
SITE ID: REMOTE 2
LOCATION: VSAT 1.8M. (1500 UNITS), CONUS, AK, HI, PR VI

ANTENNA ID:	REMT 1.8	1.8 meters	PRODELIN	1184	
	11700.0000 - 12200.0000 MHz		2M00G7W	QPSK, DIGITAL DATA, VOICE AND VIDEO	
	14000.0000 - 14500.0000 MHz		128KG7W	43.90 dBW	QPSK, DIGITAL DATA, VOICE AND VIDEO
	14000.0000 - 14500.0000 MHz		1M00G7W	52.50 dBW	QPSK, DIGITAL DATA, VOICE AND VIDEO
	14000.0000 - 14500.0000 MHz		256KG7W	46.90 dBW	QPSK, DIGITAL DATA, VOICE AND VIDEO
	14000.0000 - 14500.0000 MHz		512KG7W	49.90 dBW	QPSK, DIGITAL DATA, VOICE AND VIDEO
	14000.0000 - 14500.0000 MHz		2M00G7W	52.50 dBW	QPSK, DIGITAL DATA, VOICE AND VIDEO
	11700.0000 - 12200.0000 MHz		512KG7W	QPSK, DIGITAL DATA, VOICE AND VIDEO	

SITE ID: REMOTE 1
LOCATION: VSAT 1.2M. (4000 UNITS), CONUS, AK, HI, PR VI

ANTENNA ID:	REMT 1.2	1.2 meters	PRODELIN	1123	
	11700.0000 - 12200.0000 MHz		2M00G7W	QPSK, DIGITAL DATA, VOICE AND VIDEO	
	14000.0000 - 14500.0000 MHz		128KG7W	41.40 dBW	QPSK, DIGITAL DATA, VOICE AND VIDEO
	14000.0000 - 14500.0000 MHz		256KG7W	44.50 dBW	QPSK, DIGITAL DATA, VOICE AND VIDEO
	14000.0000 - 14500.0000 MHz		512KG7W	47.20 dBW	QPSK, DIGITAL DATA, VOICE AND VIDEO
	14000.0000 - 14500.0000 MHz		2M00G7W	47.20 dBW	QPSK, DIGITAL DATA, VOICE AND VIDEO
	11700.0000 - 12200.0000 MHz		512KG7W	QPSK, DIGITAL DATA, VOICE AND VIDEO	

SITE ID: HUB 3
LOCATION: 55 MARIETTA ST. NW SUITE 1865 (5.6M. ANDREW), FULTON, ATLANTA, GA
33 ° 45 ' 21.40 " N LAT. 84 ° 23 ' 27.70 " W LONG.

ANTENNA ID:	HUB3 AND	5.6 meters	ANDREW	ES56-HS
	11700.0000 - 12200.0000 MHz		112KG7D	BPSK, DIGITAL DATA

11700.0000 - 12200.0000 MHz	128KG7D		BPSK, DIGITAL DATA
11700.0000 - 12200.0000 MHz	150KG7D		BPSK, DIGITAL DATA
11700.0000 - 12200.0000 MHz	1M20G7D		BPSK, DIGITAL DATA
11700.0000 - 12200.0000 MHz	1M80G7D		BPSK, DIGITAL DATA
11700.0000 - 12200.0000 MHz	2M40G7D		BPSK, DIGITAL DATA
11700.0000 - 12200.0000 MHz	300KG7D		BPSK, DIGITAL DATA
11700.0000 - 12200.0000 MHz	3M40G7D		BPSK, DIGITAL DATA
11700.0000 - 12200.0000 MHz	128KG7W		QPSK, DIGITAL DATA, VOICE AND VIDEO
11700.0000 - 12200.0000 MHz	1M00G7W		QPSK, DIGITAL DATA, VOICE AND VIDEO
11700.0000 - 12200.0000 MHz	1M50G7W		QPSK, DIGITAL DATA, VOICE AND VIDEO
11700.0000 - 12200.0000 MHz	256KG7W		QPSK, DIGITAL DATA, VOICE AND VIDEO
11700.0000 - 12200.0000 MHz	2M00G7W		QPSK, DIGITAL DATA, VOICE AND VIDEO
11700.0000 - 12200.0000 MHz	512KG7W		QPSK, DIGITAL DATA, VOICE AND VIDEO
14000.0000 - 14500.0000 MHz	112KG7D	54.50 dBW	BPSK, DIGITAL DATA
14000.0000 - 14500.0000 MHz	128KG7D	55.10 dBW	BPSK, DIGITAL DATA
14000.0000 - 14500.0000 MHz	150KG7D	55.70 dBW	BPSK, DIGITAL DATA
14000.0000 - 14500.0000 MHz	1M20G7D	64.80 dBW	BPSK, DIGITAL DATA
14000.0000 - 14500.0000 MHz	1M80G7D	66.53 dBW	BPSK, DIGITAL DATA
14000.0000 - 14500.0000 MHz	2M40G7D	67.80 dBW	BPSK, DIGITAL DATA
14000.0000 - 14500.0000 MHz	300KG7D	58.75 dBW	BPSK, DIGITAL DATA
14000.0000 - 14500.0000 MHz	3M40G7D	69.30 dBW	BPSK, DIGITAL DATA
14000.0000 - 14500.0000 MHz	2M00G7W	66.98 dBW	QPSK, DIGITAL DATA, VOICE AND VIDEO

SITE ID: HUB 2

LOCATION: 55 MARIETTA ST. NW SUITE 1865 (5.5M. HUGHES AC), FULTON, ATLANTA, GA

33 ° 45 ' 21.40 " N LAT.

84 ° 23 ' 27.70 " W LONG.

ANTENNA ID:	HUB2 HAC	5.5 meters	HUGHES AIRCRAFT	3644-K
	11700.0000 - 12200.0000 MHz		112KG7D	QPSK, DIGITAL DATA
	11700.0000 - 12200.0000 MHz		128KG7D	BPSK, DIGITAL DATA
	11700.0000 - 12200.0000 MHz		5M00G7D	BPSK, DIGITAL DATA
	11700.0000 - 12200.0000 MHz		128KG7W	QPSK, DIGITAL DATA, VOICE AND VIDEO
	11700.0000 - 12200.0000 MHz		1M00G7W	QPSK, DIGITAL DATA, VOICE AND VIDEO
	11700.0000 - 12200.0000 MHz		1M50G7W	QPSK, DIGITAL DATA, VOICE AND VIDEO
	11700.0000 - 12200.0000 MHz		256KG7W	QPSK, DIGITAL DATA, VOICE AND VIDEO
	11700.0000 - 12200.0000 MHz		2M00G7W	QPSK, DIGITAL DATA, VOICE AND VIDEO
	11700.0000 - 12200.0000 MHz		512KG7W	QPSK, DIGITAL DATA, VOICE AND VIDEO
	14000.0000 - 14500.0000 MHz		128KG7W	54.45 dBW QPSK, DIGITAL DATA
	14000.0000 - 14500.0000 MHz		5M00G7D	65.00 dBW BPSK, DIGITAL DATA
	14000.0000 - 14500.0000 MHz		2M00G7W	66.98 dBW QPSK, DIGITAL DATA, VOICE AND VIDEO
	14000.0000 - 14500.0000 MHz		112KG7D	64.00 dBW QPSK, DIGITAL DATA

SITE ID: HUB 1
LOCATION: 55 MARIETTA ST. NW SUITE 1865 (5.5M. NEC), FULTON, ATLANTA, GA
33 ° 45 ' 21.40 " N LAT. 84 ° 23 ' 27.70 " W LONG.

