

APPLICATION FOR EARTH STATION SPECIAL TEMPORARY AUTHORITY

APPLICANT INFORMATION Enter a description of this application to identify it on the main menu:
60-Day STA for Limited ESV Operations

1. Applicant

Name: Telenor Maritime, Inc. **Phone Number:** 954-652-1085
DBA Name: **Fax Number:**
Street: 1000 South Pine Island Road **E-Mail:** Steinar.Stromsvag@telenor.com
Suite 310
City: Plantation **State:** FL
Country: USA **Zipcode:** 33324
Attention: Mr Steinar Stromsvag

60 days "with conditions"

File # SES-STA-20160927-00812
Call Sign E160159 Grant Date 10/18/2016
(or other identifier) Term Dates
From 10/20/2016 To 12/19/2016
Approved: Eleanor M. Cott



Applicant: Telenor Maritime
File No.: SES-STA-20160927-00812
Call Sign: E160157



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Term Dates
From 10/20/2016 To 12/19/2016

Approved: Eleanor M. Lott


Telenor Maritime is granted special temporary authority for 60 days, beginning October 20, 2016, to operate, on U.S. registered maritime vessels: (1) ten Sea Tel Model 9711 2.4m earth stations on vessels (ESVs) with the SES-4 (S2828) satellite at 22° W.L. in the 4082.5-4102.5 MHz (space-to-Earth) and 6328.1-6337.1 MHz (Earth-to-space) bands and with the NSS-7 (2463) satellite at 20° W.L. in the 11165-11195 MHz (space-to-Earth) and 14478.5-14487.5 MHz bands (Earth-to-space) frequency bands; (2) ten Sea Tel Model 6012 1.5m ESVs with the NSS-7 satellite at 20° W.L. in the 11165-11195 MHz (space-to-Earth) and 14478.5-14487.5 MHz bands (Earth-to-space) frequency bands under the following conditions.

1. All operations shall be on an unprotected, non-interference basis to both government and non-government operations.
2. In the event of any harmful interference as a result of operations under this grant of STA, Intelsat shall cease operations immediately upon notification of such interference and shall immediately inform the Commission, in writing, of such an event. Any action taken or expense incurred as a result of operations pursuant to this STA is solely at Intelsat's own risk.
3. Grant of this authorization is without prejudice to any determination that the Commission may make regarding any pending or future Telenor Maritime applications.
4. All emissions are limited to the power levels coordinated.
5. Operation of each individual C-band ESVs in the vicinity of Bar Harbor ME, Boston MA, Cape Cod Canal MA, Cape Liberty NJ, and New Port RI, may commence immediately after (1) this grant is placed on public notice and (2) completion of coordination. Continuance of operation of ESVs for the duration of the coordination term shall be dependent upon successful completion of the normal public notice process. If, prior to the end of the 30-day comment period of the public notice, any objections are received from U.S.-licensed Fixed Service operators, the ESV licensee must immediately cease operation of that particular station on frequencies used by the affected U.S.-licensed Fixed Service station until the coordination dispute is resolved and the ESV licensee informs the Commission of the resolution.
6. ESVs operating within 200 km from any other point of the baseline of the United States, or within 200 km from a U.S.-licensed fixed service offshore installation, shall complete coordination with potentially affected U.S.-licensed fixed service operators prior to operation. The coordination method and the interference criteria objective shall be determined by the frequency coordinator. The details of the coordination shall be maintained and available at the frequency coordinator, and shall be filed with the Commission electronically via the International Bureau Filing System (<http://licensing.fcc.gov/myibfs/>) to be placed. As used above and in 47 C.F.R. § 25.221,

“baseline” means the line from which maritime zones are measured. The baseline is a combination of the low-water line and closing lines across the mouths of inland water bodies and is defined by a series of baseline points that include islands and “low-water elevations,” as determined by the U.S. Department of State's Baseline Committee.

7. Although the Commission does not license transmissions on non-U.S. registered vessels, Telenor Maritime is nevertheless required to comply with the Commission's interference regulations to the extent its signals are received within the United States. The use of the radiocommunication frequencies in the United States must be in accordance with the Table of Frequency Allocations contained in Section 2.106 of the Commission's rules.

