**Telenor Maritime,Inc.**

**ESV Blanket License Application**

***Technical Appendix***

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VII. Section 25.222 Compliance Statement

Sea Tel Inc.
4030 Nelson Ave., Concord
California, 94520, USA
T: +1 (925) 798-7979
F: +1 (925) 798-7986

# FCC Declaration of Conformity

1. Sea Tel, Inc. designs, develops, manufactures and services marine stabilized antenna systems for satellite communication at sea. These products are in turn used by our customers as part of their C-band Earth Station on Vessels (ESV) networks.
2. FCC regulation 47 C.F.R. § 25.221 defines the provisions for blanket licensing of ESV antennas operating in the C Band. This declaration covers the requirements for meeting § 25.221 (a)(1) by the demonstrations outlined in paragraphs (b)(1)(i) and (b)(1)(iii). The requirements for meeting § 25.221 (a)(3)-(a)(7) are left to the applicant. The paragraph numbers in this declaration refer to the 2009 version of FCC 47 C.F.R. § 25.221.
3. Sea Tel hereby declares that the antennas listed below will meet the off-axis EIRP spectral density requirements of § 25.221 (a)(1)(i) with and N value of 1, when the following Input Power spectral density limitations are met:

   1.5 Meter C Band, Models 6006, 6009, and 6012 are limited to -10 dBW/4kHz
   2.4 Meter C Band, Models 9797, 9707 and 9711 are limited to -7 dBW/4kHz

4. Sea Tel hereby declares that the antennas referenced in paragraph 3 above, will maintain a stabilization pointing accuracy of better than 0.2 degrees under specified ship motion conditions, thus meeting the requirements of § 25.221 (a)(1)(ii)(A).
5. Sea Tel hereby declares that the antennas referenced in paragraph 3 above, will automatically cease transmission within 100 milliseconds if the pointing error should exceed 0.5 degrees and will not resume transmission until the error drops below 0.2 degrees, thus meeting the requirements of § 25.221 (a)(1)(iii).
6. Sea Tel maintains all relevant test data, which is available upon request, to verify these declarations.

4/16/2013

Peter Blaney, Chief Engineer
Cobham – SATCOM
Sea Tel Products.

Date

Sea Tel Inc.
4030 Nelson Ave., Concord
California, 94520, USA
T: +1 (925) 798-7979
F: +1 (925) 798-7986

# FCC Declaration of Conformity

1. Sea Tel, Inc. designs, develops, manufactures and services marine stabilized antenna systems for satellite communication at sea. These products are in turn used by our customers as part of their Ku-band Earth Station on Vessels (ESV) networks.

2. FCC regulation 47 C.F.R. § 25.222 defines the provisions for blanket licensing of ESV antennas operating in the Ku Band. This declaration covers the requirements for meeting § 25.222 (a)(1) by the demonstrations outlined in paragraphs (b)(1)(i) and (b)(1)(iii). The requirements for meeting § 25.222 (a)(3)-(a)(7) are left to the applicant. The paragraph numbers in this declaration refer to the 2009 version of FCC 47 C.F.R. § 25.222.

3. Sea Tel hereby declares that the antennas listed below will meet the off-axis EIRP spectral density requirements of § 25.222 (a)(1)(i) with an N value of 1, when the following Input Power spectral density limitations are met:

| | |
|---|---|
| *0.6 Meter Ku Band, Models 2406 and USAT-24 are limited to | -21.6 dBW/4kHz |
| *0.75 Meter Ku Band, Models 3011 and USAT-30 are limited to | -21.6 dBW/4kHz |
| 0.9 Meter Ku Band, Model 3612 is limited to | -20.3 dBW/4kHz |
| 1.0 Meter Ku Band, Models 4003/4006/4009/4010 are limited to | -16.3 dBW/4kHz |
| 1.0 Meter Ku Band Model 4012 is limited to | -16.6 dBW/4kHz |
| 1.2 Meter Ku Band, Models 4996/5009/5010/5012 are limited to | -14.0 dBW/4kHz |
| 1.5 Meter Ku Band, Models 6006/6009/6012 are limited to | -14.0 dBW/4kHz |
| 2.4 Meter Ku Band, Models 9797 and 9711QOR are limited to | -14.0 dBW/4kHz |

4. Sea Tel hereby declares that the antennas referenced in paragraph 3 above, will maintain a stabilization pointing accuracy of better than 0.2 degrees under specified ship motion conditions, thus meeting the requirements of § 25.222 (a)(1)(ii)(A). Those antennas marked with * will maintain a stabilization pointing accuracy of better than 0.3 degrees. The Input Power spectral density limits for these antenna have been adjusted to meet the requirements of§ 25.222 (a)(1)(ii)(B).

5. Sea Tel hereby declares that the antennas referenced in paragraph 3 above, will automatically cease transmission within 100 milliseconds if the pointing error should exceed 0.5 degrees and will not resume transmission until the error drops below 0.2 degrees, thus meeting the requirements of § 25.222 (a)(1)(iii).

6. Sea Tel maintains all relevant test data, which is available upon request, to verify these declarations.

Peter Blaney, Chief Engineer
Sea Tel, Inc
Concord, CA

# FCC RF Hazard Compliance Analysis
# Telenor Maritime, Inc.
# Sea Tel 6012 Ku-band ESV Operation

In connection with a license application by Telenor Maritime, Inc. ("Telenor Maritime") for operation of a new 1.5 Meter Ku-band ESV remote antenna, the following assessment is provided of compliance with the FCC limits for maximum permissible exposure (MPE) to RF fields. The ESV antenna typically will be mounted high on the vessel superstructure or, alternatively, on high deck areas that are inaccessible to non-crew members.

Based on the mathematical analyses described herein, the potential RF exposure levels in all areas of possible interest are in compliance with the applicable FCC limit for controlled or occupational exposure. (Access to the earth station antenna is restricted to trained personnel). The proposed operation is therefore in compliance with the FCC regulations and exposure limits.

The sections that follow provide the analysis and conclusions regarding compliance.

## 1 Operational Data

The relevant data for the subject operation is summarized as follows:

| | |
|---|---|
| Transmitting Frequency Band: | 14.0 – 14.5 GHz |
| Antenna Manufacturer / Model: | Sea Tel 6012 |
| Antenna Type: | Prime Focus |
| Antenna Dimension: | 1.5 meters (diameter) (5 feet) |
| Antenna Efficiency: | 64 % |
| Net Power Input to Antenna (at flange): | 19.9 Watts |
| Antenna Height AGL: | 10.0 meters (32.8 feet) |

## 2 Applicable MPE Limits

The MPE limits are described in the FCC Rules and Regulations. For the frequency range of interest here, the applicable limit for acceptable, continuous exposure of the general population is 1.0 milliwatt per square centimeter ($mW/cm^2$), and for "controlled" occupational exposure, it is 5.0 $mW/cm^2$. As is the case for all antennas in the Telenor Maritime ESV network, access to the antenna is restricted to trained Telenor Maritime personnel, and thus the latter limit applies.

## 3 FCC Formulas and Calculations

FCC Bulletin OET 65 provides standardized formulas for calculating the power density in both of the areas of interest here: (1) directly in front of the antenna, at the face and farther away but still in the main beam; and (2) to the side of the antenna. Each area of interest will be addressed below and the results of the calculations are given.

### *3.1 Potential exposure level directly in front of the antenna*

The worst-case possible exposure occurs right at the surface (aperture) of the antenna. According to Bulletin OET 65, the applicable formula for power density, **S**, at the antenna surface is as follows:

$$S = 4 * P / A$$

Where:**P** represents the antenna input power; and,
**A** is the surface area of the antenna.

In this case, with 19.9 Watts antenna of input power at the flange, an antenna diameter of 1.5 m (5 feet), the power density at the antenna surface is 4.51 mW/cm$^2$, which is lower than the 5.0 mW/cm$^2$ MPE limit. Even so, when a technician needs to perform work in this area (which is more than 32 feet above ground level), standard RF safety procedures will be applied and power to the antenna will be removed during the period of the work.

The formula for near-field, on-axis power density, directly in front of the antenna is as follows:

$$S = 16 * \eta * P / (\pi * D^2)$$

Where:$\eta$ represents the antenna illumination efficiency; and,
**D** is the antenna diameter.

In this case, when we apply an illumination efficiency of 64%, the result of the calculation is 2.89 mW/cm$^2$, which satisfies the occupational MPE limit. The calculated result here is also used in the analysis of potential exposure to the immediate side of the antenna, which is addressed in the subsection that follows.

### *3.2 Potential exposure level to the side of the antenna*

The near-field power density drops off dramatically outside the imaginary cylinder extending from the surface along the axis of the main beam of an aperture antenna. According to Bulletin OET 65, if the point of interest is at least one antenna diameter removed from the center of the main beam, the power density at that point would be at least a factor of 100 lower (20 dB) than the value calculated for the equivalent distance in the main beam.

The previous calculation of the power density immediately in front of the antenna) resulted in a value of 2.89 mW/cm$^2$, which is equivalent to 58% of the limit and is in compliance. Since the RF levels outside the hypothetical cylinder extending from the aperture is lower than inside the cylinder, the RF levels to the side of the antenna are clearly in compliance as well, and at ground level (32.8 feet below) the RF levels would be lower still.

## 4 Compliance Conclusion

Based on the result of the analysis with regard to the potential exposure levels in all respects – at the aperture of the antenna, to the side of the antenna, and at ground level – and taking into account the access restrictions and standard safety procedures, we conclude that the operation of the Sea Tel 6012 1.5 meter Ku-band antenna as an ESV satisfies the MPE compliance requirements in the FCC regulations.

Report prepared by

Dr. Robert Hanson
LMI Advisors, LLC

# FCC RF Hazard Compliance Analysis
# Telenor Maritime, Inc.
# Sea Tel 9711 C-band ESV Operation

In connection with a license application by Telenor Maritime, Inc. ("Telenor Maritime") for operation of a new 2.4 Meter C-band ESV remote antenna, the following assessment is provided of compliance with the FCC limits for maximum permissible exposure (MPE) to RF fields. The ESV antenna typically will be mounted high on the vessel superstructure or, alternatively, on high deck areas that are inaccessible to non-crew members.

Based on the mathematical analyses described herein, the potential RF exposure levels in all areas of possible interest are in compliance with the applicable FCC limit for controlled or occupational exposure. (Access to the earth station antenna is restricted to trained personnel). The proposed operation is therefore in compliance with the FCC regulations and exposure limits.

The sections that follow provide the analysis and conclusions regarding compliance.

