



312 File Number: **SATMOD2019020700009**

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## Filing Description

Question	Response
Description	Redeploy IS-901 to 27.5 W. L.

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**Satellite  
Information**

Question	Response
Select Orbit Type	GSO
Space Station or Satellite Network Name	Intelsat 901
Estimated Lifetime of Satellite(s) From Date of Launch	25 Years
Will the space station(s) operate on a Common Carrier basis?	No

## Operating Frequency Bands (5)

Nature of service	Description	Frequency Band(s)	Mode Type
Fixed-Satellite Service		11450.0 MHz -11700.0 MHz	Transmit
Fixed-Satellite Service		10950.0 MHz -11200.0 MHz	Transmit
Fixed-Satellite Service		3625.0 MHz -4200.0 MHz	Transmit
Fixed-Satellite Service		14000.0 MHz -14500.0 MHz	Receive
Fixed-Satellite Service		5850.0 MHz -6425.0 MHz	Receive

## Orbital Information For Geostationary Satellites

Section	Question	Response
<b>Orbital Longitude Information</b>	Orbital Longitude	28.0 degrees
	Hemisphere of Orbital Longitude	W
<b>Longitudinal Tolerance or East /West Station-Keeping</b>	Toward West	0.1 degrees
	Toward East	0.1 degrees
<b>Inclination Excursion or North /South Station-Keeping Tolerance</b>	Inclination Excursion or North /South Station-Keeping Tolerance	0.1 degrees
<b>Antenna Axis Attitude Accuracy</b>	Roll	0.1 degrees
	Pitch	0.1 degrees
	Yaw	0.1 degrees

## Receiving Beams 1:

Question	Response
Beam ID	CMDG
Receive Beam Frequency	6173.22 MHz -6174.18 MHz
Beam Type	Fixed
Polarization	LHCP
Peak Gain	dBi
Antenna Pointing Error	0.19 degrees
Antenna Rotational Error	0.3 degrees
Polarization Switchable	No
Polarization Alignment Relative to the Equatorial Plane	45.0 degrees
G/T at Max. Gain Point	-99.0 dB/K
Min. Saturation Flux Density	-90.0 dBW/m2
Max. Saturation Flux Density	-89.9 dBW/m2
Co- or Cross Polar Mode	C
Service Area Description	Global - Gain contour attachment not provided pursuant to Section 25.114(c)(4)(vi)(A) of the FCC

## Receiving Beams 2:

Question	Response
Beam ID	CMDB
Receive Beam Frequency	6175.82 MHz -6176.78 MHz
Beam Type	Fixed
Polarization	LHCP
Peak Gain	dBi
Antenna Pointing Error	0.19 degrees

Antenna Rotational Error	0.3 degrees
Polarization Switchable	No
Polarization Alignment Relative to the Equatorial Plane	45.0 degrees
G/T at Max. Gain Point	-99.0 dB/K
Min. Saturation Flux Density	-90.0 dBW/m2
Max. Saturation Flux Density	-89.9 dBW/m2
Co- or Cross Polar Mode	C
Service Area Description	Global - Gain contour attachment not provided pursuant to Section 25.114(c)(4)(vi)(A) of the FCC rules

### Receiving Beams 3:

Question	Response
Beam ID	CGRU
Receive Beam Frequency	6300.0 MHz -6425.0 MHz
Beam Type	Fixed
Polarization	RHCP
Peak Gain	dBi
Antenna Pointing Error	0.19 degrees
Antenna Rotational Error	0.3 degrees
Polarization Switchable	No
Polarization Alignment Relative to the Equatorial Plane	45.0 degrees
G/T at Max. Gain Point	-6.7 dB/K
Min. Saturation Flux Density	-91.2 dBW/m2

Max. Saturation Flux Density	-69.2 dBW/m2
Co- or Cross Polar Mode	C
Service Area Description	Global - Gain contour attachment not provided pursuant to Section 25.114(c)(4)(vi)(A) of the FCC rules

## Receiving Beams 4:

Question	Response
Beam ID	CGLU
Receive Beam Frequency	6300.0 MHz -6425.0 MHz
Beam Type	Fixed
Polarization	LHCP
Peak Gain	dBi
Antenna Pointing Error	0.19 degrees
Antenna Rotational Error	0.3 degrees
Polarization Switchable	No
Polarization Alignment Relative to the Equatorial Plane	45.0 degrees
G/T at Max. Gain Point	-6.7 dB/K
Min. Saturation Flux Density	-92.6 dBW/m2
Max. Saturation Flux Density	-70.6 dBW/m2
Co- or Cross Polar Mode	C
Service Area Description	Global - Gain contour attachment not provided pursuant to Section 25.114(c)(4)(vi)(A) of the FCC rules

