H	C
B26U	36000	R	14300	H	C
B27U	36000	R	14340	H	C
B28U	36000	R	14380	H	C
B29U	36000	R	14420	H	C
B30U	36000	R	14460	H	C
B31U	36000	R	12772	V	C
B32U	36000	R	12812	V	C
B33U	36000	R	12852	V	C
B34U	36000	R	12892	V	C
B35U	36000	R	12932	V	C
B36U	36000	R	12972	V	C

31	1	T23U	GBVU	T9D	U6HD
32	1	T23U	G9VU	T9D	U6HD
33	1	T24U	UEVU	T1D	GBHD
34	1	T24U	UEVU	T1D	G9HD
35	1	T25U	UAVU	T1D	GBHD
36	1	T25U	UAVU	T1D	G9HD
37	1	T26U	U3VU	T1D	GBHD
38	1	T26U	U3VU	T1D	G9HD
39	1	T27U	U9VU	T1D	GBHD
40	1	T27U	U9VU	T1D	G9HD
41	1	T28U	U1VU	T1D	GBHD
42	1	T28U	U1VU	T1D	G9HD
43	1	T29U	U6VU	T1D	GBHD
44	1	T29U	U6VU	T1D	G9HD
45	1	T30U	UCVU	T1D	GBHD
46	1	T30U	UCVU	T1D	G9HD
47	1	T31U	UGVU	T1D	GBHD
48	1	T31U	UGVU	T1D	G9HD
49	1	T32U	GBVU	T3D	UCHD
50	1	T32U	G9VU	T3D	UCHD
51	1	T33U	GBVU	T4D	U9HD
52	1	T33U	G9VU	T4D	U9HD
53	1	T1U	GBHU	T11D	UFVD
54	1	T1U	G9HU	T11D	UFVD
55	1	T2U	GBHU	T16D	UDVD
56	1	T2U	G9HU	T16D	UDVD
57	1	T3U	GBHU	T17D	U4VD
58	1	T3U	G9HU	T17D	U4VD
59	1	T4U	GBHU	T20D	U2VD
60	1	T4U	G9HU	T20D	U2VD
61	1	T18U	GBVU	T2D	U1HD
62	1	T18U	G9VU	T2D	U1HD
63	1	T19U	GBVU	T6D	U3HD
64	1	T19U	G9VU	T6D	U3HD
65	1	T20U	GBVU	T8D	UGHD
66	1	T20U	G9VU	T8D	UGHD
67	1	B13U	RHUL	B43D	NLVD
68	1	B14U	RHUL	B44D	NLVD
69	1	B15U	RHUL	B45D	NLVD

B37U	36000	R	13022	V	C
B38U	36000	R	13062	V	C
B39U	36000	R	13102	V	C
B40U	36000	R	13142	V	C
B41U	36000	R	13182	V	C
B42U	36000	R	13222	V	C
B43U	36000	R	13774	V	C
B44U	36000	R	13814	V	C
B45U	36000	R	13854	V	C
B46U	36000	R	13894	V	C
B47U	36000	R	13934	V	C
B48U	36000	R	13974	V	C
B49U	36000	R	14020	V	C
B50U	36000	R	14060	V	C
B51U	36000	R	14100	V	C
B52U	36000	R	14140	V	C
B53U	36000	R	14180	V	C
B54U	36000	R	14220	V	C
B55U	36000	R	14260	V	C
B56U	36000	R	14300	V	C
B57U	36000	R	14340	V	C
B58U	36000	R	14380	V	C
B59U	36000	R	14420	V	C
B60U	36000	R	14460	V	C
T1D	260800	T	11589.6	H	C
T2D	112000	T	11768	H	C
T3D	104000	T	11778	H	C
T4D	104000	T	11891.5	H	C
T5D	56000	T	11982.5	H	C
T6D	112000	T	12010.5	H	C
T7D	56000	T	12045	H	C
T8D	112000	T	12135.5	H	C
T9D	108000	T	12136.5	H	C
T10D	243700	T	11588.05	V	C
T11D	112000	T	11768	V	C
T12D	108000	T	11770.2	V	C
T13D	36000	T	11850.2	V	C
T14D	36000	T	11890.2	V	C
T15D	27000	T	11926.5	V	C

