Airbus DS SatCom Government, Inc.

Application for Modification of KA313 License to

Convert License From Common Carrier Authorization to Non-Common Carrier Authorization; And

Update the Particulars of Operation, Antenna Facilities and other Specifications for Sea Tel Model 4006 1.0 Meter Ku-band Earth Station on Vessel (ESV) Antennas

Currently Authorized per the Call Sign KA313 ESV Authorization;

And

Add Authorization for up to

500 Intellian Model v60G 0.60 Meter Ku-band Antennas;

500 Intellian Model v80G 0.83 Meter Ku-band Antennas;

500 Intellian Model v240K 2.4 Meter Ku-band Antennas

500 Sea Tel Model 3612 0.90 Meter Ku-band Antennas;

500 Sea Tel Model 4009/4010 1.0 Meter Ku-band Antennas;

500 Sea Tel Model 4012 1.06 Meter Ku-band Antennas;

500 Sea Tel Model 5009/5010/5012 1.2 Meter Ku-band Antennas; and 500 Sea Tel Model 9797/9711 2.4 Meter Ku-band Antennas to

Call Sign KA313 ESV Authorization

SES-MOD-20131108-00955

Call Sign KA313

#### **Convert From Common Carrier to Non-Common Carrier Authorization**

By this application Airbus DS SatCom Government, Inc. (ASGI) respectfully seeks modification of the KA313 license to convert the license from a Common Carrier Authorization to a Non-Carrier Authorization. In making this request ASGI notes that in January 2015 modifications of ASGI licenses were approved which moved earth station authorizations for all Hub Antennas which were formerly on the KA313 license to other ASGI licenses, see SES-MFS-20140808-00644 SES-MFS-20140804-00633. As a result, the only authorizations now on the KA313 license are for land VSAT and ESV remote antennas.

#### **Update of Sea Tel Model 4006 Authorization**

ASGI is also requesting by this application to update the Particulars of Operation and Antenna Facilities Specifications for the Sea Tel Model 4006 1.0 Meter Ku-band antennas currently authorized for use to provide ESV service per the KA313 license. The reason for the update is to increase the power authorized for use with the antenna and

update the authorized Emission Designator parameters accordingly. As set forth further in following sections of this narrative, ASGI is also seeking by this application to add to the KA313 license authorization for the 4009 and 4010 models of this same Sea Tel 1.0 meter Ku-band antenna. As the operating parameters (e.g., gains, etc.) for the 4006, 4009 and 4010 are identical; ASGI proposes to accomplish this 4006 update by –

- 1. completely deleting from the current version of the KA313 license all information listed for the 4006;
- 2. combining the 4006 with the 4009 and 4010 for purposes of the KA313 authorization for this Sea Tel 1.0 meter antenna; and then
- 3. adding the Particulars of Operations, Antenna Facilities Specifications and other information for the 4006/4009/4010 antennas to the license as per the information set forth for these antennas in the Schedule B of the Modification Application.

It is therefore requested that all information listed for the Sea Tel model 4006 antenna in the current KA313 license be deleted and then added back in as per the Schedule B information set forth in the Modification Application for the 4006/4009/4010 antennas. No change is being made to any other aspects of the current authorization for any other antennas authorized per the KA313 license. No information other than that listed below for the Sea Tel 4006 antenna is being updated.

Specifically, the following is to be deleted from the current KA313 license-

#### A) Site Location(s)

22) ESV/4006 Operate up to 550 remotes (1.0M)

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Licensee certifies antenna(s) do not comply with Section 25.209. Please refer to Section E for special conditions placed upon antennas at this site.

#### B) Particulars of Operations

55) 14000.0000 - 14500.0000	H,V	44K8G1W	T	34.40	23.90	4006	SCPC USING QPSK AND BPSK MODULATION
56) 14000.0000 - 14500.0000	H,V	717KG1W	T	46.40	23.90	4006	SCPC USING QPSK AND BPSK MODULATION
57) 14000.0000 - 14500.0000	H,V	89K6G1W	T	37.40	23.90	4006	SCPC USING QPSK AND BPSK MODULATION
58) 14000.0000 - 14500.0000	H,V	227KG7W	T	41.50	23.90	4006	TDM/TDMA USING QPSK AND RPSK MODI II ATION
59) 14000.0000 - 14500.0000	H,V	340KG7W	T	43.20	23.90	4006	TDM/TDMA USING QPSK AND BPSK MODULATION
60) 14000.0000 - 14500.0000	H,V	378KG7W	T	43.60	23.90	4006	TDM/TDMA USING QPSK AND BPSK MODULATION

