# APPLICATION FOR EARTH STATION AUTHORIZATIONS FCC Use Only FCC 312 MAIN FORM FOR OFFICIAL USE ONLY

## APPLICANT INFORMATION

Enter a description of this application to identify it on the main menu:

New MSAT-1 blanket authorization application

 1–8. Legal Name of Applicant							
Name:	Glentel Corp.	Phone Number:	604-415-6500				
DBA Name:	-	Fax Number:	604–415–6565				
Street:	8501 Commerce Court	E-Mail:					
	Burnaby						
City:		State:					
<b>Country:</b>	Canada	Zipcode:	-				
<b>Attention:</b>	Dale Belsher						

9–16. Name of Contact Representative (If other than applicant)

Name: Joseph A. Godles, Esq. Phone Number: 202–429–4900

**Company:** Goldberg Godles Wiener & Wright **Fax Number:** 202–429–4912

Street: 1229 19th Street NW E–Mail: jgodles@g2w2.com

City: Washington State: DC

**Country:** USA **Zipcode:** 20036–2413

Contact Attorney Relationship: Legal Counsel

Title:

#### **CLASSIFICATION OF FILING**

17. Choose the button next to the classification that applies to this filing for both questions a. and b. Choose only one for 17a and only one for 17b.

a.

a1. Earth Station

(N/A) a2. Space Station

h

b1. Application for License of New Station

**6** b2. Application for Registration of New Domestic Receive-Only Station

(N/A) b3. Amendment to a Pending Application

(N/A) b4. Modification of License or Registration

(N/A) b5. Assignment of License or Registration

(N/A) b6. Transfer of Control of License or Registration

(N/A) b7. Notification of Minor Modification

(N/A) b8. Application for License of New Receive-Only Station Using Non-U.S. Licensed Satellite

(N/A) b9. Letter of Intent to Use Non-U.S. Licensed Satellite to Provide Service in the United States

**o** b10. Other (Please specify)

17c. Is a fee submitted with this application?  If Yes, complete and attach FCC Form 159. If No, indicate reason for fee exemption (see 47 C.F.R.Section 1.1114).  Governmental Entity Noncommercial educational licensee Other(please explain):  17d.						
Fee Classification BGB – Mobile Satellite Authorization	Earth Stations Blanket					
18. If this filing is in reference to an existing station, enter:  (a) Call sign of station:  Not Applicable	<ul><li>19. If this filing is an amendment to a pending</li><li>(a) Date pending application was filed:</li><li>Not Applicable</li></ul>	g application enter:  (b) File number of pending application:  Not Applicable				
TYPE OF SERVICE  20. NATURE OF SERVICE: This filing is f	For an authorization to provide or use the following	ng type(s) of service(s): Select all that apply:				
a. Fixed Satellite b. Mobile Satellite c. Radiodetermination Satellite d. Earth Exploration Satellite e. Direct to Home Fixed Satellite f. Digital Audio Radio Service g. Other (please specify)						

	. If earth station applicant, check all that apply.
only one.	Using U.S. licensed satellites
Common Carrier     Non–Common Carrier	Using Non–U.S. licensed satellites
23. If applicant is providing INTERNATIONAL COMMON CARRIER service facilities:	
Connected to a Public Switched Network Not connected to a	a Public Switched Network N/A
24. FREQUENCY BAND(S): Place an "X" in the box(es) next to all appl	icable frequency band(s).
a. C–Band (4/6 GHz) b. Ku–Band (12/14 GHz)	
c.Other (Please specify upper and lower frequencies in MHz.)	
Frequency Lower: 1525 Frequency Upper: 1660.5	
TYPE OF CTATION	
TYPE OF STATION	
25. CLASS OF STATION: Choose the button next to the class of station that	t applies. Choose only one.
a. Fixed Earth Station	
b. Temporary–Fixed Earth Station	
c. 12/14 GHz VSAT Network	
d. Mobile Earth Station	
(N/A) e. Geostationary Space Station	
(N/A) f. Non–Geostationary Space Station	
g. Other (please specify)	
26. TYPE OF EARTH STATION FACILITY: Choose only one.	
Transmit/Receive Transmit-Only Receive-Only N/A	

#### PURPOSE OF MODIFICATION

TOM OSE OF MODIFICATION			
27. The purpose of this proposed modification is to: (Place an 'X' in the box(es) next to all that apply.)			
Not Applicable			
ENVIRONMENTAL POLICY			
28. Would a Commission grant of any proposal in this application or amendment have a significant environmental impact as defined by 47 CFR 1.1307? If YES, submit the statement as required by Sections 1.1308 and 1.1311 of the Commission's rules, 47 C.F.R. §§ 1.1308 and 1.1311, as an exhibit to this application. A Radiation Hazard Study must accompany all applications for new transmitting facilities, major modifications, or major amendments.	O Yes	S No	
ALIEN OWNERSHIP Earth station applicants not proposing to provide broadcast, common carrier, aeronateronautical fixed radio station services are not required to respond to Items 30–34.	autical en roi	ute or	
29. Is the applicant a foreign government or the representative of any foreign government?	O Yes ●	No O N/A	
30. Is the applicant an alien or the representative of an alien?	O Yes ●	No O N/A	