70	1	B16U	RHUL	B46D	NLVD
71	1	B17U	RHUL	B47D	NLVD
72	1	B18U	RHUL	B48D	NLVD
73	1	B19U	RHUL	B19D	BCHD
74	1	B19U	RHUL	B55D	BCVD
75	1	B19U	RHUL	B55D	NEVD
76	1	B20U	RHUL	B20D	BDHD
77	1	B20U	RHUL	B56D	BDVD
78	1	B20U	RHUL	B56D	NEVD
79	1	B21U	RHUL	B21D	BEHD
80	1	B21U	RHUL	B57D	BEVD
81	1	B21U	RHUL	B57D	NEVD
82	1	B22U	RHUL	B22D	B3HD
83	1	B22U	RHUL	B58D	B3VD
84	1	B22U	RHUL	B58D	NEVD
85	1	B23U	RHUL	B23D	B4HD
86	1	B23U	RHUL	B59D	B4VD
87	1	B23U	RHUL	B59D	NEVD
88	1	B24U	RHUL	B24D	B7HD
89	1	B24U	RHUL	B60D	B7VD
90	1	B24U	RHUL	B60D	NEVD
91	1	B25U	RHUL	B25D	BJHD
92	1	B25U	RHUL	B61D	BJVD
93	1	B25U	RHUL	B61D	NEVD
94	1	B26U	B1HU	B62D	B1VD
95	1	B26U	RHUL	B62D	B1VD
96	1	B26U	RHUL	B62D	NEVD
97	1	B27U	RHUL	B27D	BIHD
98	1	B27U	RHUL	B63D	BIVD
99	1	B27U	RHUL	B63D	NEVD
100	1	B28U	B8HU	B64D	B8VD
101	1	B28U	RHUL	B64D	B8VD
102	1	B28U	RHUL	B64D	NEVD
103	1	B29U	RHUL	B29D	BKHD
104	1	B29U	RHUL	B65D	BKVD
105	1	B29U	RHUL	B65D	NEVD
106	1	B30U	RHUL	B30D	B4HD
107	1	B30U	RHUL	B66D	B4VD
108	1	B30U	RHUL	B66D	NEVD

T16D	27000	T	11929	V	C
T17D	112000	T	12007.5	V	C
T18D	112000	T	12011.5	V	C
T19D	108000	T	12134.5	V	C
T20D	112000	T	12136.5	V	C
B1D	36000	T	10722	H	C
B2D	36000	T	10762	H	C
B3D	36000	T	10802	H	C
B4D	36000	T	10842	H	C
B5D	36000	T	10882	H	C
B6D	36000	T	10922	H	C
B7D	36000	T	10970	H	C
B8D	36000	T	11010	H	C
B9D	36000	T	11050	H	C
B10D	36000	T	11090	H	C
B11D	36000	T	11130	H	C
B12D	36000	T	11170	H	C
B13D	36000	T	11222	H	C
B14D	36000	T	11262	H	C
B15D	36000	T	11302	H	C
B16D	36000	T	11342	H	C
B17D	36000	T	11382	H	C
B18D	36000	T	11422	H	C
B19D	36000	T	11470	H	C
B20D	36000	T	11510	H	C
B21D	36000	T	11550	H	C
B22D	36000	T	11590	H	C
B23D	36000	T	11630	H	C
B24D	36000	T	11670	H	C
B25D	36000	T	11710	H	C
B26D	36000	T	11750	H	C
B27D	36000	T	11790	H	C
B28D	36000	T	11830	H	C
B29D	36000	T	11870	H	C
B30D	36000	T	11910	H	C
B31D	36000	T	11980	H	C
B32D	36000	T	12020	H	C
B33D	36000	T	12060	H	C
B34D	36000	T	12100	H	C