## Receiving Beams 5:

Question	Response
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Beam ID	CWLU
Receive Beam Frequency	5850.0 MHz -6300.0 MHz
Beam Type	Fixed
Polarization	LHCP
Peak Gain	dBi
Antenna Pointing Error	0.19 degrees
Antenna Rotational Error	0.3 degrees
Polarization Switchable	No
Polarization Alignment Relative to the Equatorial Plane	45.0 degrees
G/T at Max. Gain Point	-2.2 dB/K
Min. Saturation Flux Density	-89.5 dBW/m2
Max. Saturation Flux Density	-67.5 dBW/m2
Co- or Cross Polar Mode	C
Service Area Description	North and South America

**Receiving Beams 6:**

Question	Response
Beam ID	CELU
Receive Beam Frequency	5850.0 MHz -6300.0 MHz
Beam Type	Fixed
Polarization	LHCP
Peak Gain	dBi
Antenna Pointing Error	0.19 degrees
Antenna Rotational Error	0.3 degrees
Polarization Switchable	No



Polarization Alignment Relative to the Equatorial Plane	45.0 degrees
G/T at Max. Gain Point	-2.5 dB/K
Min. Saturation Flux Density	-89.7 dBW/m2
Max. Saturation Flux Density	-67.7 dBW/m2
Co- or Cross Polar Mode	C
Service Area Description	Africa and Europe

### Receiving Beams 7:

Question	Response
Beam ID	NWRU
Receive Beam Frequency	5850.0 MHz -6300.0 MHz
Beam Type	Fixed
Polarization	RHCP
Peak Gain	dBi
Antenna Pointing Error	0.19 degrees
Antenna Rotational Error	0.3 degrees
Polarization Switchable	No
Polarization Alignment Relative to the Equatorial Plane	45.0 degrees
G/T at Max. Gain Point	5.8 dB/K
Min. Saturation Flux Density	-90.2 dBW/m2
Max. Saturation Flux Density	-68.2 dBW/m2
Co- or Cross Polar Mode	C
Service Area Description	Northern United states

### Receiving Beams 8:

Question	Response
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Beam ID	SWRU
Receive Beam Frequency	5850.0 MHz -6300.0 MHz
Beam Type	Fixed
Polarization	RHCP
Peak Gain	dBi
Antenna Pointing Error	0.19 degrees
Antenna Rotational Error	0.3 degrees
Polarization Switchable	No
Polarization Alignment Relative to the Equatorial Plane	45.0 degrees
G/T at Max. Gain Point	1.5 dB/K
Min. Saturation Flux Density	-89.9 dBW/m2
Max. Saturation Flux Density	-67.9 dBW/m2
Co- or Cross Polar Mode	C
Service Area Description	South America

**Receiving Beams 9:**

Question	Response
Beam ID	NERU
Receive Beam Frequency	5850.0 MHz -6300.0 MHz
Beam Type	Fixed
Polarization	RHCP
Peak Gain	dBi
Antenna Pointing Error	0.19 degrees
Antenna Rotational Error	0.3 degrees
Polarization Switchable	No

Polarization Alignment Relative to the Equatorial Plane	45.0 degrees
G/T at Max. Gain Point	4.5 dB/K
Min. Saturation Flux Density	-92.0 dBW/m2
Max. Saturation Flux Density	-70.0 dBW/m2
Co- or Cross Polar Mode	C
Service Area Description	Europe and Greenland

**Receiving Beams 10:**

Question	Response
Beam ID	SERU
Receive Beam Frequency	5850.0 MHz -6300.0 MHz
Beam Type	Fixed
Polarization	RHCP
Peak Gain	dBi
Antenna Pointing Error	0.19 degrees
Antenna Rotational Error	0.3 degrees
Polarization Switchable	No
Polarization Alignment Relative to the Equatorial Plane	45.0 degrees
G/T at Max. Gain Point	0.0 dB/K
Min. Saturation Flux Density	-91.2 dBW/m2
Max. Saturation Flux Density	-69.2 dBW/m2
Co- or Cross Polar Mode	C
Service Area Description	Africa