31. Is the applicant a corporation organized under the laws of any foreign government?	O Yes O No O N/A
32. Is the applicant a corporation of which any officer or director is an alien or of which more than one—fifth of the capital stock is owned of record or voted by aliens or their representatives or by a foreign government or representative thereof or by any corporation organized under the laws of a foreign country?	O Yes O No N/A
33. Is the applicant a corporation directly or indirectly controlled by any other corporation of which more than one—fourth of the capital stock is owned of record or voted by aliens, their representatives, or by a foreign government or representative thereof or by any corporation organized under the laws of a foreign country?	
34. If any answer to questions 29, 30, 31, 32 and/or 33 is Yes, attach as an exhibit an identification of the aliens or foreign entities, their nationality, their relationship to the applicant, and the percentage of stock they own or vote.	Ques 34
BASIC QUALIFICATIONS	
35. Does the Applicant request any waivers or exemptions from any of the Commission's Rules? If Yes, attach as an exhibit, copies of the requests for waivers or exceptions with supporting documents.	O Yes O No

36. Has the applicant or any party to this application or amendment had any FCC station authorization or license revoked or had any application for an initial, modification or renewal of FCC station authorization, license, or construction permit denied by the Commission? If Yes, attach as an exhibit, an explination of circumstances.	<b>O</b> Yes	<b>⊚</b> No
37. Has the applicant, or any party to this application or amendment, or any party directly or indirectly controlling the applicant ever been convicted of a felony by any state or federal court? If Yes, attach as an exhibit, an explination of circumstances.	O Yes	No
38. Has any court finally adjudged the applicant, or any person directly or indirectly controlling the applicant, guilty of unlawfully monopolizing or attemptiing unlawfully to monopolize radio communication, directly or indirectly, through control of manufacture or sale of radio apparatus, exclusive traffic arrangement or any other means or unfair methods of competition? If Yes, attach as an exhibit, an explanation of circumstances	O Yes	<b>⊚</b> No
39. Is the applicant, or any person directly or indirectly controlling the applicant, currently a party in any pending matter referred to in the preceding two items? If yes, attach as an exhinit, an explanation of the circumstances.	O Yes	<b>⊚</b> No

40. If the applicant is a corporation and is applying for a space station license, attach as an exhibit the names, address, and citizenship of those stockholders owning a record and/or voting 10 percent or more of the Filer's voting stock and the percentages so held. In the case of fiduciary control, indicate the beneficiary(ies) or class of beneficiaries. Also list the names and addresses of the officers and directors of the Filer.		
41. By checking Yes, the undersigned certifies, that neither applicant nor any other party to the application is subject to a denial of Federal benefits that includes FCC benefits pursuant to Section 5301 of the Anti–Drug Act of 1988, 21 U.S.C. Section 862, because of a conviction for possession or distribution of a controlled substance. See 47 CFR 1.2002(b) for the meaning of "party to the application" for these purposes.	Yes	O No
42a. Does the applicant intend to use a non–U.S. licensed satellite to provide service in the United States? If Yes, answer 42b and attach an exhibit providing the information specified in 47 C.F.R. 25.137, as appropriate. If No, proceed to question 43.	<b>⊚</b> Yes	O No
42b. What administration has licensed or is in the process of licensing the space station? If no license will be issued, we coordinated or is in the process of coordinating the space station? Canadian Radio—television and Telecommunications		

43. Description. (Summarize the nature of the application and the services to be provided). (If the complete description does not appear in this box, please go to the end of the form to view it in its entirety.)

Applicant seeks a blanket license authorizing the operation of up to 50,000 mobile earth station terminals that will communicate with MSAT-1, a Canadian-licensed satellite that is located at 106.5 WL.

Ques 43

#### **CERTIFICATION**

The Applicant waives any claim to the use of any particular frequency or of the electromagnetic spectrum as against the regulatory power of the United States because of the previous use of the same, whether by license or otherwise, and requests an authorization in accordance with this application. The applicant certifies that grant of this application would not cause the applicant to be in violation of the spectrum aggregation limit in 47 CFR Part 20. All statements made in exhibits are a material part hereof and are incorporated herein as if set out in full in this application. The undersigned, individually and for the applicant, hereby certifies that all statements made in this application and in all attached exhibits are true, complete and correct to the best of his or her knowledge and belief, and are made in good faith.

11	Applicant	ica	(an).	Choose the	hutton next	to applicable	racnonca )
44.	Аррисані	18 a 1	(an). (	(Choose me	button next	to applicable	response.)

- Individual
- Unincorporated Association
- Partnership
- Corporation
- Governmental Entity
- Other (please specify)

45. Name of Person Signing Dale Belsher		46. Title of Person Signing Chief Financial Officer	
47. Please supply any need attachments.			
Attachment 1:	Attachment 2:	Attachment 3:	
(U.S. Code, Title 18, S	Section 1001), AND/OR RE	ARE PUNISHABLE BY FINE AND / OR IMPRISONMENT EVOCATION OF ANY STATION AUTHORIZATION FORFEITURE (U.S. Code, Title 47, Section 503).	

## SATELLITE EARTH STATION AUTHORIZATIONS FCC Form 312 – Schedule B:(Technical and Operational Description) FOR OFFICIAL USE ONLY

Location of Earth S	tation Site					
E1: Site Identifier:	US Nationwide	E5. Call Sign:				
E2: Contact Name	Dale Belsher	E6. Phone Number:	604-415-6500			
E3. Street:	8501 Commerce Court	E7. City:	Burnaby			
		E8. County:	CANADA			
E4. State		E9. Zip Code				
E10. Area of Opera	tion:	CONUS				
E11. Latitude:	0 °0 '0.0 "					
E12. Longitude:	0 °0 '0.0 "					
E13. Lat/Lon Coord	dinates are:	○ NAD-27	O NAD-83	● N/A		
E14. Site Elevation	(AMSL):	0.0 meters				
		•	•	·	•	•

