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

Federal Communications Commission

312 File Number: **SESMFS2017082500955**

Filing Description

Question	Response
Description	Schedule S accompanying Kongsberg Satellite Services' modification application to add exactEarth's EV7 (ITU name: M3MSat) as a point of communication to the Fairbanks, AK satellite earth station E160028.

Satellite Information

Question	Response
Select Orbit Type	NGSO
Space Station or Satellite Network Name	M3MSAT
Estimated Lifetime of Satellite(s) From Date of Launch	5 Years
Will the space station(s) operate on a Common Carrier basis?	No

Operating Frequency Bands (2)

Nature of service	Description	Frequency Band(s)	Mode Type
Other Satellite Service (please specify)	Feeder Link for Mobile Satellite Service in FSS	5169.5 MHz -5196.5 MHz	Transmit
Other Satellite Service (please specify)	N/A. No auth. is sought for the satellite's receive beams. Dummy info input.	1.0 MHz -1.001 MHz	Receive

Orbital Information For Non-Geostationary Satellites

Question	Response
Total Number of Satellites in the active constellation	1
Orbit Epoch Date	02/21/2017
Celestrial Reference Body	Earth

Orbital Plane 1:

Question	Response
Number of Satellites in Plane	1
Inclination Angle	97.5 degrees
Right Ascension of Ascending Node	116.0 degrees
Argument of Perigee	117.0 degrees
Orbital Period	5690.0 seconds
Apogee	520.0 km
Perigee	486.0 km
Active Service Arc Begin Angle with respect to Ascending Node	0.0 degrees
Active Service Arc End Angle with respect to Ascending Node	0.0 degrees

Mean Anomaly For Each Satellite

Satellite Number	Mean Anomaly (degrees) at the Orbit Epoch Date
1	243.3

Receiving Beams 1:

Question	Response
Beam ID	NULL
Receive Beam Frequency	1.0 MHz -1.001 MHz
Beam Type	Fixed
Polarization	RHCP
Peak Gain	dBi
Antenna Pointing Error	0.0 degrees
Antenna Rotational Error	0.0 degrees
Polarization Switchable	
Polarization Alignment Relative to the Equatorial Plane	45.0 degrees
G/T at Max. Gain Point	0.0 dB/K
Min. Saturation Flux Density	-0.01 dBW/m2
Max. Saturation Flux Density	0.0 dBW/m2
Co- or Cross Polar Mode	X
Service Area Description	No authorization is sought for any receive beams.

Receiving Channels (1)

Channel ID	Channel Bandwidth (MHz)	Center Frequency s (MHz)	Feeder Link, Service Link or TT&C
NULL	0.001	1.0005	Feeder Link

Transmitting Beams 1:

Question	Response
Beam ID	DATD
Transmit Beam Frequency	5169.5 MHz -5196.5 MHz
Beam Type	Fixed
Polarization	RHCP
Peak Gain	3.4 dBi
Antenna Pointing Error	0.0 degrees
Antenna Rotational Error	0.0 degrees
Polarization Switchable	
Polarization Alignment Relative to the Equatorial Plane	45.0 degrees
Max. Transmit EIRP Density	-67.6 dBW/Hz
Max. Transmit EIRP	6.7 dBW
Co- or Cross Polar Mode	C
Service Area Description	Norway, USA, Canada, Antarctica

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	-170.3	-169.4	-169.4	-169.5	-200.0	-200.0

Transmitting Channels (1)

Channel ID	Channel Bandwidth (MHz)	Center Frequency s (MHz)	Feeder Link, Service Link or TT&C
DATD	27.0	5183.0	Feeder 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?	Yes
Are the applicable full-frequency-reuse requirements of 25.210 met?	
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

Information not provided.