UNITED STATES OF AMERICA
FEDERAL COMMUNICATIONS COMMISSION

RADIO STATION AUTHORIZATION

Name: ISAT US Inc.
Call Sign: E150097
Authorization Type: Modification of License
File Number: SES-MOD-20200602-00589
Non Common Carrier **Grant date:** 09/10/2020 **Expiration Date:** 10/22/2030

Nature of Service: Fixed Satellite Service

Class of Station: Temporary Fixed Earth Station

A) Site Location(s)

#	Site ID	Address	Latitude	Longitude	Elevation (Meters)	NAD	Special Provisions (Refer to Section H)
1)	1	TF1, TF1A terminals CONUS, PR, USVI, AK, HI, US TERRITORIES			0	NA	
		Licensee certifies antenna(s) do not comply with Section 25.209. Please refer to Section E for special conditions placed upon antennas at this site.					
2)	10	4000 Blanket Terminals CONUS, PR, USVI, AK, HI, US TERRITORIES				NA	
		Licensee certifies antenna(s) do not comply with Section 25.209. Please refer to Section E for special conditions placed upon antennas at this site.					
3)	11	4000 Blanket Terminals CONUS, PR, USVI, AK, HI, US TERRITORIES				NA	
		Licensee certifies antenna(s) do not comply with Section 25.209. Please refer to Section E for special conditions placed upon antennas at this site.					
4)	12	4000 Blanket Terminals CONUS, PR, USVI, AK, HI, US TERRITORIES				NA	
5)	13	1000 Blanket Terminals CONUS, PR, USVI, AK, HI, US TERRITORIES				NA	
6)	14	50 Blanket Terminals CONUS, PR, USVI, AK, HI, US TERRITORIES				NA	

FCC Form 488

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A) Site Location(s)

#	Site ID	Address	Latitude	Longitude	Elevation (Meters)	NAD	Special Provisions (Refer to Section H)
7)	15	50 Blanket Terminals CONUS, PR, USVI, AK, HI, US TERRITORIES				NA	
8)	16	50 Blanket Terminals CONUS, PR, USVI, AK, HI, US TERRITORIES				NA	
9)	17	50 Blanket Terminals CONUS, PR, USVI, AK, HI, US TERRITORIES				NA	
10)	18	50 Blanket Terminals CONUS, PR, USVI, AK, HI, US TERRITORIES				NA	
11)	19	50 Blanket Terminals CONUS, PR, USVI, AK, HI, US TERRITORIES				NA	
12)	2	4000 Blanket Terminals CONUS, PR, USVI, AK, HI, US TERRITORIES			0	NA	

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A) Site Location(s)

#	Site ID	Address	Latitude	Longitude	Elevation (Meters)	NAD	Special Provisions (Refer to Section H)
13)	20	50 Blanket Terminals CONUS, PR, USVI, AK, HI, US TERRITORIES				NA	
14)	21	50 Blanket Terminals CONUS, PR, USVI, AK, HI, US TERRITORIES				NA	
15)	3	4000 Blanket Terminals CONUS, PR, USVI, AK, HI, US TERRITORIES			0	NA	
		Licensee certifies antenna(s) do not comply with Section 25.209. Please refer to Section E for special conditions placed upon antennas at this site.					
16)	4	4000 Blanket Terminals CONUS, PR, USVI, AK, HI, US TERRITORIES			0	NA	
		Licensee certifies antenna(s) do not comply with Section 25.209. Please refer to Section E for special conditions placed upon antennas at this site.					
17)	5	4000 Blanket Terminals CONUS, PR, USVI, AK, HI, US TERRITORIES			0	NA	
		Licensee certifies antenna(s) do not comply with Section 25.209. Please refer to Section E for special conditions placed upon antennas at this site.					
18)	6	4000 Blanket Terminals CONUS, PR, USVI, AK, HI, US TERRITORIES			0	NA	
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A) Site Location(s)

#	Site ID	Address	Latitude	Longitude	Elevation (Meters)	NAD	Special Provisions (Refer to Section H)
19)	7	4000 Blanket Terminals CONUS, PR, USVI, AK, HI, US TERRITORIES			0	NA	
		Licensee certifies antenna(s) do not comply with Section 25.209. Please refer to Section E for special conditions placed upon antennas at this site.					
20)	8	4000 Blanket Terminals CONUS, PR, USVI, AK, HI, US TERRITORIES			0	NA	
		Licensee certifies antenna(s) do not comply with Section 25.209. Please refer to Section E for special conditions placed upon antennas at this site.					
21)	9	4000 Blanket Terminals CONUS, PR, USVI, AK, HI, US TERRITORIES				NA	
		Licensee certifies antenna(s) do not comply with Section 25.209. Please refer to Section E for special conditions placed upon antennas at this site.					

Subject to the provisions of the Communications Act of 1934, The Communications Satellite Act of 1962, subsequent acts and treaties, and all present and future regulations made by this Commission, and further subject to the conditions and requirements set forth in this license, the grantee is authorized to construct, use and operate the radio facilities described below for radio communications for the term beginning October 22, 2015 (3 AM Eastern Standard Time) and ending October 22, 2030 (3 AM Eastern Standard Time) . The required date of completion of construction and commencement of operation is September 10, 2021 (3 AM Eastern Standard Time) . Grantee must file with the Commission a certification upon completion of construction and commencement of operation.

B) Particulars of Operations

The General Provision 1010 applies to all receiving frequency bands.

The General Provision 1900 applies to all transmitting frequency bands.

For the text of these provisions, refer to Section H.

#	Frequency (MHz)	Polarization Code	Emission	Tx/Rx Mode	Max EIRP /Carrier (dBW)	Max EIRP Density /Carrier (dBW/4kHz)	Associated Antenna	Special Provisions (Refer to Section H)	Modulation/ Services
1)	29500.0000-30000.0000	R	3M32G7W	Tx	51.20	22.00	Fixed 1		Various modulation up to 32 APSK Digital Data Link/Data Signalling

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#	Frequency (MHz)	Polarization Code	Emission	Tx/Rx Mode	Max EIRP /Carrier (dBW)	Max EIRP Density /Carrier (dBW/4kHz)	Associated Antenna	Special Provisions (Refer to Section H)	Modulation/ Services
2)	29500.0000-30000.0000	R	460KG7W	Tx	42.60	22.00	Fixed 1		Various modulation up to 32 APSK Digital Data Link/Data Signalling
3)	29500.0000-30000.0000	R	5M00G1W	Tx	51.20	20.20	Fixed 1		Various modulation up to 32 APSK Digital Data Link/Data Signalling
4)	19700.0000-20200.0000	L	32M0G7W	Rx	0.00	0.00	Fixed 1		Various modulation up to 32 APSK Digital Data Link
5)	29500.0000-30000.0000	R	1M54G7W	Tx	51.60	25.70	Fixed 10		Various modulation up to 32 APSK Digital Data Link/Data Signalling
6)	29500.0000-30000.0000	R	460KG7W	Tx	45.30	24.70	Fixed 10		Various modulation up to 32 APSK Digital Data Link/Data Signalling
7)	29500.0000-30000.0000	R	5M00G1W	Tx	51.60	20.60	Fixed 10		Various modulation up to 32 APSK Digital Data Link/Data Signalling
8)	19700.0000-20200.0000	L	32M0G7W	Rx			Fixed 10		Various modulation up to 32 APSK Digital Data Link
9)	29500.0000-30000.0000	R	1M52G7W	Tx	54.60	28.80	Fixed 11		Various modulation up to 32 APSK Digital Data Link/Data Signalling
10)	29500.0000-30000.0000	R	460KG7W	Tx	45.30	24.70	Fixed 11		Various modulation up to 32 APSK Digital Data Link/Data Signalling
11)	29500.0000-30000.0000	R	5M00G1W	Tx	54.60	23.60	Fixed 11		Various modulation up to 32 APSK Digital Data Link/Data Signalling
12)	19700.0000-20200.0000	L	32M0G7W	Rx			Fixed 11		Various modulation up to 32 APSK Digital Data Link
13)	29500.0000-30000.0000	R	1M21G7W	Tx	46.20	21.40	Fixed 12		Various modulation up to 32 APSK Digital Data Link/Data Signalling
14)	29500.0000-30000.0000	R	2M42G7W	Tx	46.20	18.40	Fixed 12		Various modulation up to 32 APSK Digital Data Link/Data Signalling
15)	19700.0000-20200.0000	L	32M0G7W	Rx			Fixed 12		Various modulation up to 32 APSK Digital Data Link

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B) Particulars of Operations

The General Provision 1010 applies to all receiving frequency bands.

