

**Before the  
FEDERAL COMMUNICATIONS COMMISSION  
Washington, D.C. 20554**

In the Matter of )  
)  
**WorldVu Satellites Limited** ) File No. SAT-APL-2020\_\_\_\_\_  
) Call Sign S2963  
Amendment to Modification Application for )  
U.S. Market Access Grant for the OneWeb )  
Ku- and Ka-Band System )

**AMENDMENT**

Ruth Pritchard-Kelly  
Vice President of Regulatory Affairs  
  
ONEWEB  
1785 Greensboro Station Place, Tower 3  
McLean, VA 22102

Brian Weimer  
Douglas Svor  
Thomas Hastings  
SHEPPARD MULLIN RICHTER & HAMPTON LLP  
2099 Pennsylvania Ave., NW, Suite 100  
Washington, DC 20006  
(202) 747-1930  
*Counsel to WorldVu Satellites Limited*

January 12, 2021

**TABLE OF CONTENTS**

	<b><u>Page</u></b>
<b>I. INTRODUCTION .....</b>	<b>2</b>
<b>II. ONEWEB SEEKS TO REDUCE THE MAXIMUM NUMBER OF SATELLITES SOUGHT IN PHASE 2 OF ITS MODIFICATION APPLICATION.....</b>	<b>3</b>
<b>III. THE AMENDMENT QUALIFIES AS MINOR UNDER SECTION 25.116 OF THE COMMISSION’S RULES .....</b>	<b>5</b>
<b>IV. CONCLUSION .....</b>	<b>8</b>

**Before the  
FEDERAL COMMUNICATIONS COMMISSION  
Washington, D.C. 20554**

In the Matter of )  
)  
**WorldVu Satellites Limited** ) File No. SAT-APL-2020\_\_\_\_\_  
) Call Sign S2963  
Amendment to Modification Application for )  
U.S. Market Access Grant for the OneWeb )  
Ku- and Ka-Band System )

**AMENDMENT**

WorldVu Satellites Limited (“OneWeb”), pursuant to Section 25.116 of the Commission’s rules,<sup>1</sup> submits this amendment (“Amendment”) to update and revise its pending application to modify the Market Access Grant for its low-earth orbit (“LEO”), non-geostationary satellite orbit (“NGSO”), fixed-satellite service (“FSS”) system (the “OneWeb System”).<sup>2</sup> With this Amendment, OneWeb seeks Commission approval to modify only a single aspect of its pending Modification Application: to decrease the maximum number of authorized satellites OneWeb plans to launch during its Phase 2 deployment from 47,844 satellites to 6,372

---

<sup>1</sup> See 47 C.F.R. § 25.116(a) (stating that a pending application may be amended until it has been “designated for hearing, a public notice is issued stating that a substantive disposition of the application is to be considered at a forthcoming Commission meeting, or a final order disposing of the matter is adopted by the Commission”).

<sup>2</sup> See *WorldVu Satellites Limited, Petition for a Declaratory Ruling Granting Access to the U.S. Market for the OneWeb NGSO FSS System*, Order and Declaratory Ruling, 32 FCC Rcd 5366 (2017) (“Market Access Grant”); see also Modification Application of WorldVu Satellites Limited, IBFS File No. SAT-MPL-20200526-00062, Call Sign S2963 (filed May 26, 2020) (“Modification Application”). OneWeb notes this Amendment applies to the Modification Application but, due to IBFS restrictions, references the Market Access Grant in the IBFS Form 312 filing.

satellites and make corresponding adjustments to the number of satellites per orbital plane.<sup>3</sup> All other aspects of the Modification Application remain unchanged.<sup>4</sup> As explained herein, grant of this Amendment would serve the public interest.

