

**Exhibit 1 – Application Narrative and Showing of Compliance
With Sections 25.221 and 25.222**

Astrium Services Government, Inc.

Application to Modify WB36 License to
Update the Particulars of Operation, Antenna Facilities and other Specifications
For the Following Earth Station on Vessel (ESV)

Remote Antennas Currently Authorized per the License:

Sea Tel Model 4003A, 4006 and 4009/4010 1.0 Meter Ku-band Antennas,

Sea Tel Model 4996T, 5009 and 5010 1.2 Meter Ku-band Antennas,

Sea Tel Model 6006 and 6009 1.5 Meter Ku-band Antennas,

Sea Tel Model 9797 2.4 Meter Ku-band Antennas,

Sea Tel Model 9707 and 9797 2.4 Meter C-band Antennas,

Intellian Model V60G 0.60 Meter Ku-band Antennas,

Intellian Model V80G 0.83 Meter Ku-band Antennas,

Intellian Model V110 1.05 Meter Ku-band Antennas;

and

Add up to 500 Sea Tel Model USAT-30/3011

0.75 Meter Ku-band Remote ESV Antennas;

Add up to 500 Sea Tel Model 3612 0.9 Meter Ku-band Antennas;

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

Add up to 500 Sea Tel Model 9711QOR

Combination 2.4 Meter C-band/1.2 Meter Ku-band Antennas;

Add up to 500 Thrane & Thrane Model TT-7090A Sailor 900

1.0 Meter Ku-band Remote ESV Antennas; and

Add up to 500 Intellian Model v240 2.4 Meter C-band Antennas

to

Call Sign WB36 License ESV Authorization

SES-MOD-20120109-00024

Call Sign WB36

By this application applicant Astrium Services Government, Inc. (Astrium) is requesting that the Particulars of Operation, Antenna Facilities and other Specifications for all ESV remote antennas currently authorized for use to provide ESV service per the WB36 license be updated. It is therefore requested that all ESV antennas currently listed in the WB36 license be completely deleted and then added back in as per the Schedule B information set forth in the Modification Application. It is noted that no change is being made to any of the non-ESV antennas listed in the WB36 license. No non-ESV antennas are to be deleted. Only the following Specifications, which are all for ESV antennas, are to be deleted–

Section A Site Locations: 2), 4), 5), 6), 8), 9), 10), 16), 17) and 18)

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Section B Particulars of Operation: 166 – 249 and 320 – 444

Section C Frequency Coordination: 8 – 20

Section D Points of Communication: 3), 4), 7), 8), 9), 10), 11), 22), 23) and 24)

Section E Antenna Facilities: REMOTES ESVKU 4996TKU, KU/ESV1 9797SEATL, KU-BAN ESV REMOTES INTL V110, KU/ESV2 INTLV60G, KU/ESV3 INTLV80G, KU-BAN ESV REMOTES ST4009/10, REMOTES ESVKU SeaTel4003, REMOTES ESVKU SeaTel4006, KU-BAN ESV REMOTES SeaTel5009, KU-BAN ESV REMOTES SeaTel5010, Ku-Band ESV Remotes SeaTel6006, KU-BAN ESV REMOTES SeaTel6009, C-band ESV Remotes SeaTel9707, C-band ESV Remotes SeaTel9797

Section F Remote Control: Ku-Band ESV Remotes, C-band ESV Remotes, KU-BAN ESV REMOTES, KU/ESV1, KU/ESV2, KU/ESV3

The Specifications set forth in the Schedule B for the following ESV antennas are then to be added back in to the license to complete the update:

Sea Tel Model 4003 and 4006/4009/4010 1.0 Meter Ku-band Antennas,
Sea Tel Model 4996 and 5009/5010/5012 1.2 Meter Ku-band Antennas,
Sea Tel Model 6006/6009/6012 1.5 Meter Ku-band Antennas,
Sea Tel Model 9797/9711 2.4 Meter Ku-band Antennas,
Sea Tel Model 9707/9797/9711 2.4 Meter C-band Antennas,
Intellian Model V60G 0.60 Meter Ku-band Antennas,
Intellian Model V80G 0.83 Meter Ku-band Antennas,
Intellian Model V110 1.05 Meter Ku-band Antennas;

Vizada also requests that the following new ESV remote antennas be added to the WB36 authorization to provide ESV service:

Sea Tel Model USAT-30/3011 0.75 Meter Ku-band Antennas;
Sea Tel Model 3612 0.9 Meter Ku-band Antennas;
Sea Tel Model 4012 1.06 Meter Ku-band Antennas;
Sea Tel Model 9711QOR Combination 2.4 Meter C-band/1.2 Meter Ku-band Antennas;
Thrane & Thrane Model TT-7090A Sailor 900 1 Meter Ku-band Antennas; and
Intellian Model v240 2.4 Meter C-band Antennas.

All the remote ESVs – both the antennas currently authorized which are being updated and the new antennas which are being added to the authorization - will be located on vessels traveling in U.S. and international waters. They will operate with hub antennas that are separately licensed and 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.

