

# **RADIO STATION AUTHORIZATION**

Name: ISAT US Inc.				Call Sign:	E140029
Authorization Type: Modification	of License			File Number:	SES-MOD-20200730-00809
Non Common Carrier	Grant date:	10/09/2020	<b>Expiration Date:</b>	09/29/2030	

Nature of Service: Fixed Satellite Service

Class of Station: Mobile Earth Station

## A) Site Location(s)

# Site ID	Address	Latitude	Longitude	Elevation (Meters)	Special Provisions NAD (Refer to Section H)
1) RMT1	Maritime Vessels/4000units Atlantic Ocean, Pacific Ocean CONUS, PR, USVI,			0	NA
	Licensee certifies antenna(s) E for special conditions place				ase refer to Section
2) RMT10	Maritime Vessels/50units South Atlantic Ocean Region				NA
3) RMT11	Maritime Vessels/50units South Atlantic Ocean Region				NA
4) RMT12	MARITIME VESSELS/4000 UNITS ATLANTIC OCEAN, PACFIC OCEAN CONUS PR USVI, Licensee certifies antenna(s)	comply with	gain patterns s	specified in	NA Section 25.209
5) RMT13	MARITIME VESSELS/4000 UNITS ATLANTIC OCEAN, PACFIC OCEAN CONUS PR USVI,				UNK
6) RMT2	Maritime Vessels/4000units Atlantic Ocean, Pacific Ocean CONUS PR USVI, Licensee certifies antenna(s) E for special conditions place				NA ase refer to Section



## **RADIO STATION AUTHORIZATION**

Name: ISAT US Inc.Call Sign: E140029Authorization Type: Modification of LicenseFile Number: SES-MOD-20200730-00809Non Common CarrierGrant date: 10/09/2020Expiration Date: 09/29/2030

### A) Site Location(s)

# Site ID	Address	Latitude	Longitude	Elevation (Meters)	Special Provisions NAD (Refer to Section H)
7) RMT3	Maritime Vessels/4000units Atlantic Ocean, Pacific Ocean CONUS PR USVI,				NA
	Licensee certifies antenna(s) E for special conditions place				se refer to Section
8) RMT4	Maritime Vessels/4000units Atlantic Ocean, Pacific Ocean CONUS PR USVI,				NA
	Licensee certifies antenna(s) E for special conditions place				se refer to Section
9) RMT5	Maritime Vessels/4000units Atlantic Ocean, Pacific Ocean CONUS PR USVI,				NA
	Licensee certifies antenna(s) E for special conditions place				se refer to Section
10) RMT6	Maritime Vessels/4000units Atlantic Ocean, Pacific Ocean CONUS PR USVI,				NA
	Licensee certifies antenna(s) E for special conditions place				se refer to Section
11) RMT7	Maritime Vessels/4000units Atlantic Ocean, Pacific Ocean CONUS PR USVI,				NA
	Licensee certifies antenna(s) E for special conditions place				se refer to Section
12) RMT8	Maritime Vessels/4000units Atlantic Ocean, Pacific Ocean CONUS PR USVI,				UNK



# **RADIO STATION AUTHORIZATION**

Name: ISAT US Inc.				Call Sign:	E140029
Authorization Type: Modification	of License			File Number:	SES-MOD-20200730-00809
Non Common Carrier	Grant date:	10/09/2020	<b>Expiration Date:</b>	09/29/2030	

### A) Site Location(s)

# Site ID	Address	Latitude	Longitude	Elevation (Meters)	Special Provisions NAD (Refer to Section H)
13) RMT9	Maritime Vessels/50units South Atlantic Ocean Region				NA

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 September 29, 2015 (3 AM Eastern Standard Time) and ending September 29, 2030 (3 AM Eastern Standard Time). The required date of completion of construction and commencement of operation is October 9, 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.

T OF the t		a to section i	1.		Max EIRP	Max EIRP Density		Special Provisions		
#	Frequency (MHz)	Polarizatio Code	on Emission	Tx/Rx Mode	/Carrier (dBW)	/Carrier (dBW/4kHz)	Associated Antenna	(Refer to Section H)	Modulation/ Services	
1) 295	00.0000-30000.0000	R	3M56G7W	Tx	55.00	25.50	EM Cobra		Modulation various mod 32 APSK Link	and Services Aulations up to Digital Data
2)295	00.0000-30000.0000	R	7M11G7W	Tx	58.00	25.50	EM Cobra			and Services Aulations up to Digital Data
3) 197	00.0000-20200.0000	L	32M0G7W	Rx			EM Cobra			and Services Aulations up to Digital Data
4)295	00.0000-30000.0000	R	1M79G1W	Tx	54.60	28.10	INT GX100			and Services a Signalling
5)295	00.0000-30000.0000	R	5M00G1W	Tx	54.50	23.50	INT GX100			and Services a Signalling
6)295	00.0000-30000.0000	R	600KG7W	Tx	47.80	26.00	INT GX100			lulations up to ital Data Link



## **RADIO STATION AUTHORIZATION**

Name: ISAT US Inc.Authorization Type: Modification of LicenseNon Common CarrierGrant date:

te: 10/09/2020

Expiration Date:

Call Sign: E140029 File Number: SES-MOD-20200730-00809 09/29/2030

#### **B)** Particulars of Operations

For th	e text of these provisions, refe	er to Section I	Η.		Max	Max EIRP		Special	
#	Frequency (MHz)	Polarizatio Code	on Emission	Tx/Rx Mode	EIRP /Carrier (dBW)	Density /Carrier (dBW/4kHz)	Associated Antenna	Provisions (Refer to Section H)	Modulation/ Services
7) 29	9500.0000-30000.0000	R	6M96G7W	Tx	54.50	22.10	INT GX100		Various Modulations up to 32APSK; Digital Data Link
8) 29	9100.0000-29500.0000	R	1M79G1W	Tx	54.60	28.10	INT GX100		Modulation and Services Digital Data Signalling
9)29	9100.0000-29500.0000	R	5M00G1W	Tx	54.50	23.50	INT GX100		Modulation and Services Digital Data Signalling
10) <u>29</u>	9100.0000-29500.0000	R	600KG7W	Tx	47.80	26.00	INT GX100		Various Modulations up to 32APSK; Digital Data Link
11) 29	9100.0000-29500.0000	R	6M96G7W	Tx	54.50	22.10	INT GX100		Various Modulations up to 32APSK; Digital Data Link
12) 19	9700.0000-20200.0000	L	32M0G7W	Rx			INT GX100		Various Modulations up to 32APSK; Digital Data Link
13) <sub>1</sub>	9300.0000-19700.0000	L	32M0G7W	Rx			INT GX100		Various Modulations up to 32APSK; Digital Data Link
14) 29	3500.0000-30000.0000	R	2M20G1W	Tx	50.50	23.10	INT GX60		Modulation and Services Digital Data Signalling
15) <u>29</u>	9500.0000-30000.0000	R	5M00G1W	Tx	50.90	19.90	INT GX60		Modulation and Services Digital Data Signalling
16) <u>29</u>	3500.0000-30000.0000	R	492KG7W	Tx	44.00	23.10	INT GX60		Various Modulations up to 32APSK; Digital Data Link
17)29	9500.0000-30000.0000	R	6M96G7W	Tx	50.90	18.50	INT GX60		Various Modulations up to 32APSK; Digital Data Link
18) <sub>29</sub>	9100.0000-29500.0000	R	2M20G1W	Tx	50.50	23.10	INT GX60		Modulation and Services Digital Data Signalling
19)29	9100.0000-29500.0000	R	5M00G1W	Tx	50.90	19.90	INT GX60		Modulation and Services Digital Data Signalling
20) 29	9100.0000-29500.0000	R	492KG7W	Tx	44.00	23.10	INT GX60		Various Modulations up to 32APSK; Digital Data Link
21) 29	9100.0000-29500.0000	R	6M96G7W	Tx	50.90	18.50	INT GX60		Various Modulations up to 32APSK; Digital Data Link
22) 19	9700.0000-20200.0000	L	32M0G7W	Rx			INT GX60		Various Modulations up to 32APSK; Digital Data Link
23) 19	9300.0000-19700.0000	L	32M0G7W	Rx			INT GX60		Various Modulations up to 32APSK; Digital Data Link
24) 29	9500.0000-30000.0000	R	1M79G1W	Tx	58.20	31.70	INTGX100N		Modulation and Services Digital Data Signalling



# **RADIO STATION AUTHORIZATION**

Name: ISAT US Inc.Authorization Type: Modification of LicenseNon Common CarrierGrant date:

te: 10/09/2020

Expiration Date:

Call Sign: E140029 File Number: SES-MOD-20200730-00809 09/29/2030

#### **B)** Particulars of Operations

For the te	ext of these provisions, refe	er to Section H	I.		Max	Max EIRP		Special	
#	Frequency (MHz)	Polarizatio Code	n Emission	Tx/Rx Mode	EIRP /Carrier (dBW)	Density /Carrier (dBW/4kHz)	Associated Antenna	Provisions (Refer to Section H)	Modulation/ Services
25) 2950	00.0000-30000.0000	R	5M00G1W	Tx	58.20	27.20	INTGX100N		Modulation and Services Digital Data Signalling
26) 2950	00.0000-30000.0000	R	600KG7W	Tx	51.50	29.70	INTGX100N		Various Modulations up to 32APSK; Digital Data Link
27)2950	00.0000-30000.0000	R	6M96G7W	Tx	58.20	25.80	INTGX100N		Various Modulations up to 32APSK; Digital Data Link
28) 1970	00.0000-20200.0000	L	32M0G7W	Rx			INTGX100N		Various Modulations up to 32APSK; Digital Data Link
29) 2950	00.0000-30000.0000	R	1M79G1W	Tx	58.20	31.70	JUE-100NX		Modulation and Services Digital Data Signalling
30) 2950	00.0000-30000.0000	R	5M00G12	Tx	58.20	27.20	JUE-100NX		Modulation and Services Digital Data Signalling
31) 2950	00.0000-30000.0000	R	600KG7W	Tx	51.50	29.70	JUE-100NX		Various Modulations up to 32APSK; Digital Data Link
32) 2950	00.0000-30000.0000	R	6M96G7W	Tx	58.20	25.80	JUE-100NX		Various Modulations up to 32APSK; Digital Data Link
33)1970	00.0000-20200.0000	L	32M0G7W	Rx	0.00	0.00	JUE-100NX		Various Modulations up to 32APSK; Digital Data Link
34)2950	00.0000-30000.0000	R	2M70G1W	Tx	50.50	22.20	JUE-60GX		Modulation and Services Digital Data Signalling
35)2950	00.0000-30000.0000	R	5M00G1W	Tx	50.90	19.90	JUE-60GX		Modulation and Services Digital Data Signalling
36)2950	00.0000-30000.0000	R	600KG7W	Tx	44.00	22.20	JUE-60GX		Various Modulations up to 32APSK; Digital Data Link
37)2950	00.0000-30000.0000	R	6M96G7W	Tx	50.90	18.50	JUE-60GX		Various Modulations up to 32APSK; Digital Data Link
38)2910	00.0000-29500.0000	R	2M70G1W	Tx	50.50	22.20	JUE-60GX		Modulation and Services Digital Data Signalling
39)2910	0.0000-29500.0000	R	5M00G1W	Tx	50.90	19.90	JUE-60GX		Modulation and Services Digital Data Signalling
40)2910	00.0000-29500.0000	R	600KG7W	Tx	44.00	22.20	JUE-60GX		Various Modulations up to 32APSK; Digital Data Link
41)2910	00.0000-29500.0000	R	6M96G7W	Tx	50.90	18.50	JUE-60GX		Various Modulations up to 32APSK; Digital Data Link
42)1970	00.0000-20200.0000	L,R	32M0G7W	Rx			JUE-60GX		Modulation and Services Digital Data Signalling



