

Before the
Federal Communications Commission
Washington, D.C. 20554

In the Matter of )
Assessment and Collection of Space and Earth ) MD Docket No. 24-85
Station Regulatory Fees for Fiscal Year 2024 )
Review of the Commission’s Assessment and ) MD Docket No. 24-86
Collection of Regulatory Fees for Fiscal Year 2024 )

NOTICE OF PROPOSED RULEMAKING

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TABLE OF CONTENTS

Heading Paragraph #
I. INTRODUCTION.....1
II. BACKGROUND.....5
A. Communications Act Requirements .....5
B. Space and Earth Station Regulatory Fees and Methodology .....7
III. DISCUSSION.....13
A. Space Bureau FTEs.....13
B. Space Station Fee Proposals .....16
1. Allocation between GSO and NGSO Space Stations .....16
2. Allocation between NGSO – Other and NGSO – Less Complex .....23
3. Creation of Tiers of NGSO – Other .....28
4. Small Satellites .....44
5. Treatment of RPO, OOS, and OTV .....46
6. Assessment of Fees on Authorized, but not Operational, Space Stations .....57
C. Earth Station Fee Proposals .....67
D. Alternative Methodology for Assessing Space Station Regulatory Fees .....76
E. Other Matters .....92
IV. PROCEDURAL MATTERS.....95
V. ORDERING CLAUSES.....101
APPENDIX – INITIAL REGULATORY FLEXIBILITY ANALYSIS

## I. INTRODUCTION

1. Pursuant to section 9 of the Communications Act of 1934, as amended,<sup>1</sup> (Communications Act or Act) we undertake this Notice of Proposed Rulemaking (*Notice*) to commence the assessment of regulatory fees for space and earth station payors for fiscal year (FY) 2024.

2. In January 2023, the Commission reorganized its International Bureau into: (1) a Space Bureau to handle policy and licensing matters related to satellite communications and other in-space activities under the Commission's jurisdiction; and (2) an Office of International Affairs to handle issues involving foreign and international regulatory authorities as well as international telecommunications and submarine cable licensing.<sup>2</sup> When the Commission adopted regulatory fees for FY 2023, it noted that it would be the last year for doing so for the International Bureau, and that the creation of the Space Bureau and Office of International Affairs could result in changes in the assessment of regulatory fees due to changes in FTEs,<sup>3</sup> due to increased oversight on various relevant industries.<sup>4</sup> In particular, the Commission stated that an examination of the regulatory fees and categories for non-geostationary orbit (NGSO) space stations would be useful in light of changes resulting from the creation of the Space Bureau.<sup>5</sup> The Commission anticipated that the changes in the industry that resulted in the creation of the Space Bureau would likely also result in changes in the relative FTE burdens between and among space and earth station fee payors.<sup>6</sup> Accordingly, the Commission found that it would be more efficient to seek comment on proposals to examine the categories of regulatory fees for NGSO space stations at the same time as other proposals that might arise as part of a "more holistic review" of the fee burden of the Space Bureau in FY 2024.<sup>7</sup>

3. This *Notice* commences that examination and review of regulatory fees for space and earth station payors that are regulated by the new Space Bureau. Specifically, we seek comment on a range of proposed changes related to the assessment of regulatory fees for space and earth stations under our existing methodology:

- We propose changes to the allocation of fee burdens between geostationary orbit (GSO) and NGSO space stations and maintain the existing allocation of fee burdens between the categories of "less complex" and "other" NGSO space stations;

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<sup>1</sup> 47 U.S.C. § 159(a), (b).

<sup>2</sup> *Establishment of the Space Bureau and the Office of International Affairs and Reorganization of the Consumer and Governmental Affairs Bureau and the Office of the Managing Director*, Order, FCC 23-1, 2023 WL 161974 (rel. Jan. 9, 2023) (*Space Bureau Order*).

<sup>3</sup> One FTE, a "Full Time Equivalent" or "Full Time Employee," is a unit of measure equal to the work performed annually by a full-time person (working a 40-hour workweek for a full year) assigned to the particular job, and subject to agency personnel staffing limitations established by the U.S. Office of Management and Budget. *See generally* Executive Office of the President, Office of Management and Budget, Circular No. A-11, Preparation, Submission, and Execution of the Budget (August 2022), <https://www.whitehouse.gov/wp-content/uploads/2018/06/a11.pdf>. *See* section 85.5(c) for a detailed explanation of how FTEs are calculated. In this proceeding when we state that 1.5 FTEs work on a particular subject matter, that might mean three individuals spend 50% of their time on that area. Moreover, any change in FTE allocation described here is solely for regulatory fee purposes and does not reflect any change of personnel in the various organizational work units.

<sup>4</sup> *Assessment and Collection of Regulatory Fees for Fiscal Year 2023*, Report and Order, FCC 23-66, 2023 WL 5197492 at \*22, para. 72 (rel. Aug. 10, 2023) (*FY 2023 R&O*).

<sup>5</sup> *FY 2023 R&O* at 23, para. 73.

<sup>6</sup> *FY 2023 R&O* at 32, para. 106.

<sup>7</sup> *Id.*

- We propose to create new fee categories within the existing fee category of “Space Station (Non-Geostationary Orbit) – Other” to make assessment of our regulatory fees fairer, more administrable, and more sustainable;<sup>8</sup>
- We propose to set the regulatory fee for “Space Stations (per license/call sign in non-geostationary orbit) (47 CFR part 25) (Small Satellite)” for FY 2024 and future fiscal years at the level set for FY 2023 (\$12,215), adjusted annually to reflect the percentage change in the appropriation from the previous fiscal year;
- We propose, on an interim basis, to include space stations that are principally used for Rendezvous & Proximity Operations (RPO) or On-Orbit Servicing (OOS), including Orbit Transfer Vehicles (OTV), in the existing fee category for “small satellites” until we can develop more experience in how these space stations will be regulated;
- We propose to assess regulatory fees on all authorized space stations, not just on operational space stations, in order to adhere more closely to the framework of section 9 of the Act and to make our fees fairer, more administrable, and more sustainable;
- We propose to increase the allocation of fees payable by earth station licensees in order to reflect more accurately the fee burden attributable to their licensing and regulation and seek comment on whether additional earth station fee categories should be created; and
- We also propose to amend the title of section 1.1156 of the Commission’s rules,<sup>9</sup> which is currently titled “Schedule of regulatory fees for international services,” to make clear after the reorganization of the International Bureau that section 1.1156 includes space and earth station regulatory fees.

4. In addition, we propose an alternative methodology for assessing space station regulatory fees in section III.D below. Unlike the proposals made above to adjust the existing methodology, the alternative methodology is a more comprehensive departure from the way that space station regulatory fees have been assessed since 1994 in that it eliminates the separate categories of regulatory fees for GSO and NGSO space stations, as well as existing subcategories for NGSO space stations. It would retain the existing separate regulatory fee category for small satellites and spacecraft licensed under sections 25.122 and 25.123 of our rules.<sup>10</sup> For the reasons discussed below, this alternative methodology may be more

<sup>8</sup> See *Assessment and Collection of Regulatory Fees for Fiscal Year 2013*, Notice of Proposed Rulemaking and Further Notice of Proposed Rulemaking, 28 FCC Rcd 7790, 7798-7807, paras. 17-40 (2013) (FY 2013 NPRM); *Assessment and Collection of Regulatory Fees for Fiscal Year 2012*, Report and Order, 27 FCC Rcd 8390, 8464-65, paras. 14-16 (2012). The concept of administrability includes the difficulty in collecting regulatory fees under a system that could have unpredictable dramatic shifts in assessed fees in certain categories from year to year. In adopting our fee schedule, we are also mindful of other general limits of fee authority. See *National Cable Television Ass’n v. United States*, 415 U.S. 336, 340-41 (1974) (construing Independent Offices Appropriations Act) (IOAA)); see also *National Cable Television Ass’n v. FCC*, 554 F.2d 1094, 1106 & n.42 (D.C. Cir. 1976). We are mindful that IOAA no longer applies to the Commission. See House of Representatives Report No. 99-453 (1985) at page 433 (noting the significance of National Cable and explaining that IOAA no longer applies to the Commission with the passage of other specific fee authority, application fees, in COBRA-85). We, nevertheless, are cognizant of broader legal issues raised by user fee and/or regulatory fee precedent.

<sup>9</sup> 47 CFR § 1.1156.

<sup>10</sup> 47 CFR §§ 25.122 and 25.123. A “small satellite” is an NGSO space station eligible for authorization under the application process described in § 25.122, and a “small spacecraft” is an NGSO space station operating beyond Earth’s orbit that is eligible for authorization under the application process described in § 25.123. 47 CFR § 25.103. Throughout this *Notice*, we use the terms “space station,” “satellite,” and “spacecraft.” “Space station” is defined in the Commission’s rules as “[a] station” located on an object which is beyond, is intended to go beyond, or has been beyond, the major portion of the Earth’s atmosphere.” 47 CFR §§ 2.1, 25.103. The Commission’s rules define “satellite” as “[a] body which revolves around another body of preponderant mass, and which has a motion

(continued...)

fair, administrable, and sustainable than the existing methodology, and we seek comment on all aspects of this alternative approach.

## II. BACKGROUND

### A. Communications Act Requirements

5. Section 9 of the Act obligates the Commission to assess and collect regulatory fees each year in an amount that can reasonably be expected to equal the amount of its annual salaries and expenses (S&E) appropriation.<sup>11</sup> In accordance with the statute, each year, in an annual fee proceeding, the Commission proposes adjustments to the prior fee schedule under section 9(c) to “(A) reflect unexpected increases or decreases in the number of units subject to the payment of such fees; and (B) result in the collection of the amount required” by the Commission’s annual appropriation.<sup>12</sup> Pursuant to section 9A(b)(1) of the Act, the Commission must notify Congress immediately upon adoption of any adjustment.<sup>13</sup> The Commission will also propose amendments to the fee schedule under section 9(d) “if the Commission determines that the schedule requires amendment so that such fees reflect the full-time equivalent number of employees within the bureaus and offices of the Commission, adjusted to take into account factors that are reasonably related to the benefits provided to the payor of the fee by the Commission’s activities.”<sup>14</sup> Pursuant to section 9A(b)(2) of the Act, the Commission must notify Congress at least 90 days prior to making effective any amendments to the regulatory fee schedule.<sup>15</sup>

6. We therefore initiate this proceeding to seek comment on possible changes to the existing methodology for assessing space and earth station regulatory fees, ahead of our annual Commission-wide regulatory fee proceeding for the fiscal year, to adopt amendments to the existing space and earth station regulatory fee categories or to adopt new regulatory fee categories in time for those changes to be effective for FY 2024. Because changes to the regulatory fee categories require 90-day prior notification to Congress to be effective for FY 2024, any changes to the space and earth station regulatory fee categories would have to be adopted and notification of the changes would have to be timely provided to Congress to become effective before the end of FY 2024. While we initiate the examination and review of the existing methodology for assessing regulatory fees for space and earth station payors in this *Notice*, we will propose and finalize the regulatory fee rates for space and earth station payors as part of our annual Commission-wide regulatory fee proceeding for FY 2024. Commenters will have an opportunity in that proceeding to provide comments on the proposed regulatory fee rates for space and earth station payors.

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primarily and permanently determined by the force of attraction of that other body.” 47 CFR § 2.1. In this *Notice*, we refer only to artificial satellites. The Commission’s rules define “spacecraft” as “[a] man-made vehicle which is intended to go beyond the major portion of the Earth’s atmosphere.” 47 CFR § 2.1, 25.103. These terms are used interchangeably in this *Notice*, but we observe that “satellite” and “spacecraft” are more broadly defined than “space station.”

<sup>11</sup> 47 U.S.C. § 159(a), (b). The regulatory fee collection is guided by both the statutory authority in sections 6 and 9 of the Communications Act, 47 U.S.C. §§ 156, 159, and the explicit language of each fiscal year’s S&E appropriation directing the amount to be collected as an offsetting collection.

<sup>12</sup> 47 U.S.C. § 159(c). For example, if the number of units in a regulatory fee category increases, the amount due per unit may decrease. This would also include proportionate increases in a given fee category to reflect an overall increase in the annual FY appropriation. It is rare, however, for the Commission to solely propose adjustments under section 9(c).

<sup>13</sup> 47 U.S.C. § 159A(b)(1).

<sup>14</sup> 47 U.S.C. § 159(d).

<sup>15</sup> 47 U.S.C. § 159A(b)(2).

## B. Space and Earth Station Regulatory Fees and Methodology

7. The existing schedule of regulatory fees for space and earth station payors is contained in section 1.1156 of the Commission’s rules.<sup>16</sup> There are four current categories of space station payors: Space Stations (Geostationary Orbit); Space Stations (Non-Geostationary Orbit)—Less Complex; Space Stations (Non-Geostationary Orbit)—Other; and Space Station (Small Satellites).<sup>17</sup> “Less Complex” NGSO systems are defined as NGSO satellite systems planning to communicate with 20 or fewer U.S. authorized earth stations that are primarily used for Earth Exploration Satellite Service (EESS) and/or Automatic Identification System (AIS).<sup>18</sup> “Small Satellites” are space stations licensed pursuant to the streamlined small satellite process contained in section 25.122 of the Commission’s rules.<sup>19</sup> The Space Stations (Small Satellites) category also includes “small spacecraft” licensed pursuant to the analogous streamlined procedures of section 25.123 of the rules.<sup>20</sup> In addition, there is a single category of earth station payors – Earth Stations: Transmit/Receive & Transmit only.<sup>21</sup> Since our fiscal year 2020 proceeding, non-U.S. licensed space stations granted market access to the United States through a Petition for Declaratory Ruling or through earth station licenses are subject to regulatory fees.<sup>22</sup>

8. For FY 2023, the regulatory fee amount per category of space and earth station payor were as follows:<sup>23</sup>

Fee Category	FY 2023 Fee Amount
Space Stations (Geostationary Orbit)	\$117,580
Space Stations (Non-Geostationary Orbit)—Less Complex	\$130,405
Space Stations (Non-Geostationary Orbit)—Other	\$347,755
Space Stations (per license/call sign in non-geostationary orbit) (Small Satellites)	\$12,215
Earth Stations: Transmit/Receive & Transmit only (per authorization or registration)	\$575

9. Under the existing methodology of calculating regulatory fees for space and earth station payors, the Commission multiplies the space station and earth station FTE allocation percentages by the target goal of collections (overall total amount to collect), respectively, to determine the amount to be collected from each regulatory fee category. Since 2020, the space station allocation percentages reflect

<sup>16</sup> 47 CFR § 1.1156.

<sup>17</sup> 47 CFR § 1.1156(a).

<sup>18</sup> *Assessment and Collection of Regulatory Fees for Fiscal Year 2021, Assessment and Collection of Regulatory Fees for Fiscal Year 2020*, Report and Order and Notice of Proposed Rulemaking, 36 FCC Rcd. 8580, 8583-84, para. 7. (2021) (*FY 2021 NPRM*). EESS is defined under the Commission rules as “a radiocommunication service between earth stations and one or more space stations... in which... information relating to the characteristics of the Earth and its natural phenomena, including data relating to the state of the environment, is obtained from active sensors or passive sensors on Earth satellites... ” 47 CFR § 2.1(c).

<sup>19</sup> 47 CFR § 25.122.

<sup>20</sup> 47 CFR § 25.123.

<sup>21</sup> 47 CFR § 1.1156.

<sup>22</sup> *Assessment and Collection of Regulatory Fees for Fiscal Year 2020*, Report and Order and Further Notice of Proposed Rulemaking, 36 FCC Rcd 1731, 2020 WL 5247255 (2020) (*FY 2020 R&O and FNPRMI*)

<sup>23</sup> *Id.*

an 80/20 split between the GSO and NGSO regulatory fee categories, respectively.<sup>24</sup> The amount to be collected by the space station and earth station regulatory fee categories, divided by the projected number of units, determines the fee rate. There are several space station regulatory fee categories – GSO, NGSO “other,” NGSO “less complex,” and small satellites – and each of these regulatory fee categories has its own respective FTE allocation percentage to determine the fee rate. The small satellite fee rate is calculated by taking the average of the calculated fee rate for space stations in the NGSO “other” and NGSO “less complex” categories. The average fee rate is then multiplied by 5% (1/20) and rounded to the nearest \$5 to determine the small satellite fee rate. The small satellite fee rate is then multiplied by the number of small satellite units, and the amount derived is divided by an 80/20 split and reduced from the target goals of NGSO-Other and NGSO-Less Complex, respectively. After reducing the NGSO “other” and NGSO “less complex” target goal amounts, the fee rates for both of these NGSO regulatory fee categories are re-calculated (dividing the revised target goal by its respective unit count) to reflect a slightly lower fee rate.

10. The units of assessment for GSO and NGSO space station regulatory fee categories differ in that the fee for Space Stations (Geostationary Orbit) is assessed per satellite in geostationary orbit, whereas the fee assessed for Space Stations (Non-Geostationary Orbit), either “less complex” or “other,” is per “system” of satellites,<sup>25</sup> with no limit on the number of satellites per system. Fees for Space Stations (Small Satellites) are assessed per license/call sign, which can include up to 10 satellites or spacecraft.<sup>26</sup> This means that the unit of regulatory fees for GSO space stations is a single satellite, whereas the unit of regulatory fees for NGSO space stations can include tens, if not thousands, of satellites. Thus, although the single highest regulatory fee for space stations for FY 2023 is \$347,755 for Space Stations (Non-Geostationary Orbit) – Other, this fee reflects the regulatory burden associated with the licensing and oversight of numerous space stations in the system, usually subject to processing rounds, complex spectrum sharing arrangements, and providing global coverage. By contrast, the per unit fee for Space Stations (Geostationary Orbit) for FY 2023 is lower at \$117,580, but an operator providing global coverage may be paying regulatory fees on multiple space stations in geostationary orbit, which could result in annual regulatory fee payments by a single fee payor in aggregate far greater than the regulatory fee for Space Stations (Non-Geostationary Orbit) – Other providing similar services and coverage.<sup>27</sup> Earth station regulatory fees are assessed “per license or registration,”<sup>28</sup> and each license or registration may include a single earth station, or multiple earth stations.

11. In addition, regulatory fees are assessed solely on “operational” space stations.<sup>29</sup> A space station is considered to be operational when the operator reports under the Commission’s reporting

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<sup>24</sup> In 2019, the Commission sought comment on a proposal to examine the allocation of FTEs among GSO and NGSO space and earth station operators. *Assessment and Collection of Regulatory Fees for Fiscal Year 2019*, Report and Order and Further Notice of Proposed Rulemaking, 34 FCC Rcd 8199, 2019 WL 4072476 at \*23, para. 67 (2019) (*FY 2019 Report and Order and FNPRM*). For FY 2019, the annual regulatory fee per unit for GSO space stations was \$159,625, and the comparable fee per unit for NGSO space stations was \$154,875. *FY 2020 R&O and NPRM*, 35 FCC Rcd at 4993, para. 39.

<sup>25</sup> Regulatory Fees Fact Sheet: FY 2022 Regulatory Fees – International and Satellite Services (Sept. 2022) at 2,3.

<sup>26</sup> *Id.* at 3.

<sup>27</sup> As an example, we calculate that one GSO fee payor was assessed fees for 48 space stations in geostationary orbit for FY 2023, for a total regulatory fee assessment of \$5,643,840.

<sup>28</sup> Regulatory Fees Fact Sheet: FY 2022 Regulatory Fees – International and Satellite Services (Sept. 2022) at 2 (explaining fee calculation is “per license or authorization”).

<sup>29</sup> *Id.* at 2-3 (stating that the fee calculation for GSO space stations is “per operational station in geostationary orbit” and that the fee payment for NGSO space stations is required upon commencement of operation of a system’s first satellite); see *infra*, section III.B.6 (explaining that the origin for assessing regulatory fees on space stations when they become operational, rather than when authorized, was the statutory text of section 9 of the Act from 1993, which has subsequently been deleted by Congress).

requirements for space stations that the space station or stations have been successfully placed into orbit and that operations conform to the terms and conditions of the space station authorization.<sup>30</sup> Similarly, if an earth station's license limits its operational authority to a particular satellite system, a regulatory fee payment is not due until the first satellite in that system becomes operational.<sup>31</sup>

12. For FY 2023, the number of units for the earth station fee category was 2900.<sup>32</sup> The number of units for Space Stations (Geostationary Orbit) was 136; the number of units for Space Stations (Non-Geostationary Orbit)—Other was nine; the number of units for Space Stations (Non-Geostationary Orbit)—Less Complex was six; and the number of units for Space Stations (Small Satellites) was seven.<sup>33</sup> These unit counts and fees resulted in a total expected regulatory fee revenue of \$21,656,110 from space and earth station payors for FY 2023, which is the sum of \$1,667,500 expected to be paid by earth station payors (7.69% of all space and earth station regulatory fees), \$15,990,880 expected to be paid by Space Stations (Geostationary Orbit) (73.84%), \$3,129,795 expected to be paid by Space Stations (Non-Geostationary Orbit) – Other (14.45%), \$782,430 expected to be paid by Space Stations (Non-Geostationary Orbit) – Less Complex (3.61%), and \$85,505 expected to be paid by Space Stations (Small Satellites) (0.39%).<sup>34</sup>

### III. DISCUSSION

#### A. Space Bureau FTEs

13. Pursuant to section 9(d) of the Communications Act, the Commission's methodology for assessing regulatory fees must "reflect the full-time equivalent number of employees within the bureaus and offices of the Commission, adjusted to take into account factors that are reasonably related to the benefits provided to the payor of the fee by the Commission's activities."<sup>35</sup> We first set forth the anticipated number of full-time equivalent number of employees, or FTEs, that will be in the new Space Bureau for purposes of assessing regulatory fees for FY 2024. The Commission previously anticipated that the changes in the satellite industry, which led to the reorganization of the International Bureau into the Space Bureau and the Office of International Affairs, might result in a larger number of FTEs devoted to space and earth station licensing, regulation, industry analysis, and oversight due to increased regulatory complexity that resulted from technological changes in the industry.<sup>36</sup> Accordingly, the Commission stated that it would closely review the Space Bureau and Office of International Affairs FTEs to determine the appropriate number of FTEs in each entity as a result of the reorganization and how they will be apportioned among the different services.<sup>37</sup>

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<sup>30</sup> Regulatory Fees Fact Sheet: FY 2022 Regulatory Fees – International and Satellite Services (Sept. 2022) at at 3. *See also* 47 CFR § 25.121(d).

<sup>31</sup> Regulatory Fees Fact Sheet: FY 2022 Regulatory Fees – International and Satellite Services (Sept. 2022) at 1.

<sup>32</sup> *FY 2023 R&O*, 2023 WL 5197492 at \*47, Appendix B. The number of earth station units is based on International Bureau licensing data and actual FY 2022 payment units. *Id.* 2023 WL 5197492 at 48, Appendix D.

<sup>33</sup> *FY 2023 R&O*, 2023 WL 5197492 at \*47, Appendix B. The number of GSO and NGSO space station units is based on International Bureau licensing data and actual FY 2022 payment units. *Id.* 2023 WL 5197492 at 48, Appendix D.

<sup>34</sup> *FY 2023 R&O*, 2023 WL 5197492 at \*47, Appendix B.

<sup>35</sup> 47 U.S.C. § 159(d).