The General Provision 1900 applies to all transmitting frequency bands.

For the text of these provisions, refer to Section H.

#	Frequency (MHz)	Polarization Code	Emission	Tx/Rx Mode	Max EIRP /Carrier (dBW)	Max EIRP Density /Carrier (dBW/4kHz)	Associated Antenna	Special Provisions (Refer to Section H)	Modulation/ Services
16)	29500.0000-30000.0000	R	1M87G7W	Tx	55.30	28.60	Fixed 13	90467 90468	Various modulation up to 32 APSK Digital Data Link/Data Signalling
17)	29500.0000-30000.0000	R	953KG7W	Tx	52.30	28.60	Fixed 13	90467 90468	Various modulation up to 32 APSK Digital Data Link/Data Signalling
18)	19700.0000-20200.0000	L	32M0G7W	Rx			Fixed 13	90467 90468	Various modulation up to 32 APSK Digital Data Link
19)	29500.0000-30000.0000	R	3M99G7W	Tx	53.80	23.80	Fixed 3		Various modulation up to 32 APSK Digital Data Link/Data Signalling
20)	29500.0000-30000.0000	R	460KG7W	Tx	44.40	23.80	Fixed 3		Various modulation up to 32 APSK Digital Data Link/Data Signalling
21)	29500.0000-30000.0000	R	5M00G1W	Tx	53.80	22.80	Fixed 3		Various modulation up to 32 APSK Digital Data Link/Data Signalling
22)	19700.0000-20200.0000	L	32M0G7W	Rx	0.00	0.00	Fixed 3		Various modulation up to 32 APSK Digital Data Link
23)	29500.0000-30000.0000	R	460KG7W	Tx	46.80	26.20	Fixed 4		Various modulation up to 32 APSK Digital Data Link/Data Signalling
24)	29500.0000-30000.0000	R	4M18G7W	Tx	56.40	26.20	Fixed 4		Various modulation up to 32 APSK Digital Data Link/Data Signalling
25)	29500.0000-30000.0000	R	5M00G1W	Tx	56.40	25.40	Fixed 4		Various modulation up to 32 APSK Digital Data Link/Data Signalling
26)	19700.0000-20200.0000	L	32M0G7W	Rx	0.00	0.00	Fixed 4		Various modulation up to 32 APSK Digital Data Link
27)	29500.0000-30000.0000	R	3M24G7W	Tx	51.80	22.70	Fixed 5		Various modulation up to 32 APSK Digital Data Link/Data Signalling
28)	29500.0000-30000.0000	R	460KG7W	Tx	43.30	22.70	Fixed 5		Various modulation up to 32 APSK Digital Data Link/Data Signalling
29)	29500.0000-30000.0000	R	5M00G1W	Tx	51.80	20.80	Fixed 5		Various modulation up to 32 APSK Digital Data Link/Data Signalling

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B) Particulars of Operations

The General Provision 1010 applies to all receiving frequency bands.

The General Provision 1900 applies to all transmitting frequency bands.

For the text of these provisions, refer to Section H.

#	Frequency (MHz)	Polarization Code	Emission	Tx/Rx Mode	Max EIRP /Carrier (dBW)	Max EIRP Density /Carrier (dBW/4kHz)	Associated Antenna	Special Provisions (Refer to Section H)	Modulation/ Services
30)	19700.0000-20200.0000	L	32M0G7W	Rx	0.00	0.00	Fixed 5		Various modulation up to 32 APSK Digital Data Link
31)	29500.0000-30000.0000	R	2M40G7W	Tx	49.80	22.00	Fixed 6		Various modulation up to 32 APSK Digital Data Link/Data Signalling
32)	29500.0000-30000.0000	R	460KG7W	Tx	42.60	22.00	Fixed 6		Various modulation up to 32 APSK Digital Data Link/Data Signalling
33)	29500.0000-30000.0000	R	5M00G1W	Tx	49.80	18.80	Fixed 6		Various modulation up to 32 APSK Digital Data Link/Data Signalling
34)	19700.0000-20200.0000	L	32M0G7W	Rx	0.00	0.00	Fixed 6		Various modulation up to 32 APSK Digital Data Link
35)	29500.0000-30000.0000	R	3M03G7W	Tx	53.50	24.70	Fixed 7A		Various modulation up to 32 APSK Digital Data Link/Data Signalling
36)	29500.0000-30000.0000	R	460KG7W	Tx	45.30	24.70	Fixed 7A		Various modulation up to 32 APSK Digital Data Link/Data Signalling
37)	29500.0000-30000.0000	R	5M00G1W	Tx	53.50	22.50	Fixed 7A		Various modulation up to 32 APSK Digital Data Link/Data Signalling
38)	19700.0000-20200.0000	L	32M0G7W	Rx	0.00	0.00	Fixed 7A		Various modulation up to 32 APSK Digital Data Link
39)	29500.0000-30000.0000	R	3M03G7W	Tx	53.50	24.70	Fixed 7B		Various modulation up to 32 APSK Digital Data Link/Data Signalling
40)	29500.0000-30000.0000	R	460KG7W	Tx	45.30	24.70	Fixed 7B		Various modulation up to 32 APSK Digital Data Link/Data Signalling
41)	29500.0000-30000.0000	R	5M00G1W	Tx	53.50	22.50	Fixed 7B		Various modulation up to 32 APSK Digital Data Link/Data Signalling
42)	19700.0000-20200.0000	L	32M0G7W	Rx	0.00	0.00	Fixed 7B		Various modulation up to 32 APSK Digital Data Link
43)	29500.0000-30000.0000	R	2M51G7W	Tx	59.40	31.40	Fixed 8A		Various modulation up to 32 APSK Digital Data Link/Data Signalling

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B) Particulars of Operations

The General Provision 1010 applies to all receiving frequency bands.

The General Provision 1900 applies to all transmitting frequency bands.

For the text of these provisions, refer to Section H.

#	Frequency (MHz)	Polarization Code	Emission	Tx/Rx Mode	Max EIRP /Carrier (dBW)	Max EIRP Density /Carrier (dBW/4kHz)	Associated Antenna	Special Provisions (Refer to Section H)	Modulation/ Services
44)	29500.0000-30000.0000	R	460KG7W	Tx	52.00	31.40	Fixed 8A		Various modulation up to 32 APSK Digital Data Link/Data Signalling
45)	29500.0000-30000.0000	R	5M00G1W	Tx	59.40	28.40	Fixed 8A		Various modulation up to 32 APSK Digital Data Link/Data Signalling
46)	19700.0000-20200.0000	L	32M0G7W	Rx	0.00	0.00	Fixed 8A		Various modulation up to 32 APSK Digital Data Link
47)	29500.0000-30000.0000	R	2M51G7W	Tx	59.40	31.40	Fixed 8B		Various modulation up to 32 APSK Digital Data Link/Data Signalling
48)	29500.0000-30000.0000	R	460KG7W	Tx	52.00	31.40	Fixed 8B		Various modulation up to 32 APSK Digital Data Link/Data Signalling
49)	29500.0000-30000.0000	R	5M00G1W	Tx	59.40	28.40	Fixed 8B		Various modulation up to 32 APSK Digital Data Link/Data Signalling
50)	19700.0000-20200.0000	L	32M0G7W	Rx	0.00	0.00	Fixed 8B		Various modulation up to 32 APSK Digital Data Link
51)	29500.0000-30000.0000	R	460KG7W	Tx	45.30	24.70	Fixed 9		Various modulation up to 32 APSK Digital Data Link/Data Signalling
52)	29500.0000-30000.0000	R	4M18G7W	Tx	54.50	24.30	Fixed 9		Various modulation up to 32 APSK Digital Data Link/Data Signalling
53)	29500.0000-30000.0000	R	5M00G1W	Tx	54.50	23.50	Fixed 9		Various modulation up to 32 APSK Digital Data Link/Data Signalling
54)	19700.0000-20200.0000	L	32M0G7W	Rx			Fixed 9		Various modulation up to 32 APSK Digital Data Link
55)	29500.0000-30000.0000	R	46K0G7W	Tx	46.00	25.40	MicroSat		Various modulation up to 32 APSK Digital Data Link
56)	29500.0000-30000.0000	R	5M00G1W	Tx	46.00	15.00	MicroSat		Various modulation up to 32 APSK Digital Data Link
57)	19700.0000-20200.0000	L	32M0G7W	Rx			MicroSat		Various modulation up to 32 APSK Digital Data Link
58)	29500.0000-30000.0000	R	46K0G7W	Tx	48.80	28.20	MilliSat-H		Various modulation up to 32 APSK Digital Data Link

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B) Particulars of Operations

The General Provision 1010 applies to all receiving frequency bands.