# **RADIO STATION AUTHORIZATION**

Name: ISAT US Inc.Authorization Type: Modification of LicenseNon Common CarrierGrant date:

te: 10/09/2020

Expiration Date:

Call Sign: E140029 File Number: SES-MOD-20200730-00809 09/29/2030

#### **B)** Particulars of Operations

For the te	ext of these provisions, refe	er to Section H	ł.		Max	Max EIRP		Special	
#	Frequency (MHz)	Polarizatio Code	on Emission	Tx/Rx Mode	EIRP /Carrier (dBW)	Density /Carrier (dBW/4kHz)	Associated Antenna	Provisions (Refer to Section H)	Modulation/ Services
43) 1930	0.0000-19700.0000	L,R	32M0G7W	Rx			JUE-60GX		Modulation and Services Digital Data Signalling
44) 2950	00.0000-30000.0000	R	460KG7W	Tx	46.00	25.40	MicroSat		Various Modulations up to 32APSK; Digital Data Link
45)2950	00.0000-30000.0000	R	5M00G1W	Tx	46.00	15.00	MicroSat		Various Modulations up to 32APSK; Digital Data Link
46) 1970	00.0000-20200.0000	L	32M0G7W	Rx			MicroSat		Various Modulations up to 32APSK; Digital Data Link
47) 2950	00.0000-30000.0000	R	460KG7W	Tx	48.80	28.20	MilliSat-H		Various Modulations up to 32APSK; Digital Data Link
48) 2950	00.0000-30000.0000	R	5M00G1W	Tx	48.80	17.80	MilliSat-H		Various Modulations up to 32APSK; Digital Data Link
49) 1970	00.0000-20200.0000	L	32M0G7W	Rx			MilliSat-H		Various Modulations up to 32APSK; Digital Data Link
50)2950	00.0000-30000.0000	R	460KG7W	Tx	48.80	28.20	MilliSat-W		Various Modulations up to 32APSK; Digital Data Link
51)2950	00.0000-30000.0000	R	5M00G1W	Tx	48.80	17.80	MilliSat-W		Various Modulations up to 32APSK; Digital Data Link
52)1970	00.0000-20200.0000	L	32M0G7W	Rx			MilliSat-W		Various Modulations up to 32APSK; Digital Data Link
53) 2950	00.0000-30000.0000	R	2M70G1W	Tx	54.30	26.00	SAILOR 100		Modulation and Services Digital Data Signalling
54)2950	00.0000-30000.0000	R	5M00G1W	Tx	54.50	23.50	SAILOR 100		Modulation and Services Digital Data Signalling
55)2950	00.0000-30000.0000	R	600KG7W	Tx	47.80	26.00	SAILOR 100		Various Modulations up to 32APSK; Digital Data Link
56)2950	00.0000-30000.0000	R	6M96G7W	Tx	54.50	22.10	SAILOR 100		Various Modulations up to 32APSK; Digital Data Link
57)2910	0.0000-29500.0000	R	2M70G1W	Tx	54.30	26.00	SAILOR 100		Modulation and Services Digital Data Signalling
58)2910	00.0000-29500.0000	R	5M00G1W	Tx	54.50	23.50	SAILOR 100		Modulation and Services Digital Data Signalling
59)2910	00.0000-29500.0000	R	600KG7W	Tx	47.80	26.00	SAILOR 100		Various Modulations up to 32APSK; Digital Data Link
60)2910	00.0000-29500.0000	R	6M96G7W	Tx	54.50	22.10	SAILOR 100		Various Modulations up to 32APSK; Digital Data Link



# **RADIO STATION AUTHORIZATION**

Name: ISAT US Inc.Authorization Type: Modification of LicenseNon Common CarrierGrant date:

te: 10/09/2020

**Expiration Date:** 

Call Sign: E140029 File Number: SES-MOD-20200730-00809 09/29/2030

### **B)** Particulars of Operations

For the text	of these provisions, refe	r to Section H.			Max	Max EIRP		Special	
#	Frequency (MHz)	Polarization Code	Emission	Tx/Rx Mode	EIRP /Carrier (dBW)	Density /Carrier (dBW/4kHz)	Associated Antenna	Provisions (Refer to Section H)	Modulation/ Services
61)19700	.0000-20200.0000	L 3	32M0G7W	Rx			SAILOR 100		Various Modulations up to 32APSK; Digital Data Link
62)19300.	.0000-19700.0000	L 3	32M0G7W	Rx			SAILOR 100		Various Modulations up to 32APSK; Digital Data Link
63)29500.	.0000-30000.0000	R 2	2M20G1W	Tx	50.50	23.10	SAILOR 60		Modulation and Services Digital Data Signalling
64)29500.	.0000-30000.0000	R 5	5M00G1W	Tx	50.70	19.70	SAILOR 60		Modulation and Services Digital Data Signalling
65)29500.	.0000-30000.0000	R 4	192KG7W	Tx	44.00	23.10	SAILOR 60		Various Modulations up to 32APSK; Digital Data Link
66)29500.	.0000-30000.0000	R 6	5M96G7W	Tx	50.70	18.30	SAILOR 60		Various Modulations up to 32APSK; Digital Data Link
67)29100	.0000-29500.0000	R 2	2M20G1W	Tx	50.50	23.10	SAILOR 60		Modulation and Services Digital Data Signalling
68)29100	.0000-29500.0000	R 5	5M00G1W	Tx	50.70	19.70	SAILOR 60		Modulation and Services Digital Data Signalling
69)29100	.0000-29500.0000	R 4	192KG7W	Tx	44.00	23.10	SAILOR 60		Various Modulations up to 32APSK; Digital Data Link
70)29100	.0000-29500.0000	R 6	5M96G7W	Tx	50.70	18.30	SAILOR 60		Various Modulations up to 32APSK; Digital Data Link
71)19700.	.0000-20200.0000	L 3	32M0G7W	Rx			SAILOR 60		Various Modulations up to 32APSK; Digital Data Link
72)19300	.0000-19700.0000	L 3	32M0G7W	Rx			SAILOR 60		Various Modulations up to 32APSK; Digital Data Link
73)29500.	.0000-30000.0000	R 2	2M30G1W	Tx	54.10	26.50	SEA4012GX		Modulation and Services Digital Data Signalling
74)29500.	.0000-30000.0000	R 5	5M00G1W	Tx	54.10	23.10	SEA4012GX		Modulation and Services Digital Data Signalling
75)29500.	.0000-30000.0000	R 6	500KG7W	Tx	46.50	24.70	SEA4012GX		Various Modulations up to 32APSK; Digital Data Link
76)29500.	.0000-30000.0000	R 6	5M96G7W	Tx	54.10	21.70	SEA4012GX		Various Modulations up to 32APSK; Digital Data Link
77)29100	.0000-29500.0000	R 2	2M30G1W	Tx	54.10	26.50	SEA4012GX		Modulation and Services Digital Data Signalling
78)29100	.0000-29500.0000	R 5	5M00G1W	Tx	54.10	23.10	SEA4012GX		Modulation and Services Digital Data Signalling



# **RADIO STATION AUTHORIZATION**

Name: ISAT US Inc.Authorization Type: Modification of LicenseNon Common CarrierGrant date:

te: 10/09/2020

**Expiration Date:** 

Call Sign: E140029 File Number: SES-MOD-20200730-00809 09/29/2030

#### **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.

For the te	For the text of these provisions, refer to Section H.				Max EIRP	Max EIRP Density		Special Provisions	
#	Frequency (MHz)	Polarizatio Code	n Emission	Tx/Rx Mode	/Carrier	/Carrier (dBW/4kHz)	Associated Antenna	(Refer to Section H)	Modulation/ Services
79)2910	0.0000-29500.0000	R	600KG7W	Τx	46.50	24.70	SEA4012GX		Various Modulations up to 32APSK; Digital Data Link
80)2910	0.0000-29500.0000	R	6M96G7W	Tx	54.10	21.70	SEA4012GX		Various Modulations up to 32APSK; Digital Data Link
81)1970	0.0000-20200.0000	L	32M0G7W	Rx	0.00	0.00	SEA4012GX		Various Modulations up to 32APSK; Digital Data Link
82)1930	0.0000-19700.0000	L	32M0G7W	Rx			SEA4012GX		Various Modulations up to 32APSK; Digital Data Link
83)2950	0.0000-30000.0000	R	2M70G1W	Tx	50.30	22.00	SEAGX60		Modulation and Services Digital Data Signalling
84)2950	0.0000-30000.0000	R	5M00G1W	Tx	50.30	19.30	SEAGX60		Modulation and Services Digital Data Signalling
85)2950	0.0000-30000.0000	R	600KG7W	Tx	43.30	21.50	SEAGX60		Various Modulations up to 32APSK; Digital Data Link
86)2950	0.0000-30000.0000	R	6M96G7W	Tx	50.30	17.90	SEAGX60		Various Modulations up to 32APSK; Digital Data Link
87)2910	0.0000-29500.0000	R	2M70G1W	Tx	50.30	22.00	SEAGX60		Modulation and Services Digital Data Signalling
88)2910	0.0000-29500.0000	R	5M00G1W	Tx	50.30	19.30	SEAGX60		Modulation and Services Digital Data Signalling
89)2910	0.0000-29500.0000	R	600KG7W	Tx	43.30	21.50	SEAGX60		Various Modulations up to 32APSK; Digital Data Link
90)2910	0.0000-29500.0000	R	6M96G7W	Tx	50.30	17.90	SEAGX60		Various Modulations up to 32APSK; Digital Data Link
91)1970	0.0000-20200.0000	L	32M0G7W	Rx	0.00	0.00	SEAGX60		Various Modulations up to 32APSK; Digital Data Link
92) <sub>1930</sub>	0.0000-19700.0000	L	32M0G7W	Rx			SEAGX60		Various Modulations up to 32APSK; Digital Data Link

## **C) Frequency Coordination Limits**

			ite Arc Long.)		ElevationAzimuth(Degrees)(Degrees)		Max EIRP Density toward			
#	Frequency Limits (MHz)	East Limit	West Limit	East Limit	West Limit	East Limit	West Limit	Horizon (dBW/4kHz)		Associated Antenna(s)
1)	29500.0000-30000.0000			05.0-	-05.0			-9	INT	GX60