61) 14000.0000 - 14500.0000	H,V	454KG7W	T	44.50	23.90	4006	TDM/TDMA USING QPSK AND BPSK MODULATION
62) 14000.0000 - 14500.0000	H,V	908KG7W	T	47.40	23.80	4006	TDM/TDMA USING QPSK AND BPSK MODULATION
63) 14000.0000 - 14500.0000	H,V	1M40G7W	T	47.40	21.90	4006	DVB/MFTDMA USING QPSK AND BPSK MODULATION
64) 14000.0000 - 14500.0000	H,V	316KG7W	T	42.80	23.90	4006	DVB/MFTDMA USING QPSK AND BPSK MODULATION
65) 14000.0000 - 14500.0000	H,V	607KG7W	T	45.70	23.90	4006	DVB/MFTDMA USING OPSK AND BPSK MODULATION
66) 11450.0000 - 12200.0000	H,V	151KG7W	R			4006	TDM/TDMA USING QPSK AND BPSK MODULATION
67) 11450.0000 - 12200.0000	H,V	54M0G7W	R			4006	TDM/TDMA USING QPSK AND BPSK MODULATION
68) 11450.0000 - 12200.0000	H,V	2M60G7W	R			4006	DVB/MFTDMA USING QPSK AND BPSK MODULATION
69) 11450.0000 - 12200.0000	H,V	54M0G7W	R			4006	DVB/MFTDMA USING QPSK AND BPSK MODULATION
70) 11450.0000 - 11200.0000	H,V	44K8G1W	R			4006	SCPC USING QPSK AND BPSK MODULATION
71) 11450.0000 - 11200.0000	H,V	717KG1W	R			4006	SCPC USING QPSK AND BPSK MODULATION
72) 11450.0000 - 11200.0000	H,V	89K6G1W	R			4006	SCPC USING QPSK AND BPSK MODULATION
73) 10950.0000 - 11200.0000	H,V	44K8G1W	R			4006	SCPC USING QPSK AND BPSK MODULATION
74) 10950.0000 - 11200.0000	H,V	717KG1W	R			4006	SCPC USING QPSK AND BPSK MODULATION
75) 10950.0000 - 11200.0000	H,V	89K6G1W	R			4006	SCPC USING QPSK AND BPSK MODULATION
76) 10950.0000 - 11200.0000	H,V	151KG7W	R			4006	TDM/TDMA USING QPSK AND BPSK MODULATION
77) 10950.0000 - 11200.0000	H,V	2M60G7W	R			4006	DVB/MFTDMA USING QPSK AND BPSK MODULATION
78) 10950.0000 - 11200.0000	H,V	54M0G7W	R			4006	DVB/MFTDMA USING QPSK AND BPSK MODULATION

# C) Frequency Coordination

42)	14000.0000 - 14500.0000	3.0W-125.0W	10.0 - 10.0	90.0 - 270.0	4006
43)	11450.0000 - 12200.0000	3.0W-125.0W	10.0 - 10.0	90.0 - 270.0	4006
44)	10950.0000 - 11200.0000	3.0W-125.0W	10.0 - 10.0	90.0 - 270.0	4006

# D) Point of Communications

38) ESV/4006 to Permitted Space Station List

- 39) ESV/4006 to GALAXY 10R satellite @ 123 W.L. (U.S.-licensed domestic satellite)
- 40) ESV/4006 to INTELSAT 705 satellites @ 50 W.L. of the INTELSAT system (U.S.-licensed)

#### E) Antenna Facilites

ESV/4006 4006 250 1.0 SEATEL 4006

Max Gains(s):40.1 dBi @ 11.9500 GHz 41.8 dBi @ 14.2500 GHz

Maximum total input power at antenna flange (Watts) = 3.6

Maximum aggregate output EIRP for all carriers (dBW)47.4

#### F) Remote Control

ESV/4006

2120 RIVER ROAD Call Sign: N/A SOUTHBURY, NEW HAVEN, CT, 06488 203-262-5000

Following deletion of the above the respective new entries for each are to be added back in to the license as per the Schedule B information set forth in the Modification Application for the 4006/4009/4010 antennas.

#### Addition of Other ESV Remote Antennas to ESV Authorization

Finally, ASGI is requesting by this application that the following new ESV remote antennas be added to the KA313 authorization to provide ESV service:

Intellian Model v60G 0.60 Meter Ku-band Antennas;

Intellian Model v80G 0.83 Meter Ku-band Antennas;

Intellian Model v240K 2.4 Meter Ku-band Antennas:

Sea Tel Model 3612 0.90 Meter Ku-band Antennas;

Sea Tel Model 4009/4010 1.0 Meter Ku-band Antennas;

Sea Tel Model 4012 1.06 Meter Ku-band Antennas;

Sea Tel Model 5009/5010/5012 1.2 Meter Ku-band Antennas; and

Sea Tel Model 9797/9711 2.4 Meter Ku-band Antennas

The authorizations requested for all is for operation on vessels traveling in U.S. and international waters and all will operate with hub antennas that are separately licensed; will be utilized to provide ESV service in the same manner as previously authorized by the Commission; and will be operated in full compliance with the requirements of the Commission's ESV regulations as set forth in part 25 of the Rules

ASGI's showing of compliance with Part 25 of the Commission's Rules follows herewith and except as further explained in the following section, the exhibits required by Section 25.222 are included as attachments to the application.

