

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

a. Space Station or Satellite Network Name: AMC-5		e. Estimated Date of Placement into Service: 11/30/1998		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: 16		k. Total Common Carrier Transponder Bandwidth: 0 MHz	
d1. Est Launch Date Begin:	d2. Est Launch Date End: 10/28/1998	h. Total Transponder Bandwidth (no. transponders x Bandwidth) 864 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)		
14000	M	14500	M	R	Fixed Satellite Service
11700	M	12200	M	T	Fixed Satellite Service
14000	M	14500	M	R	Direct to Home in the Fixed Fixed Satellite Service
11700	M	12200	M	T	Direct to Home in the Fixed Fixed Satellite Service

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

a. Nominal Orbital Longitude (Degrees E/W): 80.9 W		b. Alternate Orbital Longitude (Degrees E/W):		c. Reason for orbital location selection: Availability of a slot in the central part of the US arc, in cooperation with Argentine operator	
Longitudinal Tolerance or E/W Station-Keeping:		f. Inclination Excursion or N/S Station-Keeping Tolerance: Degrees	Range of orbital are in which adequate service can be provided (Optional): Degrees      E/W		
d. Toward West:      0.1 Degrees	e. Toward East:      0.1 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.
KUL	S		CONUS and parts of Canada, Caribbean and Alaska
KDL	S		CONUS and parts of Canada, Caribbean and Alaska

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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)														
KRH	R	34.32	25	0.15	0	30	Y	0	KUL				460	6.58	-100.3	21	1
KRV	R	34.3	25	0.15	0	30	Y	90	KUL				465	7.69	-104.3	21	1
KTH	T	32.94	25	0.15	0	30	Y	0	KDL	2	34.75	48.35					
KTV	T	33.64	25	0.15	0	30	Y	90	KDL	2	34.75	49.05					

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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
KRH	R	C	-80.9		XP7G2T_HPOL.gxt					
KRV	R	C	-80.9		XP8G2T_VPOL.gxt					
KTH	T	C	-80.9		XP8EIRP_HPOL.gxt					
KTV	T	C	-80.9		XP7EIRP_VPOL.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)
KR001	54000	R	14030	H	C
KR002	54000	R	14043	V	C
KR003	54000	R	14091	H	C
KR004	54000	R	14104	V	C
KR005	54000	R	14152	H	C
KR006	54000	R	14165	V	C
KR007	54000	R	14213	H	C
KR008	54000	R	14226	V	C
KR009	54000	R	14274	H	C
KR010	54000	R	14287	V	C
KR011	54000	R	14335	H	C
KR012	54000	R	14348	V	C
KR013	54000	R	14396	H	C
KR014	54000	R	14409	V	C
KR015	54000	R	14457	H	C
KR016	54000	R	14470	V	C
KT001	54000	T	11730	V	C
KT002	54000	T	11743	H	C
KT003	54000	T	11791	V	C
KT004	54000	T	11804	H	C
KT005	54000	T	11852	V	C
KT006	54000	T	11865	H	C
KT007	54000	T	11913	V	C
KT008	54000	T	11926	H	C
KT009	54000	T	11974	V	C
KT010	54000	T	11987	H	C
KT011	54000	T	12035	V	C
KT012	54000	T	12048	H	C
KT013	54000	T	12096	V	C
KT014	54000	T	12109	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
K0001	127.8	KR001	KRH	KT001	KTV
K0002	131.8	KR002	KRV	KT002	KTH
K0003	127.8	KR003	KRH	KT003	KTV
K0004	131.8	KR004	KRV	KT004	KTH
K0005	127.8	KR005	KRH	KT005	KTV
K0006	131.8	KR006	KRV	KT006	KTH
K0007	127.8	KR007	KRH	KT007	KTV
K0008	131.8	KR008	KRV	KT008	KTH
K0009	127.8	KR009	KRH	KT009	KTV
K0010	131.8	KR010	KRV	KT010	KTH
K0011	127.8	KR011	KRH	KT011	KTV
K0012	131.8	KR012	KRV	KT012	KTH
K0013	127.8	KR013	KRH	KT013	KTV
K0014	131.8	KR014	KRV	KT014	KTH
K0015	127.8	KR015	KRH	KT015	KTV
K0016	131.8	KR016	KRV	KT016	KTH
C1		TC	KRV		
T1				TM1	KTH
T2				TM2	KTH

