Before the
FEDERAL COMMUNICATIONS COMMISSION
Washington, DC 20554

In the Matter of

Application of ITC Global, Inc. for Modification of its Earth Station Onboard Vessel ("ESV") Blanket License	)))	Call Sign: E070239 File No. SES-MOD-_____

ESV BLANKET LICENSE MODIFICATION APPLICATION

By this application and pursuant to Sections 25.117 and 25.222 of the Federal Communications Commission's ("FCC" or the "Commission") Rules, 47 C.F.R. §§ 25.117, 25.222, ITC Global, Inc. ("ITC Global") seeks modification of its existing ESV blanket license[1] by (i) including authority to operate 250 of each of sixteen (16) additional Ku-band terminal types (the "ESV Terminals") with satellites on the Commission's Permitted Space Station List ("Permitted List"),[2] and by (ii) including additional frequencies and Permitted List authority for its currently authorized terminals. Grant of this modification application will serve the public interest by affording ITC Global additional flexibility to provide broadband maritime satellite communications services and thereby enhancing competition in the United States and internationally.

I. DISCUSSION

A. Additional Terminal Types

The ESV Terminals include 16 different Ku-band ESV terminal types, all of which have been previously authorized by the FCC International Bureau ("Bureau"). ITC Global seeks to

[1] *See* ITC Global, File No. SES-MOD-20101105-01405, Call Sign E070239, and related filings and modifications ("*ESV Blanket License")*.

[2] *See* Permitted Space Station List (available at https://transition.fcc.gov/ib/sd/se/permitted.html).

operate up to 250 of each terminal in spectrum identified for ESV operations – 10.95-11.2 GHz and 11.45-11.7 GHz (space-to-Earth) (the "Extended Ku-band"), and 11.7-12.2 GHz (space-to-Earth) and 14.0-14.5 GHz (Earth-to-space) (the "Conventional Ku-band") – with Permitted List authority at the power levels indicated below in Table 1.

Table 1: Terminal Types and Prior License Information[3]

	Manufacturer	Model	Call Sign	Prior FCC File Number	Max EIRP	Max EIRP Density (dBW/4kHz)
1	Andrew/ Skyware	1.2m	E100117 E060317	SES-MOD-20160120-00067 SES-MFS-20171127-01276	47.50	23.40
2	GD Series	1134	E170083	SES-LIC-20170315-00271	51.50	20.00
3	Intellian	V110	KA313	SES-MOD-20151009-00704	49.80	25.50
4	Intellian	V100	KA313	SES-MOD-20151009-00704	52.60	26.60
5	Intellian	V130	KA313	SES-MOD-20151009-00704	54.40	29.20
6	Intellian	V80	E150069	SES-LIC-20150427-00277	44.78	19.33
7	Prodelin	1194	E020101 E040246	SES-RWL-20170724-00798 SES-LIC-20040512-00728	52.8	30.2
8	Prodelin	1132	E060317	SES-MFS-20171127-01276	56.40	26.27
9	Thrane & Thrane	Sailor 900	E120057	SES-LIC-20120315-00272	48.20	25.80
10	Thrane & Thrane	Sailor 800	KA313	SES-MOD-20151009-00704	47.40	20.80
11	SeaTel	9711	KA313	SES-MOD-20151009-00704	60.95	39.0
12	SeaTel	4009	E990541	SES-MOD-20110629-00764	50.30	27.80
13	SeaTel	4012-GX	KA399	SES-MOD-20130306-00236	50.3	26.6
14	SeaTel	6006	KA313	SES-MOD-20151009-00704	64.40	31.10
15	SeaTel	6009	KA313	SES-MOD-20151009-00704	64.40	31.10
16	Spacetrack	2.4m	E040148	SES-MOD-20130729-00675	42.40	12.40

In Table 1, above, ITC Global provides the specific application references for each of its requested antenna types, some of which are non-conforming due to antenna size and associated antenna performance characteristics. ITC Global hereby incorporates by reference the equivalent

[3] The file numbers include hyperlinks to the International Bureau Filing System ("IBFS"). Note that other ESV terminal input and transmit power values are also the same as previously authorized but are omitted from this table due to space constraints.

materials provided with the above-referenced licenses.[4] This approach has been accepted in prior ESV licensing proceedings[5] and has been identified as acceptable in other contexts.[6]

