Approved by OMB 3060-0678
Estimated Burden: up to 80 hours
April 2016

Federal Communications Commission

312 File Number: **SATMOD2018080700059**

Filing Description

Question	Response
Description	Intelsat 805 move from 169.0 E.L to 169.1 E.L

Satellite Information

Question	Response
Select Orbit Type	GSO
Space Station or Satellite Network Name	Intelsat 805
Estimated Lifetime of Satellite(s) From Date of Launch	21 Years
Will the space station(s) operate on a Common Carrier basis?	No

Operating Frequency Bands (4)

Nature of service	Description	Frequency Band(s)	Mode Type
Fixed-Satellite Service		3400.0 MHz -4200.0 MHz	Transmit
Fixed-Satellite Service		5850.0 MHz -6650.0 MHz	Receive
Fixed-Satellite Service		12500.0 MHz -12750.0 MHz	Transmit
Fixed-Satellite Service		14000.0 MHz -14250.0 MHz	Receive

Orbital Information For Geostationary Satellites

Section	Question	Response
Orbital Longitude Information	Orbital Longitude	169.0 degrees
	Hemisphere of Orbital Longitude	E
Longitudinal Tolerance or East /West Station-Keeping	Toward West	0.05 degrees
	Toward East	0.05 degrees
Inclination Excursion or North /South Station-Keeping Tolerance	Inclination Excursion or North /South Station-Keeping Tolerance	0.62 degrees
Antenna Axis Attitude Accuracy	Roll	0.1 degrees
	Pitch	0.1 degrees
	Yaw	0.1 degrees

Receiving Beams 1:

Question	Response
Beam ID	CGLU
Receive Beam Frequency	6173.2 MHz -6174.2 MHz
Beam Type	Fixed
Polarization	LHCP
Peak Gain	10.3 dBi
Antenna Pointing Error	0.19 degrees
Antenna Rotational Error	0.34 degrees
Polarization Switchable	No
Polarization Alignment Relative to the Equatorial Plane	45.0 degrees
G/T at Max. Gain Point	-17.1 dB/K
Min. Saturation Flux Density	-90.0 dBW/m2
Max. Saturation Flux Density	-65.0 dBW/m2
Co- or Cross Polar Mode	C
Service Area Description	GLB

Receiving Beams 2:

Question	Response
Beam ID	CORU
Receive Beam Frequency	6175.8 MHz -6176.8 MHz
Beam Type	Fixed
Polarization	RHCP
Peak Gain	12.0 dBi
Antenna Pointing Error	0.19 degrees
Antenna Rotational Error	0.34 degrees

Polarization Switchable	No
Polarization Alignment Relative to the Equatorial Plane	45.0 degrees
G/T at Max. Gain Point	12.0 dB/K
Min. Saturation Flux Density	-90.0 dBW/m2
Max. Saturation Flux Density	-65.0 dBW/m2
Co- or Cross Polar Mode	C
Service Area Description	GLB

Receiving Beams 3:

Question	Response
Beam ID	COLU
Receive Beam Frequency	6173.2 MHz -6174.2 MHz
Beam Type	Fixed
Polarization	LHCP
Peak Gain	13.0 dBi
Antenna Pointing Error	0.19 degrees
Antenna Rotational Error	0.34 degrees
Polarization Switchable	No
Polarization Alignment Relative to the Equatorial Plane	45.0 degrees
G/T at Max. Gain Point	13.0 dB/K
Min. Saturation Flux Density	-90.0 dBW/m2
Max. Saturation Flux Density	-65.0 dBW/m2
Co- or Cross Polar Mode	C
Service Area Description	GLB

Receiving

Beams 4:

Question	Response
Beam ID	HAHU
Receive Beam Frequency	5850.0 MHz -6650.0 MHz
Beam Type	Fixed
Polarization	H
Peak Gain	24.4 dBi
Antenna Pointing Error	0.19 degrees
Antenna Rotational Error	0.34 degrees
Polarization Switchable	No
Polarization Alignment Relative to the Equatorial Plane	0.0 degrees
G/T at Max. Gain Point	-4.1 dB/K
Min. Saturation Flux Density	-96.1 dBW/m2
Max. Saturation Flux Density	-76.1 dBW/m2
Co- or Cross Polar Mode	C
Service Area Description	ASIA PACIFIC, USA /WEST COAST