60 days *"with conditions"*

 GRANTED International Bureau	File # <u>SES-STA-20160927-00812</u>
	Call Sign <u>E16D157</u> Grant Date <u>10/18/2016</u> (or other identifier)
	Term Dates From <u>10/20/2016</u> To <u>12/19/2016</u>
	Approved: <u>Eleanor M. Lott</u>

**Before the
FEDERAL COMMUNICATIONS COMMISSION
Washington, DC 20554**

In the Matter of

Application of Telenor Maritime, Inc. for a)	
60-Day Special Temporary Authorization)	Call Sign: <u>E160157</u>
("STA") To Operate Earth Station Onboard)	
Vessel ("ESV") Terminals in the C-band)	File No. <u>SES-STA-20160927-00812</u>
and Ku-band)	

APPLICATION FOR SPECIAL TEMPORARY AUTHORIZATION

Telenor Maritime ("Telenor Maritime"), pursuant to Section 25.120 of the Commission's Rules, 47 C.F.R. § 25.120, seeks a 60-day special temporary authorization ("STA") to operate certain earth station onboard vessel ("ESV") terminals on U.S. and foreign-registered vessels, including cruise ships, in U.S. and international waters. Specifically, Telenor Maritime requests authority to operate up to ten (10) Sea Tel Model 9711 2.4m ESV terminals in the 4082.5-4102.5 MHz (space-to-Earth) and 6328.1-6337.1 MHz (Earth-to-space) bands (collectively, the "C-band") with the SES-4 satellite at 22° W.L. and the 11165-11195 MHz (space-to-Earth) and 14478.5-14487.5 MHz bands (Earth-to-space) (collectively, the "Ku-band")¹ with the NSS-7 satellite at 20° W.L., as well as ten (10) Sea Tel Model 6012 1.5m ESV terminals in the Ku-band (together, the "Sea Tel terminals").

Telenor Maritime seeks this STA to permit limited operations of the Sea Tel terminals in Ku-band frequencies along the U.S. East Coast and in the Caribbean region, and in C-band

¹ Although Telenor Maritime refers to these frequencies as the "Ku-band" for the sake of convenience, the Ku-band downlink frequency requested herein constitutes Extended Ku-band spectrum identified for ESV receive operations. See 47 C.F.R. §2.106, n. NG52. 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 this band. See 47 C.F.R. § 25.222(a)(8).

frequencies in certain coordinated port areas in the Northeast and in international waters off the U.S. East Coast and in the Caribbean region, during the pendency of its concurrently filed application for an ESV blanket license for these terminals.² Telenor Maritime seeks an STA for a period of up to 60 days commencing on September 30, 2016, or as soon as practicable thereafter, to facilitate link performance evaluation, assessment of onboard frequency band switch-over capabilities and similar operational trials in real-world conditions in advance of Telenor Maritime's proposed long-term commercial operations.

The Sea Tel terminals will provide broadband maritime satellite communications services, including to cruise ship passengers and crew, and will serve the public interest by enhancing competition in advanced mobile broadband applications. In addition, because the proposed operations comply fully with the Commission's ESV rules and policies and Telenor Maritime has already coordinated temporary C-band operations with terrestrial licensees at a limited number of port locations, the proposed operations will have no adverse effects on other FCC-licensed spectrum users. For these reasons, grant of the requested STA to facilitate interim operation of the ESV terminals by Telenor Maritime would serve the public interest.

I. DISCUSSION

As part of the proposed STA operations, Telenor Maritime requests authority to operate two types of terminals, the Sea Tel 9711 and Sea Tel 6012. Both terminals have been previously licensed by the Commission for use in the bands requested herein and, given their established antenna performance, qualify for "routine processing" under the Commission's rules.³ During the

² See Telenor Maritime, Inc., File No. SES-LIC-INTR2016-02174 (filed on September 27, 2016).

³ See, e.g., Astrium Services Government, Inc., File No. SES-MFS-20130504-00363 (Call Sign: KA313) (Sea Tel 9711); Telesat Network Services, Inc., File No. SES-MOD-20140212-

proposed period of operations, the Sea Tel terminals will operate in certain U.S. territorial and adjacent international waters along the East Coast of the United States and the Caribbean. Except as noted herein, both Sea Tel terminals will operate in specified Ku-band frequencies in U.S. territorial and adjacent international waters with the NSS-7 satellite located at 20° W.L. In addition, the Sea Tel 9711 terminal will communicate with the SES-4 satellite at 22° W.L. in specified C-band frequencies in a limited number of port areas that have been previously coordinated with terrestrial licensees, and in international waters 200km or more from the U.S. coastline or off-shore fixed service stations. Both of these satellites are on the Commission's Permitted Space Station List ("Permitted List") for the requested frequencies⁴ and grant of the requested temporary operations would be consistent with the Commission's ESV rules and policies.