ANTENNA ID:	HUB1 NEC	5.5 meters	NEC	8101.5.5
	11700.0000 - 12200.0000 MHz		112KG7D	BPSK DIGITAL DATA
	11700.0000 - 12200.0000 MHz		128KG7W	QPSK, DIGITAL DATA, VOICE AND VIDEO
	11700.0000 - 12200.0000 MHz		1M50G7W	QPSK, DIGITAL DATA, VOICE AND VIDEO
	11700.0000 - 12200.0000 MHz		256KG7W	QPSK, DIGITAL DATA, VOICE AND VIDEO
	11700.0000 - 12200.0000 MHz		2M00G7W	QPSK, DIGITAL DATA, VOICE AND VIDEO

11700.0000 - 12200.0000 MHz	512KG7W		QPSK, DIGITAL DATA, VOICE AND VIDEO
11700.0000 - 12200.0000 MHz	300KG7D		128 KBPS, REED SOLOMON, BPSK, DIGITAL DATA
11700.0000 - 12200.0000 MHz	150KG7D		64KBPS, REED SOLOMON, BPSK, DIGITAL DATA CARRIER
14000.0000 - 14500.0000 MHz	128KG7D	55.05 dBW	64KBPS, BPSK, DIGITAL DATA SERVICES
14000.0000 - 14500.0000 MHz	2M00G7W	65.80 dBW	QPSK, DIGITAL DATA, VOICE AND VIDEO
14000.0000 - 14500.0000 MHz	300KG7D	58.75 dBW	128 KBPS, REED SOLOMON, BPSK, DIGITAL DATA
14000.0000 - 14500.0000 MHz	150KG7D	55.74 dBW	64KBPS, REED SOLOMON, BPSK, DIGITAL DATA CARRIER
14000.0000 - 14500.0000 MHz	112KG7D	56.00 dBW	BPSK DIGITAL DATA
11700.0000 - 12200.0000 MHz	128KG7D		64KBPS, BPSK, DIGITAL DATA SERVICES

Points of Communication:

HUB 1 - ALSAT - (ALSAT)

HUB 2 - ALSAT - (ALSAT)

HUB 3 - ALSAT - (ALSAT)

REMOTE 1 - ALSAT - (ALSAT)

REMOTE 2 - ALSAT - (ALSAT)

REMOTE 3 - ALSAT - (ALSAT)

SES-MFS-20101230-01641 E E000166 HNS LICENSE SUB, LLC
 Modification 09/13/2010 - 09/13/2025
 Grant of Authority Date Effective: 03/08/2011

Class of Station: VSAT Network

Nature of Service: Fixed Satellite Service

SITE ID: TR 1.2M.

LOCATION: VSAT 1.2M (100,000 UNITS), CONUS, AK, HI, VI PR

ANTENNA ID: TR 1.2M. 1.2 meters PRODELIN CORP. HNS-AN-120P-KU

14000.0000 - 14500.0000 MHz	400KG7D	46.10 dBW	OQPSK, DIGITAL, 256 KSPS, RETURN CARRIER
-----------------------------	---------	-----------	--

14000.0000 - 14500.0000 MHz	200KG7D	46.10 dBW	PSK, DIGITAL, 128 KSPS, INROUTE CARRIER
14000.0000 - 14500.0000 MHz	800KG7D	46.10 dBW	OQPSK, DIGITAL, 512 KSPS, RETURN CARRIER
14000.0000 - 14500.0000 MHz	1M60G7D	46.10 dBW	PSK, DIGITAL, 1024 KSPS, INROUTE CARRIER
11700.0000 - 12200.0000 MHz	24M0G7D		OQPSK, DATA, 20 MSPS, MULTIMEDIA BROADCAST CARRIER
11700.0000 - 12200.0000 MHz	36M0G7D		PSK, DATA, 30 MSPS, OUTROUTE CARRIER
11700.0000 - 12200.0000 MHz	12M0G7D		OQPSK, DATA, 10 MSPS, MULTIMEDIA BROADCAST CARRIER
11700.0000 - 12200.0000 MHz	6M00G7D		OQPSK, DATA, 5 MSPS, MULTIMEDIA BROADCAST CARRIER
11700.0000 - 12200.0000 MHz	400KG7D		PSK, DATA, 256 KSPS, OUTROUTE CARRIER

SITE ID: TR 1.8M.

LOCATION: VSAT 1.8M (50,000 UNITS), CONUS, AK, HI, VI PR

ANTENNA ID: TR 1.8M. 1.8 meters PRODELIN CORP. HNS-AN-180P-KU

14000.0000 - 14500.0000 MHz	800KG7D	49.70 dBW	OQPSK, DIGITAL, 512 KSPS, RETURN CARRIER
14000.0000 - 14500.0000 MHz	1M60G7D	49.70 dBW	PSK, DIGITAL, 1024 KSPS, INROUTE CARRIER
14000.0000 - 14500.0000 MHz	200KG7D	49.70 dBW	PSK, DIGITAL, 128 KSPS, INROUTE CARRIER
14000.0000 - 14500.0000 MHz	400KG7D	49.70 dBW	OQPSK, DIGITAL, 256 KSPS, RETURN CARRIER
11700.0000 - 12200.0000 MHz	24M0G7D		OQPSK, DATA, 20 MSPS, MULTIMEDIA BROADCAST CARRIER
11700.0000 - 12200.0000 MHz	36M0G7D		PSK, DATA, 30 MSPS, OUTROUTE CARRIER
11700.0000 - 12200.0000 MHz	6M00G7D		OQPSK, DATA, 5 MSPS, MULTIMEDIA BROADCAST CARRIER
11700.0000 - 12200.0000 MHz	12M0G7D		OQPSK, DATA, 10 MSPS, MULTIMEDIA BROADCAST CARRIER

11700.0000 - 12200.0000 MHz	400KG7D		PSK, DATA, 256 KSPS, OUTROUTE CARRIER
-----------------------------	---------	--	---------------------------------------

SITE ID: HUB-B
LOCATION: 7.6M (HUB) 11717 EXPLORATION LANE, MONTGOMERY, GERMANTOWN, MD
39 ° 10 ' 46.00 " N LAT. 77 ° 14 ' 41.00 " W LONG.

ANTENNA ID: HubB7.6	7.6 meters	ANDREW CORP.	ES76K-1
14000.0000 - 14500.0000 MHz	24M0G7D	78.00 dBW	PSK, DATA, 20 MSPS, OUTROUTE CARRIER
14000.0000 - 14500.0000 MHz	36M0G7D	78.00 dBW	PSK, DATA, 30 MSPS, OUTROUTE CARRIER
14000.0000 - 14500.0000 MHz	400KG7D	47.90 dBW	PSK, DATA, 256 KSPS, OUTROUTE CARRIER
14000.0000 - 14500.0000 MHz	1M60G7D	53.90 dBW	BPSK, DATA, 1024 KSPS, OUTROUTE CARRIER
11700.0000 - 12200.0000 MHz	400KG7D		OQPSK, DIGITAL, 256 KSPS, RETURN CARRIER
11700.0000 - 12200.0000 MHz	200KG7D		BPSK OR MSK, DATA, 128 KSPS, INROUTE CARRIER
11700.0000 - 12200.0000 MHz	400KG7D		BPSK OR MSK, DATA, 256 KSPS, INROUTE CARRIER
11700.0000 - 12200.0000 MHz	800KG7D		BPSK OR MSK, DATA, 512 KSPS, INROUTE CARRIER
11700.0000 - 12200.0000 MHz	1M60G7D		PSK, DIGITAL, 1024 KSPS, INROUTE CARRIER
11700.0000 - 12200.0000 MHz	200KG7D		PSK, DIGITAL, 128 KSPS, INROUTE CARRIER

SITE ID: TR 1.0M.
LOCATION: VSAT 1.0M (135 cm x 58 cm) (100,000 UNITS), CONUS, AK,HI,PR,VI

ANTENNA ID: TR 1.0M.	1 meters	PRODELIN CORP.	1102 (135 cm x 58 cm)
14000.0000 - 14500.0000 MHz	400KG7D	44.00 dBW	OQPSK, DIGITAL, 256 KSPS, RETURN CARRIER
14000.0000 - 14500.0000 MHz	200KG7D	44.00 dBW	PSK, DIGITAL 128 KSPS, INROUTE CARRIER
14000.0000 - 14500.0000 MHz	800KG7D	44.00 dBW	OQPSK, DIGITAL 512 KSPS, RETURN CARRIER
14000.0000 - 14500.0000 MHz	1M60G7D	44.00 dBW	PSK, DIGITAL, 1024 KSPS, INROUTE CARRIER

11700.0000 - 12200.0000 MHz	36M0G7D	PSK, DATA, 30 MSPS, OUTROUTE CARRIER
11700.0000 - 12200.0000 MHz	6M00G7D	OQPSK, DATA, 5 MSPS, MULTIMEDIA BROADCAST CARRIER
11700.0000 - 12200.0000 MHz	12M0G7D	OQPSK, DATA, 10 MSPS, MULTIMEDIA BROADCAST CARRIER
11700.0000 - 12200.0000 MHz	24M0G7D	OQPSK, DATA, 20 MSPS, MULTIMEDIA BROADCAST CARRIER
11700.0000 - 12200.0000 MHz	400KG7D	PSK, DATA, 256 KSPS, OUTROUTE CARRIER

SITE ID: TF TR 98CM
LOCATION: VSAT 0.98M temporary-fixed (54,000 UNITS), CONUS, AK, HI, PR, VI

