

S1. GENERAL INFORMATION Complete for all satellite applications.

a. Space Station or Satellite Network Name: AMC-6		e. Estimated Date of Placement into Service: 11/20/2000		i. Will the space station(s) operate on a Common Carrier Basis: N	
b. Construction Commencement Date: 8/1/1998		f. Estimated Lifetime of Satellite(s): 20 Years		j. Number of transponders offered on a common carrier basis: 0	
c. Construction Completion Date: 9/20/2000		g. Total Number of Transponders: 28		k. Total Common Carrier Transponder Bandwidth: MHz	
d1. Est Launch Date Begin: 10/22/2000	d2. Est Launch Date End:	h. Total Transponder Bandwidth (no. transponders x Bandwidth) 1152 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)		
13.75	G	14.00	G	R	Fixed Satellite Service
13.75	G	14.00	G	R	Direct to Home in the Fixed Fixed Satellite Service
11.45	G	11.70	G	T	Fixed Satellite Service
11.45	G	11.70	G	T	Direct to Home in the Fixed Fixed Satellite Service
14.00	G	14.50	G	R	Direct to Home in the Fixed Fixed Satellite Service
14.00	G	14.50	G	R	Fixed Satellite Service
11.70	G	12.20	G	T	Direct to Home in the Fixed Fixed Satellite Service
11.70	G	12.20	G	T	Fixed Satellite Service

S3. ORBITAL INFORMATION FOR GEOSTATIONARY SATELLITES ONLY:

a. Nominal Orbital Longitude (Degrees E/W): 72		b. Alternate Orbital Longitude (Degrees E/W):		c. Reason for orbital location selection: No change to the existing orbital location is proposed.			
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):	
d. Toward West:	0.05 Degrees	0.1 Degrees				<u>Degrees</u> <u>E/W</u> g. Westernmost: 72 W h. Easternmost: 72 W	
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.
NAM	E		-15 dB gain contours of the NAH and NAV beams
STEER	E		-15 dB gain contours of the STH and STV beams

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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					
										(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															
NAH	T	33.5	18.5	0.15	0	30	Y	0	NAM	1.9	71	52						
NAV	T	33.5	18.5	0.15	0	30	Y	90	NAM	1.9	71	52						
NAH	R	33.8	18.8	0.15	0	30	Y	0	NAM				603	6	-100	18	1	
NAV	R	33.8	18.8	0.15	0	30	Y	90	NAM				603	6	-100	18	1	
STH	T	33.2	18.2	0.15	0	30	Y	0	STEER	1.6	76.1	52						
STV	T	33.2	18.2	0.15	0	30	Y	90	STEER	1.6	76.1	52						
STH	R	33.5	18.5	0.15	0	30	Y	0	STEER				603	5.7	-100.3	18	1	
STV	R	33.5	18.5	0.15	0	30	Y	90	STEER				603	5.7	-100.3	18	1	

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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
NAH	T	C			IC6 NAM Beam Xmit.	-151	-151	-151	-151	-151
NAV	T	C			IC6 NAM Beam Xmit.	-151	-151	-151	-151	-151
NAH	R	C			MC6 NAM Beam Rx.g					
NAV	R	C			MC6 NAM Beam Rx.g					
STH	T	C			IC6 Steer Beam Xmit.	-154	-154	-154	-154	-153
STV	T	C			IC6 Steer Beam Xmit.	-154	-154	-154	-154	-153
STH	R	C			MC6 Steer Beam Rx.g					
STV	R	C			MC6 Steer Beam Rx.g					

