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

Federal Communications Commission

312 File Number: **SATPPL2016113000124**

Filing Description

Question	Response
Description	ABS-3A Request To Be Added To the FCC Permitted List

Satellite Information

Question	Response
Select Orbit Type	GSO
Space Station or Satellite Network Name	ABS-3A
Estimated Lifetime of Satellite(s) From Date of Launch	26 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		14000.0 MHz -14250.0 MHz	Receive
Fixed-Satellite Service		3700.0 MHz -4200.0 MHz	Transmit
Fixed-Satellite Service		10950.0 MHz -11200.0 MHz	Transmit
Fixed-Satellite Service		5925.0 MHz -6426.0 MHz	Receive

Orbital Information For Geostationary Satellites

Section	Question	Response
Orbital Longitude Information	Orbital Longitude	3.0 degrees
	Hemisphere of Orbital Longitude	W
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	0.05 degrees
Antenna Axis Attitude Accuracy	Roll	0.1 degrees
	Pitch	0.1 degrees
	Yaw	0.2 degrees

Receiving Beams 1:

Question	Response
Beam ID	WHVU
Receive Beam Frequency	5934.0 MHz -6326.0 MHz
Beam Type	Fixed
Polarization	V
Peak Gain	32.9 dBi
Antenna Pointing Error	0.1 degrees
Antenna Rotational Error	0.2 degrees
Polarization Switchable	No
Polarization Alignment Relative to the Equatorial Plane	90.0 degrees
G/T at Max. Gain Point	7.0 dB/K
Min. Saturation Flux Density	-112.0 dBW/m2
Max. Saturation Flux Density	-92.0 dBW/m2
Co- or Cross Polar Mode	C
Service Area Description	NORTH AND SOUTH AMERICA, AND CARIBBEAN

Receiving Beams 2:

Question	Response
Beam ID	WHHU
Receive Beam Frequency	5934.0 MHz -6326.0 MHz
Beam Type	Fixed
Polarization	H
Peak Gain	32.9 dBi
Antenna Pointing Error	0.1 degrees
Antenna Rotational Error	0.2 degrees

Polarization Switchable	No
Polarization Alignment Relative to the Equatorial Plane	0.0 degrees
G/T at Max. Gain Point	6.9 dB/K
Min. Saturation Flux Density	-111.9 dBW/m2
Max. Saturation Flux Density	-91.9 dBW/m2
Co- or Cross Polar Mode	C
Service Area Description	NORTH AND SOUTH AMERICA, AND THE CARIBBEAN

Receiving Beams 3:

Question	Response
Beam ID	GVU
Receive Beam Frequency	6337.0 MHz -6409.0 MHz
Beam Type	Fixed
Polarization	V
Peak Gain	22.2 dBi
Antenna Pointing Error	0.1 degrees
Antenna Rotational Error	0.2 degrees
Polarization Switchable	No
Polarization Alignment Relative to the Equatorial Plane	90.0 degrees
G/T at Max. Gain Point	-3.0 dB/K
Min. Saturation Flux Density	-102.0 dBW/m2
Max. Saturation Flux Density	-82.0 dBW/m2
Co- or Cross Polar Mode	C
Service Area Description	GLOBAL

Receiving Beams 4:

Question	Response
Beam ID	GHU
Receive Beam Frequency	6337.0 MHz -6409.0 MHz
Beam Type	Fixed
Polarization	H
Peak Gain	22.3 dBi
Antenna Pointing Error	0.1 degrees
Antenna Rotational Error	0.2 degrees
Polarization Switchable	No
Polarization Alignment Relative to the Equatorial Plane	0.0 degrees
G/T at Max. Gain Point	-3.7 dB/K
Min. Saturation Flux Density	-101.3 dBW/m2
Max. Saturation Flux Density	-81.3 dBW/m2
Co- or Cross Polar Mode	C
Service Area Description	GLOBAL

Receiving Beams 5:

Question	Response
Beam ID	AMVU
Receive Beam Frequency	14004.0 MHz -14236.0 MHz
Beam Type	Fixed
Polarization	V
Peak Gain	32.1 dBi
Antenna Pointing Error	0.1 degrees
Antenna Rotational Error	0.2 degrees
Polarization Switchable	

Polarization Alignment Relative to the Equatorial Plane	90.0 degrees
G/T at Max. Gain Point	6.7 dB/K
Min. Saturation Flux Density	-105.7 dBW/m2
Max. Saturation Flux Density	-83.7 dBW/m2
Co- or Cross Polar Mode	C
Service Area Description	NORTH AND SOUTH AMERICA, AND THE CARIBBEAN

Receiving Beams 6:

Question	Response
Beam ID	CDO
Receive Beam Frequency	6419.5 MHz -6425.5 MHz
Beam Type	Fixed
Polarization	V
Peak Gain	30.4 dBi
Antenna Pointing Error	0.1 degrees
Antenna Rotational Error	0.2 degrees
Polarization Switchable	No
Polarization Alignment Relative to the Equatorial Plane	90.0 degrees
G/T at Max. Gain Point	-10.6 dB/K
Min. Saturation Flux Density	-117.8 dBW/m2
Max. Saturation Flux Density	-117.7 dBW/m2
Co- or Cross Polar Mode	C
Service Area Description	AFRICA AND EUROPE

Receiving Beams 7:

Question	Response

Beam ID	CDFP
Receive Beam Frequency	6419.5 MHz -6425.5 MHz
Beam Type	Fixed
Polarization	LHCP
Peak Gain	5.5 dBi
Antenna Pointing Error	0.1 degrees
Antenna Rotational Error	0.2 degrees
Polarization Switchable	No
Polarization Alignment Relative to the Equatorial Plane	45.0 degrees
G/T at Max. Gain Point	-33.5 dB/K
Min. Saturation Flux Density	-94.9 dBW/m2
Max. Saturation Flux Density	-94.8 dBW/m2
Co- or Cross Polar Mode	C
Service Area Description	GLOBAL

Receiving Beams 8:

Question	Response
Beam ID	CDAP
Receive Beam Frequency	6419.5 MHz -6425.5 MHz
Beam Type	Fixed
Polarization	LHCP
Peak Gain	5.5 dBi
Antenna Pointing Error	0.1 degrees
Antenna Rotational Error	0.2 degrees
Polarization Switchable	No

Polarization Alignment Relative to the Equatorial Plane	45.0 degrees
G/T at Max. Gain Point	-32.0 dB/K
Min. Saturation Flux Density	-96.4 dBW/m2
Max. Saturation Flux Density	-96.3 dBW/m2
Co- or Cross Polar Mode	C
Service Area Description	GLOBAL

Receiving Channels (21)

Channel ID	Channel Bandwidth (MHz)	Center Frequency s (MHz)	Feeder Link, Service Link or TT&C
S14U	72.0	14120.0	Service Link
S13U	72.0	14040.0	Service Link
CM2O	1.0	6425.0	TT&C
CM2F	1.0	6425.0	TT&C
CM1O	1.0	6420.0	TT&C
CM1F	1.0	6420.0	TT&C
CM1A	1.0	6420.0	TT&C
24CU	72.0	6373.0	Service Link
S15U	72.0	14200.0	Service Link
23CU	72.0	6373.0	Service Link
22CU	72.0	6290.0	Service Link
21CU	72.0	6290.0	Service Link
20CU	72.0	6210.0	Service Link
19CU	72.0	6210.0	Service Link
18CU	72.0	6130.0	Service Link
17CU	72.0	6130.0	Service Link
16CU	72.0	6050.0	Service Link
15CU	72.0	6050.0	Service Link
14CU	72.0	5970.0	Service Link
13CU	72.0	5970.0	Service Link
CM2A	1.0	6425.0	TT&C

Transmitting Beams 1:

Question	Response
Beam ID	WHHD
Transmit Beam Frequency	3709.0 MHz -4101.0 MHz
Beam Type	Fixed
Polarization	H
Peak Gain	30.5 dBi
Antenna Pointing Error	0.1 degrees
Antenna Rotational Error	0.2 degrees
Polarization Switchable	No
Polarization Alignment Relative to the Equatorial Plane	0.0 degrees
Max. Transmit EIRP Density	-33.0 dBW/Hz
Max. Transmit EIRP	48.0 dBW
Co- or Cross Polar Mode	C
Service Area Description	NORTH AND SOUTH AMERICA, AND THE CARIBBEAN

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	-157.0	-156.9	-156.8	-156.7	-156.6	-155.8

Transmitting Beams 2:

Question	Response
Beam ID	WHVD
Transmit Beam Frequency	3709.0 MHz -4101.0 MHz

Beam Type	Fixed
Polarization	V
Peak Gain	30.4 dBi
Antenna Pointing Error	0.1 degrees
Antenna Rotational Error	0.2 degrees
Polarization Switchable	No
Polarization Alignment Relative to the Equatorial Plane	90.0 degrees
Max. Transmit EIRP Density	-33.0 dBW/Hz
Max. Transmit EIRP	48.0 dBW
Co- or Cross Polar Mode	C
Service Area Description	NORTH AND SOUTH AMERICA, AND THE CARIBBEAN

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	-157.0	-156.9	-156.8	-156.7	-156.6	-155.8

Transmitting Beams 3:

Question	Response
Beam ID	GHD
Transmit Beam Frequency	4108.0 MHz -4188.0 MHz
Beam Type	Fixed
Polarization	H
Peak Gain	22.0 dBi
Antenna Pointing Error	0.1 degrees

Antenna Rotational Error	0.2 degrees
Polarization Switchable	No
Polarization Alignment Relative to the Equatorial Plane	0.0 degrees
Max. Transmit EIRP Density	-38.2 dBW/Hz
Max. Transmit EIRP	39.6 dBW
Co- or Cross Polar Mode	C
Service Area Description	GLOBAL

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	-165.4	-165.3	-165.2	-165.1	-165.0	-164.2

Transmitting Beams 4:

Question	Response
Beam ID	GVD
Transmit Beam Frequency	4108.0 MHz -4188.0 MHz
Beam Type	Fixed
Polarization	V
Peak Gain	22.1 dBi
Antenna Pointing Error	0.1 degrees
Antenna Rotational Error	0.2 degrees
Polarization Switchable	No
Polarization Alignment Relative to the Equatorial Plane	90.0 degrees
Max. Transmit EIRP Density	-38.5 dBW/Hz

Max. Transmit EIRP	39.3 dBW
Co- or Cross Polar Mode	C
Service Area Description	GLOBAL

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	-165.7	-165.6	-165.5	-165.4	-165.3	-164.5

Transmitting Beams 5:

Question	Response
Beam ID	AMHD
Transmit Beam Frequency	10954.0 MHz -11186.0 MHz
Beam Type	Fixed
Polarization	H
Peak Gain	30.5 dBi
Antenna Pointing Error	0.1 degrees
Antenna Rotational Error	0.2 degrees
Polarization Switchable	
Polarization Alignment Relative to the Equatorial Plane	0.0 degrees
Max. Transmit EIRP Density	-26.4 dBW/Hz
Max. Transmit EIRP	51.4 dBW
Co- or Cross Polar Mode	C
Service Area Description	NORTH AND SOUTH AMERICA, AND THE CARIBBEAN

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	-153.6	-153.5	-153.4	-153.3	-153.2	-152.4

Transmitting Beams 6:

Question	Response
Beam ID	TMO
Transmit Beam Frequency	4194.25 MHz -4194.75 MHz
Beam Type	Fixed
Polarization	H
Peak Gain	22.0 dBi
Antenna Pointing Error	0.1 degrees
Antenna Rotational Error	0.2 degrees
Polarization Switchable	No
Polarization Alignment Relative to the Equatorial Plane	0.0 degrees
Max. Transmit EIRP Density	-35.3 dBW/Hz
Max. Transmit EIRP	18.7 dBW
Co- or Cross Polar Mode	C
Service Area Description	GLOBAL