The General Provision 1900 applies to all transmitting frequency bands.

For the text of these provisions, refer to Section H.

#	Frequency (MHz)	Polarization Code	Emission	Tx/Rx Mode	Max EIRP /Carrier (dBW)	Max EIRP Density /Carrier (dBW/4kHz)	Associated Antenna	Special Provisions (Refer to Section H)	Modulation/ Services
59)	29500.0000-30000.0000	R	5M00G1W	Tx	48.80	17.80	MilliSat-H		Various modulation up to 32 APSK Digital Data Link
60)	19700.0000-20200.0000	L	32M0G7W	Rx			MilliSat-H		Various modulation up to 32 APSK Digital Data Link
61)	29500.0000-30000.0000	R	46K0G7W	Tx	48.80	28.20	MilliSat-W		Various modulation up to 32 APSK Digital Data Link
62)	29500.0000-30000.0000	R	5M00G1W	Tx	48.80	17.80	MilliSat-W		Various modulation up to 32 APSK Digital Data Link
63)	19700.0000-20200.0000	L	33M0G7W	Rx		0.00	MilliSat-W		Various modulation up to 32 APSK Digital Data Link
64)	29500.0000-30000.0000	R	460KG7W	Tx	54.00	32.00	Panther60		Various modulation up to 32 APSK Digital Data Link/Data Signaling
65)	29500.0000-3000.0000	R	5M00G1W	Tx	54.00	21.60	Panther60		Various modulation up to 32 APSK Digital Data Link/Data Signaling
66)	19700.0000-20200.0000	L	32M0G7W	Rx			Panther60		Various modulation up to 32 APSK Digital Data Link
67)	29500.0000-30000.0000	R	5M00G1W	Tx	52.61	21.60	Panther96		Various modulation up to 32 APSK Digital Data Link/Data Signaling
68)	29500.0000-30000.0000	R	46K0KG7W	Tx	52.61	32.00	Panther96		Various modulation up to 32 APSK Digital Data Link/Data Signaling
69)	19700.0000-20200.0000	L	32M0G7W	Rx			Panther96		Various modulation up to 32 APSK Digital Data Link
70)	29500.0000-30000.0000	R	3M32G7W	Tx	51.20	22.00	TF 1		Various modulation up to 32 APSK Digital Data Link/Data Signalling
71)	29500.0000-30000.0000	R	460KG7W	Tx	42.60	22.00	TF 1		Various modulation up to 32 APSK Digital Data Link/Data Signalling
72)	29500.0000-30000.0000	R	5M00G1W	Tx	51.20	20.20	TF 1		Various modulation up to 32 APSK Digital Data Link/Data Signalling
73)	19700.0000-20200.0000	L	32M0G7W	Rx	0.00	0.00	TF 1		Various modulation up to 32 APSK Digital Data Link

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B) Particulars of Operations

The General Provision 1010 applies to all receiving frequency bands.

The General Provision 1900 applies to all transmitting frequency bands.

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#	Frequency (MHz)	Polarization Code	Emission	Tx/Rx Mode	Max EIRP /Carrier (dBW)	Max EIRP Density /Carrier (dBW/4kHz)	Associated Antenna	Special Provisions (Refer to Section H)	Modulation/ Services
74)	29500.0000-30000.0000	R	3M32G7W	Tx	51.20	20.20	TF 1A		Various modulation up to 32 APSK Digital Data Link/Data Signalling
75)	29500.0000-30000.0000	R	460KG7W	Tx	42.60	22.00	TF 1A		Various modulation up to 32 APSK Digital Data Link/Data Signalling
76)	29500.0000-30000.0000	R	5M00G1W	Tx	51.20	20.20	TF 1A		Various modulation up to 32 APSK Digital Data Link/Data Signalling
77)	19700.0000-20200.0000	L	32M0G7W	Rx			TF 1A		Various modulation up to 32 APSK Digital Data Link
78)	29500.0000-30000.0000	R	460KG7W	Tx	45.30	24.70	TF 2		Various modulation up to 32 APSK Digital Data Link/Data Signalling
79)	29500.0000-30000.0000	R	4M18G7W	Tx	54.90	24.70	TF 2		Various modulation up to 32 APSK Digital Data Link/Data Signalling
80)	29500.0000-30000.0000	R	5M00G1W	Tx	54.90	23.90	TF 2		Various modulation up to 32 APSK Digital Data Link/Data Signalling
81)	19700.0000-20200.0000	L	32M0G7W	Rx	0.00	0.00	TF 2		Various modulation up to 32 APSK Digital Data Link
82)	29500.0000-30000.0000	R	2M40G7W	Tx	49.80	22.00	TF 6		Various modulation up to 32 APSK Digital Data Link/Data Signalling
83)	29500.0000-30000.0000	R	460KG7W	Tx	42.60	22.00	TF 6		Various modulation up to 32 APSK Digital Data Link/Data Signalling
84)	29500.0000-30000.0000	R	5M00G1W	Tx	49.80	18.80	TF 6		Various modulation up to 32 APSK Digital Data Link/Data Signalling
85)	19700.0000-20200.0000	L	32M0G7W	Rx	0.00	0.00	TF 6		Various modulation up to 32 APSK Digital Data Link
86)	29500.0000-30000.0000	R	3M03G7W	Tx	53.50	24.70	TF 7		Various modulation up to 32 APSK Digital Data Link/Data Signalling
87)	29500.0000-30000.0000	R	460KG7W	Tx	45.30	24.70	TF 7		Various modulation up to 32 APSK Digital Data Link/Data Signalling

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#	Frequency (MHz)	Polarization Code	Emission	Tx/Rx Mode	Max EIRP /Carrier (dBW)	Max EIRP Density /Carrier (dBW/4kHz)	Associated Antenna	Special Provisions (Refer to Section H)	Modulation/ Services
88)	29500.0000-30000.0000	R	5M00G1W	Tx	53.50	22.50	TF 7		Various modulation up to 32 APSK Digital Data Link/Data Signalling
89)	19700.0000-20200.0000	L	32M0G7W	Rx	0.00	0.00	TF 7		Various modulation up to 32 APSK Digital Data Link
90)	29500.0000-30000.0000	R	460KG7W	Tx	45.30	24.70	TF 9		Various modulation up to 32 APSK Digital Data Link/Data Signalling
91)	29500.0000-30000.0000	R	4M18G7W	Tx	54.50	24.30	TF 9		Various modulation up to 32 APSK Digital Data Link/Data Signalling
92)	29500.0000-30000.0000	R	5M00G1W	Tx	54.50	23.50	TF 9		Various modulation up to 32 APSK Digital Data Link/Data Signalling
93)	19700.0000-20200.0000	L	32M0G7W	Rx			TF 9		Various modulation up to 32 APSK Digital Data Link
94)	29500.0000-30000.0000	R	1M54G7W	Tx	51.60	25.70	TF10		Various modulation up to 32 APSK Digital Data Link/Data Signalling
95)	29500.0000-30000.0000	R	460KG7W	Tx	45.30	24.70	TF10		Various modulation up to 32 APSK Digital Data Link/Data Signalling
96)	29500.0000-30000.0000	R	5M00G1W	Tx	51.60	20.60	TF10		Various modulation up to 32 APSK Digital Data Link/Data Signalling
97)	19700.0000-20200.0000	L	32M0G7W	Rx			TF10		Various modulation up to 32 APSK Digital Data Link
98)	29500.0000-30000.0000	R	1M52G7W	Tx	54.60	28.80	TF11		Various modulation up to 32 APSK Digital Data Link/Data Signalling
99)	29500.0000-30000.0000	R	460KG7W	Tx	45.30	24.70	TF11		Various modulation up to 32 APSK Digital Data Link/Data Signalling
100)	29500.0000-30000.0000	R	5M00G1W	Tx	54.60	23.60	TF11		Various modulation up to 32 APSK Digital Data Link/Data Signalling
101)	19700.0000-20200.0000	L	32M0G7W	Rx			TF11		Various modulation up to 32 APSK Digital Data Link

RADIO STATION AUTHORIZATION

Name: ISAT US Inc. **Call Sign:** E150097

Authorization Type: Modification of License **File Number:** SES-MOD-20200602-00589

Non Common Carrier **Grant date:** 09/10/2020 **Expiration Date:** 10/22/2030

B) Particulars of Operations

The General Provision 1010 applies to all receiving frequency bands.