109	1	B44U	RVUL	B8D	NLHD
110	1	B45U	RVUL	B9D	NLHD
111	1	B46U	RVUL	B10D	NLHD
112	1	B47U	RVUL	B11D	NLHD
113	1	B48U	RVUL	B12D	NLHD
114	1	B49U	RVUL	B19D	B6HD
115	1	B49U	RVUL	B19D	NEHD
116	1	B49U	RVUL	B55D	B6VD
117	1	B50U	RVUL	B20D	B2HD
118	1	B50U	RVUL	B20D	NEHD
119	1	B50U	RVUL	B56D	B2VD
120	1	B51U	RVUL	B21D	B5HD
121	1	B51U	RVUL	B21D	NEHD
122	1	B51U	RVUL	B57D	B5VD
123	1	B52U	RVUL	B22D	BGHD
124	1	B52U	RVUL	B22D	NEHD
125	1	B52U	RVUL	B58D	BGVD
126	1	B53U	RVUL	B23D	BGHD
127	1	B53U	RVUL	B23D	NEHD
128	1	B53U	RVUL	B59D	BGVD
129	1	B54U	RVUL	B24D	BHHD
130	1	B54U	RVUL	B24D	NEHD
131	1	B54U	RVUL	B60D	BHVD
132	1	B55U	RVUL	B25D	BAHD
133	1	B55U	RVUL	B31D	NEHD
134	1	B55U	RVUL	B61D	BAVD
135	1	B56U	RVUL	B26D	BBHD
136	1	B56U	RVUL	B32D	NEHD
137	1	B56U	RVUL	B62D	BBVD
138	1	B57U	RVUL	B27D	BAHD
139	1	B57U	RVUL	B33D	NEHD
140	1	B57U	RVUL	B63D	BAVD
141	1	B58U	RVUL	B28D	BGHD
142	1	B58U	RVUL	B34D	NEHD
143	1	B58U	RVUL	B64D	BGVD
144	1	B59U	RVUL	B29D	BFHD
145	1	B59U	RVUL	B35D	NEHD
146	1	B59U	RVUL	B65D	BFVD
147	1	B60U	RVUL	B30D	B9HD

B35D	36000	T	12140	H	C
B36D	36000	T	12180	H	C
B37D	36000	T	10722	V	C
B38D	36000	T	10762	V	C
B39D	36000	T	10802	V	C
B40D	36000	T	10842	V	C
B41D	36000	T	10882	V	C
B42D	36000	T	10922	V	C
B43D	36000	T	10970	V	C
B44D	36000	T	11010	V	C
B45D	36000	T	11050	V	C
B46D	36000	T	11090	V	C
B47D	36000	T	11130	V	C
B48D	36000	T	11170	V	C
B49D	36000	T	11222	V	C
B50D	36000	T	11262	V	C
B51D	36000	T	11302	V	C
B52D	36000	T	11342	V	C
B53D	36000	T	11382	V	C
B54D	36000	T	11422	V	C
B55D	36000	T	11470	V	C
B56D	36000	T	11510	V	C
B57D	36000	T	11550	V	C
B58D	36000	T	11590	V	C
B59D	36000	T	11630	V	C
B60D	36000	T	11670	V	C
B61D	36000	T	11980	V	C
B62D	36000	T	12020	V	C
B63D	36000	T	12060	V	C
B64D	36000	T	12100	V	C
B65D	36000	T	12140	V	C
B66D	36000	T	12180	V	C
CMD1	1000	R	13249.5	V	T
CMD2	1000	R	14498	H	T
CMD3	1000	R	13249.5	L	T
CMD4	1000	R	14498	R	T
CMD5	1000	R	13249.5	R	T
CMD6	1000	R	14498	L	T
TM1	500	T	11443	V	T

148	1	B60U	RVUL	B36D	NEHD
149	1	B60U	RVUL	B66D	B9VD
150	1	B1U	BGHU	B37D	NLVD
151	1	B2U	BGHU	B38D	NLVD
152	1	B3U	BGHU	B39D	NLVD
153	1	B4U	BGHU	B40D	NLVD
154	1	B5U	BGHU	B41D	NLVD
155	1	B6U	BGHU	B42D	NLVD
156	1	B7U	BGHU	B49D	NLVD
157	1	B8U	BGHU	B50D	NLVD
158	1	B9U	BGHU	B51D	NLVD
159	1	B10U	BGHU	B52D	NLVD
160	1	B11U	BGHU	B53D	NLVD
161	1	B12U	BGHU	B54D	NLVD
162	1	B31U	BGVU	B1D	NLHD
163	1	B32U	BGVU	B2D	NLHD
164	1	B33U	BGVU	B3D	NLHD
165	1	B34U	BGVU	B4D	NLHD
166	1	B35U	BGVU	B5D	NLHD
167	1	B36U	BGVU	B6D	NLHD
168	1	B37U	BGVU	B13D	NLHD
169	1	B38U	BGVU	B14D	NLHD
170	1	B39U	BGVU	B15D	NLHD
171	1	B40U	BGVU	B16D	NLHD
172	1	B41U	BGVU	B17D	NLHD
173	1	B42U	BGVU	B18D	NLHD
174	1	B43U	RVUL	B7D	NLHD
175	1	KA1U	KARU	KA1D	KARD
176	1	KA1U	KARU	KA2D	KALD
177	1	KA2U	KALU	KA1D	KARD
178	1	KA2U	KALU	KA2D	KALD
179	1	KA3U	KARU	KA3D	KARD
180	1	KA3U	KARU	KA4D	KALD
181	1	KA4U	KALU	KA3D	KARD
182	1	KA4U	KALU	KA4D	KALD