FCC Form 488



# **RADIO STATION AUTHORIZATION**

**Expiration Date:** 

Name: ISAT US Inc.Authorization Type: Modification of LicenseNon Common CarrierGrant date:10/09/2020

Call Sign: E140029 File Number: SES-MOD-20200730-00809 09/29/2030

## **C) Frequency Coordination Limits**

			ite Arc Long.)		ation grees)		muth grees)	Max EIRP Density toward	
#	Frequency Limits (MHz)	East Limit	West Limit	East Limit	West Limit	East Limit	West Limit	Horizon	Associated Antenna(s)
2)	19700.0000-20200.0000			05.0-	-05.0				INT GX60
3)	29100.0000-29500.0000			05.0-	-05.0			-9	INT GX60
4)	19300.0000-19700.0000			05.0-	-05.0				INT GX60
5)	29500.0000-30000.0000			05.0-	-05.0			-9	SAILOR 60
6)	19700.0000-20200.0000			05.0-	-05.0				SAILOR 60
7)	29100.0000-29500.0000			05.0-	-05.0			-9	SAILOR 60
8)	19300.0000-19700.0000			05.0-	-05.0				SAILOR 60
9)	29500.0000-30000.0000			05.0-	-05.0			-9	SAILOR 100
10)	19700.0000-20200.0000			05.0-	-05.0				SAILOR 100
11)	29100.0000-29500.0000			05.0-	-05.0			-9	SAILOR 100
12)	19300.0000-19700.0000			05.0-	-05.0				SAILOR 100
13)	19700.0000-20200.0000	0.0W-	360.OW	05.0-	-05.0	000.0	-000.0		SEA4012GX
14)	29500.0000-30000.0000	0.0W-	360.OW	05.0-	-05.0	000.0	-000.0	-9	SEA4012GX
15)	29100.0000-29500.0000			05.0-	-05.0			-9	SEA4012GX
16)	19300.0000-19700.0000			05.0-	-05.0				SEA4012GX
17)	19700.0000-20200.0000	0.0W-	360.OW	05.0-	-05.0	000.0	-000.0		SEAGX60
18)	29500.0000-30000.0000	0.0W-	360.OW	05.0-	-05.0	000.0	-000.0	-9	SEAGX60
19)	29100.0000-29500.0000			05.0-	-05.0			-9	SEAGX60
20)	19300.0000-19700.0000			05.0-	-05.0				SEAGX60
21)	29500.0000-30000.0000	0.0W-	360.OW	05.0-	-05.0	000.0	-000.0	-9	EM Cobra
22)	19700.0000-20200.0000	0.0W-	360.OW	05.0-	-05.0	000.0	-000.0		EM Cobra
23)	29500.0000-30000.0000			05.0-	-05.0	000.0	-000.0	-9	MilliSat-W
24)	19700.0000-20200.0000			05.0-	-05.0	000.0	-000.0		MilliSat-W
25)	29500.0000-30000.0000			05.0-	-05.0	000.0	-000.0	-9	MilliSat-H
26)	19700.0000-20200.0000			05.0-	-05.0	000.0	-000.0		MilliSat-H
27)	29500.0000-30000.0000			05.0-	-05.0	000.0	-000.0	-9	MicroSat
28)	19700.0000-20200.0000			05.0-	-05.0	000.0	-000.0		MicroSat
29)	29500.0000-30000.0000			05.0-	-05.0			-9	JUE-60GX
30)	19700.0000-20200.0000			05.0-	-05.0				JUE-60GX
31)	29100.0000-29500.0000			05.0-	-05.0			-9	JUE-60GX
32)	19300.0000-19700.0000			05.0-	-05.0				JUE-60GX
33)	29500.0000-30000.0000			05.0-	-05.0			-9	INT GX100
34)	19700.0000-20200.0000			05.0-	-05.0				INT GX100
35)	29100.0000-29500.0000			05.0-	-05.0			-9	INT GX100
36)	19300.0000-19700.0000			05.0-	-05.0				INT GX100



# **RADIO STATION AUTHORIZATION**

Name: ISAT US Inc.Call Sign: E140029Authorization Type: Modification of LicenseFile Number: SES-MOD-20200730-00809Non Common CarrierGrant date: 10/09/2020Expiration Date: 09/29/2030

### **C) Frequency Coordination Limits**

	<b>D 1 1 1</b>	Satellite ArcElevation(Deg. Long.)(Degrees)			Azimuth (Degrees)		Max EIRP Density toward		
#	Frequency Limits (MHz)	East Limit	West Limit	East Limit	West Limit	East Limit	West Limit	Horizon (dBW/4kHz)	Associated Antenna(s)
37)	29500.0000-30000.0000	05.0-05.0					-9	INTGX100N	
38)	19700.0000-20200.0000		05.0-05.0						INTGX100N
39)	29500.0000-30000.0000	05.0-05.0					-9	JUE-100NX	
40)	19700.0000-20200.0000		05.0-05.0						JUE-100NX