KT015	54000	T	12157	V	C
KT016	54000	T	12170	H	C
TC	1000	R	14001	V	T
TM1	500	T	11701	H	T
TM2	500	T	11702	H	T

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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	40000	0.69		6.8	19
D2	27M0G7W	27000	4	32000	0.69		6.8	19
D3	54M0G7W	54000	4	60000	0.69		6.8	19
D4	5M00G1W	5000	4	6000	0.69		6.8	19
D5	100KG1W	100	4	56	0.69		6.8	19
D6	1M60G1W	1600	4	1544	0.69		6.8	19
D7	36M0G7W	36000	8	50000	0.61		9.9	20





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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/m <sup>2</sup> /Hz)	(o) Assoc. Stn Rec. G/T (dB/K)
K0001	K0016	D1		1		AMC5 link budg		57.3	20	25	44	49		20.9
K0001	K0016	D2		1		AMC5 link budg		57.3	20	25	44	49		20.9
K0001	K0016	D3		1		AMC5 link budg		57.3	20	25	45	49		20.9
K0001	K0016	D4		6	5000	AMC5 link budg		53	8.9	14	32	35		26.9
K0001	K0016	D5		250	100	AMC5 link budg		46.7	-2	3	16	20		20.9
K0001	K0016	D6		20	1544	AMC5 link budg		46.7	8	13	25	30		26.9
K0001	K0016	D7		1		AMC5 link budg		57.3	20	25	44	49		26.9
K0001	K0016		A1	1		AMC5 link budg	2000	57.3	19	22	44	49		20.9
C1	C1		A_TC	1		TTandC Tables		60.2	10	15				
T1	T2		A_TM	1		TTandC Tables					15	29		33.2

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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): #Error

**Remote Control (TT C) Location(s):**

S14a: Street Address: Woodbine TT&C			
S14b. City: Mt. Airy	S14c. County:	S14d. State/Country MD	S14e. Zip Code: 21771
S14f. Telephone Number: 410-549-4300		S14g. Call Sign of Control Station (if appropriate): E900448	

**Remote Control (TT C) Location(s):**

S14a: Street Address: Brewster Teleport			
S14b. City: Brewster	S14c. County:	S14d. State/Country WA	S14e. Zip Code: 98812
S14f. Telephone Number: 509-689-6000		S14g. Call Sign of Control Station (if appropriate): E060416	

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**S15. SPACECRAFT PHYSICAL CHARACTERISTICS:**

S15a. Mass of spacecraft without fuel (kg): 769.3	Spacecraft Dimensions (meters)	Probability of Survival to End of Life (0.0 - 1.0)
S15b. Mass of fuel and disposables at launch (kg): 1771.9		
S15c. Mass of spacecraft and fuel at launch (kg): 1724.6	S15f. Length (m): 22.2	S15i. Payload: 0.94
S15d. Mass of fuel, in orbit, at beginning of life (kg): 267.3	S15g. Width (m): 2.1	S15j. Bus: 0.89
S15e. Deployed Area of Solar Array (square meters): 28.3	S15h. Height (m): 1.6	S15k. Total: 0.84

**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): 1865	(f): 1865	(k): 1865	(p): 1865
Bus (Watts):	(b): 677	(g): 458	(l): 737	(q): 476
Total (Watts):	(c): 2542	(h): 2323	(m): 2602	(r): 2341
Solar Array (Watts):	(d): 3462	(i): 3122	(n): 3048	(s): 2784
Depth of Battery Discharge (%):	(e) %	(j) %	(o) 68 %	(t) 68 %

**S17. CERTIFICATIONS:**

a. Are the power flux density limits of § 25.208 met?	<input type="checkbox"/> YES	<input type="checkbox"/> NO	<input checked="" 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.**