<sup>36</sup> *FY 2023 R&O*, 2023 WL 5197492 at \*22, para. 72.

<sup>37</sup> *FY 2023 R&O*, 2023 WL 5197492 at \*22, para. 72. In addition, Intelsat previously observed that it would be immensely helpful for the Commission to provide as much information and guidance as possible regarding the reallocation of FTEs located in the International Bureau to the Space Bureau and Office of International Affairs. *Id.* at 22, n.127.

14. Our Human Resources Management office provided initial data identifying 54 FTEs in the Space Bureau to be counted for FY 2024. We anticipate that these FTEs will be categorized as direct FTEs, with the exception of a small number of FTEs that work exclusively, or nearly exclusively, on administrative activities, with the staff of the Office of International Affairs on covering ITU World Radiocommunications Conference (WRC) agenda items,<sup>38</sup> or with the staff of the Office of Engineering & Technology on experimental licenses involving space or earth stations. We expect such FTEs to be categorized as indirect FTEs, since such work does not focus on the oversight and regulation of a specific category of regulatory fee payors, but instead benefits the Commission, the telecommunications industry, or the public as a whole, or in the case of work done on experimental licenses, is in furtherance of licenses that are not subject to a regulatory fee.<sup>39</sup> We also anticipate that a small number of FTEs from the Office of Economic and Analytics and the Public Safety and Homeland Security Bureau will be attributed as direct FTEs to the Space Bureau.<sup>40</sup> For the sake of efficiency, we will make our final proposals regarding the Space Bureau's total share of all Commission direct FTEs, as part of a notice of proposed rulemaking to be released at a later date for the Commission-wide assessment of regulatory fees for FY 2024.

15. Nonetheless, we anticipate that the number of direct FTEs in the Space Bureau for FY 2024 will be greater than the 28 direct FTEs that were allocated to the International Bureau for FY 2023.<sup>41</sup> Based on initial estimates, the Space Bureau FTEs could account for 10.76% of all Commission direct FTEs for FY 2024, compared with the International Bureau accounting for 7.77% in FY 2023.<sup>42</sup> We also expect that space and earth station payors will pay significantly more in regulatory fees in FY 2024 than in FY 2023. This is chiefly because we anticipate there will be more direct FTEs in the Space Bureau attributable to space and earth station fee payors than there were in the International Bureau, due to the increased regulatory complexity and oversight required, which will result in a larger percentage of overall regulatory fees being allocated to the Space Bureau, assuming there is no offsetting increase in the number of FTEs in other core bureaus and offices. Accordingly, there is increased importance in examining how FTEs are apportioned among the categories of Space Bureau fee payors to ensure that the fee apportionment methodology is administrable, fair, and sustainable.

## **B. Space Station Fee Proposals**

### **1. Allocation between GSO and NGSO Space Stations**

16. If the existing methodology for assessing regulatory fees for space stations is maintained, we propose to change the allocation of the regulatory fees between GSO and NGSO fee payors to reflect more accurately the apportionment of current FTE work between these two classes of regulatory fee

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<sup>38</sup> *FY 2023 R&O*, 2023 WL 5197492 at \*23, para. 76. WRCs are held every three to four years. It is the job of WRC to review, and, if necessary, revise the Radio Regulations, the international treaty governing the use of the radio-frequency spectrum and satellite orbits. The Radio Regulations facilitate equitable access to and rational use of the natural resources of the radio-frequency spectrum and geostationary satellite orbits. They also ensure the availability of the frequencies provided for distress and safety purposes and assist in the prevention and resolution of cases of harmful interference between the radio services of different administrations. Further, the regulations facilitate the efficient and effective operation of all radiocommunication services and, where necessary, regulate new applications of radiocommunication technology. See ITU, Publications, *Radio Regulations 2020*, <https://www.itu.int/hub/publication/r-reg-rr-2020/> (last visited Nov. 17, 2023).

<sup>39</sup> *Assessment and Collection of Regulatory Fees for Fiscal Year 2022*, Report and Order and Notice of Inquiry, 37 FCC Rcd. 10845, 2022 WL 4079045 at \*30-32, paras. 76-80 (2022) (*FY 2022 R&O and NOI*).

<sup>40</sup> For FY 2023, 1 FTE in the Office of General Counsel and 2 FTEs in the Office of Economics and Analytics were attributed as direct FTEs to the International Bureau. See *FY 2023 R&O*, 2023 WL 5197492 at \*14, para. 47.

<sup>41</sup> *FY 2023 R&O*, 2023 WL 5197492 at \*23, para. 76 (“Based on our review of the FTEs in the International Bureau, we find that the allocation of direct and indirect FTEs should remain the same for FY 2023, i.e., 28 direct and 53 indirect FTEs.”)

<sup>42</sup> *Id.* at \*8, para 22.



payors. Under the existing allocation adopted in 2020, 80% of space station regulatory fees are allocated to GSO space station fee payors and 20% of the space station regulatory fees to NGSO space station fee payors.<sup>43</sup> For the reasons stated below, we propose to change this allocation to 60% of space station regulatory fees being allocated to GSO space station payors and 40% to NGSO space station payors.

17. In proposing this change in allocation, we employ the same methodology that was used by the Commission in 2020 in adopting the “80/20” split between GSO and NGSO space station fee payors.<sup>44</sup> Specifically, we focus on three factors that collectively reflect the Commission’s oversight of GSO and NGSO operators: the number of applications processed, the number of changes made to the Commission’s rules, and FTEs devoted to oversight of each category of operators.<sup>45</sup>

18. First, using the advanced search function of the International Communications Filing System (ICFS),<sup>46</sup> we identified all applications for space stations (service type: SAT) filed during the three most recent fiscal years (that is, FY 2021-2023) for both GSO (class of service: SSG) and NGSO (class of service: SSN).<sup>47</sup> A total of 526 distinct applications for space stations were filed during this time period, with 322 applications being filed for GSO space stations (61%) and 204 applications for NGSO space stations (39%). Thus, the number of applications received during this three-year period supports a larger allocation of FTE time to GSO fee payors than to NGSO fee payors, but in a narrower range than the current 80/20 split.

19. Second, using compiled data through a search of the FCC’s Electronic Comment Filing System (ECFS)<sup>48</sup> and a cross check of items on the webpages of the FCC and the International Bureau/Space Bureau for the last three fiscal years, we identified docketed proceedings originating from the International Bureau’s Satellite Division, or from the Space Bureau, and considered to the involvement of GSO and NGSO space stations in each proceeding. We analyzed the data to estimate whether a particular docketed proceeding involved GSO or NGSO space station payors, or both. We did not count docketed proceedings for transfer of control or assignment applications or other docketed proceedings that did not make changes to the Commission’s rules. We included, however, a docketed proceeding to modify the conditions relating to the International Telecommunications Satellite Organization placed on the licenses of a GSO space station operator,<sup>49</sup> even though it was not a rulemaking proceeding, because it involved changes to the conditions on a large number of space station licenses that required significant FTE resources to process.

20. We identified 16 proceedings during FY 2021-2023, of which 8 substantively involved GSO space stations (50%)<sup>50</sup> and 12 substantively involved NGSO space stations (75%).<sup>51</sup> Accordingly,

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<sup>43</sup> *Assessment and Collection of Regulatory Fees for Fiscal Year 2020*, MD Docket No. 20-105, Report and Order and Notice of Proposed Rulemaking, 35 FCC Rcd. 4976, 4993, para. 41 (2020) (*FY 2020 R&O and NPRM*).

<sup>44</sup> *Id.*

<sup>45</sup> *Id.* The agency is not required to calculate its costs with “scientific precision.” *Central & Southern Motor Freight Tariff Ass’n v. United States*, 777 F.2d 722, 736 (D.C. Cir. 1985). Reasonable approximations will suffice. *Id.*; *Mississippi Power & Light*, 601 F.2d at 232; *National Cable Television Ass’n v. FCC*, 554 F.2d 1094, 1105 (D.C. Cir. 1976); 36 *Comp. Gen.* 75 (1956).

<sup>46</sup> ICFS is available online at <https://licensing.fcc.gov/myibfs/>.

<sup>47</sup> Unlike the methodology used in 2020, we do not look at disposition of applications, only applications filed. The prior evaluation in 2020 did not reveal significant disparity in the number of applications received and disposed of. *FY 2020 R&O and NPRM*, 35 FCC Rcd at 4994, para. 42.

<sup>48</sup> ECFS is available online at <https://www.fcc.gov/ecfs/search/search-filings>.

<sup>49</sup> Request By Intelsat License LLC, As Debtor In Possession, For Modification Of License Conditions Relating To The International Telecommunications Satellite Organization, IB Docket No. 20-417.

<sup>50</sup> The proceedings that we identified as substantially involving GSO space stations were (1) IB Docket No. 20-330 (R&O); (2) IB Docket No. 20-417; (3) IB Docket No. 18-314 (R&O); (4) IB Docket Nos. 17-95 & 18-315 (R&O)

(continued....)

the data presented suggests that there were more rulemakings substantively involving NGSO space stations than GSO space stations.<sup>52</sup> Similarly to our analysis in 2020, we note that, quantifying only the most recent rulemaking activities does not take into account past rulemakings that are of continued relevance to space stations and are administered by Commission FTEs either through licensing, interpretation and application of those rules in other proceedings, or in consultation with the space station regulatees. Thus, attributing a value to rulemaking activities directly is not an exercise in scientific precision, but rather an exercise in reasonable analysis and a mechanism to verify the other data we review below.<sup>53</sup> On balance, however, we tentatively conclude that these rulemaking data support a greater allocation of regulatory fees to NGSO space station payors than is currently the case.

21. Third, we considered whether we could examine FTE activities directly, but although there has been a change in the number of FTEs attributable to satellite regulatory activities due to the creation of the Space Bureau, it remains challenging to segregate the time spent by FTEs on work done on GSO versus NGSO matters. As was the case in the International Bureau,<sup>54</sup> staff time spent in the Space Bureau on authorizations and rulemakings may benefit both categories of satellite operations. Based on our experience and judgement, we estimate as closely as possible the relative percentage of FTEs that are attributable to benefitting either GSO or NGSO systems based on the factors above.

22. While there are issues of fact, law, engineering, and the physics of electromagnetic propagation that may be unique to GSO or NGSO space stations, many issues that Space Bureau staff work on are not segregable in a manner that is beneficial to clearly apportioning FTE time between GSO and NGSO regulatory fee categories. Taking all of the foregoing factors and data into consideration we tentatively conclude, however, that the GSO/NGSO ratio should be adjusted to reflect that GSO space stations derived roughly 60% of the benefit from the Commission's regulatory efforts and NGSO space stations derived roughly 40%. Accordingly, for FY 2024, we propose that GSO and NGSO space stations will be allocated 60% and 40% of space station regulatory fees, respectively. We seek comment on this tentative conclusion and proposal.

## 2. Allocation between NGSO – Other and NGSO – Less Complex

23. If the existing methodology for assessing regulatory fees for space stations is maintained, we propose to maintain the existing allocation of the regulatory fee burden between “Space Stations (Non-Geostationary Orbit) – Less Complex” and “Space Stations (Non-Geostationary Orbit) – Other.” Currently, 20% of NGSO space station regulatory fees are allocated to Space Stations (Non-Geostationary Orbit) – Less Complex and 80% are allocated to Space Stations (Non-Geostationary Orbit) – Other fee payors.<sup>55</sup> As discussed earlier in this *Notice*,<sup>56</sup> the Commission has defined “less complex” NGSO

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and FNPRM); (5) IB Docket No. 18-313 (2<sup>nd</sup> R&O); (6) IB Docket No. 22-411 & 22-271 (NPRM); (7) IB Docket No 22-272 (NOI); and (8) IB Docket No. 22-411 & 22-271 (R&O & FNPRM).

<sup>51</sup> The proceedings that we identified as substantially involving NGSO space stations were: (1) IB Docket No. 16-408 (2<sup>nd</sup> R&O); (2) IB Docket Nos. 17-95 & 18-315 (R&O and FNPRM); (3) IB Docket No. 18-313 (2<sup>nd</sup> R&O and FNPRM); (4) IB Docket No. 21-456 (Order and NPRM); (5) IB Docket Nos. 22-411 & 22-271 (NPRM); (6) IB Docket No. 22-272 (NOI); (7) IB Docket Nos. 22-273 (R&O and NPRM); (8) IB Docket Nos. 22-271 & 18-313 (2<sup>nd</sup> R&O); (9) IB Docket No. 21-456 (NPRM); (10) IB Docket No. 23-22 (NPRM); (11) IB Docket No. 23-29 (R&O & FNPRM); and (12) IB Docket No. 21-456 (R&O and FNPRM).

<sup>52</sup> In identifying the involvement of GSO or NGSO space stations, some proceedings involved both GSO and NGSO space stations and, as a result, the total number of proceedings involving either GSO or NGSO space stations is greater than the 16 identified proceedings.

<sup>53</sup> *FY 2020 R&O and NPRM*, 35 FCC Rcd at 4994, para. 43.

<sup>54</sup> *Id.*, 35 FCC Rcd at 4994, para. 44.

<sup>55</sup> *Assessment and Collection of Regulatory Fees for Fiscal Year 2021*, MD Docket No. 21-190, Report and Order and Notice of Proposed Rulemaking, 36 FCC Rcd 12990, 13018-19, para. 58 (2021) (*FY 2021 R&O and NPRM*).

systems as NGSO satellite systems planning to communicate with 20 or fewer U.S. authorized earth stations that are primarily used for EESS and/or AIS.<sup>57</sup> The Commission has concluded that EESS systems are less burdensome to regulate than other types of services when the systems plan to communicate with 20 or fewer earth stations.<sup>58</sup> NGSO satellite systems outside of this definition are included in the NGSO “other” fee category, unless they qualify as “small satellites” under Commission rules and are included in the regulatory fee category for small satellites.

24. We tentatively conclude that there have not been any significant changes to the amount of FTE burdens allocated between these two fee categories since the “20/80” split of regulatory fees between NGSO “less complex” and NGSO “other” subcategories was adopted in 2021.<sup>59</sup> As was the case in 2021, we consider our experience and analysis of the time that FTEs in the International Bureau and the Space Bureau devote to oversight and regulation of “less complex” and “other” NGSO systems.<sup>60</sup> Specifically, now – as then - we consider the number of applications processed, the number of changes made to the Commission’s rules, and the number of FTEs working on oversight for each category of operators.<sup>61</sup> This methodology is the same as used for determining the allocation of regulatory fees among GSO and NGSO space station fee payors. In evaluating the FTE time devoted to the “less complex” and “other” subcategories, we consider the adjudicatory role of the Commission in connection with different types of NGSO systems, which is typically more intensive for those systems authorized as part of processing rounds.<sup>62</sup> We also consider the number of rulemakings over the last three fiscal years, as well as current rulemakings, and which types of NGSO systems are implicated in those rulemaking activities.<sup>63</sup>

25. Based on our experience and judgement, we estimate as close as possible the relative percentage of FTE time attributable to oversight of each subcategory of NGSO space stations. Our examination does not reveal any rulemaking proceedings in the last three fiscal years that are specific to EESS space stations eligible for the “less complex” NGSO subcategory, but did reveal several rulemakings in that same period specific to NGSO “other” systems.<sup>64</sup> Similarly, an examination of

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<sup>56</sup> See *supra*, section II.B.

<sup>57</sup> *FY 2021 NPRM*, 36 FCC Rcd at 8583-84, 7.

<sup>58</sup> *FY 2022 R&O and NOI*, 37 FCC Rcd., 2022 WL 4079045 at \*11, para. 27, citing *FY 2021 Report and Order*, 36 FCC Rcd at 13014, paras. 50-57. In adopting the 20 or fewer proxy for the “less complex” NGSO space station fee category, the Commission clarified that it is the number of planned earth stations in the system design provided in the NGSO space station application that is relevant, since some more complex NGSO systems may communicate with a small number of earth stations during the initial operational phases, but actually intend to communicate with a significantly larger set of earth stations. *Id.*

<sup>59</sup> *FY 2021 R&O and NPRM*, 36 FCC Rcd at 13018-19, para. 58.

<sup>60</sup> *Id.*

<sup>61</sup> *Id.*, 36 FCC Rcd at 13019-20, para. 60.

<sup>62</sup> *Id.*

<sup>63</sup> *Id.*

<sup>64</sup> For example, the following proceedings appear specific to NGSO “other” systems: (1) Update to Parts 2 and 25 Concerning Non-Geostationary, Fixed-Satellite Service Systems and Related Matters (IB Docket No. 16-408); (2) Amendment of Parts 2 and 25 of the Commission’s Rules to Facilitate the Use of Earth Stations in Motion Communicating with Geostationary Orbit Space Stations in Frequency Bands Allocated to the Fixed Satellite Service et al.; Facilitating the Communications of Earth Stations in Motion with Non-Geostationary Orbit Space Stations (IB Docket No. 17-95; IB Docket No. 18-315); (3) Revising Spectrum Sharing Rules for Non-Geostationary Orbit, Fixed-Satellite Service Systems Revision of Section 25.261 of the Commission’s Rules to Increase Certainty in Spectrum Sharing Obligations Among NGO FSS Systems (IB Docket No. 21-456); (3) Amendment of Parts 2 and 25 of the Commission’s Rules to Enable NGSO Fixed-Satellite Service (Space-to-Earth) Operations in the 17.3-17.8 GHz Band (IB Docket No. 20-330; IB Docket No. 22-273); and (4) Single Network Future: Supplemental Coverage from Space (GN Docket No. 23-65)

applications filed over the previous three fiscal years (FY 2021-2023) shows that 44 NGSO applications out of 204 NGSO applications were by systems categorized as NGSO “less complex” (22%).<sup>65</sup> Our consideration of activities engaged in by Commission staff and the time spent on oversight of different NGSO systems does not indicate any change from our consideration in 2021, which resulted in a determination that NGSO “other” were the majority beneficiaries of FTE efforts.

26. We recognize the considerable challenge of segregating the time spent by Space Bureau staff among the subcategories of NGSO space stations, nonetheless the considerations above support the tentative conclusion that more FTE time is spent on the NGSO “other” subcategory than on the NGSO “less complex” subcategory. The number of applications in the NGSO “less complex” subcategory received over the last three fiscal years supports a tentative conclusion that the relative regulatory burden of such “less complex” space stations remains consistent with the current 20% allocation.<sup>66</sup> We seek comment on this tentative conclusion.

27. We do not propose at this time to revisit the definition of “less complex” NGSO space stations, which has been adopted and affirmed over the course of several regulatory fee rulemaking proceedings.<sup>67</sup> As expressly recognized, however, we do not foreclose the possibility of designating other categories of NGSO systems as “less complex” systems in the future if our experience supports a finding that our regulatory work for such systems is significantly less than those for other NGSO systems.<sup>68</sup> Our experience to date has not supported such a designation for other types of NGSO systems, and we do not have a sufficient record to make proposals for such designations at this time.

### 3. Creation of Tiers of NGSO – Other

28. If the existing methodology for assessing regulatory fees for space stations is maintained, we propose to divide the existing regulatory fee subcategory of “Space Stations (Non-Geostationary Orbit) – Other” into two tiers: “Large Constellations” of more than 1,000 authorized space stations; and “Small Constellations” of 1,000 or fewer authorized space stations. Currently, there is a single subcategory for NGSO “other” space station systems, which assesses the same annual regulatory fee – \$347,755 for FY 2023 – for all NGSO space station systems that are not categorized as “less complex” or “small satellites.” NGSO space station payors have argued that this “one fee fits all” assessment is unfair, as it assesses the same regulatory fee on an NGSO system consisting of 100 space stations as the fee assessed for an NGSO system consisting of potentially 10,000 or more space stations.<sup>69</sup> The current single regulatory fee for all NGSO “other” space station payors resulted in requests by fee payors of smaller NGSO systems seeking to be assessed regulatory fees as NGSO “less complex” systems, even though the record at the time did not support a finding that the regulatory work for such systems was significantly less than other types of NGSO systems.<sup>70</sup> We use this proceeding to explore whether our

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<sup>65</sup> The remaining NGSO applications were for NGSO Other (104), for systems categorized as small satellites (49), or for RPO, OOS, or OTV missions (7).

<sup>66</sup> In this regard, we note that comments in response to the notice of proposed rulemaking for assessing FY 2023 regulatory fees contended that the Commission should revisit the “20/80 split” between “less complex” and “other” NGSO space station fee payors and that the Commission’s regulatory fee structure should “not remain stagnant” regarding the nature of “less complex” NGSO space station systems. *FY 2023 R&O* at para. 98.

<sup>67</sup> *FY 2023 R&O*, 2023 WL 5197492 at \*30-32, paras.98-106 ; *FY 2022 R&O and NOI*, 37 FCC Red., 2022 WL 4079045 at \*11, para. 28; *FY 2021 R&O and NPRM*, 36 FCC Red at 13014-18, paras. 50-57.

<sup>68</sup> *FY 2023 R&O*, 2023 WL 5197492 at \*31, para. 103, citing *FY 2021 NPRM*, 36 FCC Red at 8588, para. 16.

<sup>69</sup> See, e.g., Comments of Kinéis, MD Docket No. 22-301, at 4 (observing an “unacceptable result” that an NGSO space station system consisting of 4000 or more space stations is provisionally assessed the same regulatory fee as an NGSO space station system with a much smaller amount of space stations); Comments of Myriota Pty Ltd., MD Docket No. 20-105 at 1 (arguing that the Commission’s “one-size-fits-all” approach to fees does not accurately reflect the costs of regulating or the benefits that accrue to parties from Commission action).

<sup>70</sup> See *FY 2023 R&O*, 2023 WL 5197492 at \*30-32, paras. 98-106.

existing regulatory fee structure can be better tailored to the varying nature of NGSO systems and differing levels of licensing and regulatory oversight burdens required for these various systems, while maintaining a system that is fair, administrable, and sustainable.

29. The unit of assessment for Space Stations (Non-Geostationary Orbit), either “less complex” or “other,” is “per system” of satellites.<sup>71</sup> This unit of assessment reflects the ability of applicants to apply for, and be authorized to operate, a “system” of NGSO space stations,<sup>72</sup> with no limit on the number of space stations per system. Each initial application for authority is granted under a single “call sign” as a regulatory identifier. In many cases the Commission has assessed a single regulatory fee for an NGSO system consisting of space stations requested and authorized under different call signs.<sup>73</sup> The assessment of regulatory fees for NGSO space stations on a “per system” basis extends back to the first time that the Commission assessed regulatory fees for “Low Earth Orbit (LEO) Satellite Systems” in 1996.<sup>74</sup> The choice of a “system” as the unit of assessment for LEO satellites was based in the original text of section 9 of the Act, which included a “Schedule of Regulatory Fees” that the FCC was required to assess and collect, until amended by the Commission. The Schedule of Regulatory Fees included fee categories for “Space Station (per operational station in geosynchronous orbit)” and “Space Station (per system in low-earth orbit).”<sup>75</sup> The Schedule of Regulatory Fees, however, was deleted from section 9 by the RAY BAUM’s Act.<sup>76</sup>

30. The sole exception made to assessment of NGSO space station regulatory fees on a “per system” basis is for small satellites, for which the Commission adopted a separate regulatory fee category in which small satellites are assessed on a “per license/call sign” basis.<sup>77</sup> The Commission found that adopting the regulatory fee on a per-license basis would not only accurately reflect the increased oversight and regulation for these small satellite systems when an operator has multiple small satellite licenses,<sup>78</sup> but also it would be more efficient and administrable because it avoids potential complications

<sup>71</sup> Regulatory Fees Fact Sheet: FY 2022 Regulatory Fees – International and Satellite Services (Sept. 2022) at 2, 3.