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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)
ST025	72000	T	11575	V	C
ST026	72000	T	11575	H	C
ST027	72000	T	11655	V	C
ST028	72000	T	11655	H	C
NA025	72000	T	11575	V	C
NA026	72000	T	11575	H	C
NA027	72000	T	11655	V	C
NA028	72000	T	11655	H	C
ST125	72000	R	13875	H	C
ST126	72000	R	13875	V	C
ST127	72000	R	13955	H	C
ST128	72000	R	13955	V	C
NA125	72000	R	13875	H	C
NA126	72000	R	13875	V	C
NA127	72000	R	13955	H	C
NA128	72000	R	13955	V	C
ST101	36000	R	14020	H	C
ST103	36000	R	14060	H	C
ST105	36000	R	14100	H	C
ST107	36000	R	14140	H	C
ST109	36000	R	14180	H	C
ST111	36000	R	14220	H	C
ST113	36000	R	14260	H	C
ST115	36000	R	14300	H	C
ST117	36000	R	14340	H	C
ST119	36000	R	14380	H	C
ST121	36000	R	14420	H	C
ST123	36000	R	14460	H	C
ST102	36000	R	14040	V	C
ST104	36000	R	14080	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
SS025	128.2	ST125	STH	ST025	STV
SS026	128.2	ST126	STV	ST026	STH
SS027	128.2	ST127	STH	ST027	STV
SS028	128.2	ST128	STV	ST028	STH
NN025	124.5	NA125	NAH	NA025	NAV
NN026	124.5	NA126	NAV	NA026	NAH
NN027	124.5	NA127	NAH	NA027	NAV
NN028	124.5	NA128	NAV	NA028	NAH
SN025	124.5	ST125	STH	NA025	NAV
SN026	124.5	ST126	STV	NA026	NAH
SN027	124.5	ST127	STH	NA027	NAV
SN028	124.5	ST128	STV	NA028	NAH
NS025	128.2	NA125	NAH	ST025	STV
NS026	128.2	NA126	NAV	ST026	STH
NS027	128.2	NA127	NAH	ST027	STV
NS028	128.2	NA128	NAV	ST028	STH
SN001	124.5	ST101	STH	NA001	NAV
SN003	124.5	ST103	STH	NA003	NAV
SN005	124.5	ST105	STH	NA005	NAV
SN007	124.5	ST107	STH	NA007	NAV
SN009	124.5	ST109	STH	NA009	NAV
SN011	124.5	ST111	STH	NA011	NAV
SN013	124.5	ST113	STH	NA013	NAV
SN015	124.5	ST115	STH	NA015	NAV
SN017	124.5	ST117	STH	NA017	NAV
SN019	124.5	ST119	STH	NA019	NAV
SN021	124.5	ST121	STH	NA021	NAV
SN023	124.5	ST123	STH	NA023	NAV
SN002	124.5	ST102	STV	NA002	NAH
SN004	124.5	ST104	STV	NA004	NAH

ST106	36000	R	14120	V	C
ST108	36000	R	14160	V	C
ST110	36000	R	14200	V	C
ST112	36000	R	14240	V	C
ST114	36000	R	14280	V	C
ST116	36000	R	14320	V	C
ST118	36000	R	14360	V	C
ST120	36000	R	14400	V	C
ST122	36000	R	14440	V	C
ST124	36000	R	14480	V	C
NA001	36000	T	11720	V	C
NA003	36000	T	11760	V	C
NA005	36000	T	11800	V	C
NA007	36000	T	11840	V	C
NA009	36000	T	11880	V	C
NA011	36000	T	11920	V	C
NA013	36000	T	11960	V	C
NA015	36000	T	12000	V	C
NA017	36000	T	12040	V	C
NA019	36000	T	12080	V	C
NA021	36000	T	12120	V	C
NA023	36000	T	12160	V	C
NA002	36000	T	11740	H	C
NA004	36000	T	11780	H	C
NA006	36000	T	11820	H	C
NA008	36000	T	11860	H	C
NA010	36000	T	11900	H	C
NA012	36000	T	11940	H	C
NA014	36000	T	11980	H	C
NA016	36000	T	12020	H	C
NA018	36000	T	12060	H	C
NA020	36000	T	12100	H	C
NA022	36000	T	12140	H	C
NA024	36000	T	12180	H	C