E15. If the proposed antenna(s) operate in the Fixed Satellite Service (FSS) with geostationary satellites, do(es) the proposed antenna(s) comply with the antenna gain patterns specified in Section 25.209(a) and (b) as demonstrated by the manufacturer's qualification measurement? If NO, provide as a technical analysis showing compliance with two–degree spacing policy.	O Yes	O No	● N/A
E16. If the proposed antenna(s) do not operate in the Fixed Satellite Service (FSS), or if they operate in the Fixed			
Satellite Service (FSS) with non–geostationary satellites, do(es) the proposed antenna(s) comply with the antenna gain patterns specified in Section 25.209(a2) and (b) as demonstrated by the manufacturer's qualification measurements?	<b>●</b> Yes	O No	O N/A
E17. Is the facility operated by remote control? If YES, provide the location and telephone number of the control point.	O Ye	s 🔞	. No
	<del></del>		
E18. Is frequency coordination required? If YES, attach a frequency coordination report as	O Ye	s 💿	No
E19. Is coordination with another country required? If YES, attach the name of the country(ies) and plot of coordination contours as E19	<b>⊚</b> Ye	s o	. No
E20. FAA Notification – (See 47 CFR Part 17 and 47 CFR part 25.113(c)) Where FAA notification is required, have you attached a copy of a completed FCC Form 854 and or the FAA's study regarding the potential hazard of the structure to aviation? FAILURE TO COMPLY WITH 47 CFR PARTS 17 AND 25 WILL RESULT IN THE RETURN OF THIS APPLICATION.	O Ye	s 🔞	. No
POINTS OF COMMUNICATION	-		
Satellite Name: OTHER If you selected OTHER, please enter the following:			

E21. Common Name: MSAT-1 E22. ITU Name:

E23. Orbit Location: 106.5 WL E24. Country: Canada

POINTS OF COMMUNICATION (Destination Points)

E25. Site Identifier: US Nationwide

E26. Common Name: E27. Country: USA

### ANTENNA

Site ID	E28. Antenna Id	E29. Quantity	E30. Manufacturer	E31. Model	E32. Antenna Size <meters></meters>	E41/42. Antenna GainTransmint and/or Recieve (dBi atGHz)
US Nationwide	A1	1	Westinghouse / WEC Mast	CD-JL01080, P-1000	0.02	7.7 dBi at 1.66
						7.0 dBi at 1.559
	A2		Westinghouse / WEC Contour Dome	CD-JL01003, D-1000	0.27	11.7 dBi at 1.66
						9.5 dBi at 1.559
	A3		Westinghouse / WEC Fixed	CD-JL01083, F-1000	0.92	21.8 dBi at 1.66
						21.5 dBi at 1.559
	A4				0.76	19.9 dBi at 1.66
						19.8 dBi at 1.559

A5	Westinghouse / WEC Maritime Contour Dome	CD-JL01003-G02	0.27	11.7 dBi at 1.66
				9.5 dBi at 1.559
A6	Westinghouse / WEC Multichannel Fixed	F-1000 MC	1.2	24.2 dBi at 1.66
				24.0 dBi at 1.559
A7	Westinghouse / KVH Single Channel Mariti	M-1015, D-100HF	0.46	14.8 dBi at 1.66
				14.6 dBi at 1.559
A8	Mitsubishi / MELCO Dome	AU200A, ST-111D	0.165	9.0 dBi at 1.66
				9.0 dBi at 1.559
A9	Mitsubishi / MELCO Fixed	AU500A, ST-121	0.6	17.0 dBi at 1.66
				17.0 dBi at 1.559
A10	Mitsubishi / MELCO Briefcase	ST151	0.495	14.1 dBi at 1.66
				14.0 dBi at 1.559
A11	Mitsubishi / MELCO Omnipoint	ST251	0.28	11.0 dBi at 1.66

				10.2 dBi at 1.559
A12	CAL / Calquest	CQ100	0.15	12.3 dBi at 1.66
				12.3 dBi at 1.559
A13	Mitsubishi / MELCO Transportation Dome	AU400A	0.295	12.0 dBi at 1.66
				12.0 dBi at 1.559
D1	Westinghouse / WEC Contour Dome	CD-JL01003	0.27	11.7 dBi at 1.66
				9.5 dBi at 1.559
D2	Narrowband / Narrowband Mobile	RST 2000	0.425	15.5 dBi at 1.66
				15.5 dBi at 1.559
D3		MDT 1000	0.295	12.0 dBi at 1.66
				12.0 dBi at 1.559
D4	Eaton / Eaton Mobile	SCM	0.27	12.0 dBi at 1.66

				11.5 dBi at 1.559
D5	EMS Technologies	PDT-100	0.2	3.0 dBi at 16.6
				3.0 dBi at 15.59

E28. Antenna Id	E33/34. Diameter Minor/Major (meters)	E35. Above Ground Level  (meters)	E36. Above Sea Level  (meters)	E37. Building Height Above Ground Level  (meters)	E38. Total Input Power at antenna flange  (Watts)	E39. Maximum Antenna Height Above Rooftop (meters)	E40. Total EIRP for al carriers  (dBW)
A1	/	3.0	0.0	0.0	3.0	0.0	12.5
A2	/	3.0	0.0	0.0	3.0	0.0	16.5
A3	/	3.0	0.0	0.0	0.295	0.0	16.5
A4	/	3.0	0.0	0.0	0.457	0.0	16.5
A5	/	3.0	6.0	0.0	3.0	0.0	16.5
A6	/	3.0	0.0	0.0	1.36	0.0	25.5
A7	/	3.0	6.0	0.0	1.48	0.0	16.5
A8	/	3.0	0.0	0.0	4.0	0.0	15.0
A9	/	3.0	0.0	0.0	0.892	0.0	16.5
A10	/	1.0	0.0	0.0	1.7	0.0	16.5
A11	/	1.0	0.0	0.0	3.5	0.0	16.5
A12	/	0.0	0.0	0.0	2.6	0.0	16.5
A13	/	3.0	0.0	0.0	2.8	0.0	16.5
D1	/	3.0	0.0	0.0	3.0	0.0	16.5