<sup>72</sup> See 47 CFR §§ 25.103 (defining a “satellite system” as a “space system using one or more artificial earth satellites.”) and 25.157(a) (specifying the procedures for considering license applications for “NGSO-like” satellite operation, which includes “[o]peration of any NGSO satellite system”).

<sup>73</sup> As an example, the Commission assessed a single NGSO “other” regulatory fee for the SpaceX Ku/Ka-band system licensed under two separate call signs. *FY 2023 R&O*, 2023 WL 5197492 at \*50, Appendix F. The Commission has similarly assessed a single NGSO “less complex” regulatory fee for Maxar License’s “WorldView 1, 2 & 3, GeoEye” system licensed under two separate call signs, and for Spire Global’s “LEMUR & MINAS” systems also licensed under two different call signs. *Id.*

<sup>74</sup> *Establishment and Collection of Regulatory Fees for Fiscal Year 1996*, Report and Order, 11 FCC Rcd 18774, 18791 para. 48 (1996). The Commission later changed the name of the fee category from “Space Station (low earth)” to “Space Stations (Non-geostationary)” because advances in satellite technology made possible medium and high orbit satellite systems operating in non-geostationary orbits. See *Assessment and Collection of Regulatory Fees for Fiscal Year 1998*, Report and Order, 12 Communications Reg. (P&F) 392 (F.C.C.), 1998 WL 320272 at \*15, para. 56 (1998).

<sup>75</sup> See, e.g., 47 USC §159(g) (1995).

<sup>76</sup> See *Assessment and Collection of Regulatory Fees for Fiscal Year 2019*, Notice of Proposed Rulemaking, 34 FCC Rcd 3272, 3275, para. 7 (2019) (“In the RAY BAUM’S Act modifications, Congress deleted the obsolete schedule of regulatory fees codified in the former section 9(g) of the Act and directed the Commission to establish a new schedule of regulatory fees and to provide annual updates thereafter.”) (citations omitted)

<sup>77</sup> Regulatory Fees Fact Sheet: FY 2022 Regulatory Fees – International and Satellite Services (Sept. 2022) at 2, 3.

<sup>78</sup> *FY 2021 R&O and FY 2022 NPRM*, 2022 WL 2045858 at \*13, para. 37. In contrast, the Commission has observed that when traditional NGSO space station operators hold multiple licenses for a single NGSO system, the regulatory burden does not increase with the grant of each additional license, since traditional NGSO systems are substantially more complicated to regulate from the outset, such that additional authorizations create at most a nominal, if any, adjustment to the burden to regulate. *Id.*, 2022 WL 2045858 at \*13, para. 38.

and additional FTE time spent in determining whether various sets of small satellites are part of the same system.<sup>79</sup>

31. In creating the separate fee categories of “less complex” NGSO space stations and small satellites operating in non-geostationary orbit, the Commission has recognized that not all NGSO space stations are the same, and that different NGSO space stations can be assessed different regulatory fees based on the differing amount of FTE regulatory work is devoted to them, consistent with the statutory obligations of section 9 of the Act. Accordingly, the default unit of fee assessment for NGSO space stations – the “system” – by itself does not indicate the amount of regulatory fees to be recovered from a particular NGSO space station payor. Instead, the Commission has used other factors as proxies for the amount of regulatory work required for a category of fee payors.<sup>80</sup> For “less complex” space stations, the Commission relied on the primary service to be provided (EESS or AIS) and the number of U.S.-licensed earth stations planned for communications (20 or fewer) as proxies for other factors for determining whether a category of NGSO space station system involved less staff resources to license and regulate than NGSO space station “other” systems: whether processing rounds are required, whether the system will have a global presence, the range and intensity of spectrum needs, and the variety of frequency bands, technical issues, and services presented.<sup>81</sup>

32. We now seek to explore whether the number of space stations requested for an NGSO system could serve as a proxy for the Commission’s regulatory burden, when combined with other factors that went into determining whether an NGSO system is, or is not, “less complex” for our regulatory fee assessment purposes. Does a greater number of space stations authorized per system equate to greater staff burdens to license and regulate, if the greater number of space stations per system also correlates to the other factors relevant to NGSO systems that do not qualify for inclusion in the NGSO space stations “less complex” subcategory (that is, they fall within the “other” NGSO fee category because they are subject to processing rounds, have a global presence, have significant spectrum needs, and present a variety of frequency bands, technical issues, and services)? If so, is it reasonable to assume that a greater number of space stations authorized per system would equate to greater amount of FTE time to license and regulate? Although the Commission has previously stated that number of space stations in an NGSO system does not always correspond to increased regulatory complexity,<sup>82</sup> those statements were based on consideration of the regulatory impact of the number of space stations in isolation, not when considered in connection with the other factors relevant to non-“less complex” NGSO space station systems.<sup>83</sup> Is it a

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<sup>79</sup> *Id.*, 2022 WL 2045858, at \*13, para. 37. In addition, the Commission found that applying the fee on a per-license basis would be consistent with statutory obligations to recover its costs while taking into account differences between the regulatory framework for small satellites compared to other space stations. *Id.*

<sup>80</sup> For example, in the instance of small satellites, the Commission looked at multiple factors, including the streamlined processing procedures used for licensing and regulating small satellites. *Id.*, 2022 WL 2045858 at \*11, para. 33 (“This fee methodology simultaneously accounts for the characteristics of small satellites and the relatively few work hours anticipated to be spent by International Bureau FTEs in regulating them compared to FTE time spent on non-small satellite NGSO space stations, since small satellites have streamlined processing, often limited operational capabilities, spectrum compatibility requirements, and can only be licensed for a period of up to six years.”)

<sup>81</sup> *FY 2023 R&O*, 2023 WL 5197492 at \*31, paras. 102-103.

<sup>82</sup> *FY 2021 R&O and NPRM*, 36 FCC Rcd at 13018, para. 57 (“Our cumulative experience to date is that the number of satellites in a constellation is not the key driver of the amount of FTE time devoted to regulatory oversight of such constellations”); *FY 2021 NPRM*, 36 FCC Rcd at 8589, para. 19 (“It is not our experience that the number of satellites (or satellite mass) is the key driver of system complexity and regulation. For example, an NGSO system with a small number of satellites, authorized as part of a processing round to operate in the FSS to provide broadband to user terminals in a particular area, will receive significant continuous benefits reasonably related to our regulatory work.”)

<sup>83</sup> We note that there has been a significant increase in requests for NGSO systems over the last 10 years.

reasonable expectation that, if an NGSO space station system is not found to be “less complex” for regulatory fee assessment purposes, the amount of FTE resources needed to license and regulate that system increases as the number of space stations increases because, on average, the greater the number of space stations considered, the greater the amount of spectrum resources required for the system, the greater complexity of spectrum sharing with other systems, the more complicated the orbital debris mitigation plan will be, and the greater number of earth stations required to support the space station system?<sup>84</sup> We seek comment on this expectation.

33. Accordingly, if we maintain the existing space station regulator fee methodology, we propose to transform the existing “Space Stations (Non-Geostationary Orbit) – Other” category into a two-tiered category, with one tier for “Large Constellations” and one tier for “Small Constellations.” The proposal to create tiers of NGSO space station regulatory fees is not new, being first made in 1999.<sup>85</sup> As recently as 2021 and 2020, the Commission was presented with proposals to assess NGSO space station regulatory fees based on the total number of satellites deployed, but it declined to do so because the evidence in the record at the time was insufficient to establish different fees for different sized NGSO space station systems.<sup>86</sup> We propose to use this *Notice* to establish such a record to evaluate the appropriateness of adopting regulatory fees for large and small NGSO systems. Although we acknowledge that it is inherently challenging to establish the dividing line between such tiers, we propose 1,000 space stations as the dividing number for large and small systems. We seek comment on this proposal. Is 1,000 the right number, or is there a different number, greater or less than 1,000, that better reflects the delineation in the amount of FTE burdens to license and regulate NGSO systems of variable sizes (for example, 500 space stations)?

34. If we adopt the tiered approach for the NGSO space station “other” category under our existing methodology, we propose to create two tiers, rather than three or more tiers, in order to facilitate administrability, because there are relatively few units within the existing NGSO space station “other” category, and dividing that category into many tiers with a narrow range of space stations per tier may result in only one payor being responsible for the entire cost of the tier, or there being no payor for a particular tier in a fiscal year, shifting the costs of that tier to payors in other tiers. Importantly, it may be harder to justify the difference in FTE burdens when tiers are more narrowly defined. We tentatively conclude that a two-tiered approach will not only appropriately account for differences in regulatory burdens between NGSO space station systems of different sizes, but also provide a measure of consistency from one year to the next in the number of payors and the per unit fee. We seek comment on the proposal to use two tiers in our approach and our tentative conclusion that a two-tiered approach will result in greater administrability than a multi-tiered approach. We also propose that our tiered approach be based on the number of authorized space stations in a system, rather than the number of space stations that are operational in a system at the moment that regulatory fees for a particular fiscal year are assessed.

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<sup>84</sup> This is not to say that an NGSO system consisting of a single satellite cannot present significant orbital debris-related risks, depending on the design and proposed operations, that require substantial FTE resources to address, which is why the Commission declined to adopt the number of space stations as the sole or main driver of whether a NGSO space station system is “less complex” to regulate. *FY 2021 R&O and NPRM*, 36 FCC Rcd at 13018, para. 57.

<sup>85</sup> *Assessment and Collection of Regulatory Fees for Fiscal Year 1999*, MD Docket No. 98-200, Report and Order, 14 FCC Rcd. 9868, 9884-85, paras.45-46 (1999) (noting a proposal from a commenter to create a new regulatory fee category for small NGSO constellations of up to five satellites per system, and stating that the concept of establishing separate categories for small and large constellations may warrant consideration, even though further study and more operational systems would be needed before the Commission could properly evaluate its appropriateness).

<sup>86</sup> See *FY 2021 NPRM*, 36 FCC Rcd at 8589, para. 19; *FY 2020 R&O and FNPRM*, 2020 WL 5247255 at \*16, para. 50.

This proposal is consistent with our proposal below that all regulatory fees be assessed on authorized, rather than operational, space and earth stations.<sup>87</sup> We seek comment on this proposal.

35. We propose to divide the total NGSO – “other” fees between the two subcategories on a 50/50 basis (that is, half of the NGSO “other” fees paid by “large constellations” and half paid by “small constellations”). We acknowledge the difficulty in allocating regulatory fee burdens between “large constellations” and “small constellations,” because staff in the Space Bureau may work on both types of constellations and our rulemaking proceedings often do not differentiate between large and small constellations. We accordingly seek comment on our proposal to divide the total NGSO – “other” fees between small and large constellations on a 50/50 basis. If the fees are not divided on a 50/50 basis, what would be a more appropriate division and why? We note that although the total costs would be allocated evenly between “large” and “small” constellations, we expect that there will be a greater number of units in the “small constellations” tier than the “large constellations” tier, and that that number of units in the “small constellations” tier will increase in the future, thereby resulting in a smaller per payor fee for the “small constellations” tier for future years. By contrast, we expect that there will be only two to three payors in the large constellation tier for FY 2024, and that it is unlikely that that number will increase substantially in the foreseeable future. We seek comment on this proposed division and our expectations.

36. We find that the proposal to create fee categories for NGSO large and small constellations would be an amendment as defined in section 9(d) of the Act.<sup>88</sup> Such an amendment must be submitted to Congress at least 90 days before it becomes effective pursuant to section 9A(b)(2).<sup>89</sup>

37. We also seek comment on other possible proxies that might reasonably equate with the share of FTE burdens associated with each system within the “Space Stations (Non-Geostationary Orbit) – Other” category, as alternatives to the 50/50 two-tiered approach proposed herein. Other possible proxies include assessing regulatory fees for NGSO space station “other” using any of the following individual metrics: (1) per space station; (2) per subscriber; (3) per unit of spectrum authorized; (4) per class of service provided; and (5) per unit of on-orbit mass. We describe each possible proxy below.

38. *Per Space Station.* Under this metric, the overall FTE burden of a NGSO “other” system would be proxied on the basis of the number of authorized space stations in the system, without utilizing a tiered system. The fee would be assessed on a per space station basis, with the total fee amount attributable to Space Stations (Non-Geostationary) – Other being divided by the number of space stations authorized in that category to establish a per space station fee unit. Each space station in the system would add incrementally to the amount of regulatory fees paid by the system. This alternative avoids the situation where a system may exceed the number of space stations eligible for the small constellation tier by only a few space stations, which will result in the system paying the substantially higher fee for large constellations. The alternative potentially presents the situation, however, where systems with a very large number of authorized space stations (for example, 20,000 or more) could effectively end up paying all, or nearly all, the regulatory fees for the NGSO “other” category, since the number of space stations in that system could be more than all other systems combined in that category.<sup>90</sup> Such an outcome may not accurately reflect the FTE burdens imposed by the various payors of the NGSO space stations “other” category by substantially underrepresenting the amount of FTE resources spent on all other fee payors in the NGSO “other” category. Could this concern be addressed by setting a “cap” or “ceiling” on the

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<sup>87</sup> See *infra*, section III.B.v.

<sup>88</sup> 47 U.S.C. § 159(d).

<sup>89</sup> 47 U.S.C. § 159A(b)(2).

<sup>90</sup> We note it could also result in some payors in the NGSO space station “other” small constellation subcategory eventually paying less in regulatory fees than payors in the NGSO space stations “less complex” category if the addition of units in the “small constellation” subcategory outpaces the addition of units in the “less complex” category.



number of authorized space stations for which regulatory fees would be assessed or having a decreasing fee for each additional space station? Although the Commission has previously disagreed with proposals to assess space station regulatory fees on a per space station basis,<sup>91</sup> we nonetheless seek comment on the use of number of space stations as an alternative metric for assessing the regulatory fee burden for each NGSO “other” system.

39. *Per Subscriber.* Under this alternative, regulatory fees for NGSO space stations “other” would be assessed on a per subscriber basis, possibly using tiers of subscribers. We observe, however, that not all NGSO systems have subscribers, and we do not currently collect information regarding subscriber numbers. Thus, to utilize subscriber information a review of an additional information collection may be required in order to assess regulatory fees on this basis.<sup>92</sup> The time required to obtain the approval and collect the information would make the possibility of assessing fees on this basis for FY 2024 unlikely. We also expect that it would require substantial FTE resources to calculate and assign fees for individual systems based on yearly subscriber numbers, which could in turn result in more FTEs being attributed to space station systems for regulatory fee recovery purposes.<sup>93</sup> Furthermore, we seek comment on whether subscriber numbers are considered confidential by regulatees and, if so, how would that impact this approach?

40. *Per Unit of Spectrum Authorized.* An alternative proxy for the amount of FTE burden associated with a system in the NGSO space station “other” category could be the amount of spectrum resources authorized for the system. Systems that involve the use of a large amount of spectrum can require more FTE resources to license and regulate due to the likelihood of the increased need to coordinate with, and to address the interference concerns of, other spectrum users, compared to systems with smaller spectrum requirements. Thus, regulatory fees for NGSO space stations “other” could be assessed per unit of authorized spectrum, for example, per megahertz of spectrum authorized for the system. We observe that the distinction between NGSO “other” and NGSO “less complex” already takes into account spectrum usage and ease of coordination in delineating between these two fee categories, so it is unclear what further delineation could be made within the NGSO space station “other” category based on authorized spectrum. In addition, not all spectrum is uniform in its complexity to license and regulate. For example, it may be easier to license and regulate an NGSO system operating in 500 megahertz of spectrum allocated to NGSO space station use on a primary basis than licensing and regulating an NGSO system operating in 20 megahertz of spectrum operating on a secondary or non-interference basis.<sup>94</sup> We note that the Commission has previously found that total bandwidth is not

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<sup>91</sup> *FY 2021 R&O and NPRM*, 36 FCC Rcd at 13018, para. 57 (“Our cumulative experience to date is that the number of satellites in a constellation is not the key driver of the amount of FTE time devoted to regulatory oversight of such constellations”); *FY 2021 NPRM*, 36 FCC Rcd at 8589, para. 19 (“It is not our experience that the number of satellites (or satellite mass) is the key driver of system complexity and regulation.”)

<sup>92</sup> To fulfill its responsibilities under the law, the FCC must often ask its applicants or licensees to fill out forms, maintain records, or disclose information to others. These are known as information collections. The Paperwork Reduction Act (44 U.S.C. Part 35) requires us to submit our information collections for review by the Office of Management and Budget (OMB). We separately submit each of our information collections for OMB review. See <https://www.fcc.gov/general/paperwork-reduction-act-pra-and-fcc-information-collections>.

<sup>93</sup> The Commission reached the same determination previously when it considered an analogous proposal to assess regulatory fees for NGSO space station systems based on market share, which is similar to the subscriber proxy described above. See *FY 2021 NPRM*, 36 FCC Rcd at 8589, para. 19.

<sup>94</sup> Under the Commission’s rules, stations operating on secondary basis “(i) Shall not cause harmful interference to stations of primary services to which frequencies are already assigned or to which frequencies may be assigned at a later date; (ii) Cannot claim protection from harmful interference from stations of a primary service to which frequencies are already assigned or may be assigned at a later date; and (iii) Can claim protection, however, from harmful interference from stations of the same or other secondary service(s) to which frequencies may be assigned at a later date.” 47 CFR § 2.104(d)(3).

consistently indicative of the complexity of NGSO regulation.<sup>95</sup> We seek comment, however, on this alternative proxy and whether there any basis to question the Commission’s previous conclusion that total bandwidth does not consistently reflect the complexity of NGSO regulation.

41. *Per Class of Service Provided.* Commenters in previous regulatory fee assessment proceedings have suggested that the type of services provided by NGSO space station systems could be used as a proxy for the amount of FTE resources dedicated to licensing and regulating such systems.<sup>96</sup> In addition to the orbit used (GSO or NGSO), space stations are regulated by the type of service that they provide, for example mobile-satellite service (MSS), fixed-satellite service (FSS), direct broadcast satellite service (DBS), and satellite digital audio radio service (SDARS). The Commission has previously found that the type of service primarily being provided (EESS and/or AIS) was a relevant factor in determining whether an NGSO system was “less complex” for purposes of regulatory fee assessments, when combined with another factor (the number of earth stations authorized by the United States with which the system plans to communicate).<sup>97</sup> The Commission has not found, however, that other types of satellite services warrant a determination that a NGSO system is “less complex” for regulatory fee purposes, although it did not rule out the possibility of doing so if the record supported such a finding.<sup>98</sup> Although we do not propose that any particular additional service be considered as a factor that an NGSO system is “less complex” for regulatory fee purposes, it may be possible to use the type of service provided as a proxy for FTE resources to delineate additional fee subcategories within the “Space Stations (Non-Geostationary Orbit) – Other” category. We seek comment on this possibility. Comments should focus on the specific licensing and regulatory factors that differentiate the services and explain how the Commission would be able to allocate FTE time among these services. Comments should also address the administrability and sustainability of subcategories of regulatory fees in the NGSO space station “other” category based on the services provided by the space stations.<sup>99</sup> For example, if a space station is authorized to provide multiple types of services, such as both FSS and MSS, how would it be determined which regulatory fee subcategory it belongs to? If it is determined based on the primary service that is authorized for a system, how should the Commission determine which service is primary? Would fee categories based on the service provided be relatively stable from year to year, or is it possible that there could be substantial changes in the number of fee payors in a service category year to year? Would every single service provided by a system need to be taking into account, or just the primary service? Would substantial FTE resources be needed to calculate and assign fees for individual systems based on primary services provided, which could in turn result in more FTEs being attributed to space station systems for regulatory fee recovery purposes?

42. *Per Unit of On-Orbit Mass.* Comments in previous years’ regulatory fee assessment proceedings have suggested to use the mass of space stations as one proxy for an NGSO system’s

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<sup>95</sup> *FY 2021 R&O and NPRM*, 36 FCC Rcd at 13017, para. 56; *FY 2021 NPRM*, 36 FCC Rcd at 8589, para.19.

<sup>96</sup> *FY 2023 R&O*, 2023 WL 5197492 at \*32, para. 104 (observing a proposal that the Commission adopt a rulemaking proceeding to develop the record to separate the various systems in the NGSO space station “other” category into more homogenous categories that group providers together with others that provide similar types of services).

<sup>97</sup> *FY 2021 NPRM*, 36 FCC Rcd at 8585, para. 11.

<sup>98</sup> *FY 2021 NPRM*, 36 FCC Rcd at 8588, para. 16 (“We do not, however, foreclose the possibility of designating other categories of NGSO systems as “less complex” systems in the future if our experience supports a finding that our regulatory work for such systems is significantly less than those for other NGSO systems.”)

<sup>99</sup> We note that the Commission has previously disagreed with formula-based proposals that present multiple tiers of regulatory fee subcategories for NGSO space stations based on multiple factors, including the type of services being provided. *See FY 2021 NPRM*, 36 FCC Rcd at 8589, para. 19 (finding such proposals overly-complex and requiring the additional expenditure of Commission resources to calculate and assign fees for each individual system).

complexity.<sup>100</sup> This suggestion is similar to our proposal above to use of number of authorized space stations in an NGSO system as a proxy for regulatory burdens of systems in the NGSO space station “other” category, but considers the mass of the space stations in an NGSO system rather than the number of space stations. Thus, an NGSO system with 10 space stations with a mass of 1,000 kilograms each would pay more in regulatory fees than a system of 100 space stations with a mass of 10 kilograms each. Under this proposal, it is assumed that space station mass is a proxy for other factors relevant to the amount of FTE work required for the licensing and regulation of the system, such as how much spectrum the system will use, the number of earth stations that the space stations will communicate with, and the complexity of a system’s orbital debris mitigation plan.<sup>101</sup> Although the Commission has previously found that space station mass is not a key driver of NGSO system complexity,<sup>102</sup> we seek comment on using space station mass as a proxy for the regulatory burden involved with an NGSO system. Is it correct that regulatory complexity increases in proportion to the mass of the space stations in an NGSO system? If so, should mass be assessed on a per space station or on an aggregate basis for all space stations in the system? Would mass be addressed on a “wet” basis (that is, including the mass of fuel and other consumables) or “dry” basis (that is, the mass of the space station without fuel and consumables)? Which basis – wet or dry – would more accurately reflect regulatory burdens for that system? Furthermore, the Space Bureau no longer collects information regarding the mass of a space station as part of the technical information required as part of an application for a space station authorization or a petition for U.S. market access.<sup>103</sup> Thus, to utilize this information in assessing regulatory fees may require a review of an additional information collection under the Paperwork Reduction Act. We also observe that the time required for such review, together with the time needed to collect the information, would rule out the possibility of assessing fees on this basis for FY 2024. We seek comment on the consequences of this observation. Although the mass of a space station may be a factor disclosed in the orbital debris mitigation plan provided as a part of a space station application, the spacecraft mass is disclosed for the specific purpose of that analysis, and it is not clear whether it should be relied on for the purpose of assessing regulatory fees. Even if it may be possible to obtain information about the mass of space stations from third party sources, we question whether it is reasonable to rely on information obtained from such sources rather than from the fee payors themselves. We seek comments on these issues. In addition, would substantial FTE resources be needed to calculate and assign fees for individual systems based on on-orbit mass, which could in turn result in more FTEs being attributed to space station systems for regulatory fee recovery purposes?

