

S1. GENERAL INFORMATION Complete for all satellite applications.

a. Space Station or Satellite Network Name: GALAXY 18		e. Estimated Date of Placement into Service: 6/30/2008		i. Will the space station(s) operate on a Common Carrier Basis: N	
b. Construction Commencement Date: 1/1/2006		f. Estimated Lifetime of Satellite(s): 15 Years		j. Number of transponders offered on a common carrier basis:	
c. Construction Completion Date: 3/11/2007		g. Total Number of Transponders: 48		k. Total Common Carrier Transponder Bandwidth: MHz	
d1. Est Launch Date Begin: 10/1/2007	d2. Est Launch Date End: 3/31/2008	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	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
11700	M	12200	M	T	Fixed Satellite Service

S3. ORBITAL INFORMATION FOR GEOSTATIONARY SATELLITES ONLY:

a. Nominal Orbital Longitude (Degrees E/W): 123 W		b. Alternate Orbital Longitude (Degrees E/W):		c. Reason for orbital location selection: REPLACEMENT FOR GALAXY 10R			
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): Degrees E/W	
d. Toward West: 0.05 Degrees	e. Toward East: 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 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		CONTINENTAL UNITED STATES, ALASKA, HAWAII, PUERTO RICO AND PORTIONS OF CANADA AND ME
2	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			Input Attenuator (dB)	
										(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)	(q) Max. Value	(r) Step Size
		(c) Peak (dBi)	(d) Edge (dBi)														
CHU	R	31.8	25.8	0.17	0.16	29	Y	0	1				434	5.4	-107.2	31	1
CVU	R	31.8	25.8	0.17	0.16	29	Y	90	1				434	5.4	-107.2	31	1
CHD	T	30.1	26.1	0.17	0.16	30	Y	0	1	1.4	43.7	46.5					
CVD	T	30.1	26.1	0.17	0.16	30	Y	90	1	1.4	43.7	46.5					
KHU	R	35.6	25.6	0.17	0.16	27	N	0	1				540	8.3	-107.9	31	1
KVUL	R	35.6	25.6	0.17	0.16	27	N	90	1				540	8.3	-107.9	31	1
KHD	T	34.9	26.9	0.17	0.16	26	N	0	1	2	74.1	53.6					
KVDL	T	34.9	26.9	0.17	0.16	26	N	90	1	2	74.1	53.6					
CMD	R	31.8	25.8	0.17	0.16		Y	0	1				27610	-12.6	-114.5		
CMD	R	31.8	25.8	0.17	0.16		Y	90	1				27610	-12.6	-114.5		
CMD	R	5.4	-0.6	0.17	0.16		Y	2					9235	-34.3	-97.8		
TLM	T	30.1	25.1	0.17	0.16		Y	90	1	7.3	0.07	18.8					
TLM	T	5.6	-4.4	0.17	0.16		Y	2		6.8	9.3	15.3					
UPC	T	34.9	24.9	0.17	0.16		N	0	1	10	0.02	18.4					
UPC	T	34.9	24.9	0.17	0.16		N	90	1	10	0.02	18.4					