**Receiving Beams 11:**

Question	Response
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Beam ID	KSVU
Receive Beam Frequency	14000.0 MHz -14500.0 MHz
Beam Type	Steerable
Polarization	V
Peak Gain	dBi
Antenna Pointing Error	0.19 degrees
Antenna Rotational Error	0.3 degrees
Polarization Switchable	
Polarization Alignment Relative to the Equatorial Plane	90.0 degrees
G/T at Max. Gain Point	8.7 dB/K
Min. Saturation Flux Density	-92.3 dBW/m2
Max. Saturation Flux Density	-74.3 dBW/m2
Co- or Cross Polar Mode	C
Service Area Description	Caribbean

**Receiving Beams 12:**

Question	Response
Beam ID	KSHU
Receive Beam Frequency	14000.0 MHz -14500.0 MHz
Beam Type	Steerable
Polarization	H
Peak Gain	dBi
Antenna Pointing Error	0.19 degrees
Antenna Rotational Error	0.3 degrees
Polarization Switchable	

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Polarization Alignment Relative to the Equatorial Plane	0.0 degrees
G/T at Max. Gain Point	8.9 dB/K
Min. Saturation Flux Density	-91.8 dBW/m <sup>2</sup>
Max. Saturation Flux Density	-73.8 dBW/m <sup>2</sup>
Co- or Cross Polar Mode	C
Service Area Description	Europe

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## Receiving Channels (19)

Channel ID	Channel Bandwidth (MHz)	Center Frequency s (MHz)	Feeder Link, Service Link or TT&C
CU01	72.0	5890.0	Service Link
CU02	72.0	5970.0	Service Link
CU03	72.0	6050.0	Service Link
CU04	72.0	6130.0	Service Link
CU05	72.0	6220.0	Service Link
CU06	36.0	6280.0	Service Link
CGU3	41.0	6402.0	Service Link
CGU2	36.0	6360.0	Service Link
CGU1	36.0	6320.0	TT&C
CMDB	0.96	6176.3	TT&C
CMDG	0.96	6173.7	TT&C
KU01	77.0	14042.5	Service Link
KU02	72.0	14125.0	Service Link
KU03	72.0	14205.0	Service Link
KU04	72.0	14295.0	Service Link
KU05	36.0	14355.0	Service Link
KU06	36.0	14395.0	Service Link
KU07	36.0	14435.0	Service Link
KU08	36.0	14475.0	Service Link

## Transmitting Beams 1:

Question	Response
Beam ID	SWLD
Transmit Beam Frequency	3625.0 MHz -4075.0 MHz
Beam Type	Fixed
Polarization	LHCP
Peak Gain	dBi
Antenna Pointing Error	0.19 degrees
Antenna Rotational Error	0.3 degrees
Polarization Switchable	No
Polarization Alignment Relative to the Equatorial Plane	45.0 degrees
Max. Transmit EIRP Density	-31.6 dBW/Hz
Max. Transmit EIRP	44.0 dBW
Co- or Cross Polar Mode	C
Service Area Description	South America and Caribbean

### Max. Power Flux Density

	* 0° - 5°	* 5° - 10°	* 10° - 15°	* 15° - 20°	* 20° - 25°	* 25° - 90°
*	(dBW/m <sup>2</sup>	(dBW/m <sup>2</sup>	(dBW/m <sup>2</sup>	(dBW/m <sup>2</sup>	(dBW/m <sup>2</sup>	(dBW/m <sup>2</sup>
BW:	/BW):	/BW):	/BW):	/BW):	/BW):	/BW):
<b>4.0 kHz</b>	-158.9	-158.7	-158.6	-158.5	-158.4	-157.6

## Transmitting Beams 2:

Question	Response
Beam ID	SELD
Transmit Beam Frequency	3625.0 MHz -4075.0 MHz

Beam Type	Fixed
Polarization	LHCP
Peak Gain	dBi
Antenna Pointing Error	0.19 degrees
Antenna Rotational Error	0.3 degrees
Polarization Switchable	No
Polarization Alignment Relative to the Equatorial Plane	45.0 degrees
Max. Transmit EIRP Density	-34.1 dBW/Hz
Max. Transmit EIRP	41.5 dBW
Co- or Cross Polar Mode	C
Service Area Description	AFRICA and Middle East