43. We find that the creation of fee categories for “other” NGSO space stations based on any of these other possible proxies would be an amendment as defined in section 9(d) of the Act.<sup>104</sup> Such an

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<sup>100</sup> See, e.g., Comments of Kinéis, MD Docket No. 23-159 at 16 (suggesting the Commission adopt a multi-tiered approach to NGSO regulatory fees derived from analysis of factors such as the number of satellites, and specific satellite metrics such as orbital altitude, mass and lifetime, as well as the scope and types of earth station deployments).

<sup>101</sup> This possible proxy appears to assume that the mass of equipment and antennas on a space station becomes greater as the amount of spectrum used in a system increases, and that a high aggregate mass of an NGSO system would also reflect a large number of space stations that must be coordinated and require a greater level of review for orbital debris mitigation plans.

<sup>102</sup> *FY 2021 NPRM*, 36 FCC Rcd at 8589, para. 19 (“It is not our experience that the number of satellites (or satellite mass) is the key driver of system complexity and regulation.”)

<sup>103</sup> The Commission eliminated the requirement to specify spacecraft weight and dimensions as part of a space station application in 2013. See *Comprehensive Review of Licensing & Operating Rules for Satellite Services*, 28 FCC Rcd. 12403, 12432, para. 89 (2013).

<sup>104</sup> 47 U.S.C. § 159(d).

amendment must be submitted to Congress at least 90 days before it becomes effective pursuant to section 9A(b)(2).<sup>105</sup>

#### 4. Small Satellites

44. We seek comment on a proposal to set the regulatory fee for “Space Stations (per license/call sign in non-geostationary orbit) (47 CFR part 25) (Small Satellite)” for FY 2024 and future fiscal years at the level set for FY 2023 (\$12,215), with only an annual adjustments to reflect the percentage change in the FCC appropriation, unit count, and FTE allocation percentage from the previous fiscal year. As explained earlier in this *Notice*,<sup>106</sup> the small satellite fee rate is calculated by taking the average of the calculated fee rate for space stations in the NGSO other and NGSO “less complex” categories, multiplying this average by 5% (1/20) and rounding it to the nearest \$5. The small satellite fee rate is then multiplied by the number of small satellite units and deducted from the NGSO share of space station regulatory fees. This remaining amount is then divided between NGSO “other” and NGSO “less complex” based on an 80/20 split and reduced from the target goals of NGSO “other” and NGSO “less complex” respectively.<sup>107</sup> Because the small satellite fee is based on the fees assessed for NGSO other and NGSO “less complex” categories, the increased fees expected for these two categories would lead to greatly increased fees for the small satellite regulatory fee category beginning in FY 2024.

45. Our examination reveals that the number of applications, rulemaking procedures, and FTE staff working on small satellite matters has not increased greatly since the original methodology of assessing regulatory fees for small satellites was adopted. To the contrary, we expect that the additional FTE resources allocated to the Space Bureau as a result of the reorganization of the International Bureau are not intensively involved in the licensing and regulatory oversight of small satellites, so that the overall percentage of FTE burden for small satellites may be less than the 1/20<sup>th</sup> burden of NGSO space stations. We seek comment on this expectation and whether it supports the reduction of fees paid by small satellites. In addition, the proposals made in this *Notice* to create subcategories within the NGSO “other” category for “small” and “large” constellations will add to the complexity of determining the appropriate marker for determining the appropriate share of FTE resources allocated to small satellites. We propose the administrability and sustainability of our regulatory fees for small satellites would be better served by treating them as we have historically treated the regulatory fees for earth stations – that is, a fixed regulatory fee that is adjusted from year-to-year on, rather than as a percentage of the Space Bureau’s overall share of regulatory fee allocation, or as a percentage of other categories of space station fee payors. We seek comment on all these proposals, examinations, and expectations.

#### 5. Treatment of RPO, OOS, and OTV

46. We propose, on an interim basis, to assess regulatory fees on spacecraft primarily performing Rendezvous and Proximity Operations (RPO) and On-Orbit Servicing (OOS) by including them in the existing regulatory fee category “Space Stations (per license/call sign in non-geostationary orbit) (Small Satellites)” regardless of the orbit in which they are designed to operate in. OOS and RPO missions can include satellite refueling, inspecting and repairing in-orbit spacecraft, capturing and removing debris, and transforming materials through manufacturing while in space.<sup>108</sup> Due to the nascent nature of OOS and RPO industry, or more generally “in-space servicing” industries, there is not a distinct regulatory fee category for such operations, despite that fact that spacecraft have begun to operate under part 25 of the Commission’s rules for radiocommunications while conducting these types of operations.<sup>109</sup> Although the Commission has previously determined that the record is not sufficiently

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<sup>105</sup> 47 U.S.C. § 159A(b)(2).

<sup>106</sup> *See supra*, section II.B.

<sup>107</sup> *Id.*

<sup>108</sup> *FY 2023 R&O*, 2023 WL 5197492 at \*33, para. 108.

<sup>109</sup> 2023 WL 5197492 at \*33, para. 110.

complete to adopt a separate regulatory fee category for spacecraft performing OOS and RPO,<sup>110</sup> we tentatively conclude that it is appropriate to assess regulatory fees on RPO and OOS space stations as we do for small satellites, rather than as Space Stations (Geostationary orbit) or Space Stations (Non-Geostationary Orbit) – Other. We also tentatively conclude that it is appropriate to assess regulatory fees on Orbital Transfer Vehicles (OTV) in the same manner.

47. The Commission first considered adopting additional fee categories for RPO and OOS in the notice initiating the FY 2022 regulatory fee assessment proceeding.<sup>111</sup> Commenters proposing such additional fee categories cited the similarities between the characteristics of small satellites and RPO and OOS.<sup>112</sup> The commenters distinguished between OOS spacecraft and traditional NGSO satellites in that OOS spacecraft have limited duration and scope of use, as well as a limited number of earth stations; require a smaller investment in OOS technology; require less ongoing regulation owing to the shorter duration of OOS spacecraft; will likely be licensed on a shared use of spectrum basis, and without the need for processing round procedures or post-processing round disputes over matters such as interference protection and spectrum priority.<sup>113</sup> Commenters also submitted that a fee category for RPO services would provide much need permanency and clarity to support this nascent infrastructure.<sup>114</sup>

48. The Commission found, however, that it was premature at that time to adopt new fee categories for OOS and RPO operations.<sup>115</sup> It observed that there have been a limited number of such operations and these were treated on a case-by-case basis, without a specific license processing regime.<sup>116</sup> It also expressed the expectation that most OOS and RPO operations would involve NGSO space stations, but tentatively concluded that it was too early to identify exactly where operations such as those in low-Earth orbit might fit into the regulatory fee structure in the future.<sup>117</sup> Accordingly, it found that the record was insufficient to propose to establish fee categories or a methodology for assessing fees to such categories.<sup>118</sup> The Commission sought comment on those tentative conclusions, as well as whether and how to assess fees for RPO and OOS spacecraft that operate near the GSO arc.<sup>119</sup>

49. Since that time, the Commission has continued to find that the record was insufficient to adopt a new regulatory fee category for in-space servicing operations, such as OOS and RPO. In the order adopting regulatory fees for FY 2022, the Commission determined that the record was insufficient to support adopting new regulatory fee categories for OOS and RPO due to the nascent nature of these systems and the need for more experience with the operations of such systems and the FTE time required to support them.<sup>120</sup> For the same reasons, the Commission declined to adopt separate fee categories for OOS and RPO in the FY 2023 regulatory fee proceeding, again finding that the record remained too incomplete and concluding that there was insufficient understanding of the nature and regulation of such spacecraft to consider concrete proposals for assessing regulatory fee categories for OOS and RPO space

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<sup>110</sup> 2023 WL 5197492 at \*34, para. 111

<sup>111</sup> *FY 2021 R&O and FY 2022 NPRM*, 2022 WL 2045858 at \*15-16, paras. 45-47.

<sup>112</sup> *FY 2021 R&O and FY 2022 NPRM*, 2022 WL 2045858 at \*15, para. 45.

<sup>113</sup> *Id.*

<sup>114</sup> *Id.*

<sup>115</sup> *FY 2021 R&O and FY 2022 NPRM*, 2022 WL 2045858 at \*16, para. 46.

<sup>116</sup> *Id.*

<sup>117</sup> *Id.*

<sup>118</sup> *Id.*

<sup>119</sup> *Id.* The GSO arc lies on the plane of the Earth's equator at an altitude of approximately 35,786 kilometers. *See Mitigation of Orbital Debris*, Second Report and Order, 19 FCC Rcd 11567, para. 1, n.4 (2004).

<sup>120</sup> *FY 2022 R&O and NOI*, 2022 WL 4079045 at \*18, para. 45.

stations at that time.<sup>121</sup> The Commission noted that it was still in the early stages of considering the regulatory environment for such services as a whole, and the definitions of which services would fit into OOS and RPO were yet to be adopted.<sup>122</sup> Instead, the Commission stated it would continue to develop a record that would inform possible establishment of a fee category for OOS and RPO and an appropriate methodology for assessing fees for such a category.<sup>123</sup>

50. We propose that we should no longer delay adopting a regulatory fee category for OOS and RPO space stations, even if we have not yet adopted a separate regulatory environment for such services. In 2022, the Commission initiated a Notice of Inquiry regarding the regulatory needs related to in-space servicing, assembly, and manufacturing – or “ISAM” – that could include such services as RPO and OOS.<sup>124</sup> The Commission has since adopted a Notice of Proposed Rulemaking seeking comment on a framework for licensing ISAM space stations.<sup>125</sup> This proceeding is still in the early stages of considering the regulatory environment for such services. Nonetheless, the Space Bureau has considered applications for space stations performing RPO and OOS and issued licenses for such space stations under the existing regulatory framework of part 25 of the Commission’s rules,<sup>126</sup> and such stations are already operational and subject to payment of regulatory fees. The Space Bureau anticipates that it will receive additional applications for such services in the near future, likely before the conclusion of any proceeding that may consider a separate licensing regime for such systems. Accordingly, there is a need to propose a method for assessing regulatory fees on spacecraft primarily performing RPO and OOS now, even while the consideration of the regulatory environment for such services is ongoing.

51. Although the record remains insufficient to propose a new category of regulatory fees for these services, we propose, on an interim basis, to include RPO and OOS within an existing category of regulatory fees. In this respect, we tentatively conclude that the regulatory fee categories of Space Stations (Geostationary Orbit) and Space Stations (Non-geostationary Orbit) – Other do not reflect the amount of regulatory work required by these nascent RPO and OOS services. Those fee categories are reflective of the greater FTE burden associated with regulation of more numerous and more complex space stations that primarily provide “always on” communication services, using spectrum and orbital resources on a protected basis, subject to processing rounds or “first-come, first-served” procedures, and requiring the use of a large number of associated earth stations. We also tentatively conclude that the regulatory fee category of “Space Stations (Non-geostationary Orbit) – Less complex” is not the most appropriate fit, since space stations providing primarily RPO and OOS do not fall within the existing definition of “less complex” NGSO space stations, which is limited to space stations primarily providing EESS and/or AIS and the regulatory framework for RPO and OOS space stations is not sufficiently clear at this time. We do not propose to use the existing NGSO “less complex” fee category for RPO or OOS space stations, since we tentatively conclude that the regulatory burden of RPO and OOS space stations is currently far less than that of “less complex” NGSO space stations. The Space Bureau has received relatively few applications for RPO or OOS space stations, and although it anticipates receiving more in the near future, the amount of FTE resources required at the present time to regulate these services is not comparable to the resources required for regulation of NGSO “less complex” space stations. It is possible that, in the future, the regulatory burden of RPO and OOS may significantly increase and justify revisiting

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<sup>121</sup> *FY 2023 R&O*, 2023 WL 5197492 at \*34, para. 111.

<sup>122</sup> *Id.*

<sup>123</sup> *FY 2023 R&O*, 2023 WL 5197492 at \*34, para. 112.

<sup>124</sup> See *Space Innovation; Facilitating Capabilities for In-space Servicing, Assembly, and Manufacturing*, Notice of Inquiry, 37 FCC Rcd 10022 (2022).

<sup>125</sup> See *Space Innovation; Facilitating Capabilities for In-space Servicing, Assembly, and Manufacturing*, Notice of Proposed Rulemaking, FCC 24-21 (Feb. 16, 2024).

<sup>126</sup> See, e.g., Space Logistics LLC, IBFS File No. SAT-LOA-20191210-00144 (granted Mar. 25, 2020); Space Logistics LLC, IBFS File No. SAT-LOA-20170224-00021 (granted June 20, 2019).

this tentative conclusion, but at the present moment the regulatory burden of RPO and OOS space stations is more similar to that presented by small satellite space station licensees, which are also few in number and involve a relatively small number of space stations that have limited duration and scope of use and operate using shared spectrum resources.

52. Although the Commission previously declined to adopt an interim fee for RPO and OOS space stations, including one equivalent to the fee assessed for small satellites, it did so due, in part, to time constraints that would not allow for the adoption of a new fee and the desire for more experience before adopting a separate fee for RPO and OOS space stations.<sup>127</sup> Here, we are not proposing to adopt a new fee for RPO and OOS space stations, but rather, on an interim basis, to assess fees using the existing Space Stations (Small Satellites) fee category. Given the immediate need to assess regulatory fees on RPO and OOS space stations now and in the near future, we tentatively conclude that the purposes of section 9 of the Act would be best met by erring on the side of caution and assessing regulatory fees under the category of fees associated with the least-burdensome set of space station regulatees, rather than waiting for additional experience and in the interim potentially subjecting existing RPO and OOS space stations subject to regulatory fees for Space Stations (Geostationary Orbit) or Space Stations (Non-Geostationary Orbit) – Other, that may not reflect the amount of regulatory work required by these nascent services. As we gain more experience with the regulation of RPO and OOS space stations, we will be in a better position to adopt a separate fee category for RPO and OOS space stations, if appropriate. We seek comment on this proposal and tentative conclusions.

53. We also propose to assess RPO and OOS space stations using the small satellite fee category on an interim basis, regardless of the orbit utilized. Small satellites are limited to NGSO operations under our part 25 rules,<sup>128</sup> and we stress that we are not proposing or suggesting that RPO or OOS space stations would meet the definition of a “small satellite” or “small spacecraft” under our part 25 rules. Instead, solely for the purpose of assessing regulatory fees, we propose to include RPO or OOS space stations within the existing Space Stations (Small Satellite) regulatory fee category, rather than creating a new regulatory fee category for RPO and OOS space stations. We tentatively conclude that the rationale above for using the small satellite regulatory fee category to assess fees on RPO and OOS space stations applies regardless of whether the RPO or OOS space stations operate in GSO or NGSO. We also propose to assess the regulatory fee for RPO or OOS space stations on a “per license/call sign” basis as is the case for small satellites payors, rather than on the “per system” basis used for Space Stations (Non-geostationary Orbit). In addition, we propose to assess regulatory fees on OTV space stations in the same manner; that is, to assess regulatory fees for OTV space stations using the existing regulatory fee category of small satellite space stations on a per license/call sign basis. Like RPO and OOS space stations, OTVs are also few in number and involve a relatively small number of space stations that have limited duration and scope of use and operate using shared spectrum resources in a manner that reduces the amount of FTE resources needed for their licensing and regulation. The Commission has already licensed OTV space stations under its existing part 25 regulatory framework, and we anticipate that additional applications for OTV will be filed in the near future. Accordingly, the same rationale applies to erring on the side of caution and assessing regulatory fees under the category of fees associated with the least-burdensome set of space station regulatees, at least until we gain more experience in this matter. We seek comment on these proposals and tentative conclusions. We also seek comment on whether this proposed approach for assessing regulatory fees for RPO, OOS, and OTV could also be applied to all space stations that fall within the definition of ISAM.

54. We find that the proposal to assess regulatory fees for RPO, OOS, and OTV space stations using the existing fee category for small satellites would be an amendment as defined in section

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<sup>127</sup> *FY 2022 R&O and NOI*, 37 FCC Rcd., 2022 WL 4079045 at \*18, paras. 44-45.

<sup>128</sup> 47 CFR § 25.103 (defining “small satellite” as an “NGSO space station eligible for authorization under the application process described in § 25.122”); 47 CFR § 25.122(a) (“This section shall only apply to applicants for NGSO systems... .”)

9(d) of the Act.<sup>129</sup> Such an amendment must be submitted to Congress at least 90 days before it becomes effective pursuant to section 9A(b)(2).<sup>130</sup>

55. Finally, we propose that RPO or OOS space stations that are attached to another space station as part of servicing or mission extension operations be assessed regulatory fees separate from, and in addition to, any regulatory fees assessed on the space station that is being serviced or that is having its mission extended. We acknowledge that this tentative conclusion is the opposite of the Commission's prior tentative conclusion that RPO and OOS space stations joined to GSO space stations during servicing or mission extension operations should not be assessed separate regulatory fees, despite the RPO or OOS space stations being assigned their own call signs, which is the unit usually used to assess regulatory fees for space stations.<sup>131</sup> This tentative conclusion was never adopted, and as such was only tentative in nature. Upon further consideration, we tentatively conclude that the requirements and purpose of section 9 of the Act would be better met by assessing regulatory fees on such attached RPO or OOS space stations.

56. The premise underlying the prior tentative conclusion was that the RPO or OOS space station is operating as part of an existing GSO space station, rather than as a separate independent space station, and therefore there is no independent operating space station for a separate fee assessment and that the regulatory fee burden for the RPO or OOS space station would be included in the fees collected from the GSO space station fee payors.<sup>132</sup> Upon further consideration, we tentatively conclude that this premise is not correct. As long as a RPO or OOS space station retains a separate authorization, with its own call sign, it is a separate space station for our regulatory purposes, so that there is a space station for a separate fee assessment independent of the space station being serviced or having its mission extended. Regulatory work is associated with the licensing and regulation of the RPO or OOS space station that is separate and independent from the regulatory work associated with the space station that is being serviced or having its mission extended. FTE work expended on reviewing license applications, issuing licenses, and exercising regulatory supervision of the RPO or OOS space stations is completely separate from the FTE work associated with the licensing and regulation of the space station being serviced or having its mission extended. In addition, we observe that it would be difficult to administer regulatory fees for RPO or OOS space stations under the Commission's prior tentative conclusion, since the status of the RPO or OOS space station for regulatory fee purposes would depend on whether the RPO or OOS space station is attached to another space station on the date when regulatory fees are assessed, or whether it may be operating unattached, for example, between servicing missions, which could lead to uncertainty as to whether regulatory fees are due or not, as well as potential gaming of regulatory fees through the timing of missions. Section 9 of the Act requires the Commission to assess regulatory fees to recover all of its FTE work based on how FTE time is used. We tentatively conclude that we would not be able to meet that requirement if we were to consider the RPO or OOS to be part of the serviced space station, and not subject to separate regulatory fees. We seek comment on our proposal and the reasoning in support of it.

## **6. Assessment of Fees on Authorized, but not Operational, Space Stations**

57. We propose to assess regulatory fees on all authorized space and earth stations, not only on stations that are "operational." Currently, regulatory fees for space stations are payable only when the space stations are certified by their operator to be operational.<sup>133</sup> An earth station payor is required to pay

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<sup>129</sup> 47 U.S.C. § 159(d).

<sup>130</sup> 47 U.S.C. § 159A(b)(2).

<sup>131</sup> *FY 2023 R&O*, 2023 WL 5197492 at \*33, para. 110.

<sup>132</sup> *Id.*

<sup>133</sup> Regulatory Fees Fact Sheet: FY 2022 Regulatory Fees – International and Satellite Services (Sept. 2022) at 2-3 (stating that the fee payment for a space station is required "upon commencement of operation of a system's first satellite as reported annually pursuant to sections 25.142(c), 25.143(e), 25.145(g), or upon certification of operation

(continued....)



a fee once it has certified that the earth station's construction is complete, but in the rare instances in which a license limits an earth station's operational authority to a particular satellite system, the fee is not due until the first satellite of the related system becomes "operational" within the meaning of our rules.<sup>134</sup> A space station is authorized, in contrast, after an application or petition has been reviewed and granted by the Commission and the grant is effective.<sup>135</sup> Because significant FTE resources are involved with the licensing of space and earth stations, we tentatively conclude that the objectives of section 9 of the Act would be better met by assessing regulatory fees once a space or earth station is licensed,<sup>136</sup> rather than, as now, when a space station becomes operational.

58. The origin for assessing regulatory fees on space stations when they become operational, rather than when licensed, was the statutory text of section 9 of the Act from 1993. The Omnibus Budget Reconciliation Act of 1993 that created section 9 and proposed regulatory fees in section 9(g), which identified two fee categories and amounts for space stations: (1) "Space Station (*per operational station* in geosynchronous orbit) (47 C.F.R. Part 25)" and (2) "Space Station (*per system* in low-earth orbit) (47 C.F.R. Part 25)" (italics added).<sup>137</sup> The Commission adopted the requirement that GSO space stations be operational before regulatory fees are assessed as part of 1994 regulatory fee proceeding, basing that decision on the statutory language.<sup>138</sup> In that same proceeding, the Commission also applied to NGSO space stations the requirement that space stations be operational before regulatory fees are payable, even though the text of section 9(g) did not include the word "operational" for systems in low-earth orbit, as it did for GSO space stations.<sup>139</sup> The Commission has kept the "operational" requirement for assessing regulatory fees on space stations through subsequent annual regulatory fee assessment proceedings without comment or reevaluation.

59. We tentatively conclude that there is no statutory bar to assessing regulatory fees on authorized, but not yet operational, space and earth stations. Section 9 of the Act explicitly gives the Commission authority to adjust its regulatory fees by rule if it determines that the schedule of fees requires amendment, and such adjustment by rule is what is being proposed in this *Notice*.<sup>140</sup> In addition,

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of a single satellite pursuant to section 25.121(d).") We note that sections 25.142(c), 25.143(e), and 25.145(g) are currently reserved or have been deleted, and we will make changes to our regulatory fact sheet to reflect this fact.

<sup>134</sup> *Implementation of Section 9 of the Communications Act, Assessment and Collection of Regulatory Fees for Fiscal Year 1994*, Report And Order, 9 FCC Rcd. 5333, 75 Rad. Reg. 2d (P & F) 399, 1994 WL 250172 at \*23, para. 94 (1994).

<sup>135</sup> Whether done by grant stamp or order, a grant is effective upon the date indicated upon the instrument of grant, usually "upon release."

<sup>136</sup> This tentative conclusion also applies to non-U.S. licensed space stations that petition, and are granted, access to the U.S. market.

<sup>137</sup> Pub. L. No. 103-66, Title VI, 6002(a), 107 Stat. 397 (approved August 10, 1993).

<sup>138</sup> *Amendment of Parts 0 and 1 - Assessment and Collection of Fees*, Report and Order, 9 FCC Rcd 5333, 5364, para. 91 (1994) ("Section 9(g) requires that the payment of a regulatory fee by the operator of any "operational" space station in geosynchronous orbit. We agree with the commenters that a satellite does not become "operational" immediately upon its launch. Therefore, as proposed by the commenters, we will consider a space station in geosynchronous orbit to be subject to the fee when it has been certified by its operator to be operational in accordance with section 25.121(d) of the rules. This certification indicates that the satellite has been placed in its authorized orbit and is operating in the authorized frequency bands at the authorized power levels.").