## 1 Operational Data

The relevant data for the subject operation is summarized as follows:

| | |
|---|---|
| Transmitting Frequency Band: | 5925-6425 MHz |
| Antenna Manufacturer / Model: | Sea Tel 9711 |
| Antenna Type: | Prime Focus |
| Antenna Dimension: | 2.4 meters (diameter) (8 feet) |
| Antenna Efficiency: | 61 % |
| Net Power Input to Antenna (at flange): | 39.81 Watts |
| Antenna Height AGL: | 10.0 meters (32.8 feet) |

## 2 Applicable MPE Limits

The MPE limits are described in the FCC Rules and Regulations. For the frequency range of interest here, the applicable limit for acceptable, continuous exposure of the general population is 1.0 milliwatt per square centimeter ($mW/cm^2$), and for "controlled" occupational exposure, it is 5.0 $mW/cm^2$. As is the case for all antennas in the Telenor Marritime ESV network, access to the antenna is restricted to trained Telenor Maritime personnel, and thus the latter limit applies.

## 3 FCC Formulas and Calculations

FCC Bulletin OET 65 provides standardized formulas for calculating the power density in both of the areas of interest here: (1) directly in front of the antenna, at the face and farther away but still in the main beam; and (2) to the side of the antenna. Each area of interest will be addressed below and the results of the calculations are given.

### *3.1 Potential exposure level directly in front of the antenna*

The worst-case possible exposure occurs right at the surface (aperture) of the antenna. According to Bulletin OET 65, the applicable formula for power density, **S**, at the antenna surface is as follows:

**S = 4 * P / A**

Where:**P** represents the antenna input power; and,
**A** is the surface area of the antenna.

In this case, with 39.81 Watts antenna of input power at the flange, an antenna diameter of 2.4 m (8 feet), the power density at the antenna surface is 3.52 mW/cm$^2$, which is lower than the 5.0 mW/cm$^2$ MPE limit. Even so, when a technician needs to perform work in this area (which is more than 32 feet above ground level), standard RF safety procedures will be applied and power to the antenna will be removed during the period of the work.

The formula for near-field, on-axis power density, directly in front of the antenna is as follows:

$$S = 16 * \eta * P / (\pi * D^2)$$

Where:$\eta$ represents the antenna illumination efficiency; and,
**D** is the antenna diameter.

In this case, when we apply an illumination efficiency of 61%, the result of the calculation is 2.16 mW/cm$^2$, which satisfies the occupational MPE limit. The calculated result here is also used in the analysis of potential exposure to the immediate side of the antenna, which is addressed in the subsection that follows.

### *3.2 Potential exposure level to the side of the antenna*

The near-field power density drops off dramatically outside the imaginary cylinder extending from the surface along the axis of the main beam of an aperture antenna. According to Bulletin OET 65, if the point of interest is at least one antenna diameter removed from the center of the main beam, the power density at that point would be at least a factor of 100 lower (20 dB) than the value calculated for the equivalent distance in the main beam.

The previous calculation of the power density immediately in front of the antenna) resulted in a value of 2.16 mW/cm$^2$, which is equivalent to 43% of the limit and is in compliance. Since the RF levels outside the hypothetical cylinder extending from the aperture is lower than inside the cylinder, the RF levels to the side of the antenna are clearly in compliance as well, and at ground level (32.8 feet below) the RF levels would be lower still.

## 4 Compliance Conclusion

Based on the result of the analysis with regard to the potential exposure levels in all respects – at the aperture of the antenna, to the side of the antenna, and at ground level – and taking into account the access restrictions and standard safety procedures, we conclude that the operation of the Sea Tel 9711 2.4 meter C-band antenna as an ESV satisfies the MPE compliance requirements in the FCC regulations.

Report prepared by

Dr. Robert Hanson
LMI Advisors, LLC

# FCC RF Hazard Compliance Analysis
# Telenor Maritime, Inc.
# Sea Tel 9711 Ku-band ESV Operation

In connection with a license application by Telenor Maritime, Inc. ("Telenor Maritime") for operation of a new 2.4 Meter Ku-band ESV remote antenna, the following assessment is provided of compliance with the FCC limits for maximum permissible exposure (MPE) to RF fields. The ESV antenna typically will be mounted high on the vessel superstructure or, alternatively, on high deck areas that are inaccessible to non-crew members.

Based on the mathematical analyses described herein, the potential RF exposure levels in all areas of possible interest are in compliance with the applicable FCC limit for controlled or occupational exposure. (Access to the earth station antenna is restricted to trained personnel). The proposed operation is therefore in compliance with the FCC regulations and exposure limits.

The sections that follow provide the analysis and conclusions regarding compliance.

## 1 Operational Data

The relevant data for the subject operation is summarized as follows:

| | |
|---|---|
| Transmitting Frequency Band: | 14.0 – 14.5 GHz |
| Antenna Manufacturer / Model: | Sea Tel 9711 |
| Antenna Type: | Prime Focus |
| Antenna Dimension: | 2.4 meters (diameter) (8 feet) |
| Antenna Efficiency: | 54 % |
| Net Power Input to Antenna (at flange): | 19.9 Watts |
| Antenna Height AGL: | 10.0 meters (32.8 feet) |

## 2 Applicable MPE Limits

The MPE limits are described in the FCC Rules and Regulations. For the frequency range of interest here, the applicable limit for acceptable, continuous exposure of the general population is 1.0 milliwatt per square centimeter ($mW/cm^2$), and for "controlled" occupational exposure, it is 5.0 $mW/cm^2$. As is the case for all antennas in the Telenor Maritime ESV network, access to the antenna is restricted to trained Telenor Maritime personnel, and thus the latter limit applies.

## 3 FCC Formulas and Calculations

FCC Bulletin OET 65 provides standardized formulas for calculating the power density in both of the areas of interest here: (1) directly in front of the antenna, at the face and farther away but still in the main beam; and (2) to the side of the antenna. Each area of interest will be addressed below and the results of the calculations are given.

### *3.1 Potential exposure level directly in front of the antenna*

The worst-case possible exposure occurs right at the surface (aperture) of the antenna. According to Bulletin OET 65, the applicable formula for power density, **S**, at the antenna surface is as follows:

**S = 4 * P / A**

Where:**P** represents the antenna input power; and,
**A** is the surface area of the antenna.

In this case, with 19.9 Watts antenna of input power at the flange, an antenna diameter of 2.4 m (8 feet), the power density at the antenna surface is 1.76 mW/cm$^2$, which is lower than the 5.0 mW/cm$^2$ MPE limit. Even so, when a technician needs to perform work in this area (which is more than 32 feet above ground level), standard RF safety procedures will be applied and power to the antenna will be removed during the period of the work.

The formula for near-field, on-axis power density, directly in front of the antenna is as follows:

$$S = 16 * \eta * P / (\pi * D^2)$$

Where:$\eta$ represents the antenna illumination efficiency; and,
**D** is the antenna diameter.

In this case, when we apply an illumination efficiency of 54%, the result of the calculation is 0.95 mW/cm$^2$, which satisfies the occupational MPE limit. The calculated result here is also used in the analysis of potential exposure to the immediate side of the antenna, which is addressed in the subsection that follows.

### *3.2 Potential exposure level to the side of the antenna*

The near-field power density drops off dramatically outside the imaginary cylinder extending from the surface along the axis of the main beam of an aperture antenna. According to Bulletin OET 65, if the point of interest is at least one antenna diameter removed from the center of the main beam, the power density at that point would be at least a factor of 100 lower (20 dB) than the value calculated for the equivalent distance in the main beam.

The previous calculation of the power density immediately in front of the antenna) resulted in a value of 0.95 mW/cm$^2$, which is equivalent to 19% of the limit and is in compliance. Since the RF levels outside the hypothetical cylinder extending from the aperture is lower than inside the cylinder, the RF levels to the side of the antenna are clearly in compliance as well, and at ground level (32.8 feet below) the RF levels would be lower still.

## 4 Compliance Conclusion

Based on the result of the analysis with regard to the potential exposure levels in all respects – at the aperture of the antenna, to the side of the antenna, and at ground level – and taking into account the access restrictions and standard safety procedures, we conclude that the operation of the Sea Tel 9711 2.4 meter Ku-band antenna as an ESV satisfies the MPE compliance requirements in the FCC regulations.

Report prepared by

Dr. Robert Hanson
LMI Advisors, LLC

# COORDINATION NOTICES


September 23, 2016

Re: Telenor Maritime, Inc.
BAR HARBOR, ME
Temporary Transmit-Only Earth Station
Operation Dates: 09/30/2016 - 03/30/2017
Job Number: 160923COMSGE01

Dear Frequency Coordinator:

On behalf of Telenor Maritime, Inc., we are forwarding the attached coordination data for a Temporary Transmit-Only Earth Station to be located at the site referenced above.

This earth station will transmit only on the satellite(s) and frequency or frequencies as described in the attached data. Please do not report cases involving 4 GHz facilities or problems involving non-active paths or frequencies outside the specified range.

If there are any questions concerning this coordination notice, please contact Comsearch.

Sincerely,

COMSEARCH

Gary K. Edwards
Senior Manager
gedwards@comsearch.com

Enclosure(s)

| | |
|---|---|
| Date: | 09/23/2016 |
| Job Number: | 160923COMSGE01 |

## Administrative Information

| | |
|---|---|
| Status | TEMPORARY (Operation from 09/30/2016 to 03/30/2017) |
| Call Sign | TEMP03 |
| Licensee Code | TEMARI |
| Licensee Name | Telenor Maritime, Inc. |

## Site Information — BAR HARBOR, ME

| | |
|---|---|
| Venue Name | |
| Latitude (NAD 83) | 44° 23' 30.1" N |
| Longitude (NAD 83) | 68° 12' 11.5" W |
| Climate Zone | B |
| Rain Zone | 2 |
| Ground Elevation (AMSL) | 0.81 m / 2.7 ft |

## Link Information

| | |
|---|---|
| Satellite Type | Geostationary |
| Mode | TO - Transmit-Only |
| Modulation | Digital |
| Satellite Arc | 22° W to 22° West Longitude |
| Azimuth Range | 123.9° to 123.9° |
| Corresponding Elevation Angles | 21.6° / 21.6° |
| Antenna Centerline (AGL) | 15.54 m / 51.0 ft |

## Antenna Information — Transmit - FCC32

| | | |
|---|---|---|
| Manufacturer | | SeaTel |
| Model | | 9711 |
| Gain / Diameter | | 41.7 dBi / 2.4 m |
| 3-dB / 15-dB Beamwidth | | 1.32° / 2.60° |
| Max Available RF Power | (dBW/4 kHz) | -17.5 |
| | (dBW/MHz) | 6.5 |
| Maximum EIRP | (dBW/4 kHz) | 24.2 |
| | (dBW/MHz) | 48.2 |
| Interference Objectives: | Long Term | -154.0 dBW/4 kHz 20% |
| | Short Term | -131.0 dBW/4 kHz 0.0025% |