ANTENNA ID: TF TR 98CM	0.98 meters	PRODELIN	HNS-AN-098P-KU
14000.0000 - 14500.0000 MHz	200KG7D	44.30 dBW	PSK, DIGITAL, 128 KSPS, INROUTE CARRIER
14000.0000 - 14500.0000 MHz	400KG7D	44.30 dBW	OQPSK, DIGITAL, 256 KSPS, RETURN CARRIER
14000.0000 - 14500.0000 MHz	800KG7D	44.30 dBW	OQPSK, DIGITAL, 512 KSPS, RETURN CARRIER
14000.0000 - 14500.0000 MHz	1M60G7D	44.30 dBW	PSK, DIGITAL, 1024 KSPS, INROUTE CARRIER
14000.0000 - 14500.0000 MHz	400KG7D	44.30 dBW	DIGITAL, PSK, DIGITAL, 256 KSPS, RETURN CARRIER
14000.0000 - 14500.0000 MHz	800KG7D	44.30 dBW	DIGITAL, PSK, DIGITAL, 512 KSPS, RETURN CARRIER
14000.0000 - 14500.0000 MHz	1M60G7D	44.30 dBW	PSK, DIGITAL, 1024 KSPS, INROUTE CARRIER

ANTENNA ID: TFTR 98CM 0.98 meters RAVEN MANUFACTURING LIMITED HNS-AN-98R-KU

SITE ID: TF TR 74CM
LOCATION: VSAT 0.74M (98 x 56 cm) temporary-fixed (60,200 UNITS), CONUS, AK, HI, PR, VI

ANTENNA ID: TF TR 74CM	0.74 meters	PRODELIN	HNS-AN-074P-KU
14000.0000 - 14500.0000 MHz	200KG7D	42.00 dBW	PSK, DIGITAL, 128 KSPS, INROUTE CARRIER
14000.0000 - 14500.0000 MHz	400KG7W	42.00 dBW	OQPSK, DIGITAL, 256 KSPS, RETURN CARRIER

14000.0000 - 14500.0000 MHz	1M60G7D	42.00 dBW	PSK, DIGITAL, 1024 KSPS, INROUTE CARRIER
14000.0000 - 14500.0000 MHz	800KG7D	42.00 dBW	OQPSK, DIGITAL, 512 KSPS, RETURN CARRIER
11700.0000 - 12200.0000 MHz	36M0G7D		PSK, DATA, 30 MSPS, OUTROUTE CARRIER
11700.0000 - 12200.0000 MHz	24M0G7D		OQPSK, DATA, 20 MSPS, MULTIMEDIA BROADCAST CARRIER
11700.0000 - 12200.0000 MHz	6M00G7D		OQPSK, DATA, 5 MSPS, MULTIMEDIA BROADCAST CARRIER
11700.0000 - 12200.0000 MHz	12M0G7D		OQPSK, DATA, 10 MSPS, MULTIMEDIA BROADCAST CARRIER
11700.0000 - 12200.0000 MHz	400KG7D		PSK, DATA, 256 KSPS, OUTROUTE CARRIER

SITE ID: HUB-A

LOCATION: 7.6M.(HUB) 11717 EXPLORATION LANE, MONTGOMERY, GERMANTOWN, MD
39 ° 10 ' 49.00 " N LAT. 77 ° 14 ' 47.00 " W LONG.

ANTENNA ID: HubA7.6M	7.6 meters	ANDREW CORP.	ES76K-1
14000.0000 - 14500.0000 MHz	24M0G7D	78.00 dBW	PSK, DATA, 20 MSPS, OUTROUTE CARRIER
14000.0000 - 14500.0000 MHz	36M0G7D	78.00 dBW	PSK, DATA, 30 MSPS, OUTROUTE CARRIER
14000.0000 - 14500.0000 MHz	400KG7D	47.90 dBW	PSK, DATA, 256 KSPS, OUTROUTE CARRIER
14000.0000 - 14500.0000 MHz	1M60G7D	53.90 dBW	BPSK, DATA, 1024 KSPS, OUTROUTE CARRIER
11700.0000 - 12200.0000 MHz	200KG7D		PSK, DIGITAL, 128 KSPS, INROUTE CARRIER
11700.0000 - 12200.0000 MHz	400KG7D		OQPSK, DIGITAL, 256 KSPS, RETURN CARRIER
11700.0000 - 12200.0000 MHz	200KG7D		BPSK OR MSK, DATA, 128 KSPS, INROUTE CARRIER
11700.0000 - 12200.0000 MHz	400KG7D		BPSK OR MSK, DATA, 256 KSPS, INROUTE CARRIER
11700.0000 - 12200.0000 MHz	800KG7D		BPSK OR MSK, DATA, 512 KSPS, INROUTE CARRIER

11700.0000 - 12200.0000 MHz 1M60G7D PSK, DIGITAL, 1024 KSPS, INROUTE CARRIER

SITE ID: MESH 3.5M.
LOCATION: (5,000 3.5M. UNITS), CONUS, AK, HI, VI PR

ANTENNA ID: MESH 3.5M 3.5 meters COMTECH 846400G1

14000.0000 - 14500.0000 MHz 2M46G7D 66.20 dBW BPSK OR OQPSK, DATA, MESH CARRIER

11700.0000 - 12200.0000 MHz 2M46G7D BPSK OR OQPSK, DATA, MESH CARRIER

SITE ID: MESH 1.8M.
LOCATION: (5,000 1.8M UNITS), CONUS, AK, HI, PR VI

ANTENNA ID: MESH 1.8M 1.8 meters HUGHES NETWORK SYSTEMS PES-RFT-180

14000.0000 - 14500.0000 MHz 156KG7D 48.60 dBW BPSK OR OQPSK, DATA, MESH CARRIER

11700.0000 - 12200.0000 MHz 156KG7D BPSK OR OQPSK, DATA, MESH CARRIER

SITE ID: MESH 2.4M.
LOCATION: (5,000 2.4M. UNITS), CONUS, AK, HI, PR VI

ANTENNA ID: MESH 2.4M 2.4 meters HUGHES NETWORK SYSTEMS PES-RFT-240

14000.0000 - 14500.0000 MHz 307KG7D 53.70 dBW BPSK OR OQPSK, DATA, MESH CARRIER

11700.0000 - 12200.0000 MHz 307KG7D BPSK OR OQPSK, DATA, MESH CARRIER

SITE ID: MESH 1.2M.
LOCATION: (5,000 1.2M. UNITS), CONUS, AK, HI, PR VI

ANTENNA ID: MESH 1.2M 1.2 meters HUGHES NETWORK SYTEMS PES-RFT-120

14000.0000 - 14500.0000 MHz 156KG7D 45.00 dBW BPSK OR OQPSK, DATA, MESH CARRIER

11700.0000 - 12200.0000 MHz 156KG7D 0.00 dBW BPSK OR OQPSK, DATA, MESH CARRIER

SITE ID: TR 74-2 CM
LOCATION: 500,000 (.74 METER ANTENNAS), CONUS, AK, HI, VI PR

ANTENNA ID: TR 74-2CM 0.74 meters RAVEN HNS-AN-074R-KU

14000.0000 - 14500.0000 MHz 200KG7D 41.70 dBW PSK, DIGITAL, 128 KSPS, INROUTE CARRIER

14000.0000 - 14500.0000 MHz	400KG7D	41.70 dBW	OQPSK, DIGITAL, 256 KSPS, RETURN CARRIER
14000.0000 - 14500.0000 MHz	800KG7D	41.70 dBW	OQPSK, DIGITAL, 512 KSPS, RETURN CARRIER
14000.0000 - 14500.0000 MHz	1M60G7D	41.70 dBW	PSK, DATA, 1024 KSPS, INROUTE CARRIER
11700.0000 - 12200.0000 MHz	6M00G7D		OQPSK, DATA, 5 MSPS, MULTIMEDIA
11700.0000 - 12200.0000 MHz	12M0G7D		OQPSK, DATA, 10 MSPS, MULTIMEDIA
11700.0000 - 12200.0000 MHz	24M0G7D		OQPSK, DATA, 20 MSPS, MULTIMEDIA
11700.0000 - 12200.0000 MHz	36M0G7D		PSK, DATA, 30 MSPS, OUTROUTE CARRIER
11700.0000 - 12200.0000 MHz	400KG7D		PSK, DATA, 256 KSPS, OUTROUTE CARRIER

SITE ID: TFTR 74-2CM

LOCATION: 50,000 (.74 METER ANTENNAS), CONUS, AK, HI, VI PR

ANTENNA ID:	TFTR 74-2C	0.74 meters	PRODELIN	HNS-AN-074P-KU
14000.0000 - 14500.0000 MHz	200KG7D	41.70 dBW	PSK, DIGITAL, 128 KSPS, INROUTE CARRIER	
14000.0000 - 14500.0000 MHz	400KG7D	41.70 dBW	PSK, DATA, 256 KSPS, OUTROUTE CARRIER	
14000.0000 - 14500.0000 MHz	800KG7D	41.70 dBW	OQPSK, DIGITAL, 512 KSPS, RETURN CARRIER	
14000.0000 - 14500.0000 MHz	1M60G7D	41.70 dBW	PSK, DATA, 1024 KSPS, INROUTE CARRIER	
11700.0000 - 12200.0000 MHz	6M00G7D		OQPSK, DATA, 5 MSPS, MULTIMEDIA	
11700.0000 - 12200.0000 MHz	12M0G7D		OQPSK, DATA, 10 MSPS, MULTIMEDIA	
11700.0000 - 12200.0000 MHz	24M0G7D		OQPSK, DATA, 20 MSPS, MULTIMEDIA	
11700.0000 - 12200.0000 MHz	36M0G7D		PSK, DATA, 30 MSPS, OUTROUTE CARRIER	
11700.0000 - 12200.0000 MHz	400KG7D		PSK, DATA, 256 KSPS, OUTROUTE CARRIER	

SITE ID: HUB H (11.1M)
 LOCATION: 17633 TECHNOLOGY BLVD. (11.1M.HUB), WASHINGTON, HAGERSTOWN, MD
 39 ° 35 ' 56.30 " N LAT. 77 ° 45 ' 17.90 " W LONG.