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	-163.3	-163.2	-163.1	-163.0	-162.9	-162.1

Transmitting Beams 7:

Question	Response
Beam ID	TMFP
Transmit Beam Frequency	4194.25 MHz -4197.25 MHz
Beam Type	Fixed
Polarization	LHCP
Peak Gain	4.6 dBi
Antenna Pointing Error	0.1 degrees
Antenna Rotational Error	0.2 degrees
Polarization Switchable	No
Polarization Alignment Relative to the Equatorial Plane	45.0 degrees
Max. Transmit EIRP Density	-46.2 dBW/Hz
Max. Transmit EIRP	7.8 dBW
Co- or Cross Polar Mode	C
Service Area Description	GLOBAL

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	-174.2	-174.1	-174.0	-173.9	-173.8	-173.0

Transmitting Beams 8:

Question	Response
Beam ID	TMAP
Transmit Beam Frequency	4194.25 MHz -4197.25 MHz

Beam Type	Fixed
Polarization	LHCP
Peak Gain	4.4 dBi
Antenna Pointing Error	0.1 degrees
Antenna Rotational Error	0.2 degrees
Polarization Switchable	No
Polarization Alignment Relative to the Equatorial Plane	45.0 degrees
Max. Transmit EIRP Density	-45.8 dBW/Hz
Max. Transmit EIRP	8.2 dBW
Co- or Cross Polar Mode	C
Service Area Description	GLOBAL

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	-173.8	-173.7	-173.6	-173.5	-173.4	-172.6

Transmitting Channels (21)

Channel ID	Channel Bandwidth (MHz)	Center Frequency s (MHz)	Feeder Link, Service Link or TT&C
16CD	72.0	3825.0	Service Link
14CD	72.0	3745.0	Service Link
13CD	72.0	3745.0	Service Link
TM2A	0.5	4197.0	TT&C
TM2O	0.5	4197.0	TT&C
TM2F	0.5	4197.0	TT&C
TM1O	0.5	4194.5	TT&C
TM1F	0.5	4194.5	TT&C
TM1A	0.5	4194.5	TT&C
S15D	72.0	11150.0	Service Link
S14D	72.0	11070.0	Service Link
S13D	72.0	10990.0	Service Link
24CD	72.0	4148.0	Service Link
23CD	72.0	4148.0	Service Link
22CD	72.0	4065.0	Service Link
21CD	72.0	4065.0	Service Link
15CD	72.0	3825.0	Service Link
17CD	72.0	3905.0	Service Link
20CD	72.0	3985.0	Service Link
19CD	72.0	3985.0	Service Link
18CD	72.0	3905.0	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
GHD.gxt	GHD	GSO Antenna Gain Contour Data	GXT file (*.gxt)	
AMHD.gxt	AMHD	GSO Antenna Gain Contour Data	GXT file (*.gxt)	
TMO.gxt	TMO	GSO Antenna Gain Contour Data	GXT file (*.gxt)	
WHVD.gxt	WHVD	GSO Antenna Gain Contour Data	GXT file (*.gxt)	
GVD.gxt	GVD	GSO Antenna Gain Contour Data	GXT file (*.gxt)	
AMVU.gxt	AMVU	GSO Antenna Gain Contour Data	GXT file (*.gxt)	
GHU.gxt	GHU	GSO Antenna Gain Contour Data	GXT file (*.gxt)	
GVU.gxt	GVU	GSO Antenna Gain Contour Data	GXT file (*.gxt)	
WHHU.gxt	WHHU	GSO Antenna Gain Contour Data	GXT file (*.gxt)	
WHVU.gxt	WHVU	GSO Antenna Gain Contour Data	GXT file (*.gxt)	
WHHD.gxt	WHHD	GSO Antenna Gain Contour Data	GXT file (*.gxt)	
CDO.gxt	CDO	GSO Antenna Gain Contour Data	GXT file (*.gxt)	AFRICA AND EUROPE