## Frequency Information — Transmit 6.1 GHz

| | |
|---|---|
| Emission / Frequency Range (MHz) | 9M00G7W / 6332.6 - 6332.6 |
| Max Great Circle Coordination Distance | 168.2 km / 104.5 mi |
| Precipitation Scatter Contour Radius | 100.0 km / 62.1 mi |

| **Coordination Values** | **BAR HARBOR, ME** | | |
|---|---|---|---|
| Licensee Name | Telenor Maritime, Inc. | | |
| Latitude (NAD 83) | 44° 23' 30.1" N | | |
| Longitude (NAD 83) | 68° 12' 11.5" W | | |
| Ground Elevation (AMSL) | 0.81 m / 2.7 ft | | |
| Antenna Centerline (AGL) | 15.54 m / 51.0 ft | | |
| Antenna Model | SeaTel 2.4 meter | | |
| Antenna Mode | Transmit 6.1 GHz | | |
| Interference Objectives: Long Term | -154.0 dBW/4 kHz | 20% | |
| Short Term | -131.0 dBW/4 kHz | 0.0025% | |
| Max Available RF Power | -17.5 (dBW/4 kHz) | | |

| | | | Transmit 6.1 GHz | |
|---|---|---|---|---|
| Azimuth (°) | Horizon Elevation (°) | Antenna Discrimination (°) | Horizon Gain (dBi) | Coordination Distance (km) |
| 0 | 1.27 | 121.50 | -10.00 | 100.00 |
| 5 | 0.00 | 116.67 | -10.00 | 133.25 |
| 10 | 0.00 | 112.10 | -10.00 | 133.25 |
| 15 | 0.00 | 107.49 | -10.00 | 133.25 |
| 20 | 0.00 | 102.87 | -10.00 | 133.25 |
| 25 | 0.00 | 98.23 | -10.00 | 133.25 |
| 30 | 0.00 | 93.59 | -10.00 | 133.25 |
| 35 | 0.26 | 88.93 | -10.00 | 127.06 |
| 40 | 0.78 | 84.26 | -10.00 | 100.00 |
| 45 | 0.00 | 79.64 | -10.00 | 133.25 |
| 50 | 0.00 | 75.01 | -10.00 | 133.25 |
| 55 | 0.38 | 70.34 | -10.00 | 116.22 |
| 60 | 0.00 | 65.81 | -10.00 | 133.25 |
| 65 | 0.35 | 61.17 | -10.00 | 118.50 |
| 70 | 0.51 | 56.60 | -10.00 | 107.97 |
| 75 | 0.31 | 52.18 | -10.00 | 122.16 |
| 80 | 0.00 | 47.88 | -10.00 | 133.25 |
| 85 | 0.00 | 43.59 | -8.99 | 136.78 |
| 90 | 0.26 | 39.31 | -7.86 | 134.43 |
| 95 | 0.26 | 35.31 | -6.70 | 138.55 |
| 100 | 0.00 | 31.72 | -5.53 | 149.79 |
| 105 | 0.92 | 27.67 | -4.05 | 103.56 |
| 110 | 0.85 | 24.75 | -2.84 | 109.97 |
| 115 | 0.00 | 23.22 | -2.15 | 164.50 |
| 120 | 0.00 | 21.88 | -1.50 | 167.51 |
| 125 | 0.00 | 21.58 | -1.35 | 168.21 |
| 130 | 0.00 | 22.37 | -1.74 | 166.37 |
| 135 | 0.00 | 24.14 | -2.57 | 162.56 |
| 140 | 0.00 | 26.70 | -3.66 | 157.69 |
| 145 | 0.00 | 29.84 | -4.87 | 152.54 |
| 150 | 0.27 | 33.23 | -6.04 | 139.65 |
| 155 | 0.91 | 36.78 | -7.14 | 100.00 |
| 160 | 1.21 | 40.79 | -8.26 | 100.00 |
| 165 | 1.81 | 44.86 | -9.30 | 100.00 |
| 170 | 3.52 | 48.79 | -10.00 | 100.00 |
| 175 | 2.42 | 53.65 | -10.00 | 100.00 |
| 180 | 1.45 | 58.46 | -10.00 | 100.00 |
| 185 | 1.82 | 62.98 | -10.00 | 100.00 |

| **Coordination Values** | **BAR HARBOR, ME** | | |
|---|---|---|---|
| Licensee Name | Telenor Maritime, Inc. | | |
| Latitude (NAD 83) | 44° 23' 30.1" N | | |
| Longitude (NAD 83) | 68° 12' 11.5" W | | |
| Ground Elevation (AMSL) | 0.81 m / 2.7 ft | | |
| Antenna Centerline (AGL) | 15.54 m / 51.0 ft | | |
| Antenna Model | SeaTel 2.4 meter | | |
| Antenna Mode | Transmit 6.1 GHz | | |
| Interference Objectives: Long Term | -154.0 dBW/4 kHz | 20% | |
| Short Term | -131.0 dBW/4 kHz | 0.0025% | |
| Max Available RF Power | -17.5 (dBW/4 kHz) | | |

Transmit 6.1 GHz

| Azimuth (°) | Horizon Elevation (°) | Antenna Discrimination (°) | Horizon Gain (dBi) | Coordination Distance (km) |
|---|---|---|---|---|
| 190 | 4.08 | 67.31 | -10.00 | 100.00 |
| 195 | 5.00 | 71.95 | -10.00 | 100.00 |
| 200 | 5.34 | 76.71 | -10.00 | 100.00 |
| 205 | 5.32 | 81.50 | -10.00 | 100.00 |
| 210 | 4.74 | 86.31 | -10.00 | 100.00 |
| 215 | 4.30 | 91.09 | -10.00 | 100.00 |
| 220 | 3.77 | 95.85 | -10.00 | 100.00 |
| 225 | 3.43 | 100.59 | -10.00 | 100.00 |
| 230 | 3.35 | 105.32 | -10.00 | 100.00 |
| 235 | 2.58 | 109.94 | -10.00 | 100.00 |
| 240 | 1.93 | 114.52 | -10.00 | 100.00 |
| 245 | 1.95 | 119.16 | -10.00 | 100.00 |
| 250 | 2.76 | 123.94 | -10.00 | 100.00 |
| 255 | 3.49 | 128.72 | -10.00 | 100.00 |
| 260 | 3.24 | 133.20 | -10.00 | 100.00 |
| 265 | 2.67 | 137.46 | -10.00 | 100.00 |
| 270 | 2.10 | 141.54 | -10.00 | 100.00 |
| 275 | 1.85 | 145.54 | -10.00 | 100.00 |
| 280 | 1.31 | 149.10 | -10.00 | 100.00 |
| 285 | 1.20 | 152.53 | -10.00 | 100.00 |
| 290 | 0.93 | 155.32 | -10.00 | 100.00 |
| 295 | 1.10 | 157.79 | -10.00 | 100.00 |
| 300 | 0.81 | 158.92 | -10.00 | 100.00 |
| 305 | 0.23 | 158.64 | -10.00 | 130.32 |
| 310 | 0.38 | 157.99 | -10.00 | 116.36 |
| 315 | 0.36 | 156.18 | -10.00 | 117.37 |
| 320 | 0.21 | 153.47 | -10.00 | 131.85 |
| 325 | 0.00 | 150.16 | -10.00 | 133.25 |
| 330 | 0.38 | 146.83 | -10.00 | 115.84 |
| 335 | 0.38 | 142.95 | -10.00 | 116.22 |
| 340 | 0.35 | 138.84 | -10.00 | 118.67 |
| 345 | 0.50 | 134.65 | -10.00 | 108.33 |
| 350 | 1.19 | 130.51 | -10.00 | 100.00 |
| 355 | 2.22 | 126.30 | -10.00 | 100.00 |


September 23, 2016

Re: Telenor Maritime, Inc.
BOSTON, MA
Temporary Transmit-Only Earth Station
Operation Dates: 09/30/2016 - 03/30/2017
Job Number: 160923COMSGE04

Dear Frequency Coordinator:

On behalf of Telenor Maritime, Inc., we are forwarding the attached coordination data for a Temporary Transmit-Only Earth Station to be located at the site referenced above.

This earth station will transmit only on the satellite(s) and frequency or frequencies as described in the attached data. Please do not report cases involving 4 GHz facilities or problems involving non-active paths or frequencies outside the specified range.

If there are any questions concerning this coordination notice, please contact Comsearch.

Sincerely,

COMSEARCH

Gary K. Edwards
Senior Manager
gedwards@comsearch.com

Enclosure(s)

| | |
|---|---|
| Date: | 09/23/2016 |
| Job Number: | 160923COMSGE04 |

## Administrative Information

| | |
|---|---|
| Status | TEMPORARY (Operation from 09/30/2016 to 03/30/2017) |
| Call Sign | TEMP03 |
| Licensee Code | TEMARI |
| Licensee Name | Telenor Maritime, Inc. |

## Site Information — BOSTON, MA

| | |
|---|---|
| Venue Name | |
| Latitude (NAD 83) | 42° 20' 35.9" N |
| Longitude (NAD 83) | 71° 2' 1.3" W |
| Climate Zone | B |
| Rain Zone | 2 |
| Ground Elevation (AMSL) | 0.0 m / 0.0 ft |

## Link Information

| | |
|---|---|
| Satellite Type | Geostationary |
| Mode | TO - Transmit-Only |
| Modulation | Digital |
| Satellite Arc | 22° W to 22° West Longitude |
| Azimuth Range | 120.3° to 120.3° |
| Corresponding Elevation Angles | 20.9° / 20.9° |
| Antenna Centerline (AGL) | 15.54 m / 51.0 ft |

## Antenna Information — Transmit - FCC32

| | | |
|---|---|---|
| Manufacturer | | SeaTel |
| Model | | 9711 |
| Gain / Diameter | | 41.7 dBi / 2.4 m |
| 3-dB / 15-dB Beamwidth | | 1.32° / 2.60° |
| Max Available RF Power | (dBW/4 kHz) | -17.5 |
| | (dBW/MHz) | 6.5 |
| Maximum EIRP | (dBW/4 kHz) | 24.2 |
| | (dBW/MHz) | 48.2 |
| Interference Objectives: | Long Term | -154.0 dBW/4 kHz 20% |
| | Short Term | -131.0 dBW/4 kHz 0.0025% |