## **I. INTRODUCTION**

OneWeb is a market access grantee for a U.K.-authorized, NGSO FSS system operating in the Ku- and Ka-bands.<sup>5</sup> Since initiating the Ku-/Ka-band processing round for NGSO systems in 2016, OneWeb has achieved several significant milestones in its mission of providing affordable, worldwide connectivity via the OneWeb System: constructing and operating a state of the art satellite manufacturing facility in Exploration Park, Florida; building out an extensive network of global gateway earth station facilities; and operating a constellation of 110 functioning and on-orbit spacecraft—a 100% launch success rate to date. Although OneWeb entered a Chapter 11 bankruptcy proceeding in 2020,<sup>6</sup> OneWeb emerged from this process with new ownership and a more robust capital structure that strengthens OneWeb’s ability to continue rolling out innovative connectivity solutions in a highly competitive market for satellite-based

---

<sup>3</sup> OneWeb proposes no changes to the Phase 1 deployment described in the Modification Application.

<sup>4</sup> OneWeb is also updating the instant Amendment to reflect the new ownership approved by the Commission in connection with OneWeb’s emergence from Chapter 11 bankruptcy. *See Application Granted for Assignment and Transfer of Control by WorldVu Satellites Limited, Debtor-In-Possession*, Public Notice, 35 FCC Rcd 11996 (IB 2020).

<sup>5</sup> *See* Market Access Grant.

<sup>6</sup> *See In re: OneWeb Global Limited, et al.*, Debtors Case No. 20-22437.

services.<sup>7</sup> The instant Amendment reflects the embodiment of a bold new vision for a OneWeb with new ownership, new management, and new strategic initiatives.

As explained in Section III below, the reduction in the maximum number of satellites in Phase 2 of OneWeb's planned deployment will not increase the potential for interference to other authorized NGSO FSS systems. Moreover, OneWeb does not seek the use of additional frequencies or any other significant operational changes to its constellation. To the contrary, OneWeb anticipates that a grant of the Amendment will have a beneficial impact on spectrum sharing among applicants in the Commission's current processing round for Ku- and Ka-band applicants.<sup>8</sup>

This Legal Narrative identifies all changes to the Modification Application that are requested by this Amendment. Concurrently, OneWeb is submitting revised Schedule S data files and updated technical attachments to account for the requested changes to the Modification Application. OneWeb certifies that all other information provided in the Modification Application remains unchanged.<sup>9</sup>

## **II. ONEWEB SEEKS TO REDUCE THE MAXIMUM NUMBER OF SATELLITES SOUGHT IN PHASE 2 OF ITS MODIFICATION APPLICATION**

---

<sup>7</sup> See *OneWeb Successfully Emerges From Chapter 11, Announces New CEO and Recommences Satellite Launches*, OneWeb, (Nov. 20, 2020), <https://www.oneweb.world/media-center/oneweb-successfully-emerges-from-chapter-11-announces-new-ceo-and-recommences-satellite-launches>.

<sup>8</sup> See *Satellite Policy Branch Information, Cut-Off Established for Additional NGSO FSS Applications or Petitions for Operations in the 10.7-12.7 GHz, 12.75-13.25 GHz, 13.8-14.5 GHz, 17.7-18.6 GHz, 18.8-20.2 GHz, and 27.5-30 GHz Bands*, Public Notice, 35 FCC Rcd 2881 (IB 2020) ("Second Processing Round") (provisionally concluding that applications from OneWeb, New Spectrum Satellite and Kuiper Systems LLC should be included in the Second Processing Round).

<sup>9</sup> See 47 C.F.R. § 25.117(c).

As a result of developments since emerging from Chapter 11 bankruptcy under new ownership and new management, OneWeb seeks to reduce the maximum number of authorized satellites for which it requests authority in Phase 2 of the Modification Application from 47,844 to 6,372. OneWeb plans no changes to the 716-satellite deployment proposed in Phase 1 of the deployment framework described in the Modification Application. OneWeb expects this revised deployment plan for its Phase 2 constellation will enable it to achieve superior end user throughput and spectral efficiency while reducing funding requirements and fostering OneWeb's "Responsible Space" vision. This Amendment is an integral part of OneWeb's commitment to support the long-term use of space for all by preserving the orbital environment.

