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

In the Matter of	)	
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Application of	)	ICFS File Nos.
Kuiper Systems LLC for Extension or	)	SAT-MOD-20210806-00095
Waiver of the Milestone Deadline	)	SAT-MOD-20260129-00065
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	)	Call Sign S3051
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REQUEST TO EXTEND OR WAIVE INTERIM MILESTONE FOR THE AMAZON LEO CONSTELLATION

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I. INTRODUCTION AND SUMMARY

Amazon Leo[1] has invested more than $10 billion—and committed billions more—to deploy a non-geostationary orbit ("NGSO") constellation of 3,232 satellites that will deliver high-speed, low-latency broadband service to unserved and underserved communities across the United States and around the world.[2] Since the Commission's 2020 authorization of its constellation, Amazon Leo has worked to deploy a service that would be groundbreaking in both its performance and affordability. In under six years, Amazon Leo has grown from a small, Seattle-based team to a global workforce of thousands. After years of research and development—overcoming significant technical and operational challenges with bold investment and ingenuity—Amazon Leo launched its first commercial satellites in April 2025. Only months later, it operates the third-largest constellation in the world—licensed, designed, and built in the United States.

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1 Formerly known as Project Kuiper.

2 *See Kuiper Systems, LLC*, *Application for Authority to Deploy and Operate a Ka-band Non-Geostationary Satellite Orbit System*, Order and Authorization, 35 FCC Rcd 8324 (IB 2020) ("*Gen1 Authorization*"); *Kuiper Systems LLC, Request for Modification of the Authorization for the Kuiper NGSO Satellite System*, Order and Authorization, 39 FCC Rcd 2180, ¶ 1 (SB 2024) ("*Gen1 Orbital Parameters Modification*") (modifying the number of satellites authorized under the Gen1 Authorization from 3,236 to 3,232).

Amazon Leo is now scaling fast. It has established large and state-of-the-art production facilities within the U.S., which are capable of manufacturing 30 satellites per week. To launch satellites produced at this pace, Amazon Leo executed the largest commercial procurement of launch capacity in history—it now has a manifest with more than 100 missions planned through Q1 2029. This equates to an average of three planned launches per month for the next three years, each of which will carry an average of more than 40 new satellites into low-Earth orbit. To facilitate this rapid launch cadence, Amazon Leo has built the largest rocket payload processing facility in the world—a 172,000-square-foot facility at NASA's Kennedy Space Center, which can support up to three simultaneous launch campaigns from any major launch supplier.

Despite a historic reserve of launch capacity and deep investments in launch infrastructure, Amazon Leo has faced a shortage in the near-term availability of launches. This shortage has been driven by manufacturing disruptions, the failure and grounding of new launch vehicles, and limitations in spaceport capacity. Because Amazon Leo is producing satellites considerably faster than others can launch them, it has adjusted its rate of satellite production to match its launch manifest and built facilities spanning hundreds of thousands of square feet near its manufacturing and launch sites to store hundreds of already-built-and-ready-to-launch satellites.[3]

There are growing signs that Amazon Leo's investments are easing this bottleneck. In recent months, the long-delayed heavy lift vehicles on which Amazon Leo's deployment relies have all had multiple successful launches. By July 30, 2026, Amazon Leo expects to have deployed approximately 700 operational satellites—moving from the third- to the second-largest satellite constellation in orbit. By this date, Amazon Leo also expects to have its customer

[3] *See, e.g., Project Kuiper Is Investing $19.5 Million to Expand Satellite Operations at Florida's Kennedy Space Center*, AmazonNews, (Aug. 22, 2024) https://www.aboutamazon.com/news/innovation-at-amazon/project-kuiper-satellite-investment-expansion-florida.

terminals in the hands of more enterprise and government customers, and to be poised to roll out service more broadly in the U.S. and across the globe. For these customers, Amazon Leo's service will be powered by innovations that enhance both the quality and affordability of its service. Amazon Leo has equipped its satellites with custom-designed silicon to manage routing, beamforming, and advanced networking features, and each satellite incorporates high-capacity optical inter-satellite links to improve throughput and reduce latency across its network. Amazon Leo's enterprise-grade customer terminal features the first commercial phased array antenna to deliver gigabit speeds from low-Earth orbit, and its standard terminal will deliver industry-leading speeds at a much lower cost than traditional phased array antennas.[4] Through Amazon Leo's satellites, these customer terminals will connect to an expanding global footprint of gateways—with scores already built or under construction in dozens of countries.

While Amazon Leo will meet the deadline for full deployment of its constellation established by its license and the Commission's rules, launch delays will cause it to fall short of the interim milestone requirement to deploy half of its originally authorized constellation by July 30, 2026.[5] The Commission's rules provide for extension of such milestones where, as here, delay arises from unforeseeable circumstances beyond an operator's control or overriding public interest considerations favor an extension.[6] Because it meets both criteria, Amazon Leo respectfully

[4] For example, Amazon Leo's new enterprise terminal features the first commercial phased array antenna to deliver gigabit speeds from low Earth orbit, and its standard terminal will deliver industry-leading speeds at a much lower cost than traditional phased array antennas. Jason Rainbow, *Amazon unveils production-ready gigabit-class Leo Ultra broadband terminal*, SPACENEWS (Nov. 24, 2025), https://spacenews.com/amazon-unveils-production-ready-gigabit-class-leo-ultra-broadband-terminal/.