## Frequency Information — Transmit 6.1 GHz

| | |
|---|---|
| Emission / Frequency Range (MHz) | 9M00G7W / 6332.6 - 6332.6 |
| Max Great Circle Coordination Distance | 170.0 km / 105.6 mi |
| Precipitation Scatter Contour Radius | 100.0 km / 62.1 mi |

| **Coordination Values** | **BOSTON, MA** | | |
|---|---|---|---|
| Licensee Name | Telenor Maritime, Inc. | | |
| Latitude (NAD 83) | 42° 20' 35.9" N | | |
| Longitude (NAD 83) | 71° 2' 1.3" W | | |
| Ground Elevation (AMSL) | 0.0 m / 0.0 ft | | |
| Antenna Centerline (AGL) | 15.54 m / 51.0 ft | | |
| Antenna Model | SeaTel 2.4 meter | | |
| Antenna Mode | Transmit 6.1 GHz | | |
| Interference Objectives: Long Term | -154.0 dBW/4 kHz | 20% | |
| Short Term | -131.0 dBW/4 kHz | 0.0025% | |
| Max Available RF Power | -17.5 (dBW/4 kHz) | | |

| | | | Transmit 6.1 GHz | |
|---|---|---|---|---|
| Azimuth (°) | Horizon Elevation (°) | Antenna Discrimination (°) | Horizon Gain (dBi) | Coordination Distance (km) |
| 0 | 0.00 | 118.15 | -10.00 | 133.25 |
| 5 | 0.24 | 113.60 | -10.00 | 129.17 |
| 10 | 0.00 | 108.94 | -10.00 | 133.25 |
| 15 | 0.00 | 104.30 | -10.00 | 133.25 |
| 20 | 0.23 | 99.65 | -10.00 | 130.13 |
| 25 | 0.24 | 94.98 | -10.00 | 128.71 |
| 30 | 0.00 | 90.30 | -10.00 | 133.25 |
| 35 | 0.00 | 85.63 | -10.00 | 133.25 |
| 40 | 0.00 | 80.96 | -10.00 | 133.25 |
| 45 | 0.00 | 76.30 | -10.00 | 133.25 |
| 50 | 0.00 | 71.66 | -10.00 | 133.25 |
| 55 | 0.00 | 67.04 | -10.00 | 133.25 |
| 60 | 0.00 | 62.44 | -10.00 | 133.25 |
| 65 | 0.00 | 57.88 | -10.00 | 133.25 |
| 70 | 0.00 | 53.37 | -10.00 | 133.25 |
| 75 | 0.00 | 48.93 | -10.00 | 133.25 |
| 80 | 0.00 | 44.57 | -9.23 | 135.93 |
| 85 | 0.00 | 40.32 | -8.14 | 139.83 |
| 90 | 0.00 | 36.23 | -6.98 | 144.20 |
| 95 | 0.00 | 32.36 | -5.75 | 148.91 |
| 100 | 0.00 | 28.80 | -4.49 | 154.15 |
| 105 | 0.00 | 25.68 | -3.24 | 159.55 |
| 110 | 0.00 | 23.17 | -2.12 | 164.60 |
| 115 | 0.00 | 21.50 | -1.31 | 168.41 |
| 120 | 0.00 | 20.86 | -0.98 | 169.97 |
| 125 | 0.00 | 21.36 | -1.24 | 168.76 |
| 130 | 0.00 | 22.91 | -2.00 | 165.19 |
| 135 | 0.00 | 25.32 | -3.09 | 160.24 |
| 140 | 0.00 | 28.37 | -4.32 | 154.84 |
| 145 | 0.00 | 31.89 | -5.59 | 149.57 |
| 150 | 0.00 | 35.72 | -6.82 | 144.80 |
| 155 | 0.00 | 39.78 | -7.99 | 140.37 |
| 160 | 0.00 | 44.01 | -9.09 | 136.41 |
| 165 | 0.00 | 48.36 | -10.00 | 133.25 |
| 170 | 0.00 | 52.79 | -10.00 | 133.25 |
| 175 | 0.26 | 57.23 | -10.00 | 127.34 |
| 180 | 0.23 | 61.80 | -10.00 | 129.91 |
| 185 | 0.00 | 66.44 | -10.00 | 133.25 |

| **Coordination Values** | **BOSTON, MA** | | |
|---|---|---|---|
| Licensee Name | Telenor Maritime, Inc. | | |
| Latitude (NAD 83) | 42° 20' 35.9" N | | |
| Longitude (NAD 83) | 71° 2' 1.3" W | | |
| Ground Elevation (AMSL) | 0.0 m / 0.0 ft | | |
| Antenna Centerline (AGL) | 15.54 m / 51.0 ft | | |
| Antenna Model | SeaTel 2.4 meter | | |
| Antenna Mode | Transmit 6.1 GHz | | |
| Interference Objectives: Long Term | -154.0 dBW/4 kHz | 20% | |
| Short Term | -131.0 dBW/4 kHz | 0.0025% | |
| Max Available RF Power | -17.5 (dBW/4 kHz) | | |

Transmit 6.1 GHz

| Azimuth (°) | Horizon Elevation (°) | Antenna Discrimination (°) | Horizon Gain (dBi) | Coordination Distance (km) |
|---|---|---|---|---|
| 190 | 0.00 | 71.06 | -10.00 | 133.25 |
| 195 | 0.00 | 75.70 | -10.00 | 133.25 |
| 200 | 0.23 | 80.35 | -10.00 | 129.61 |
| 205 | 0.00 | 85.03 | -10.00 | 133.25 |
| 210 | 0.27 | 89.70 | -10.00 | 126.35 |
| 215 | 0.47 | 94.38 | -10.00 | 111.06 |
| 220 | 0.97 | 99.09 | -10.00 | 100.00 |
| 225 | 0.62 | 103.75 | -10.00 | 102.38 |
| 230 | 0.35 | 108.38 | -10.00 | 118.77 |
| 235 | 0.38 | 113.02 | -10.00 | 116.41 |
| 240 | 0.27 | 117.61 | -10.00 | 125.87 |
| 245 | 0.00 | 122.12 | -10.00 | 133.25 |
| 250 | 0.20 | 126.68 | -10.00 | 133.06 |
| 255 | 0.46 | 131.23 | -10.00 | 111.26 |
| 260 | 0.00 | 135.43 | -10.00 | 133.25 |
| 265 | 0.00 | 139.68 | -10.00 | 133.25 |
| 270 | 0.00 | 143.77 | -10.00 | 133.25 |
| 275 | 0.00 | 147.64 | -10.00 | 133.25 |
| 280 | 0.00 | 151.20 | -10.00 | 133.25 |
| 285 | 0.00 | 154.32 | -10.00 | 133.25 |
| 290 | 0.00 | 156.83 | -10.00 | 133.25 |
| 295 | 0.00 | 158.50 | -10.00 | 133.25 |
| 300 | 0.00 | 159.14 | -10.00 | 133.25 |
| 305 | 0.22 | 158.85 | -10.00 | 131.51 |
| 310 | 0.00 | 157.09 | -10.00 | 133.25 |
| 315 | 0.00 | 154.68 | -10.00 | 133.25 |
| 320 | 0.00 | 151.63 | -10.00 | 133.25 |
| 325 | 0.00 | 148.11 | -10.00 | 133.25 |
| 330 | 0.00 | 144.28 | -10.00 | 133.25 |
| 335 | 0.00 | 140.22 | -10.00 | 133.25 |
| 340 | 0.00 | 135.99 | -10.00 | 133.25 |
| 345 | 0.00 | 131.64 | -10.00 | 133.25 |
| 350 | 0.00 | 127.21 | -10.00 | 133.25 |
| 355 | 0.00 | 122.70 | -10.00 | 133.25 |


September 23, 2016

Re: Telenor Maritime, Inc.
CAPE COD CANAL, MA
Temporary Transmit-Only Earth Station
Operation Dates: 09/30/2016 - 03/30/2017
Job Number: 160923COMSGE03

Dear Frequency Coordinator:

On behalf of Telenor Maritime, Inc., we are forwarding the attached coordination data for a Temporary Transmit-Only Earth Station to be located at the site referenced above.

This earth station will transmit only on the satellite(s) and frequency or frequencies as described in the attached data. Please do not report cases involving 4 GHz facilities or problems involving non-active paths or frequencies outside the specified range.

If there are any questions concerning this coordination notice, please contact Comsearch.

Sincerely,

COMSEARCH

Gary K. Edwards
Senior Manager
gedwards@comsearch.com

Enclosure(s)

| | |
|---|---|
| Date: | 09/23/2016 |
| Job Number: | 160923COMSGE03 |

| **Administrative Information** | |
|---|---|
| Status | TEMPORARY (Operation from 09/30/2016 to 03/30/2017) |
| Call Sign | TEMP03 |
| Licensee Code | TEMARI |
| Licensee Name | Telenor Maritime, Inc. |

| **Site Information** | **CAPE COD CANAL, MA** |
|---|---|
| Venue Name | |
| Latitude (NAD 83) | 41° 44' 16.5" N |
| Longitude (NAD 83) | 70° 37' 32.8" W |
| Climate Zone | B |
| Rain Zone | 2 |
| Ground Elevation (AMSL) | 0.0 m / 0.0 ft |

| **Link Information** | |
|---|---|
| Satellite Type | Geostationary |
| Mode | TO - Transmit-Only |
| Modulation | Digital |
| Satellite Arc | 22° W to 22° West Longitude |
| Azimuth Range | 120.4° to 120.4° |
| Corresponding Elevation Angles | 21.5° / 21.5° |
| Antenna Centerline (AGL) | 15.54 m / 51.0 ft |

| **Antenna Information** | | **Transmit - FCC32** |
|---|---|---|
| Manufacturer | | SeaTel |
| Model | | 9711 |
| Gain / Diameter | | 41.7 dBi / 2.4 m |
| 3-dB / 15-dB Beamwidth | | 1.32° / 2.60° |
| Max Available RF Power | (dBW/4 kHz) | -17.5 |
| | (dBW/MHz) | 6.5 |
| Maximum EIRP | (dBW/4 kHz) | 24.2 |
| | (dBW/MHz) | 48.2 |
| Interference Objectives: | Long Term | -154.0 dBW/4 kHz 20% |
| | Short Term | -131.0 dBW/4 kHz 0.0025% |

| **Frequency Information** | **Transmit 6.1 GHz** |
|---|---|
| Emission / Frequency Range (MHz) | 9M00G7W / 6332.6 - 6332.6 |
| Max Great Circle Coordination Distance | 146.8 km / 91.2 mi |
| Precipitation Scatter Contour Radius | 100.0 km / 62.1 mi |

