

S1. GENERAL INFORMATION Complete for all satellite applications.

a. Space Station or Satellite Network Name: PAS-9	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: 24	k. Total Common Carrier Transponder Bandwidth: MHz
d. Estimated Launch Date:	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)		
5925	M	6425	M	R	Fixed Satellite Service
14.497	G	14.499	G	R	Fixed Satellite Service
13.998	G	14.0	G	R	Fixed Satellite Service
11.450	G	11.453	G	T	Fixed Satellite Service
5925	M	6425	M	R	
3700	M	4200	M	T	
3700	M	4200	M	T	Fixed Satellite Service

S3. ORBITAL INFORMATION FOR GEOSTATIONARY SATELLITES ONLY:

a. Nominal Orbital Longitude (Degrees E/W): 26.15 E	b. Alternate Orbital Longitude (Degrees E/W):		c. Reason for orbital location selection: PanAmSat has entered into an agreement to lease all of the C-band transponders on the satellite to the Arab Satellite Communications Organization ("Arabsat"), for use at 26.15 EL. At that orbital location, PAS-9 will provide supplemental and back up capacity for Arabsat 2A, which is stationed at 26 EL. The two satellites essentially will be co-located, but PanAmSat wishes to separate them by .15 degrees to facilitate stationkeeping
Longitudinal Tolerance or E/W Station-Keeping:	f. Inclination Excursion or N/S Station-Keeping Tolerance:	Range of orbital arc 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.
01	E		Visible Earth
02	E		-10 dB Contour

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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)														
CRH	R	27.7	17.7	0.3	0.3	30	N	0	02				468	1	-96.5	15	1
CRV	R	27.7	17.7	0.3	0.3	30	N	90	02				436	1.3	-96.5	15	1
CTH	T	25.6	15.6	0.3	0.3	30	N	0	02	1.3	37.1	41.3					
CTV	T	25.6	15.6	0.3	0.3	30	N	90	02	1.5	35.5	41.1					
CMD	R	22	17.8	0.3	0.3	30	N	0	01				4703	-14.7	-104.8		
CMD	R	5	3.6	0.3	0.3	30	N		01				2468	-28.9	-92.5		
TLM2	T	5.8	5.2	0.3	0.3	30	N		01	6	2.8	10.2					
TLM1	T	20.4	17.7	0.3	0.3	30	N	0	01	8.1	1	9.2					
CMD	R	2.1	0	0.3	0.3	30	N		01				1916	-30.7	-95		
TLM3	T	1.6	0	0.3	0.3	30	N	90	01	1.3	5.5	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
CRH	R	C	26.1		CRH.gxt					
CRV	R	C	26.1		CRV.gxt					
CTH	T	C	26.1		CTH.gxt	-152	-152	-152	-152	-152
CTV	T	C	26.1		CTV.gxt	-152	-152	-152	-152	-152
CMD	R	C	26.1		CMD1.gxt					
CMD	R	C	26.1		CMD2.gxt					
CMD	R	C	26.1							
TLM1	T	C	26.1		TLM1.gxt	-172	-172	-172	-172	-172
TLM2	T	C	26.1		TLM2.gxt	-171	-171	-171	-171	-171
TLM3	T	C	26.1			-172	-172	-172	-172	-172