D2	/	3.0	0.0	0.0	0.676	0.0	13.8
D3	/	3.0	0.0	0.0	2.5	0.0	16.0
D4	/	3.0	0.0	0.0	2.5	0.0	16.0
D5	/	3.0	0.0	0.0	7.1	0.0	11.5

### FREQUENCY

E28. Antenna Id	E43/44. Frequency Bands (MHz)	E45. T/R Mode			EIRP per Carrier (dBW)	E49. Maximum ERIP Density per Carrier (dBW/4kHz)
A1	1525 1559	R	Right Hand Circular	5K00G7W	0.0	0.0

E50. Description of Modulation and Services (If the complete description does not appear in this box, please go to the end of the form to view it in its entirety.)

TDM signaling channel using differentially encoded QPSK at a transmission rate of 3375 bps (GC-S-data)

1525 1550 D Dight Hand 5V00C7W	1	
A1	0.0	0.0
Circular		

E50. Description of Modulation and Services (If the complete description does not appear in this box, please go to the end of the form to view it in its entirety.)

FDMA communications channel (voice or data) using differentially encoded QPSK at a transmission rate of 3375 bps

A1	1626.5 1660.5	Т	Right Hand Circular	5K00G7W	12.5	11.5
E50. Description view it in its entire	on of Modulation ety.)	and Services (If	the complete description of	loes not appear in the	his box, please go	to the end of the form to
TDMA sigr	_	el using diff	erentially encode	d QPSK at a t	ransmission	rate of 3375
A1	1626.5 1660.5	Т	Right Hand Circular	5K00G7W	12.5	11.5
	nunications of		e or data) using	differentiall	y encoded QF	PSK at a
A1	1626.5 1660.5	Т	Right Hand Circular	5K00G7W	12.5	11.5
E50. Description view it in its entire	on of Modulation ety.)	and Services (If	the complete description of	loes not appear in the	his box, please go	to the end of the form to
	Aloha signal pps (MT-SR-da	_	sing differential	ly encoded QP	SK at a tran	nsmission rate

A2	1525	1559	R	Right Hand Circular	5K00G7W	0.0	0.0
E50. Des	scription of Modula s entirety.)	ation and S	Services (If	the complete description	does not appear in t	this box, please g	o to the end of the form to
	signaling cha S-data)	nnel us	sing diffe	rentially encoded	l QPSK at a tr	ansmission	rate of 3375 bps
A2	1525	1559	R	Right Hand Circular	5K00G7W	0.0	0.0
Craffs	smission rate	: OI 33	a ups				
A2	1626.5 1660.5		Т	Right Hand Circular	5M00G7W	16.5	15.5
E50. Des	scription of Modula s entirety.)	ation and S	Services (If	the complete description	does not appear in t	this box, please g	o to the end of the form to
TDMA	signaling ch	annel ι	using diff	erentially encode	ed QPSK at a t	ransmission	rate of 3375

A2	1626.5 1660.5	Т	Right Hand Circular	5K00G7W	16.5	15.5
E50. Descriview it in its en	ption of Modulation tirety.)	n and Service	es (If the complete descri	ption does not appear in t	this box, please go	to the end of the form to
l l	ommunications ission rate o		(voice or data) us es	ing differentiall	ly encoded QI	PSK at a
A2	1626.5 1660.5	Т	Right Hand Circular	5K00G7W	16.5	15.5
	d Aloha signa 5 bps (MT-SR-	_	nnel using differen	tially encoded QF	PSK at a tran	nsmission rate
A3	1525	1559 R	Right Hand Circular	5K00G7W	0.0	0.0
E50. Descriview it in its en	ption of Modulation tirety.)	n and Servic	es (If the complete descri	ption does not appear in t	this box, please go	to the end of the form to
TDM sig	_	el using	differentially enc	oded QPSK at a tr	ransmission 1	rate of 3375 bps

A3	1525	1559	R	Right Hand Circular	5K00G7W	0.0	0.0
E50. Description view it in its entiret		ion and S	services (If	the complete description d	oes not appear in the	his box, please go	to the end of the form to
FDMA community transmiss				ce or data) using d	ifferentiall	y encoded QI	PSK at a
A3	1626.5 1660.5		Т	Right Hand Circular	5M00G7W	16.5	15.5
TDMA signa bps (MT-S		nnel u	sing diff	erentially encoded	l QPSK at a t	ransmission	rate of 3375
A3	1626.5 1660.5		Т	Right Hand Circular	5K00G7W	16.5	15.5
E50. Description view it in its entiret FDMA commutransmiss.	y.) unication	s chan	nel (voic	the complete description d			1

A3	1626.5 1660.5	Т	Right Hand Circular	5K00G7W	16.5	15.5
E50. Description view it in its entirety	of Modulation and S	Services (If the cor	nplete description of	loes not appear in thi	s box, please go to the	end of the form to
	oha signaling s (MT-SR-data		differential	ly encoded QPS	K at a transmiss	sion rate
A4	1525 1559	R	Right Hand Circular	5K00G7W	0.0	0.0
TDM signal		sing different:	ially encoded	QPSK at a tra	nsmission rate o	of 3375 bps
A4	1525 1559	R	Right Hand Circular	5K00G7W	0.0	0.0
view it in its entirety  FDMA commu		nnel (voice or			s box, please go to the defended QPSK at	