| **Coordination Values** | **CAPE COD CAN, MA** | | |
|---|---|---|---|
| Licensee Name | Telenor Maritime, Inc. | | |
| Latitude (NAD 83) | 41° 44' 16.5" N | | |
| Longitude (NAD 83) | 70° 37' 32.8" W | | |
| Ground Elevation (AMSL) | 0.0 m / 0.0 ft | | |
| Antenna Centerline (AGL) | 15.54 m / 51.0 ft | | |
| Antenna Model | SeaTel 2.4 meter | | |
| Antenna Mode | Transmit 6.1 GHz | | |
| Interference Objectives: Long Term | -154.0 dBW/4 kHz | 20% | |
| Short Term | -131.0 dBW/4 kHz | 0.0025% | |
| Max Available RF Power | -17.5 (dBW/4 kHz) | | |

| | | | Transmit 6.1 GHz | |
|---|---|---|---|---|
| Azimuth (°) | Horizon Elevation (°) | Antenna Discrimination (°) | Horizon Gain (dBi) | Coordination Distance (km) |
| 0 | 0.00 | 118.09 | -10.00 | 133.25 |
| 5 | 0.00 | 113.52 | -10.00 | 133.25 |
| 10 | 0.00 | 108.92 | -10.00 | 133.25 |
| 15 | 0.00 | 104.30 | -10.00 | 133.25 |
| 20 | 0.00 | 99.66 | -10.00 | 133.25 |
| 25 | 0.00 | 95.01 | -10.00 | 133.25 |
| 30 | 0.00 | 90.36 | -10.00 | 133.25 |
| 35 | 0.00 | 85.71 | -10.00 | 133.25 |
| 40 | 0.00 | 81.06 | -10.00 | 133.25 |
| 45 | 0.00 | 76.42 | -10.00 | 133.25 |
| 50 | 0.41 | 71.75 | -10.00 | 115.11 |
| 55 | 0.33 | 67.14 | -10.00 | 120.66 |
| 60 | 0.31 | 62.56 | -10.00 | 121.78 |
| 65 | 0.40 | 57.99 | -10.00 | 116.70 |
| 70 | 0.45 | 53.47 | -10.00 | 112.17 |
| 75 | 0.49 | 49.02 | -10.00 | 108.77 |
| 80 | 0.46 | 44.68 | -9.25 | 113.74 |
| 85 | 0.48 | 40.43 | -8.17 | 114.65 |
| 90 | 0.58 | 36.30 | -7.00 | 112.28 |
| 95 | 0.62 | 32.40 | -5.76 | 113.27 |
| 100 | 0.55 | 28.88 | -4.52 | 118.15 |
| 105 | 0.45 | 25.84 | -3.31 | 129.59 |
| 110 | 0.58 | 23.22 | -2.15 | 123.38 |
| 115 | 0.60 | 21.52 | -1.32 | 124.76 |
| 120 | 0.61 | 20.85 | -0.98 | 124.99 |
| 125 | 0.66 | 21.28 | -1.20 | 121.60 |
| 130 | 0.56 | 22.91 | -2.00 | 124.58 |
| 135 | 0.30 | 25.52 | -3.17 | 146.79 |
| 140 | 0.35 | 28.51 | -4.37 | 136.45 |
| 145 | 0.33 | 32.00 | -5.63 | 134.01 |
| 150 | 0.32 | 35.82 | -6.85 | 131.34 |
| 155 | 0.23 | 39.90 | -8.02 | 136.91 |
| 160 | 0.23 | 44.10 | -9.11 | 133.07 |
| 165 | 0.00 | 48.51 | -10.00 | 133.25 |
| 170 | 0.00 | 52.91 | -10.00 | 133.25 |
| 175 | 0.00 | 57.39 | -10.00 | 133.25 |
| 180 | 0.00 | 61.91 | -10.00 | 133.25 |
| 185 | 0.00 | 66.48 | -10.00 | 133.25 |

| **Coordination Values** | **CAPE COD CAN, MA** | | |
|---|---|---|---|
| Licensee Name | Telenor Maritime, Inc. | | |
| Latitude (NAD 83) | 41° 44' 16.5" N | | |
| Longitude (NAD 83) | 70° 37' 32.8" W | | |
| Ground Elevation (AMSL) | 0.0 m / 0.0 ft | | |
| Antenna Centerline (AGL) | 15.54 m / 51.0 ft | | |
| Antenna Model | SeaTel 2.4 meter | | |
| Antenna Mode | Transmit 6.1 GHz | | |
| Interference Objectives: Long Term | -154.0 dBW/4 kHz | 20% | |
| Short Term | -131.0 dBW/4 kHz | 0.0025% | |
| Max Available RF Power | -17.5 (dBW/4 kHz) | | |

Transmit 6.1 GHz

| Azimuth (°) | Horizon Elevation (°) | Antenna Discrimination (°) | Horizon Gain (dBi) | Coordination Distance (km) |
|---|---|---|---|---|
| 190 | 0.00 | 71.08 | -10.00 | 133.25 |
| 195 | 0.00 | 75.70 | -10.00 | 133.25 |
| 200 | 0.00 | 80.34 | -10.00 | 133.25 |
| 205 | 0.00 | 84.99 | -10.00 | 133.25 |
| 210 | 0.00 | 89.64 | -10.00 | 133.25 |
| 215 | 0.00 | 94.29 | -10.00 | 133.25 |
| 220 | 0.00 | 98.94 | -10.00 | 133.25 |
| 225 | 0.00 | 103.58 | -10.00 | 133.25 |
| 230 | 0.00 | 108.20 | -10.00 | 133.25 |
| 235 | 0.00 | 112.80 | -10.00 | 133.25 |
| 240 | 0.00 | 117.38 | -10.00 | 133.25 |
| 245 | 0.00 | 121.91 | -10.00 | 133.25 |
| 250 | 0.00 | 126.40 | -10.00 | 133.25 |
| 255 | 0.00 | 130.81 | -10.00 | 133.25 |
| 260 | 0.00 | 135.14 | -10.00 | 133.25 |
| 265 | 0.00 | 139.35 | -10.00 | 133.25 |
| 270 | 0.00 | 143.40 | -10.00 | 133.25 |
| 275 | 0.00 | 147.22 | -10.00 | 133.25 |
| 280 | 0.00 | 150.73 | -10.00 | 133.25 |
| 285 | 0.00 | 153.81 | -10.00 | 133.25 |
| 290 | 0.00 | 156.26 | -10.00 | 133.25 |
| 295 | 0.00 | 157.90 | -10.00 | 133.25 |
| 300 | 0.00 | 158.54 | -10.00 | 133.25 |
| 305 | 0.00 | 158.07 | -10.00 | 133.25 |
| 310 | 0.00 | 156.58 | -10.00 | 133.25 |
| 315 | 0.00 | 154.23 | -10.00 | 133.25 |
| 320 | 0.22 | 151.40 | -10.00 | 131.52 |
| 325 | 0.00 | 147.79 | -10.00 | 133.25 |
| 330 | 0.00 | 144.01 | -10.00 | 133.25 |
| 335 | 0.00 | 139.99 | -10.00 | 133.25 |
| 340 | 0.00 | 135.81 | -10.00 | 133.25 |
| 345 | 0.00 | 131.49 | -10.00 | 133.25 |
| 350 | 0.00 | 127.09 | -10.00 | 133.25 |
| 355 | 0.00 | 122.61 | -10.00 | 133.25 |


September 23, 2016

Re: Telenor Maritime, Inc.
CAPE LIBERTY, NJ
Temporary Transmit-Only Earth Station
Operation Dates: 09/30/2016 - 03/30/2017
Job Number: 160923COMSGE05

Dear Frequency Coordinator:

On behalf of Telenor Maritime, Inc., we are forwarding the attached coordination data for a Temporary Transmit-Only Earth Station to be located at the site referenced above.

This earth station will transmit only on the satellite(s) and frequency or frequencies as described in the attached data. Please do not report cases involving 4 GHz facilities or problems involving non-active paths or frequencies outside the specified range.

If there are any questions concerning this coordination notice, please contact Comsearch.

Sincerely,

COMSEARCH

Gary K. Edwards
Senior Manager
gedwards@comsearch.com

Enclosure(s)

| | |
|---|---|
| Date: | 09/23/2016 |
| Job Number: | 160923COMSGE05 |

## Administrative Information

| | |
|---|---|
| Status | TEMPORARY (Operation from 09/30/2016 to 03/30/2017) |
| Call Sign | TEMP03 |
| Licensee Code | TEMARI |
| Licensee Name | Telenor Maritime, Inc. |

## Site Information — CAPE LIBERTY, NJ

| | |
|---|---|
| Venue Name | |
| Latitude (NAD 83) | 40° 40' 1.0" N |
| Longitude (NAD 83) | 74° 4' 30.5" W |
| Climate Zone | B |
| Rain Zone | 2 |
| Ground Elevation (AMSL) | 0.0 m / 0.0 ft |

## Link Information

| | |
|---|---|
| Satellite Type | Geostationary |
| Mode | TO - Transmit-Only |
| Modulation | Digital |
| Satellite Arc | 22° W to 22° West Longitude |
| Azimuth Range | 116.9° to 116.9° |
| Corresponding Elevation Angles | 19.6° / 19.6° |
| Antenna Centerline (AGL) | 15.54 m / 51.0 ft |

## Antenna Information — Transmit - FCC32

| | | |
|---|---|---|
| Manufacturer | | SeaTel |
| Model | | 9711 |
| Gain / Diameter | | 41.7 dBi / 2.4 m |
| 3-dB / 15-dB Beamwidth | | 1.32° / 2.60° |
| Max Available RF Power | (dBW/4 kHz) | -17.5 |
| | (dBW/MHz) | 6.5 |
| Maximum EIRP | (dBW/4 kHz) | 24.2 |
| | (dBW/MHz) | 48.2 |
| Interference Objectives: | Long Term | -154.0 dBW/4 kHz 20% |
| | Short Term | -131.0 dBW/4 kHz 0.0025% |

## Frequency Information — Transmit 6.1 GHz

| | |
|---|---|
| Emission / Frequency Range (MHz) | 9M00G7W / 6332.6 - 6332.6 |
| Max Great Circle Coordination Distance | 172.6 km / 107.3 mi |
| Precipitation Scatter Contour Radius | 100.0 km / 62.1 mi |

| **Coordination Values** | **CAPE LIBERTY, NJ** | | |
|---|---|---|---|
| Licensee Name | Telenor Maritime, Inc. | | |
| Latitude (NAD 83) | 40° 40' 1.0" N | | |
| Longitude (NAD 83) | 74° 4' 30.5" W | | |
| Ground Elevation (AMSL) | 0.0 m / 0.0 ft | | |
| Antenna Centerline (AGL) | 15.54 m / 51.0 ft | | |
| Antenna Model | SeaTel 2.4 meter | | |
| Antenna Mode | Transmit 6.1 GHz | | |
| Interference Objectives: Long Term | -154.0 dBW/4 kHz | 20% | |
| Short Term | -131.0 dBW/4 kHz | 0.0025% | |
| Max Available RF Power | -17.5 (dBW/4 kHz) | | |

