

EXHIBIT REGARDING TWO-DEGREE SPACING REQUIREMENT AND ANTENNA PATTERNS  
(Modification of CALL SIGN **E881406**)

**I. Introduction**

Shared Data Networks, LLC. (“SDN”) is filing the application to modify its existing authorization for a Ku-band VSAT transmit/receive earth station network to add Earth Station on vessels (“ESV”) operations under Call Sign E881406, by adding four new antenna types with ESV operations: **(1) SeaTel 4003**, **(2) SeaTel 4006**, (3) SeaTel 4009, (4) Azimuth Unlimited (KNS) AZU-12 and (5) Azimuth Unlimited (KNS) Z10Mk2..

SDN is seeking authority to operate four of these antennas, (SeaTel 4003, SeaTel 4006, SeaTel 4009 and Azimuth Unlimited (KNS) Z10Mk2) which do not strictly comply with Section 25.209 of the Commission’s Rules. However, pursuant to Section 25.218 of the Commission’s Rules, an applicant may request routine processing of an application if it can provide documentation indicating that the proposed antenna operations would meet the applicable off-axis EIRP envelope.

Pursuant to the Part 25 Earth Station *Fifth Report and Order*, the International Bureau maintains a list of approved non-conforming earth station antennas. Earth station applicants proposing to use antennas on this list no longer need to attach antenna radiation plots as an exhibit to their applications, as required by section 25.132(b)(3) of the Commission’s Rules, 47 C.F.R. § 25.132(b)(3). Rather, applicants need only provide an attachment to their applications citing the particular antennas they plan to use, and an application file number and call sign of a license in which those antennas have been approved. Barring any countervailing considerations, the Bureau will consider granting the application for the non-conforming antennas, providing the applicant proposes the same kinds of services as the operator of the previously authorized antennas under the same or substantially similar operating conditions.

In the current case, SDN is relying upon previous applications in which authority was sought and granted to operate **SeaTel 4003** and **SeaTel 4006** antennas with similar parameters as the proposed earth stations. See SES-MOD-20100513-00590, Call Sign KA399, license issued to Telesat to operate SeaTel 4003 and SeaTel 4006 antennas and Call Sign WB36, SES-MOD-20110321-00320 to operate SeaTel 4003, SeaTel 4006 and SeaTel 4009 antennas to Vizada, Inc. The International Bureau’s website listing approved non-routine earth station antennas does not yet appear to have been updated to include the referenced antennas and their respective applications.

**II. Summary and Certifications**

The antenna patterns associated with the above-referenced applications exceed the sidelobe specification established in Section 25.209.

SDN certifies that it will limit its pointing error to 0.5°. SDN further certifies that, pursuant to Section 25.222(b)(3) of the Commission’s rules, the ESV antennas conform to the gain pattern criteria of 25.209(a) and (b) and that, combined with the input power density entered in Schedule B, the off-axis EIRP spectral density envelope in 25.222(a)(1) through (a)(4) will be met.

SDN acknowledges that its proposed antenna will be protected from radio interference caused by other space stations only to the degree to which harmful interference would not be expected to be caused to an earth station employing an antenna conforming to the referenced patterns defined in Section 25.209.

For the foregoing reasons, SDN respectfully requests that the modification application for new ESV authority be granted for the Seatel Model 4003 and 4006 antennas.