A4	1626.5 1660.5	Т	Right Hand Circular	5K00G7W	16.5	15.5
E50. Desc view it in its	cription of Modulation a entirety.)	and Services (If	the complete description	does not appear in t	his box, please go	to the end of the form to
	signaling channe MT-ST-data)	el using diff	erentially encode	ed QPSK at a t	ransmission	rate of 3375
A4	1626.5 1660.5	Т	Right Hand Circular	5K00G7W	16.5	15.5
	communications o		e or data) using	differentiall	y encoded QF	?SK at a
A4	1626.5 1660.5	Т	Right Hand Circular	5K00G7W	16.5	15.5
E50. Desc view it in its	cription of Modulation a entirety.)	and Services (If	the complete description	does not appear in t	his box, please go	to the end of the form to
l l	ed Aloha signali 75 bps (MT-SR-da	_	sing differential	ly encoded QP	'SK at a tran	nsmission rate

A5	1525	1559	R	Right Hand	5K00G7W	0.0	0.0
				Circular			
E50. Description view it in its entirety		on and S	ervices (If the	complete description	does not appear in the	nis box, please go	to the end of the form to
TDM signal	_	nel us	ing differe	ntially encoded	QPSK at a tr	ansmission n	rate of 3375 bps
A5	1525	1559	R	Right Hand Circular	5K00G7W	0.0	0.0
FDMA commu				or data) using	differentiall	y encoded QI	?SK at a
A5	1626.5 1660.5		Т	Right Hand Circular	5K00G7W	16.5	15.5
E50. Description view it in its entirety		ion and S	ervices (If the	complete description	does not appear in the	his box, please go	to the end of the form to
TDMA signa		nnel u	sing differ	entially encode	d QPSK at a t	ransmission	rate of 3375

A5	1626.5 1660.5	Т	Right Hand Circular	5K00G7W	16.5	15.5
E50. Descripti view it in its entir	on of Modulation and rety.)	1 Services (If	the complete description of	loes not appear in the	his box, please go	to the end of the form to
	munications ch sion rate of 3		ce or data) using	differentiall	y encoded QI	PSK at a
A5	1626.5 1660.5	Т	Right Hand Circular	5K00G7W	16.5	15.5
	Aloha signalin bps (MT-SR-dat	_	using differential	ly encoded QP	'SK at a trar	nsmission rate
A6	1525 1559	P R	Right Hand Circular	5K00G7W	0.0	0.0
view it in its entir	aling channel	·	the complete description of			1

A6	1525	1559 R	Right Hand Circular	5K00G7W	0.0	0.0
E50. Descriview it in its en	iption of Modulationtirety.)	n and Services	(If the complete description of	does not appear in t	his box, please go	to the end of the form to
	ommunications ission rate o		ice or data) using	differentiall	y encoded QI	PSK at a
A6	1626.5 1660.5	Т	Right Hand Circular	5K00G7W	16.5	15.5
	ignaling chan T-ST-data)	nel using di	fferentially encode	d QPSK at a t	ransmission	rate of 3375
A6	1626.5 1660.5	Т	Right Hand Circular	5K00G7W	16.5	15.5
E50. Descriview it in its en	iption of Modulationtirety.)	n and Services	(If the complete description of	does not appear in t	his box, please go	to the end of the form to
	ommunications ission rate o		ice or data) using	differentiall	y encoded QI	PSK at a

A6	1626.5 1660.5	Т	Right Hand Circular	5K00G7W	16.5	15.5
E50. Description view it in its entiret	n of Modulation and y.)	Services (If the co	omplete description	does not appear in the	his box, please go	to the end of the form to
	loha signaling ps (MT-SR-data		g differential	ly encoded QP	SK at a tran	nsmission rate
A7	1525 1559	R	Right Hand Circular	5K00G7W	0.0	0.0
TDM signa (GC-S-data		sing different	cially encoded	l QPSK at a tr	ansmission 1	rate of 3375 bps
A7	1525 1559	R	Right Hand Circular	5K00G7W	0.0	0.0
view it in its entired	n of Modulation and y.) unications cha	nnel (voice o				PSK at a

A7	1626.5 1660.5	Т	Right Hand Circular	5K00G7W	16.5	15.5
E50. Descriview it in its en	ption of Modulation tirety.)	and Services (If	the complete description	does not appear in t	his box, please go	to the end of the form to
	ignaling chann [-ST-data]	el using diff	erentially encode	d QPSK at a t	ransmission	rate of 3375
A7	1626.5 1660.5	Т	Right Hand Circular	5K00G7W	16.5	15.5
1	ommunications ission rate of		e or data) using	differentiall	y encoded QF	PSK at a
A7	1626.5 1660.5	Т	Right Hand Circular	5K00G7W	16.5	15.5
E50. Descriview it in its en	ption of Modulation atirety.)	and Services (If	the complete description	does not appear in t	his box, please go	to the end of the form to
1	d Aloha signal 5 bps (MT-SR-d	_	sing differential	ly encoded QP	SK at a tran	nsmission rate

A8	1525	1559	R	Right Hand Circular	5K00G7W	0.0	0.0
E50. Descriview it in its en	iption of Modula	ation and S	Services (If	the complete description of	does not appear in t	his box, please go	o to the end of the form to
TDM si		nnel us	sing diffe	erentially encoded	QPSK at a tr	ansmission	rate of 3375 bps
A8	1525	1559	R	Right Hand Circular	5K00G7W	0.0	0.0
	ommunicatio			e or data) using	differentiall	y encoded Qi	PSK at a
A8	1626.5 1660.5		Т	Right Hand Circular	5K00G7W	15.0	14.0
E50. Descriview it in its en	iption of Modula	ation and S	Services (If	the complete description of	does not appear in t	his box, please go	o to the end of the form to
	ignaling ch T-ST-data)	annel (	sing diff	erentially encode	d QPSK at a t	ransmission	rate of 3375