#### **D)** Points of Communications

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

1) RMT6 to INMARSAT 5F2 satellite @ 55 degrees W.L. (U. K. licensed) 2) RMT6 to INMARSAT 5F3 satellite @ 179.6 degrees E.L. degrees (U. K. licensed) 3) RMT7 to INMARSAT 5F2 satellite @ 55 degrees W.L. (U. K. licensed) 4) RMT7 to INMARSAT 5F3 satellite @ 179.6 degrees E.L. degrees (U. K. licensed) 5) RMT3 to INMARSAT 5F2 satellite @ 55 degrees W.L. (U. K. licensed) 6) RMT3 to INMARSAT 5F3 satellite @ 179.6 degrees E.L. degrees (U. K. licensed) 7) RMT1 to INMARSAT 5F2 satellite @ 55 degrees W.L. (U. K. licensed) 8) RMT1 to INMARSAT 5F3 satellite @ 179.6 degrees E.L. degrees (U. K. licensed) 9) RMT2 to INMARSAT 5F2 satellite @ 55 degrees W.L. (U. K. licensed) 10) RMT2 to INMARSAT 5F3 satellite @ 179.6 degrees E.L. degrees (U. K. licensed) 11) RMT8 to INMARSAT 5F2 satellite @ 55 degrees W.L. (U. K. licensed) 12) RMT8 to INMARSAT 5F3 satellite @ 179.6 degrees E.L. degrees (U. K. licensed) 13) RMT9 to INMARSAT 5F2 satellite @ 55 degrees W.L. (U. K. licensed) 14) RMT9 to INMARSAT 5F3 satellite @ 179.6 degrees E.L. degrees (U. K. licensed) 15) RMT10 to INMARSAT 5F2 satellite @ 55 degrees W.L. (U. K. licensed) 16) RMT10 to INMARSAT 5F3 satellite @ 179.6 degrees E.L. degrees (U. K. licensed) 17) RMT11 to INMARSAT 5F2 satellite @ 55 degrees W.L. (U. K. licensed) 18) RMT11 to INMARSAT 5F3 satellite @ 179.6 degrees E.L. degrees (U. K. licensed) 19) RMT4 to INMARSAT 5F2 satellite @ 55 degrees W.L. (U. K. licensed) 20) RMT4 to INMARSAT 5F3 satellite @ 179.6 degrees E.L. degrees (U. K. licensed) 21) RMT5 to INMARSAT 5F2 satellite @ 55 degrees W.L. (U. K. licensed) 22) RMT5 to INMARSAT 5F3 satellite @ 179.6 degrees E.L. degrees (U. K. licensed) 23) RMT12 to INMARSAT 5F2 satellite @ 55 degrees W.L. (U. K. licensed) 24) RMT12 to INMARSAT 5F3 satellite @ 179.6 degrees E.L. degrees (U. K. licensed) 25) RMT13 to INMARSAT 5F2 satellite @ 55 degrees W.L. (U. K. licensed) 26) RMT13 to INMARSAT 5F3 satellite @ 179.6 degrees E.L. degrees (U. K. licensed)



## **RADIO STATION AUTHORIZATION**

Name: ISAT US Inc.Call Sign: E140029Authorization Type: Modification of LicenseFile Number: SES-MOD-20200730-00809Non Common CarrierGrant date: 10/09/2020Expiration Date: 09/29/2030

#### E) Antenna Facilities

Sit II		na	Diameter (meters)	Manufacturer	Model number	Site Elevation (Meters)	Max Antenna Height (Meters)	Special Provisions (Refer to Section H)
RMT8	EM Cok	ora 4000	1	EM Solutions	Cobra			
	Max Gains(s):	48.0 19.7000 GH		9.5000 GHz 46 dBi @ 30.0000		00 GHz	46.0 dBi @	
				flange (Watts) = l carriers (dBW) =	16.00 61.40			
RMT5	INT GX	100 4000	1.03	INTELLIAN	GX100			
	Max Gains(s):	29.5000 GH dBi @ 1	z 44.3 9.7000 GHz	dBi @ 20.2000 47.6 dBi @	29.1000 GHz		47.7 dBi @ 000 GHz 43.8 19.3000 GHz	
				flange (Watts) = l carriers (dBW) =	5.00 = 54.60			
RMT6	INT GX	4000	0.65	INTELLIAN	GX60			
	Max Gains(s):	29.5000 GH		dBi @ 30.0000		00 GHz @ 20.20 39.5 dBi @	44.2 dBi @ 000 GHz 39.7 ! 19.3000 GHz	
				flange (Watts) = l carriers (dBW) =				
RMT12	INTGX1	00N 4000	1.05	INTELLIAN	GX100NX			
		input power	at antenna	9.2000 GHz 482 flange (Watts) = l carriers (dBW) =		00 GHz		
RMT13	JUE-10	0NX 4000	1.05	JRC	JUE-100NX			
		input power	at antenna	9.5000 GHz 48 flange (Watts) = l carriers (dBW) =		00 GHz		
RMT4	JUE-60	)GX 4000	0.65	JRC	JUE-60GX			
	Max Gains(s):	29.5000 GH		9.7000 GHz 39 dBi @ 30.0000 43.8 dBi @	GHz 39.9 dBi	00 GHz @ 19.95 39.4 dBi @	43.9 dBi @ 00 GHz 43.9 19.3000 GHz	
		input power	at antenna	flange (Watts) = l carriers (dBW) =	5.00			