In Phase 2 of the Modification Application, OneWeb requested 720 satellites across 32 planes to be deployed at 40° and 55° orbital inclinations, as well as a total of 1,764 satellites at the 87.9° orbital inclination.<sup>10</sup> OneWeb now proposes to reduce the number of satellites deployed in each plane from 720 to 72 but still deploy them across the same 32 planes in the 40° and 55° orbital inclination of Phase 2, while retaining the same total of 1,764 satellites in the 87.9° orbital inclination. Consequently, the total number of satellites for which OneWeb seeks authority in its Phase 2 deployment is 6,372 ( $[72 \text{ satellites} \times 32 \text{ planes}] + [72 \text{ satellites} \times 32 \text{ planes}] + 1,764 \text{ satellites}$ ). The operational characteristics of the currently authorized OneWeb System, as well as the intended Phase 1 and Phase 2 changes, are summarized for convenience in Table A below (\* reflects the only changes requested):

---

<sup>10</sup> Modification Application at 10.

<b>TABLE A – Summary of Proposed OneWeb Constellation Deployments</b>						
<b>OneWeb System Architecture</b>	<b>Market Access Grant</b>	<b>Phase 1</b>		<b>Phase 2</b>		
<b>Orbital Altitude (km)</b>	1200	No change		No change		
<b>Frequencies (GHz)</b>	10.7-12.7, 14-14.5, 17.8-18.6, 18.8-19.3, 27.5-29.1, 29.5-30	No change		No change		
<b>Total Number of Satellites</b>	720	716		6,372		
<b>Number of Satellites per Shell</b>	720	588	128	1,764	2,304	2,304
<b>Number of Planes</b>	18	12	8	36	32	32
<b>Number of Satellites Per Plane</b>	40	49	16	49	72*	72*
<b>Orbital Inclination</b>	87.9°	87.9°	55°	87.9°	40°	55°

### **III. THE AMENDMENT QUALIFIES AS MINOR UNDER SECTION 25.116 OF THE COMMISSION’S RULES**

Section 25.116(b) of the Commission’s rules identifies certain kinds of amendments to pending satellite applications that qualify as “major amendments,” including amendments that increase the potential for interference, change a system’s proposed frequencies, result in a significant environmental effect, or otherwise are determined to be substantial by the Commission.<sup>11</sup> Section 25.116(c) of the Commission’s rules states that an NGSO-like

---

<sup>11</sup> 47 C.F.R. §§ 25.116(b)(1)-(4). *See also ViaSat, Inc.*, Order and Declaratory Ruling, 35 FCC Rcd 4324, 4329, ¶ 11 (2020) (“For NGSO space station applications or petitions for market access...the triggers for a major amendment under section 25.116(b)(1) that are relevant to our analysis are a change in proposed frequencies or an increase in the potential for interference.”) (“ViaSat Order”).

application “will be considered to be a newly filed application if it is amended by a major amendment . . . after a ‘cut-off’ date applicable to the application.”<sup>12</sup> However, Section 25.116(c) also contains explicit exceptions for amendments that “resolve[] frequency conflicts with authorized stations or other pending applications but do[] not create new or increased frequency conflicts.”<sup>13</sup> As demonstrated below, the changes described in the instant Amendment qualify as a minor amendment under Section 25.116 of the Commission’s rules and should not affect the relative status of OneWeb’s planned Phase 2 constellation deployment in the Second Processing Round.<sup>14</sup>

As described in Section II above, OneWeb proposes only to *reduce* the number of inclined satellites per plane in its Phase 2 deployment: no changes to the spectrum bands requested in the Modification Application are proposed, nor does OneWeb plan any changes to its proposed orbital altitude or inclinations. The accompanying technical annex demonstrates this proposed reduction in satellites will not increase the potential interference to other Second Processing Round grantees or applicants.<sup>15</sup>

As a threshold matter, the Commission has recently determined that precisely the kinds of changes OneWeb proposes for its Phase 2 deployment do not constitute a “major amendment” under Section 25.116 of the Commission’s rules. Specifically, in authorizing ViaSat’s recent NGSO constellation, the Commission noted that in circumstances where:

---

<sup>12</sup> 47 C.F.R. § 25.116(c).