The General Provision 1900 applies to all transmitting frequency bands.

For the text of these provisions, refer to Section H.

#	Frequency (MHz)	Polarization Code	Emission	Tx/Rx Mode	Max EIRP /Carrier (dBW)	Max EIRP Density /Carrier (dBW/4kHz)	Associated Antenna	Special Provisions (Refer to Section H)	Modulation/ Services
102)	29500.0000-30000.0000	R	1M21G7W	Tx	46.20	21.40	TF12		Various modulation up to 32 APSK Digital Data Link/Data Signalling
103)	29500.0000-30000.0000	R	2M42G7W	Tx	46.20	18.40	TF12		Various modulation up to 32 APSK Digital Data Link/Data Signalling
104)	19700.0000-20200.0000	L	32M0G7W	Rx			TF12		Various modulation up to 32 APSK Digital Data Link
105)	29500.0000-30000.0000	R	460KG7W	Tx	57.29	36.68	Tampa130		Various modulation up to 32 APSK Digital Data Link/Data Signalling
106)	29500.0000-30000.0000	R	5M00G1W	Tx	57.29	26.32	Tampa130		Various modulation up to 32 APSK Digital Data Link/Data Signalling
107)	19700.0000-20200.0000	L	32M0G7W	Rx			Tampa130		Various modulation up to 32 APSK Digital Data Link
108)	29500.0000-30000.0000	R	460KG7W	Tx	49.30	28.69	Tampa65		Various modulation up to 32 APSK Digital Data Link/Data Signalling
109)	29500.0000-30000.0000	R	5M00G1W	Tx	49.30	18.33	Tampa65		Various modulation up to 32 APSK Digital Data Link/Data Signalling
110)	19700.0000-20200.0000	L	32M0G7W	Rx			Tampa65		Various modulation up to 32 APSK Digital Data Link
111)	29500.0000-30000.0000	R	460KG7W	Tx	52.61	32.00	Tampa95		Various modulation up to 32 APSK Digital Data Link/Data Signalling
112)	29500.0000-30000.0000	R	5M00G1W	Tx	52.61	21.64	Tampa95		Various modulation up to 32 APSK Digital Data Link/Data Signalling
113)	19700.0000-20200.0000	L	32M0G7W	Rx			Tampa95		Various modulation up to 32 APSK Digital Data Link

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Name: ISAT US Inc. **Call Sign:** E150097

Authorization Type: Modification of License **File Number:** SES-MOD-20200602-00589

Non Common Carrier **Grant date:** 09/10/2020 **Expiration Date:** 10/22/2030

C) Frequency Coordination Limits

#	Frequency Limits (MHz)	Satellite Arc (Deg. Long.) East Limit	Satellite Arc (Deg. Long.) West Limit	Elevation (Degrees) East Limit	Elevation (Degrees) West Limit	Azimuth (Degrees) East Limit	Azimuth (Degrees) West Limit	Max EIRP Density toward Horizon (dBW/4kHz)	Associated Antenna(s)
1)	29500.0000-30000.0000	0.0E	360.0W	05.0	05.0	000.0	000.0	-14.2	Fixed 1
2)	19700.0000-20200.0000	0.0E	360.0W	05.0	05.0	000.0	000.0	0	Fixed 1
3)	29500.0000-30000.0000	0.0E	360.0W	05.0	05.0	000.0	000.0	-14.2	TF 1
4)	19700.0000-20200.0000	0.0E	360.0W	05.0	05.0	000.0	000.0	0	TF 1
5)	29500.0000-30000.0000			05.0	05.0	000.0	000.0	-142	TF 1A
6)	19700.0000-20200.0000			05.0	05.0	000.0	000.0		TF 1A
7)	29500.0000-30000.0000	0.0E	360.0W	05.0	05.0	000.0	000.0	-15.2	TF 2
8)	19700.0000-20200.0000	0.0E	360.0W	05.0	05.0	000.0	000.0	0	TF 2
9)	29500.0000-30000.0000	0.0E	360.0W	05.0	05.0	000.0	000.0	-15	Fixed 3
10)	19700.0000-20200.0000	0.0E	360.0W	05.0	05.0	000.0	000.0	0	Fixed 3
11)	29500.0000-30000.0000	0.0E	360.0W	05.0	05.0	000.0	000.0	-14.1	Fixed 5
12)	19700.0000-20200.0000	0.0E	360.0W	05.0	05.0	000.0	000.0	0	Fixed 5
13)	29500.0000-30000.0000	0.0E	360.0W	05.0	05.0	000.0	000.0	-12.8	Fixed 6
14)	19700.0000-20200.0000	0.0E	360.0W	05.0	05.0	000.0	000.0	0	Fixed 6
15)	29500.0000-30000.0000	0.0E	360.0W	05.0	05.0	000.0	000.0	-12.8	TF 6
16)	19700.0000-20200.0000	0.0E	360.0W	05.0	05.0	000.0	000.0	0	TF 6
17)	29500.0000-30000.0000	0.0E	360.0W	05.0	05.0	000.0	000.0	-13.8	Fixed 7A
18)	19700.0000-20200.0000	0.0E	360.0W	05.0	05.0	000.0	000.0	0	Fixed 7A
19)	29500.0000-30000.0000	0.0E	360.0W	05.0	05.0	000.0	000.0	-13.8	TF 7
20)	19700.0000-20200.0000	0.0E	360.0W	05.0	05.0	000.0	000.0	0	TF 7
21)	29500.0000-30000.0000	0.0E	360.0W	05.0	05.0	000.0	000.0	-13.8	Fixed 7B
22)	19700.0000-20200.0000	0.0E	360.0W	05.0	05.0	000.0	000.0	0	Fixed 7B
23)	19700.0000-20200.0000	0.0E	360.0W	05.0	05.0	000.0	000.0	0	Fixed 8A
24)	29500.0000-30000.0000	0.0E	360.0W	05.0	05.0	000.0	000.0	-44.4	Fixed 8A
25)	29500.0000-30000.0000	0.0E	360.0W	05.0	05.0	000.0	000.0	-44.4	Fixed 8B
26)	19700.0000-20200.0000	0.0E	360.0W	05.0	05.0	000.0	000.0	0	Fixed 8B
27)	29500.0000-30000.0000			05.0	05.0			-15.2	Fixed 13
28)	19700.0000-20200.0000			05.0	05.0				Fixed 13
29)	29500.0000-30000.0000			05.0	05.0			-9	Tampa65
30)	19700.0000-20200.0000			05.0	05.0				Tampa65
31)	29500.0000-30000.0000			05.0	05.0			-9	Tampa95
32)	19700.0000-20200.0000			05.0	05.0				Tampa95
33)	29500.0000-30000.0000			05.0	05.0			-9	Tampa130
34)	19700.0000-20200.0000			05.0	05.0				Tampa130
35)	29500.0000-30000.0000	0.0E	360.0W	05.0	05.0	000.0	000.0	-15.6	Fixed 9

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C) Frequency Coordination Limits