### Max. Power Flux Density

	* 0° - 5°	* 5° - 10°	* 10° - 15°	* 15° - 20°	* 20° - 25°	* 25° - 90°
	(dBW/m <sup>2</sup>	(dBW/m <sup>2</sup>	(dBW/m <sup>2</sup>	(dBW/m <sup>2</sup>	(dBW/m <sup>2</sup>	(dBW/m <sup>2</sup>
	/BW):	/BW):	/BW):	/BW):	/BW):	/BW):
<b>4.0 kHz</b>	-161.4	-161.2	-161.1	-161.0	-160.9	-160.1

### Transmitting Beams 3:

Question	Response
Beam ID	NELD
Transmit Beam Frequency	3625.0 MHz -4075.0 MHz
Beam Type	Fixed
Polarization	LHCP
Peak Gain	dBi
Antenna Pointing Error	0.19 degrees
Antenna Rotational Error	0.3 degrees



Polarization Switchable	No
Polarization Alignment Relative to the Equatorial Plane	45.0 degrees
Max. Transmit EIRP Density	-32.1 dBW/Hz
Max. Transmit EIRP	43.5 dBW
Co- or Cross Polar Mode	C
Service Area Description	EUROPE AND GREENLAND

### Max. Power Flux Density

	* 0° - 5° (dBW/m <sup>2</sup> /BW):	* 5° - 10° (dBW/m <sup>2</sup> /BW):	* 10° - 15° (dBW/m <sup>2</sup> /BW):	* 15° - 20° (dBW/m <sup>2</sup> /BW):	* 20° - 25° (dBW/m <sup>2</sup> /BW):	* 25° - 90° (dBW/m <sup>2</sup> /BW):
<b>4.0 kHz</b>	-159.4	-159.2	-159.1	-159.0	-158.9	-158.1

### Transmitting Beams 4:

Question	Response
Beam ID	NWLD
Transmit Beam Frequency	3625.0 MHz -4075.0 MHz
Beam Type	Fixed
Polarization	LHCP
Peak Gain	dBi
Antenna Pointing Error	0.19 degrees
Antenna Rotational Error	0.3 degrees
Polarization Switchable	No
Polarization Alignment Relative to the Equatorial Plane	45.0 degrees
Max. Transmit EIRP Density	-34.6 dBW/Hz
Max. Transmit EIRP	42.0 dBW

Co- or Cross Polar Mode	C
Service Area Description	NORTHEN United States and Eastern Canada

### Max. Power Flux Density

	* 0° - 5° (dbW/m <sup>2</sup> /BW):	* 5° - 10° (dbW/m <sup>2</sup> /BW):	* 10° - 15° (dbW/m <sup>2</sup> /BW):	* 15° - 20° (dbW/m <sup>2</sup> /BW):	* 20° - 25° (dbW/m <sup>2</sup> /BW):	* 25° - 90° (dbW/m <sup>2</sup> /BW):
<b>4.0 kHz</b>	-161.9	-161.7	-161.6	-161.5	-161.4	-160.6

### Transmitting Beams 5:

Question	Response
Beam ID	KSHD
Transmit Beam Frequency	10950.0 MHz -11200.0 MHz
Beam Type	Steerable
Polarization	H
Peak Gain	dBi
Antenna Pointing Error	0.19 degrees
Antenna Rotational Error	0.3 degrees
Polarization Switchable	
Polarization Alignment Relative to the Equatorial Plane	0.0 degrees
Max. Transmit EIRP Density	-22.6 dBW/Hz
Max. Transmit EIRP	53.0 dBW
Co- or Cross Polar Mode	C
Service Area Description	CARIBBEAN

### Max. Power Flux Density

	* 0° - 5°	* 5° - 10°	* 10° - 15°	* 15° - 20°	* 20° - 25°	* 25° - 90°
*	(dBW/m <sup>2</sup>	(dBW/m <sup>2</sup>	(dBW/m <sup>2</sup>	(dBW/m <sup>2</sup>	(dBW/m <sup>2</sup>	(dBW/m <sup>2</sup>
BW:	/BW):	/BW):	/BW):	/BW):	/BW):	/BW):
<b>4.0 kHz</b>	-149.7	-149.5	-149.4	-149.3	-149.2	-148.4