A. Compliance with ESV Rules

As the Commission is aware, the Sea Tel terminals are designed to meet the Commission's C-band and Ku-band ESV requirements, including: (i) maintaining off-axis EIRP within the levels set forth in the applicable FCC masks; (ii) maintaining a pointing accuracy of 0.2° or better; (iii) automatic cessation of emissions within 100 ms if pointing offset exceeds 0.5°; and (iv) not resuming transmissions until pointing accuracy is within 0.2°.⁵ Declarations of conformity with such elements of the Commission's rules from the manufacturer are attached hereto.⁶ In addition

00056 (Call Sign KA399) (Sea Tel 6012); *see also* Declarations of Conformity certifying compliance with Sections 25.221(1)(1) and 25.222(a)(1) of the Rules.

⁴ *See* Permitted Space Station List (available at <https://transition.fcc.gov/ib/sd/se/permitted.html>).

⁵ *See generally* 47 C.F.R. §§ 25.221 and 25.222.

⁶ Telenor Maritime notes that although the Declarations of Conformity cite the 2009 version of the Commission's Rules, the relevant EIRP spectral density limits and operational requirements

to these fundamental ESV operational characteristics, Telenor Maritime will operate the Sea Tel terminals in accordance with the geographic limitations and coordination provisions in the Commission's rules designed to protect other users of the spectrum.

In the Ku-band, Telenor Maritime will not operate the ESVs within 45 km of the radio observatory in St. Croix, Virgin Islands or within 90 km of the Arecibo Observatory in Puerto Rico, without first coordinating with the National Telecommunications Information Administration ("NTIA") through the National Science Foundation.⁷ In the C-band, Telenor Maritime seeks to operate the 9711 at certain inland port locations in the northeast United States, as well as international waters 200 km or more from the U.S. coastline or FCC-licensed offshore fixed service stations. The attached port area coordination notices, which constitute "cleared" operations because they are consistent with required interference objectives, have been sent to existing licensees within relevant coordination distances and no objections have been received from incumbent licensees.⁸ The attached "area of operations" exhibit provides a notional depiction of Ku-band operations and offshore C-band operations, with additional C-band operations in the previously coordinated Northeast port areas proposed herein.

have not changed materially (i.e., any changes, such as relaxation of a portion of the off-axis EIRP mask, make the current rules less restrictive). Thus, citation to the more restrictive, prior version of the rules is sufficient to support this request. Additionally, Telenor Maritime has confirmed with the manufacturer that the attached Declarations of Conformity is current and the only version available.

⁷ ESV operational restrictions in regions outside the proposed STA operational area or applicable to bands other than those being used during the temporary period of operations have been excluded from consideration.

⁸ Coordination notices have been sent for port locations in Cape Code Canal, MA; Boston, MA; Newport, RI; Cape Liberty, NJ; Bar Harbor, ME. *See* Frequency Coordination Notices.

Telenor Maritime notes that the easterly location of SES-4 at the 22° W.L. orbital location means that the Sea Tel terminals will continuously be oriented away from fixed service stations along the U.S. coastline during any C-band transmit operations. In view of the prior coordination and continuous antenna orientation away from land, there is no real potential for interference from Telenor Maritime's proposed C-band operations in the identified port areas. Nonetheless, Telenor Maritime will immediately terminate operations upon notification that its temporary operations are causing harmful interference to terrestrial licensees. Thus, the Commission can permit Telenor Maritime to operate the Sea Tel 9711 terminal in specified C-band frequencies at the coordinated port locations, and in other areas 200 km or more from the U.S. coastline or offshore stations, consistent with existing rules and policies.

The attached as-filed FCC Form 312, Schedule B and associated exhibits to this STA request contain the relevant information required under 47 C.F.R. §§ 25.221 and 25.222 of the Commission's Rules, including information regarding a 24/7 point of contact and use of a gateway earth station located at a teleport facility located in Bristow, VA. In this connection, Telenor Maritime would note that ESV license application requests permission to communicate with satellites on the Permitted List. This STA request is limited to communications with NSS-7 at 20° W.L. and SES-4 at 22° W.L., both of which have been included on the Permitted List. Thus, an additional draft FCC Form 312, Schedule B is included with the frequencies and other operational parameters specific to those satellite points of communication.

B. 60-Day STA Request

Telenor Maritime respectfully requests this 60-day STA pursuant to Section 25.120 of the Commission's Rules, 47 C.F.R. § 25.120. Section 25.120(a) provides that STA requests should be filed at least three working days prior to the date of commencement of the proposed operations.