<sup>139</sup> *Id.* at 5364, para. 92 ("Also, we will consider a space system in low earth orbit (LEO) subject to the fee payment when its first satellite becomes operational even though all its space stations are not yet operational. Similar to our treatment of geosynchronous satellites, the system will become subject to a fee payment upon the certification by the licensee that the operations of the first satellite in its system conform to the terms and conditions of its authorization pursuant to 47 CFR 25.120(d).").

Congress deleted section 9(g), which was the textual basis for the operational requirement for assessing regulatory fees on space stations, in the 2018 RAY BAUM's Act.<sup>141</sup> Accordingly, the original textual language of section 9(g) appears no longer relevant to our amendments of regulatory fee schedules. We seek comment on this tentative conclusion and the reasons underlying it.

60. For the reasons below, we tentatively conclude that now is an appropriate time to reevaluate the current policy that a space station must be operational before regulatory fees can be assessed. The recent creation of Space Bureau provides an opportune time to revisit past conclusions about the regulatory burdens associated with space and earth station fee payors and how those fees should be assessed. The increased burdens of regulating space stations as a result of the changes in the satellite industry and the creation of the Space Bureau will increase the share of regulatory fees to be assessed on space and earth station regulatees, compared to the number of FTEs regulating space stations in the International Bureau, so we should look to have as broad a base as possible for our regulatory fees in a manner that accounts for all regulatees that benefit from Space Bureau oversight as a matter of making our regulatory fees more fair.<sup>142</sup>

61. We observe that a licensee or grantee already benefits from the substantial FTE resources used to review and grant the application or petition, as well as from the FTE resources used to protect the benefits conferred by the grant of a license or of U.S. market access, such as use of spectrum and orbital resources and protection from interference, which convey upon issuance of the license or grant.<sup>143</sup> Moreover, given the bespoke nature of many satellite systems, Space Bureau staff expertise is utilized by the industry before, during and after an application (including modifications thereof) or petitions for rulemaking are filed. In addition, as observed earlier in this *Notice*, NGSO space stations are taking an increased share of FTE burdens relative to GSO space stations and are being assessed higher regulatory fees, so there is also increased importance to make sure that all NGSO beneficiaries of those FTE burdens are assessed fees. For example, if five NGSO FSS systems are licensed through a single processing round, FTE licensing work is necessitated by all five systems, but under the current policy only the operational systems would be required to pay regulatory fees, and the entire regulatory burden for that category of space stations would be paid only by operational systems.<sup>144</sup> Systems that become operational later, or not at all, would not be assessed regulatory fees associated with that FTE work for potentially many years, or perhaps never.<sup>145</sup> As a result, systems that become operational earlier than other licensed

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<sup>140</sup> 47 USC § 159(d) (“In addition to the adjustments required by subsection (c), the Commission shall by rule amend the schedule of regulatory fees established under this section if the Commission determines that the schedule requires amendment so that such fees reflect the full-time equivalent number of employees within the bureaus and offices of the Commission, adjusted to take into account factors that are reasonably related to the benefits provided to the payor of the fee by the Commission's activities. In making an amendment under this subsection, the Commission may not change the total amount of regulatory fees required by subsection (b) to be collected in a fiscal year.”).

<sup>141</sup> See *Assessment and Collection of Regulatory Fees for Fiscal Year 2019*, Notice of Proposed Rulemaking, 34 FCC Rcd 3272, 3275, para. 7 (2019).

<sup>142</sup> This is particular relevant when certain space station fee categories, such as Space Stations (Non-geostationary Orbit) – Other, which have a relatively small number of payors on which fees are assessed. The broadening of the base of payors by only a single unit could have significant decrease on the regulatory fee born by each payor.

<sup>143</sup> Although the term of the license does not begin until the space station or system of space stations is operational, 47 CFR § 25.121, the term goes to the duration of the benefits and protections provided by a license or market access grant, which commence upon authorization, rather than upon commencement of the license term.

<sup>144</sup> We note that regulatory fees are a zero-sum situation, so any decrease to the fees paid by one category of regulatees necessitates an increase in fees for others. *FY 2019 Report and Order*, 34 FCC Rcd at 8195, para. 16. If an authorized space station never becomes operational, then the licensee would never be subject to regulatory fees to recover the FTE resources associated with regulating such space stations, and other licensees with operational satellites must bear the costs associated with space stations that were authorized, but never become operational.

systems would bear the entire fee burden of regulatory work done on behalf of all regulated systems. We seek comment on these observations.

62. We propose that the intent of Congress in section 9 would be better fulfilled by recovering the costs of licensing and regulatory oversight based on authorized space stations, rather than operational space stations. Congress has directed the FCC to recover its annual S&E appropriation through regulatory fees, and the S&E appropriation includes funding for FTE time spent reviewing and granting applications, which is accrued regardless of when a space station becomes operational.<sup>146</sup> In most cases, the amount of FTE spent on reviewing applications corresponds to the number of space stations requested to be authorized, rather than the number that become operational, since Commission staff must spend resources assessing the space station system as proposed in the application, regardless of whether all the space stations actually become operational.<sup>147</sup> In addition, once a space station is authorized, it is subject to regulatory oversight by the Space Bureau and is entitled to all the benefits and privileges that come with an FCC license or market access grant. We seek comment on this proposal.<sup>148</sup>

63. We also propose that assessing regulatory fees based on authorized space stations, rather than operational space stations, should not present challenges to administer.<sup>149</sup> No additional information collection would be needed to determine whether a space station is authorized (as opposed to operational), since the FCC's license or grant of market access displays the authorization particulars, including the date of grant and the number of space stations authorized, and the grants and the information contained within the grants are readily available to the Commission and the public.<sup>150</sup> We propose to continue our practice of publishing a list of the space stations and systems that would be subject to regulatory fees as U.S.

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<sup>145</sup> This is true for space stations that are authorized but never brought into operation, as well as for categories of space stations with operational lifetimes of less than a year. For example, an NGSO space station may require significant FTE resources to issue a license, but the space station may become operational after the date on which regulatory fees for the current fiscal year are assessed and may cease operations a few months afterwards before the date of assessment of the following year's regulatory fees. In that situation, none of the FTE resources spent on licensing would be recovered under our existing policy of assessing fees solely on operational space stations.

<sup>146</sup> We note that, although Congress has also required the Commission to assess filing/application fees under section 8 of the Act to recover the costs associated with filing of a specific application with the Commission, fees assessed under section 8 do not go towards recovering our S&E appropriation and do not obviate the requirement of section 9 to collect an amount equal to our full S&E appropriation through the offsetting collection of regulatory fees.

<sup>147</sup> Although this observation is particularly true for NGSO systems, it also true for GSO space stations. For example, it still takes FTE time to review and grant application for GSO "on-orbit spare" space stations, which are reviewed as if the space stations become operational, but may not in fact become operational for many years, or not at all. Such "on orbit spares" have been considered to be non-operational under our current policy of assessing space station regulatory fees and have not been assessed regulatory fees for that reason.

<sup>148</sup> To the extent that assessing regulatory fees on authorized, rather than operational, space stations provides an incentive for licensees to make their systems operational sooner in a manner similar to our part 25 bond requirements designed to prevent warehousing of scarce orbital and spectrum resources, we note that such considerations do not address the statutory basis of our regulatory fees requirements and are more appropriately addressed in proceedings relevant to our part 25 licensing rules. *See* 47 CFR §§ 25.165 (requiring most GSO and NGSO space station licensees and market access grantees to post a bond within 30 days of the grant of its license or market access that is forfeited if the space station or stations are not made operational within certain time periods).

<sup>149</sup> By contrast, the Commission frequently is notified of errors in the list of U.S. licensed space stations and non-U.S. licensed space stations with U.S. market access that are identified as "operational" in our annual regulatory fee proceeding.

<sup>150</sup> For example, a list of space stations with an FCC license or U.S. market access grant is maintained by the Space Bureau and is available via the FCC's website at <https://www.fcc.gov/approved-space-station-list>.

licensed space stations or non-U.S. licensed space station that have been granted U.S. market access.<sup>151</sup> As is the case now, we propose that any party identifying errors will be able to advise Commission staff of the error and seek correction. We also propose that NGSO licensees may seek to modify their licenses under our existing part 25 rules to have the number of authorized space stations modified to reflect the number of actual operational space stations if not as many space stations become operational as were applied for, or the number of authorized space stations diminishes due to the retirement of space stations at the end of their missions.<sup>152</sup> We acknowledge that permitting payors to reduce the number of authorized space stations after an application is granted could be inconsistent with the proposal that regulatory fees should be based on the number of space station licensed, rather than the number of operational space stations, but we tentatively conclude that it is easier to administer our fees if they are based on the number of space stations authorized in the current license, rather than having to look back at previous iterations of license grants in order to fix the fee at the highest number of space stations licensed. Furthermore, we do not anticipate that licensees or grantees will seek to reduce the number of authorized satellites significantly after authorization to avoid regulatory fees; rather, we anticipate that such reductions will be marginal and be due to business or operational considerations, rather than due to regulatory fee considerations. We seek comment on these proposals. We also seek comment on whether, if the proposal to assess regulatory fees based on authorized, rather than operational, space stations is adopted, we should assess fees on this basis in the current fiscal year, or whether it would be more appropriate to assess fees on this basis beginning in FY 2025.

64. We recognize that assessing regulatory fees before a GSO space station, or a system of NGSO space stations, is operational could lead to collateral effects that are outside the FTE-focused methodology required under section 9 of the Act. For example, assessing regulatory fees on authorized, but non-operational, space stations could provide an incentive for applicants to request the Space Bureau to defer action on applications until after the period has passed for assessing which payors owe regulatory fees for the fiscal year, so as to defer the assessment of regulatory fees until the subsequent fiscal year.<sup>153</sup> Alternatively, it could provide an incentive for space station operators to seek licensing outside the United States, and to apply for U.S. market access only once the system has become operational, thereby deferring the assessment of regulatory fees in a manner not available to U.S.-licensed space station operators. It could also increase the costs to the operator at the initial funding phases of a space station or system of space stations. We seek comment on these, or any other, potential collateral effects, and whether they weigh against assessing regulatory fees on authorized, but not yet operational, space stations. In addition, if the Commission does not adopt the proposal to begin to assess regulatory fees when a space station, or system of space stations, is authorized, could the benefits for the proposal still be realized in part by assessing regulatory fees on the number of authorized space stations in the system, once the system has been notified as operational, as defined under section 25.121(d)(2) of our rules, 47 CFR § 25.121(d)(2)?

65. We find that the proposal to assess regulatory fees on authorized, rather than operational, space and earth stations would be an amendment as defined in section 9(d) of the Act.<sup>154</sup> Such an amendment must be submitted to Congress at least 90 days before it becomes effective pursuant to section

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<sup>151</sup> *FY 2020 R&O and FNPRM*, 36 FCC Rcd at para. 52 (creating an Appendix F to our annual regulatory fee notice of proposed rulemaking and report and order that lists space stations and systems that would be subject to regulatory fees).

<sup>152</sup> If no space stations are operational under a license or market access grant, then the license or grant will be either be surrendered or terminated and no regulatory fee would be assessed, just as is the case for regulatory fees assessed for operational space stations under our current policy. See 47 CFR § 25.161(c) and (d).

<sup>153</sup> We note the same incentive exists for space station payors to defer the commencement of operation of their space station or space stations until after the period has passed for assessing which payors owe regulatory fees under the current system of assessing regulatory fees on operational space stations.

<sup>154</sup> 47 U.S.C. § 159(d).

9A(b)(2).<sup>155</sup>

66. Summarizing the proposed changes to the existing regulatory fee methodology for space stations, we propose to modify the fee categories for space stations contained in section 1.1156 of our rules to read as follows:<sup>156</sup>

Fee Category	Fee Amount
Space Stations (per authorized station in geostationary orbit) (47 CFR part 25)	[TBD]
Space Stations (per authorized system in non-geostationary orbit) (47 CFR part 25) (Other – Large Constellations)	[TBD]
Space Stations (per authorized system in non-geostationary orbit) (47 CFR part 25) (Other – Small Constellations)	[TBD]
Space Stations (per authorized system in non-geostationary orbit) (47 CFR part 25) (Less Complex)	[TBD]
Space Stations (per license/call sign) (Small Satellite)	[TBD]

### C. Earth Station Fee Proposals

67. We propose to increase the amount of regulatory fees assessed on earth stations in order to reflect more accurately the amount of FTE resources dedicated to their regulatory oversight. Currently, there is a single regulatory fee category for earth stations - Transmit/Receive & Transmit only (per authorization or registration). For FY 2023, the fee amount for this category per authorization or registration was \$575. For the reasons set forth below, the methodology used to assess regulatory fees for earth station payors may underestimate the FTE burdens associated with regulatory oversight of this category of fee payors, and we seek comment on proposals to adjust our regulatory fees to more accurately recover the amount of FTE resources devoted to licensing and regulation of earth stations.

68. The unit for assessing regulatory fees for earth stations – per authorization or registration – is not uniform.<sup>157</sup> In some cases, an authorization can be for a single earth station, such as a feederlink station in the mobile-satellite service.<sup>158</sup> In other cases, a single authorization could be for several thousand earth stations under what is often called a “blanket license.”<sup>159</sup> When first established in 1994, the fee category for earth stations had four sub-categories with different fee amounts. These sub-categories were: (1) VSAT & Equivalent C-band antennas (per 100 antennas) - \$6; (2) Mobile Satellite

<sup>155</sup> 47 U.S.C. § 159A(b)(2).

<sup>156</sup> While we initiate the examination and review of the existing methodology for assessing regulatory fees for space and earth station payors in this *Notice*, we will propose and finalize the regulatory fee rates for space and earth station payors as part of our annual Commission-wide regulatory fee proceeding for FY 2024.

<sup>157</sup> Under our rules, an authorization is not needed to operate a non-transmitting earth station in the fixed-satellite service that only receives signals from U.S.-licensed space stations or from non-U.S. licensed space stations that have been approved for U.S. market access, but such receive-only earth stations may be registered with the Commission in order to protect them from interference from terrestrial microwave stations in bands shared co-equally with the fixed service. *See* 47 CFR § 25.115(b)(1).

<sup>158</sup> A “feeder link” is a “radio link from a fixed earth station at a given location to a space station, or vice versa, conveying information for a space radiocommunication service other than Fixed-Satellite Service. The given location may be at a specified fixed point or at any fixed point within specified areas.” 47 CFR § 25.103.

<sup>159</sup> A “blanket license” is defined under our rules as “A license for: (1) Multiple earth stations in the [fixed-satellite service] or [mobile-satellite service], or for [satellite digital audio radio service] terrestrial repeaters, that may be operated anywhere within the geographic area specified in the license; or (2) For multiple space stations in non-geostationary orbit.” 47 CFR § 25.103.

Earth Stations (per 100 antennas) - \$6; (3) Less than 9 meters (per 100 antennas) - \$6; and (4) 9 Meters or More – Transmit/Receive and Transmit Only (per meter) - \$85; Receive Only (per meter) - \$55.<sup>160</sup> In 1995, the Commission deleted receive-only earth stations as a service subject to regulatory fee requirements and determined that assessing fees on a per authorization or registration basis was more equitable method than on a per meter or per 100 earth station basis.<sup>161</sup> The Commission set the earth station regulatory fee per authorization or registration at \$330 for all three remaining sub-categories (i.e., VSAT, Mobile-Satellite Earth Stations, Fixed Earth Stations – Transmit/Receive & Transmit Only).<sup>162</sup> Section 25.1156, however, lists only a single category and fee for earth station payors: Earth Stations: Transmit/Receive & Transmit only (per authorization or registration).

69. The Commission has not assessed earth station regulatory fees as a percentage of overall bureau regulatory burdens. Rather, the assessment of regulatory fees for earth stations has been based on the initial per unit fee for earth stations – Transmit/Receive & Transmit only (per authorization or registration) that was established by the Commission in 1995.<sup>163</sup> This initial fee has been adjusted on a year-to-year basis, but usually only in terms of a percentage change in the fee to reflect the changes in the amount of appropriated S&E each year and the number of anticipated units of payors. Since 1995, the Commission has periodically discussed earth station regulatory fees or considered adjusting earth station regulatory fees for factors beyond a change in the annual S&E appropriation or the number of units of earth station fee payors. In 2014, the Commission increased the earth station regulatory fee per unit by 7.5%, from \$275 in FY 2013 to \$295 for FY 2014, in order to reflect more appropriately the number of FTEs devoted to the regulation and oversight of the earth stations in response to concerns raised by commenters that space stations paid an unreasonably high portion of the regulatory fees for the regulation of the satellite industry.<sup>164</sup> The following year, in 2015, the Commission sought comment on whether to

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<sup>160</sup> *FY 1994 R&O*, 1994 WL 250172 at \*36. VSAT means “very small aperture terminal” and was described by the Commission as follows: “Earth station systems comprising very small aperture terminals make up authorized networks operating in the 12 and 14 GHz bands and provide a variety of communications services to other stations in the network. Each system, authorized pursuant to blanket licensing procedures in Part 25 of the Rules, consists of a network of technically-identical small fixed-satellite earth stations which often includes a larger hub station.” *FY 1994 R&O*, 1994 WL 250172 at \*54.

<sup>161</sup> *Assessment and Collection of Regulatory Fees for Fiscal Year 1995*, MD Docket No. 95-3, Report and Order, 10 FCC Rcd. 13512, 13548, paras. 105-106 (1995) (*FY 1995 R&O*). The Commission explained its decision to base its regulatory fee for earth stations on a per authorization or registration basis on the following reasoning:

“[A]ll satellite earth stations require a certain amount of regulatory activity. Commenters have focused on individual elements of our regulatory activities in arguing against the changes in fees for particular types of earth stations. For example, certain classes of earth stations require more international activity than others (i.e., coordination and consultation); other classes of earth stations require more rulemaking and enforcement activity than others (i.e., zoning related matters). Since we do not yet have a cost accounting system capable of assigning the cost of specific regulatory activities to specific classes of earth stations, we find that assessing the fee on a per authorization or registration basis, rather than a per meter or 100 antennas basis is the most equitable method of allocating the regulatory costs assigned to satellite earth stations. Moreover, we find no reasonable basis for charging a per meter fee when it appears that the regulatory costs associated with a five or nine meter antenna are similar and the benefits to the payer are no less at five meters than at nine meters.” *Id.*

<sup>162</sup> *FY 1995 R&O*, 10 FCC Rcd at 13459, para. 107 and Appendix G.

<sup>163</sup> 47 CFR § 1.1156(a).

<sup>164</sup> *Assessment and Collection of Regulatory Fees for Fiscal Year 2014*, MD Docket Nos. 14-92, 13-140, 12-201, Report and Order and Further Notice of Proposed Rulemaking, 29 FCC Rcd. 10767, 10773, para. 12 (2014). This percentage increase in the earth station regulatory fee was also due to a reduction in the allocation of submarine cable/bearer circuit fee categories that resulted in an increase in the space and earth station allocation percentage from 59% to approximately 64% of all International Bureau regulatory fees. The Commission elected to collect this

(continued....)

raise the earth station regulatory fees again, but declined to do so finding that the issue required further analysis.<sup>165</sup> In particular, due to comments suggesting that the Commission adopt different regulatory fees for different types of earth stations and an ongoing proceeding that held the possibility of affecting the distribution of FTE work, the Commission deferred the issue for the next year's proceeding.<sup>166</sup> The Commission ceased consideration of different regulatory fees for different types of earth stations in 2016, however, when the commenter chiefly advocating for such consideration ceased to back its earlier proposal and no other entity commented on the record in favor of the proposal to assess different levels of regulatory fees on different types of earth station licensees.<sup>167</sup> In 2020, commenters in the annual regulatory fee assessment proceeding proposed that the Commission review the apportionment of regulatory fees between earth and space station payors and implement different earth station subcategories for regulatory fee purposes.<sup>168</sup> The Commission declined to do so, finding that there was insufficient evidence in the record at that time to increase apportionment of fees paid by earth station licensees or on which to base the creation of subcategories of earth station fees.<sup>169</sup>

70. Our focused examination today of space and earth station fees as a result of the creation of the Space Bureau provides an opportunity to reconsider whether our regulatory fees adequately reflect the amount of FTE resources devoted to licensing and regulation of earth stations. We tentatively conclude that they do not, and that a change in methodology in assessing regulatory fees for earth stations is required. Specifically, for the reason set forth below, we propose to adopt an apportionment of the total regulatory fees allocated to the Space Bureau between space and earth station payors on a percentage basis, similar to the manner that space station fees are apportioned between GSO and NGSO space stations, and propose that the apportionment be 20 percent for earth stations and 80 percent for space stations. We seek comment on this proposal and apportionment.

71. For FY 2023, earth station licensees were assessed a total of \$1,667,500 in regulatory fees, which amounted to 7.69% of the \$21,656,110 in regulatory fees assessed for all space and earth station payors. Several factors lead to our tentative conclusion that this percentage underestimates the amount of FTE resources dedicated to earth station licensing and regulation. First, unlike the case for apportionment of space station fees between GSO and NGSO space stations, or among various subcategories of NGSO space stations, it may be feasible to attribute Space Bureau FTE resources that are dedicated exclusively, or nearly exclusively, to earth station licensing and regulation. Within the Space Bureau is the Earth Station Licensing Division (ESLD), which lists eleven staff members that work almost exclusively on earth station licensing and regulation and that are not routinely involved in matters of space station licensing or regulation.<sup>170</sup> If each staff member were to account for an FTE, these eleven staff members would account for approximately 20% of the 54 FTEs that could be categorized as direct FTEs for the Space Bureau for FY 2024, minus a small number of FTEs that may be categorized as

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five percent increase for space and earth stations solely through raising the per unit regulatory fee for earth stations by 7.5%, rather than having both space and earth station payors bear the increase. *Id.*

<sup>165</sup> 30 FCC Rcd. 10268, 10274 para. 14 (2015)

<sup>166</sup> *Id.*

<sup>167</sup> 31 FCC Rcd. 10339, 10344, paras. 13-14 (2016).

<sup>168</sup> *FY 2020 R&O and NPRM*, 35 FCC Rcd at 4995, para. 46.

<sup>169</sup> *Id.*, 35 FCC Rcd at 4995, para. 48 (finding that commenters had not provided an alternative apportionment of fees between earth and space station payors, or provided support for their claim that a separate, higher fee should be assessed for blanket-licensed earth stations because such licensees required more regulatory oversight).

<sup>170</sup> ESLD is responsible for the technical analysis, review, and licensing of applications and special temporary requests for satellite earth stations. See <https://www.fcc.gov/earth-station-licensing-division>. Although requests for U.S. market access for a non-U.S. licensed space station may be submitted as part of an earth station filing, the review of such requests and oversight of U.S. market access is chiefly done by Space Bureau staff outside of ESLD.

indirect FTEs as discussed earlier in this *Notice*. We tentatively conclude that apportioning regulatory fee percentages between earth and space station payors based on the percentage of direct FTEs involved in the licensing and regulation of each category, where feasible to do so, is a reasonable way to fulfill Congress' mandate in section 9 of the Act that our regulatory fees must "reflect the full-time equivalent number of employees within the bureaus and offices of the Commission, adjusted to take into account factors that are reasonably related to the benefits provided to the payor of the fee by the Commission's activities."<sup>171</sup> We seek comment on whether using FTEs in the ESLD to determine the proportion of earth station fees relative to space station fees is reasonable and reflective of Congressional intent. Are there other factors that are reasonably related to the FTE resources provided to earth station licensees that are not reflected in our proposal? Are there alternatives to using the percentage of direct FTEs involved in earth station licensing and regulation that we should consider?