ANTENNA ID:	HUB H 11-1	11.1 meters	VERTEX	11.1 KPK
	14470.0000 - 14497.0000 MHz	6M0G7D	79.60 dBW	DIGITAL, PSK, DATA, 5 MSPS, OUTROUTE
	14470.0000 - 14497.0000 MHz	12M0G7D	82.60 dBW	DIGITAL, PSK, DATA, 10 MSPS, OUTROUTE
	14470.0000 - 14497.0000 MHz	24M0G7D	85.60 dBW	DIGITAL, PSK, DATA, 20 MSPS, OUTROUTE
	14102.0000 - 14318.0000 MHz	36M0G7D	87.40 dBW	DIGITAL, PSK, DATA, 30 MSPS, OUTROUTE
	14102.0000 - 14318.0000 MHz	6M0G7D	79.60 dBW	DIGITAL, PSK, DATA, 5 MSPS, OUTROUTE
	14253.0000 - 14311.0000 MHz	12M0G7D	82.60 dBW	DIGITAL, PSK, DATA, 10 MSPS, OUTROUTE
	14253.0000 - 14311.0000 MHz	24M0G7D	85.60 dBW	DIGITAL, PSK, DATA, 20 MSPS, OUTROUTE
	14253.0000 - 14311.0000 MHz	36M0G7D	87.40 dBW	DIGITAL, PSK, DATA, 30 MSPS, OUTROUTE
	14246.5000 - 14366.5000 MHz	6M0G7D	79.60 dBW	DIGITAL, PSK, DATA, 5 MSPS, OUTROUTE
	14246.5000 - 14366.5000 MHz	12M0G7D	82.60 dBW	DIGITAL, PSK, DATA, 10 MSPS, OUTROUTE
	14246.5000 - 14366.5000 MHz	24M0G7D	85.60 dBW	DIGITAL, PSK, DATA, 20 MSPS, OUTROUTE
	14246.5000 - 14366.5000 MHz	36M0G7D	87.40 dBW	DIGITAL, PSK, DATA, 30 MSPS, OUTROUTE
	14122.5000 - 14149.5000 MHz	6M0G7D	79.60 dBW	DIGITAL, PSK, DATA, 5 MSPS, OUTROUTE
	14122.5000 - 14149.5000 MHz	12M0G7D	82.60 dBW	DIGITAL, PSK, DATA, 10 MSPS, OUTROUTE
	14122.5000 - 14149.5000 MHz	24M0G7D	85.60 dBW	DIGITAL, PSK, DATA, 20 MSPS, OUTROUTE
	14122.5000 - 14149.5000 MHz	36M0G7D	87.40 dBW	DIGITAL, PSK, DATA, 30 MSPS, OUTROUTE
	14069.0000 - 14123.0000 MHz	6M0G7D	79.60 dBW	DIGITAL, PSK, DATA, 5 MSPS, OUTROUTE

14069.0000 - 14123.0000 MHz	12M0G7D	82.60 dBW	DIGITAL, PSK, DATA, 10 MSPS, OUTROUTE
14069.0000 - 14123.0000 MHz	24M0G7D	85.60 dBW	DIGITAL, PSK, DATA, 20 MSPS, OUTROUTE
14069.0000 - 14123.0000 MHz	36M0G7D	87.40 dBW	DIGITAL, PSK, DATA, 30 MSPS, OUTROUTE
12170.0000 - 12197.0000 MHz	200KG7D		DIGITAL, PSK, DATA, 128 KSPS, INROUTE
12170.0000 - 12197.0000 MHz	400KG7D		DIGITAL, PSK, DATA, 256 KSPS, INROUTE
12170.0000 - 12197.0000 MHz	800KG7D		DIGITAL, PSK, DATA, 512 KSPS, INROUTE
11802.0000 - 12018.0000 MHz	1M60G7D		DIGITAL, PSK, DATA, 1024 KSPS, INROUTE
11802.0000 - 12018.0000 MHz	200KG7D		DIGITAL, PSK, DATA, 128 KSPS, INROUTE
11953.0000 - 12011.0000 MHz	400KG7D		DIGITAL, PSK, DATA, 256 KSPS, INROUTE
11953.0000 - 12011.0000 MHz	800KG7D		DIGITAL, PSK, DATA, 512 KSPS, INROUTE
11953.0000 - 12011.0000 MHz	1M60G7D		DIGITAL, PSK, DATA, 1024 KSPS, INROUTE
11946.5000 - 12066.5000 MHz	200KG7D		DIGITAL, PSK, DATA, 128 KSPS, INROUTE
11946.5000 - 12066.5000 MHz	400KG7D		DIGITAL, PSK, DATA, 256 KSPS, INROUTE
11946.5000 - 12066.5000 MHz	800KG7D		DIGITAL, PSK, DATA, 512 KSPS, INROUTE
11946.5000 - 12066.5000 MHz	1M60G7D		DIGITAL, PSK, DATA, 1024 KSPS, INROUTE
11822.5000 - 11849.5000 MHz	200KG7D		DIGITAL, PSK, DATA, 128 KSPS, INROUTE
11822.5000 - 11849.5000 MHz	400KG7D		DIGITAL, PSK, DATA, 256 KSPS, INROUTE
11822.5000 - 11849.5000 MHz	800KG7D		DIGITAL, PSK, DATA, 512 KSPS, INROUTE
11822.5000 - 11849.5000 MHz	1M60G7D		DIGITAL, PSK, DATA, 1024 KSPS, INROUTE

11769.0000 - 11823.0000 MHz	200KG7D	DIGITAL, PSK, DATA, 128 KSPS, INROUTE
11769.0000 - 11823.0000 MHz	400KG7D	DIGITAL, PSK, DATA, 256 KSPS, INROUTE
11769.0000 - 11823.0000 MHz	800KG7D	DIGITAL, PSK, DATA, 512 KSPS, INROUTE
11769.0000 - 11823.0000 MHz	1M60G7D	DIGITAL, PSK, DATA, 1024 KSPS, INROUTE

SITE ID: HUB 1 (3.9 M)
LOCATION: (3.9M.HUB1), MONTGOMERY, GERMANTOWN, MD

ANTENNA ID: HUB 1	3.9 meters	ANDREW CORPORATION	MILSATCOM 3.9 METER
14000.0000 - 14500.0000 MHz	36M0G7D	77.60 dBW	PSK, DATA, 30 MSPS, OUTROUTE CARRIER
14000.0000 - 14500.0000 MHz	1M60G7D	64.80 dBW	PSK, DATA, 1024 KSPS, OUTROUTE CARRIER
11700.0000 - 12200.0000 MHz	200KG7D		PSK, DATA, 128 KSPS, INROUTE CARRIER
11700.0000 - 12200.0000 MHz	1M60G7D		PSK, DATA, 1024 KSPS, INROUTE CARRIER

SITE ID: TR 98CM
LOCATION: 200,000 (98CM ANTENNAS), CONUS, AK, HI, VI PR

ANTENNA ID: TR 98CM	0.98 meters	PRODELIN	HNS-AN-098P-KU
11700.0000 - 12200.0000 MHz	36M0G7D		OQPSK, DATA, 30 MSPS, MULTIMEDIA BROADCAST CARRIER
14000.0000 - 14500.0000 MHz	200KG7D	44.30 dBW	PSK, DATA, 128 KSPS, INROUTE CARRIER
14000.0000 - 14500.0000 MHz	400KG7D	44.30 dBW	OQPSK, DIGITAL, 256 KSPS, RETURN CARRIER
14000.0000 - 14500.0000 MHz	800KG7D	44.30 dBW	OQPSK, DIGITAL, 512 KSPS, RETURN CARRIER
14000.0000 - 14500.0000 MHz	1M60G7D	44.30 dBW	OQPSK, DIGITAL, 1024 KSPS, REURN CARRIER
14000.0000 - 14500.0000 MHz	200KG7D	44.30 dBW	DIGITAL PSK, DIGITAL, 128 KSPS, RETURN CARRIER
14000.0000 - 14500.0000 MHz	400KG7D	44.30 dBW	DIGITAL PSK, DIGITAL, 256 KSPS, RETURN CARRIER