[5] *See Gen1 Orbital Parameters Modification* ¶ 52(b); 47 C.F.R. § 25.164(b).

[6] *See* 47 C.F.R. § 25.117(e); *id.* § 1.3.

requests a 24-month extension of its 50% milestone to July 30, 2028, or alternatively, a waiver of this interim requirement.[7]

Amazon Leo's efforts to deploy in the face of a near-term shortage in launch capacity go far beyond any example cited by the Commission in granting an extension or waiver of its buildout milestones. Amazon Leo has continued to secure near-term launch capacity wherever available—augmenting its already large launch manifest with launch options that collectively provide the fastest possible path to deployment. Indeed, Amazon Leo has procured far more launch dates than necessary to deploy the first-generation Amazon Leo system by 2029, in part to mitigate further schedule risks with a diversity of launch options. On top of these multibillion-dollar investments, Amazon Leo has pursued avenues to accelerate its launch schedule that go beyond traditional launch procurement—including by paying millions of dollars to accelerate the development of launch vehicles and investing hundreds of millions more in dedicated launch infrastructure. Collectively, Amazon Leo's investments have not only mitigated delays in its deployment, but will collectively reinvigorate the entire launch industry, catalyzing the development of new vehicles that will launch not only the Amazon Leo system but a new generation of space-based services.[8]

Overriding public interest considerations also favor Amazon Leo's requested extension. Amazon Leo is engaged in full-scale deployment and stands on the doorstep of offering U.S. customers a competitive and innovative new service. An extension would enable this rapid and ongoing deployment to continue, while strict enforcement would interrupt or halt this effort—stripping Amazon Leo of authority to launch the undeployed portion of its system until it secures a new license from the Commission. The result would not only undermine the very purposes of

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[7] *See id*. § 1.3.

[8] Within the United States alone, Amazon Leo's launch agreements support thousands of suppliers and highly skilled jobs across 49 states.

the Commission's milestone rule—preventing spectrum warehousing and promoting expeditious deployment—but would also risk upending Amazon Leo's deployment plans and delaying the full rollout of its service to U.S. and international customers.

Strict enforcement under these circumstances would also represent a sharp break from the Commission's precedent. The Commission has consistently granted extensions to operators facing comparable challenges, and Amazon Leo has already demonstrated deployment at a scale that exceeds all prior extension grants combined. It would also depart from the Commission's policy of promoting deployment and U.S. leadership in space. Instead, it would chill investment from future innovators considering launching ambitious, high-risk space ventures within the United States, where existing milestone rules impose more aggressive timelines and harsher penalties than elsewhere.[9] This is in part why the Commission recently proposed new milestone rules that would place U.S.-licensed systems on equal footing with internationally licensed operators—setting 50% milestones at 12 years rather than 6—a proposed deployment period four years longer than Amazon Leo requests here.[10]

For these reasons, explained more fully below, Amazon Leo respectfully requests that the Commission grant its request for a 24-month extension of its interim milestone.

II. BACKGROUND

On July 30, 2020, the Commission authorized Amazon Leo to construct, launch, and operate an NGSO fixed-satellite service ("FSS") constellation consisting of 3,236 satellites—a

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[9] International licensees are generally subject only to the ITU's milestone framework, which allows 12 years to deploy 50% of a licensee's system and does not automatically halt future deployment where this milestone is missed. *See* Resolution 35 (REV. WRC-23), ITU, https://www.itu.int/en/ITU-R/space/Documents/RES35%28REV.%20WRC-23%29.pdf; ITU Radio Regulations, Article 11, Section II, Nos. 11.44. Appendix A § 100.147(a).

[10] *Space Modernization for the 21st Century*, SB Docket No. 25-306, Notice of Proposed Rulemaking, FCC 25-69, ¶ 171 (rel. Oct. 29, 2025) ("*Modernization Notice*").

number reduced to 3,232 satellites following a modification of Amazon Leo's design.[11] Consistent with Section 25.164 of the Commission's rules, Amazon Leo's license requires that it deploy 1,618 satellites, or 50% of its originally authorized constellation, within six years of the original July 30, 2020 grant date and to deploy the full constellation within nine years of the date of grant.[12]

A. Amazon Leo's Deployment Efforts and Investment

Since its 2020 authorization, Amazon Leo has committed well over $10 billion to deploying the Amazon Leo system, including contractual commitments for billions of dollars to secure launch contracts through Q1 2029. In addition to large investments in launch and infrastructure, Amazon Leo has continuously sought and invested in initiatives to speed its deployment.

Manufacturing and infrastructure. Amazon Leo has invested more than half a billion dollars into its satellite manufacturing capabilities, building state-of-the-art facilities spanning more than half a million square feet across the United States to design, build, and store its satellites. Amazon Leo's manufacturing facilities employ more than 1,500 full-time employees, who work in staggered, around-the-clock shifts to produce and test Amazon Leo's satellites. Through the efforts of these and thousands of other employees, Amazon Leo is producing multiple satellites per day, with hundreds of flight-qualified satellites on standby for launch.