As expected of previously authorized Ku-band maritime terminals, all the ESV Terminals meet the Commission's fundamental ESV licensing requirements, including: (i) maintaining off-axis EIRP spectral density within the levels set forth in the applicable FCC mask;[7] (ii) maintaining a pointing accuracy of 0.2° or better;[8] (iii) automatic cessation of emissions within 100 ms if pointing offset exceeds 0.5°;[9] and (iv) not resuming transmissions until pointing accuracy is within 0.2°.[10] In addition to these ESV operational characteristics, ITC Global will operate the terminals in accordance with the Commission's two-degree spacing limits[11] and the

[4] The *Part 25 Earth Station Fifth Report and Order* establishes that the International Bureau should maintain a list of approved non-conforming earth station antennas to streamline the application process by allowing earth station applicants who propose to use antennas on the list to cite previous licensing in lieu of attaching detailed technical information such as antenna radiation plots. This would allow the Bureau to consider grant of the application for the non-conforming antennas without further demonstration. *See* 2000 Biennial Regulatory Review – Streamlining and Other Revisions of Part 25 of the Commission's Rules Governing the Licensing of, and Spectrum Usage by, Satellite Network Earth Stations and Space Stations, *Fifth Report and Order*, IB Docket No. 00-248, 20 FCC Rcd 5666, 5690-91 (para. 59) (2005); *see also* Approved Non-Routine Earth Station Antennas (available at: https://www.fcc.gov/approved-non-routine-earth-station-antennas). The non-routine earth station list has not been effectively updated and predates the proliferation of numerous ESV terminal types that have demonstrated compliance with applicable off-axis EIRP spectral density limits (e.g., as an accepted basis for Permitted List status). Nonetheless, the principles embodied in this authorization approach apply equally to ESV terminals.

[5] *See* Telesat Network Services, Inc., File No. SES-MOD-20110629-00764, Call Sign E990541 at Exh. 1 (reference to non-conforming licenses in lieu of full technical demonstration).

[6] *See* Letter from Paul E. Blais, FCC International Bureau to Mary Carol Weichel, Exxon Communications Company, File No. SES-MFS-20120904-00794, Call Sign E000001 (dated January 31, 2013) (noting citation to prior licenses to support an ESV application).

[7] *See* 47 C.F.R. § 25.222(a)(1)(i).

[8] *See* 47 C.F.R. § 25.222(a)(1)(ii).

[9] *See* 47 C.F.R. § 25.222(a)(1)(iii).

[10] *See* 47 C.F.R. § 25.222(a)(1)(iii).

[11] *See* 47 C.F.R. § 25.222(a)(1).

geographic limitations and coordination provisions in the Commission's Rules designed to protect other users of the spectrum.[12] ITC Global also shall 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 Extended Ku-band.[13]

Because these previously licensed terminals will operate in accordance with the Ku-band off-axis EIRP spectral mask set forth in Section 25.222(a)(1), grant of Permitted List authority in the requested Ku-band frequencies is permissible.[14] Further, because the technical characteristics of the ESV Terminals have been previously authorized, the proposed operations are fully consistent with the Commission's rules and policies governing Ku-band ESV operations.

B. Additional Authority for Existing Terminal Types

ITC Global requests additional operational authority for its previously authorized ESV terminals. Specifically, as indicated in the FCC Form 312, Schedule B, included with this application, ITC Global requests Permitted List authority and authority to operate using Extended Ku-band downlink spectrum for all authorized Ku-band ESV terminals. Other currently authorized operational parameters will not change.

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[12] *See* 47 C.F.R. § 25.222(c) and (d). ITC Global will first coordinate with the National Telecommunications Information Administration ("NTIA") through NASA and the National Science Foundation, respectively, before operating the ESVs: (i) in the 14.0-14.2 GHz band within 125 km of the NASA TDRSS facilities in Guam, White Sands, New Mexico and Blossom Point, Maryland; or (ii) in the 14.47-14.5 GHz band within 45 km of the radio observatory in St. Croix, Virgin Islands or Mauna Kea, Hawaii or within 90 km of the Arecibo Observatory in Puerto Rico.

[13] *See* 47 C.F.R. § 25.222(a)(8).

[14] *See* 47 C.F.R. § 25.222(b)(7); *see also Comprehensive Review of Licensing and Operating Rules for Satellite Services, Second Report and Order*, IB Dkt. 12-167 (Dec. 17, 2015) at ¶249 ("*Part 25 Second Report & Order*") (expanding the scope of Permitted List authority to the Extended Ku-band).