#	Frequency Limits (MHz)	Satellite Arc (Deg. Long.) East Limit	Satellite Arc (Deg. Long.) West Limit	Elevation (Degrees) East Limit	Elevation (Degrees) West Limit	Azimuth (Degrees) East Limit	Azimuth (Degrees) West Limit	Max EIRP Density toward Horizon (dBW/4kHz)	Associated Antenna(s)
36)	19700.0000-20200.0000	0.0E	360.0W	05.0	05.0	000.0	000.0		Fixed 9
37)	29500.0000-30000.0000	0.0E	360.0W	05.0	05.0	000.0	000.0	-15.6	TF 9
38)	19700.0000-20200.0000	0.0E	360.0W	05.0	05.0	000.0	000.0		TF 9
39)	29500.0000-30000.0000	0.0E	360.0W	05.0	05.0	000.0	000.0	-15.2	Fixed 4
40)	19700.0000-20200.0000	0.0E	360.0W	05.0	05.0	000.0	000.0	0	Fixed 4
41)	19700.0000-20200.0000			05.0	05.0				Fixed 10
42)	29500.0000-30000.0000			05.0	05.0			-21.7	Fixed 10
43)	19700.0000-20200.0000			05.0	05.0				TF10
44)	29500.0000-30000.0000			05.0	05.0			-21.7	TF10
45)	19700.0000-20200.0000			05.0	05.0				Fixed 11
46)	29500.0000-30000.0000			05.0	05.0			-18.3	Fixed 11
47)	19700.0000-20200.0000			05.0	05.0				TF11
48)	29500.0000-30000.0000			05.0	05.0			-18.3	TF11
49)	29500.0000-30000.0000			05.0	05.0			-9	Fixed 12
50)	19700.0000-20200.0000			05.0	05.0				Fixed 12
51)	29500.0000-30000.0000			05.0	05.0			-9	TF12
52)	19700.0000-20200.0000			05.0	05.0				TF12
53)	29500.0000-30000.0000			05.0	05.0			-9	Panther60
54)	19700.0000-20200.0000			05.0	05.0				Panther60
55)	29500.0000-30000.0000			05.0	05.0			-9	Panther96
56)	19700.0000-20200.0000			05.0	05.0				Panther96
57)	29500.0000-30000.0000			05.0	05.0			-9	MilliSat-W
58)	19700.0000-20200.0000			05.0	05.0				MilliSat-W
59)	29500.0000-30000.0000			05.0	05.0			-9	MilliSat-H
60)	19700.0000-20200.0000			05.0	05.0				MilliSat-H
61)	29500.0000-30000.0000			05.0	05.0			-9	MicroSat
62)	19700.0000-20200.0000			05.0	05.0				MicroSat

D) Points of Communications

The following stations located in the Satellite orbits consistent with Sections B and C of this Entry:

1) 1 to INMARSAT 5F2 satellite @ 55 degrees W.L. (U. K. licensed)
2) 1 to INMARSAT 5F3 satellite @ 179.6 degrees E.L. degrees (U. K. licensed)
3) 2 to INMARSAT 5F2 satellite @ 55 degrees W.L. (U. K. licensed)
4) 2 to INMARSAT 5F3 satellite @ 179.6 degrees E.L. degrees (U. K. licensed)

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Name: ISAT US Inc. **Call Sign:** E150097
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D) Points of Communications

The following stations located in the Satellite orbits consistent with Sections B and C of this Entry:

5) 3 to INMARSAT 5F2 satellite @ 55 degrees W.L. (U. K. licensed)
6) 3 to INMARSAT 5F3 satellite @ 179.6 degrees E.L. degrees (U. K. licensed)
7) 5 to INMARSAT 5F2 satellite @ 55 degrees W.L. (U. K. licensed)
8) 5 to INMARSAT 5F3 satellite @ 179.6 degrees E.L. degrees (U. K. licensed)
9) 6 to INMARSAT 5F2 satellite @ 55 degrees W.L. (U. K. licensed)
10) 6 to INMARSAT 5F3 satellite @ 179.6 degrees E.L. degrees (U. K. licensed)
11) 7 to INMARSAT 5F2 satellite @ 55 degrees W.L. (U. K. licensed)
12) 7 to INMARSAT 5F3 satellite @ 179.6 degrees E.L. degrees (U. K. licensed)
13) 8 to INMARSAT 5F2 satellite @ 55 degrees W.L. (U. K. licensed)
14) 8 to INMARSAT 5F3 satellite @ 179.6 degrees E.L. degrees (U. K. licensed)
15) 13 to INMARSAT 5F2 satellite @ 55 degrees W.L. (U. K. licensed)
16) 13 to INMARSAT 5F3 satellite @ 179.6 degrees E.L. degrees (U. K. licensed)
17) 14 to INMARSAT 5F3 satellite @ 179.6 degrees E.L. degrees (U. K. licensed)
18) 14 to INMARSAT 5F2 satellite @ 55 degrees W.L. (U. K. licensed)
19) 15 to INMARSAT 5F2 satellite @ 55 degrees W.L. (U. K. licensed)
20) 15 to INMARSAT 5F3 satellite @ 179.6 degrees E.L. degrees (U. K. licensed)
21) 16 to INMARSAT 5F2 satellite @ 55 degrees W.L. (U. K. licensed)
22) 16 to INMARSAT 5F3 satellite @ 179.6 degrees E.L. degrees (U. K. licensed)
23) 9 to INMARSAT 5F3 satellite @ 179.6 degrees E.L. degrees (U. K. licensed)
24) 9 to INMARSAT 5F2 satellite @ 55 degrees W.L. (U. K. licensed)
25) 4 to INMARSAT 5F2 satellite @ 55 degrees W.L. (U. K. licensed)
26) 4 to INMARSAT 5F3 satellite @ 179.6 degrees E.L. degrees (U. K. licensed)
27) 10 to INMARSAT 5F2 satellite @ 55 degrees W.L. (U. K. licensed)
28) 10 to INMARSAT 5F3 satellite @ 179.6 degrees E.L. degrees (U. K. licensed)
29) 11 to INMARSAT 5F2 satellite @ 55 degrees W.L. (U. K. licensed)
30) 11 to INMARSAT 5F3 satellite @ 179.6 degrees E.L. degrees (U. K. licensed)
31) 12 to INMARSAT 5F2 satellite @ 55 degrees W.L. (U. K. licensed)
32) 12 to INMARSAT 5F3 satellite @ 179.6 degrees E.L. degrees (U. K. licensed)
33) 17 to INMARSAT 5F2 satellite @ 55 degrees W.L. (U. K. licensed)
34) 17 to INMARSAT 5F3 satellite @ 179.6 degrees E.L. degrees (U. K. licensed)
35) 18 to INMARSAT 5F2 satellite @ 55 degrees W.L. (U. K. licensed)
36) 18 to INMARSAT 5F3 satellite @ 179.6 degrees E.L. degrees (U. K. licensed)
37) 19 to INMARSAT 5F2 satellite @ 55 degrees W.L. (U. K. licensed)
38) 19 to INMARSAT 5F3 satellite @ 179.6 degrees E.L. degrees (U. K. licensed)
39) 20 to INMARSAT 5F2 satellite @ 55 degrees W.L. (U. K. licensed)
40) 20 to INMARSAT 5F3 satellite @ 179.6 degrees E.L. degrees (U. K. licensed)

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Non Common Carrier **Grant date:** 09/10/2020 **Expiration Date:** 10/22/2030

D) Points of Communications

The following stations located in the Satellite orbits consistent with Sections B and C of this Entry:

41) 21 to INMARSAT 5F2 satellite @ 55 degrees W.L. (U. K. licensed)

42) 21 to INMARSAT 5F3 satellite @ 179.6 degrees E.L. degrees (U. K. licensed)

E) Antenna Facilities

Site ID	Antenna ID	Units	Diameter (meters)	Manufacturer	Model number	Site Elevation (Meters)	Max Antenna Height (Meters)	Special Provisions (Refer to Section H)
1	Fixed 1	4000	0.75	Cobham SATCOM	3075	0	0 AGL/ 0 AMSL	
	Max Gains(s): 41.3 dBi @ 19.7000 GHz 41.6 dBi @ 19.9500 GHz 41.6 dBi @ 20.2000 GHz 44.4 dBi @ 30.0000 GHz							
	Maximum total input power at antenna flange (Watts) = 5.00							
	Maximum aggregate output EIRP for all carriers (dBW) = 51.20							
10	Fixed 10	4000	0.75	DATA PATH	QCT90GX			
	Max Gains(s): 44.6 dBi @ 30.0000 GHz 41.9 dBi @ 19.7000 GHz 42.3 dBi @ 20.2000 GHz 44.0 dBi @ 29.5000 GHz							
	Maximum total input power at antenna flange (Watts) = 5.00							
	Maximum aggregate output EIRP for all carriers (dBW) = 51.60							
11	Fixed 11	4000	1	DATA PATH	CCT120GX			
	Max Gains(s): 47.6 dBi @ 30.0000 GHz 45.5 dBi @ 19.7000 GHz 46.2 dBi @ 20.2000 GHz 47.3 dBi @ 29.5000 GHz							
	Maximum total input power at antenna flange (Watts) = 5.00							
	Maximum aggregate output EIRP for all carriers (dBW) = 54.60							
12	Fixed 12	4000	0.45	PARADIGM	SWARM45			
	Max Gains(s): 39.2 dBi @ 30.0000 GHz 35.5 dBi @ 19.7000 GHz 36.0 dBi @ 20.2000 GHz 39.3 dBi @ 29.5000 GHz							
	Maximum total input power at antenna flange (Watts) = 5.00							
	Maximum aggregate output EIRP for all carriers (dBW) = 46.20							
13	Fixed 13	1000	1	COBHAM	EXPLORER8100GX			
	Max Gains(s): 44.0 dBi @ 19.7000 GHz 44.0 dBi @ 20.2000 GHz 44.0 dBi @ 20.2000 GHz 48.2 dBi @ 29.5000 GHz							
	Maximum total input power at antenna flange (Watts) = 5.00							
	Maximum aggregate output EIRP for all carriers (dBW) = 55.30							