To ready these satellites for launch, Amazon Leo has invested at least $150 million into the construction of three payload processing facilities, including a 100,000 square foot facility at NASA's Kennedy Space Center in Cape Canaveral, Florida, which has the scale and facilities to process more than 100 satellites per month and support three simultaneous launch campaigns. To

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[11] *See generally Gen1 Authorization*; *Gen1 Orbital Parameters Modification.*

[12] *See Gen1 Orbital Parameters Modification* ¶ 52.

this massive facility, Amazon has also added a 42,000 square-foot secondary support site at Kennedy Space Center, which will provide additional space to process and store flight hardware ahead of launch. Amazon Leo continues to expand its payload processing footprint and launch capabilities, including through development of a facility at the Vandenberg Space Force Base in California.

Launch procurement. Less than two years after the Commission granted its authorization, Amazon Leo announced the largest commercial launch procurements in history to deploy its initial constellation. It has since added to this launch capacity, and today has contracted for 102 launches across four providers: 18 launches on Arianespace's Ariane 6, 24 launches on Blue Origin's New Glenn, 38 launches on ULA's Vulcan Centaur, 9 launches on ULA's Atlas V,[13] and 13 launches on SpaceX's Falcon 9.

B. Delays Beyond Amazon Leo's Control—and Amazon Leo's Efforts to Overcome These Delays

Production Satellite Launch Delays. Amazon Leo has deliberately invested heavily in the next generation of American heavy-lift launch vehicles, supporting U.S. leadership in space and strengthening the domestic launch industrial base. Three of Amazon Leo's four primary launch providers—Blue Origin, ULA, and SpaceX—are U.S.-based companies, and Amazon Leo's contracts have helped fund the development and certification of cutting-edge vehicles, including Blue Origin's New Glenn and ULA's Vulcan Centaur. Each provider has made significant progress—New Glenn successfully reached orbit on its maiden flight in January 2025 and achieved its first booster landing in November 2025; Ariane 6 completed multiple successful launches in 2025, with Amazon Leo satellites scheduled for early 2026; and Vulcan Centaur has likewise

[13] One Atlas V launch was used to launch Amazon Leo's prototype satellites, as explained below.

demonstrated successful launches. Notwithstanding this progress, the development timelines for these next-generation vehicles have extended beyond initial projections, contributing to Amazon Leo's deployment delays.

From the launch of its initial production satellites onward, unexpected slips and scrubs of scheduled launch dates have extended Amazon Leo's deployment timeline. Some delays pushed initial launch dates years beyond their original projections,[14] resulting in significant backlogs that in some cases ballooned after additional issues delayed subsequent missions.[15] For example, ULA's Atlas V experienced unexpected anomalies and delays caused by issues with its vehicle fairings and solid rocket boosters. The Atlas V delays were particularly unexpected, given that Atlas rockets had a 100% success rate through years of successful missions—a heritage of reliability that drove Amazon Leo's decision to buy all nine of the remaining commercially available Atlas V launch vehicles. After overcoming these technical issues, efforts to reschedule faced additional delays due to weather and range issues—ultimately pushing the planned 2024 launch of Amazon Leo's initial production satellites into April 2025.[16]

For these and similar reasons, Amazon Leo completed only 7 of the more than 20 launches originally scheduled for 2025. The rest were delayed for a variety of reasons, all beyond Amazon Leo's control—including weather conditions, prioritization of government launches, range issues, technical issues with contracted launch vehicles requiring further evaluation and repair, and issues

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[14] *See, e.g.*, Tim Hepher & Joey Roulette, Europe 'Back in Space' Despite Ariane 6 Debut Glitch, Reuters (July 10, 2024), https://www.reuters.com/technology/space/europes-ariane-6-rocket-set-maiden-flight-after-data-glitch-2024-07-09/; Jeff Foust, *Vulcan on the Pad for its First Launch*, SpaceNews (Jan. 5, 2024), https://spacenews.com/vulcan-on-the-pad-for-its-first-launch/; Blue Origin, *Blue Origin's New Glenn Reaches Orbit* (Jan. 16, 2025), https://www.blueorigin.com/news/new-glenn-ng-1-mission.

[15] Andrew Parsonson, *Arianespace Pushes First Ariane 64 Flight Back to 2026*, European Spaceflight (Oct. 19, 2025), https://europeanspaceflight.com/arianespace-pushes-first-ariane-64-flight-back-to-2026/.

[16] *See* Jeff Foust, *Atlas Launches First Operational Project Kuiper Satellites*, SpaceNews (Apr. 29, 2025), https://spacenews.com/atlas-launches-first-operational-project-kuiper-satellites/ (discussing the variety of issues delaying Amazon Leo's "long-delayed" initial launch of production satellites).

with the rideshare payloads of other operators. Though Amazon Leo either had or could have produced the satellites necessary to meet the dates in its original manifest, these production launch issues delayed Amazon Leo's deployment schedule by a year or more.

Amazon Leo has worked diligently to overcome these delays. Among other things, Amazon Leo has continually sought out and invested heavily in adding to its near-term launch capacity—though a widely recognized and global near-term shortage in launch capacity limited its near-term options.[17] In late 2025, Amazon Leo added to its already historic purchase of launch capacity by securing 10 additional Falcon 9 launches from SpaceX, as well as firm additional New Glenn launches from Blue Origin. To further accelerate its deployment, Amazon Leo has made other investments that extend beyond traditional launch procurement—including by investing hundreds of millions of dollars to fund a dedicated vertical integration facility for processing Amazon Leo missions and a dedicated launch vehicle platform at Cape Canaveral, and paying millions of dollars beyond its contract price with one launch provider to accelerate construction timelines.