SN006	124.5	ST106	STV	NA006	NAH
SN008	124.5	ST108	STV	NA008	NAH
SN010	124.5	ST110	STV	NA010	NAH
SN012	124.5	ST112	STV	NA012	NAH
SN014	124.5	ST114	STV	NA014	NAH
SN016	124.5	ST116	STV	NA016	NAH
SN018	124.5	ST118	STV	NA018	NAH
SN020	124.5	ST120	STV	NA020	NAH
SN022	124.5	ST122	STV	NA022	NAH
SN024	124.5	ST124	STV	NA024	NAH

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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)
A	1M60G1W	1600	4	1544	0.75		7.5	16
B	6M95G1W	6950	4	8000	0.75		7.5	16
C	32M4G7D	32400	4	30000	0.75		4.2	18
D	32M4G7D	32400	4	30000	0.75		3.3	18
E	36M0G7W	36000	4	40000	0.75		7.5	18

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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 ² /Hz)	(o) Assoc. Stn Rec. G/T (dB/K)
NS025	NS028	A		23	1600	AMC6 Link Bud		46.6	53.6	63.6	28.5	32.5	-159.7	24.6
NS025	NS028	B		5	6950	AMC6 Link Bud		52.8	61	71	35.7	39.5	-158.4	24.6
NS025	NS028	C		1		AMC6 Link Bud		60	76	78	50	52	-149.3	10
NS025	NS028	E		1		AMC6 Link Bud		57.2	75	77.7	50	52	-150.3	17.1
SN001	SN024	A		23	1600	AMC6 Link Bud		46.6	48	51.6	28.5	32.5	-159.7	24.6
SN001	SN024	B		5	6950	AMC6 Link Bud		52.8	55	57.8	35.7	39.5	-158.4	24.6
SN001	SN024	D		1		AMC6 Link Bud		46.6	65.1	63.1	45	47	-154.3	38.4

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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: 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): E7169	

Remote Control (TT C) Location(s):

S14a: Street Address: Vernon Valley			
S14b. City: Sussex	S14c. County:	S14d. State/Country NJ	S14e. Zip Code: 07461
S14f. Telephone Number: 973-823-6000		S14g. Call Sign of Control Station (if appropriate): WB81	

Remote Control (TT C) Location(s):

S14a: Street Address: Grand Junction			
S14b. City: Grand Junction	S14c. County:	S14d. State/Country CO	S14e. Zip Code: 81505
S14f. Telephone Number: 970-241-8300		S14g. Call Sign of Control Station (if appropriate): E890537	

Remote Control (TT C) Location(s):

S14a: Street Address: South Mountain			
S14b. City: Somis	S14c. County:	S14d. State/Country CA	S14e. Zip Code: 93066
S14f. Telephone Number: 805-386-4195		S14g. Call Sign of Control Station (if appropriate): E940156	

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S15. SPACECRAFT PHYSICAL CHARACTERISTICS:

S15a. Mass of spacecraft without fuel (kg): 1769	Spacecraft Dimensions (meters)	Probability of Survival to End of Life (0.0 - 1.0)
S15b. Mass of fuel and disposables at launch (kg): 2066		
S15c. Mass of spacecraft and fuel at launch (kg): 3835	S15f. Length (m): 2	S15i. Payload: 0.75
S15d. Mass of fuel, in orbit, at beginning of life (kg): 732	S15g. Width (m): 2	S15j. Bus: 0.87
S15e. Deployed Area of Solar Array (square meters): 35.25	S15h. Height (m): 6.25	S15k. Total: 0.66

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): 6915	(f): 6915	(k): 6931	(p): 6931
Bus (Watts):	(b): 1410	(g): 740	(l): 1431	(q): 757
Total (Watts):	(c): 8325	(h): 7655	(m): 8362	(r): 7688
Solar Array (Watts):	(d): 10191	(i): 9040	(n): 9430	(s): 8445
Depth of Battery Discharge (%):	(e) 80 %	(j) 80 %	(o) 80 %	(t) 80 %

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.