In the Extended Ku-band, ITC Global shall not claim protection from interference from any authorized terrestrial stations to which frequencies are either already assigned or may be assigned in the future.[15] In addition, ITC Global's currently authorized terminals operate in accordance with the Ku-band ESV off-axis EIRP spectral mask set forth in Section 25.222(a)(1) and therefore grant of Permitted List authority is allowable.[16]

C. Other Information

Because ITC Global seeks modification of its existing ESV blanket license, this application includes only that information that changes with respect to its licensed operations, and ITC Global certifies that the remaining information has not changed.[17] In the interest of administrative convenience and consistent with ESV licensing precedent and consultations with the staff, ITC Global is also incorporating by reference the detailed technical information that supported previous FCC grants of operating authority for the ESV Terminals.

ITC Global would note that radiofrequency ("RF") hazard issues have been fully assessed in the context of prior licensing of the ESV Terminals and that the strategy to prevent RF exposure in excess of FCC-established limits is similar for all ESVs. Specifically, ITC Global will ensure that the ESV Terminals are mounted high on a vessel or rig superstructure in areas that are inaccessible to the general public. The ESV Terminals will include appropriate labeling regarding RF hazards and will not be operated during maintenance, and technicians/operators will receive appropriate training regarding RF hazards. ITC Global is fully cognizant of these

[15] *See* 47 C.F.R. § 25.222(a)(8).

[16] *See* 47 C.F.R. § 25.222(b)(7).

[17] *See* 47 C.F.R. § 25.117(c).

issues based on years of operating ESVs under its existing authority and will operate each of the ESV Terminals in a manner that prevents excessive exposure to RF radiation.

Out of an abundance of caution, ITC Global requests a waiver of the Commission's Ku-band ESV licensing rules (*see* 47 C.F.R. §§ 25.222) to the extent necessary for the International Bureau to consider the technical information from the prior ESV licensing proceedings that have been incorporated by reference. If necessary, a waiver would serve the public interest by preserving scarce Commission resources and facilitating streamlined consideration of this modification application, which involves a number of previously licensed ESV terminals and authorized operational characteristics. Similarly, a waiver would not undermine any FCC rule or policy because compliance with the Commission Rules has already been demonstrated for the previously licensed terminals at the power levels included herein. ITC Global respectfully reserves the right to supplement this modification application to the extent necessary for processing and grant by the International Bureau.

Finally, ITC Global acknowledges and accepts that the Special and General Provisions in its ESV Blanket License,[18] as well as other conditions applicable to Ku-band ESV operations included in more recent ESV license grants,[19] will apply to the proposed operation of the ESV Terminals and expanded operation of its presently authorized terminals. Such conditions are consistent with the Ku-band ESV operational requirements set forth in Section 25.222 of the Commission's Rules, some of which were adopted after grant of ITC Global's original ESV Blanket License.

[18] *See ESV Blanket License* at Section H.

[19] *See, e.g.*, ESV Licenses identified in Table 1, *supra*.

D. Public Interest Statement

Grant of this modification application will serve the public interest by expanding customer choice and enhancing competition in advanced mobile broadband services. As described herein, as well as in the application materials incorporated by reference, the ESV Terminals comply fully with the Commission's rules and policies governing Ku-band ESV operations. Compliance with these rules ensures that the proposed ESV operations can be conducted without adverse effects on other users of the spectrum.

In addition, granting the requested license will allow ITC Global to provide robust broadband maritime satellite communications services to a wide array of customers that are unable to obtain communications services through alternative facilities. Users will be able to utilize high-speed Internet access, email, voice, and other services throughout U.S. and international waters. These services will be available to ITC Global's customers, including commercial shipping and cruise vessels, offshore oil rigs in the Gulf of Mexico, and other maritime satellite applications.

II. CONCLUSION

Based on the foregoing, and incorporating by reference the authorized operational parameters and supporting technical information included in the prior FCC license application proceedings of the previously licensed Ku-band ESV Terminals, ITC Global respectfully requests that the Bureau modify its ESV blanket license (i) to add authority to operate up to 250 of each of the ESV Terminals with Permitted List authority; and (ii) to modify the authority of its existing ESV terminals by adding Permitted List authority and use of the extended Ku-band downlink frequencies consistent with the Commission's Rules.