Launch-Related Delays in Development. In addition to delaying the launch of Amazon Leo's production satellites, launch issues also caused significant delay in Amazon Leo's earlier efforts to launch two prototype satellites—a necessary step to ensuring a safe and reliable satellite design prior to manufacturing production satellites at full scale.

First, the planned late-2022 launch with ABL Space Systems' RS1 rocket—a small-lift vehicle optimized for the two-satellite prototype mission—was derailed when RS1's maiden flight failed in January 2022. Rather than accept delay, Amazon Leo pivoted to ULA's Vulcan Centaur,

[17] *See, e.g.,* Exec. Order No. 14335, *Enabling Competition in the Commercial Space Industry* (Aug. 13, 2025) (directing federal agencies to address regulatory and infrastructure constraints in the commercial space sector and recognizing the systemic challenges, including launch capacity limitations, that affect the entire industry).

a next-generation heavy-lift vehicle that was tens of millions of dollars more expensive and far larger than necessary to launch its two prototype satellites. When Vulcan also experienced delays following a structural test tank failure, Amazon Leo pivoted again to ULA's Atlas V, a tested and reliable, but far more expensive, medium-lift vehicle—again spending tens of millions more to maintain its launch schedule. Using one of the only nine remaining Atlas V launches to deploy just two prototype satellites—when these scarce and costly vehicles could carry more than ten times the number of Amazon Leo satellites—represented an unprecedented commitment of resources and launch capacity to maintain Amazon Leo's development timeline by collecting critical design validation data.

After 12 months of launch vehicle delays and two successive pivots to increasingly expensive and oversized launch solutions, Amazon Leo successfully deployed its prototypes on Atlas V in October 2023. The prototype mission's success validated Amazon Leo's general design but resulted in unexpected reengineering to improve performance and reliability—a critical effort that delayed full-scale manufacturing by approximately nine months.

C. Amazon Leo's Current Status

As of January 2026, Amazon Leo operates 180 satellites in orbit. Having constructed a large manufacturing footprint and assembled a large and skilled workforce, Amazon Leo is capable of consistently manufacturing 30 satellites per week—or over 1,500 satellites per year. To date, Amazon Leo has produced hundreds of flight-qualified satellites, and could readily have produced a multiple of this amount but for adjustments to its production schedule made in response to the delays in its launch manifest.

While a shortage of near-term launch capacity remains the primary limiting factor in Amazon Leo's rate of deployment, Amazon Leo's investments appear to have broken this bottleneck. Recent months have brought a noticeable shift in momentum for Amazon Leo's

long-delayed launch vehicles. ULA's Vulcan Centaur completed its inaugural flight in January 2024, a second successful mission for the U.S. Space Force in August 2025, and has another national security mission scheduled for February 2026.[18] Blue Origin's New Glenn has also completed a pair of successful flights—its inaugural flight in early 2025 and another in late 2025—and is preparing for a third mission in early 2026.[19] Arianespace's Ariane 6 flew its maiden mission on July 9, 2024, followed by additional launches, and in the next few weeks will launch the first of 18 Amazon Leo missions using this new heavy lift launch vehicle.[20] Together, these developments suggest that several major programs on which Amazon Leo depends have moved into a more predictable phase.

Amazon Leo projects that it will have deployed approximately 700 satellites by July 30, 2026—more than all but one other private satellite operator. Amazon Leo's launch schedule—based on its currently contracted, paid-for, and scheduled launch dates, is included with this request as Appendix A. This schedule shows that, absent further launch delays beyond Amazon Leo's control, Amazon Leo's currently contracted launch dates project full deployment of the Amazon Leo System well before Amazon Leo's 100% deployment milestone.

As Amazon Leo has deployed, details about its system and service have shown that its investments in innovation and careful planning have paid off—producing a service that will surpass anything now available in performance and affordability. For example, Amazon Leo's enterprise grade customer terminal will deliver up to 1 Gbps download and 400 Mbps upload

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[18] *See* Sandra Erwin, *Vulcan to Open 2026 with National Security Launch*, SpaceNews (Jan. 8, 2026), https://spacenews.com/vulcan-to-open-2026-with-national-security-launch/ (Jan. 8, 2026).

[19] *See* Eric Berger, *Blue Origin Makes Impressive Strides with Reuse—Next Launch Will Refly Booster*, Ars Technica (Jan. 22, 2026), https://arstechnica.com/space/2026/01/blue-origin-makes-impressive-strides-with-reuse-next-launch-will-refly-booster/.

[20] *Amazon Leo to Add 32 Satellites with First Arianespace Launch on Ariane 6 Rocket*, Amazon News (Jan. 15, 2026), https://www.aboutamazon.com/news/amazon-leo/amazon-leo-arianespace-first-launch-canopee-ariane-6.

speeds—the fastest commercial phased array antenna currently in production. Amazon Leo's standard terminal similarly delivers industry leading speeds—up to 400 Mbps download—at much lower cost than traditional phased array antennas. Underpinning these achievements are years of quiet progress and innovation—including Amazon Leo's development of custom silicon and incorporation of a proprietary RF design and signal processing technologies that will maximize throughput and minimize latency.