A8	1626.5 1660.5	Т	Right Hand Circular	5K00G7W	15.0	14.0
E50. Description view it in its entirety	of Modulation and S	Services (If the con	nplete description do	pes not appear in this l	box, please go to the	end of the form to
	nications char on rate of 337		data) using d	ifferentially e	encoded QPSK at	a
A8	1626.5 1660.5	Т	Right Hand Circular	5K00G7W	15.0	14.0
	oha signaling s (MT-SR-data)	_	differentiall	y encoded QPSK	at a transmiss	sion rate
A9	1525 1559	R	Right Hand Circular	5K00G7W	0.0	0.0
view it in its entirety	ing channel us	· · · · · · · · · · · · · · · · · · ·		pes not appear in this l		

A9	1525 1559	R	Right Hand Circular	5K00G7W	0.0	0.0
E50. Description view it in its entiret	of Modulation and y.)	d Services (If the co	mplete description de	oes not appear in this	box, please go to the o	end of the form to
	unications ch on rate of 3	annel (voice or 375 bps	data) using d	lifferentially o	encoded QPSK at	z a
A9	1626.5 1660.5	Т	Right Hand Circular	5K00G7W	16.5	15.5
TDMA signabps (MT-ST	aling channel	using differen	tially encoded	l QPSK at a trai	nsmission rate	of 3375
A9	1626.5 1660.5	Т	Right Hand Circular	5K00G7W	16.5	15.5
view it in its entiret		annel (voice or	•	pes not appear in this		

A9	1626.5 1660.5	Т	Right Hand Circular	5K00G7W	16.5	15.5
E50. Description view it in its entiret	n of Modulation and S ty.)	Services (If the c	omplete description	does not appear in the	his box, please go	o to the end of the form to
	loha signaling ps (MT-SR-data)		g differential	ly encoded QP	SK at a tran	nsmission rate
A10	1525 1559	R	Right Hand Circular	5K00G7W	0.0	0.0
TDM signa (GC-S-data	_	sing differen	tially encoded	. QPSK at a tr	ansmission 1	rate of 3375 bps
A10	1525 1559	R	Right Hand Circular	5K00G7W	0.0	0.0
E50. Description view it in its entires	n of Modulation and S ty.)	Services (If the c	omplete description	does not appear in the	his box, please go	o to the end of the form to
	unications char ion rate of 33		r data) using	differentiall	y encoded QI	PSK at a

A10	1626.5 1660.5	Т	Right Hand Circular	5K00G7W	16.5	15.5
E50. Descriview it in its en	iption of Modulation ntirety.)	and Services (If	the complete description	does not appear in t	this box, please go	to the end of the form to
	ignaling channe T-ST-data)	el using diff	Terentially encode	ed QPSK at a t	cransmission	rate of 3375
A10	1626.5 1660.5	Т	Right Hand Circular	5K00G7W	16.5	15.5
	ission rate of					
A10	1626.5 1660.5	Т	Right Hand Circular	5K00G7W	16.5	15.5
E50. Descriview it in its en	iption of Modulation ntirety.)	and Services (If	the complete description	does not appear in t	this box, please go	o to the end of the form to
	d Aloha signal 5 bps (MT-SR-da	_	using differential	ly encoded QE	PSK at a tra	nsmission rate

A11	1525	1559	R	Right Hand Circular	5K00G7W	0.0	0.0
E50. Deserview it in its	cription of Modula entirety.)	tion and S	Services (If	the complete description	does not appear in t	his box, please go	o to the end of the form to
	ignaling cha -data)	nnel us	ing diffe	rentially encoded	QPSK at a tr	ansmission	rate of 3375 bps
A11	1525	1559	R	Right Hand Circular	5K00G7W	0.0	0.0
	mission rate			e or data) using	ullieleliciali	.y encoded g	PSR at a
A11	1626.5 1660.5		Т	Right Hand Circular	5K00G7W	16.5	15.5
E50. Deserview it in its	cription of Modula entirety.)	tion and S	Services (If	the complete description	does not appear in t	his box, please go	o to the end of the form to
l l	signaling ch MT-ST-data)	annel u	sing diff	erentially encode	d QPSK at a t	ransmission	rate of 3375

A11	1626.5 1660.5	Т	Right Hand Circular	5K00G7W	16.5	15.5
E50. Description view it in its entirety	of Modulation and S	Services (If the con	nplete description do	pes not appear in this	pox, please go to the	end of the form to
	nications char on rate of 337		data) using d	ifferentially e	encoded QPSK at	a a
A11	1626.5 1660.5	Т	Right Hand Circular	5K00G7W	16.5	15.5
	oha signaling s (MT-SR-data)	_	differentiall	y encoded QPSK	at a transmiss	sion rate
A12	1525 1559	R	Right Hand Circular	5K00G7W	0.0	0.0
view it in its entirety	ing channel us			oes not appear in this l		