72. We recognize that the proposal to apportion 20% of all Space Bureau regulatory fees to earth station licensees beginning in FY 2024 will result in a substantial increase in the per unit regulatory fee paid by earth station licensees, both because the percentage share of Space Bureau regulatory fees is likely to increase as a whole due to the increased number of direct FTEs in the Space Bureau compared to the International Bureau, and because the percentage share of earth station fees of Space Bureau fees would increase from around 8% to 20% under our proposal. Nonetheless, we tentatively conclude that the increase in earth station regulatory fees is consistent with the mandate given by Congress in section 9 of the Act for the Commission to recover its costs of regulation through fees that reflect the full-time equivalent number of employees within the Commission that provide the regulatory benefits to the payors. We seek comment on this tentative conclusion and observation.

73. In light of our tentative conclusion that earth station licensees should be apportioned 20% of all fees allocated to Space Bureau fee payors, we seek to revisit the question of whether to create subcategories of earth station regulatory fee payors to better differentiate the amount of regulatory burdens associated with different types of earth station licenses. For example, should VSAT, Mobile-Satellite Earth Stations, and Fixed Earth Stations – Transmit/Receive & Transmit Only be reinstated as distinct fee categories, each with a separate fee assessment? We also seek to develop a record as to whether there are types of earth station licenses that require more FTE resources to license and regulate, and that account for a higher share of FTE burdens than other categories of earth station licensees, for which a higher regulatory fee should be assessed. Likewise, are there categories of earth station licensees that require less FTE resources to license and regulate and therefore should be assessed a lower regulatory fee? For example, in the past commenters have suggested that blanket-licensed earth station licensees involving multiple antennas under a single authorization should pay higher fees than other earth station licensees because blanket-licensed earth stations require more regulatory oversight.<sup>172</sup> We ask commenters to provide evidentiary support for their propositions and to provide specific proposals for what these categories should be and how to allocate fees among any categories. Furthermore, comments should address the administrability of any proposed categories and whether the Space Bureau would be able to assign costs of specific regulatory activities to any proposed categories of earth station regulatory fees.

74. We find that the creation of any new fee categories for earth stations would be an amendment as defined in section 9(d) of the Act.<sup>173</sup> Such an amendment must be submitted to Congress at least 90 days before it becomes effective pursuant to section 9A(b)(2).<sup>174</sup>

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<sup>171</sup> 47 U.S.C. § 159(d).

<sup>172</sup> *FY 2020 R&O and NPRM*, 35 FCC Rcd at 4995-96, para. 48.

<sup>173</sup> 47 U.S.C. § 159(d).

<sup>174</sup> 47 U.S.C. § 159A(b)(2).



75. If the proposals made in this *Notice* are not adopted, we seek comment on whether the Commission should, at a minimum, increase the amount of the per unit fee for the existing fee category of “Earth Station - Transmit/Receive & Transmit only (per authorization or registration)” in order to reflect the increase of the Space Bureau’s share of overall Commission regulatory fees as compared to the International Bureau’s share in FY 2023. If so, how should this increase be calculated and what should be the percentage increase over the FY 2023 fee?

**D. Alternative Methodology for Assessing Space Station Regulatory Fees**

76. The proposals made earlier in this *Notice* are amendments or adjustments to the existing methodology of assessing regulatory fees for space stations. This existing methodology was founded on the original regulatory fees proposed by Congress in 1994, which provided for earth station regulatory fees and separate categories of space station fees depending on the orbit used by the space station(s): geostationary or non-geostationary. Since then, the Commission has created subcategories for NGSO space stations and has continuously tried to adjust the allocation of FTE burdens among GSO space stations and the various subcategories of NGSO space stations. We now seek comment on an alternative methodology for assessing space station regulatory fees that eliminates the distinction between GSO, NGSO, and all the subcategories of NGSO, while preserving a separate fee category for small satellites. For the reasons discussed below, we seek comment on whether this alternative methodology would be more administrable, fair, and sustainable than the existing methodology, even if all the proposals made earlier in this *Notice* are adopted.

77. The initial stages of the alternative methodology are the same as under the existing methodology. We would first determine the Space Bureau’s share of the total FCC annual S&E appropriation for the given fiscal year using the existing methodology used by the Commission. After the Space Bureau’s share is determined, we propose that the share be allocated between earth station and space station fee payors proportional to the Space Bureau FTE resources that are involved in the licensing and regulation of each segment. As stated earlier in the *Notice*, we tentatively conclude that it is feasible to attribute Space Bureau FTE resources that are dedicated exclusively, or nearly exclusively, to earth station licensing and regulation. We anticipate that the FTE resources attributed to earth stations will be 20 percent of the total Space Bureau share, resulting in 80 percent of regulatory fees to be attributed to space station regulatory fees. Earth station fees would be determined by dividing the total share attributable to earth station licensing and regulation by the number of units for the fiscal year, which were 2900 in FY 2023.<sup>175</sup>

78. Our alternative methodology also would preserve a separate fee category for Space Stations (per license/call sign) (Small Satellite), with the inclusion of RPO, OOS, OTV, and potentially other ISAM space stations in this category on an interim basis, as was proposed earlier in this *Notice*.<sup>176</sup> It would also retain the proposal to set this regulatory fee at the level set for FY 2023, with only an adjustment each year to reflect the percentage change in the FCC appropriation from the previous fiscal year.<sup>177</sup> This fixed regulatory fee for Space Stations (Small Satellite) would be multiplied by the number of small satellite licenses/call signs required to pay regulatory fees for the fiscal year, and this total

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<sup>175</sup> We have sought comment on revisiting the possibility of creating subcategories of earth station regulatory fee payors to better differentiate the amount of regulatory burdens associated with different types of earth station licenses. *See supra*, section III.C. If adopted, we propose also to use these subcategories as part of our alternative methodology for determining space station fees.

<sup>176</sup> We have proposed, on an interim basis, to assess regulatory fees on RPO and OOS space stations as we do for small satellites, rather than as Space Stations (Geostationary orbit) or Space Stations (Non-Geostationary Orbit) – Other. We also have tentatively concluded to assess regulatory fees on Orbital Transfer Vehicles in the same manner. *See supra*, section III.B.4. If adopted, we also propose assess RPO, OOS, and OTV, in the same way as part of our alternative methodology for determining space station fees.

<sup>177</sup> *See supra*, section III.B.4.

amount would be subtracted from the amount of space station regulatory fees to be assessed on all remaining space station payors. Fees would be assessed on authorized space stations, not just operational space stations, as proposed in this *Notice*.<sup>178</sup> This treatment of small satellite regulatory fees would be consistent with our existing methodology for assessing space station regulatory fees, taking into account the proposals made in this *Notice*.

79. The main change from the existing methodology is a proposal to establish a common initial unit of regulatory fee payment for all space stations, regardless of which orbit they are designed to operate in, and to eliminate separate fee categories for Space Stations (Geostationary Orbit), Space Stations (Non-Geostationary Orbit) – Less complex, and Space Stations (Non-Geostationary Orbit) – Other. The alternative methodology would have a single space station fee category for “Space Stations (Per Call Sign in Geostationary Orbit or Per System in Non-Geostationary Orbit).” The category would be tiered, with a single GSO space station or a NGSO system with up to 100 authorized space stations constituting this initial tier and being counted as one unit for assessment of space station regulatory fees. Additional tiers would be created to account for NGSO systems with more than 100 authorized space stations, for example 500 or 1,000 space stations per NGSO system per additional tier. Each tier would be counted as an additional unit for assessment of space station regulatory fees.<sup>179</sup> The total number of units (initial and additional units) would be added together and the total space station allocation of the Space Bureau share would be evenly divided among the total number of units, resulting in a per unit regulatory fee for the fiscal year.

80. If the unit tiers are defined per 500 additional authorized space stations, the initial unit range will be 1-100 authorized space stations, the first additional unit will be assessed to systems with 101-500 authorized space stations, and an additional unit will then be assessed for each additional block of 500 authorized space stations. Similarly, if the additional unit tiers are defined per 1,000 additional authorized space stations, the initial unit range will be 1-100 authorized space stations, the first additional unit will be assessed to systems with 101-1000 authorized space stations, and an additional unit will then be assessed for additional block of 1,000 authorized space stations. For example, a single GSO space station or a NGSO system of 100 authorized space stations or fewer would be assessed one unit’s share of space station regulatory fees. If that NGSO system were to have 500 authorized space stations, it would be assessed an additional unit’s share of regulatory fees, regardless of whether the additional tiers are based on 500 or 1,000 additional space stations per NGSO system. If that NGSO system were to have 1,000 authorized space stations, it would either be assessed one additional unit’s share (if the additional tiers are based per 1,000 authorized space stations) or two additional units’ share (if the additional tiers are based per 500 authorized space stations). Accordingly, GSO payors and NGSO systems of 100 authorized space stations or fewer would be assessed the lowest regulatory fees, while payors with multiple authorized GSO space stations or with NGSO systems with more than 100 authorized space stations would be assessed higher regulatory fees, with the highest regulatory fees assessed to payors with a large number of GSO space stations and to payors with NGSO systems consisting of thousands of authorized space stations.

81. We seek comment on whether this alternative methodology would be more administrable, fair, and sustainable than the existing methodology. First, it could be more administrable because it does not require the Space Bureau to make the challenging determination of how FTE resources are allocated among space station payors. The Commission has previously recognized the considerable challenge of apportioning regulatory fees among space stations fee categories.<sup>180</sup> Under the alternative methodology,

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<sup>178</sup> See *supra*, section III.B.5.

<sup>179</sup> As a result, an NGSO system with thousands of authorized space stations would account for only a single unit under the existing methodology (even under the proposal to create sub-tiers for large constellations of NGSO space stations), whereas it would account for several units under the alternative methodology.

<sup>180</sup> *FY 2020 R&O and NPRM*, 35 FCC Rcd at 4995, para. 45.

tiered units are used as a proxy for the amount of FTE resources that are attributable to the system without having to repeatedly make challenging determinations of the amount of FTE resources attributable to particular categories or subcategories of space station regulatory fee payors. Furthermore, unless the number of authorized space stations substantially decreases over a year, the amount of regulatory fee assessed to a system on a per unit basis is unlikely to increase and is likely to remain stable (or possibly decrease) year to year. The alternative methodology does not utilize any characteristics of a space station system other than the number of authorized space stations in the system and is not dependent on potentially difficult evaluations of the complexity of a system under our licensing and regulatory framework. It would not require the Commission to collect more information from operators. Thus, we anticipate that it can remain stable longer than our existing methodology for assessing space station regulatory fees. We seek comment on these issues.

82. We seek comment on whether the alternative methodology is more fair than the existing methodology, because it better corresponds FTE resources spent on licensing and regulating space stations with the types of space station systems that benefit from the FTE resources, thereby decreasing the per unit regulatory fees for space station payors that benefit less from FTE resources. Under the alternative methodology, higher aggregate fees will be assessed to systems with large numbers of authorized space stations, GSO or NGSO, but we expect those higher fees will be borne by payors that benefit from more FTE resources in support of licensing and regulating their systems. The alternative methodology also increases the number of units over which space station regulatory fees are spread, thereby decreasing the per unit regulatory fees for all space station payors as additional units are added, regardless of their orbital configuration. The tiered system also avoids the situation where systems with a very large number of authorized space stations could effectively end up paying all, or nearly all, space station regulatory fees, and where the fee per unit for a single GSO space station or a NGSO system of up to 100 authorized space stations would be diluted to an amount that may not adequately reflect the amount of FTE resources allocated to such fee payors.

83. In addition, under the existing methodology, regulatory fees for a particular category of fee payors go down per payor as more space stations or systems become operational in that category. Although such a decrease is beneficial for payors in that category, it may not reflect the increased amount of FTE resources required for that category of fee payors because of the additional resources needed for authorizing and regulating an increasing number of space stations or systems. This can lead to a discrepancy in that a category with rapidly increasing number of space stations or systems becoming operational is assessed lower regulatory fees than a category where the number of payors remains steady or even declines. This discrepancy continues until the Commission makes the challenging determination to alter the allocation of regulatory fees among the fee categories, which could take years to implement. For example, if additional NGSO systems become operational under the existing methodology, the regulatory fee per system for that particular subcategory of NGSO system would decrease because of the broader base over which the fees for that category would be spread, but it would not decrease the fees assessed on GSO space station payors or on NGSO space station payors in other NGSO subcategories – unless the Commission reallocates the percentage of space station regulatory fees among the GSO and NGSO categories. Under the alternative methodology this discrepancy is eliminated, because the addition of units of authorized space stations will automatically decrease the per unit regulatory fee for all space station regulatory fee payors, because the denominator used to divide the overall space station regulatory fee amount becomes larger. For example, the per unit regulatory fee for GSO space stations will decrease if the number of units assessed to NGSO space station systems increases, even if the number of units assessed to GSO space stations remains the same. Under this example, the per unit regulatory fee for all NGSO space stations would decrease as well. Furthermore, the alternative system avoids assessing the same regulatory fee on systems with a small number of authorized space stations as the fee assessed on systems with a large number of authorized space stations, as is the case under the existing NGSO space stations “other” subcategory. We seek comment on these issues.

84. Finally, we seek comment on whether the alternative methodology is more sustainable than the existing methodology. We have reason to expect that the number of authorized space stations

will increase in the future, rather than decrease, which will result in an even broader base on which to assess space station regulatory fees and which will lower per unit fees for all space station payors, regardless of the orbit in which the space station operates or the services it provides. Because fees are spread across all space station payors, it avoids the situation where the loss of a single payor in an existing fee category could result in significant increases to the regulatory fees paid by the remaining payors in that category, absent Commission action to reexamine fee allocations. We seek comment on these issues.

85. We observe that this alternative methodology relies exclusively on the number of authorized space stations to assess space station regulatory fees, rather than the more nuanced approach of the existing methodology of assessing the complexity of a system (and thus the amount of FTE resources required to regulate the system) based on a number of factors. We also acknowledge that the Commission has previously found that the number of space stations in a system is not the key driver of the amount of FTE time devoted to regulatory oversight of such systems.<sup>181</sup> For example, an NGSO system consisting of a single space station that is designed to operate in a novel manner, subject to a processing round, and in a way that requires extensive coordination of spectrum and orbital resources may require significantly more regulatory oversight than a NGSO system of hundreds of space stations having non-exclusive use of spectrum and operating under well-established parameters. But is it reasonable to assume that NGSO systems with hundreds or thousands of authorized space stations require more FTE resources, on average and ignoring outliers, than NGSO systems with 100 authorized space stations or fewer, since as the number of space stations in a system increases, the complexity of spectrum sharing, frequency usage, and orbital debris mitigation plans also increases, generally speaking? While the number of space stations in a system may not be the key driver of the amount of FTE devoted to regulatory oversight of such systems, we expect that it may be a driver, and one that is easier to administer than the more nuanced approach of the existing methodology or the use of other possible proxies for complexity, such as spectrum usage, services provided, or on-orbit mass. In order to gain the potential advantages of the alternative methodology above, the number of space stations authorized may be the more administrable metric to serve as a proxy for the amount of FTE resources devoted to a system in order to accomplish our objectives under section 9 of the Act, rather than to continue the challenging task of determining which categories or aspects of NGSO systems are more or less complex to regulate on a recurring basis, particularly as new technologies, services, and orbital operations rapidly develop. We seek comment on these issues.

86. Although the regulatory fees that would be assessed under the alternative methodology for most space station fee payors may be roughly the same or potentially lower than those that would be assessed using the existing methodology, even with the changes proposed in this *Notice*, the fees assessed for some space station payors could be substantially higher under the alternative methodology. For example, NGSO systems with more than 500 authorized space stations that are categorized as “less complex” under the existing methodology could pay more under the alternative methodology. For NGSO systems that are categorized as “less complex” under our existing methodology, it may be possible to reflect that categorization by allowing a greater number of space stations to be included in the first or second tier for those systems. For example, an NGSO system used primarily for EESS and/or AIS communicating with 20 or fewer U.S.-licensed earth stations with up to 500 authorized space stations could be assessed only the initial unit of fees, even though it exceeds the proposed limit of up to 100 authorized space stations for the initial unit. We seek comment on these issues.

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<sup>181</sup> *FY 2021 R&O and NPRM*, 36 FCC Rcd at 13018, para. 57 (“Our cumulative experience to date is that the number of satellites in a constellation is not the key driver of the amount of FTE time devoted to regulatory oversight of such constellations”); *FY 2021 NPRM*, 36 FCC Rcd at 8589, para. 19 (“It is not our experience that the number of satellites (or satellite mass) is the key driver of system complexity and regulation. For example, an NGSO system with a small number of satellites, authorized as part of a processing round to operate in the FSS to provide broadband to user terminals in a particular area, will receive significant continuous benefits reasonably related to our regulatory work.”)

87. Furthermore, if NGSO systems have a significantly larger number of authorized space stations than is the case today, it is possible that tiers of units based on 500 or 1,000 space stations could result in such NGSO systems being assessed a very large percentage share of all space station regulatory fees. In this case, the concern is similar to using a “per space station” basis as a proxy for the complexity of a space station system that was discussed above in this *Notice*.<sup>182</sup> As was discussed above, we seek comment on whether a “cap” or “ceiling” on the number of authorized space stations on which regulatory fees are assessed could alleviate this concern.

88. The use of tiers also presents the situation where a system with only a handful of authorized space stations over the cut off number of space stations in a tier would be assessed fees under the next higher tier. For example, under a tiered system where an additional unit of fees is assessed per 500 additional authorized space stations, an NGSO system with 501 authorized space stations would be assessed fees for three units (the initial tier of up to 100 authorized space stations, the second tier of up to 500 authorized space stations, and the third tier of 501-1,000 authorized space stations), even though it crossed the second tier threshold by a single authorized space station. While the payor in such a case could seek authorization for one less space station, or modify an existing space station license to remove an authorized space station from its license, this may not make sense from a systems engineering perspective, particularly if the “spill over” is 50 or 100 additional authorized space stations. A potential remedy for this situation is to allow partial units for assessing regulatory fees. For example, if the additional authorized space stations per unit is set at 500, and an NGSO system has 508 authorized space stations, it could be assessed 1.016 additional units (508/500) instead of rounding up and being assessed two additional units. If the same NGSO system had 580 authorized space stations, it could be assessed 1.16 additional units (580/500) instead of two additional units. This fractional approach could result in more granular assessments of regulatory fees than a tiered system using cut offs. We seek comment on these issues, particularly on the feasibility of implementing such an approach and whether it requires too much precision in assessing the number of authorized space stations in a system.

89. We seek comment on all aspects of this alternative methodology for assessing space station regulatory fees. Would it be more administrable, fair, and sustainable than the existing methodology? Is it reasonable to use the number of authorized space stations in a system to reflect the amount of FTE resources devoted to a system, as proposed in the alternative methodology? Is the regulatory burden of one GSO space station approximate to the regulatory burden of an NGSO system of up to 100 authorized space stations? If tiers of units are utilized, what should the number of additional authorized space stations per tier be set at? Would 500 or 1,000 additional authorized space stations be a reasonable number? Should there be a cap on the number of space stations on which tiers of units are assessed, in order to prevent NGSO systems with tens of thousands of authorized space stations from potentially being assessed a fee that is disproportionate to the amount of FTE resources devoted to licensing and regulating such systems? Should partial units be utilized instead of cut offs for tiers, as discussed in the previous paragraph? Under the alternative methodology, should small satellite fees be fixed, as proposed for changes to the existing methodology earlier in this *Notice*?

90. Summarizing the proposed changes under the proposed alternative regulatory fee methodology for space stations above, section 1.1156 of our rules would be proposed to read as follows:<sup>183</sup>

Fee Category	Fee Amount
Space Stations (Per Call Sign of Authorized Space Station in Geostationary Orbit or Per System of 100 or Fewer Authorized Space	[TBD]

<sup>182</sup> See *supra*, section III.B.3.

<sup>183</sup> While we initiate the examination and review of the existing methodology for assessing regulatory fees for space and earth station payors in this *Notice*, we will propose and finalize the regulatory fee rates for space and earth station payors as part of our annual Commission-wide regulatory fee proceeding for FY 2024.

Stations in Non-Geostationary Orbit)	
Space Stations (Per Tier of Up to 500 [or 1000] Additionally Authorized Space Stations in Non-Geostationary Orbit)	[TBD]
Space Station (per license/call sign) (Small Satellites)	[TBD]

91. We find that the proposal to use the alternative methodology to assess regulatory fees for space and earth stations would be an amendment as defined in section 9(d) of the Act.<sup>184</sup> Such an amendment must be submitted to Congress at least 90 days before it becomes effective pursuant to section 9A(b)(2).<sup>185</sup>

**E. Other Matters**

92. *Changing the Title of Section 1.1156.* We propose to change the title of section 1.1156 in part 1, subpart G, of our rules to make it clear that it contains space and earth station regulatory fees.<sup>186</sup> Currently, satellite regulatory fees are contained in section 1.1156, which is titled, “Schedule of regulatory fees for international services.”<sup>187</sup> We propose to rename this section as “Schedule of regulatory fees for space and international services” to reflect more accurately that the section contains the regulatory fees for space and earth stations, as well as the fees for international bearer circuits and submarine cables regulated by the Office of International Affairs. The current title of section 1.1156 was accurate when all categories of fees within it were regulated by the International Bureau. After the reorganization of the International Bureau into the Space Bureau and the Office of International Affairs, the current title can cause confusion by suggesting that only the fees for regulatees of the Office of International Affairs are contained within section 1.1156. We tentatively conclude that it would be easier to change the title of section 1.1156 than to create a new section in part 1, subpart G, containing space and earth station regulatory fees.<sup>188</sup> We seek comment on this tentative conclusion and proposal.

93. *Digital Equity and Inclusion.* The Commission, as part of its continuing effort to advance digital equity for all,<sup>189</sup> including people of color, persons with disabilities, persons who live in rural or Tribal areas, and others who are or have been historically underserved, marginalized, or adversely affected by persistent poverty or inequality, invites comment on any equity-related considerations<sup>190</sup> and

<sup>184</sup> 47 U.S.C. § 159(d).

<sup>185</sup> 47 U.S.C. § 159A(b)(2).

<sup>186</sup> 47 CFR § 1.1156.

<sup>187</sup> *Id.*

<sup>188</sup> We note that the regulatory fees for our core bureaus are currently set forth in sequential order starting at section 1.1152 (Schedule of annual regulatory fees for wireless radio services) and ending at section 1.1156. Section 1.1151 is currently in use (Authority to prescribe and collect regulatory fees), and sections 1.1157 through section 1.1167 are also all currently in use and unavailable for the creation of a new section for space and earth station fees. Thus, a new section for space and earth station fees would need to be separate from other regulatory fees, which could cause confusion. In addition, space and earth station regulatory fees have been contained in section 1.1156 since 1995, so moving them to a new fee section would break the continuity and make it harder to trace changes in the regulatory fees over time.