Now on the doorstep of launching commercial service, Amazon has signed up a growing list of major enterprise and government customers—including JetBlue, Australia's NBN Co., NASA, and more. Because it can serve remote areas with reliable, high-speed broadband for a fraction of the cost of terrestrial and even other wireless alternatives, Amazon Leo secured almost $300 million under the Broadband Equity, Access, and Deployment ("BEAD") program, a bipartisan Congressional initiative created to fund public-private partnerships to expand high-speed internet infrastructure and close connectivity gaps across the United States. Federally funded by NTIA and administered at the state level, 27 states have chosen Amazon Leo to connect over 400,000 remote locations across the U.S.[21]

III. THE COMMISSION SHOULD GRANT A 24-MONTH EXTENSION OF THE INTERIM MILESTONE DEADLINE

The Commission's rules allow for an extension of satellite milestones where the delay is due to "unforeseeable circumstances beyond the applicant's control" or "unique and overriding public interest concerns . . . justify an extension."[22] Amazon Leo's request merits an extension under either prong of this standard.

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[21] *See* Michael Kan, *Starlink on Track to Receive $661 Million From Federal Broadband Program*, PC MAG (Dec. 4, 2025), https://www.pcmag.com/news/starlink-on-track-to-receive-661-million-from-federal-broadband-program.

[22] 47 C.F.R. § 25.117(e)(1)–(2); *see also Space Norway AS*, Order and Declaratory Ruling, 38 FCC Rcd 9244, ¶ 6 (SB 2023) ("*Space Norway Order*").

A. Unforeseeable Launch Delays Warrant an Extension.

Amazon Leo's extension request is compelled by unforeseeable circumstances beyond its control. When applying its milestone extension standard, the Commission has routinely granted relief where operators faced testing delays and resulting redesign and reengineering, launch vehicle development issues, and government prioritization of missions—precisely the circumstances encountered by Amazon Leo.[23] The Commission also has considered operators' diligence in overcoming delays and their deployment progress, granting extensions where their efforts demonstrate a clear commitment to full deployment.[24]

Amazon Leo's challenges are fully in line with the type of challenges credited by the Commission in granting previous extensions—though they far surpass these examples in sheer scale and complexity given the size of Amazon Leo's project: approximately 12 months of prototype launch vehicle delays (ABL RS1's failure and Vulcan development delays),[25] 9 months of post-prototype reengineering to enhance performance and reliability, and roughly 12 months of production launch delays (Ariane 6, New Glenn, and Vulcan development delays, plus Atlas V anomalies and government launch prioritization).[26] Amazon Leo has aggressively worked to

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[23] *See, e.g., Space Norway Order* ¶ 4 (describing issues related to attitude control component); *DIRECTV Enterprises, LLC*, Order, 30 FCC Rcd 4796, ¶ 3, 6 (IB 2015) ("*DIRECTV Order*") (describing issues relating to amplification electronics); *New ICO Satellite Services G.P.,* Memorandum Opinion and Order, 22 FCC Rcd 2229, ¶ 15 (IB 2007) ("*New ICO 2007 Order*"); *EarthWatch Inc.*, Order and Authorization, 15 FCC Rcd 18725, ¶ 6 (IB 2000) (describing issues related to laser gyroscope component) ("*EarthWatch Third Order*"); *Hughes Network Systems, LLC*, Order, 38 FCC Rcd 1731, ¶¶ 5, 8 (IB 2023) ("*Hughes Network Order*"); *WildBlue Holdings*, Memorandum Opinion and Order, 20 FCC Rcd 10846 ¶ 8 (IB 2005) ("We understand that the process of securing a launch has a degree of uncertainty…") ("*WildBlue Order*"); *Intelsat LLC,* , Memorandum Opinion and Order, 19 FCC Rcd. 5266, ¶¶ 5-8 (IB 2004) ("*Intelsat Order*"); *Loral SpaceCom Corporation, Debtor-in-Possession, et. al.*, Memorandum Opinion and Order, 18 FCC Rcd. 21851, ¶ 8 (IB 2003) ("*Loral Order*").

[24] *See e.g., Space Norway Order* ¶ 7; *Intelsat Order* ¶ 8; *Loral Order* ¶ 8; *Hughes Network Order* ¶ 8; *DIRECTV Order* ¶ 3; *New ICO 2007 Order* ¶ 15.

[25] *See Intelsat Order* ¶¶ 6-8 (finding that "unanticipated technical problems," "delays in testing," and launch delays were "unforeseeable and beyond [the licensee's] control and therefore justify an extension of the milestone dates.").

[26] *See e.g.*, *id.* ¶ 6; *WildBlue Order* ¶ 8; *DIRECTV Order* ¶ 3.

mitigate these delays—pivoting launch providers, investing hundreds of millions of dollars in dedicated launch infrastructure, and scaling manufacturing to allow for the production of 30 satellites per week—substantially compressing what would otherwise have been far longer delays.