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E) Antenna Facilities

Site ID	Antenna ID	Units	Diameter (meters)	Manufacturer	Model number	Site Elevation (Meters)	Max Antenna Height (Meters)	Special Provisions (Refer to Section H)
3	Fixed 3	4000	0.85	L3	Cheetah II	0	0 AGL/ 0 AMSL	
	Max Gains(s): 42.5 dBi @ 19.7000 GHz 42.9 dBi @ 20.2000 GHz 46.8 dBi @ 29.5000 GHz 46.6 dBi @ 30.0000 GHz 42.9 dBi @ 19.9500 GHz 46.9 dBi @ 29.7500 GHz							
	Maximum total input power at antenna flange (Watts) = 5.00							
	Maximum aggregate output EIRP for all carriers (dBW) = 53.80							
4	Fixed 4	4000	1.2	L3	Hawkeye III Lite	0	0 AGL/ 0 AMSL	
	Max Gains(s): 45.7 dBi @ 19.7000 GHz 45.9 dBi @ 19.9500 GHz 46.0 dBi @ 20.2000 GHz 49.2 dBi @ 29.5000 GHz 49.4 dBi @ 29.7500 GHz 49.4 dBi @ 30.0000 GHz							
	Maximum total input power at antenna flange (Watts) = 5.00							
	Maximum aggregate output EIRP for all carriers (dBW) = 56.40							
5	Fixed 5	4000	0.69	Paradigm/SWT	Connect 70	0	0 AGL/ 0 AMSL	
	Max Gains(s): 44.7 dBi @ 29.5000 GHz 44.8 dBi @ 29.7500 GHz 44.9 dBi @ 30.0000 GHz 41.1 dBi @ 19.7000 GHz 41.2 dBi @ 19.9500 GHz 41.2 dBi @ 20.2000 GHz							
	Maximum total input power at antenna flange (Watts) = 5.00							
	Maximum aggregate output EIRP for all carriers (dBW) = 51.80							
6	Fixed 6	4000	0.65	SWT	Atom 65GX/01	0	0 AGL/ 0 AMSL	
	Max Gains(s): 40.6 dBi @ 19.7000 GHz 40.6 dBi @ 19.9500 GHz 41.0 dBi @ 20.2000 GHz 43.4 dBi @ 29.5000 GHz 42.8 dBi @ 29.7500 GHz 44.4 dBi @ 30.0000 GHz							
	Maximum total input power at antenna flange (Watts) = 5.00							
	Maximum aggregate output EIRP for all carriers (dBW) = 49.80							
7	Fixed 7A	4000	0.934	Paradigm/SWT	Connect 100	0	0 AGL/ 0 AMSL	
	Max Gains(s): 43.8 dBi @ 19.7000 GHz 43.9 dBi @ 19.9500 GHz 44.1 dBi @ 20.2000 GHz 46.6 dBi @ 29.5000 GHz 46.5 dBi @ 29.7500 GHz 46.7 dBi @ 30.0000 GHz							
	Maximum total input power at antenna flange (Watts) = 5.00							
	Maximum aggregate output EIRP for all carriers (dBW) = 53.50							

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E) Antenna Facilities

Site ID	Antenna ID	Units	Diameter (meters)	Manufacturer	Model number	Site Elevation (Meters)	Max Antenna Height (Meters)	Special Provisions (Refer to Section H)
7	Fixed 7B	4000	0.934	Paradigm/SWT	SKY98GX/01	0	0 AGL/ 0 AMSL	
	Max Gains(s): 43.8 dBi @ 19.7000 GHz 43.9 dBi @ 19.9500 GHz 44.1 dBi @ 20.2000 GHz 46.6 dBi @ 29.5000 GHz 46.5 dBi @ 29.7500 GHz 46.7 dBi @ 30.0000 GHz							
	Maximum total input power at antenna flange (Watts) = 5.00							
	Maximum aggregate output EIRP for all carriers (dBW) = 53.50							
8	Fixed 8A	4000	1.8	Paradigm/SWT	Connect 180	0	0 AGL/ 0 AMSL	
	Max Gains(s): 49.0 dBi @ 19.7000 GHz 49.1 dBi @ 19.9500 GHz 49.2 dBi @ 20.2000 GHz 52.5 dBi @ 29.5000 GHz 52.4 dBi @ 29.7500 GHz 52.4 dBi @ 30.0000 GHz							
	Maximum total input power at antenna flange (Watts) = 5.00							
	Maximum aggregate output EIRP for all carriers (dBW) = 59.40							
8	Fixed 8B	4000	1.8	Paradigm/SWT	SKY180GX/01	0	0 AGL/ 0 AMSL	
	Max Gains(s): 49.0 dBi @ 19.7000 GHz 49.1 dBi @ 19.9500 GHz 49.2 dBi @ 20.2000 GHz 52.5 dBi @ 29.5000 GHz 52.4 dBi @ 29.7500 GHz 52.4 dBi @ 30.0000 GHz							
	Maximum total input power at antenna flange (Watts) = 5.00							
	Maximum aggregate output EIRP for all carriers (dBW) = 59.40							
9	Fixed 9	4000	0.89	SKYWARE TECHNOLOGIES	ATOM 99			
	Max Gains(s): 47.5 dBi @ 30.0000 GHz 43.9 dBi @ 19.7000 GHz 44.2 dBi @ 20.2000 GHz 47.5 dBi @ 29.5000 GHz 44.0 dBi @ 19.9500 GHz 47.5 dBi @ 29.7500 GHz							
	Maximum total input power at antenna flange (Watts) = 5.00							
	Maximum aggregate output EIRP for all carriers (dBW) = 54.50							
21	MicroSat	50	0.248	GETSAT	MICROSAT			
	Max Gains(s): 31.5 dBi @ 20.2000 GHz 31.8 dBi @ 30.0000 GHz 32.2 dBi @ 29.5000 GHz 33.7 dBi @ 19.7000 GHz							
	Maximum total input power at antenna flange (Watts) = 16.00							
	Maximum aggregate output EIRP for all carriers (dBW) = 46.00							
20	MilliSat-H	50	0.27	GETSAT	MILLISAT-H			
	Max Gains(s): 32.9 dBi @ 29.5000 GHz 33.8 dBi @ 20.2000 GHz 33.9 dBi @ 19.7000 GHz 34.3 dBi @ 30.0000 GHz							
	Maximum total input power at antenna flange (Watts) = 16.00							
	Maximum aggregate output EIRP for all carriers (dBW) = 48.80							

RADIO STATION AUTHORIZATION

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E) Antenna Facilities

Site ID	Antenna ID	Units	Diameter (meters)	Manufacturer	Model number	Site Elevation (Meters)	Max Antenna Height (Meters)	Special Provisions (Refer to Section H)
19	MilliSat-W	50	0.5	GETSAT	MILISAT-W			

Max Gains(s): 35.4 dBi @ 30.0000 GHz 35.2 dBi @ 29.5000 GHz 38.3 dBi @ 19.7000 GHz 38.6 dBi @ 20.2000 GHz

Maximum total input power at antenna flange (Watts) = 16.00

Maximum aggregate output EIRP for all carriers (dBW) = 48.80

Site ID	Antenna ID	Units	Diameter (meters)	Manufacturer	Model number	Site Elevation (Meters)	Max Antenna Height (Meters)	Special Provisions (Refer to Section H)
17	Panther60	50	0.6	L3--GCS	PANTHERII60			

Max Gains(s): 40.0 dBi @ 20.2000 GHz 41.0 dBi @ 19.7000 GHz 43.2 dBi @ 30.0000 GHz 45.5 dBi @ 29.5000 GHz

Maximum total input power at antenna flange (Watts) = 7.00

Maximum aggregate output EIRP for all carriers (dBW) = 54.00

Site ID	Antenna ID	Units	Diameter (meters)	Manufacturer	Model number	Site Elevation (Meters)	Max Antenna Height (Meters)	Special Provisions (Refer to Section H)
18	Panther96	50	0.96	LC-GCS	PANTERII96			

