

Particulars of Operation

The particulars of operations identified herein reflects the technical information relating to the hub earth station and three types of remote terminals associated with the transportable VSAT network proposed in this experimental application.

B1. Location of Earth Station Site

B1a. Station Call Sign	B1b. Site Identifier (HUB, REMOTE1, etc.)	B1c. Telephone Number	B1j. Geographic Coordinates Deg. – Min. – Sec. Lat. 41 8 34 N Lon. 95 54 54 W	Blk. Lat./Lon. Coordinates are: ____ NAD-27 __X__ NAD-83
B1d. Street Address of Station or Area of Operation 1620 Wilshire Drive Suite 301	B1e. Name of Contact Person Bernard Thompson	Note: the contact and location information provided herein relates only to the hub earth station.	Note: the VSAT remote terminals will operate throughout the continental United States.	
B1f. City Bellevue	B1g. County Sarpy	B1h. State NE	B1i. Zip Code 68005	B1l. Site Elevation (AMSL) 355

B2. Points of Communications

Satellite Name and Orbit Location
GE-4 at 101°W

B4. Earth Station Antenna Facilities

(a) Site ID	(b) Antenna ID	(c) Quantity	(d) Manufacturer	(e) Model	(f) Antenna Size (meters)	(g) Ant. Gain Tx and/or Rx (____dBi at ____ GHz)
HUB	HUB	1	Prodelin	1184	1.8	Tx 46.5 @ 14.25 Rx 45.0 @ 11.7
	REMOTE1	5	Comtech	18QD	1.8	Tx 46.8@14.25 Rx 45.3 @ 11.7
	REMOTE2	10	Vertex	1.2mQD	1.2	Tx 43.3@14.25 Rx 41.6 @ 11.7
1	REMOTE3	5	Prodelin	1251	2.4	Tx 49.2 @ 14.25 Rx 47.6 @ 11.7

B5. Antenna Heights and Maximum Power Limits

(a) Antenna ID	(b) Antenna Structure Registration No.	Maximum Antenna Height		(e) Building Height Above Ground Level (meters)	(f) Maximum Antenna Height Above Rooftop (meters)	(g) Total Input Power at antenna flange (Watts)	(h) Total EIRP for all carriers (dBW)
		(c) Above Ground Level (meters)	(d) Above Mean Sea Level (meters)				
HUB	N/A	15	370	12	3	8w	55.5
REMOTE1	N/A	N/A	N/A	N/A	N/A	8w	55.8
REMOTE2	N/A	N/A	N/A	N/A	N/A	4w	49.2
REMOTE3	N/A	N/A	N/A	N/A	N/A	8w	58.2

B6. Frequency Coordination Limits

(a) Antenna ID	(b) Frequency Limits (MHz)	(c) Range of Satellite Arc Eastern Limit	(d) Range of Satellite Arc Western Limit	(e) Antenna Elevation Angle Eastern Limit	(f) Antenna Elevation Angle Western Limit	(g) Earth Station Azimuth Angle Eastern Limit	(h) Earth Station Azimuth Angle Western Limit	(i) Maximum EIRP Density toward the Horizon (dBW/4kHz)
HUB	14000-14500	101°W	101°W	42.06	42.06	187.66	187.66	-22.64
REMOTE1	14000-14500	101°W	101°W	varies	varies	varies	varies	varies
REMOTE2	14000-14500	101°W	101°W	varies	varies	varies	varies	varies
REMOTE3	14000-14500	101°W	101°W	varies	varies	varies	varies	varies

B7. Particulars of Operation

(a) Antenna ID	(b) Frequency Bands (MHz)	(c) T/R Mode	(d) Antenna Polarization (H, V, L, R)	(e) Emission Designator	(f) Maximum EIRP per Carrier (dBW)	(g) Maximum EIRP Density per Carrier (dBW/4kHz)	(h) Description of Modulation and Services
HUB	14000-14500	T	H	410KG7D	52.6	32.5	512 kb/s, QPSK, 3/4
HUB	11700-12200	R	H	410KG7D			512 kb/s, QPSK, 3/4
REMOTE1	14000-14500	T	H	410KG7D	52.9	32.8	512 kb/s, QPSK, 3/4
REMOTE1	11700-12200	R	H	410KG7D			512 kb/s, QPSK, 3/4
REMOTE2	14000-14500	T	H	410KG7D	49.2	29.1	512 kb/s, QPSK, 3/4

REMOTE2	11700-12200	R	H	410KG7D			512 kb/s, QPSK, 3/4
REMOTE3	14000-14500	T	H	410KG7D	55.3	35.2	512 kb/s, QPSK, 3/4
REMOTE3	11700-12200	R	H	410KG7D			512 kb/s, QPSK, 3/4

FORM 442 Question 4. Additional Particulars of Operation

Antenna ID	(A) Frequency Bands (MHz)	POWER (B) Max. RF Power	POWER (C) Max. E.I.R.P.	POWER (D) Mean or Peak	(E) Emission	(F) Mod. Signal	(G) Nec. Bandwidth (kHz)
HUB	14000-14500	-14.0 dBW/4kHz	55.5	Peak	410KG7D	512 kb/s, QPSK, 3/4	410
HUB	11700-12200	-14.0 dBW/4kHz			410KG7D	512 kb/s, QPSK, 3/4	410
REMOTE1	14000-14500	-14.0 dBW/4kHz	55.8	Peak	410KG7D	512 kb/s, QPSK, 3/4	410
REMOTE1	11700-12200	-14.0 dBW/4kHz			410KG7D	512 kb/s, QPSK, 3/4	410
REMOTE2	14000-14500	-14.0 dBW/4kHz	49.2	Peak	410KG7D	512 kb/s, QPSK, 3/4	410
REMOTE2	11700-12200	-14.0 dBW/4kHz			410KG7D	512 kb/s, QPSK, 3/4	410
REMOTE3	14000-14500	-14.0 dBW/4kHz	58.2	Peak	410KG7D	512 kb/s, QPSK, 3/4	410
REMOTE3	11700-12200	-14.0 dBW/4kHz			410KG7D	512 kb/s, QPSK, 3/4	410