## Transmitting Beams 6:

Question	Response
Beam ID	KSVD
Transmit Beam Frequency	10950.0 MHz -11200.0 MHz
Beam Type	Steerable
Polarization	V
Peak Gain	dBi
Antenna Pointing Error	0.3 degrees
Antenna Rotational Error	0.19 degrees
Polarization Switchable	
Polarization Alignment Relative to the Equatorial Plane	90.0 degrees
Max. Transmit EIRP Density	-22.6 dBW/Hz
Max. Transmit EIRP	53.0 dBW
Co- or Cross Polar Mode	C
Service Area Description	Europe and Greenland

## Max. Power Flux Density

	* 0° - 5°	* 5° - 10°	* 10° - 15°	* 15° - 20°	* 20° - 25°	* 25° - 90°
*	(dBW/m <sup>2</sup>	(dBW/m <sup>2</sup>	(dBW/m <sup>2</sup>	(dBW/m <sup>2</sup>	(dBW/m <sup>2</sup>	(dBW/m <sup>2</sup>
BW:	/BW):	/BW):	/BW):	/BW):	/BW):	/BW):
<b>4.0 kHz</b>	-149.9	-149.7	-149.6	-149.5	-149.4	-148.6

## Transmitting Beams 7:

Question	Response
Beam ID	CGLD
Transmit Beam Frequency	4075.0 MHz -4200.0 MHz
Beam Type	Fixed
Polarization	LHCP
Peak Gain	dBi
Antenna Pointing Error	0.19 degrees
Antenna Rotational Error	0.3 degrees
Polarization Switchable	No
Polarization Alignment Relative to the Equatorial Plane	45.0 degrees
Max. Transmit EIRP Density	-40.1 dBW/Hz
Max. Transmit EIRP	35.5 dBW
Co- or Cross Polar Mode	C
Service Area Description	Global - Gain contour attachment not provided pursuant to Section 25.114(c)(4)(vi)(A) of the FCC rules

### Max. Power Flux Density

	* 0° - 5° (dBW/m <sup>2</sup> /BW):	* 5° - 10° (dBW/m <sup>2</sup> /BW):	* 10° - 15° (dBW/m <sup>2</sup> /BW):	* 15° - 20° (dBW/m <sup>2</sup> /BW):	* 20° - 25° (dBW/m <sup>2</sup> /BW):	* 25° - 90° (dBW/m <sup>2</sup> /BW):
<b>4.0 kHz</b>	-167.4	-167.2	-167.1	-167.0	-166.9	-166.1

## Transmitting Beams 8:

Question	Response
Beam ID	CGRD

Transmit Beam Frequency	4075.0 MHz -4200.0 MHz
Beam Type	Fixed
Polarization	RHCP
Peak Gain	dBi
Antenna Pointing Error	0.19 degrees
Antenna Rotational Error	0.3 degrees
Polarization Switchable	No
Polarization Alignment Relative to the Equatorial Plane	45.0 degrees
Max. Transmit EIRP Density	-39.8 dBW/Hz
Max. Transmit EIRP	35.8 dBW
Co- or Cross Polar Mode	C
Service Area Description	Global - Gain contour attachment not provided pursuant to Section 25.114(c)(4)(vi)(A) of the FCC rules

### Max. Power Flux Density

	* 0° - 5°	* 5° - 10°	* 10° - 15°	* 15° - 20°	* 20° - 25°	* 25° - 90°
* BW:	(dBW/m <sup>2</sup> /BW):	(dBW/m <sup>2</sup> /BW):	(dBW/m <sup>2</sup> /BW):	(dBW/m <sup>2</sup> /BW):	(dBW/m <sup>2</sup> /BW):	(dBW/m <sup>2</sup> /BW):
<b>4.0 kHz</b>	-167.1	-169.9	-166.8	-166.7	-166.6	-165.8

### Transmitting Beams 9:

Question	Response
Beam ID	CWRD
Transmit Beam Frequency	3625.0 MHz -4075.0 MHz
Beam Type	Fixed
Polarization	RHCP

Peak Gain	dBi
Antenna Pointing Error	0.19 degrees
Antenna Rotational Error	0.3 degrees
Polarization Switchable	No
Polarization Alignment Relative to the Equatorial Plane	45.0 degrees
Max. Transmit EIRP Density	-34.6 dBW/Hz
Max. Transmit EIRP	41.0 dBW
Co- or Cross Polar Mode	C
Service Area Description	NORTH AND SOUTH AMERICA