Transmit 6.1 GHz

| Azimuth (°) | Horizon Elevation (°) | Antenna Discrimination (°) | Horizon Gain (dBi) | Coordination Distance (km) |
|---|---|---|---|---|
| 0 | 0.00 | 115.25 | -10.00 | 133.25 |
| 5 | 0.00 | 110.59 | -10.00 | 133.25 |
| 10 | 0.00 | 105.91 | -10.00 | 133.25 |
| 15 | 0.00 | 101.22 | -10.00 | 133.25 |
| 20 | 0.00 | 96.52 | -10.00 | 133.25 |
| 25 | 0.00 | 91.81 | -10.00 | 133.25 |
| 30 | 0.00 | 87.10 | -10.00 | 133.25 |
| 35 | 0.00 | 82.39 | -10.00 | 133.25 |
| 40 | 0.00 | 77.69 | -10.00 | 133.25 |
| 45 | 0.00 | 73.00 | -10.00 | 133.25 |
| 50 | 0.00 | 68.33 | -10.00 | 133.25 |
| 55 | 0.00 | 63.68 | -10.00 | 133.25 |
| 60 | 0.00 | 59.06 | -10.00 | 133.25 |
| 65 | 0.00 | 54.48 | -10.00 | 133.25 |
| 70 | 0.00 | 49.95 | -10.00 | 133.25 |
| 75 | 0.00 | 45.50 | -9.45 | 135.14 |
| 80 | 0.00 | 41.14 | -8.36 | 139.04 |
| 85 | 0.00 | 36.91 | -7.18 | 143.43 |
| 90 | 0.00 | 32.86 | -5.92 | 148.24 |
| 95 | 0.22 | 28.94 | -4.54 | 150.93 |
| 100 | 0.28 | 25.46 | -3.15 | 148.94 |
| 105 | 0.00 | 22.82 | -1.96 | 165.38 |
| 110 | 0.31 | 20.45 | -0.77 | 155.30 |
| 115 | 0.24 | 19.45 | -0.22 | 167.94 |
| 120 | 0.00 | 19.83 | -0.43 | 172.65 |
| 125 | 0.00 | 21.14 | -1.13 | 169.29 |
| 130 | 0.00 | 23.42 | -2.24 | 164.08 |
| 135 | 0.00 | 26.42 | -3.55 | 158.19 |
| 140 | 0.00 | 29.92 | -4.90 | 152.40 |
| 145 | 0.00 | 33.78 | -6.22 | 147.18 |
| 150 | 0.00 | 37.87 | -7.46 | 142.37 |
| 155 | 0.00 | 42.13 | -8.62 | 138.10 |
| 160 | 0.00 | 46.52 | -9.69 | 134.31 |
| 165 | 0.00 | 50.99 | -10.00 | 133.25 |
| 170 | 0.00 | 55.53 | -10.00 | 133.25 |
| 175 | 0.00 | 60.12 | -10.00 | 133.25 |
| 180 | 0.21 | 64.72 | -10.00 | 131.69 |
| 185 | 0.34 | 69.36 | -10.00 | 119.54 |

| **Coordination Values** | **CAPE LIBERTY, NJ** | | |
|---|---|---|---|
| Licensee Name | Telenor Maritime, Inc. | | |
| Latitude (NAD 83) | 40° 40' 1.0" N | | |
| Longitude (NAD 83) | 74° 4' 30.5" W | | |
| Ground Elevation (AMSL) | 0.0 m / 0.0 ft | | |
| Antenna Centerline (AGL) | 15.54 m / 51.0 ft | | |
| Antenna Model | SeaTel 2.4 meter | | |
| Antenna Mode | Transmit 6.1 GHz | | |
| Interference Objectives: Long Term | -154.0 dBW/4 kHz | 20% | |
| Short Term | -131.0 dBW/4 kHz | 0.0025% | |
| Max Available RF Power | -17.5 (dBW/4 kHz) | | |

Transmit 6.1 GHz

| Azimuth (°) | Horizon Elevation (°) | Antenna Discrimination (°) | Horizon Gain (dBi) | Coordination Distance (km) |
|---|---|---|---|---|
| 190 | 0.73 | 74.01 | -10.00 | 100.00 |
| 195 | 1.10 | 78.70 | -10.00 | 100.00 |
| 200 | 0.95 | 83.44 | -10.00 | 100.00 |
| 205 | 0.73 | 88.18 | -10.00 | 100.00 |
| 210 | 0.52 | 92.91 | -10.00 | 107.15 |
| 215 | 0.35 | 97.62 | -10.00 | 118.55 |
| 220 | 0.00 | 102.31 | -10.00 | 133.25 |
| 225 | 0.00 | 107.00 | -10.00 | 133.25 |
| 230 | 0.00 | 111.67 | -10.00 | 133.25 |
| 235 | 0.00 | 116.32 | -10.00 | 133.25 |
| 240 | 0.00 | 120.94 | -10.00 | 133.25 |
| 245 | 0.00 | 125.52 | -10.00 | 133.25 |
| 250 | 0.00 | 130.05 | -10.00 | 133.25 |
| 255 | 0.00 | 134.50 | -10.00 | 133.25 |
| 260 | 0.00 | 138.86 | -10.00 | 133.25 |
| 265 | 0.00 | 143.09 | -10.00 | 133.25 |
| 270 | 0.00 | 147.14 | -10.00 | 133.25 |
| 275 | 0.00 | 150.92 | -10.00 | 133.25 |
| 280 | 0.00 | 154.33 | -10.00 | 133.25 |
| 285 | 0.00 | 157.18 | -10.00 | 133.25 |
| 290 | 0.00 | 159.26 | -10.00 | 133.25 |
| 295 | 0.00 | 160.31 | -10.00 | 133.25 |
| 300 | 0.00 | 160.17 | -10.00 | 133.25 |
| 305 | 0.00 | 158.86 | -10.00 | 133.25 |
| 310 | 0.00 | 156.58 | -10.00 | 133.25 |
| 315 | 0.00 | 153.58 | -10.00 | 133.25 |
| 320 | 0.00 | 150.08 | -10.00 | 133.25 |
| 325 | 0.00 | 146.22 | -10.00 | 133.25 |
| 330 | 0.00 | 142.13 | -10.00 | 133.25 |
| 335 | 0.00 | 137.87 | -10.00 | 133.25 |
| 340 | 0.00 | 133.48 | -10.00 | 133.25 |
| 345 | 0.00 | 129.01 | -10.00 | 133.25 |
| 350 | 0.00 | 124.47 | -10.00 | 133.25 |
| 355 | 0.00 | 119.88 | -10.00 | 133.25 |


September 23, 2016

Re: Telenor Maritime, Inc.
NEWPORT, RI
Temporary Transmit-Only Earth Station
Operation Dates: 09/30/2016 - 03/30/2017
Job Number: 160923COMSGE02

Dear Frequency Coordinator:

On behalf of Telenor Maritime, Inc., we are forwarding the attached coordination data for a Temporary Transmit-Only Earth Station to be located at the site referenced above.

This earth station will transmit only on the satellite(s) and frequency or frequencies as described in the attached data. Please do not report cases involving 4 GHz facilities or problems involving non-active paths or frequencies outside the specified range.

If there are any questions concerning this coordination notice, please contact Comsearch.

Sincerely,

COMSEARCH

Gary K. Edwards
Senior Manager
gedwards@comsearch.com

Enclosure(s)

| | |
|---|---|
| Date: | 09/23/2016 |
| Job Number: | 160923COMSGE02 |

## Administrative Information

| | |
|---|---|
| Status | TEMPORARY (Operation from 09/30/2016 to 03/30/2017) |
| Call Sign | TEMP03 |
| Licensee Code | TEMARI |
| Licensee Name | Telenor Maritime, Inc. |

## Site Information — NEWPORT, RI

| | |
|---|---|
| Venue Name | |
| Latitude (NAD 83) | 41° 29' 14.7" N |
| Longitude (NAD 83) | 71° 19' 9.6" W |
| Climate Zone | B |
| Rain Zone | 2 |
| Ground Elevation (AMSL) | 0.0 m / 0.0 ft |

## Link Information

| | |
|---|---|
| Satellite Type | Geostationary |
| Mode | TO - Transmit-Only |
| Modulation | Digital |
| Satellite Arc | 22° W to 22° West Longitude |
| Azimuth Range | 119.7° to 119.7° |
| Corresponding Elevation Angles | 21.1° / 21.1° |
| Antenna Centerline (AGL) | 15.54 m / 51.0 ft |

## Antenna Information — Transmit - FCC32

| | | |
|---|---|---|
| Manufacturer | | SeaTel |
| Model | | 9711 |
| Gain / Diameter | | 41.7 dBi / 2.4 m |
| 3-dB / 15-dB Beamwidth | | 1.32° / 2.60° |
| Max Available RF Power | (dBW/4 kHz) | -17.5 |
| | (dBW/MHz) | 6.5 |
| Maximum EIRP | (dBW/4 kHz) | 24.2 |
| | (dBW/MHz) | 48.2 |
| Interference Objectives: | Long Term | -154.0 dBW/4 kHz 20% |
| | Short Term | -131.0 dBW/4 kHz 0.0025% |