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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
CHU	R	C	-123		CHUL.gxt					
CVU	R	C	-123		CVUL.gxt					
CHD	T	C	-123		CHDL.gxt	-152	-149.5	-147	-146.4	-146.3
CVD	T	C	-123		CVDL.gxt	-152	-149.5	-147	-146.4	-146.3
KHU	R	C	-123		KHUL.gxt					
KVUL	R	C	-123		KVUL.gxt					
KHD	T	C	-123		KHDL.gxt					
KVDL	T	C	-123		KVDL.gxt					
CMD	R	C	-123		CDMH.gxt					
CMD	R	C	-123		CDMV.gxt					
CMD	R	C	-123	CMDW.pdf						
TLM	T	C	-123		TLMV.gxt	-162.4	-162.3	-162.2	-162.1	-162
TLM	T	C	-123	TLMW.pdf		-165.9	-165.8	-165.7	-165.6	-165.5
UPC	T	C	-123		UPCH.gxt					
UPC	T	C	-123		UPCV.gxt					
CHU	R	X	-123		CHUX.gxt					
CVU	R	X	-123		CVUX.gxt					
CHD	T	X	-123		CHDX.gxt					
CVD	T	X	-123		CVDX.gxt					
KHU	R	X	-123		KHUX.gxt					
KVUL	R	X	-123		KVUX.gxt					
KHD	T	X	-123		KHDX.gxt					
KVDL	T	X	-123		KVDX.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)
CU1	36000	R	5945	H	C
CU3	36000	R	5985	H	C
CU5	36000	R	6025	H	C
CU7	36000	R	6065	H	C
CU9	36000	R	6105	H	C
CU11	36000	R	6145	H	C
CU13	36000	R	6185	H	C
CU15	36000	R	6225	H	C
CU17	36000	R	6265	H	C
CU19	36000	R	6305	H	C
CU21	36000	R	6345	H	C
CU23	36000	R	6385	H	C
CU2	36000	R	5965	V	C
CU4	36000	R	6005	V	C
CU6	36000	R	6045	V	C
CU8	36000	R	6085	V	C
CU10	36000	R	6125	V	C
CU12	36000	R	6165	V	C
CU14	36000	R	6205	V	C
CU16	36000	R	6245	V	C
CU18	36000	R	6285	V	C
CU20	36000	R	6325	V	C
CU22	36000	R	6365	V	C
CU24	36000	R	6405	V	C
CD1	36000	T	3720	V	C
CD3	36000	T	3760	V	C
CD5	36000	T	3800	V	C
CD7	36000	T	3840	V	C
CD9	36000	T	3880	V	C
CD11	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
1C	129.1	CU1	CHUL	CD1	CVDL
3C	129.1	CU3	CHUL	CD3	CVDL
5C	129.1	CU5	CHUL	CD5	CVDL
7C	129.1	CU7	CHUL	CD7	CVDL
9C	129.1	CU9	CHUL	CD9	CVDL
11C	129.1	CU11	CHUL	CD11	CVDL
13C	129.1	CU13	CHUL	CD13	CVDL
15C	129.1	CU15	CHUL	CD15	CVDL
17C	129.1	CU17	CHUL	CD17	CVDL
19C	129.1	CU19	CHUL	CD19	CVDL
21C	129.1	CU21	CHUL	CD21	CVDL
23C	129.1	CU23	CHUL	CD23	CVDL
2C	129.1	CU2	CVUL	CD2	CHDL
4C	129.1	CU4	CVUL	CD4	CHDL
6C	129.1	CU6	CVUL	CD6	CHDL
8C	129.1	CU8	CVUL	CD8	CHDL
10C	129.1	CU10	CVUL	CD10	CHDL
12C	129.1	CU12	CVUL	CD12	CHDL
14C	129.1	CU14	CVUL	CD14	CHDL
16C	129.1	CU16	CVUL	CD16	CHDL
18C	129.1	CU18	CVUL	CD18	CHDL
20C	129.1	CU20	CVUL	CD20	CHDL
22C	129.1	CU22	CVUL	CD22	CHDL
24C	129.1	CU24	CVUL	CD24	CHDL
1K	135.6	KU1	KHUL	KD1	KVDL
3K	135.6	KU3	KHUL	KD3	KVDL
5K	135.6	KU5	KHUL	KD5	KVDL
7K	135.6	KU7	KHUL	KD7	KVDL
9K	135.6	KU9	KHUL	KD9	KVDL
11K	135.6	KU11	KHUL	KD11	KVDL

CD13	36000	T	3960	V	C
CD15	36000	T	4000	V	C
CD17	36000	T	4040	V	C
CD19	36000	T	4080	V	C
CD21	36000	T	4120	V	C
CD23	36000	T	4160	V	C
CD2	36000	T	3740	H	C
CD4	36000	T	3780	H	C
CD6	36000	T	3820	H	C
CD8	36000	T	3860	H	C
CD10	36000	T	3900	H	C
CD12	36000	T	3940	H	C
CD14	36000	T	3980	H	C
CD16	36000	T	4020	H	C
CD18	36000	T	4060	H	C
CD20	36000	T	4100	H	C
CD22	36000	T	4140	H	C
CD24	36000	T	4180	H	C
KU1	36000	R	14020	H	C
KU3	36000	R	14060	H	C
KU5	36000	R	14100	H	C
KU7	36000	R	14140	H	C
KU9	36000	R	14180	H	C
KU11	36000	R	14220	H	C
KU13	36000	R	14260	H	C
KU15	36000	R	14300	H	C
KU17	36000	R	14340	H	C
KU19	36000	R	14380	H	C
KU21	36000	R	14420	H	C
KU23	36000	R	14460	H	C
KU2	36000	R	14040	V	C
KU4	36000	R	14080	V	C
KU6	36000	R	14120	V	C
KU8	36000	R	14160	V	C
KU10	36000	R	14200	V	C
KU12	36000	R	14240	V	C
KU14	36000	R	14280	V	C
KU16	36000	R	14320	V	C
KU18	36000	R	14360	V	C

13K	135.6	KU13	KHUL	KD13	KVDL
15K	135.6	KU15	KHUL	KD15	KVDL
17K	135.6	KU17	KHUL	KD17	KVDL
19K	135.6	KU19	KHUL	KD19	KVDL
21K	135.6	KU21	KHUL	KD21	KVDL
23K	135.6	KU23	KHUL	KD23	KVDL
2K	135.6	KU2	KVUL	KD2	KHDL
4K	135.6	KU4	KVUL	KD4	KHDL
6K	135.6	KU6	KVUL	KD6	KHDL
8K	135.6	KU8	KVUL	KD8	KHDL
10K	135.6	KU10	KVUL	KD10	KHDL
12K	135.6	KU12	KVUL	KD12	KHDL
14K	135.6	KU14	KVUL	KD14	KHDL
16K	135.6	KU16	KVUL	KD16	KHDL
18K	135.6	KU18	KVUL	KD18	KHDL
20K	135.6	KU20	KVUL	KD20	KHDL
22K	135.6	KU22	KVUL	KD22	KHDL
24K	135.6	KU24	KVUL	KD24	KHDL