### Max. Power Flux Density

	* 0° - 5°	* 5° - 10°	* 10° - 15°	* 15° - 20°	* 20° - 25°	* 25° - 90°
* (dBW/m <sup>2</sup> /BW):	(dBW/m <sup>2</sup> /BW):	(dBW/m <sup>2</sup> /BW):	(dBW/m <sup>2</sup> /BW):	(dBW/m <sup>2</sup> /BW):	(dBW/m <sup>2</sup> /BW):	(dBW/m <sup>2</sup> /BW):
<b>4.0 kHz</b>	-161.9	-161.7	-161.6	-161.5	-161.4	-160.6

### Transmitting Beams 10:

Question	Response
Beam ID	CERD
Transmit Beam Frequency	3625.0 MHz -4075.0 MHz
Beam Type	Fixed
Polarization	RHCP
Peak Gain	dBi
Antenna Pointing Error	0.19 degrees
Antenna Rotational Error	0.3 degrees
Polarization Switchable	No

Polarization Alignment Relative to the Equatorial Plane	45.0 degrees
Max. Transmit EIRP Density	-34.6 dBW/Hz
Max. Transmit EIRP	41.0 dBW
Co- or Cross Polar Mode	C
Service Area Description	AFRICA AND EUROPE

### Max. Power Flux Density

	* 0° - 5° (dBW/m <sup>2</sup> ) /BW:	* 5° - 10° (dBW/m <sup>2</sup> ) /BW:	* 10° - 15° (dBW/m <sup>2</sup> ) /BW:	* 15° - 20° (dBW/m <sup>2</sup> ) /BW:	* 20° - 25° (dBW/m <sup>2</sup> ) /BW:	* 25° - 90° (dBW/m <sup>2</sup> ) /BW:
<b>4.0 kHz</b>	-161.9	-161.7	-161.6	-161.5	-161.4	-160.6

### Transmitting Beams 11:

Question	Response
Beam ID	TLMG
Transmit Beam Frequency	3947.25 MHz -3952.75 MHz
Beam Type	Fixed
Polarization	RHCP
Peak Gain	dBi
Antenna Pointing Error	0.19 degrees
Antenna Rotational Error	0.3 degrees
Polarization Switchable	No
Polarization Alignment Relative to the Equatorial Plane	45.0 degrees
Max. Transmit EIRP Density	-42.0 dBW/Hz
Max. Transmit EIRP	8.0 dBW
Co- or Cross Polar Mode	C

**Max. Power Flux Density**

	* 0° - 5°	* 5° - 10°	* 10° - 15°	* 15° - 20°	* 20° - 25°	* 25° - 90°
*	(dbW/m <sup>2</sup> )	(dbW/m <sup>2</sup> )	(dbW/m <sup>2</sup> )	(dbW/m <sup>2</sup> )	(dbW/m <sup>2</sup> )	(dbW/m <sup>2</sup> )
BW:	/BW):	/BW):	/BW):	/BW):	/BW):	/BW):
<b>4.0 kHz</b>	-176.2	-176.1	-176.0	-175.9	-175.8	-175.0

**Transmitting Beams 12:**

Question	Response
Beam ID	TLMB
Transmit Beam Frequency	3947.25 MHz -3952.75 MHz
Beam Type	Fixed
Polarization	RHCP
Peak Gain	dBi
Antenna Pointing Error	0.19 degrees
Antenna Rotational Error	0.3 degrees
Polarization Switchable	No
Polarization Alignment Relative to the Equatorial Plane	45.0 degrees
Max. Transmit EIRP Density	-42.0 dBW/Hz
Max. Transmit EIRP	8.0 dBW
Co- or Cross Polar Mode	C
Service Area Description	GLOBAL TELEMETRY

**Max. Power Flux Density**



	* 0° - 5°	* 5° - 10°	* 10° - 15°	* 15° - 20°	* 20° - 25°	* 25° - 90°
*	(dBW/m <sup>2</sup>	(dBW/m <sup>2</sup>	(dBW/m <sup>2</sup>	(dBW/m <sup>2</sup>	(dBW/m <sup>2</sup>	(dBW/m <sup>2</sup>
BW:	/BW):	/BW):	/BW):	/BW):	/BW):	/BW):
<b>4.0 kHz</b>	-176.2	-176.1	-176.0	-175.9	-175.8	-175.8