14000.0000 - 14500.0000 MHz	800KG7D	44.30 dBW	DIGITAL PSK, DIGITAL, 512 KSPS, RETURN CARRIER
14000.0000 - 14500.0000 MHz	1M60G7D	44.30 dBW	PSK, DATA, 1024 KSPS, INROUTE CARRIER
11700.0000 - 12200.0000 MHz	6M00G7D		DIGITAL PSK, DATA, 5 MSPS, MULTIMEDIA
11700.0000 - 12200.0000 MHz	12M0G7D		DIGITAL PSK, DATA, 10 MSPS, MULTIMEDIA
11700.0000 - 12200.0000 MHz	24M0G7D		DIGITAL PSK, DATA, 20 MSPS, MULTIMEDIA
11700.0000 - 12200.0000 MHz	36M0G7D		PSK, DATA, 30 MSPS, OUTROUTE CARRIER
11700.0000 - 12200.0000 MHz	6M00G7D		OQPSK, DATA, 5 MSPS, MULTIMEDIA BROADCAST CARRIER
11700.0000 - 12200.0000 MHz	12M0G7D		OQPSK, DATA, 10 MSPS, MULTIMEDIA BROADCAST CARRIER
11700.0000 - 12200.0000 MHz	24M0G7D		OQPSK, DATA, 20 MSPS, MULTIMEDIA BROADCAST CARRIER
11700.0000 - 12200.0000 MHz	400KG7D		PSK, DATA, 256 KSPS, OUTROUTE CARRIER

ANTENNA ID: TR 98CM-2 0.98 meters RAVEN MANUFACTURING LIMITED HNS-AN-098R-KU

SITE ID: TF TR 1.2M.
LOCATION: 1.2 M. (50,000 UNITS), CONUS, AK, HI, PR VI

ANTENNA ID: TF TR 1.2M 1.2 meters PRODELIN HNS-AN-120P-KU

14000.0000 - 14500.0000 MHz	200KG7D	46.10 dBW	PSK, DIGITAL, 128 KSPS, INROUTE CARRIER
14000.0000 - 14500.0000 MHz	400KG7D	46.10 dBW	OQPSK, DIGITAL, 256 KSPS, RETURN CARRIER
14000.0000 - 14500.0000 MHz	800KG7W	46.10 dBW	OQPSK, DIGITAL, 512 KSPS, RETURN CARRIER
14000.0000 - 14500.0000 MHz	1M60G7D	46.10 dBW	PSK, DIGITAL, 1024 KSPS, INROUTE CARRIER
11700.0000 - 12200.0000 MHz	24M0G7D		OQPSK, DATA, 20 MSPS, MULTIMEDIA BROADCAST CARRIER

11700.0000 - 12200.0000 MHz	36M0G7D	PSK, DATA, 30 MSPS, OUTROUTE CARRIER
11700.0000 - 12200.0000 MHz	12M0G7D	OQPSK, DATA, 10 MSPS, MULTIMEDIA BROADCAST CARRIER
11700.0000 - 12200.0000 MHz	6M00G7D	OQPSK, DATA, 5 MSPS, MULTIMEDIA BROADCAST CARRIER
11700.0000 - 12200.0000 MHz	400KG7D	PSK, DATA, 256 KSPS, OUTROUTE CARRIER

SITE ID: TR 74CM
LOCATION: VSAT 0.74M (98 x 56 cm) (350,000 UNITS), CONUS, AK,HI,PR, VI

ANTENNA ID: TR 74CM	0.74 meters	PRODELIN	HNS-AN-074P-KU
14000.0000 - 14500.0000 MHz	200KG7D	42.00 dBW	PSK, DIGITAL, 128 KSPS, INROUTE CARRIER
14000.0000 - 14500.0000 MHz	400KG7D	42.00 dBW	OQPSK, DIGITAL, 256 KSPS, RETURN CARRIER
14000.0000 - 14500.0000 MHz	800KG7D	42.00 dBW	OQPSK, DIGITAL, 512 KSPS, RETURN CARRIER
14000.0000 - 14500.0000 MHz	1M60G7D	42.00 dBW	PSK, DIGITAL, 1024 KSPS, INROUTE CARRIER
11700.0000 - 12200.0000 MHz	36M0G7D	PSK, DATA, 30 MSPS, OUTROUTE CARRIER	
11700.0000 - 12200.0000 MHz	12M0G7D	OQPSK, DATA, 10 MSPS, MULTIMEDIA BROADCAST CARRIER	
11700.0000 - 12200.0000 MHz	6M00G7D	OQPSK, DATA, 5 MSPS, MULTIMEDIA BROADCAST CARRIER	
11700.0000 - 12200.0000 MHz	24M0G7D	OQPSK, DATA, 20 MSPS, MULTIMEDIA BROADCAST CARRIER	
11700.0000 - 12200.0000 MHz	400KG7D	PSK, DATA, 256 KSPS, OUTROUTE CARRIER	

SITE ID: HUB-C 7.6M
LOCATION: 11717 EXPLORATION LANE (7.6M. HUB), MONTGOMERY, GERMANTOWN, MD
39 ° 10 ' 43.00 " N LAT. 77 ° 14 ' 51.00 " W LONG.

ANTENNA ID: HubC 7.6M	7.6 meters	NEC	APS-12/14-F64A
14000.0000 - 14500.0000 MHz	400KG7D	59.00 dBW	PSK, DATA, 256 KSPS, OUTROUTE CARRIER

14000.0000 - 14500.0000 MHz	1M60G7D	65.00 dBW	BPSK, DATA, 1024 KSPS, OUTROUTE CARRIER
14000.0000 - 14500.0000 MHz	6M00G7D	70.80 dBW	OQPSK, DATA, 5 MSPS, MULTIMEDIA BROADCAST CARRIER
14000.0000 - 14500.0000 MHz	12M0G7D	73.80 dBW	PSK, DATA, 10 MSPS, OUTROUTE CARRIER
11700.0000 - 12200.0000 MHz	200KG7D		PSK OR MSK, DATA, 128 KSPS, INROUTE CARRIER
11700.0000 - 12200.0000 MHz	400KG7D		BPSK OR MSK, DATA, 256 KSPS, INROUTE CARRIER
11700.0000 - 12200.0000 MHz	800KG7D		BPSK OR MSK, DATA, 512 KSPS, INROUTE CARRIER
11700.0000 - 12200.0000 MHz	1M60G7D		PSK, DIGITAL, 1024 KSPS, INROUTE CARRIER

SITE ID: TR 2.4M.

LOCATION: VSAT 2.4M (11,000 units), CONUS, AK, HI, VI PR

ANTENNA ID:	TR 2.4M.	2.4 meters	PRODELIN CORP.	HNS-AN-240P-KU
14000.0000 - 14500.0000 MHz	200KG7D	52.20 dBW	PSK, DIGITAL, 128 KSPS, INROUTE CARRIER	
14000.0000 - 14500.0000 MHz	400KG7D	52.20 dBW	OQPSK, DIGITAL, 256 KSPS, RETURN CARRIER	
14000.0000 - 14500.0000 MHz	800KG7D	52.20 dBW	OQPSK, DIGITAL, 512 KSPS, RETURN CARRIER	
14000.0000 - 14500.0000 MHz	1M60G7D	52.20 dBW	PSK, DIGITAL, 1024 KSPS, INROUTE CARRIER	
11700.0000 - 12200.0000 MHz	24M0G7D		OQPSK, DATA, 20 MSPS, MULTIMEDIA BROADCAST CARRIER	
11700.0000 - 12200.0000 MHz	36M0G7D		PSK, DATA, 30 MSPS, OUTROUTE CARRIER	
11700.0000 - 12200.0000 MHz	6M00G7D		OQPSK, DATA, 5 MSPS, MULTIMEDIA BROADCAST CARRIER	
11700.0000 - 12200.0000 MHz	12M0G7D		OQPSK, DATA, 10 MSPS, MULTIMEDIA BROADCAST CARRIER	
11700.0000 - 12200.0000 MHz	400KG7D		PSK, DATA, 256 KSPS, OUTROUTE CARRIER	

SITE ID: HUB-D 7.6M
 LOCATION: 11717 EXPLORATION LANE (7.6M. HUB), MONTGOMERY, GERMANTOWN, MD
 39 ° 10 ' 42.00 " N LAT. 77 ° 14 ' 53.00 " W LONG.