A12	1525	1559	R	Right Hand Circular	5K00G7W	0.0	0.0
E50. Description view it in its entiret		on and S	ervices (If	the complete description d	oes not appear in t	his box, please go	to the end of the form to
FDMA commutransmiss				e or data) using (	differentiall	y encoded QI	?SK at a
A12	1626.5 1660.5		Т	Right Hand Circular	5K00G7W	16.5	15.5
TDMA signabps (MT-S	_	nnel u	sing diff	erentially encoded	d QPSK at a t	ransmission	rate of 3375
A12	1626.5 1660.5		Т	Right Hand Circular	5K00G7W	16.5	15.5
E50. Description view it in its entiret		on and S	ervices (If	the complete description d	oes not appear in t	his box, please go	to the end of the form to
FDMA commu				e or data) using (	differentiall	y encoded QI	PSK at a

A12	1626.5 1660.5	Т	Right Hand Circular	5K00G7W	16.5	15.5
E50. Description view it in its entirety	of Modulation and y.)	Services (If the co	omplete description	does not appear in the	his box, please go	to the end of the form to
	oha signaling s (MT-SR-data	_	differential	ly encoded QP	SK at a tran	nsmission rate
A13	1525 1559	R	Right Hand Circular	5K00G7W	0.0	0.0
(GC-S-data		sing different	lally encoded	I QPSK at a tr	ansmission i	rate of 3375 bps
A13	1525 1559	R	Right Hand Circular	5K00G7W	0.0	0.0
view it in its entirety  FDMA commu		nnel (voice or				o to the end of the form to

A13	1626.5 1660.5	Т	Right Hand Circular	5K00G7W	16.5	15.5
E50. Desc	ription of Modulation a	and Services (If	the complete description	does not appear in t	his box, please go	to the end of the form to
1	signaling channe	el using diff	erentially encode	ed QPSK at a t	ransmission	rate of 3375
A13	1626.5 1660.5	Т	Right Hand Circular	5K00G7W	16.5	15.5
	mission rate of					
<u> </u>						
A13	1626.5 1660.5	Т	Right Hand Circular	5K00G7W	16.5	15.5
	ription of Modulation a		Circular			15.5 to the end of the form to

	1525 1:	559 R	Right Hand Circular	5K00G7D	0.0	0.0
E50. Descri view it in its er	iption of Modulation ntirety.)	and Services (If t	the complete description	does not appear in t	his box, please go	to the end of the form to
TDM sig	_	l using diffe	rentially encoded	l QPSK at a tr	ansmission	rate of 3375 bps
D1	1626.5 1660.5	Т	Right Hand Circular	5K00G7D	16.5	15.5
bps (M	T-DT-data)					
D1	1626.5	Т	Right Hand	5K00G7D	16.5	15.5
D1	1660.5		Circular			13.3

D2	1525	1559 R	Right Hand Circular	5K00G7D	0.0	0.0
E50. Desc view it in its	cription of Modulation	on and Services (If	the complete description	does not appear in t	this box, please go	to the end of the form to
	ignaling chanr -data)	nel using diffe	erentially encoded	d QPSK at a tr	ransmission :	rate of 3375 bps
D2	1626.5 1660.5	Т	Right Hand Circular	5K00G7D	13.8	12.8
	MT-DT-data)		Terentially encode			
D2	1626.5 1660.5	Т	Right Hand Circular	5K00G7D	13.8	12.8
E50. Desc	ription of Modulation of Modulation of Modulation of Modulation of Modulation of Modulation of the Modulation of Modul	on and Services (If	the complete description	does not appear in t	this box, please go	to the end of the form to
l l	_	aling channel u r-data or MT-DF	using differential Rd-data)	lly encoded QI	PSK at a tra	nsmission rate

D3		1525	1559	R	Right Hand Circular	5K00G7D	0.0	0.0
	Description its entirety	of Modulat	ion and S	ervices (If	the complete description	on does not appear in the	his box, please go	o to the end of the form to
	M signal H-D-data	_	nel us	ing diffe	erentially encod	ed QPSK at a tr	ansmission	rate of 3375 bps
D3		1626.5 1660.5		Т	Right Hand Circular	5K00G7D	16.0	15.0
	MA signa s (MT-DT		nnel u	sing dif:	ferentially enco	ded QPSK at a t	ransmission	rate of 3375
D3		1626.5 1660.5		Т	Right Hand Circular	5K00G7D	16.0	15.0
	Description its entirety	of Modulat	ion and S	ervices (If	the complete description	on does not appear in the	his box, please go	o to the end of the form to
				channel worden	using differenti Rd-data)	ally encoded QP	SK at a tra	nsmission rate

D4	1525	1559 R	Right Hand Circular	5K00G7D	0.0	0.0
E50. Desc view it in its	cription of Modulation entirety.)	and Services (If t	he complete description	does not appear in t	this box, please go	o to the end of the form to
	ignaling channe -data)	el using diffe:	rentially encoded	l QPSK at a tr	ransmission	rate of 3375 bps
D4	1626.5 1660.5	Т	Right Hand Circular	5K00G7D	16.0	15.0
		nel using diff	erentially encode	ed QPSK at a t	ransmission	rate of 3375
D4	1626.5 1660.5	Т	Right Hand Circular	5K00G7D	16.0	15.0
E50. Desc view it in its	cription of Modulation entirety.)	n and Services (If t	he complete description	does not appear in t	his box, please go	o to the end of the form to
	ed Aloha signal 75 bps (MT-DRr-	_	sing differential d-data)	ly encoded QF	PSK at a tra	nsmission rate