Max Gains(s): 43.7 dBi @ 19.7000 GHz 43.8 dBi @ 20.2000 GHz 47.7 dBi @ 30.0000 GHz 48.8 dBi @ 29.5000 GHz

Maximum total input power at antenna flange (Watts) = 7.00

Maximum aggregate output EIRP for all carriers (dBW) = 57.30

Site ID	Antenna ID	Units	Diameter (meters)	Manufacturer	Model number	Site Elevation (Meters)	Max Antenna Height (Meters)	Special Provisions (Refer to Section H)
1	TF 1	4000	0.75	Cobham SATCOM	5075	0	0 AGL/ 0 AMSL	

Max Gains(s): 41.6 dBi @ 19.9500 GHz 41.6 dBi @ 20.2000 GHz 44.3 dBi @ 29.5000 GHz 44.2 dBi @ 29.7500 GHz 44.4 dBi @ 30.0000 GHz 41.3 dBi @ 19.7000 GHz

Maximum total input power at antenna flange (Watts) = 5.00

Maximum aggregate output EIRP for all carriers (dBW) = 51.20

Site ID	Antenna ID	Units	Diameter (meters)	Manufacturer	Model number	Site Elevation (Meters)	Max Antenna Height (Meters)	Special Provisions (Refer to Section H)
1	TF 1A	4000	0.75	COBHAM SATCOM	EXPLORER6075LX 0			

Max Gains(s): 44.3 dBi @ 29.5000 GHz 44.2 dBi @ 29.7500 GHz 41.3 dBi @ 19.7000 GHz 41.6 dBi @ 20.2000 GHz 41.6 dBi @ 19.9500 GHz 44.2 dBi @ 29.7500 GHz

Maximum total input power at antenna flange (Watts) = 5.00

Maximum aggregate output EIRP for all carriers (dBW) = 51.20

Site ID	Antenna ID	Units	Diameter (meters)	Manufacturer	Model number	Site Elevation (Meters)	Max Antenna Height (Meters)	Special Provisions (Refer to Section H)
2	TF 2	4000	1	Cobham SATCOM	7100	0	0 AGL/ 0 AMSL	

Max Gains(s): 44.6 dBi @ 19.7000 GHz 44.6 dBi @ 19.9500 GHz 44.7 dBi @ 20.2000 GHz 47.8 dBi @ 29.5000 GHz 47.9 dBi @ 29.7500 GHz 47.0 dBi @ 30.0000 GHz

Maximum total input power at antenna flange (Watts) = 5.00

Maximum aggregate output EIRP for all carriers (dBW) = 54.90

RADIO STATION AUTHORIZATION

Name: ISAT US Inc. **Call Sign:** E150097

Authorization Type: Modification of License **File Number:** SES-MOD-20200602-00589

Non Common Carrier **Grant date:** 09/10/2020 **Expiration Date:** 10/22/2030

E) Antenna Facilities

Site ID	Antenna ID	Units	Diameter (meters)	Manufacturer	Model number	Site Elevation (Meters)	Max Antenna Height (Meters)	Special Provisions (Refer to Section H)
6	TF 6	4000	0.65	SWT	Atom 65AAGX/01	0	0 AGL/ 0 AMSL	

Max Gains(s): 40.6 dBi @ 19.7000 GHz 40.6 dBi @ 19.9500 GHz 41.0 dBi @ 20.2000 GHz 43.4 dBi @ 29.5000 GHz 42.8 dBi @ 29.7500 GHz 44.4 dBi @ 30.0000 GHz

Maximum total input power at antenna flange (Watts) = 5.00

Maximum aggregate output EIRP for all carriers (dBW) = 49.80

Site ID	Antenna ID	Units	Diameter (meters)	Manufacturer	Model number	Site Elevation (Meters)	Max Antenna Height (Meters)	Special Provisions (Refer to Section H)
7	TF 7	4000	0.934	Paradigm/SWT	Connect 100T	0	0 AGL/ 0 AMSL	

Max Gains(s): 46.7 dBi @ 30.0000 GHz 43.8 dBi @ 19.7000 GHz 43.9 dBi @ 19.9500 GHz 44.1 dBi @ 20.2000 GHz 46.6 dBi @ 29.5000 GHz 46.5 dBi @ 29.7500 GHz

Maximum total input power at antenna flange (Watts) = 5.00

Maximum aggregate output EIRP for all carriers (dBW) = 53.50

Site ID	Antenna ID	Units	Diameter (meters)	Manufacturer	Model number	Site Elevation (Meters)	Max Antenna Height (Meters)	Special Provisions (Refer to Section H)
9	TF 9	4000	0.89	SYKYWARE TECHNOLOGIES	ATOM 99			

Max Gains(s): 47.5 dBi @ 30.0000 GHz 43.9 dBi @ 19.7000 GHz 44.2 dBi @ 20.2000 GHz 47.5 dBi @ 29.5000 GHz 44.0 dBi @ 19.9500 GHz 47.5 dBi @ 29.7500 GHz

Maximum total input power at antenna flange (Watts) = 5.00

Maximum aggregate output EIRP for all carriers (dBW) = 54.50

Site ID	Antenna ID	Units	Diameter (meters)	Manufacturer	Model number	Site Elevation (Meters)	Max Antenna Height (Meters)	Special Provisions (Refer to Section H)
10	TF10	4000	0.75	DATA PATH	QCT90GX			

Max Gains(s): 44.6 dBi @ 30.0000 GHz 41.9 dBi @ 19.7000 GHz 42.3 dBi @ 20.2000 GHz 44.0 dBi @ 29.5000 GHz

Maximum total input power at antenna flange (Watts) = 5.00

Maximum aggregate output EIRP for all carriers (dBW) = 51.60

Site ID	Antenna ID	Units	Diameter (meters)	Manufacturer	Model number	Site Elevation (Meters)	Max Antenna Height (Meters)	Special Provisions (Refer to Section H)
11	TF11	4000	1	DATA PATH	CCT120GX			

Max Gains(s): 45.5 dBi @ 19.7000 GHz 46.2 dBi @ 20.2000 GHz 47.3 dBi @ 29.5000 GHz 47.6 dBi @ 30.0000 GHz

Maximum total input power at antenna flange (Watts) = 5.00

Maximum aggregate output EIRP for all carriers (dBW) = 54.60

Site ID	Antenna ID	Units	Diameter (meters)	Manufacturer	Model number	Site Elevation (Meters)	Max Antenna Height (Meters)	Special Provisions (Refer to Section H)
12	TF12	4000	0.45	PARADIGN	SWARM-45			

Max Gains(s): 39.2 dBi @ 30.0000 GHz 35.5 dBi @ 19.7000 GHz 36.0 dBi @ 20.2000 GHz 39.3 dBi @ 29.5000 GHz

Maximum total input power at antenna flange (Watts) = 5.00

Maximum aggregate output EIRP for all carriers (dBW) = 46.20

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E) Antenna Facilities

Site ID	Antenna ID	Units	Diameter (meters)	Manufacturer	Model number	Site Elevation (Meters)	Max Antenna Height (Meters)	Special Provisions (Refer to Section H)
16	Tampa130	50	1.3	TAMPA MICROWAVE	TAMPA130			

Max Gains(s): 46.2 dBi @ 20.0000 GHz 46.4 dBi @ 19.7000 GHz 51.3 dBi @ 29.5000 GHz 53.5 dBi @ 30.0000 GHz
Maximum total input power at antenna flange (Watts) = 4.00
Maximum aggregate output EIRP for all carriers (dBW) = 57.29

Site ID	Antenna ID	Units	Diameter (meters)	Manufacturer	Model number	Site Elevation (Meters)	Max Antenna Height (Meters)	Special Provisions (Refer to Section H)
14	Tampa65	50	0.65	TAMPA MICROWAVE	TAMPA65			

Max Gains(s): 41.1 dBi @ 19.7000 GHz 41.1 dBi @ 20.3000 GHz 43.3 dBi @ 29.5000 GHz 45.1 dBi @ 30.0000 GHz
Maximum total input power at antenna flange (Watts) = 4.00
Maximum aggregate output EIRP for all carriers (dBW) = 49.30

Site ID	Antenna ID	Units	Diameter (meters)	Manufacturer	Model number	Site Elevation (Meters)	Max Antenna Height (Meters)	Special Provisions (Refer to Section H)
15	Tampa95	50	0.95	TAMPA MICROWAVE	TAMPA95			