ANTENNA ID:	HubD 7.6M	7.6 meters	NEC	APS-12/14-F0764A
	14000.0000 - 14500.0000 MHz	400KG7D	59.00 dBW	PSK, DATA, 256 KSPS, OUTROUTE CARRIER
	14000.0000 - 14500.0000 MHz	1M60G7D	65.00 dBW	BPSK, DATA, 1024 KSPS, OUTROUTE CARRIER
	14000.0000 - 14500.0000 MHz	6M00G7D	70.80 dBW	OQPSK, DATA, 5 MSPS, MULTIMEDIA BROADCAST CARRIER
	14000.0000 - 14500.0000 MHz	12M0G7D	73.80 dBW	PSK, DATA, 1024 KSPS, OUTROUTE CARRIER
	11700.0000 - 12200.0000 MHz	200KG7D		PSK OR MSK, DATA, 128 KSPS, INROUTE CARRIER
	11700.0000 - 12200.0000 MHz	400KG7D		BPSK OR MSK, DATA, 256 KSPS, INROUTE CARRIER
	11700.0000 - 12200.0000 MHz	800KG7D		BPSK OR MSK, DATA, 512 KSPS, INROUTE CARRIER
	11700.0000 - 12200.0000 MHz	1M60G7D		PSK, DIGITAL, 1024 KSPS, INROUTE CARRIER

SITE ID: HUB-E 6.1M
 LOCATION: 11717 EXPLORATION LANE (6.1M. HUB), MONTGOMERY, GERMANTOWN, MD
 39 ° 10 ' 46.00 " N LAT. 77 ° 14 ' 49.00 " W LONG.

ANTENNA ID:	HubE 6.1M	6.1 meters	VERTEX	6.1KPK
	14000.0000 - 14500.0000 MHz	400KG7D	52.90 dBW	PSK, DATA, 256 KSPS, OUTROUTE CARRIER
	14000.0000 - 14500.0000 MHz	1M60G7D	58.90 dBW	BPSK, DATA, 1024 KSPS, OUTROUTE CARRIER
	14000.0000 - 14500.0000 MHz	6M00G7D	67.70 dBW	OQPSK, DATA, 5 MSPS, MULTIMEDIA BROADCAST CARRIER
	14000.0000 - 14500.0000 MHz	12M0G7D	70.70 dBW	OQPSK, DATA, 10 MSPS, MULTIMEDIA BROADCAST CARRIER
	14000.0000 - 14500.0000 MHz	24M0G7D	79.70 dBW	PSK, DATA, 20 MSPS, OUTROUTE CARRIER
	14000.0000 - 14500.0000 MHz	36M0G7D	97.70 dBW	PSK, DATA, 30 MSPS, OUTROUTE CARRIER

11700.0000 - 12200.0000 MHz	200KG7D	PSK, DATA, 128 KSPS, INROUTE CARRIER
11700.0000 - 12200.0000 MHz	400KG7D	OQPSK, DATA, 256 KSPS, RETURN CARRIER
11700.0000 - 12200.0000 MHz	200KG7D	PSK OR MSK, DATA, 128 KSPS, INROUTE CARRIER
11700.0000 - 12200.0000 MHz	400KG7D	BPSK OR MSK, DATA, 256 KSPS, INROUTE CARRIER
11700.0000 - 12200.0000 MHz	800KG7D	BPSK OR MSK, DATA, 512 KSPS, INROUTE CARRIER
11700.0000 - 12200.0000 MHz	1M60G7D	PSK, DIGITAL, 1024 KSPS, INROUTE CARRIER

SITE ID: HUB-F 5.6M
LOCATION: 11717 EXPLORATION LANE (5.6M. HUB), MONTGOMERY, GERMANTOWN, MD
39 ° 10 ' 46.00 " N LAT. 77 ° 14 ' 54.00 " W LONG.

ANTENNA ID: HubF 5.6M	5.6 meters	ANDREW	ES56-1
14000.0000 - 14500.0000 MHz	400KG7D	52.90 dBW	PSK, DATA, 256 KSPS, OUTROUTE CARRIER
14000.0000 - 14500.0000 MHz	1M60G7D	58.90 dBW	BPSK, DATA, 1024 KSPS, OUTROUTE CARRIER
14000.0000 - 14500.0000 MHz	6M00G7D	67.70 dBW	OQPSK, DATA, 5 MSPS, MULTIMEDIA BROADCAST CARRIER
14000.0000 - 14500.0000 MHz	12M0G7D	70.70 dBW	OQPSK, DATA, 10 MSPS, MULTIMEDIA BROADCAST CARRIER
14000.0000 - 14500.0000 MHz	24M0G7D	77.70 dBW	PSK, DATA, 20 MSPS, OUTROUTE CARRIER
14000.0000 - 14500.0000 MHz	36M0G7D	77.70 dBW	PSK, DATA, 30 MSPS, OUTROUTE CARRIER
11700.0000 - 12200.0000 MHz	200KG7D	PSK, DATA, 128 KSPS, INROUTE CARRIER	
11700.0000 - 12200.0000 MHz	400KG7D	OQPSK, DATA, 256 KSPS, RETURN CARRIER	
11700.0000 - 12200.0000 MHz	200KG7D	BPSK OR MSK, DATA, 128 KSPS, INROUTE CARRIER	
11700.0000 - 12200.0000 MHz	400KG7D	BPSK OR MSK, DATA, 256 KSPS, INROUTE CARRIER	

11700.0000 - 12200.0000 MHz	800KG7D		BPSK OR MSK, DATA, 522 KSPS, INROUTE CARRIER
11700.0000 - 12200.0000 MHz	1M60G7D		PSK, DIGITAL, 1024 KSPS, INROUTE CARRIER
SITE ID: HUB-G 4.6M			
LOCATION: 10450 PACIFIC CENTER COURT (4.6M. HUB), SAN DIEGO, SAN DIEGO, CA			
32 ° 54 ' 31.00 " N LAT.		117 ° 11 ' 26.00 " W LONG.	
ANTENNA ID: HubG 4.6M	4.6 meters	VERTEX	4.57KPK
14000.0000 - 14500.0000 MHz	400KG7D	57.50 dBW	PSK, DATA, 256 KSPS, OUTROUTE CARRIER
14000.0000 - 14500.0000 MHz	1M60G7D	57.50 dBW	PSK, DATA, 1024 KSPS, OUTROUTE CARRIER
11700.0000 - 12200.0000 MHz	200KG7D		PSK OR MSK, DATA, 128 KSPS, INROUTE CARRIER
11700.0000 - 12200.0000 MHz	400KG7D		BPSK OR MSK, DATA, 256 KSPS, INROUTE CARRIER
11700.0000 - 12200.0000 MHz	800KG7D		BPSK OR MSK, DATA, 512 KSPS, INROUTE CARRIER
11700.0000 - 12200.0000 MHz	1M60G7D		PSK, DIGITAL, 1024 KSPS, INROUTE CARRIER

Points of Communication:

- HUB 1 (3.9 M) - ALSAT - (ALSAT)
- HUB H (11.1M) - GALAXY 25 - (97 W.L.)
- HUB H (11.1M) - INTELSAT AMERICAS-6 - (93 W.L.)
- HUB-A - ALSAT - (ALSAT)
- HUB-A - GALAXY 10R - (123 W.L.)
- HUB-A - HORIZONS 1 - (127 WL)
- HUB-A - IA-8 - (89 W.L.)
- HUB-A - SATMEX-5 - (116.8 W.L.)
- HUB-B - ALSAT - (ALSAT)
- HUB-B - GALAXY 10R - (123 W.L.)
- HUB-B - HORIZONS 1 - (127 WL)
- HUB-B - IA-8 - (89 W.L.)
- HUB-B - SATMEX-5 - (116.8 W.L.)

HUB-C 7.6M - ALSAT - (ALSAT)

HUB-C 7.6M - GALAXY 10R - (123 W.L.)

HUB-C 7.6M - HORIZONS 1 - (127 WL)

HUB-C 7.6M - IA-8 - (89 W.L.)

HUB-C 7.6M - SATMEX-5 - (116.8 W.L.)

HUB-D 7.6M - ALSAT - (ALSAT)

HUB-D 7.6M - GALAXY 10R - (123 W.L.)

HUB-D 7.6M - HORIZONS 1 - (127 WL)

HUB-D 7.6M - IA-8 - (89 W.L.)

HUB-D 7.6M - SATMEX-5 - (116.8 W.L.)

HUB-E 6.1M - ALSAT - (ALSAT)

HUB-E 6.1M - GALAXY 10R - (123 W.L.)

HUB-E 6.1M - HORIZONS 1 - (127 WL)

HUB-E 6.1M - IA-8 - (89 W.L.)

HUB-E 6.1M - SATMEX-5 - (116.8 W.L.)

HUB-F 5.6M - ALSAT - (ALSAT)

HUB-F 5.6M - GALAXY 10R - (123 W.L.)

HUB-F 5.6M - HORIZONS 1 - (127 WL)

HUB-F 5.6M - IA-8 - (89 W.L.)

HUB-F 5.6M - SATMEX-5 - (116.8 W.L.)

HUB-G 4.6M - ALSAT - (ALSAT)

HUB-G 4.6M - SATMEX-5 - (116.8 W.L.)