<sup>189</sup> Section 1 of the Communications Act of 1934 as amended provides that the FCC “regulat[es] interstate and foreign commerce in communication by wire and radio so as to make [such service] available, so far as possible, to all the people of the United States, without discrimination on the basis of race, color, religion, national origin, or sex.” 47 U.S.C. § 151.

<sup>190</sup> The term “equity” is used here consistent with Executive Order 13985 as the consistent and systematic fair, just, and impartial treatment of all individuals, including individuals who belong to underserved communities that have been denied such treatment, such as Black, Latino, and Indigenous and Native American persons, Asian Americans and Pacific Islanders and other persons of color; members of religious minorities; lesbian, gay, bisexual,

(continued....)

benefits (if any) that may be associated with the proposals and issues discussed herein. Specifically, we seek comment on how our proposals may promote or inhibit advances in diversity, equity, inclusion, and accessibility, as well the scope of the Commission’s relevant legal authority. We note that diversity and equity considerations, however, do not allow the Commission to shift fees from one party of fee payors to another, nor to use fees under section 9 of the Act for any purpose other than as an offsetting collection in the amount of our annual S&E appropriation.

94. *Space Innovation Agenda.* The Commission has an open proceeding on advancing opportunities for innovation in the new space age by taking measures to expedite the application processes for space stations and earth stations, consistent with our objective to “promote a competitive and innovative global telecommunications marketplace via space services.”<sup>191</sup> In September 2023, the Commission adopted a Report and Order that further streamlined our application review process, including establishing clear timeframes for placing space and earth station applications on public notice.<sup>192</sup> The Commission also sought comment on several proposed changes to further streamline the licensing process and reduce applicant and staff burdens.<sup>193</sup> Finally, the Commission announced a Transparency Initiative with the goal of providing information and guidance, in a variety of forms, to interested parties so they can understand the Commission’s procedures and what is needed to obtain authorization for their proposed space station and earth station operations.<sup>194</sup> We seek comment, generally, how that proceeding and initiative might inform our consideration of the issues raised in this Notice.<sup>195</sup>

#### IV. PROCEDURAL MATTERS

95. *Initial Regulatory Flexibility Act Analysis.* The Regulatory Flexibility Act of 1980, as amended (RFA), requires that an agency prepare a regulatory flexibility analysis for notice-and-comment rulemaking proceedings, unless the agency certifies that “the rule will not, if promulgated, have a significant economic impact on a substantial number of small entities.” Accordingly, the Commission has prepared an Initial Regulatory Flexibility Analysis (IRFA) concerning potential rule and policy changes contained in this Notice of Proposed Rulemaking. The IRFA is set forth in Appendix A. Written public comments are requested on the IRFA. Comments must be filed by the deadlines for comments on the *NPRM* indicated on the first page of this document and must have a separate and distinct heading

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transgender, and queer (LGBTQ+) persons; persons with disabilities; persons who live in rural areas; and persons otherwise adversely affected by persistent poverty or inequality. *See* Exec. Order No. 13985, 86 Fed. Reg. 7009, Executive Order on Advancing Racial Equity and Support for Underserved Communities Through the Federal Government (January 20, 2021).

<sup>191</sup> *See Space Bureau Order* at para. 4.

<sup>192</sup> *Expediting Initial Processing of Satellite and Earth Station Applications; Space Innovation*, IB Docket Nos. 22-411 & 22-271, Report and Order and Further Notice of Proposed Rulemaking, FCC 23-73 (rel. Sept. 22, 2023) (*Streamlining R&O and FNPRM*).

<sup>193</sup> *Id.* at paras. 88-113.

<sup>194</sup> *Id.* at paras. 10-14.

<sup>195</sup> The Space Innovation docket is addressing the new space age with modernized regulations to match the new realities, support for technological innovation in this burgeoning economic sector, and taking seriously the space sustainability questions that come with rapidly growing and changing public and private space endeavors. *See FCC Adopts New ‘5-Year Rule’ for De-Orbiting Satellites to Address Growing Risk of Orbital Debris*, News Release, Sept. 29, 2022. The Transparency Initiative goals are intended to reduce administrative burdens on both applicants and staff and to further expedite the processing of applications. The guidance will take a variety of forms, including “frequently asked questions” or helpful links on the FCC’s website. In other cases, public workshops may be held to explain certain requirements. *Streamlining R&O and FNPRM* at para. 11. To the extent any filings in response to this Notice relate to issues pending as part of our Space Innovation agenda, they must also be filed in IB Docket No. 22-271 (Space Innovation).

designating them as responses to the IRFA.

96. *Comment Period and Filing Requirements.* Pursuant to sections 1.415 and 1.419 of the Commission's rules, 47 CFR §§ 1.415, 1.419, interested parties may file comments and reply comments on or before the dates indicated on the first page of this document. Comments may be filed using the Commission's Electronic Comment Filing System (ECFS). See Electronic Filing of Documents in Rulemaking Proceedings, 63 FR 24121 (1998).

- *Electronic Filers:* Comments may be filed electronically using the Internet by accessing the ECFS: <http://www.fcc.gov/ecfs/>.
- *Paper Filers:* Parties who choose to file by paper must file an original and one copy of each filing.
- Filings can be sent by commercial overnight courier, or by first-class or overnight U.S. Postal Service mail. All filings must be addressed to the Commission's Secretary, Office of the Secretary, Federal Communications Commission.
- Commercial overnight mail (other than U.S. Postal Service Express Mail and Priority Mail) must be sent to 9050 Junction Drive, Annapolis Junction, MD 20701.
- U.S. Postal Service first-class, Express, and Priority mail must be addressed to 45 L Street NE Washington, DC 20554.
- Effective March 19, 2020, and until further notice, the Commission no longer accepts any hand or messenger delivered filings. This is a temporary measure taken to help protect the health and safety of individuals, and to mitigate the transmission of COVID-19. See FCC Announces Closure of FCC Headquarters Open Window and Change in Hand-Delivery Policy, Public Notice, 35 FCC Rcd 2788, 2788-89 (OS 2020), <https://www.fcc.gov/document/fcc-closes-headquarters-open-window-and-changes-hand-delivery-policy>.

97. *People with Disabilities:* To request materials in accessible formats for people with disabilities (braille, large print, electronic files, audio format), send an e-mail to [fcc504@fcc.gov](mailto:fcc504@fcc.gov) or call the Consumer & Governmental Affairs Bureau at 202-418-0530 (voice), 202-418-0432 (TTY).

98. *Ex Parte Rules.* The proceeding this Notice initiates shall be treated as a "permit-but-disclose" proceeding in accordance with the Commission's ex parte rules. Persons making ex parte presentations must file a copy of any written presentation or a memorandum summarizing any oral presentation within two business days after the presentation (unless a different deadline applicable to the Sunshine period applies). Persons making oral ex parte presentations are reminded that memoranda summarizing the presentation must (1) list all persons attending or otherwise participating in the meeting at which the ex parte presentation was made, and (2) summarize all data presented and arguments made during the presentation. If the presentation consisted in whole or in part of the presentation of data or arguments already reflected in the presenter's written comments, memoranda or other filings in the proceeding, the presenter may provide citations to such data or arguments in his or her prior comments, memoranda, or other filings (specifying the relevant page and/or paragraph numbers where such data or arguments can be found) in lieu of summarizing them in the memorandum. Documents shown or given to Commission staff during ex parte meetings are deemed to be written ex parte presentations and must be filed consistent with rule 1.1206(b). In proceedings governed by rule 1.49(f) or for which the Commission has made available a method of electronic filing, written ex parte presentations and memoranda summarizing oral ex parte presentations, and all attachments thereto, must be filed through the electronic comment filing system available for that proceeding, and must be filed in their native format (e.g., .doc, .xml, .ppt, searchable .pdf). Participants in this proceeding should familiarize themselves with the Commission's ex parte rules.

99. *Providing Accountability Through Transparency Act.* Consistent with the Providing Accountability Through Transparency Act, Public Law 118-9, a summary of this document will be



available on <https://www.fcc.gov/proposed-rulemakings>.

100. For further information contact Stephen Duall, Space Bureau, at 202-418-1103 or by e-mail to [Stephen.Duall@fcc.gov](mailto:Stephen.Duall@fcc.gov).

#### **V. ORDERING CLAUSES**

101. Accordingly, IT IS ORDERED that, pursuant to sections 47 U.S.C. §§ 4(i), 4(j), 9, 9A, and 303(r) of the Communications Act of 1934, as amended, 47 U.S.C. §§ 154(i), 154(j), 159, 159A, and 303(r), this Notice of Proposed Rulemaking IS HEREBY ADOPTED.

102. IT IS FURTHER ORDERED that the Commission's Office of the Secretary, Reference Information Center, SHALL SEND a copy of this Notice of Proposed Rulemaking, including the Initial Regulatory Flexibility Analysis, to the Chief Counsel for Advocacy of the Small Business Administration, and shall cause it to be published in the Federal Register.

FEDERAL COMMUNICATIONS COMMISSION

Marlene H. Dortch  
Secretary

## APPENDIX

## Initial Regulatory Flexibility Analysis

1. As required by the Regulatory Flexibility Act of 1980, as amended (RFA),<sup>1</sup> the Federal Communications Commission (Commission) has prepared this Initial Regulatory Flexibility Analysis (IRFA) of the possible significant economic impact on small entities by the policies and rules proposed in the Notice of Proposed Rulemaking (*Notice*). Written comments are requested on this IRFA. Comments must be identified as responses to the IRFA and must be filed by the deadline for comments specified on the first page of this *Notice*. The Commission will send a copy of the *Notice*, including the IRFA, to the Chief Counsel for Advocacy of the Small Business Administration (SBA).<sup>2</sup> In addition, the *Notice* and IRFA (or summaries thereof) will be published in the Federal Register.<sup>3</sup>

**A. Need for, and Objectives of, the Proposed Rules**

2. The Commission is required by Congress pursuant to section 9 of the Communications Act of 1934, as amended (Communications Act or Act) to assess and collect regulatory fees each year to recover the regulatory costs associated with the Commission's oversight and regulatory activities in an amount that can reasonably be expected to equal the amount of its annual appropriation.<sup>4</sup> As part of last year's adoption of regulatory fees,<sup>5</sup> the Commission noted that FY 2023 would be the last year where the Commission will do so for the International Bureau, given the creation of the Space Bureau, and Office of International Affairs.<sup>6</sup> The Commission also noted that an examination of the regulatory fees, and categories for non-geostationary orbit (NGSO) space stations would be useful in light of changes resulting from the creation of the Space Bureau, and as part of a more holistic review of the FTE<sup>7</sup> burden of the Space Bureau in FY 2024.

3. The *Notice* commences the examination and review of regulatory fees for space and earth station payors regulated by the new Space Bureau, specifically seeking comment on a range of proposed changes to the assessment of regulatory fees for space and earth stations under the existing methodology. It proposes to: (1) change the allocation of fee burdens between geostationary orbit (GSO) and NGSO space stations and maintain the existing allocation of fee burdens between the categories of "less complex" and "other" NGSO space stations; (2) create new fee categories within the existing fee category

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<sup>1</sup> 5 U.S.C. § 603. The RFA, 5 U.S.C. §§ 601-612 has been amended by the Small Business Regulatory Enforcement Fairness Act of 1996 (SBREFA), Pub. L. No. 104-121, Title II, 110 Stat. 847 (1996).

<sup>2</sup> 5 U.S.C. § 603(a).

<sup>3</sup> *Id.*

<sup>4</sup> See 47 U.S.C. § 159 (requiring the Commission to assess and collect regulatory fees to recover the costs of carrying out its activities in the total amounts provided for in the Appropriations Act).

<sup>5</sup> *Assessment and Collection of Regulatory Fees for Fiscal Year 2023*, Report and Order, FCC 23-66, 2023 WL 5197492 (rel. Aug. 10, 2023) (*FY 2023 Report and Order*).

<sup>6</sup> *Id.* at \*22, para. 72.

<sup>7</sup> One FTE, a "Full Time Equivalent" or "Full Time Employee," is a unit of measure equal to the work performed annually by a full-time person (working a 40-hour workweek for a full year) assigned to the particular job, and subject to agency personnel staffing limitations established by the U.S. Office of Management and Budget. See generally Executive Office of the President, Office of Management and Budget, Circular No. A-11, Preparation, Submission, and Execution of the Budget (August 2022), <https://www.whitehouse.gov/wp-content/uploads/2018/06/a11.pdf>. See section 85.5(c) for a detailed explanation of how FTEs are calculated. In this proceeding when we state that 1.5 FTEs work on a particular subject matter, that might mean three individuals spend 50% of their time on that area. Moreover, any change in FTE allocation described here is solely for regulatory fee purposes and does not reflect any change of personnel in the various organizational work units.

of “Space Station (Non-Geostationary Orbit) – Other” to make assessment of our regulatory fees fairer, more administrable, and more sustainable; (3) set the regulatory fee for “Space Stations (per license/call sign in non-geostationary orbit) (47 CFR part 25) (Small Satellite)” for FY 2024 and future fiscal years at the level set for FY 2023, annually adjusted to reflect the percentage change in the appropriation from the previous fiscal year; (4) include, on an interim basis, space stations that are principally used for Rendezvous & Proximity Operations (RPO) or On-Orbit Servicing (OOS), including Orbit Transfer Vehicles (OTV), in the existing fee category for “small satellites” until the Commission can develop more experience in how these space stations will be regulated; (5) assess regulatory fees on all authorized space stations, not just on operational space stations, in order to adhere more closely to the framework of section 9 of the Communications Act, and to make the Commission’s fees fairer, more administrable, and more sustainable; and (6) increase the allocation of fees payable by earth station licensees in order to reflect more accurately the fee burden attributable to their licensing and regulation and seek comment on whether additional earth station fee categories should be created.

4. Additionally, the *Notice* proposes to amend the title of section 1.1156 of the Commission’s rules,<sup>8</sup> currently titled “Schedule of regulatory fees for international services,” to clarify that section 1.1156 includes space and earth station regulatory fees, following the reorganization of the Commission’s International Bureau. The *Notice* also proposes an alternative methodology for assessing space station regulatory fees by eliminating the separate categories of regulatory fees for GSO and NGSO space stations, as well as existing subcategories for NGSO space stations, while retaining the existing separate regulatory fee category for small satellites and spacecraft licensed under sections 25.122 and 25.123 of the Commission’s rules. The goal of these proposals is to update the regulatory fees and categories for earth and space stations in light of changes resulting from the creation of the Space Bureau and as part of a more holistic review of the regulatory fees for earth and space stations in FY 2024.

#### **B. Legal Basis**

5. The proposed action is authorized pursuant to sections 154(i), and (j), 159, 159A, and 303(r) of the Communications Act of 1934, as amended, 47 U.S.C. §§ 154(i) and (j), 159, 159A, and 303(r).

#### **C. Description and Estimate of the Number of Small Entities to Which the Proposed Rules Will Apply**

6. The RFA directs agencies to provide a description of, and where feasible, an estimate of the number of small entities that may be affected by the proposed rules, if adopted.<sup>9</sup> The RFA generally defines the term “small entity” as having the same meaning as the terms “small business,” “small organization,” and “small governmental jurisdiction.”<sup>10</sup> In addition, the term “small business” has the same meaning as the term “small business concern” under the Small Business Act.<sup>11</sup> A “small business concern” is one which: (1) is independently owned and operated; (2) is not dominant in its field of operation; and (3) satisfies any additional criteria established by the SBA.<sup>12</sup>

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<sup>8</sup> 47 CFR § 1.1156.

<sup>9</sup> 5 U.S.C. § 603(b)(3).

<sup>10</sup> 5 U.S.C. § 601(6).

<sup>11</sup> 5 U.S.C. § 601(3) (incorporating by reference the definition of “small-business concern” in the Small Business Act, 15 U.S.C. § 632). Pursuant to 5 U.S.C. § 601(3), the statutory definition of a small business applies “unless an agency, after consultation with the Office of Advocacy of the Small Business Administration and after opportunity for public comment, establishes one or more definitions of such term which are appropriate to the activities of the agency and publishes such definition(s) in the Federal Register.”

<sup>12</sup> 15 U.S.C. § 632.

7. *Small Businesses, Small Organizations, Small Governmental Jurisdictions.* Our actions, over time, may affect small entities that are not easily categorized at present. We therefore describe here, at the outset, three broad groups of small entities that could be directly affected herein.<sup>13</sup> First, while there are industry specific size standards for small businesses that are used in the regulatory flexibility analysis, according to data from the Small Business Administration’s (SBA) Office of Advocacy, in general a small business is an independent business having fewer than 500 employees.<sup>14</sup> These types of small businesses represent 99.9% of all businesses in the United States, which translates to 33.2 million businesses.<sup>15</sup>

8. Next, the type of small entity described as a “small organization” is generally “any not-for-profit enterprise which is independently owned and operated and is not dominant in its field.”<sup>16</sup> The Internal Revenue Service (IRS) uses a revenue benchmark of \$50,000 or less to delineate its annual electronic filing requirements for small exempt organizations.<sup>17</sup> Nationwide, for tax year 2020, there were approximately 447,689 small exempt organizations in the U.S. reporting revenues of \$50,000 or less according to the registration and tax data for exempt organizations available from the IRS.<sup>18</sup>

9. Finally, the small entity described as a “small governmental jurisdiction” is defined generally as “governments of cities, counties, towns, townships, villages, school districts, or special districts, with a population of less than fifty thousand.”<sup>19</sup> U.S. Census Bureau data from the 2017 Census of Governments<sup>20</sup> indicate that there were 90,075 local governmental jurisdictions consisting of general purpose governments and special purpose governments in the United States.<sup>21</sup> Of this number there were

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<sup>13</sup> See 5 U.S.C. § 601(3)-(6).

<sup>14</sup> See SBA, Office of Advocacy, “What’s New With Small Business?,” <https://advocacy.sba.gov/wp-content/uploads/2023/03/Whats-New-Infographic-March-2023-508c.pdf> (Mar. 2023).

<sup>15</sup> *Id.*

<sup>16</sup> 5 U.S.C. § 601(4).

<sup>17</sup> The IRS benchmark is similar to the population of less than 50,000 benchmark in 5 U.S.C § 601(5) that is used to define a small governmental jurisdiction. Therefore, the IRS benchmark has been used to estimate the number of small organizations in this small entity description. See Annual Electronic Filing Requirement for Small Exempt Organizations — Form 990-N (e-Postcard), “Who must file,” <https://www.irs.gov/charities-non-profits/annual-electronic-filing-requirement-for-small-exempt-organizations-form-990-n-e-postcard>, (last visited May 5, 2023). We note that the IRS data does not provide information on whether a small exempt organization is independently owned and operated or dominant in its field.

<sup>18</sup> See Exempt Organizations Business Master File Extract (EO BMF), <https://www.irs.gov/charities-non-profits/exempt-organizations-business-master-file-extract-eo-bmf>, (last visited May 5, 2023). The EO BMF Extract provides information on all registered tax-exempt/non-profit organizations. The data utilized for purposes of this description was extracted from the IRS EO BMF data for businesses for the tax year 2020 with revenue less than or equal to \$50,000 for Region 1-Northeast Area (58,577), Region 2-Mid-Atlantic and Great Lakes Areas (175,272), and Region 3-Gulf Coast and Pacific Coast Areas (213,840) that includes the continental U.S., Alaska, and Hawaii. This data does not include information for Puerto Rico.

<sup>19</sup> 5 U.S.C. § 601(5).

<sup>20</sup> See 13 U.S.C. § 161. The Census of Governments survey is conducted every five (5) years compiling data for years ending with “2” and “7”. See also Census of Governments, <https://www.census.gov/programs-surveys/cog/about.html>.

<sup>21</sup> See U.S. Census Bureau, 2017 Census of Governments – Organization Table 2. Local Governments by Type and State: 2017 [CG1700ORG02], <https://www.census.gov/data/tables/2017/econ/gus/2017-governments.html>. Local governmental jurisdictions are made up of general purpose governments (county, municipal and town or township) and special purpose governments (special districts and independent school districts). See also Table 2. CG1700ORG02 Table Notes Local Governments by Type and State\_2017.

36,931 general purpose governments (county<sup>22</sup>, municipal and town or township<sup>23</sup>) with populations of less than 50,000 and 12,040 special purpose governments - independent school districts<sup>24</sup> with enrollment populations of less than 511 governmental jurisdictions.”<sup>25</sup>

10. *Direct Broadcast Satellite (DBS) Service.* DBS service is a nationally distributed subscription service that delivers video and audio programming via satellite to a small parabolic “dish” antenna at the subscriber’s location. DBS is included in the Wired Telecommunications Carriers industry which comprises establishments primarily engaged in operating and/or providing access to transmission facilities and infrastructure that they own and/or lease for the transmission of voice, data, text, sound, and video using wired telecommunications networks.<sup>26</sup> Transmission facilities may be based on a single technology or combination of technologies.<sup>27</sup> Establishments in this industry use the wired telecommunications network facilities that they operate to provide a variety of services, such as wired telephony services, including VoIP services, wired (cable) audio and video programming distribution; and wired broadband Internet services.<sup>28</sup> By exception, establishments providing satellite television distribution services using facilities and infrastructure that they operate are included in this industry.<sup>29</sup>

11. The SBA small business size standard for Wired Telecommunications Carriers classifies firms having 1,500 or fewer employees as small.<sup>30</sup> U.S. Census Bureau data for 2017 show that 3,054 firms operated in this industry for the entire year.<sup>31</sup> Of this number, 2,964 firms operated with fewer than

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<sup>22</sup> See *id.* at tbl. 5. County Governments by Population-Size Group and State: 2017 [CG1700ORG05], <https://www.census.gov/data/tables/2017/econ/gus/2017-governments.html>. There were 2,105 county governments with populations less than 50,000. This category does not include subcounty (municipal and township) governments.

<sup>23</sup> See *id.* at tbl. 6. Subcounty General-Purpose Governments by Population-Size Group and State: 2017 [CG1700ORG06], <https://www.census.gov/data/tables/2017/econ/gus/2017-governments.html>. There were 18,729 municipal and 16,097 town and township governments with populations less than 50,000.

<sup>24</sup> See *id.* at tbl. 10. Elementary and Secondary School Systems by Enrollment-Size Group and State: 2017 [CG1700ORG10], <https://www.census.gov/data/tables/2017/econ/gus/2017-governments.html>. There were 12,040 independent school districts with enrollment populations less than 50,000. See also tbl. 4. Special-Purpose Local Governments by State Census Years 1942 to 2017 [CG1700ORG04], CG1700ORG04 Table Notes Special Purpose Local Governments by State Census Years 1942 to 2017.

<sup>25</sup> This total is derived from the sum of the number of general purpose governments (county, municipal and town or township) with populations of less than 50,000 (36,931) and the number of special purpose governments - independent school districts with enrollment populations of less than 50,000 (12,040), from the 2017 Census of Governments - Organizations tbls. 5, 6, & 10.

<sup>26</sup> See U.S. Census Bureau, *2017 NAICS Definition, “517311 Wired Telecommunications Carriers,”* <https://www.census.gov/naics/?input=517311&year=2017&details=517311>.

