## **Exhibit B to Form 312**

### Requests for Waivers of the Commission's Rules

SkyBridge hereby requests the following waivers of the Commission's Rules:<sup>1</sup>

- 1. SkyBridge requests a partial waiver of Section 25.146(a)(1)(v), to the extent that this rule requires results for:
  - EPFD<sub>down</sub> for the worst 3 test points in the U.S.
  - EPFD<sub>down</sub> for the worst 3 test points on each continent, except Antarctica, outside of the U.S.
  - EPFD<sub>down</sub> for "as many points as the number of service areas; i.e., footprints"
  - EPFD<sub>down</sub> where "[t]he center of each beam service area should be the test point coordinate."

As discussed further in Exhibit C, these rules are: (1) inconsistent with ITU rules upon which they are based, (2) incompatible with the software specification adopted by the ITU and FCC for computing validation EPFD<sub>down</sub> levels; (3) subject to a pending Petition for Reconsideration;<sup>2</sup> and (4) in the absence of resolution of the issues raised in that Petition, ambiguous in their interpretation and impractical in their application.<sup>3</sup> While

These requests are in addition to waivers requested in SkyBridge's original application and later amendments. *See* SkyBridge Application, File No. 48-SAT-P/LA-97, February 28, 1997, at 100-103; SkyBridge Amendment, 89-SAT-AMEND-97, July 3, 1997, at 7. However, while these earlier waiver requests may still be procedurally relevant, due to the early filing date of the application and relevant amendment, it is believed that they are substantively moot in view of subsequent changes in the Commission's Rules to accommodate NGSO FSS systems.

See Petition for Reconsideration, SkyBridge L.L.C., ET Docket 98-206, RM-9147, RM-9245, March 19, 2001 (the "SkyBridge Petition for Reconsideration"). See also Ex Parte Presentation of SkyBridge, ET Docket No. 98-206, June 18, 2002 (the "SkyBridge Ex Parte").

In addition to the observations made in Exhibit C regarding the interpretation of these rules, it is unclear what is meant by "service areas, i.e., footprints" in Section 25.146(a)(1)(v) in the context of many types of NGSO satellite constellations. For most NGSO systems, including the SkyBridge system, this would seem to be redundant with the requirement for EPFD<sub>down</sub> results on each of the continents. It is

SkyBridge attempted to comply with Section 25.146(a)(1)(v) in good faith in Exhibit C, SkyBridge requests this waiver out of an abundance of caution in the event that its demonstration of compliance is deemed insufficient in view of the current Section 146(a)(1)(v) or that section after resolution of the pending SkyBridge Petition for Reconsideration.

No party would be prejudiced by grant of the instant waiver. First, the additional results requested by the Commission are not needed to ensure compliance with the EPFD<sub>down</sub> "Validation Limits". So long as the EPFD statistics of a system are shown to meet the EPFD<sub>down</sub> Validation Limits with computer software in accordance with ITU-R Recommendation BO.1503, it follows *by definition* that the limits will be met worldwide. Second, both the software and inputs for assessing compliance with the EPFD<sub>down</sub> Validation Limits are being provided by SkyBridge. If an interested party believes that additional results would be useful (which may not be the "worst-case" locations, but rather locations of particular interest to that operator), it will be able to perform the computations itself. As noted in Exhibit C, SkyBridge would be pleased to assist such a party in this regard.

- 2. SkyBridge requests a partial waiver of Section 25.146(a)(2)(v), to the extent that this rule requires results for:
  - EPFD<sub>up</sub> for every longitudinal location on the GSO orbit at every two-degree spacing that is visible to the U.S. for domestic service
  - EPFD<sub>up</sub> for every longitudinal location on the GSO orbit at every three-degree spacing for service outside the U.S.

As discussed further in Exhibit C, these rules are: (1) inconsistent with ITU rules upon which they are based, (2) incompatible with the software specification adopted by the ITU and FCC for computing validation EPFD<sub>up</sub> levels; (3) subject to the pending

similarly unclear how the requirement that "[t]he center of each beam service area should be the test point coordinate" is to be interpreted, since the EPFD<sub>down</sub> at any location on earth is a function of the contribution of numerous beams, most of which will not be serving the location, and the worst-case is not necessarily located at the center of a beam. See SkyBridge Petition for Reconsideration at 30-32.

- See SkyBridge Petition for Reconsideration at 31; SkyBridge Ex Parte at 18. Moreover, the additional data requested by the Commission provides no useful information to operators of geostationary orbit ("GSO") satellites, because the software does not predict actual interference levels. The software serves only as a tool to ensure that the system will not exceed the Validation Limits anywhere at any time. See SkyBridge Ex Parte at 8, 18.
- SkyBridge Petition for Reconsideration at 31; SkyBridge *Ex Parte* at 18.