MESH 1.2M. - ALSAT - (ALSAT)

MESH 1.8M. - ALSAT - (ALSAT)

MESH 2.4M. - ALSAT - (ALSAT)

MESH 3.5M. - ALSAT - (ALSAT)

TF TR 1.2M. - ALSAT - (ALSAT)

TF TR 1.2M. - SATMEX-5 - (116.8 W.L.)

TF TR 74CM - AMC-3 - (87 W.L.)

TF TR 74CM - AMC-4 (formerl GE-4 - (101 W.L.)

TF TR 74CM - AMC-6 - (72 W.L.)

TF TR 74CM - AMC-9 - (85 W.L.)

TF TR 74CM - GALAXY 10R - (123 W.L.)

TF TR 74CM - GALAXY 16 - (99 W.L.)

TF TR 74CM - GALAXY 17 - (91 W.L.)

TF TR 74CM - GALAXY 18 - (123 W.L.)

TF TR 74CM - GALAXY 19 - (97 W.L.)

TF TR 74CM - GALAXY 25 - (97 W.L.)

TF TR 74CM - GALAXY III-C - (95 W.L.)

TF TR 74CM - GALAXY XI - (91 W.L.)

TF TR 74CM - HORIZONS 1 - (127 WL)

TF TR 74CM - IA-8 - (89 W.L.)

TF TR 74CM - INTELSAT AMERICAS 5 - (97 W.L.)

TF TR 74CM - INTELSAT AMERICAS-6 - (93 W.L.)

TF TR 74CM - SATMEX 6 - (113 W.L.)

TF TR 74CM - SATMEX-5 - (116.8 W.L.)

TF TR 98CM - AMC-3 - (87 W.L.)

TF TR 98CM - AMC-4 (formerl GE-4 - (101 W.L.)

TF TR 98CM - AMC-6 - (72 W.L.)

TF TR 98CM - AMC-9 - (85 W.L.)

TF TR 98CM - GALAXY 10R - (123 W.L.)

TF TR 98CM - GALAXY 17 - (91 W.L.)

TF TR 98CM - GALAXY 18 - (123 W.L.)

TF TR 98CM - GALAXY 19 - (97 W.L.)

TF TR 98CM - GALAXY III-C - (95 W.L.)

TF TR 98CM - GALAXY XI - (91 W.L.)

TF TR 98CM - HORIZONS 1 - (127 WL)

TF TR 98CM - IA-8 - (89 W.L.)

TF TR 98CM - INTELSAT AMERICAS 5 - (97 W.L.)

TF TR 98CM - INTELSAT AMERICAS-6 - (93 W.L.)

TF TR 98CM - SATMEX 6 - (113 W.L.)

TF TR 98CM - SATMEX-5 - (116.8 W.L.)

TFTR 74-2CM - AMC-3 - (87 W.L.)

TFTR 74-2CM - AMC-4 (formerl GE-4 - (101 W.L.)

TFTR 74-2CM - AMC-6 - (72 W.L.)

TFTR 74-2CM - AMC-9 - (85 W.L.)

TFTR 74-2CM - GALAXY 10R - (123 W.L.)

TFTR 74-2CM - GALAXY 16 - (99 W.L.)

TFTR 74-2CM - GALAXY 17 - (91 W.L.)

TFTR 74-2CM - GALAXY 18 - (123 W.L.)

TFTR 74-2CM - GALAXY 19 - (97 W.L.)

TFTR 74-2CM - GALAXY 25 - (97 W.L.)

TFTR 74-2CM - GALAXY III-C - (95 W.L.)

TFTR 74-2CM - GALAXY XI - (91 W.L.)

TFTR 74-2CM - HORIZONS 1 - (127 WL)

TFTR 74-2CM - IA-8 - (89 W.L.)

TFTR 74-2CM - INTELSAT AMERICAS 5 - (97 W.L.)

TFTR 74-2CM - INTELSAT AMERICAS-6 - (93 W.L.)

TFTR 74-2CM - SATMEX 6 - (113 W.L.)

TFTR 74-2CM - SATMEX-5 - (116.8 W.L.)

TR 1.0M. - ALSAT - (ALSAT)

TR 1.0M. - SATMEX-5 - (116.8 W.L.)

TR 1.2M. - ALSAT - (ALSAT)

TR 1.2M. - SATMEX-5 - (116.8 W.L.)

TR 1.8M. - ALSAT - (ALSAT)

TR 1.8M. - SATMEX-5 - (116.8 W.L.)

TR 2.4M. - ALSAT - (ALSAT)

TR 2.4M. - SATMEX-5 - (116.8 W.L.)

TR 74-2 CM - AMC-3 - (87 W.L.)

TR 74-2 CM - AMC-4 (formerl GE-4 - (101 W.L.)

TR 74-2 CM - AMC-6 - (72 W.L.)

TR 74-2 CM - AMC-9 - (85 W.L.)

TR 74-2 CM - GALAXY 10R - (123 W.L.)

TR 74-2 CM - GALAXY 16 - (99 W.L.)

TR 74-2 CM - GALAXY 17 - (91 W.L.)

TR 74-2 CM - GALAXY 18 - (123 W.L.)

TR 74-2 CM - GALAXY 19 - (97 W.L.)

TR 74-2 CM - GALAXY 25 - (97 W.L.)

TR 74-2 CM - GALAXY III-C - (95 W.L.)

TR 74-2 CM - GALAXY XI - (91 W.L.)

TR 74-2 CM - HORIZONS 1 - (127 WL)

TR 74-2 CM - IA-8 - (89 W.L.)

TR 74-2 CM - INTELSAT AMERICAS 5 - (97 W.L.)

TR 74-2 CM - INTELSAT AMERICAS-6 - (93 W.L.)

TR 74-2 CM - SATMEX 6 - (113 W.L.)

TR 74-2 CM - SATMEX-5 - (116.8 W.L.)

TR 74CM - AMC-3 - (87 W.L.)

TR 74CM - AMC-4 (formerl GE-4 - (101 W.L.)

TR 74CM - AMC-6 - (72 W.L.)

TR 74CM - AMC-9 - (85 W.L.)

TR 74CM - GALAXY 10R - (123 W.L.)

TR 74CM - GALAXY 16 - (99 W.L.)

TR 74CM - GALAXY 17 - (91 W.L.)

TR 74CM - GALAXY 18 - (123 W.L.)

TR 74CM - GALAXY 19 - (97 W.L.)

TR 74CM - GALAXY 25 - (97 W.L.)

TR 74CM - GALAXY 4R - (99 W.L.)

TR 74CM - GALAXY III-C - (95 W.L.)

TR 74CM - GALAXY XI - (91 W.L.)

TR 74CM - HORIZONS 1 - (127 WL)

3700.0000 - 4200.0000 MHz	36M0F8W	ANALOG VIDEO WITH ASSOCIATED AUDIO SUBCARRIERS
---------------------------	---------	--

3700.0000 - 4200.0000 MHz	36M0G7W	DIGITAL AUDIO AND VIDEO
---------------------------	---------	-------------------------

Points of Communication:

1 - ALSAT - (ALSAT)

SES-REG-20101216-01611	E E100169	FOX BROADCASTING COMPANY	12/16/2010 - 12/16/2025
Registration			Date Effective: 03/02/2011
Grant of Authority			

Class of Station: Fixed Earth Stations

Nature of Service: Fixed Satellite Service

SITE ID: 1
LOCATION: 600 W. ST. JOSEPH STREET STE. 47, INGHAM, LANSING, MI
42 ° 43 ' 36.60 " N LAT. 84 ° 33 ' 40.60 " W LONG.

ANTENNA ID: C1 4.5 meters ANDREW CORPORATION 4.5M.

3700.0000 - 4200.0000 MHz	36M0F8W	ANALOG VIDEO WITH ASSOCIATED AUDIO SUBCARRIERS
---------------------------	---------	--

3700.0000 - 4200.0000 MHz	36M0G7W	DIGITAL AUDIO AND VIDEO
---------------------------	---------	-------------------------

Points of Communication:

1 - ALSAT - (ALSAT)

SES-REG-20101216-01612	E E100170	FOX BROADCASTING COMPANY	12/16/2010 - 12/16/2025
Registration			Date Effective: 03/02/2011
Grant of Authority			

Class of Station: Fixed Earth Stations

Nature of Service: Fixed Satellite Service

SITE ID: 1
LOCATION: 42-650 MELANIE PLACE, RIVERSIDE, PALM DESERT, CA
33 ° 44 ' 17.00 " N LAT. 116 ° 21 ' 7.80 " W LONG.

ANTENNA ID: C1 4.5 meters ANDREW CORPORATION 4.5M.