Here, Telenor Maritime is proposing to commence operations on September 30, 2016. Additionally, the Commission may grant a 60-day STA if the STA request has not been placed on public notice and the applicant plans to file a request for regular authority for the service. Telenor Maritime has filed an application for blanket license authority to operate the Sea Tel terminals and this STA request only seeks temporary operations during the pendency of that application.

Expeditious processing of this STA request will ensure that the substantial public benefits of Telenor Maritime's proposed operations can be realized until such time as the Commission is able to grant the pending ESV license application for long-term operating authority. Telenor Maritime acknowledges that any action on the requested STA will not affect the Commission's ultimate determination with respect to the pending license application.

C. Public Interest Statement

Grant of the requested 60-day STA will strongly serve the public interest. As described in the application materials, the Sea Tel terminals comply fully with the FCC's rules and policies governing C-band and Ku-band ESV operations. In addition, Telenor Maritime's proposed C-band operations within 200 km of the U.S. coastline and offshore fixed stations are limited and have been previously coordinated. Compliance with these rules and prior coordination ensures that the proposed ESV operations can be conducted without adverse effects on other users of C-band and Ku-band spectrum.

Telenor Maritime is a new entrant in today's vibrant U.S. market for broadband maritime satellite services.⁹ Granting the requested STA will allow Telenor Maritime to provide immediately robust broadband maritime satellite communications services to a wide array of users,

⁹ A separate subsidiary of Telenor Maritime's parent company previously provided maritime communications services in the region but has not been active for many years.

including to cruise ship passengers and crew and other maritime customers that are unable to obtain communications services through alternative facilities. Users will be able to utilize high-speed Internet access, corporate VPN, e-mail, voice and other services throughout U.S. and international waters. This, in turn, will expand customer choice and enhance competition in advanced mobile broadband applications in the near term, as well as over the long term.

III. CONCLUSION

Based on the foregoing, the public interest would be served by a grant of the requested 60-day STA to allow Telenor Maritime to conduct limited maritime satellite communications operations using the Sea Tel terminals in the C-band and Ku-band by September 30, 2016 or at the earliest practicable time thereafter.

2. Contact

Name: Bob Hanson **Phone Number:** 720-635-8162
Company: LMI Advisors **Fax Number:** 202-697-5037
Street: 2550 M Street NW **E-Mail:** rhanson@lmiadvisors.com
City: Washington **State:** DC
Country: USA **Zipcode:** 20036
Attention: **Relationship:** Engineer

(If your application is related to an application filed with the Commission, enter either the file number or the IB Submission ID of the related application. Please enter only one.)

3. Reference File Number or Submission ID IB2016002174

4a. Is a fee submitted with this application?

If Yes, complete and attach FCC Form 159. If No, indicate reason for fee exemption (see 47 C.F.R. Section 1.1114).

- Governmental Entity
- Noncommercial educational licensee
- Other (please explain):

4b. Fee Classification CGV – Fixed Satellite VSAT System

5. Type Request

- Use Prior to Grant
- Change Station Location
- Other

6. Requested Use Prior Date
09/30/2016

7. CityESV
8. Latitude
(dd mm ss.s h) 0 0 0.0

9. State	10. Longitude (dd mm ss.s h) 0 0 0.0
11. Please supply any need attachments. Attachment 1: Narrative Statement Attachment 2: STA Draft Form 312 Attachment 3: Technical Appendix	
12. Description. (If the complete description does not appear in this box, please go to the end of the form to view it in its entirety.) Application of Telenor Maritime, Inc. for a 60-Day Special Temporary Authorization.	
13. By checking Yes, the undersigned certifies that neither applicant nor any other party to the application is subject to a denial of Federal benefits that includes FCC benefits pursuant to Section 5301 of the Anti-Drug Act of 1988, 21 U.S.C. Section 862, because of a conviction for possession or distribution of a controlled substance. See 47 CFR 1.2002(b) for the meaning of "party to the application"; for these purposes. Yes <input checked="" type="radio"/> No <input type="radio"/>	
14. Name of Person Signing Steinar Stromsvag	15. Title of Person Signing Sr. Advisor
WILLFUL FALSE STATEMENTS MADE ON THIS FORM ARE PUNISHABLE BY FINE AND / OR IMPRISONMENT (U.S. Code, Title 18, Section 1001), AND/OR REVOCATION OF ANY STATION AUTHORIZATION (U.S. Code, Title 47, Section 312(a)(1)), AND/OR FORFEITURE (U.S. Code, Title 47, Section 503).	

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