SkyBridge Petition for Reconsideration; and (4) in the absence of resolution of the issues raised in that Petition, ambiguous in their interpretation and impractical in their application. While SkyBridge attempted to provide the information required by Section 25.146(a)(2)(v) in good faith in Exhibit C, SkyBridge requests this waiver out of an abundance of caution in the event that its demonstration of compliance is deemed insufficient in view of the current Section 146(a)(2)(v) or that section after resolution of the pending SkyBridge Petition for Reconsideration.

As in the case of the EPFD<sub>down</sub> results, discussed above, no party would be prejudiced by grant of the instant waiver. First, the additional results requested by the Commission are not needed to ensure compliance with the EPFD<sub>up</sub> Validation Limits. So long as the EPFD statistics of a system are shown to meet the EPFD<sub>up</sub> Validation Limits with computer software in accordance with ITU-R Recommendation BO.1503, it follows *by definition* that the limits will be met worldwide. Second, both the software and inputs for assessing compliance with the EPFD<sub>up</sub> Validation Limits are being provided by SkyBridge. If an interested party believes that additional results would be useful, it will be able to perform the computations itself. As noted above, SkyBridge would be pleased to assist such a party in this regard.

3. Sections 25.146(a)(1)(iii) and (a)(2)(iii) of the Commission's Rules require disclosure of the source code employed for the demonstration of compliance with the Validation Limits. As noted in Exhibit C, and discussed in detail in a separate letter to the Commission hand-delivered September 16, 2002 in conjunction with this Amendment (a copy of which is attached as Appendix 1 to this Exhibit B), the source code employed by SkyBridge was developed by an outside contractor, and constitutes highly proprietary information to that contractor. Under the terms of its agreement with the software provider, SkyBridge is not permitted to disclose the source code publicly. SkyBridge has, however, received permission from the software provider to disclose the source code to the Commission under a request for confidential treatment. SkyBridge hereby requests a waiver of the provisions that require disclosure of the source code, in the event that the Commission finds the SkyBridge submission of the source code in any way deficient.

No party would be harmed by grant of the requested waiver. SkyBridge's disclosure of the executable code will permit interested parties to perform computations and test the software to their satisfaction. SkyBridge has submitted the source code to the Commission, for its inspection, as an indication of good faith. SkyBridge would be pleased to assist other parties with any questions they may have concerning the software, including assistance on use and testing of the executable code, so long as such assistance

3

See SkyBridge Petition for Reconsideration at 31; SkyBridge Ex Parte at 18. Further, as noted above, the additional data requested by the Commission provides no useful information to GSO operators because the software does not predict actual interference levels. See SkyBridge Ex Parte at 8, 18.

<sup>&</sup>lt;sup>7</sup> SkyBridge Petition for Reconsideration at 31; SkyBridge *Ex Parte* at 18.

does not require disclosure of commercially-sensitive information of SkyBridge's contractor.

# Appendix 1 to Exhibit B

# **Transmittal Letter for Source Code**

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September 16, 2002

## By Hand

Marlene H. Dortch, Secretary Federal Communications Commission 445 12th Street, N.W., Washington, DC 20554

Re: SkyBridge L.L.C. -- File Nos. 48-SAT-P/LA-97, 89-SAT-AMEND-97, SAT-AMD-19980630-00056 (130-SAT-AMEND-98), SAT-AMD-19990108-00004.

Transmittal of Source Code Related to Amendment – Request for Confidential Treatment

Dear Madame Secretary:

In connection with the amendment being filed today by SkyBridge L.L.C. ("SkyBridge") of its application for authority to launch and operate a non-geostationary satellite orbit ("NGSO") Fixed-Satellite Service ("FSS") system in the Ku-band (the "Amendment"), we hereby transmit, on behalf of SkyBridge, a CD ROM containing the source code (the "Source Code") for the software (the "Validation Software") required to be submitted to the Commission pursuant to 47 C.F.R. § 25.146(a). The CD ROM is labeled "SkyBridge Validation Software Source Code, September 16, 2002."

As discussed below, the Validation Software was developed for SkyBridge by an outside contractor (the "Software Provider"), 1 and it is based, in part, on

The Software Provider is the teuchos Group ("teuchos"), which markets and sells products of Analytical Graphics, Inc., including the Satellite Tool Kit software package.

a commercial product. Under the terms of SkyBridge's nondisclosure agreement with the Software Provider, SkyBridge is not permitted to release the Source Code. However, SkyBridge has received permission to submit the Source Code to the Commission only, in order to demonstrate SkyBridge's compliance with 47 C.F.R. § 25.146(a), provided that such submission is accompanied by a request for confidential treatment.