Receiving Beams 5:

Question	Response
Beam ID	HBVU
Receive Beam Frequency	5850.0 MHz -6650.0 MHz
Beam Type	Fixed
Polarization	V
Peak Gain	24.4 dBi
Antenna Pointing Error	0.19 degrees
Antenna Rotational Error	0.34 degrees
Polarization Switchable	No

Polarization Alignment Relative to the Equatorial Plane	90.0 degrees
G/T at Max. Gain Point	-4.1 dB/K
Min. Saturation Flux Density	-96.0 dBW/m2
Max. Saturation Flux Density	-76.0 dBW/m2
Co- or Cross Polar Mode	X
Service Area Description	ASIA PACIFIC USA / WEST COAST

Receiving Beams 6:

Question	Response
Beam ID	S1HU
Receive Beam Frequency	14000.0 MHz -14250.0 MHz
Beam Type	Steerable
Polarization	H
Peak Gain	33.9 dBi
Antenna Pointing Error	0.19 degrees
Antenna Rotational Error	0.34 degrees
Polarization Switchable	
Polarization Alignment Relative to the Equatorial Plane	0.0 degrees
G/T at Max. Gain Point	6.1 dB/K
Min. Saturation Flux Density	-101.6 dBW/m2
Max. Saturation Flux Density	-79.6 dBW/m2
Co- or Cross Polar Mode	C
Service Area Description	ASIA PACIFIC / USA /WEST COAST

Receiving Channels (20)

Channel ID	Channel Bandwidth (MHz)	Center Frequency s (MHz)	Feeder Link, Service Link or TT&C
HA10	36.0	6467.0	Service Link
HA09	41.0	6402.5	Service Link
HA08	36.0	6360.0	Service Link
HA01	36.0	5900.0	Service Link
CORU	1.0	6176.3	TT&C
COLU	1.0	6173.7	TT&C
CGLU	1.0	6173.0	TT&C
HA02	72.0	5970.0	Service Link
HA03	72.0	6050.0	Service Link
HA04	72.0	6130.0	Service Link
HA05	72.0	6220.0	Service Link
HA06	36.0	6280.0	Service Link
HA07	36.0	6320.0	Service Link
HA11	36.0	6507.0	Service Link
HA12	36.0	6547.0	Service Link
HA13	36.0	6587.0	Service Link
HA14	36.0	6627.0	Service Link
KU01	77.0	14042.5	Service Link
KU02	72.0	14125.0	Service Link
KU03	72.0	14205.0	Service Link

Transmitting Beams 1:

Question	Response
Beam ID	HAVD
Transmit Beam Frequency	3400.0 MHz -4200.0 MHz
Beam Type	Fixed
Polarization	V
Peak Gain	24.9 dBi
Antenna Pointing Error	0.19 degrees
Antenna Rotational Error	0.34 degrees
Polarization Switchable	No
Polarization Alignment Relative to the Equatorial Plane	90.0 degrees
Max. Transmit EIRP Density	-32.76 dBW/Hz
Max. Transmit EIRP	42.8 dBW
Co- or Cross Polar Mode	C
Service Area Description	Asia Pacific, USA / West Coast

Max. Power Flux Density

* BW:	* 0° - 5° (dbW/m^2 /BW):	* 5° - 10° (dbW/m^2 /BW):	* 10° - 15° (dbW/m^2 /BW):	* 15° - 20° (dbW/m^2 /BW):	* 20° - 25° (dbW/m^2 /BW):	* 25° - 90° (dbW/m^2 /BW):
4.0 kHz	-152.0	-149.5	-147.0	-147.0	-144.5	-142.0

Transmitting Beams 2:

Question	Response
Beam ID	HBHD
Transmit Beam Frequency	3400.0 MHz -4200.0 MHz

Beam Type	Fixed
Polarization	H
Peak Gain	24.9 dBi
Antenna Pointing Error	0.19 degrees
Antenna Rotational Error	0.34 degrees
Polarization Switchable	No
Polarization Alignment Relative to the Equatorial Plane	0.0 degrees
Max. Transmit EIRP Density	-32.76 dBW/Hz
Max. Transmit EIRP	42.8 dBW
Co- or Cross Polar Mode	X
Service Area Description	Asia Pacific, USA /West Coast

Max. Power Flux Density

* BW:	* 0° - 5° (dbW/m^2 /BW):	* 5° - 10° (dbW/m^2 /BW):	* 10° - 15° (dbW/m^2 /BW):	* 15° - 20° (dbW/m^2 /BW):	* 20° - 25° (dbW/m^2 /BW):	* 25° - 90° (dbW/m^2 /BW):
4.0 kHz	-161.0	-159.9	-159.8	-159.7	-159.6	-158.8

Transmitting Beams 3:

Question	Response
Beam ID	S1VD
Transmit Beam Frequency	12500.0 MHz -12750.0 MHz
Beam Type	Steerable
Polarization	V
Peak Gain	31.8 dBi
Antenna Pointing Error	0.19 degrees

Antenna Rotational Error	0.34 degrees
Polarization Switchable	
Polarization Alignment Relative to the Equatorial Plane	90.0 degrees
Max. Transmit EIRP Density	-24.97 dBW/Hz
Max. Transmit EIRP	53.6 dBW
Co- or Cross Polar Mode	C
Service Area Description	Asia Pacific, USA / West Coast

Max. Power Flux Density

* BW:	* 0° - 5° (dbW/m^2 /BW):	* 5° - 10° (dbW/m^2 /BW):	* 10° - 15° (dbW/m^2 /BW):	* 15° - 20° (dbW/m^2 /BW):	* 20° - 25° (dbW/m^2 /BW):	* 25° - 90° (dbW/m^2 /BW):
4.0 kHz	-152.2	-152.1	-152.0	-151.9	-151.8	-151.0

Transmitting Beams 4:

Question	Response
Beam ID	TGRD
Transmit Beam Frequency	3947.25 MHz -3948.25 MHz
Beam Type	Fixed
Polarization	RHCP
Peak Gain	11.3 dBi
Antenna Pointing Error	0.19 degrees
Antenna Rotational Error	0.34 degrees
Polarization Switchable	No
Polarization Alignment Relative to the Equatorial Plane	45.0 degrees
Max. Transmit EIRP Density	-50.09 dBW/Hz

Max. Transmit EIRP	6.9 dBW
Co- or Cross Polar Mode	C
Service Area Description	Asia Pacific , USA / west Coast

Max. Power Flux Density

* BW:	* 0° - 5° (dbW/m^2 /BW):	* 5° - 10° (dbW/m^2 /BW):	* 10° - 15° (dbW/m^2 /BW):	* 15° - 20° (dbW/m^2 /BW):	* 20° - 25° (dbW/m^2 /BW):	* 25° - 90° (dbW/m^2 /BW):
4.0 kHz	-177.3	-177.2	-177.1	-177.0	-176.9	-176.1

Transmitting Beams 5:

Question	Response
Beam ID	TORD
Transmit Beam Frequency	3951.75 MHz -3952.75 MHz
Beam Type	Fixed
Polarization	RHCP
Peak Gain	12.5 dBi
Antenna Pointing Error	0.19 degrees
Antenna Rotational Error	0.34 degrees
Polarization Switchable	No
Polarization Alignment Relative to the Equatorial Plane	45.0 degrees
Max. Transmit EIRP Density	-49.98 dBW/Hz
Max. Transmit EIRP	7.0 dBW
Co- or Cross Polar Mode	C
Service Area Description	Asia Pacific, USA/ West Coast