#### **Use of Antenna Plots and Charts Filed With Prior Applications**

It is ASGI's understanding that earth station applicants seeking authorization for earth station antennas which have been previously approved by the International Bureau need not attach antenna radiation plots as an exhibit to their application but need only provide an attachment citing the antennas for which authorization is being sought and an application file number and call sign of a license in which those antennas have been approved. Barring any countervailing considerations, the Bureau will consider granting the application for the antennas, providing the applicant proposes the same kinds of services as the operator of the previously authorized antennas under the same or substantially similar operating conditions.

ASGI notes that it has previously sought and been granted authorization under its Call Sign WB36 license to operate all the above listed ESV antennas which it now seeks by this application to add to the KA313 ESV authorization. These antennas will be used for the same kinds of services as those previously authorized per WB36 are used and will be used under the same operating conditions. AGSI is therefore not attaching with this application the charts and tables which would otherwise be submitted to show compliance with Sections 25.221 (a) (1) & (b) (1). Rather, it will reference the application file number associated with the prior approval of each antenna and respectfully requests that the Commission's staff rely upon the prior application materials in processing the instant application.

#### **Showing of Part 25 Compliance for Remote Antennas and ESV Service**

#### **Section 25.222**

### (a) (1) Comply.

See the Intellian and Sea Tel declarations and the exhibits previously submitted with the following applications for approval of the respective antennas:

Intellian Model v60G - SES-MFS-20130612-00485, Call Sign WB36
Intellian Model v80G - SES-MFS-20130612-00485, Call Sign WB36
Intellian Model v240K - SES-MFS-20140210-00037, Call Sign WB36
Sea Tel Model 3612 - SES-MFS-20130612-00485, Call Sign WB36
Sea Tel Model 4006/4009/4010 - SES-MFS-20130612-00485, Call Sign WB36
Sea Tel Model 4012 - SES-MFS-20130612-00485, Call Sign WB36
Sea Tel Model 5009/5010/5012- SES-MFS-20130612-00485, Call Sign WB36
Sea Tel Model 9797/9711- SES-MFS-20140210-00037, Call Sign WB36

All of the ESV antennas listed above use transmitters that have off-axis EIRP spectral densities less than or equal to the levels in paragraph 25.222(a)(1)(i) and meet the requirements of 25.222 (a)(1)(i)(A-C) with an N value of 1. The referenced exhibits provide the detailed demonstration described in paragraph 25.222 (b)(1). The Intellian and Sea Tel declarations contain the certifications that the antennas comply with the pointing requirement in paragraph 25.222

- (a)(1)(ii)(A) and the cessation of emission requirement in paragraph 25.222 (a)(1)(iii)(A).
- (a) (2) Not Applicable
- (a) (3) Not Applicable
- (a) (4) Comply. The ASGI ESV Compliance Officer has authority and ability to cease all emissions from ESVs through the facilities of ASGI teleports or through facilities of non-ASGI teleports used to uplink the ESVs pursuant to telehousing arrangements. This point of contact is available 24 hours a day, seven days a week via the ASGI Southbury, CT teleport at 203-262-5010.
- (a) (5) Comply. These records are being collected and maintained as specified. Requests to make this data available may be directed to the ASGI ESV Compliance Officer via the Southbury teleport at 203-262-5010.
- (a) (6) Comply.
- (a) (7) Comply. The ESVs are controlled by the ASGI teleports located in the United States or non-ASGI teleports located in the United States used to uplink ESVs pursuant to telehousing arrangements.
- (a) (8) Comply.
- (b)(1) Comply. Please see the exhibits previously submitted with the applications listed in the response for 25.222 (a) (1).

The value N described in 25.222(a)(1)(i)(A) is 1. Referenced exhibits provide the detailed demonstration described in paragraphs 25.222(b)(1)(i)(A), (B) and (C). The certifications from the equipment manufacturers stating that the tracking systems meet the pointing and cessation of emission requirements of 25.222(b)(1)(iii) are contained in the Intellian and Sea Tel declarations.

- (b) (2) Not Applicable.
- (b) (3) Not Applicable.
- (b) (4) Comply. See Operations Areas Exhibit.
- (b) (5) Comply. The ASGI ESV Compliance Officer has authority and ability to cease all emissions from ESVs through the facilities of ASGI teleports or through facilities of non-ASGI teleports used to uplink ESVs pursuant to telehousing arrangements. This point of contact is available 24 hours a day, seven days a week via the ASGI Southbury, CT teleport at 203-262-5010.
- (b) (6) Comply. See the Radiation Hazard Report Exhibits.

- (c) Comply. ASGI has completed coordination with NASA for ESV operations in the 14.0 14.2 GHz frequency band within 125 km of NASA TDRSS facilities protected per 24.222 (c). The coordination has been filed with the Commission for completion of the coordination process. Until the coordination process is completed ASGI will continue to comply with 25.222 (c) by not operating Ku-band ESVs at all in the 14.47 14.5 GHz frequency band within the specified distances of the protected facilities.
- (d) Comply. ASGI does not operate any ESVs in the 14.47 14.5 GHz frequency band.