Accordingly, SkyBridge requests that the Source Code be withheld from public inspection and not placed in the Commission's public files, pursuant to Section 552(b)(4) of the U.S. Code, and Sections 0.457(d) and 0.459 of the Commission's Rules.<sup>2</sup> The Source Code, if disclosed, could be of value to competitors and detrimental to the Software Provider. The Software Provider would be placed at a significant disadvantage if the Source Code were revealed to competing service providers who stand to benefit competitively from any such knowledge. If for any reason the Commission should determine that it may not grant the instant request for confidential treatment, SkyBridge hereby requests that the CD ROM be returned to SkyBridge, and that the Commission retain no copies of the information contained thereon.<sup>3</sup> In no event should the CD ROM or information be placed in the Commission's files or otherwise released publicly.

In support of this request, and pursuant to Section 0.459(b) of the Commission's rules, SkyBridge establishes the following:

- Treatment is Sought. The specific information for Which Confidential Treatment is Sought. The specific information for which confidential treatment is sought is contained in the CD ROM enclosed herewith, which consists of the Source Code for the Validation Software required to be provided to the Commission under 47 C.F.R § 25.146(a). As discussed in the SkyBridge Amendment, the software functionality conforms exactly to a publicly-available software specification -- ITU-R Recommendation BO.1503. Moreover, an executable version of the software is being provided publicly as part of the SkyBridge Amendment. Confidential treatment is being sought only for the highly-proprietary Source Code for the software.
- 2. <u>Description of Circumstances Giving Rise to the Submission.</u> As noted above, the information is being submitted in response the requirement adopted in the *Report and Order*, in IB Docket No. 01-96,<sup>4</sup> that NGSO FSS applicants amend their applications by September 16, 2002, to come into conformity with new requirements and

<sup>&</sup>lt;sup>2</sup> 5 U.S.C. § 552(b)(4); 47 C.F.R. § 0.457(d); 47 C.F.R. § 0.459.

In it Amendment, SkyBridge has requested a waiver of the rule requiring the provision of the source code for the Validation Software, 47 C.F.R. § 25.146(a), in the event that the Commission finds the instant submission in any way deficient.

<sup>&</sup>lt;sup>4</sup> See FCC 02-123, released April 26, 2002.

policies, including a demonstration of compliance with certain power limits contained in 47 C.F.R. § 25.208, using software based on ITU-R Recommendation BO.1503.<sup>5</sup>

- 3. Explanation of the Degree to Which the Information is
  Commercial or Financial, or Contains a Trade Secret or is Privileged. The CD ROM
  contains extremely sensitive information that would customarily be withheld from
  competitors, and considered a trade secret by its owner. Source code for a commercial
  software application is rarely disclosed under any circumstances. The Software Provider
  would be severely prejudiced in its ability to compete if this information were released to
  competitors. As noted above, under the terms of its agreement with the Software
  Provider, SkyBridge is not permitted to release the Source Code without the Software
  Provider's permission. Public disclosure of the Source Code is likely to cause substantial
  harm to the competitive position of the Software Provider.
- 4. <u>Explanation of the Degree to Which the Information Concerns a Service that is Subject to Competition.</u> The information for which non-disclosure is sought pertains to software for modelling emissions of constellations of NGSO satellites. The Software Provider faces competition from software vendors marketing similar products. Such companies stand to benefit competitively from any knowledge of the details of the computer program.
- 5. Explanation of How Disclosure of the Information Could Result in Substantial Competitive Harm. Release of the information for which non-disclosure is sought could result in substantial harm to the Software Provider by revealing to its competitors, the satellite construction industry, and the public, the source code of a commercial software product. Current or future competitors in the service market could use the information to learn details about that product that are extremely confidential and are not available in any other public forum.
- 6. <u>Identification of Any Measures Taken to Prevent Unauthorized</u>
  <u>Disclosure.</u> The Software Provider's agreement with SkyBridge requires SkyBridge to keep proprietary information disclosed pursuant to the agreement, including the Source Code. As noted above, SkyBridge has been authorized to release this information to the Commission only in combination with a request for confidential treatment.
- 7. <u>Identification of Whether the Information is Available to the Public and the Extent of Any Previous Disclosure of the Information to Third Parties.</u> The Source Code for which SkyBridge seeks confidential treatment has never, to SkyBridge's knowledge, been previously disclosed to the public.

<sup>&</sup>lt;sup>5</sup> See 47 C.F.R. §§ 25.146(a), 25.146(h)(3).

8. <u>Justification of Period During Which the Submitting Party Asserts</u> that Material Should Not be Available for Public Disclosure. SkyBridge would request that this information be withheld from disclosure for a period of at least three years. Given the competitive nature of the information and the uncertainty in its useful life, this period of time is reasonable.

Please direct any questions regarding this matter to the undersigned.

Respectfully submitted,

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#### Enclosure

cc: Donald Abelson
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