TM2	500	T	11443.5	V	T
TM3	500	T	11446.5	V	T
TM4	500	T	11447	V	T
TM5	500	T	11443	R	T
TM6	500	T	11443.5	R	T
TM7	500	T	11446.5	L	T
TM8	500	T	11447	L	T
TM9	500	T	11443	L	T
TM10	500	T	11443.5	L	T
TM11	500	T	11446.5	R	T
TM12	500	T	11447	R	T
UPC1	25	T	11444.5	H	T
KA1U	480000	R	29750	R	C
KA2U	480000	R	29750	L	C
KA3U	1330000	R	29325	R	C
KA4U	1330000	R	29325	L	C
KA1D	480000	T	19950	R	C
KA2D	480000	T	19950	L	C
KA3D	1330000	T	19525	R	C
KA4D	1330000	T	19525	L	C

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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	100KG7W	100	4	64	0.5		3	11.6
D2	400KG7W	400	2	128	0.5		3.4	6.6
D3	1M45G7W	1450	2	512	0.5		3.4	7.8
D4	10M3G7W	10300	4	6000	0.5		3.9	8.6
D5	27M0G7W	27000	4	18431	0.5		3.4	8.8
D6	36M0G7W	36000	4	24575	0.5		3.4	12
D7	112MG7W	112000	4	76455	0.5		3.4	8.6
D8	261MG7W	260800	4	178031	0.5		3.4	8.7

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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						

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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.		
1	52	D5		1	27000	Inteslat 32e Lin		57	8.8	12.8	43.6	47.6	-152	26.7
1	52	D4		2	10300	NOTE.txt		57	4.2	8.2	38.2	42.2	-152.2	25
1	52	D1		270	100	NOTE.txt		57	-16.1	-12.1	17.9	21.9	-153	25
1	52	D6		1	36000	NOTE.txt		57	19.5	23.5	45.4	47.4	-153.5	18.7
1	52	D4		2	10300	NOTE.txt		57	-2	2	36	38	-156.4	22.2
1	52	D1		284	100	NOTE.txt		57	-22.2	-18.2	15.8	17.8	-157.1	22.2
1	52	D3		17	1450	NOTE.txt		57	-10.2	-6.2	27.8	29.8	-157.2	22.2
1	52	D2		90	400	NOTE.txt		46.5	-8.5	-4.5	19	21	-160	33
1	52	D8		1	260800	NOTE.txt			13.7	17.7	53.4	57.4	-152.1	22
1	52	D4		21	10300	NOTE.txt			-2.9	1.1	38.1	42.1	-152.3	22
1	52	D1		2300	100	NOTE.txt			-23.2	-19.2	17.8	21.8	-153.1	22
1	52	D3		144	1450	NOTE.txt			-11.2	-7.2	29.8	33.8	-153.2	22
1	52	D2		652	400	NOTE.txt			-8.6	-4.6	21.9	25.9	-155.1	32.8
1	52	D7		1	112000	NOTE.txt		56.7	10.1	14.1	49.7	53.7	-152.1	25
1	52	D4		10	10300	NOTE.txt		56.7	-0.8	3.2	38	42	-152.4	22.3
1	52	D1		1120	100	NOTE.txt		56.7	-21.1	-17.1	17.7	21.7	-153.2	22.3
1	52	D3		77	1450	NOTE.txt		56.7	-9.1	-5.1	29.7	33.7	-153.3	22.3
1	52	D2		280	400	NOTE.txt		46.2	-7.9	-3.9	20.4	24.4	-156.6	33.1
67	149	D6		1	36000	Inteslat 32e Lin			17.9	21.9	44.8	48.8	-152.1	22.1
67	149	D1		360	100	Inteslat 32e Lin			-8.3	-4.3	17.3	21.3	-153.6	24.8
67	149	D6		1	36000	Inteslat 32e Lin			17.9	21.9	44.8	48.8	-152.1	22.1
67	149	D1		360	100	Inteslat 32e Lin			-8.3	-4.3	17.3	21.3	-153.6	24.8

FEDERAL COMMUNICATIONS COMMISSION
SATELLITE SPACE STATION AUTHORIZATIONS
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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):		

S15. SPACECRAFT PHYSICAL CHARACTERISTICS:

S16. SPACECRAFT ELECTRICAL CHARACTERISTICS:

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.