<sup>27</sup> *Id.*

<sup>28</sup> See *id.* Included in this industry are: broadband Internet service providers (e.g., cable, DSL); local telephone carriers (wired); cable television distribution services; long-distance telephone carriers (wired); closed-circuit television (CCTV) services; VoIP service providers, using own operated wired telecommunications infrastructure; direct-to-home satellite system (DTH) services; telecommunications carriers (wired); satellite television distribution systems; and multichannel multipoint distribution services (MMDS).

<sup>29</sup> *Id.*

<sup>30</sup> See 13 CFR § 121.201, NAICS Code 517311 (as of 10/1/22, NAICS Code 517111).

<sup>31</sup> See U.S. Census Bureau, *2017 Economic Census of the United States, Selected Sectors: Employment Size of Firms for the U.S.: 2017*, Table ID: EC1700SIZEEMPFI, NAICS Code 517311, <https://data.census.gov/cedsci/table?y=2017&n=517311&tid=ECNSIZE2017.EC1700SIZEEMPFI&hidePreview=false>.

250 employees.<sup>32</sup> Based on this data, the majority of firms in this industry can be considered small under the SBA small business size standard. According to Commission data however, only two entities provide DBS service – DIRECTV (owned by AT&T) and DISH Network – which require a great deal of capital for operation.<sup>33</sup> DIRECTV and DISH Network both exceed the SBA size standard for classification as a small business. Therefore, we must conclude based on internally developed Commission data, in general DBS service is provided only by large firms.

12. *Fixed Satellite Small Transmit/Receive Earth Stations.* Neither the SBA nor the Commission have developed a small business size standard specifically applicable to Fixed Satellite Small Transmit/Receive Earth Stations. Satellite Telecommunications<sup>34</sup> is the closest industry with an SBA small business size standard. The SBA size standard for this industry classifies a business as small if it has \$38.5 million or less in annual receipts.<sup>35</sup> For this industry, U.S. Census Bureau data for 2017 show that there was a total of 275 firms that operated for the entire year.<sup>36</sup> Of this total, 242 firms had revenue of less than \$25 million.<sup>37</sup> Additionally, based on Commission data in the 2022 Universal Service Monitoring Report, as of December 31, 2021, there were 65 providers that reported they were engaged in the provision of satellite telecommunications services.<sup>38</sup> Of these providers, the Commission estimates that approximately 42 providers have 1,500 or fewer employees.<sup>39</sup> Consequently, using the SBA's small business size standard, a little more than half of these providers can be considered small entities.

13. *Fixed Satellite Very Small Aperture Terminal (VSAT) Systems.* Neither the SBA nor the Commission have developed a small business size standard specifically applicable to Fixed Satellite Very Small Aperture Terminal (VSAT) Systems. A VSAT is a relatively small satellite antenna used for satellite-based point-to-multipoint data communications applications.<sup>40</sup> VSAT networks provide support for credit verification, transaction authorization, and billing and inventory management.<sup>41</sup> Satellite Telecommunications<sup>42</sup> is the closest industry with an SBA small business size standard. The SBA size

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<sup>32</sup> *Id.* The available U.S. Census Bureau data does not provide a more precise estimate of the number of firms that meet the SBA size standard.

<sup>33</sup> See *Annual Assessment of the Status of Competition in the Market for the Delivery of Video Programming, Eighteenth Report*, Table III.A.5, 32 FCC Rcd 568, 595 (Jan. 17, 2017).

<sup>34</sup> See U.S. Census Bureau, *2017 NAICS Definition*, “517410 Satellite Telecommunications,” <https://www.census.gov/naics/?input=517410&year=2017&details=517410>.

<sup>35</sup> See 13 CFR § 121.201, NAICS Code 517410.

<sup>36</sup> See U.S. Census Bureau, *2017 Economic Census of the United States, Selected Sectors: Sales, Value of Shipments, or Revenue Size of Firms for the U.S.: 2017*, Table ID: EC1700SIZEREVFIRM, NAICS Code 517410, <https://data.census.gov/cedsci/table?y=2017&n=517410&tid=ECNSIZE2017.EC1700SIZEREVFIRM&hidePreview=false>.

<sup>37</sup> *Id.* The available U.S. Census Bureau data does not provide a more precise estimate of the number of firms that meet the SBA size standard. We also note that according to the U.S. Census Bureau glossary, the terms receipts and revenues are used interchangeably, see [https://www.census.gov/glossary/#term\\_ReceiptsRevenueServices](https://www.census.gov/glossary/#term_ReceiptsRevenueServices).

<sup>38</sup> Federal-State Joint Board on Universal Service, *Universal Service Monitoring Report at 26*, Table 1.12 (2022), <https://docs.fcc.gov/public/attachments/DOC-391070A1.pdf>.

<sup>39</sup> *Id.*

<sup>40</sup> HARRY NEWTON WITH STEVE SCHOEN, *NEWTON'S TELECOM DICTIONARY* 1382 (31<sup>st</sup> ed. 2018).

<sup>41</sup> *Id.*

<sup>42</sup> See U.S. Census Bureau, *2017 NAICS Definition*, “517410 Satellite Telecommunications,” <https://www.census.gov/naics/?input=517410&year=2017&details=517410>.

standard for this industry classifies a business as small if it has \$38.5 million or less in annual receipts.<sup>43</sup> For this industry, U.S. Census Bureau data for 2017 show that there were a total of 275 firms that operated for the entire year.<sup>44</sup> Of this total, 242 firms had revenue of less than \$25 million.<sup>45</sup> Additionally, based on Commission data in the 2022 Universal Service Monitoring Report, as of December 31, 2021, there were 65 providers that reported they were engaged in the provision of satellite telecommunications services.<sup>46</sup> Of these providers, the Commission estimates that approximately 42 providers have 1,500 or fewer employees.<sup>47</sup> Consequently using the SBA's small business size standard, a little more than half of these providers can be considered small entities.

14. *Home Satellite Dish (HSD) Service.* HSD or the large dish segment of the satellite industry is the original satellite-to-home service offered to consumers and involves the home reception of signals transmitted by satellites operating generally in the C-band frequency. Unlike DBS, which uses small dishes, HSD antennas are between four and eight feet in diameter and can receive a wide range of unscrambled (free) programming and scrambled programming purchased from program packagers that are licensed to facilitate subscribers' receipt of video programming. Because HSD provides subscription services, HSD falls within the industry category of Wired Telecommunications Carriers.<sup>48</sup> The SBA small business size standard for Wired Telecommunications Carriers classifies firms having 1,500 or fewer employees as small.<sup>49</sup> U.S. Census Bureau data for 2017 show that there were 3,054 firms that operated for the entire year.<sup>50</sup> Of this total, 2,964 firms operated with fewer than 250 employees.<sup>51</sup> Thus, under the SBA size standard, the majority of firms in this industry can be considered small.

15. *Mobile Satellite Earth Stations.* Neither the SBA nor the Commission have developed a small business size standard specifically applicable to Mobile Satellite Earth Stations. Satellite Telecommunications<sup>52</sup> is the closest industry with a SBA small business size standard. The SBA small business size standard classifies a business with \$38.5 million or less in annual receipts as small.<sup>53</sup> For

<sup>43</sup> See 13 CFR § 121.201, NAICS Code 517410.

<sup>44</sup> See U.S. Census Bureau, *2017 Economic Census of the United States, Selected Sectors: Sales, Value of Shipments, or Revenue Size of Firms for the U.S.: 2017*, Table ID: EC1700SIZEREVFIRM, NAICS Code 517410, <https://data.census.gov/cedsci/table?y=2017&n=517410&tid=ECNSIZE2017.EC1700SIZEREVFIRM&hidePreview=false>.

<sup>45</sup> *Id.* The available U.S. Census Bureau data does not provide a more precise estimate of the number of firms that meet the SBA size standard. We also note that according to the U.S. Census Bureau glossary, the terms receipts and revenues are used interchangeably, see [https://www.census.gov/glossary/#term\\_ReceiptsRevenueServices](https://www.census.gov/glossary/#term_ReceiptsRevenueServices).

<sup>46</sup> Federal-State Joint Board on Universal Service, Universal Service Monitoring Report at 26, Table 1.12 (2022), <https://docs.fcc.gov/public/attachments/DOC-391070A1.pdf>.

<sup>47</sup> *Id.*

<sup>48</sup> See U.S. Census Bureau, *2017 NAICS Definition*, "517311 Wired Telecommunications Carriers," <https://www.census.gov/naics/?input=517311&year=2017&details=517311>.

<sup>49</sup> See 13 CFR § 121.201, NAICS Code 517311 (as of 10/1/22, NAICS Code 517111).

<sup>50</sup> See U.S. Census Bureau, *2017 Economic Census of the United States, Selected Sectors: Employment Size of Firms for the U.S.: 2017*, Table ID: EC1700SIZEEMPfirm, NAICS Code 517311, <https://data.census.gov/cedsci/table?y=2017&n=517311&tid=ECNSIZE2017.EC1700SIZEEMPfirm&hidePreview=false>.

<sup>51</sup> *Id.* The available U.S. Census Bureau data does not provide a more precise estimate of the number of firms that meet the SBA size standard.

<sup>52</sup> See U.S. Census Bureau, *2017 NAICS Definition*, "517410 Satellite Telecommunications," <https://www.census.gov/naics/?input=517410&year=2017&details=517410>.

<sup>53</sup> See 13 CFR § 121.201, NAICS Code 517410.

this industry, U.S. Census Bureau data for 2017 show that there were 275 firms that operated for the entire year.<sup>54</sup> Of this number, 242 firms had revenue of less than \$25 million.<sup>55</sup> Thus, for this industry under the SBA size standard, the Commission estimates that the majority of Mobile Satellite Earth Station licensees are small entities. Additionally, based on Commission data as of February 1, 2024, there were 16 Mobile Satellite Earth Stations licensees.<sup>56</sup> The Commission does not request nor collect annual revenue information and is therefore unable to estimate the number of mobile satellite earth stations that would be classified as a small business under the SBA size standard.

16. *Satellite Master Antenna Television (SMATV) Systems, also known as Private Cable Operators (PCOs).* SMATV systems or PCOs are video distribution facilities that use closed transmission paths without using any public right-of-way. They acquire video programming and distribute it via terrestrial wiring in urban and suburban multiple dwelling units such as apartments and condominiums, and commercial multiple tenant units such as hotels and office buildings. SMATV systems or PCOs are included in the Wired Telecommunications Carriers' industry which includes wireline telecommunications businesses.<sup>57</sup> The SBA small business size standard for Wired Telecommunications Carriers classifies firms having 1,500 or fewer employees as small.<sup>58</sup> U.S. Census Bureau data for 2017 show that there were 3,054 firms in this industry that operated for the entire year.<sup>59</sup> Of this total, 2,964 firms operated with fewer than 250 employees.<sup>60</sup> Thus under the SBA size standard, the majority of firms in this industry can be considered small.

17. *Satellite Telecommunications.* This industry comprises firms "primarily engaged in providing telecommunications services to other establishments in the telecommunications and broadcasting industries by forwarding and receiving communications signals via a system of satellites or reselling satellite telecommunications."<sup>61</sup> Satellite telecommunications service providers include satellite and earth station operators. The SBA small business size standard for this industry classifies a business with \$38.5 million or less in annual receipts as small.<sup>62</sup> U.S. Census Bureau data for 2017 show that 275

<sup>54</sup> See U.S. Census Bureau, *2017 Economic Census of the United States, Selected Sectors: Sales, Value of Shipments, or Revenue Size of Firms for the U.S.: 2017*, Table ID: EC1700SIZEREVFIRM, NAICS Code 517410, <https://data.census.gov/cedsci/table?y=2017&n=517410&tid=ECNSIZE2017.EC1700SIZEREVFIRM&hidePreview=false>.

<sup>55</sup> *Id.* The available U.S. Census Bureau data does not provide a more precise estimate of the number of firms that meet the SBA size standard. We also note that according to the U.S. Census Bureau glossary, the terms receipts and revenues are used interchangeably, see [https://www.census.gov/glossary/#term\\_ReceiptsRevenueServices](https://www.census.gov/glossary/#term_ReceiptsRevenueServices).

<sup>56</sup> Based on a FCC Space Bureau, International Communication Filing System (ICFS), Advanced Search on February 1, 2024, <https://licensing.fcc.gov/cgi-bin/ws.exe/prod/ib/forms/reports/swr030b.hts?set=>. Search Terms used - Nature of Application Service = SES - Satellite Earth Station; Application Type = All; Class of Station = MES – Mobile Earth Station; and under "Filing Status" = Current.

<sup>57</sup> See U.S. Census Bureau, *2017 NAICS Definition, "517311 Wired Telecommunications Carriers,"* <https://www.census.gov/naics/?input=517311&year=2017&details=517311>.

<sup>58</sup> See 13 CFR § 121.201, NAICS Code 517311 (as of 10/1/22, NAICS Code 517111).

<sup>59</sup> See U.S. Census Bureau, *2017 Economic Census of the United States, Selected Sectors: Employment Size of Firms for the U.S.: 2017*, Table ID: EC1700SIZEEMPfirm, NAICS Code 517311, <https://data.census.gov/cedsci/table?y=2017&n=517311&tid=ECNSIZE2017.EC1700SIZEEMPfirm&hidePreview=false>.

<sup>60</sup> *Id.* The available U.S. Census Bureau data does not provide a more precise estimate of the number of firms that meet the SBA size standard.

<sup>61</sup> See U.S. Census Bureau, *2017 NAICS Definition, "517410 Satellite Telecommunications,"* <https://www.census.gov/naics/?input=517410&year=2017&details=517410>.

<sup>62</sup> See 13 CFR § 121.201, NAICS Code 517410.



firms in this industry operated for the entire year.<sup>63</sup> Of this number, 242 firms had revenue of less than \$25 million.<sup>64</sup> Additionally, based on Commission data in the 2022 Universal Service Monitoring Report, as of December 31, 2021, there were 65 providers that reported they were engaged in the provision of satellite telecommunications services.<sup>65</sup> Of these providers, the Commission estimates that approximately 42 providers have 1,500 or fewer employees.<sup>66</sup> Consequently, using the SBA's small business size standard, a little more than half of these providers can be considered small entities.

18. *All Other Telecommunications.* This industry is comprised of establishments primarily engaged in providing specialized telecommunications services, such as satellite tracking, communications telemetry, and radar station operation.<sup>67</sup> This industry also includes establishments primarily engaged in providing satellite terminal stations and associated facilities connected with one or more terrestrial systems and capable of transmitting telecommunications to, and receiving telecommunications from, satellite systems.<sup>68</sup> Providers of Internet services (e.g. dial-up ISPs) or Voice over Internet Protocol (VoIP) services, via client-supplied telecommunications connections are also included in this industry.<sup>69</sup> The SBA small business size standard for this industry classifies firms with annual receipts of \$35 million or less as small.<sup>70</sup> U.S. Census Bureau data for 2017 show that there were 1,079 firms in this industry that operated for the entire year.<sup>71</sup> Of those firms, 1,039 had revenue of less than \$25 million.<sup>72</sup> Based on this data, the Commission estimates that the majority of "All Other Telecommunications" firms can be considered small.

#### **D. Description of Projected Reporting, Recordkeeping and Other Compliance Requirements for Small Entities**

19. The *Notice* does not propose any changes to the Commission's current information collection, reporting, recordkeeping, or compliance requirements for small entities. Small and other

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<sup>63</sup> See U.S. Census Bureau, *2017 Economic Census of the United States, Selected Sectors: Sales, Value of Shipments, or Revenue Size of Firms for the U.S.: 2017*, Table ID: EC1700SIZEREVFIRM, NAICS Code 517410, <https://data.census.gov/cedsci/table?y=2017&n=517410&tid=ECNSIZE2017.EC1700SIZEREVFIRM&hidePreview=false>.

<sup>64</sup> *Id.* The available U.S. Census Bureau data does not provide a more precise estimate of the number of firms that meet the SBA size standard. We also note that according to the U.S. Census Bureau glossary, the terms receipts and revenues are used interchangeably, see [https://www.census.gov/glossary/#term\\_ReceiptsRevenueServices](https://www.census.gov/glossary/#term_ReceiptsRevenueServices).

<sup>65</sup> Federal-State Joint Board on Universal Service, Universal Service Monitoring Report at 26, Table 1.12 (2022), <https://docs.fcc.gov/public/attachments/DOC-391070A1.pdf>.

<sup>66</sup> *Id.*

<sup>67</sup> See U.S. Census Bureau, *2017 NAICS Definition, "517919 All Other Telecommunications,"* <https://www.census.gov/naics/?input=517919&year=2017&details=517919>.

<sup>68</sup> *Id.*

<sup>69</sup> *Id.*

<sup>70</sup> See 13 CFR § 121.201, NAICS Code 517919 (as of 10/1/22, NAICS Code 517810).

<sup>71</sup> See U.S. Census Bureau, *2017 Economic Census of the United States, Selected Sectors: Sales, Value of Shipments, or Revenue Size of Firms for the U.S.: 2017*, Table ID: EC1700SIZEREVFIRM, NAICS Code 517919, <https://data.census.gov/cedsci/table?y=2017&n=517919&tid=ECNSIZE2017.EC1700SIZEREVFIRM&hidePreview=false>.

<sup>72</sup> *Id.* The available U.S. Census Bureau data does not provide a more precise estimate of the number of firms that meet the SBA size standard. We also note that according to the U.S. Census Bureau glossary, the terms receipts and revenues are used interchangeably, see [https://www.census.gov/glossary/#term\\_ReceiptsRevenueServices](https://www.census.gov/glossary/#term_ReceiptsRevenueServices).

regulated entities are required to pay regulatory fees on an annual basis. The cost of compliance with the annual regulatory assessment for small entities is the amount assessed for their regulatory fee category and should not require small entities to hire professionals to comply.

20. Small entities that qualify can take advantage of the exemption from payment of regulatory fees allowed under the de minimis threshold. In addition, as described in the *FY 2023 Report and Order*,<sup>73</sup> small entities may request a waiver, reduction, deferral, and/or installment payment of their regulatory fees. The waiver process is an easier filing process for smaller entities that may not be familiar with our procedural filing rules.

**E. Steps Taken to Minimize Significant Economic Impact on Small Entities, and Significant Alternatives Considered**

21. The RFA requires an agency to describe any significant, specifically business, alternatives that it has considered in reaching its proposed approach, which may include the following four alternatives, among others: “(1) the establishment of differing compliance or reporting requirements or timetables that take into account the resources available to small entities; (2) the clarification, consolidation, or simplification of compliance or reporting requirements under the rule for such small entities; (3) the use of performance, rather than design, standards; and (4) an exemption from coverage of the rule, or any part thereof, for such small entities.”<sup>74</sup>

22. The *Notice* seeks comment on a number of amendments to the existing methodology of assessing regulatory fees paid by space and earth station payors. While this *Notice* initiates the examination and review of regulatory fees for space and earth station payors under the existing regulatory fee methodology, the Commission will propose and finalize the regulatory fee rates for space and earth station payors as part of its annual Commission-wide regulatory fee proceeding for FY 2024. Commenters will have an opportunity in that proceeding to provide comments on the proposed regulatory fee rates for space and earth station payors. This *Notice* gives parties an opportunity to file comments on possible changes to the existing methodology for assessing space and earth station regulatory fees. If any of these proposals are adopted, it may reduce the regulatory fee burden on some satellite entities.

23. Specifically, the *Notice* seeks comment on a proposal to divide the existing regulatory fee subcategory of “Space Stations (Non-Geostationary Orbit) – Other” into two tiers: “Large Constellations” of more than 1,000 authorized space stations; and “Small Constellations” of 1,000 or fewer authorized space stations. The current single regulatory fee for all NGSO “other” space station payors has resulted in requests by fee payors of smaller NGSO systems seeking to be assessed regulatory fees as NGSO “less complex” systems. If adopted, the proposal for the tiered approach for the NGSO space station “other” category would likely reduce the regulatory fee burden on smaller satellite constellations, and likely on smaller entities.

24. As another example, the *Notice* notes that, based on preliminary calculations, the fee amount for the small satellite category for FY 2024 could be substantially greater than the fee assessed for FY 2023. The *Notice* proposes that the administrability and sustainability of regulatory fees for small satellites would be better served by treating them as the Commission has historically treated the regulatory fees for earth stations – that is, a fixed regulatory fee that is adjusted from year-to-year on, rather than as a percentage of the Space Bureau’s overall share of regulatory fee allocation, or as a percentage of other categories of space station fee payors. This proposal if adopted would significantly minimize the economic impact of regulatory fees potentially faced by small satellites.

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<sup>73</sup> *FY 2023 Report and Order*, Appendix I “Final Regulatory Flexibility Analysis,” at para. 36.

<sup>74</sup> 5 U.S.C. § 603(c)(1) – (4).

25. The *Notice* also proposes, on an interim basis, to assess regulatory fees on spacecraft primarily performing Rendezvous and Proximity Operations (RPO) and On-Orbit Servicing (OOS) by including them in the existing regulatory fee category “Space Stations (per license/call sign in non-geostationary orbit) (Small Satellites)” regardless of the orbit in which they are designed to operate in. The Space Bureau has received relatively few applications for RPO or OOS space stations, and although it anticipates receiving more in the near future, the amount of FTE resources required at the present time to regulate these services is more similar to that presented by small satellite space station licensees, which are also few in number, and involve a relatively small number of space stations that have limited duration and scope of use and operate using shared spectrum resources. Therefore, the *Notice* tentatively concludes that the purposes of section 9 of the Act would be best met by erring on the side of caution and assessing regulatory fees under the category of fees associated with the least-burdensome set of space station regulates which would result in lower regulatory fees, and have less economic impact.

26. The *Notice* also seeks comment on possibly creating subcategories of earth station regulatory fee payors to better differentiate the amount of regulatory burdens associated with different types of earth station licenses. This may reduce the regulatory fee burden on some smaller earth station payees who could face a substantial increase in the per unit regulatory fee if the proposal in the *Notice* to apportion 20% of all Space Bureau regulatory fees to earth station licensees beginning in FY 2024, is adopted.

27. Finally, the *Notice* seeks comment on an alternative methodology for assessing space station regulatory fees that eliminates the distinction between GSO, NGSO, and all the subcategories of NGSO, while preserving a separate fee category for small satellites. The alternative methodology would have a single category for “Space Stations (Per Call Sign in Geostationary Orbit or Per System in Non-Geostationary Orbit),” which would be tiered, with a single GSO space station or a NGSO system with up to 100 authorized space stations constituting the first tier and being counted as one unit for assessment of space station regulatory fees, and additional tiers added to account for NGSO systems with more than 100 authorized space stations, with the possibility of 500 or 1,000 additional space stations per NGSO system per tier. Each tier would be counted as an additional unit for assessment of space station regulatory fees. Accordingly, GSO payors and NGSO systems of 100 authorized space stations or fewer would be assessed the lowest regulatory fees, while payors with multiple authorized GSO space stations, or with NGSO systems with more than 100 authorized space stations would be assessed higher regulatory fees, with the highest regulatory fees assessed to payors with a large number of GSO space stations, and to payors with NGSO systems consisting of thousands of authorized space stations. The Commission believes this alternative methodology could be more administrable, fair, and sustainable than the existing methodology, and the *Notice* seeks comment on all aspects of this alternative methodology for assessing space station regulatory fees.

**F. Federal Rules that May Duplicate, Overlap, or Conflict with the Proposed Rules**

28. None.