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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)
C0002	36000	R	5945	H	C
C0004	36000	R	5985	H	C
C0006	36000	R	6025	H	C
C0008	36000	R	6065	H	C
C0010	36000	R	6105	H	C
C0012	36000	R	6145	H	C
C0014	36000	R	6185	H	C
C0016	36000	R	6225	H	C
C0018	36000	R	6265	H	C
C0020	36000	R	6305	H	C
C0022	36000	R	6345	H	C
C0024	36000	R	6385	H	C
C0001	36000	R	5945	V	C
C0003	36000	R	5985	V	C
C0005	36000	R	6025	V	C
C0007	36000	R	6065	V	C
C0009	36000	R	6105	V	C
C0011	36000	R	6145	V	C
C0013	36000	R	6185	V	C
C0015	36000	R	6225	V	C
C0017	36000	R	6265	V	C
C0019	36000	R	6305	V	C
C0021	36000	R	6345	V	C
C0023	36000	R	6385	V	C
C0002	36000	T	3720	V	C
C0004	36000	T	3760	V	C
C0006	36000	T	3800	V	C
C0008	36000	T	3840	V	C
C0010	36000	T	3880	V	C
C0012	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
C0001	121.7	C0001	CRV	C0001	CTH
C0003	121.7	C0003	CRV	C0003	CTH
C0005	121.7	C0005	CRV	C0005	CTH
C0007	121.7	C0007	CRV	C0007	CTH
C0009	121.7	C0009	CRV	C0009	CTH
C0011	121.7	C0011	CRV	C0011	CTH
C0013	121.7	C0013	CRV	C0013	CTH
C0015	121.7	C0015	CRV	C0015	CTH
C0017	121.7	C0017	CRV	C0017	CTH
C0019	121.7	C0019	CRV	C0019	CTH
C0021	121.7	C0021	CRV	C0021	CTH
C0023	121.7	C0023	CRV	C0023	CTH
C0002	121.9	C0002	CRH	C0002	CTV
C0004	121.9	C0004	CRH	C0004	CTV
C0006	121.9	C0006	CRH	C0006	CTV
C0008	121.9	C0008	CRH	C0008	CTV
C0010	121.9	C0010	CRH	C0010	CTV
C0012	121.9	C0012	CRH	C0012	CTV
C0014	121.9	C0014	CRH	C0014	CTV
C0016	121.9	C0016	CRH	C0016	CTV
C0018	121.9	C0018	CRH	C0018	CTV
C0020	121.9	C0020	CRH	C0018	CTV
C0022	121.9	C0022	CRH	C0022	CTV
C0024	121.9	C0024	CRH	C0024	CTV

C0014	36000	T	3960	V	C
C0016	36000	T	4000	V	C
C0018	36000	T	4040	V	C
C0020	36000	T	4080	V	C
C0022	36000	T	4120	V	C
C0024	36000	T	4160	V	C
C0001	36000	T	3720	H	C
C0003	36000	T	3760	H	C
C0005	36000	T	3800	H	C
C0007	36000	T	3840	H	C
C0009	36000	T	3880	H	C
C0011	36000	T	3920	H	C
C0013	36000	T	3960	H	C
C0015	36000	T	4000	H	C
C0017	36000	T	4040	H	C
C0019	36000	T	4080	H	C
C0021	36000	T	4120	H	C
C0023	36000	T	4160	H	C
CMD1	1000	R	13999	R	T
CMD2	1000	R	14498	H	T
TLM1	250	R	11451	H	T
TLM2	250	R	11452	H	T
TLM3	250	R	11451	V	T
TLM4	250	R	11452	V	T
TLM5	250	R	11451	R	T
TLM6	250	R	11452	R	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)
D01	30M1G7W	36000	4	36863	0.75		6.1	18.3
D02	5M57G7W	6000	4	6000	0.75		6.8	19
D03	77K0G7W	100	4	64	0.5		6.8	19

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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						
A01	36M0F3F	36000	TV/FM	1					PAL	15.6	1.5		10	22.2

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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.				
C0001	C0024	D01		1		LINKBUDGETS		51	17.1	23.1	35.3	41.3	-160	20.9
C0001	C0024	D02		4	6000	LINKBUDGETS		51	9.8	15.8	25.7	31.7	-162	23.6
C0001	C0024	D03		292	100	LINKBUDGETS		51	-8.8	-2.8	7.1	13.1	-162	23.6
C0001	C0024		A01	1		LINKBUDGETS	4	51	17.1	23.1	35.3	41.3	-151	
C0001	C0024	D01		1		LINKBUDGETS		51	17.4	23.4	35.1	41.1	-160	
C0001	C0024	D02		4	6000	LINKBUDGETS		51	10.7	16.7	25.6	31.6	-162	
C0001	C0024	D03		288	100	LINKBUDGETS		51	-7.9	-1.9	7	13	-162	
C0001	C0024		A01	1		LINKBUDGETS	4	51	17.4	23.4	35.1	41.1	-151	

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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): No

Remote Control (TT C) Location(s):

S14a: Street Address: SES Astra Central Delivery Point			
S14b. City: Betzdorf	S14c. County:	S14d. State/Country	S14e. Zip Code:
S14f. Telephone Number: +352 710725 275		S14g. Call Sign of Control Station (if appropriate):	

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 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 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 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 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.						