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Astrium’s Showing of Compliance with Part 25 of the Commission’s Rules follows herewith and the exhibits required by Sections 25.221 and 25.222 are included as attachments to the Modification Application.

Showing of Compliance for the C-band Antennas and ESV service with Part 25 of the Commission’s Rules

Section 25.221

(a) (1) Comply.

See the Sea Tel and Astrium Sea Tel declarations and Exhibits 2, 3 and 4 for the Sea Tel model 9707/9797/9711 C-band antennas and the C-band side of the Sea Tel model 9711 QOR antennas.

See the Intellian and Astrium Intellian declarations and Exhibits 5, 6 and 7 for the Intellian model v240 C-band antennas.

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 25.221(a)(1)(i) and meet the requirements of 25.221 (a)(1)(i)(A-C) with an N value of 1. The referenced exhibits provide the detailed demonstration described in paragraph 25.221 (b)(1). The Sea Tel and Intellian declarations also contain the certifications that the antennas comply with the pointing requirement in paragraph 25.221 (a)(1)(ii)(A) and the cessation of emission requirement in paragraph 25.221 (a)(1)(iii)(A).

(a) (2) Not Applicable

(a) (3) Not Applicable

(a) (4) Comply. The Astrium ESV Compliance Officer has authority and ability to cease all emissions from ESVs through the facilities of Astrium teleports or through facilities of non- Astrium teleports used to uplink Astrium operated ESVs pursuant to telehousing arrangements. This point of contact is available 24 hours a day, seven days a week via the Astrium 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 Astrium ESV Compliance Officer via the Southbury teleport at 203-262-5010.

(a) (6) Comply.

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- (a) (7) Comply. The ESVs are controlled by the Astrium teleports located in the United States or non- Astrium teleports located in the United States used to uplink Astrium operated ESVs pursuant to telehousing arrangements.
- (a) (8) Comply.
- (a) (9) Comply.
- (a) (10) Comply. Astrium is not seeking protection for docked ESVs at this time. In the event that Astrium finds it necessary to do so in the future, it will be accomplished in accordance with the terms of this §25.221 (a) (9).
- (a) (11) Agree.
- (a) (12) Comply. The C-band ESVs which are the subject of this application will not operate within 200 Km of the U.S. coastline or fixed service offshore facilities unless prior coordination has been completed. It is noted that numerous C-band ESV interference studies and frequency coordinations have been completed for Astrium by Comsearch and Skjei Telecom and Notifications Concerning Completion of the Coordinations were filed with the Commission (under the WB36 and KA249 licenses) as specified in the Commission’s Public Notice DA 05-1671, Released: June 15, 2005 and the Notifications placed on Public Notice. Other coordinations may be completed as-needed and if so, Notifications for same will be filed with the Commission for Public Notice as they are completed.
- (a) (13) Comply. Astrium has developed and deployed hardware and software which continuously monitors the location of each ESV and its operating frequency; compares this information with data containing mapping coordinates for areas in which ESV operation is (and is not) permitted and coordination information and terms for same; and which will automatically cease the transmissions of the ESV if it is in an area for which coordination is required and operation would be in violation of the terms of coordination.
- (b) (1) Comply. The tables described in 25.221(b)(1)(i) are attached as the following exhibits:

Exhibits 2, 3 and 4 for the Sea Tel model 9707/9797/9711 C-band antennas and the C-band side of the 9711 QOR antennas;

Exhibits 5, 6 and 7 for the Intellian model v240 C-band Antennas.

The value N described in 25.221(a)(1)(i)(A) is 1. Exhibits 2 and 5 provide the detailed demonstration described in paragraph 25.221(b)(1)(i)(A). Exhibits 3 and 6 provide the detailed demonstration described in paragraph 25.221(b)(1)(i)(B). Exhibits 4 and 7 provide the detailed demonstration described in paragraph 25.221(b)(1)(i)(C). The certifications from the equipment manufacturers stating

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that the tracking systems meet the pointing and cessation of emission requirements of 25.221(b)(1)(iii) are contained in the Sea Tel and Intellian declarations.

(b) (2) Not Applicable.

(b) (3) Not Applicable.

(b) (4) Comply. See SES-4 and NSS-9 maps in the Operations Areas Exhibit.

(b) (5) Comply. The Astrium ESV Compliance Officer has authority and ability to cease all emissions from ESVs through the facilities of Astrium teleports or through facilities of non- Astrium teleports used to uplink Astrium operated ESVs pursuant to telehousing arrangements. This point of contact is available 24 hours a day, seven days a week via the Astrium Southbury, CT teleport at 203-262-5010.

(b) (6) Comply. See the Radiation Hazard Report Exhibits.

Section 25.222

(a) (1) Comply.

See the Sea Tel and Astrium Sea Tel declarations and Exhibits 8, 9, and 10 for the Sea Tel 4003 and 4006/4009/4010 Ku-band antennas.