There is no question about Amazon Leo's commitment to full deployment—indeed, its progress exceeds the combined effort exhibited by every prior extension grantee.[27] For example, the Commission extended Viasat's buildout milestones three separate times—for a total of 30 months—based on Viasat's "significant progress" toward building and launching a single satellite.[28] Based on Hughes' payment of 93% percent of the construction costs for one still-unbuilt satellite, as well as measures to address delay such as "hiring consultants," the Commission granted Hughes a 12-month extension to launch its Jupiter 3 satellite—finding that these facts demonstrated Hughes' "substantial expenditures and concrete progress" toward deploying its satellite.[29] These recent examples reflect a bar for demonstrating commitment to deployment that the Commission has applied consistently for decades—and which Amazon Leo readily meets.[30]

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[27] Altogether, based on our review of reported FCC decisions granting milestone extensions, the Commission has extended milestones 21 times, based on the collective progress of slightly more than 14 satellites built (when accounting for partial construction) and no satellites at all launched. Amazon arrives at a total of 14.04 by: (1) counting all satellites that completed construction as 1 satellite, (2) counting all partially completed satellites for which the applicant provides a specific degree of partial progress as the fraction reported by the applicant (e.g., 80% of construction progress or of costs expended = 0.8 satellites). Put differently, Amazon Leo has already constructed 32 times as many satellites, and launched infinitely more satellites, than every operator to whom the Commission has previously granted a milestone extension request.

[28] *ViaSat, Inc*., Order and Declaratory Ruling, 35 FCC Rcd 5416, ¶ 6 (IB 2020) ("*ViaSat Order*").

[29] *Hughes Network Order* ¶ 7.

[30] *See, e.g*., *EarthWatch Inc.*, Order and Authorization, 12 FCC Rcd 19556 (IB 1997) ("*EarthWatch First Order*") (granting extension to Maxar predecessor for NGSO earth imaging system based on mere "commence[ment]" of construction of two satellites); *EarthWatch Inc.*, Order and Authorization, 15 FCC Rcd 13594 (IB 2000) ("*EarthWatch Second Order*") (same); *EarthWatch Third Order* (same); *WildBlue Order* (extending milestone for WildBlue-1, now operated by Viasat); *Intelsat Order* (for Intelsat 10-02); *Intelsat LLC,* Order and Authorization, 17 FCC Rcd 2391 (IB 2002) (for Intelsat 903); *GE American Communications, Inc.*, Order and Authorization, 16 FCC Rcd 11038 (IB 2001) ("*GE Americom Order*") (for GE-7, later known as SES AMC-7); *GE American Communications, Inc. and Alascom, Inc.*, Memorandum Opinion, Order and Authorization, 15 FCC Rcd. 23583 (IB 2000) (for nine satellites of SES predecessor GE Americom); *GE American Communications, Inc.*, Memorandum Opinion and Order, 7 FCC Rcd 5169 (IB 1992) (for GE-1, later known as SES AMC-1); *Loral Order* (for Telstar 8, now known as Intelsat Galaxy 28); *DIRECTV Order* (for the DIRECTV RB-2 satellite);

B. Unique and Overriding Public Interest Concerns Justify an Extension.

The public interest strongly supports granting Amazon Leo's extension request.[31] The milestone rule's public interest objective is to deter spectrum warehousing.[32] Given Amazon Leo's demonstrated commitment to deploying, strict enforcement would serve no anti-warehousing purpose. Instead of advancing any public interest, enforcement under these circumstances would instead harm U.S. customers by halting the in-progress deployment of a cost-effective broadband service to underserved communities.

The Commission has consistently extended milestones where operators demonstrated continued willingness and ability to deploy through advanced manufacturing, substantial payments, and imminent launches.[33] Here, Amazon Leo is building more satellites in one week than all prior extension recipients combined.[34] The Commission reserves strict enforcement not for committed operators, but those extreme cases "where the licensee ha[s] either not begun construction or ha[s] made minimal progress toward construction."[35] In fact, the only time the Commission enforced the penalty on an NGSO FSS operator, the licensee, Boeing, had not

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Hughes Communications Galaxy, Inc., Order and Authorization, 5 FCC Rcd 3423 (IB 1990) (for Galaxy 4-H, later operated by DIRECTV); *AT&T Co.,* Order and Authorization, 5 FCC Rcd 5590 (1990) ("*AT&T Order*") (for AT&T Telstar 401, 402, and 403); *EchoStar Satellite Corp.,* Order and Authorization, 18 FCC Rcd 15975, ¶ 9 (IB 2003) (for EchoStar 9) ("*EchoStar Order*"); *New ICO 2007 Order* (for ICO G1, now known as EchoStar G1); *Hughes Network Order* (extending milestone for EchoStar Jupiter 3, which remains unbuilt); *TerreStar Networks, Inc.*, Memorandum Opinion and Order, 22 FCC Rcd 17698 (2007) ("*TerreStar Order*") (for EchoStar T1). *See also Space Norway Order* (extending milestone for NGSO system based on pending completion of a single satellite); *ViaSat Order* (extending milestone for VIASAT-3 based on partial completion of a single satellite); *Viasat Inc.*, Order, 36 FCC Rcd 18160 (IB 2021) (same); *Viasat Inc.*, Order, 37 FCC Rcd 13054 (IB 2022) (same).

31 47 C.F.R. § 25.117(e)(2). *See e.g.*, *TerreStar Order* ¶¶ 7, 10 (granting a milestone extension on public interest grounds where TerreStar demonstrated "a substantial and continuing commitment to satellite construction and system implementation"); *AT&T Order* ¶¶ 16-17 (finding that an extension would serve the public interest where additional time was needed to incorporate technical modifications requested by AT&T's customers). *See EchoStar Order* ¶ 9 (waiving launch milestone based on completion of construction).

32 *See e.g.*, *Space Norway Order* ¶ 2.