<sup>13</sup> *Id.* at § 25.116(c)(1).

<sup>14</sup> 47 C.F.R. §§ 25.116(b), (c). OneWeb reiterates there is no change to Phase 1 requested so there should be no impact on the processing round status of the Phase 1 modification.

<sup>15</sup> *See* Technical Attachment B at B.8.2.



the number of satellites proposed is reduced, the altitude of the proposed orbits remains the same, and the frequencies requested are unchanged mean that the number of potential interference events between ViaSat’s proposed satellites and other satellites being proposed in the same processing rounds is likely to be decreased and the number of times constellations will be required to reduce spectrum will also likely be smaller. As both ViaSat and SpaceX assert, and we agree, these changes decrease the potential for interference, rather than increase it.<sup>16</sup>

This approach is also consistent with prior Commission decisions granting similar amendment or modification applications where NGSO operators proposed a reduction in the number of satellites.<sup>17</sup> In addition to the beneficial impact on frequency sharing, the Amendment will not result in any significant environmental effects or otherwise raise issues the Commission deems substantial. Accordingly, the instant Amendment should not qualify as a “major amendment” and the Commission should process Phase 2 of OneWeb’s planned constellation deployment as part of the Second Processing Round.

However, out of an abundance of caution, if the Commission concludes that this Amendment constitutes a major amendment triggering Section 25.116(c), the Commission should waive the rule for good cause. Aside from the reduction in size of the constellation, the limited changes described in this Amendment do not significantly alter the technical characteristics of the Phase 2 constellation deployment OneWeb proposes. Nor do the changes in this Amendment in any way disadvantage other operators in the Commission’s Second Processing Round. On the contrary, the reduction in size of OneWeb’s proposed Phase 2

---

<sup>16</sup> ViaSat Order ¶ 12.

<sup>17</sup> See, e.g., *O3b Limited*, Order and Declaratory Ruling, 33 FCC Rcd 5508, 5524 ¶ 39 (IB 2018) (concluding that O3b’s amended modification application was not a “major amendment,” in part, because O3b’s proposed reduction in the number of satellites would reduce “the number of potential interference events”); *Space Exploration Holdings, LLC*, Order and Authorization, 34 FCC Rcd 2526, 2530 ¶ 11 (IB 2019) (granting a modification application where SpaceX proposed to slightly reduce the number of authorized satellites because it “does not present significant interference problems and is in the public interest”).

deployment will enhance the ability of all parties in the Second Processing Round to share spectrum. Waiving Section 25.116(c) is thus entirely consistent with the purpose of the Commission's processing round "cut-off" rules: to prevent other co-frequency processing round applicants from experiencing increased interference.<sup>18</sup> Therefore, to the extent necessary, the Commission should waive Section 25.116(c) of the Commission's rules to process OneWeb's planned Phase 2 deployment in the Second Processing Round.

#### IV. CONCLUSION

For the foregoing reasons, OneWeb respectfully requests the Commission to expeditiously grant the Modification Application as amended herein to facilitate OneWeb's deployment of its next generation, satellite-based connectivity services.

Respectfully submitted,

*/s/ Brian Weimer*

---

Brian Weimer  
Douglas Svor  
Thomas Hastings  
SHEPPARD MULLIN RICHTER & HAMPTON LLP  
2099 Pennsylvania Ave., NW, Suite 100  
Washington, DC 20006  
(202) 747-1930  
bweimer@sheppardmullin.com  
dsvor@sheppardmullin.com  
thastings@sheppardmullin.com  
*Counsel to WorldVu Satellites Limited*

Ruth Pritchard-Kelly  
Vice President of Regulatory Affairs  
  
ONEWEB  
1785 Greensboro Station Place, Tower 3  
McLean, VA 22102

January 12, 2021

---

<sup>18</sup> See, e.g., *Amendment of the Commission's Space Station Licensing Rules and Policies*, Notice of Proposed Rulemaking and First Report and Order, 17 FCC Rcd 3847, 3860 ¶ 56 (2002) ("Generally, a 'major amendment' is one that increases the potential for interference.")