## Frequency Information — Transmit 6.1 GHz

| | |
|---|---|
| Emission / Frequency Range (MHz) | 9M00G7W / 6332.6 - 6332.6 |
| Max Great Circle Coordination Distance | 154.0 km / 95.7 mi |
| Precipitation Scatter Contour Radius | 100.0 km / 62.1 mi |

| **Coordination Values** | **NEWPORT, RI** | | |
|---|---|---|---|
| Licensee Name | Telenor Maritime, Inc. | | |
| Latitude (NAD 83) | 41° 29' 14.7" N | | |
| Longitude (NAD 83) | 71° 19' 9.6" W | | |
| Ground Elevation (AMSL) | 0.0 m / 0.0 ft | | |
| Antenna Centerline (AGL) | 15.54 m / 51.0 ft | | |
| Antenna Model | SeaTel 2.4 meter | | |
| Antenna Mode | Transmit 6.1 GHz | | |
| Interference Objectives: Long Term | -154.0 dBW/4 kHz | 20% | |
| Short Term | -131.0 dBW/4 kHz | 0.0025% | |
| Max Available RF Power | -17.5 (dBW/4 kHz) | | |

| | | | Transmit 6.1 GHz | |
|---|---|---|---|---|
| Azimuth (°) | Horizon Elevation (°) | Antenna Discrimination (°) | Horizon Gain (dBi) | Coordination Distance (km) |
| 0 | 0.00 | 117.49 | -10.00 | 133.25 |
| 5 | 0.00 | 112.91 | -10.00 | 133.25 |
| 10 | 0.36 | 108.34 | -10.00 | 117.33 |
| 15 | 0.55 | 103.71 | -10.00 | 105.74 |
| 20 | 0.50 | 99.04 | -10.00 | 108.08 |
| 25 | 0.51 | 94.36 | -10.00 | 107.90 |
| 30 | 0.58 | 89.68 | -10.00 | 104.19 |
| 35 | 0.65 | 85.00 | -10.00 | 101.09 |
| 40 | 0.64 | 80.32 | -10.00 | 101.35 |
| 45 | 0.57 | 75.66 | -10.00 | 104.75 |
| 50 | 0.59 | 71.00 | -10.00 | 103.71 |
| 55 | 0.61 | 66.37 | -10.00 | 103.08 |
| 60 | 0.55 | 61.78 | -10.00 | 105.89 |
| 65 | 0.46 | 57.23 | -10.00 | 111.19 |
| 70 | 0.47 | 52.72 | -10.00 | 110.75 |
| 75 | 0.60 | 48.23 | -10.00 | 103.17 |
| 80 | 0.67 | 43.83 | -9.05 | 102.38 |
| 85 | 0.79 | 39.53 | -7.92 | 100.00 |
| 90 | 0.90 | 35.37 | -6.72 | 100.00 |
| 95 | 0.83 | 31.53 | -5.47 | 104.09 |
| 100 | 0.69 | 28.06 | -4.20 | 114.02 |
| 105 | 0.62 | 25.02 | -2.96 | 118.68 |
| 110 | 0.59 | 22.60 | -1.85 | 123.33 |
| 115 | 0.59 | 21.03 | -1.07 | 125.87 |
| 120 | 0.55 | 20.57 | -0.83 | 128.84 |
| 125 | 0.37 | 21.40 | -1.26 | 146.06 |
| 130 | 0.35 | 23.10 | -2.09 | 145.22 |
| 135 | 0.24 | 25.70 | -3.25 | 153.97 |
| 140 | 0.00 | 28.99 | -4.56 | 153.84 |
| 145 | 0.00 | 32.53 | -5.81 | 148.68 |
| 150 | 0.00 | 36.38 | -7.02 | 144.03 |
| 155 | 0.00 | 40.45 | -8.17 | 139.70 |
| 160 | 0.00 | 44.68 | -9.25 | 135.83 |
| 165 | 0.00 | 49.03 | -10.00 | 133.25 |
| 170 | 0.00 | 53.46 | -10.00 | 133.25 |
| 175 | 0.00 | 57.96 | -10.00 | 133.25 |
| 180 | 0.00 | 62.51 | -10.00 | 133.25 |
| 185 | 0.24 | 67.05 | -10.00 | 128.49 |

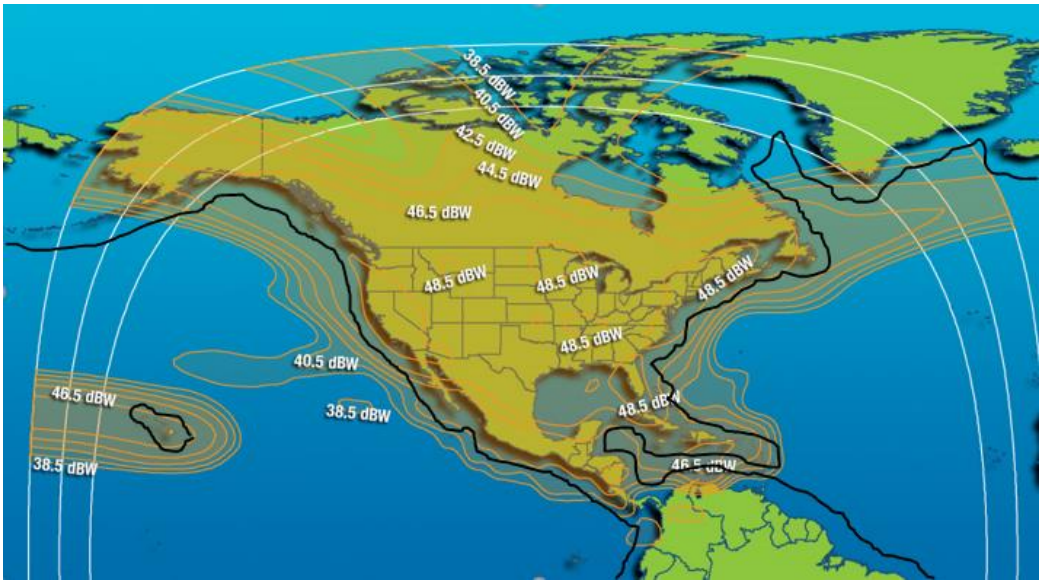
| **Coordination Values** | **NEWPORT, RI** | | |
|---|---|---|---|
| Licensee Name | Telenor Maritime, Inc. | | |
| Latitude (NAD 83) | 41° 29' 14.7" N | | |
| Longitude (NAD 83) | 71° 19' 9.6" W | | |
| Ground Elevation (AMSL) | 0.0 m / 0.0 ft | | |
| Antenna Centerline (AGL) | 15.54 m / 51.0 ft | | |
| Antenna Model | SeaTel 2.4 meter | | |
| Antenna Mode | Transmit 6.1 GHz | | |
| Interference Objectives: Long Term | -154.0 dBW/4 kHz | 20% | |
| Short Term | -131.0 dBW/4 kHz | 0.0025% | |
| Max Available RF Power | -17.5 (dBW/4 kHz) | | |

| | | Transmit 6.1 GHz | | |
|---|---|---|---|---|
| Azimuth (°) | Horizon Elevation (°) | Antenna Discrimination (°) | Horizon Gain (dBi) | Coordination Distance (km) |
| 190 | 0.00 | 71.71 | -10.00 | 133.25 |
| 195 | 0.00 | 76.34 | -10.00 | 133.25 |
| 200 | 0.00 | 80.99 | -10.00 | 133.25 |
| 205 | 0.37 | 85.64 | -10.00 | 116.69 |
| 210 | 0.00 | 90.32 | -10.00 | 133.25 |
| 215 | 0.00 | 94.98 | -10.00 | 133.25 |
| 220 | 0.00 | 99.64 | -10.00 | 133.25 |
| 225 | 0.00 | 104.29 | -10.00 | 133.25 |
| 230 | 0.00 | 108.92 | -10.00 | 133.25 |
| 235 | 0.00 | 113.53 | -10.00 | 133.25 |
| 240 | 0.00 | 118.11 | -10.00 | 133.25 |
| 245 | 0.00 | 122.65 | -10.00 | 133.25 |
| 250 | 0.00 | 127.15 | -10.00 | 133.25 |
| 255 | 0.00 | 131.57 | -10.00 | 133.25 |
| 260 | 0.00 | 135.90 | -10.00 | 133.25 |
| 265 | 0.00 | 140.11 | -10.00 | 133.25 |
| 270 | 0.00 | 144.16 | -10.00 | 133.25 |
| 275 | 0.00 | 147.97 | -10.00 | 133.25 |
| 280 | 0.00 | 151.46 | -10.00 | 133.25 |
| 285 | 0.00 | 154.48 | -10.00 | 133.25 |
| 290 | 0.00 | 156.87 | -10.00 | 133.25 |
| 295 | 0.00 | 158.40 | -10.00 | 133.25 |
| 300 | 0.00 | 158.88 | -10.00 | 133.25 |
| 305 | 0.22 | 158.46 | -10.00 | 130.84 |
| 310 | 0.00 | 156.59 | -10.00 | 133.25 |
| 315 | 0.21 | 154.28 | -10.00 | 131.67 |
| 320 | 0.26 | 151.18 | -10.00 | 127.43 |
| 325 | 0.00 | 147.47 | -10.00 | 133.25 |
| 330 | 0.00 | 143.62 | -10.00 | 133.25 |
| 335 | 0.00 | 139.55 | -10.00 | 133.25 |
| 340 | 0.00 | 135.32 | -10.00 | 133.25 |
| 345 | 0.00 | 130.97 | -10.00 | 133.25 |
| 350 | 0.00 | 126.54 | -10.00 | 133.25 |
| 355 | 0.00 | 122.04 | -10.00 | 133.25 |

**EXHIBIT**
**ESV Area of Operations**

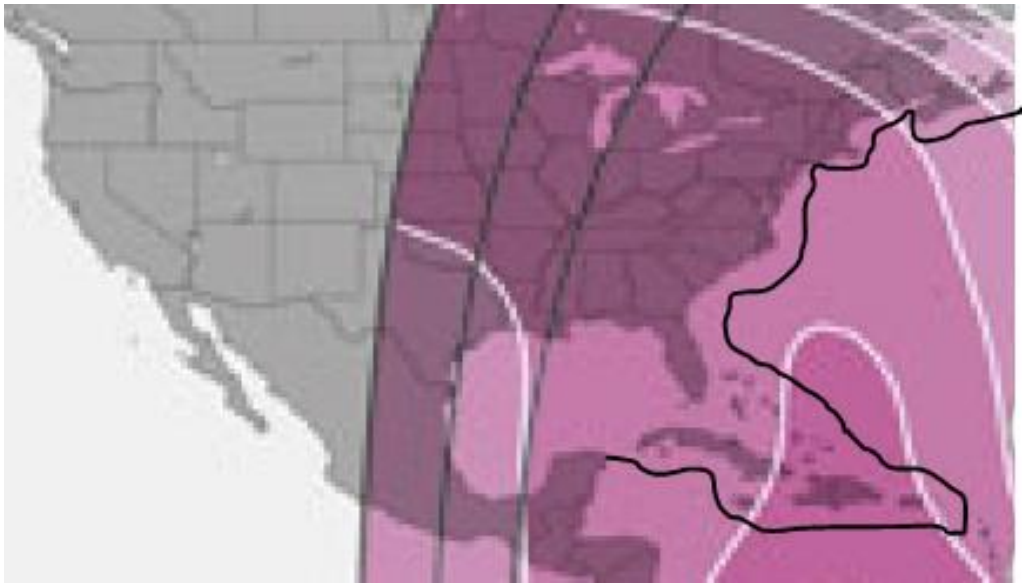
## Figure 1. C-Band/Ku-band ESV Coverage (Permitted List)

**(200 km C-band transmit exclusion zone from U.S. coast/offshore FS stations; Ku-band exclusion zones around radio astronomy and TDRSS sites, as indicated in Narrative)**




## Figure 2. C-band Coverage (SES-4 at 22W)

**(General 200 km C-band exclusion zone with five previously coordinated port locations, as indicated in Narrative)**



**(C-band ESV operations only beyond the minimum distance from coastal administrations absent prior agreement/authorization.)**

## 47 C.F.R. § 25.221 Compliance Statement

As part of its application for a new earth station onboard vessel ("ESV") blanket license to add the Sea Tel Model 9711 ESV terminal, Telenor Maritime, Inc. ("Telenor Maritime") confirms in the following section and associated exhibits that its proposed C-band ESV terminal operations of the Model 9711 comply with the relevant requirements of Section 25.221 of the Commission's Rules, 47 C.F.R. § 25.221.