33 *Id.* ¶ 7; *Hughes Network Order* ¶ 9.

34 *See supra,* n. 27.

35 *ViaSat Order* ¶ 9.

deployed a single satellite and had not actually sought an extension of its milestones.[36] Here, on the other hand, "there is no basis for concluding that [Amazon Leo] is unwilling or unable to proceed" with its deployment.[37]

Rather than preventing spectrum warehousing, strict enforcement here would halt a substantial and committed deployment effort in its tracks. Granting an extension, by contrast, would deliver enormous public interest benefits. These include promoting Amazon Leo's ongoing effort to bring high-speed, low-latency broadband to unserved communities; continued investment in U.S. space industrial capacity and aerospace talent; and the expansion of high-speed broadband to rural communities at unprecedented levels of affordability. Finally, an extension would avoid imposing a disparate punishment on a U.S. licensee based on a rule that the Commission just months ago proposed to change because it unfairly disadvantages U.S. licensed systems vis-à-vis those licensed internationally.[38]

Amazon Leo's participation in the BEAD program underscores the benefits Amazon Leo's uninterrupted deployment will bring in terms of competition and affordability. Twenty-seven states have chosen Amazon Leo to serve over 400,000 locations across the U.S., particularly in the most remote areas of the country.[39] As West Virginia's governor noted, satellite technologies offer

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[36] *The Boeing Company*, Order and Authorization, 36 FCC Rcd 16067 ¶¶ 43-44 (2021).

[37] *ViaSat Order* ¶ 8 (explaining that "prior cases in which milestone extensions were denied" share one "vital" characteristic: "in those cases, the licensee had either not begun construction or had made minimal progress toward construction"); *Intelsat Order* ¶ 5 ("Intelsat has demonstrated that construction is well underway and progressing"); *Hughes Network Order* ¶ 9 ("We find no basis to conclude that Hughes is unable or unwilling to proceed with completion of the satellite, but rather that the record presented demonstrates substantial expenditures and concrete progress toward completion of the satellite.").

[38] *See Modernization Notice* ¶ 173 (seeking comment on relaxing NGSO milestones to model the more favorable ITU framework).

[39] *See supra* n. 21.

"greater reach, faster timelines, and a smarter investment of taxpayer dollars."[40] State broadband offices have recognized that satellite providers submitted bids to serve hard-to-reach locations at significantly lower costs than terrestrial options.[41] During the BEAD program's "Benefit of the Bargain" round—where states selected the most cost-effective proposals to maximize taxpayer value—Amazon Leo delivered the strongest return by offering the lowest-cost solution, often far below competing satellite bids and a fraction of the cost of fiber in remote areas.[42]

By allowing Amazon Leo to deploy as planned, the Commission can ensure that U.S. consumers, businesses, and government customers, including national security customers, benefit from a state-of-the-art satellite network capable of providing high-speed, low-latency broadband service to underserved and unserved communities around the globe.

C. An Extension Period of 24 Months Is Well Supported by the Underlying Facts.

Both the facts and Commission's precedent support an extension period of 24 months. As detailed above, Amazon Leo faced cumulative delays totaling well over 24 months: approximately 12 months of prototype launch vehicle delays (ABL RS1 failure and Vulcan development delays), 9 months of post-prototype reengineering to enhance performance and reliability, and roughly 12 months of production launch delays (Ariane 6, New Glenn, and Vulcan development delays, plus Atlas V anomalies and government launch prioritization). Amazon Leo's aggressive mitigation efforts—pivoting launch providers, investing hundreds of millions of dollars in dedicated launch

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[40] *See* Jake Neenan, *West Virginia Governor Suggests Funding for Fixed Wireless, Satellite in Revised BEAD Plan*, Broadband Breakfast (May 27, 2025), https://broadbandbreakfast.com/west-virginia-governor-suggests-funding-for-fixed-wireless-satellite-in-revised-bead-plan/?utm_source=copilot.com (quoting Patrick Morrisey, Opinion, *Fast-tracking Broadband in West Virginia,* The Herald Dispatch (May 24, 2025), https://www.herald-dispatch.com/opinion/patrick-morrisey-fast-tracking-broadband-in-west-virginia/article_04b952f6-e045-46db-b892-a6eb50226a33.html?ref=broadbandbreakfast.com).

[41] *See* Brandy Reitter, Executive Director, Colorado Broadband Office, as quoted in "Colorado Rolls Out $826M BEAD Plan," IPv4 Global, https://ipv4connect.com/2025/08/colorado-rolls-out-826m-bead-plan/?srsltid=AfmBOopGlalL1nXGog5cDerHrnVS4esMdVwOdtkg9iPfeVqcUXmS8jrB (Aug. 28, 2025).