Max. Power Flux Density

* BW:	* 0° - 5° (dbW/m^2 /BW):	* 5° - 10° (dbW/m^2 /BW):	* 10° - 15° (dbW/m^2 /BW):	* 15° - 20° (dbW/m^2 /BW):	* 20° - 25° (dbW/m^2 /BW):	* 25° - 90° (dbW/m^2 /BW):
4.0 kHz	-177.2	-177.1	-177.0	-176.9	-176.8	-176.0

Transmitting Beams 6:

Question	Response
Beam ID	BGHD
Transmit Beam Frequency	3949.987 MHz -3950.012 MHz
Beam Type	Fixed
Polarization	H
Peak Gain	13.0 dBi
Antenna Pointing Error	0.19 degrees
Antenna Rotational Error	0.34 degrees
Polarization Switchable	No
Polarization Alignment Relative to the Equatorial Plane	45.0 degrees
Max. Transmit EIRP Density	-34.54 dBW/Hz
Max. Transmit EIRP	9.6 dBW
Co- or Cross Polar Mode	C
Service Area Description	Asia Pacific, USA / West Coast

Max. Power Flux Density

* BW:	* 0° - 5° (dbW/m^2 /BW):	* 5° - 10° (dbW/m^2 /BW):	* 10° - 15° (dbW/m^2 /BW):	* 15° - 20° (dbW/m^2 /BW):	* 20° - 25° (dbW/m^2 /BW):	* 25° - 90° (dbW/m^2 /BW):

4.0 kHz	-161.8	-161.7	-161.6	-161.5	-161.3	-160.6

Transmitting Beams 7:

Question	Response
Beam ID	BSVD
Transmit Beam Frequency	12500.987 MHz -12501.012 MHz
Beam Type	Fixed
Polarization	V
Peak Gain	31.8 dBi
Antenna Pointing Error	0.19 degrees
Antenna Rotational Error	0.34 degrees
Polarization Switchable	
Polarization Alignment Relative to the Equatorial Plane	90.0 degrees
Max. Transmit EIRP Density	-31.8 dBW/Hz
Max. Transmit EIRP	12.8 dBW
Co- or Cross Polar Mode	C
Service Area Description	Asia Pacific, USA / West Coast

Max. Power Flux Density

* BW:	* 0° - 5° (dbW/m^2 /BW):	* 5° - 10° (dbW/m^2 /BW):	* 10° - 15° (dbW/m^2 /BW):	* 15° - 20° (dbW/m^2 /BW):	* 20° - 25° (dbW/m^2 /BW):	* 25° - 90° (dbW/m^2 /BW):
4.0 kHz	-158.6	-158.5	-158.4	-158.3	-158.1	-157.4

Transmitting Channels (23)

Channel ID	Channel Bandwidth (MHz)	Center Frequency s (MHz)	Feeder Link, Service Link or TT&C
TLM2	0.5	3948.0	TT&C
TLM3	0.5	3952.0	TT&C
TLM4	0.5	3952.5	TT&C
UPC1	0.025	3950.0	TT&C
UPC2	0.025	12501.0	Service Link
TLM1	0.5	3974.5	TT&C
HB13	36.0	3562.0	Service Link
HB12	36.0	3522.0	Service Link
HB11	36.0	3482.0	Service Link
HB10	36.0	3442.0	Service Link
HB09	41.0	4177.5	Service Link
HB08	36.0	4135.0	Service Link
HB07	36.0	4095.0	Service Link
HB06	36.0	4055.0	Service Link
HB05	72.0	3995.0	Service Link
HB04	72.0	3905.0	Service Link
HB03	72.0	3825.0	Service Link
HB02	72.0	3745.0	Service Link
HB01	36.0	3683.0	Service Link
HB14	36.0	3602.0	Service Link
KU01	77.0	12547.5	Service Link
KU02	72.0	12630.0	Service Link
KU03	72.0	12710.0	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?	No
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
is-805at169.1.mdb		GSO Antenna Gain Contour Data	GIMS file (*.mdb)	IS-805 at 169.1 E. L. GXT Files