3700.0000 - 4200.0000 MHz	36M0F8W	ANALOG VIDEO WITH ASSOCIATED AUDIO SUBCARRIERS
---------------------------	---------	--

3700.0000 - 4200.0000 MHz	36M0G7W	DIGITAL AUDIO AND VIDEO
---------------------------	---------	-------------------------

Points of Communication:

1 - ALSAT - (ALSAT)

SES-REG-20101216-01613 E E100171 FOX BROADCASTING COMPANY
Registration 12/16/2010 - 12/16/2025
Grant of Authority Date Effective: 03/02/2011

Class of Station: Fixed Earth Stations

Nature of Service: Fixed Satellite Service

SITE ID: 1
LOCATION: 2950 HIGHWAY 69 NE, CRAWFORD, PITTSBURG, KS
37 ° 13 ' 14.00 " N LAT. 94 ° 42 ' 22.90 " W LONG.

ANTENNA ID:	C1	4.5 meters	ANDREW CORPORATION	4.5M.
	3700.0000 - 4200.0000 MHz		36M0F8W	ANALOG VIDEO WITH ASSOCIATED AUDIO SUBCARRIERS
	3700.0000 - 4200.0000 MHz		36M0G7W	DIGITAL AUDIO AND VIDEO

Points of Communication:

1 - ALSAT - (ALSAT)

SES-REG-20101216-01614 E E100172 FOX BROADCASTING COMPANY
Registration 12/16/2010 - 12/16/2025
Grant of Authority Date Effective: 03/02/2011

Class of Station: Fixed Earth Stations

Nature of Service: Fixed Satellite Service

SITE ID: 1
LOCATION: 201 HUMBOLT STREET, MONROE, ROCHESTER, NY
43 ° 9 ' 11.80 " N LAT. 77 ° 33 ' 47.20 " W LONG.

ANTENNA ID:	C1	4.5 meters	ANDREW CORPORATION	4.5M.
	3700.0000 - 4200.0000 MHz		36M0F8W	ANALOG VIDEO WITH ASSOCIATED AUDIO SUBCARRIERS
	3700.0000 - 4200.0000 MHz		36M0G7W	DIGITAL AUDIO AND VIDEO

Points of Communication:

1 - ALSAT - (ALSAT)

SES-REG-20101216-01615 E E100173 FOX BROADCASTING COMPANY
Registration 12/16/2010 - 12/16/2025
Grant of Authority Date Effective: 03/02/2011

Class of Station: Fixed Earth Stations

Nature of Service: Fixed Satellite Service

SITE ID: 1
LOCATION: 604 NORTH MESA, EL PASO, EL PASO, TX
31 ° 49 ' 49.00 " N LAT. 106 ° 31 ' 40.00 " W LONG.

ANTENNA ID: C1 4.5 meters ANDREW CORPORATION 4.5M.
3700.0000 - 4200.0000 MHz 36M0F8W ANALOG VIDEO WITH ASSOCIATED AUDIO SUBCARRIERS
3700.0000 - 4200.0000 MHz 36M0G7W DIGITAL AUDIO AND VIDEO

Points of Communication:

1 - ALSAT - (ALSAT)

SES-RWL-20110218-00180 E E010024 Nexstar Broadcasting, Inc.
Renewal 03/28/2011 - 03/28/2026
Grant of Authority Date Effective: 03/02/2011

Class of Station: Temporary Fixed Earth Station

Nature of Service: Domestic Fixed Satellite Service

SITE ID: 1
LOCATION: VARIOUS

ANTENNA ID: 1 1.2 meters AVL 1.2M DSNG
14000.0000 - 14500.0000 MHz 24M0G7F 62.24 dBW PSK DIGITAL VIDEO W/DIGITAL AUDIO/DATA

Points of Communication:

1 - ALSAT - (ALSAT)

SES-RWL-20110218-00181 E E2981 EchoStar Corporation
Renewal 04/08/2011 - 04/08/2026
Grant of Authority Date Effective: 03/02/2011

Class of Station: Fixed Earth Stations

Nature of Service: Domestic Fixed Satellite Service, International Fixed Satellite Service

SITE ID: 1
LOCATION: 6723 W. STEGER ROAD, WILL, MONEE, IL
41 ° 28 ' 2.00 " N LAT. 87 ° 46 ' 34.10 " W LONG.

ANTENNA ID: ANT 9 9.1 meters ANDREW CORPORATION ESA91-46
5925.0000 - 6425.0000 MHz 2K50G7W 44.30 dBW Data transmission
5925.0000 - 6425.0000 MHz 5K60G7W 45.76 dBW Data transmission
5925.0000 - 6425.0000 MHz 1M00G7W 75.20 dBW Data transmission

5925.0000 - 6425.0000 MHz	3M00G7W	79.90 dBW	Data transmission
5925.0000 - 6425.0000 MHz	6M00G7W	79.90 dBW	Data transmission
5925.0000 - 6425.0000 MHz	36M0F8F	79.90 dBW	Analog TV
5925.0000 - 6425.0000 MHz	36M0FXW	79.90 dBW	Data transmission
3700.0000 - 4200.0000 MHz			Data transmission, Analog TV

ANTENNA ID: ANT 1 10 meters ANDREW CORPORATION ESA10-46B

5925.0000 - 6425.0000 MHz	2K50G7W	44.30 dBW	Data transmission
5925.0000 - 6425.0000 MHz	5K60G7W	45.76 dBW	Data transmission
5925.0000 - 6425.0000 MHz	1M00G7W	75.60 dBW	Data transmission
5925.0000 - 6425.0000 MHz	3M00G7W	80.30 dBW	Data transmission
5925.0000 - 6425.0000 MHz	6M00G7W	80.30 dBW	Data transmission
5925.0000 - 6425.0000 MHz	36M0F8F	80.30 dBW	Analog TV
5925.0000 - 6425.0000 MHz	36M0FXW	80.30 dBW	Data transmission
3700.0000 - 4200.0000 MHz			Data transmission, Analog TV

Points of Communication:

1 - ALSAT - (ALSAT)

SES-RWL-20110223-00192	E E000702	Norac Inc	
Renewal			01/17/2011 - 01/17/2026
Grant of Authority			Date Effective: 03/02/2011

Class of Station: Temporary Fixed Earth Station

Nature of Service: Domestic Fixed Satellite Service

SITE ID: 1
LOCATION: VARIOUS

ANTENNA ID: 1	2.4 meters	VERTEX	2.4 DMK/DMC
14000.0000 - 14500.0000 MHz	18M0G7D	68.60 dBW	QPSK, 3/4 FEC, COMP. HIGH DEF. TV
11700.0000 - 12200.0000 MHz	18M0G7D		QPSK, 3/4 FEC, COMP. HIGH DEF. TV

Points of Communication:

1 - ALSAT - (ALSAT)

SES-STA-20110218-00182 E E070181 SES AMERICOM, INC.
Special Temporary Authority
Grant of Authority

Date Effective: 03/03/2011

Class of Station:

Special Temporary Authority is GRANTED with conditions to perform on-station TT&C for NSS-703 at 47.05W for a period of 30 days beginning March 4, 2011 and ending April 2, 2011.

Points of Communication:

SES-STA-20110225-00204 E E980081 EchoStar Corporation
Special Temporary Authority
Grant of Authority

Date Effective: 03/02/2011

Class of Station:

STA is granted with conditions for a period of 30 days from March 11, 2011 to April 10, 2011.

Points of Communication:

SES-STA-20110225-00205 E E050017 EchoStar Corporation
Special Temporary Authority
Grant of Authority

Date Effective: 03/02/2011

Class of Station:

Points of Communication:

SES-STA-20110225-00206 E KA268 Intelsat License LLC
Special Temporary Authority
Grant of Authority

Date Effective: 03/04/2011

Class of Station:

Extension for Special Temporary Authority is hereby GRANTED With Conditions for a period of 60 days beginning March 2, 2011 and ending April 30, 2011.

Points of Communication:

SES-STA-20110302-00230 E E050272 LOCKHEED MARTIN CORPORATION
Special Temporary Authority
Grant of Authority

Date Effective: 03/07/2011

Class of Station:

Extension of Special Temporary Authority is GRANTED with condition for 60 days beginning March 7, 2011 and ending May 5, 2011.

Points of Communication:

Dismissal

SES-T/C-20101230-01643 E060430 TerreStar License Inc., Debtor-in-Possession

See withdrawal letter dated March 2, 2011.

SES-T/C-20101230-01644 E070098 TerreStar License Inc., Debtor-in-Possession

Dismissal

See withdrawal letter dated March 2, 2011.

SES-T/C-20101230-01645 E090061 TerreStar License Inc., Debtor-in-Possession

See withdrawal letter dated March 2, 2011.

SURRENDER

SES-RWL-20010118-00242 WQ23 Connecticut Public Broadcasting Inc

License has been surrendered per letter filed March 2, 2011.

For more information concerning this Notice, contact the Satellite Division at 418-0719; TTY 202-418-2555.