(a)(1)(i)(A-C): Comply. (*See* FCC Declaration of Conformity).

(a)(1)(ii): Telenor Maritime confirms that the terminal will maintain a pointing error of less than or equal to 0.2° between the orbital location of the target satellite and the axis of the main lobe of the ESV antenna. (*See* FCC Declaration of Conformity).

(a)(1)(iii): Telenor Maritime confirms that all emissions from the ESV will automatically cease within 100 ms if the angle between the orbital location of the target satellite and the axis of the main lobe of the ESV antenna exceeds 0.5°, and transmission will not resume until such angle is less than or equal to 0.2. (*See* FCC Declaration of Conformity).

(a)(2): Not applicable.

(a)(3): Not applicable.

(a)(4): Comply. The primary contact for Telenor Maritime ESV operational issues is the Telenor Network Control Center, which is available 24 hours a day, seven days a week:

Primary Contact
Telenor Maritime Network (24x7 support)
Brett Stortroen, U.S. Technical Contact
Phone: 305-877-0461
Email: brett.stortroen@telenor.com

Primary Backup
SES Washington Mediaport
Bristow, VA 20136
Phone: 703-367-7300

Secondary Backup
Christian Andersen, Norwegian Technical Contact
Office: +47 800 88 877
Mobile: +47 984 54 688
Email: c.andersen@telenor.com and
helpdesk@telenormaritime.com

(a)(5): Comply. Telenor Maritime utilizes a system to record the vessel's location, transmit frequency, channel bandwidth and satellite. The system records this information every 20 minutes; this data will be stored locally and will be uploaded to Telenor Maritime's network management system on a regular basis. Telenor Maritime can make this data available within 24 hours of a request by a coordinator, fixed system operator, fixed-satellite system operator, NTIA, or the Commission.

(a)(6): Comply. In the event Telenor Maritime must communicate with vessels of foreign registry, it will maintain detailed information on each vessel as well as a point of contact for the relevant administration responsible for licensing the ESV.

(a)(7): Comply. The proposed ESV terminal operated by Telenor Maritime will be controlled by gateway earth stations located at a teleport facility in Bristow, Virginia, USA. (*See supra* and Narrative Statement).

(a)(8): Comply. Telenor Maritime has coordinated 9 MHz of spectrum at five port locations for a period of six months. Long-term coordination of ports or routes may be conducted in the future pursuant to FCC policies and procedures.

(a)(9): Comply. Telenor Maritime confirms it will not operate ESVs in the 5.925-6.425 GHz and 3.700-4.200 GHz bands on vessels smaller than 300 gross tons.

(a)(10): Not applicable. Telenor Maritime does not seek receive protection for in-port C-band ESV terminal operations in this application.

(a)(11): Comply. When operating ESVs in motion, Telenor Maritime will not claim protection from harmful interference from any authorized terrestrial stations or lawfully operating satellites to which frequencies are either already assigned, or may be assigned in the future in the 3.700-4.200 GHz band.

(a)(12): Not applicable. Telenor Maritime is not seeking to coordinate route operations in the context of this application, and certifies that the subject ESVs will not operate within 200 km of the U.S. coastline or fixed service offshore facilities unless prior coordination has been completed. If Telenor Maritime seeks to operate within 200 km of potentially affected U.S.-licensed fixed service operators, it will first complete coordination and update the record of this proceeding pursuant to established Commission procedures.

(a)(13): Not applicable. See above.

(b)(1) Comply. (*See* FCC Declaration of Conformity).

(b)(1)(i)-(ii): Reserved.

(b)(1)(iii): Telenor Maritime confirms that the terminal will maintain a pointing error of less than or equal to 0.2° between the orbital location of the target satellite and the axis of the main lobe of the ESV antenna and that that all emissions will automatically cease within 100 ms if the angle between the orbital location of the target satellite and the axis of the main lobe of the ESV antenna exceeds 0.5°. (*See* FCC Declaration of Conformity).

(b)(1)(iv): Not Applicable.

(b)(2): Not Applicable.

(b)(3): Not Applicable.

(b)(4): The geographic area where the ESVs will operate includes previously coordinated U.S. port areas, the Caribbean Sea and Atlantic Ocean more than 200 km from the U.S. coastline and offshore fixed service station and, absent prior agreement or authorization, beyond the minimum distance from coastal administrations. (*See* Area of Operations).

(b)(5): Comply. (Also note discussion of 25.221(a)(4).)

(b)(6): Comply. (*See* Radiation Hazard Compliance Analysis).

(b)(7): Comply: Permitted List authority requested for operations not requiring satellite and frequency-specific coordination.

## 47 C.F.R. § 25.222 Compliance Statement

As part of its application for a new earth station onboard vessel ("ESV") blanket license to operate the Sea Tel Model 9711 and Model 6012 terminals, Telenor Maritime Inc. ("Telenor Maritime") confirms in the following section and associated exhibits that its proposed Ku-band ESV terminal operations of the Model 9711 and Model 6012 comply with the relevant requirements of Section 25.222 of the Commission's Rules, 47 C.F.R. § 25.222.

(a)(1)(i)(A-C): Comply. (*See* FCC Declaration of Conformity).

(a)(1)(ii): Telenor Maritime confirms that the terminal will maintain a pointing error of less than or equal to 0.2° between the orbital location of the target satellite and the axis of the main lobe of the ESV antenna. (*See* FCC Declaration of Conformity).

(a)(1)(iii): Telenor Maritime confirms that all emissions from the ESV will automatically cease within 100 ms if the angle between the orbital location of the target satellite and the axis of the main lobe of the ESV antenna exceeds 0.5°, and transmission will not resume until such angle is less than or equal to 0.2. (*See* FCC Declaration of Conformity).

(a)(2): Not applicable.

(a)(3): Not applicable.

(a)(4): Comply. The primary contact for Telenor Maritime ESV operational issues is the Telenor Network Control Center, which is available 24 hours a day, seven days a week:

Primary Contact
Telenor Maritime (24x7 support)
Brett Stortroen, U.S. Technical Contact
Phone: 305-877-0461
Email: brett.stortroen@telenor.com

Primary Backup
SES Washington Mediaport
Bristow, VA 20136
Phone: 703-367-7300

Secondary Backup
Christian Andersen, Norwegian Technical Contact
Global Network Operation Centre - Telenor Maritime
Office: +47 800 88 877
Mobile: +47 984 54 688
Email: c.andersen@telenor.com and
helpdesk@telenormaritime.com

(a)(5): Comply. Telenor Maritime utilizes a system to record the vessel's location, transmit frequency, channel bandwidth and satellite. The system records this information every 20 minutes; this data will be stored locally and will be uploaded to Telenor Maritime's network management system on a regular basis. Telenor Maritime can make this data available within 24 hours of a request by a coordinator, fixed system operator, fixed-satellite system operator, NTIA, or the Commission.

(a)(6): Comply. In the event Telenor Maritime must communicate with vessels of foreign registry, it will maintain detailed information on each vessel as well as a point of contact for the relevant administration responsible for licensing the ESV.

(a)(7): Comply. The proposed ESV terminal operated by Telenor Maritime will be controlled by gateway earth stations located at a teleport facility in Bristow, Virginia, USA. (*See supra* and Narrative Statement).

(a)(8): Comply. Telenor Maritime confirms that it will not claim protection from interference from any authorized terrestrial stations to which frequencies are either already assigned, or may be assigned in the future in the 10.95-11.2 GHz (space-to-Earth) and 11.45-11.7 GHz (space-to-Earth) frequency bands. (*See* Narrative Statement).

(b)(1)(i)(A-C): Comply. (*See* FCC Declaration of Conformity).

(b)(1)(ii): Comply.

(b)(1)(iii): Telenor Maritime confirms that the terminal will maintain a pointing error of less than or equal to 0.2° between the orbital location of the target satellite and the axis of the main lobe of the ESV antenna and that that all emissions will automatically cease within 100 ms if the angle between the orbital location of the target satellite and the axis of the main lobe of the ESV antenna exceeds 0.5°. (*See* FCC Declaration of Conformity).

(b)(2): Not Applicable.

(b)(3): Not Applicable.

(b)(4): The geographic area where the ESVs will operate includes U.S. territorial waters, the Gulf of Mexico, Caribbean Sea, Atlantic Ocean and Pacific Ocean. (*See* Area of Operations).

(b)(5) Comply. (Also note discussion of 25.222(a)(4).)

(b)(6): Comply. (*See* Radiation Hazard Compliance Analyses).

(b)(7): Comply. (Permitted List authority requested.)

(c): Telenor Maritime confirms that it will not conduct operations in the 14.0-14.2 GHz band within: 125 km of the NASA TDRSS facilities on Guam (located at latitude: 13°36′55″ N, longitude 144°51′22″ E), White Sands, New Mexico (latitude: 32°20′59″ N, longitude 106°36′31″ W and latitude: 32°32′40″ N, longitude 106°36′48″ W) or Blossom Point, MD (latitude: 38°25'44" N, longitude: 77°05'02" W).[1] Telenor Maritime acknowledges that operations within the band and regions defined above are subject to coordination with relevant federal agencies and may pursue such coordination in the future.

[1] *See* Public Notice, DA 14-992 (July 11, 2014).

(d): Telenor Maritime confirms that it will not conduct operations in the 14.47-14.5 GHz band within: (a) 45 km of the radio observatory on St. Croix, Virgin Islands (latitude 17°46′ N, longitude 64°35′ W); (b) 125 km of the radio observatory on Mauna Kea, Hawaii (at latitude 19°48′ N, longitude 155°28′ W); and (c) 90 km of the Arecibo Observatory on Puerto Rico (latitude 18°20′46″ W, longitude 66°45′11″ N). Telenor Maritime acknowledges that operations within the band and regions defined above are subject to coordination with relevant federal agencies and may pursue such coordination in the future.