

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

a. Space Station or Satellite Network Name: ANIK F3		e. Estimated Date of Placement into Service:		i. Will the space station(s) operate on a Common Carrier Basis: N	
b. Construction Commencement Date: 3/31/2004		f. Estimated Lifetime of Satellite(s): 15 Years		j. Number of transponders offered on a common carrier basis: 0	
c. Construction Completion Date: 6/30/2006		g. Total Number of Transponders: 2		k. Total Common Carrier Transponder Bandwidth: 0 MHz	
d1. Est Launch Date Begin: 4/9/2007	d2. Est Launch Date End: 4/9/2007	h. Total Transponder Bandwidth (no. transponders x Bandwidth) 1000 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)		
19.7	G	20.1	G	T	Fixed Satellite Service
20.1	G	20.2	G	T	Fixed Satellite Service
29.4	G	29.5	G	R	Fixed Satellite Service
29.5	G	29.9	G	R	Fixed Satellite Service

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

a. Nominal Orbital Longitude (Degrees E/W): 118.7 W		b. Alternate Orbital Longitude (Degrees E/W):		c. Reason for orbital location selection:  The authorization for the operation of this satellite at the this orbital location has been granted by the Canadian administration (Industry Canada). The corresponding ITU process has been completed as well. This application is being submitted in order to seek authorization to provide services in the United States.
Longitudinal Tolerance or E/W Station-Keeping:		f. Inclination Excursion or N/S Station-Keeping Tolerance:		
d. Toward West:	0.05 Degrees	Range of orbital are in which adequate service can be provided (Optional): g. Westernmost: h. Easternmost:		
e. Toward East:	0.05 Degrees	0.05 Degrees		
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 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		CAN, USA

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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															
WTX	T	33.4	23.4	0.08	0	30	N		1	2.25	70.79	51.9						
WTX	T	33.4	23.4	0.08	0	30	N		1	2.25	70.79	51.9						
WRX	R	34.41	24.41	0.08	0	30	N		1				690	6.02	-108.69	30	1	
WRX	R	34.41	24.41	0.08	0	30	N		1				690	6.02	-108.69	30	1	
STXL	T	43.52	33.52	0.08	0	30	N		1	2.25	70.79	62.02						
SRXL	R	46.27	36.27	0.08	0	30	N		1				662	18.06	-119.68	30	1	
SRX	R	46.27	36.27	0.08	0	30	N		1				662	18.06	-119.68	30	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
STXL	T	C	-118.7		STXL.gxt	-123.6	-121.6	-119.6	-119.6	-119.6
WTX	T	C	-118.7		WTXL.gxt	-129.5	-129.5	-129.5	-129.5	-129.5
WTX	T	C	-118.7		WTXR.gxt	-129.5	-129.5	-129.5	-129.5	-129.5
SRXL	R	C	-118.7		SRXL.gxt					
SRX	R	C	-118.7		SRXR.gxt					
WRX	R	C	-118.7		WRXL.gxt					
WRX	R	C	-118.7		WRXR.gxt					
STXL	T	X	-118.7		STXL_XP.gxt					
WTX	T	X	-118.7		WTXL_XP.gxt					
WTX	T	X	-118.7		WTXR_XP.gxt					
SRXL	R	X	-118.7		SRXL_XP.gxt					
SRX	R	X	-118.7		SRXR_XP.gxt					
WRX	R	X	-118.7		WRXL_XP.gxt					
WRX	R	X	-118.7		WRXR_XP.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)
N1T	75	T	19850	R	C
N1R	75	R	29550	L	C
N2T	75	T	19850	L	C
N2R	75	R	29550	R	C
W1T	500	T	19950	R	C
W1R	500	R	29650	L	C
W2T	500	T	19950	L	C
W2R	500	R	29650	R	C

(a) Transponder ID	(b) Transponder Gain (dB)	Receive Band		Transmit Band	
		(c) Channel No.	(d) Beam ID	(e) Channel No.	(f) Beam ID
1	142.77	N1R	SRXL	N1T	WTXR
2	142.77	N2R	SRXR	N2T	STXL
3	143.64	N2R	WRXR	N2T	WTXL
4	143.64	N1R	WRXL	N1T	WTXR
5	143.64	W1R	WRXL	W1T	WTXR
6	143.64	W2R	WRXR	W2T	WTXL

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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)
1	75M0G7W	75000	8	120000	0.667	0	7.92	19.9
2	37M5G7W	37500	4	30000	0.5	0	1.8	19.9
3	2M00G7W	2000	4	1600	0.5	0	1.8	23.3
4	37M5G7W	37500	4	15000	0.25	0	-1.55	19.9





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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)			
		(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 <sup>2</sup> /Hz)	(o) Assoc. Stn Rec. G/T (dB/K)
(a) Start	(b) End			(j) Min.	(k) Max.	(l) Min.	(m) Max.							
1	1	3		37	2000	TP1 Link Budge		44.3	-5.5	6	30.2	36.2	-129.5	38.6
2	2	1		1		TP2 Link Budge		66	3	21.8	55.5	62	-119.6	16.9
3	3	3		37	2000	TP3 Link Budge		44.3	3	6	30.2	36.2	-129.5	38.6
4	4	2		2	37500	TP4 Link Budge		66	3.9	18.7	44.8	48.9	-129.5	16.9
5	5	4		6	37500	TP5_0.66m Ant		66	8.4	18.7	40	44.1	-134.2	16.9
5	5	4		13	37500	TP5_1m Ant_L		66	8.4	18.7	38.1	40.8	-137.6	20.5
6	6	3		250	2000	TP6_0.66m Ant		44.4	3.3	6	21.9	27.9	-137.7	38.6
6	6	3		250	2000	TP6_1m Ant_L		48	-0.5	6	21.9	27.9	-137.7	38.6

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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: Allan Park Earth Station			
S14b. City: Allan Park	S14c. County: West Grey	S14d. State/Country ON	S14e. Zip Code: N4N 3B8
S14f. Telephone Number: 519-371-7490		S14g. Call Sign of Control Station (if appropriate):	

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S15. SPACECRAFT PHYSICAL CHARACTERISTICS:

S15a. Mass of spacecraft without fuel (kg): 2250	Spacecraft Dimensions (meters)	Probability of Survival to End of Life (0.0 - 1.0)
S15b. Mass of fuel and disposables at launch (kg): 2445		
S15c. Mass of spacecraft and fuel at launch (kg): 4695	S15f. Length (m): 32	S15i. Payload: 0.97
S15d. Mass of fuel, in orbit, at beginning of life (kg): 956	S15g. Width (m): 5.2	S15j. Bus: 0.86
S15e. Deployed Area of Solar Array (square meters): 69.5	S15h. Height (m): 4	S15k. Total: 0.83

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): 8856	(f): 8856	(k): 8856	(p): 8856
Bus (Watts):	(b): 444	(g): 382	(l): 444	(q): 382
Total (Watts):	(c): 9300	(h): 9238	(m): 9300	(r): 9238
Solar Array (Watts):	(d): 13631	(i): 11992	(n): 11965	(s): 10764
Depth of Battery Discharge (%):	(e) 64 %	(j) 0 %	(o) 64 %	(t) 0 %

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.**