FCC Form 312 Exhibit 1

## EXHIBIT REGARDING OPERATION OF NEW ANTENNAS (CALL SIGN E060157)

Harris CapRock Communications, Inc. ("Harris CapRock") is filing the instant application to confirm authority to operate two new antenna types – Sea Tel 6009 and Sea Tel 6012 – under its existing authorization for Ku-band earth stations onboard vessels ("ESVs"), Call Sign E060157. Harris CapRock notes that both antenna types have been determined to be electrically and technically identical to their predecessor model – Sea Tel 6006. Sea Tel Inc., manufacturer of the antennas, has ceased producing the earlier model and, by way of the following Declaration of Conformity, certifies that the new models have identical radiofrequency performance to the predecessor model.

The Bureau had previously granted Harris CapRock authority to operate the Sea Tel 6006 model.<sup>1</sup> Harris CapRock understands that it may be possible to add the antennas to its operations without this application filing, consistent with 25.118(b) of the Commission's rules, which permits activation of replacement equipment that is electrically identical to the existing equipment.<sup>2</sup> However, because Harris CapRock will continue to operate the predecessor antennas for the foreseeable future, in addition to these new replacement antennas, it is also submitting the instant notification to add those antenna models to its current authorization.

<sup>&</sup>lt;sup>1</sup> Authority to operate the Sea Tel 6006 antenna under Call Sign E060157 was added in application File No. SES-MFS-20061117-02028 (granted Mar. 23, 2007).

<sup>&</sup>lt;sup>2</sup> 47 C.F.R. § 25.118(b).

Harris CapRock confirms that it will operate the Sea Tel 6009 and Sea Tel 6012 with technical parameters identical to those included in its license for the Sea Tel 6006 terminal. No other ESV operating parameters or other information included in the blanket license will change.

Finally, this filing is consistent with Commission precedent regarding the operation of the Sea Tel 6009 and Sea Tel 6012 under similar circumstances. For example, the Commission previously approved operation of these Sea Tel ESVs in blanket license modifications issued to Telesat Network Services, Inc. pursuant to a similar filing process.<sup>3</sup>

For these reasons, Harris CapRock respectfully requests that the Commission include the Sea Tel 6009 and Sea Tel 6012 terminals in its ESV blanket license, Call Sign E060157, with operating parameters that reflect the same parameters currently associated with the Sea Tel 6006 terminal.

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<sup>&</sup>lt;sup>3</sup> See Telesat Network Services, Inc., Call Sign KA399, File Nos. SES-MOD-20110415-00459 (granted July 13, 2011) and SES-MOD-20130912-00794 (granted Jan. 6, 2014).



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 Kuband 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 9797/9711/ 9711IMA 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