## **RADIO STATION AUTHORIZATION**

 Name: ISAT US Inc.
 Call Sign: E140029

 Authorization Type: Modification of License
 File Number: SES-MOD-20200730-00809

 Non Common Carrier
 Grant date: 10/09/2020
 Expiration Date: 09/29/2030

#### E) Antenna Facilities

Sit II			Diameter (meters)	Manufacturer	Model number	Site Elevation (Meters)	Max Antenna Height (Meters)	Special Provisions (Refer to Section H)
RMT11	MicroS	at 50	0.248	GetSat	MicroSat			
	Max Gains(s):	29.5000 GH	Iz 33.7	dBi @ 19.7000		00 GHz	32.2 dBi @	
				flange (Watts) = l carriers (dBW) =				
RMT10	MilliSa	t-H 50	0.27	GetSat	MilliSat-H			
	Max Gains(s):	20.2000 GH	Iz 32.9	dBi @ 29.5000		00 GHz	33.8 dBi 0	
				flange (Watts) =	16.00			
	Maximum aggreg	ate output	EIRP for al	l carriers (dBW) =	48.80			
RMT9	MilliSa	t-W 50	0.5	GetSat	MilliSat-W			
	Max Gains(s):	38.6 29.5000 GH		0.2000 GHz 38 dBi @ 30.0000	3.3 dBi @ 19.70 GHz	00 GHz	35.2 dBi @	
	Maximum total	input power	at antenna	flange (Watts) =	16.00			
	Maximum aggreg	ate output	EIRP for al	l carriers (dBW) =	48.80			
RMT3	SAILOR	100 4000	1.03	Cobham SatCom	Sailor 100 GX	[		
	Max Gains(s):	20.2000 GH		0.0000 GHz 43 dBi @ 29.5000 47.3 dBi @	GHz 43.9 dBi	00 GHz @ 19.95 43.3 dBi (	44.1 dBi @ 500 GHz 47.5 @ 19.3000 GHz	
	Maximum total	input power	at antenna	flange (Watts) =	5.00			
	Maximum aggreg	ate output	EIRP for al	l carriers (dBW) =	= 54.50			
RMT7	SAILOR	60 4000	0.65	COBHAM SEATEL	SAILOR GX60			
	Max Gains(s):	30.0000 GH		dBi @ 29.5000		00 GHz @ 20.20 40.3 dBi (	43.7 dBi @ 000 GHz 40.5 @ 19.3000 GHz	
				flange (Watts) = l carriers (dBW) =				
RMT1	SEA4012	2GX 4000	1	Cobham-Sea Tel	4012GX	0	0 AGL	
	Max Gains(s):	47.1 19.3000 GH		9.5000 GHz 44 dBi @ 29.1000	4.0 dBi @ 19.70 GHz	00 GHz	43.8 dBi 0	
	Maximum total	input power	at antenna	flange (Watts) =	5.00			
	Maximum aggreg	ate output	EIRP for al	l carriers (dBW) =	54.10			



# **RADIO STATION AUTHORIZATION**

Name: ISAT US Inc.Call Sign: E140029Authorization Type: Modification of LicenseFile Number: SES-MOD-20200730-00809Non Common CarrierGrant date: 10/09/2020Expiration Date: 09/29/2030

#### E) Antenna Facilities

Sit II		Diameter Units (meters)	Manufacturer	Model number	Site Elevation (Meters)	Max Antenna Height (Meters)	Special Provisions (Refer to Section H)
RMT2	SEAGX60	4000 0.65	Cobham-Sea Tel	GX60	0	0 AGL	
	Max Gains(s): 29.1		29.5000 GHz 40.4 4 dBi @ 19.7000 GH	· •	00 GHz @ 19.30	43.2 dBi @ 00 GHz	
	-	-	na flange (Watts) = all carriers (dBW) =	5.00 50.30			

#### F) Remote Control Point:

RMT1	6211 GLEN CIRCLE, (SEA4012GX)	Call Sign: E120072
	LINO LAKES, ANOKA, MN 55014	
	808-469-7104	
RMT10	6211 GLEN CIRCLE, (MilliSat-H)	Call Sign: E120072
	LINO LAKES, ANOKA, MN 55014	
	808-469-7104	
RMT11	6211 GLEN CIRCLE, (MicroSat)	<b>Call Sign:</b> E120072
	LINO LAKES, ANOKA, MN 55014	
	808-469-7104	
RMT12	6211 GLEN CIRCLE, (Intgx100nx)	Call Sign: E120072
	LINO LAKES, ANOKA, MN 55014	
	808-638-5820	
RMT13	6211 GLEN CIRCLE, (JUE-100NX)	<b>Call Sign:</b> E120072
	LINO LAKES, ANOKA, MN 55014	
	808-638-5820	
RMT2	6211 GLEN CIRCLE, (SEAGX60)	<b>Call Sign:</b> E120072
	LINO LAKES, ANOKA, MN 55014	2
	808-469-7104	



# **RADIO STATION AUTHORIZATION**

Name: ISAT US Inc.Call Sign: E140029Authorization Type: Modification of LicenseFile Number: SES-MOD-20200730-00809Non Common CarrierGrant date: 10/09/2020Expiration Date: 09/29/2030

## F) Remote Control Point:

RMT3	6211 GLEN CIRCLE, (SAILOR 100)	Call Sign: E120072
	LINO LAKES, ANOKA, MN 55014	
	808-469-7104	
RMT4	6211 GLEN CIRCLE, (JUE-60GX)	Call Sign: E120072
	LINO LAKES, ANOKA, MN 55014	
	808-469-7104	
RMT5	6211 GLEN CIRCLE, (INT GX100)	Call Sign: E120072
	LINO LAKES, ANOKA, MN 55014	
	808-469-7104	
RMT6	6211 GLEN CIRCLE, (INT GX60)	Call Sign: E120072
	LINO LAKES, ANOKA, MN 55014	
	808-469-7104	
RMT7	6211 GLEN CIRCLE, (SAILOR 60)	Call Sign: E120072
	LINO LAKES, ANOKA, MN 55014	
	808-469-7104	
RMT8	6211 GLEN CIRCLE, (EM Cobra)	Call Sign: E120072
	LINO LAKES, ANOKA, MN 55014	
	808-469-7104	
RMT9	6211 GLEN CIRCLE, (MilliSat-W)	Call Sign: E120072
	LINO LAKES, ANOKA, MN 55014	
	808-469-7104	