~-	1.555	1770	I		- Trongen	To o	
D5	1525	1559	R	Right Hand Circular	5K00G7D	0.0	0.0
	on of Modulation	on and S	ervices (If the o	complete description	does not appear in the	his box, please go	to the end of the form to
view it in its entire	ety.)						
TDM signa	aling chanr	nel us	ing differen	tially encoded	QPSK at a tr	ansmission	rate of 3375 bps
(DH-D-dat				_			
	,						
D5	1626.5		T	Right Hand	5K00G7D	11.5	10.5
	1660.5			Circular			
F50 Description	on of Modulation	on and S	ervices (If the o	omplete description	does not annear in t	his hov please or	to the end of the form to
view it in its entire		on and o	civices (if the c	ompiete description	does not appear in the	ms box, picase go	) to the end of the form to
1 1		nnel u	sing differe	ntially encode	d QPSK at a t	ransmission	rate of 3375
bps (MT-1	DT-data)						
<u> </u>							
D.f.	1,000.5		l <sub>m</sub>	D: 1. TT 1	51400 CZD	11.5	10.5
D5	1626.5		Т	Right Hand	5K00G7D	11.5	10.5
	1660.5			Circular			
E50. Description	on of Modulation	on and S	ervices (If the o	complete description	does not appear in the	his box, please go	to the end of the form to
view it in its entire	ety.)					-	
glottod	Aloha gigna	oling	ahannal ugin	a differential	ly ongodod OD	CV at a trai	nsmission rate
1 1	_	_		_	ry encoded gr	on at a trai	ismission race
01 33/5	ops (MI-DII	r-data	or MT-DRd-d	ala)			

FREQUENCY COORDINATION

E28. Antenna Id	E51. Satellite Orbit Type	E52/53. Frequency Limits(MHz)	E54/55. Range of Satellite Arc E/W Limit	E56. Earth Station Azimuth Angle Eastern Limit	E57. Antenna Elevation Angle Eastern Limit	E58. Earth Station Azimuth Angle Western Limit	E59. Antenna Elevation Angle Western Limit	E60. Maximum EIRP Density toward the Horizon (dBW/4kHz)
A1		1525 1559	0.0/ 0.0	250.0	65.0	100.0	5.0	0.0
		1626.5 1660.5	0.0/ 0.0	250.0	65.0	100.0	5.0	11.5
A2		1525 1559	0.0/ 0.0	250.0	65.0	100.0	5.0	0.0
		1626.5 1660.5	0.0/ 0.0	250.0	65.0	100.0	5.0	15.5
A3		1525 1559	0.0/ 0.0	250.0	65.0	100.0	5.0	0.0
		1626.5 1660.5	0.0/ 0.0	250.0	65.0	100.0	5.0	15.5
A4		1525 1559	0.0/ 0.0	250.0	65.0	100.0	5.0	0.0
		1625.5 1660.5	0.0/ 0.0	250.0	65.0	100.0	5.0	15.5
A5		1525 1559	0.0/ 0.0	250.0	65.0	100.0	5.0	0.0
		1626.5 1660.5	0.0/ 0.0	250.0	65.0	100.0	5.0	15.5
A6		1525 1559	0.0/ 0.0	250.0	65.0	100.0	5.0	0.0

	1626.5 1660.5	0.0/ 0.0	250.0	65.0	100.0	5.0	24.5
A7	1525 1559	0.0/ 0.0	250.0	65.0	100.0	5.0	0.0
	1626.5 1660.5	0.0/ 0.0	250.0	65.0	100.0	5.0	15.5
A8	1525 1559	0.0/ 0.0	250.0	65.0	100.0	5.0	0.0
	1626.5 1660.5	0.0/ 0.0	250.0	65.0	100.0	5.0	14.0
A9	1525 1559	0.0/ 0.0	250.0	65.0	100.0	5.0	0.0
	1626.5 1660.5	0.0/ 0.0	250.0	65.0	100.0	5.0	15.5
A10	1525 1559	0.0/ 0.0	250.0	65.0	100.0	5.0	0.0
	1626.5 1660.5	0.0/ 0.0	250.0	65.0	100.0	5.0	15.5
A11	1525 1559	0.0/ 0.0	250.0	65.0	100.0	5.0	0.0
	1626.5 1660.5	0.0/ 0.0	250.0	65.0	100.0	5.0	15.5
A12	1525 1559	0.0/ 0.0	250.0	65.0	100.0	5.0	0.0
	1626.5 1660.5	0.0/ 0.0	250.0	65.0	100.0	5.0	15.5
A13	1525 1559	0.0/ 0.0	250.0	65.0	100.0	5.0	0.0

	1626.5 1660.5	0.0/ 0.0	250.0	65.0	100.0	5.0	15.5
D1	1525 1559	0.0/ 0.0	250.0	65.0	100.0	5.0	0.0
	1626.5 1660.5	0.0/ 0.0	250.0	65.0	100.0	5.0	15.5
D2	1525 1559	0.0/ 0.0	250.0	65.0	100.0	5.0	0.0
	1626.5 1660.5	0.0/ 0.0	250.0	65.0	100.0	5.0	12.8
D3	1525 1559	0.0/ 0.0	250.0	65.0	100.0	5.0	0.0
	1626.5 1660.5	0.0/ 0.0	250.0	65.0	100.0	5.0	15.0
D4	1525 1559	0.0/ 0.0	250.0	65.0	100.0	5.0	0.0
	1626.5 1660.5	0.0/ 0.0	250.0	65.0	100.0	5.0	15.0
D5	1525 1559	0.0/ 0.0	250.0	65.0	100.0	5.0	0.0
	1626.5 1660.5	0.0/ 0.0	250.0	65.0	100.0	5.0	10.5

## REMOTE CONTROL POINT LOCATION

E61. Call Sign	E65. Phone Number
NOTE: Please enter the callsign of the controlling station, not the callsign for which this application is being filed.	

E62. Street Address			
E63. City	E67. County	E64/68. State/Country	E66. Zip Code

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