## Transmitting Beams 13:

Question	Response
Beam ID	UPKC
Transmit Beam Frequency	11197.75 MHz -11198.25 MHz
Beam Type	Fixed
Polarization	RHCP
Peak Gain	dBi
Antenna Pointing Error	0.19 degrees
Antenna Rotational Error	0.3 degrees
Polarization Switchable	
Polarization Alignment Relative to the Equatorial Plane	45.0 degrees
Max. Transmit EIRP Density	-39.0 dBW/Hz
Max. Transmit EIRP	11.0 dBW
Co- or Cross Polar Mode	C
Service Area Description	GLOBAL BEACON

## Max. Power Flux Density

	* 0° - 5°	* 5° - 10°	* 10° - 15°	* 15° - 20°	* 20° - 25°	* 25° - 90°
*	(dBW/m <sup>2</sup>	(dBW/m <sup>2</sup>	(dBW/m <sup>2</sup>	(dBW/m <sup>2</sup>	(dBW/m <sup>2</sup>	(dBW/m <sup>2</sup>
BW:	/BW):	/BW):	/BW):	/BW):	/BW):	/BW):
<b>4.0 kHz</b>	-160.2	-160.1	-160.0	-159.9	-159.8	-159.0

## Transmitting Beams 14:

Question	Response
Beam ID	UPCV
Transmit Beam Frequency	3949.9 MHz -3950.1 MHz
Beam Type	Fixed
Polarization	V
Peak Gain	dBi
Antenna Pointing Error	0.19 degrees
Antenna Rotational Error	0.3 degrees
Polarization Switchable	No
Polarization Alignment Relative to the Equatorial Plane	90.0 degrees
Max. Transmit EIRP Density	-36.0 dBW/Hz
Max. Transmit EIRP	8.0 dBW
Co- or Cross Polar Mode	C
Service Area Description	GLOBAL BEACON

### Max. Power Flux Density

	* 0° - 5°	* 5° - 10°	* 10° - 15°	* 15° - 20°	* 20° - 25°	* 25° - 90°
*	(dBW/m <sup>2</sup>	(dBW/m <sup>2</sup>	(dBW/m <sup>2</sup>	(dBW/m <sup>2</sup>	(dBW/m <sup>2</sup>	(dBW/m <sup>2</sup>
BW:	/BW):	/BW):	/BW):	/BW):	/BW):	/BW):
<b>4.0 kHz</b>	-163.2	-163.1	-163.0	-162.9	-162.8	-162.0

## Transmitting Beams 15:

Question	Response
Beam ID	UPKD
Transmit Beam Frequency	11451.75 MHz -11452.25 MHz

Beam Type	Fixed
Polarization	RHCP
Peak Gain	dBi
Antenna Pointing Error	0.19 degrees
Antenna Rotational Error	0.3 degrees
Polarization Switchable	
Polarization Alignment Relative to the Equatorial Plane	45.0 degrees
Max. Transmit EIRP Density	-39.0 dBW/Hz
Max. Transmit EIRP	11.0 dBW
Co- or Cross Polar Mode	C
Service Area Description	Global Beacon

### Max. Power Flux Density

	* 0° - 5°	* 5° - 10°	* 10° - 15°	* 15° - 20°	* 20° - 25°	* 25° - 90°
*	(dBW/m <sup>2</sup>	(dBW/m <sup>2</sup>	(dBW/m <sup>2</sup>	(dBW/m <sup>2</sup>	(dBW/m <sup>2</sup>	(dBW/m <sup>2</sup>
BW:	/BW):	/BW):	/BW):	/BW):	/BW):	/BW):
<b>4.0 kHz</b>	-160.2	-160.1	-160.0	-159.9	-159.8	-159.0

### Transmitting Beams 16:

Question	Response
Beam ID	KSHE
Transmit Beam Frequency	11450.0 MHz -11700.0 MHz
Beam Type	Steerable
Polarization	H
Peak Gain	dBi
Antenna Pointing Error	0.19 degrees

Antenna Rotational Error	0.3 degrees
Polarization Switchable	
Polarization Alignment Relative to the Equatorial Plane	0.0 degrees
Max. Transmit EIRP Density	-22.6 dBW/Hz
Max. Transmit EIRP	53.0 dBW
Co- or Cross Polar Mode	C
Service Area Description	CARIBBEAN