#### G) Antenna Structure marking and lighting requirements:

None unless otherwise specified under Special and General Provisions



## **RADIO STATION AUTHORIZATION**

Name: ISAT US Inc.Authorization Type: Modification of LicenseNon Common CarrierGrant date:

late: 10/09/2020

**Expiration Date:** 

Call Sign: E140029 File Number: SES-MOD-20200730-00809 09/29/2030

#### 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.
  - 5 --- Licensee must notify the Commission when this earth station is no longer operational or when it has not been used to provide any service during any 6-month operation.
  - 6 --- Licensee must comply with the license modification and notification requirements of 47 CFR § 25.118 to change the coordinates of its authorized earth station.
  - 2653 --- Licensee shall maintain a 24-hour point of contact who can remedy any interference problems or terminate operations if necessary.
  - 6609 --- The licensee must comply with any pertinent limits and provisions established by the International Telecommunication Union to protect other services allocated internationally.
- 90227 --- Grant of this application and operations under this license are based upon and subject to the conditions, waivers, and findings specified in Inmarsat Mobile Networks, Order and Authorization and Declaratory Ruling, 30 FCC Rcd 2770 (Int'l Bur., 2015), and Petition for Reconsideration or Clarification, 30 FCC Rcd 7295 (Int'l Bur. 2015).
- 90229 --- The licensee's earth stations on maritime vessels authorized herein must be monitored and controlled by a ground-based network control and monitoring center. Such stations must be able to receive "enable transmission" and "disable transmission" commands from the network control center and must cease transmission immediately after receiving a "parameter change" command until receiving an "enable transmission" command from the network control center must monitor operation of each earth station to determine if it is malfunctioning, and each earth station on maritime vessels must self-monitor and automatically cease transmission within 100 milliseconds on detecting an operational fault that could cause harmful interference.
- 90230 --- The Commisson's Ka-band Plan is waived to the extent noted herein. Operations in the 29.5-30.0 GHz and 19.7-20.2 GHz frequency bands for maritime use are permitted on a non-harmful interference basis, that is, operations must not cause harmful interference to, and must not claim protection from interference caused by any other lawfully operating station. Transmission(s) must cease immediately upon notice of any interference caused. See Rulemaking to Amend Parts 1, 2, 21, and 25 of the Commission's Rules to Redesignate the 27.5-29.5 GHz Frequency Band to Reallocate the 29.5-30.0 GHz Frequency Band, to Establish Rules and Policies for Local Multipoint Distribution Services and for Fixed Satellite Services, First Report and Order and Fourth Notice of Proposed Rulemaking, 11 FCC Rcd 19005 (1996). This waiver applies to terminals with the technical characteristics identified in this license, on both U.S. and non-U.S. registered vessels.
- 90233 --- The operation of Inmarsat-5 F2 and associated earth stations must comport with: (i) the applicable uplink limits in Section 25.138 in the frequency 29.5-30.0 GHz; (ii) the applicable downlink limits in Section 25.138 in the frequency band 19.7-20.2 GHz. These limits cannot be exceeded unless the satellite operator coordinates any non-conforming operation with the operations of U.S.-licensed GSO space stations within 6 degrees of 55° W.L. Non-conforming operation must also be coordinated with respect to operation of non-U.S.-licensed space stations within 6 degrees of 55° W.L. when communicating with U.S.-licensed earth stations pursuant to Section 25.137 of the Commission's rules, 47 C.F.R. § 25.137.



## **RADIO STATION AUTHORIZATION**

Name: ISAT US Inc.Authorization Type: Modification of LicenseNon Common CarrierGrant date:

ate: 10/09/2020

Expiration Date:

Call Sign: E140029 File Number: SES-MOD-20200730-00809 09/29/2030

#### H) Special and General Provisions

- A) This RADIO STATION AUTHORIZATION is granted subject to the following special provisions and general conditions:
- 90234 --- 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.
- 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.
- 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).
- 900408 --- ISAT, US is granted a waiver of the U.S. Table of Allocations, 47 CFR § 2.106, and the Commission's Ka-band Plan, see Rulemaking to Amend Parts 1, 2, 21, and 25 of the Commission's Rules to Redesignate the 27.5-29.5 GHz Frequency Band to Reallocate the 29.5-30.0 GHz Frequency Band, to Establish Rules and Policies for Local Multipoint Distribution Services and for Fixed Satellite Services, First Report and Order and Fourth Notice of Proposed Rulemaking, 11 FCC Rcd 19005 (1996). ISAT is authorized to operate with the Inmarsat 5F2 space station at the 55° W.L. orbital location using the 29.1-29.25 GHz (Earth-to-space) and 19.3-19.7 GHz (space-to-Earth) frequency bands, for maritime use in the South Atlantic Ocean Region, on a non-harmful interference basis, that is, ISAT must not cause harmful interference to, and must not claim protection from interference caused to it by, any other lawfully operating station, and must cease transmission(s) immediately upon notice of such interference. Based on the information on file with the Commission, the proposed operations do not pose a risk of interference to other users of the band.
- 900424 --- Operations of MicroSat, MilliSat-H, and MilliSat-W antennas are authorized only with the Inmarsat 5F2 and Inmarsat 5F3 Satellites.



# **RADIO STATION AUTHORIZATION**

Name: ISAT US Inc.Authorization Type: Modification of LicenseNon Common CarrierGrant date

Grant date: 10/09/2020

Expiration Date:

Call Sign: E140029 File Number: SES-MOD-20200730-00809 09/29/2030

**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 does not meet each required construction deadline by the required date of completion unless, before such date(s), a specific application is timely filed to request an extension of the construction deadline(s), supported with good cause why that failure to construct 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.