KU20	36000	R	14400	V	C
KU22	36000	R	14440	V	C
KU24	36000	R	14480	V	C
KD1	36000	T	11720	V	C
KD3	36000	T	11760	V	C
KD5	36000	T	11800	V	C
KD7	36000	T	11840	V	C
KD9	36000	T	11880	V	C
KD11	36000	T	11920	V	C
KD13	36000	T	11960	V	C
KD15	36000	T	12000	V	C
KD17	36000	T	12040	V	C
KD19	36000	T	12080	V	C
KD21	36000	T	12120	V	C
KD23	36000	T	12160	V	C
KD2	36000	T	11740	H	C
KD4	36000	T	11780	H	C
KD6	36000	T	11820	H	C
KD8	36000	T	11860	H	C
KD10	36000	T	11900	H	C
KD12	36000	T	11940	H	C
KD14	36000	T	11980	H	C
KD16	36000	T	12020	H	C
KD18	36000	T	12060	H	C
KD20	36000	T	12100	H	C
KD22	36000	T	12140	H	C
KD24	36000	T	12180	H	C
CMD1	1000	R	5926.5	V	T
CMD2	1000	R	6424.5	H	T
CMD3	1000	R	5926.5	L	T
CMD4	1000	R	6424.5	L	T
TLM1	500	T	4197.125	V	T
TLM2	500	T	4198.875	V	T
TLM3	500	T	4197.125	R	T
TLM4	500	T	4198.875	R	T
UPC1	25	T	11701	H	C
UPC2	25	T	12195	V	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	30M1G7W	30133	4	36863	0.75		6.1	16.5
D2	4M15G7W	4154	4	6000	0.75		6.7	15.9
D3	1M21G7W	1212.8	4	1544	0.75		5.7	14.7
D4	75K4G7W	75.4	4	64	0.5		3	16.3
D5	6M77G7W	6771.1	4	6000	0.5		3.9	18.3
D6	1M82G7W	1819.2	4	1544	0.5		3	16.2
D7	1M23G7W	1229	2	512	0.5		3.4	15.1
D8	307KG7W	307	2	128	0.5		3.4	16.4

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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					NTSC	12.8	2.6		10	21.2

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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)		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.									
1C	24C		A1	1		G18_SCHDU	4000	49.4	17.3	23.3	42.5	46.5	-145.6	23.6
1C	24C	D1		1		G18_SCHDU		49.4	17.3	23.3	42.5	46.5	-154.3	19.2
1C	24C	D2		3	6875	G18_SCHDU		49.4	7.7	13.7	33.4	37.4	-154.9	19.2
1C	24C	D3		16	1550	G18_SCHDU		49.4	1.2	7.2	26.9	30.9	-156	19.2
1C	24C	D4		360	100	G18_SCHDU		49.4	-13.5	-7.5	12.2	16.2	-158.7	19.2
1K	24K		A1	1		G18_SCHDU	4000	60.2	11.3	21.3	35	43	-149.1	41.9
1K	24K	D1		1		G18_SCHDU		58.1	13.2	23.2	36.8	44.8	-156.1	31
1K	24K	D5		3	10300	G18_SCHDU		58.1	8.1	18.1	30.3	38.3	-156.1	33.1
1K	24K	D6		15	2325	G18_SCHDU		58.1	2.1	12.1	24.3	32.3	-156.4	31
1K	24K	D4		360	100	G18_SCHDU		58.1	-11.6	-1.6	10.6	18.6	-156.3	31
1K	24K	D7		24	1450	G18_SCHDU		58.1	-6.3	3.7	22.9	30.9	-156.1	31
1K	24K	D8		90	400	G18_SCHDU		54.7	-9.7	0.3	16.1	24.1	-156.9	34.6

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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, 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):	

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S15. SPACECRAFT PHYSICAL CHARACTERISTICS:

S15a. Mass of spacecraft without fuel (kg): 1911	Spacecraft Dimensions (meters)	Probability of Survival to End of Life (0.0 - 1.0)
S15b. Mass of fuel and disposables at launch (kg): 2825		
S15c. Mass of spacecraft and fuel at launch (kg): 4736	S15f. Length (m): 24.8	S15i. Payload: 0.89
S15d. Mass of fuel, in orbit, at beginning of life (kg): 864	S15g. Width (m): 6.4	S15j. Bus: 0.877
S15e. Deployed Area of Solar Array (square meters): 74.5	S15h. Height (m): 6.4	S15k. Total: 0.781

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): 7376	(f): 7376	(k): 7376	(p): 7376
Bus (Watts):	(b): 1906	(g): 973	(l): 967	(q): 775
Total (Watts):	(c): 9282	(h): 8349	(m): 8343	(r): 8151
Solar Array (Watts):	(d): 11977	(i): 10747	(n): 10571	(s): 9676
Depth of Battery Discharge (%):	(e) 73.2 %	(j) %	(o) 76.3 %	(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 checked="" type="checkbox"/> YES	<input type="checkbox"/> NO	<input 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.