

**Exhibit 1 – Narrative and Showing of Compliance with Section 25.222**

Marlink, Inc.

Application for Modification of WB36 License to  
Add Authorization for up to  
500 Thrane & Thrane Model "TT-7060C Sailor 600"  
0.65 Meter Ku-band Antennas and  
500 Intellian Model "V85" 0.85 Meter Ku-band Antennas to the  
WB36 Authorization for Earth Station on Vessels (ESV)

And

Grant Waiver of Commission Rules Limiting ESV Authority to Earth Stations  
Operating on Marine Vessels So That Antennas Authorized Per the WB36 ESV  
Authorization May be Operated on Land

SES-MOD-20170407-00373

Call Sign WB36

**I) Request to Add Authorization for up to 500 Thrane & Thrane Model "TT-7060C Sailor 600" 0.65 Meter Ku-band Antennas and 500 Intellian Model "V85" 0.85 Meter Ku-band Antennas to the WB36 ESV Authorization.**

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

500 500 Thrane & Thrane Model "TT-7060C Sailor 600" 0.65 Meter  
Ku-band Antennas and

500 Intellian Model "V85" 0.85 Meter Ku-band Antennas

All the remote ESVs will be located on vessels traveling in U.S. and international waters or operated on land for purposes such as testing, demonstration and training. They will operate with hub antennas that are separately licensed. They 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.

Marlink'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.

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**Showing of Compliance for the Ku-band Operation of the  
Antennas with Part 25 of the Commission's Rules**

Section 25.222

(a) (1) Comply.

See the Thrane & Thrane and Intellian declarations in Exhibit 3 and “Tables Required by 25.222(b)(1)(i) to Demonstrate Compliance of Intellian Antennas with 25.222(a)(1)(i)” in Exhibit 4.

The antennas 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. Exhibit 4 contains the detailed demonstrations described in paragraph 25.222 (b)(1). The declarations in Exhibit 3 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 U.S. based ESV Compliance Officer has authority and ability to cease all emissions from ESVs through teleports located in the U.S. and elsewhere used to uplink the ESVs. The ESV Compliance Officer is able to direct the Marlink Network Operations Center (MNOC) located in Eik, Norway to send commands via the uplink teleports which cause the remote ESVs to cease transmitting. The business address for the ESV Compliance Officer is 11707 S. Sam Houston Parkway West, Suite A, Houston, Texas, 77031 and this point of contact is available 24 hours a day, seven days a week via 203-346-0461 which is the U.S. number for the MNOC.

(a) (5) Comply. These records are being collected and maintained as specified. Requests to make this data available may be directed to the ESV Compliance Officer via 203-346-0461.

(a) (6) Comply.

(a) (7) Comply. The ESVs are controlled through teleports located in the United States and elsewhere used to uplink the ESVs. As noted in the (a) (4) response, the ESV Compliance Officer that is located within the United States has the capability and authority to cause any of the ESVs to stop transmitting if necessary.

(a) (8) Comply.

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(b)(1) Comply. The tables described in 25.221(b)(1)(i) are attached in Exhibit 4.

The value N described in 25.222(a)(1)(i)(A) is 1. The detailed demonstration described in paragraphs 25.222(b)(1)(i)(A), (B) & (C) is contained in the attached Exhibit 4. The certification for the antenna stating that the tracking system meets the pointing and cessation of emission requirements of 25.222(b)(1)(iii) is contained in the declarations in Exhibit 3.

(b) (2) Not Applicable.

(b) (3) Not Applicable.

(b) (4) Comply. See Exhibit 6 for map showing geographic areas in which ESVs authorized per the WB36 license will operate.

(b) (5) Comply. The U.S. based ESV Compliance Officer has authority and ability to cease all emissions from ESVs through teleports located in the U.S. and elsewhere used to uplink the ESVs. The ESV Compliance Officer is able to direct the Marlink Network Operations Center (MNOG) located in Eik, Norway to send commands via the uplink teleports which cause the remote ESVs to cease transmitting. The business address for the ESV Compliance Officer is 11707 S Sam Houston Parkway West, Suite A, Houston, Texas, 77031 and this point of contact is available 24 hours a day, seven days a week via 203-346-0461 which is the U.S. number for the MNOG.

(b) (6) Comply. See the Radiation Hazard Reports in Exhibit 5.

(c) Comply. Coordination has been completed 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. Marlink has developed and deployed a system which utilizes hardware and software to continuously monitor 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. Mapping coordinates for 14.0 – 14.2 GHz frequency band Transmit Exclusion Zones required by NASA per the above described coordination to protect the TDRSS facilities have been programmed into Marlink's system. It will automatically mute any Marlink ESVs operating in the 14.0 – 14.2 GHz frequency band which enter one of these Exclusion Zones.

(d) Comply. Mapping coordinates for 14.47 – 14.5 GHz frequency band Transmit Exclusion Zones have been developed for the areas within the specified distances of the facilities protected per 24.222 (d) and programmed into Marlink's system. It

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will automatically mute any Marlink ESVs operating in the 14.47 – 14.5 GHz frequency band which enters one of these Exclusion Zones.

**II) Request For Waiver of Commission Rules Limiting ESV Authority to Earth Stations Operating on Marine Vessels So That Antennas Authorized Per the WB36 ESV Authorization May be Operated on Land**

Marlink respectfully requests waiver of the Commission’s Rules to the extent such Rules limit ESV Authority to earth stations operating on marine vessels. The waiver is needed so that antennas authorized per the WB36 ESV authorization may be operated on land in the U.S. The ability to operate ESV antennas on land is required for such purposes as testing antennas to confirm they are appropriate for the purposes for which they are to be utilized by Marlink and its customers; demonstrating the operation of antennas to customers and others; training Marlink and customer personnel in the operation of the antennas; and troubleshooting to remotely diagnose and resolve customer technical problems. It is therefore requested that operation of antennas authorized per the WB36 ESV authorization be permitted on land by adding the following language to the location description set forth in Section A) Site Location(s) of the license for Site ID 1) and Site ID 2) ;

“CONUS, AK, HI, US&P”

The descriptions set forth for Site ID 1) and Site ID 2) will then be as follows:

- 1) 1 C-BAND REMOTE ESVS/US AND  
INTL WATERS AND CONUS, AK, HI, US&P  
11707 S SAM HOUSTON PARKWAY, W  
SUITE A
- 2) 2 KU-BAND REMOTE ESVS/US AND  
INTL WATERS AND CONUS, AK, HI, US&P  
11707 S SAM HOUSTON PARKWAY, W  
SUITE A

Questions with respect to any of the above may be directed to James G. Lovelace at (281) 606-0117 or [james.lovelace@marlink.com](mailto:james.lovelace@marlink.com).