Max Gains(s): 44.5 dBi @ 19.7000 GHz 44.6 dBi @ 20.2000 GHz 46.6 dBi @ 29.5000 GHz 48.1 dBi @ 30.0000 GHz
Maximum total input power at antenna flange (Watts) = 4.00
Maximum aggregate output EIRP for all carriers (dBW) = 52.61

F) Remote Control Point:

1 6211 Glen Circle **Call Sign:** E120072
Lino Lakes, Anoka, MN 55014
808-638-5820

10 6211 Glen Circle **Call Sign:** E120072
Lino Lakes, Anoka, MN 55014
808-638-5820

11 6211 Glen Circle **Call Sign:** E120072
Lino Lakes, Anoka, MN 55014
808-638-5820

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F) Remote Control Point:

12	6211 Glen Circle Lino Lakes, Anoka, MN 55014 808-638-5820	**Call Sign:** E120072
13	6211 Glen Circle Lino Lakes, Anoka, MN 55014 808-638-5820	**Call Sign:** E120072
14	6211 Glen Circle Lino Lakes, Anoka, MN 55014 808-638-5820	**Call Sign:** E120072
15	6211 Glen Circle Lino Lakes, Anoka, MN 55014 808-638-5820	**Call Sign:** E120072
16	6211 Glen Circle Lino Lakes, Anoka, MN 55014 808-638-5820	**Call Sign:** E120072
17	6211 GLEN CIRCLE LINO LAKES, ANOKA, MN 55014 808-638-5820	**Call Sign:** E120072
18	6211 GLEN CIRCLE LINO LAKES, ANOKA, MN 55014 808-638-5820	**Call Sign:** E120072
19	6211 GLEN CIRCLE LINO LAKES, ANOKA, MN 55014 808-638-5820	**Call Sign:** E120072
2	6211 Glen Circle Lino Lakes, Anoka, MN 55014 808-638-5820	**Call Sign:** E120072

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F) Remote Control Point:

20	6211 GLEN CIRCLE LINO LAKES, ANOKA, MN 55014 808-638-5820	**Call Sign:** E120072
21	6211 GLEN CIRCLE LINO LAKES, ANOKA, MN 55014 808-638-5820	**Call Sign:** E120072
3	6211 Glen Circle Lino Lakes, Anoka, MN 55014 808-638-5820	**Call Sign:** E120072
4	6211 Glen Circle Lino Lakes, Anoka, MN 55014 808-638-5820	**Call Sign:** E120072
5	6211 Glen Circle Lino Lakes, Anoka, MN 55014 808-638-5820	**Call Sign:** E120072
6	6211 Glen Circle Lino Lakes, Anoka, MN 55014 808-638-5820	**Call Sign:** E120072
7	6211 Glen Circle Lino Lakes, Anoka, MN 55014 808-638-5820	**Call Sign:** E120072
8	6211 Glen Circle Lino Lakes, Anoka, MN 55014 808-638-5820	**Call Sign:** E120072
9	6211 Glen Circle Lino Lakes, Anoka, MN 55014 808-638-5820	**Call Sign:** E120072

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G) Antenna Structure marking and lighting requirements:

None unless otherwise specified under Special and General Provisions

H) Special and General Provisions

A) This RADIO STATION AUTHORIZATION is granted subject to the following special provisions and general conditions:

4 --- Licensee must ensure that a current listing of the name, title, mailing address, email address, and telephone number of the responsible point of contact are on file at the FCC. Any changes must be filed electronically in the International Bureau Filing System (MyIBFS) using the "Pleadings and Comments" link on the MyIBFS homepage within 10 days of the change.

8 --- Licensee must notify the Commission when all earth stations operating under this authorization are no longer operational or when they have not been used to provide any service during any 6-month operation.

2653 --- Licensee shall maintain a 24-hour point of contact who can remedy any interference problems or terminate operations if necessary.

9661 --- The 17.8 - 20.2 GHz band is shared with U.S. Government space stations and associated earth stations in the Fixed-Satellite Service. The satellite network of which this is a cooperating earth station is subject to coordination under US334 and operation of this earth station will be subject to any technical constraints resulting from this coordination.

90104 --- For any new antenna authorized by this grant, the licensee must file with the Commission a certification including the following information: name of the licensee, file number of the application, call sign of the antenna, Site ID, date of the license and certification that the antenna model was put into operation.

90244 --- This authorization and any licenses related thereto are subject to compliance with the provisions of the Agreement between Inmarsat on the one hand and the U.S. Department of Justice (DOJ) and the Department of Homeland Security (DHS) on the other, dated September 23, 2008, as amended.

90354 --- Operations shall be in accordance with the US334 Coordination Agreement between the operators of Inmarsat-5 F3 satellite and US Government satellites operating in the 17.7-20.2 GHz frequency band.

90355 --- Operations shall be in accordance with the US334 Coordination Agreement between the operators of Inmarsat-5 F2 satellite and US Government satellites operating in the 17.7-20.2 GHz frequency band.

90398 --- Changes to previously authorized transmitting facilities, operations and devices regulated by the Commission that may have significant environmental impact, and are not excluded by §1.1306, require the preparation of an Environmental Assessment (EA) by the licensee. (See 47 C.F.R. §§1.1307, 1.1308 and 1.1311)

90399 --- The licensee shall, at all times, take all necessary measures to ensure that operation of this (these) authorized earth station(s) does not create potential exposure of humans to radiofrequency radiation in excess of the FCC exposure limits defined in 47 CFR §§ 1.1307(b) and 1.1310. Physical measures must be taken to ensure compliance with limits for both occupational/controlled exposure and for general population/uncontrolled exposure, as defined in these rule sections. Compliance can be accomplished in most cases by appropriate restrictions, such as fencing. Requirements for restrictions can be determined by predictions based on calculations, modeling, or by field measurements. The FCC's OET Bulletin 65 (available on-line at www.fcc.gov/oet/rfsafety) provides information on predicting exposure levels and on methods for ensuring compliance, including the use of warning and alerting signs and protective equipment for workers.

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H) Special and General Provisions

A) This RADIO STATION AUTHORIZATION is granted subject to the following special provisions and general conditions:

90467 --- Site ID 13 is prohibited to operate as a temporary-fixed earth station.

90468 --- Antenna ID Fixed 13 is a 47 C.F.R. Section 25.138 compliant.

90589 --- Inmarsat 5F3 satellite was authorized by granted U.S. Market Access through IBFS File Nos. SES-LIC-20150402-00188 and SES-AMD-20150910-00577 (Call Sign E150028).

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B) This RADIO STATION AUTHORIZATION is granted subject to the additional conditions specified below:

This authorization is issued on the grantee's representation that the statements contained in the application are true and that the undertakings described will be carried out in good faith.

This authorization shall not be construed in any manner as a finding by the Commission on the question of marking or lighting of the antenna system should future conditions require. The grantee expressly agrees to install such marking or lighting as the Commission may require under the provisions of Section 303(q) of the Communications Act. 47 U.S.C. § 303(q).

Neither this authorization nor the right granted by this authorization shall be assigned or otherwise transferred to any person, firm, company or corporation without the written consent of the Commission. This authorization is subject to the right of use or control by the government of the United States conferred by Section 706 of the Communications Act. 47 U.S.C. § 706. Operation of this station is governed by Part 25 of the Commission's Rules. 47 C.F.R. Part 25.

This authorization shall not vest in the licensee any right to operate this station nor any right in the use of the designated frequencies beyond the term of this license, nor in any other manner than authorized herein.

This authorization is issued on the grantee's representation that the station is in compliance with environmental requirements set forth in Section 1.1307 of the Commission's Rules. 47 C.F.R. § 1.1307.

This authorization is issued on the grantee's representation that the station is in compliance with the Federal Aviation Administration (FAA) requirements as set forth in Section 17.4 of the Commission's Rules. 47 C.F.R.§ 17.4.

The following condition applies when this authorization permits construction of or modifies the construction permit of a radio station.

This authorization shall be automatically forfeited if the station is not ready for operation by the required date of completion of construction unless an application for modification of authorization to request additional time to complete construction is filed by that date, together with a showing that failure to complete construction by the required date was due to factors not under control of the grantee.

Licensees are required to pay annual regulatory fees related to this authorization. The requirement to collect annual regulatory fees from regulatees is contained in Public Law 103-66, "The Omnibus Budget Reconciliation Act of 1993." These regulatory fees, which are likely to change each fiscal year, are used to offset costs associated with the Commission's enforcement, public service, international and policy and rulemaking activities. The Commission issues a Report and Order each year, setting the new regulatory fee rates. Receive only earth stations are exempt from payment of regulatory fees.