### Max. Power Flux Density

	* 0° - 5°	* 5° - 10°	* 10° - 15°	* 15° - 20°	* 20° - 25°	* 25° - 90°
*	(dBW/m <sup>2</sup>	(dBW/m <sup>2</sup>	(dBW/m <sup>2</sup>	(dBW/m <sup>2</sup>	(dBW/m <sup>2</sup>	(dBW/m <sup>2</sup>
BW:	/BW):	/BW):	/BW):	/BW):	/BW):	/BW):
<b>4.0 kHz</b>	-149.7	-149.5	-149.4	-149.3	-149.2	-148.4

### Transmitting Beams 17:

Question	Response
Beam ID	KSVE
Transmit Beam Frequency	11450.0 MHz -11700.0 MHz
Beam Type	Steerable
Polarization	V
Peak Gain	dBi
Antenna Pointing Error	0.3 degrees
Antenna Rotational Error	0.19 degrees
Polarization Switchable	
Polarization Alignment Relative to the Equatorial Plane	90.0 degrees
Max. Transmit EIRP Density	-22.6 dBW/Hz

Max. Transmit EIRP	53.0 dBW
Co- or Cross Polar Mode	C
Service Area Description	Europe and Greenland

### Max. Power Flux Density

	* 0° - 5°	* 5° - 10°	* 10° - 15°	* 15° - 20°	* 20° - 25°	* 25° - 90°
	(dBW/m <sup>2</sup>	(dBW/m <sup>2</sup>	(dBW/m <sup>2</sup>	(dBW/m <sup>2</sup>	(dBW/m <sup>2</sup>	(dBW/m <sup>2</sup>
*	/BW):	/BW):	/BW):	/BW):	/BW):	/BW):
<b>4.0</b>	-149.9	-149.7	-149.6	-149.5	-149.4	-148.6
<b>kHz</b>						

## Transmitting Channels (24)

Channel ID	Channel Bandwidth (MHz)	Center Frequency s (MHz)	Feeder Link, Service Link or TT&C
TLM4	0.27	3952.5	TT&C
TLM3	0.27	3948.0	TT&C
TLM2	0.27	3952.0	TT&C
TLM1	0.27	3947.5	TT&C
SKD8	36.0	11675.0	Service Link
SKD7	36.0	11635.0	Service Link
SKD6	36.0	11595.0	Service Link
SKD4	77.0	11495.0	Service Link
BCK1	0.025	11198.0	TT&C
BCK2	0.025	11452.0	TT&C
BNCC	0.025	3950.0	TT&C
CD01	72.0	3665.0	Service Link
CD02	72.0	3745.0	Service Link
CD03	72.0	3825.0	Service Link
CD04	72.0	3905.0	Service Link
CD05	72.0	3995.0	Service Link
CD06	36.0	4055.0	Service Link
CGD1	36.0	4095.0	Service Link
CGD2	36.0	4135.0	Service Link
CGD3	41.0	4177.5	Service Link
CKD5	36.0	11555.0	Service Link
SKD1	77.0	10992.5	Service Link
SKD2	77.0	11075.0	Service Link
SKD3	72.0	11155.0	Service Link

## Certification Questions

Question	Response
Are the applicable service area coverage requirements of 25.143(b)(2) (ii) and (iii), or 25.144(a)(3)(i), or 25.145 (c)(1) and (2), or 25.146(i)(1) and (2), or 25.148(c), or 25.225 met?	N/A
Are the applicable frequency tolerances of 25.202(e) and out-of-band emission limits of 25.202(f)(1),(2), and (3) met?	Yes
Are the cessation of emissions requirements of 25.207 met?	Yes
Are the applicable power-flux-density limits of 25.208 met, and is the appropriate technical showing provided within the application?	Yes
For NGSO applications, are the applicable equivalent-power-flux-density limits of 25.208 met, and is the appropriate technical showing provided within the application?	N/A
Are the applicable full-frequency-reuse requirements of 25.210 met?	Yes
If the application is for a 17/24 GHz BSS space station, will it be operated at an offset location with full power and interference protection in accordance with 25.262(b)?	

# Attachments

File Name	Beam	Field	Attachment Type	Description
<u>901mdb.</u> <u>mdb</u>		GSO Antenna Gain Contour Data	GIMS file (*. mdb)	