See the Sea Tel and Astrium Sea Tel declarations and Exhibits 11, 12 and 13 for the Sea Tel Model 4996T and 5009/5010/5012 Ku-band antennas and the Ku-band side of the Sea Tel model 9711 QOR antennas.

See the Sea Tel and Astrium Sea Tel declarations and Exhibits 14, 15 and 16 for the Sea Tel Model 6006/6009/6012 Ku-band antennas.

See the Sea Tel and Astrium Sea Tel declarations and Exhibits 17, 18, and 19 for the Sea Tel Model 9797/9711 Ku-band antennas

See the Sea Tel and Astrium Sea Tel declarations and Exhibits 20, 21, and 22 for the Sea Tel Model USAT-30/3011 Ku-band antennas.

See the Sea Tel and Astrium Sea Tel declarations and Exhibits 23, 24, and 25 for the Sea Tel Model 3612 Ku-band antennas.

See the Sea Tel and Astrium Sea Tel declarations and Exhibits 26, 27, and 28 for the Sea Tel Model 4012 Ku-band antennas.

See the Thrane and Astrium Thrane declarations and Exhibits 29, 30, and 31 for the Thrane & Thrane Model TT-7090A Sailor 900 Ku-band Antennas.

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See the Intellian and Astrium Intellian declarations and Exhibits 32, 33 and 34 for the Intellian model v60G Ku-band antennas.

See the Intellian and Astrium Intellian declarations and Exhibits 35, 36 and 37 for the Intellian model v80G Ku-band antennas.

See the Intellian and Astrium Intellian declarations and Exhibits 38, 39 and 40 for the Intellian model v110 Ku-band antennas.

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 SeaTel, Thrane and Intellian declarations also 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 Astrium ESV Compliance Officer has authority and ability to cease all emissions from ESVs through the facilities of Astrium teleports or through facilities of non- Astrium teleports used to uplink Astrium operated ESVs pursuant to telehousing arrangements. This point of contact is available 24 hours a day, seven days a week via the Astrium 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 Astrium ESV Compliance Officer via the Southbury teleport at 203-262-5010.

(a) (6) Comply.

(a) (7) Comply. The ESVs are controlled by the Astrium teleports located in the United States or non- Astrium teleports located in the United States used to uplink Astrium operated ESVs pursuant to telehousing arrangements.

(a) (8) Comply.

(b)(1) Comply. The tables described in 25.221(b)(1)(i) are attached as the following exhibits:

Exhibits 8, 9, and 10 for the Sea Tel 4003 and 4006/4009/4010 antennas;

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Exhibits 11, 12 and 13 for the Sea Tel Model 4996T and 5009/5010 Ku-band antennas and the Ku-band side of the Sea Tel model 9711 QOR antennas;

Exhibits 14, 15 and 16 for the Sea Tel model 6006/6009 Ku-band antennas;

Exhibits 17, 18, and 19 for the Sea Tel Model 9797/9711 Ku-band antennas;

Exhibits 20, 21, and 22 for the Sea Tel Model USAT-30/3011 Ku-band antennas;

Exhibits 23, 24, and 25 for the Sea Tel Model 3612 Ku-band antennas;

Exhibits 26, 27, and 28 for the Sea Tel Model 4012 Ku-band antennas;

Exhibits 29, 30 and 31 for the Thrane & Thrane Model TT-7090A Sailor 900 Ku-band Antennas;

Exhibits 32, 33, and 34 for the Intellian model v60G Ku-band antennas;

Exhibits 35, 36, and 37 for the Intellian model v80G Ku-band antennas;

Exhibits 38, 39, and 40 for the Intellian model v110 Ku-band antennas.

The value N described in 25.222(a)(1)(i)(A) is 1. Exhibits 8, 11, 14, 17, 20, 23, 26, 29, 32, 35 and 38 provide the detailed demonstration described in paragraph 25.222(b)(1)(i)(A). Exhibits 9, 12, 15, 18, 21, 24, 27, 30, 33, 36 and 39 provide the detailed demonstration described in paragraph 25.222(b)(1)(i)(B). Exhibits 10, 13, 16, 19, 22, 25, 28, 31, 34, 37 and 40 provide the detailed demonstration described in paragraph 25.222(b)(1)(i)(C). The certifications from the equipment manufacturer stating that the tracking systems meet the pointing and cessation of emission requirements of 25.222(b)(1)(iii) are contained in the Sea Tel, Thrane and Intellian declarations.

(b) (2) Not Applicable.

(b) (3) Not Applicable.

(b) (4) Comply. See Operations Areas Exhibit.

(b) (5) Comply. The Astrium ESV Compliance Officer has authority and ability to cease all emissions from ESVs through the facilities of Astrium teleports or through facilities of non- Astrium teleports used to uplink Astrium operated ESVs pursuant to telehousing arrangements. This point of contact is available 24 hours a day, seven days a week via the Astrium Southbury, CT teleport at 203-262-5010.

(b) (6) Comply. See the Radiation Hazard Report Exhibits.

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- (c) Comply. Astrium 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 Astrium 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. Astrium does not operate any ESVs in the 14.47 – 14.5 GHz frequency band.