[42] *See Connected Nation's BEAD Tracker*, Connected Nation, https://connectednation.org/bead-tracker.

infrastructure, paying millions beyond contract price to accelerate development, and scaling manufacturing capabilities to 30 satellites per week—substantially compressed what would otherwise have been far longer delays. Particularly in view of the scale of Amazon Leo's plans and its current and projected progress in deployment, the 24-month period requested here is modest and reasonable in comparison to precedent.[43]

Moreover, Amazon Leo's scaled-up manufacturing capacity of up to 30 satellites per week and secured launch manifest of 102 launches from four providers demonstrate a confirmed ability to meet the required 1,618 satellites well before the proposed July 30, 2028 deadline. Amazon Leo will maintain its 100% final milestone obligation and has provided concrete evidence of its deployment capability by appending a full schedule of upcoming planned launches. As a result, a 24-month period is well calibrated to avoid undermining the Commission's milestone objectives while accounting for the unforeseeable delays Amazon Leo has faced and diligently mitigated.[44]

IV. IN THE ALTERNATIVE, THE COMMISSION SHOULD WAIVE THE INTERIM MILESTONE.

To the extent necessary, Amazon Leo respectfully requests in the alternative a waiver of the buildout milestone required by its Gen1 Authorization and Section 25.164(b) of the Commission's rules.[45] Pursuant to Section 1.3 of the Commission's rules, the Commission may waive its rules for good cause shown.[46] In determining whether waiver is appropriate, the

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[43] *See Viasat Order* ¶ 38 (granting a ~30-month extension of the VIASAT-3 space station's interim milestone requirement); *Space Norway Order* ¶ 10 (granting a ~12-month extension of the two-satellite Space Norway ASBM NGSO system's interim milestone requirement); *Hughes Network Order* ¶ 11 (granting a 12-month extension of the EchoStar XXIV satellite's interim milestone requirement); *EarthWatch First Order* (granting EarthWatch a ~24 month extension to construct and launch two EESS satellites); *EchoStar Order* (granting EchoStar a ~48 month milestone extension).

[44] *Space Norway Order* ¶ 7.

[45] 47 C.F.R. § 1.3; *Gen1 Authorization* ¶ 67.

[46] 47 C.F.R. § 1.3; *see also WAIT Radio v. FCC*, 418 F.2d 1153 (D.C. Cir. 1969), *cert denied*, 409 U.S. 1027 (1972); *Northeast Cellular Telephone Co., LP v. FCC*, 897 F.2d 1164 (D.C. Cir. 1990).

Commission considers whether "special circumstances warrant a deviation from the general rule and such deviation would better serve the public interest than would strict adherence to the general rule," including when a waiver would result in "more effective implementation of overall policy,"[47] and "tak[ing] into account considerations of hardship, equity, or more effective implementation of overall policy."[48]

In several respects, Amazon Leo's request presents unique and extraordinary circumstances warranting deviation from the Commission's interim milestone rule. First, Amazon Leo's effort to overcome its launch-related delays have been unprecedented in scale and investment. As detailed above, Amazon Leo diligently worked to avoid launch related delays, including by purchasing launch capacity from every major launch provider with the largest commercial launch acquisition in history. To further reduce delay, it recently added 13 additional launches to its manifest and has invested hundreds of millions of dollars—on top of the billions already spent—to build dedicated launch infrastructure and accelerate the development of launch vehicles.

Second, Amazon Leo has demonstrated that its deployment trajectory remains on course to meet its 100% milestone, with hundreds of satellites built and launched and a manifest of paid-for and scheduled launch missions appended to this request. This distinguishes Amazon Leo from other pending requests, which seek not only longer periods for completion of a 50% milestone, but also simultaneous extensions of the 100% milestone.

Third, the sheer size of Amazon Leo's investment and progress is simply on a different scale than examples found in the Commission's record. Amazon Leo will have deployed an

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47 *GE Americom Order* ¶ 9 (citation omitted).

48 *WAIT Radio*, 418 F.2d at 1159.

estimated 700 satellites by the time of its interim milestone and invested over $10 billion dollars in deploying its system. Rather than having two partially built satellites and one partially paid for launch—as Space Norway did in successfully securing a 12-month extension[49]—Amazon has built hundreds of flight-ready satellites and facilities capable of producing 4-5 more a day. It has also paid for over 100 launches capable of launching its entire first-generation system—indeed, it has the capacity to launch hundreds of satellites beyond this amount by Q1 2029.

For the reasons explained more fully above, grant of the requested waiver would better serve both the underlying purpose of the milestone rule and the public interest than would strict enforcement. Amazon Leo is clearly not engaged in spectrum warehousing—instead, it is building actual warehouses to store a growing reserve of flight-qualified satellites awaiting launch. Nor would enforcing the interim milestone rule here serve any public interest. Granting an extension or waiver of the interim milestone requirement, by contrast, would advance the public interest by increasing availability, capacity, and choice for high-speed, low-latency satellite broadband services in high demand from consumers, government entities, and businesses, and allowing the cutting-edge Amazon Leo system to contribute to both narrowing the digital divide and furthering U.S. leadership in space.

[49] *See Space Norway Order* ¶ 2.

V. CONCLUSION

For these reasons, Amazon Leo respectfully asks that the Commission extend its interim milestone deadline from July 30, 2026 to July 30, 2028, or, in the alternative, that it waive this requirement.

Respectfully submitted,

/s/ Michael John Carlson
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Negheen Haya Sanjar

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January 30, 2026

Appendix A: Amazon Leo Confidential Launch Schedule[1]

[redacted]

1 [redacted]

2 [redacted]

3 [redacted]

CERTIFICATION

I, Michael John Carlson, hereby make the following certifications to the Federal Communications Commission.

1. I am Senior Corporate Counsel of Kuiper Systems LLC.

2. The factual information contained in the foregoing Request to Extend or Waive Interim Milestone for the Amazon Leo Constellation is true and correct to the best of my knowledge, information and belief.

/s/ Michael John Carlson
Michael John Carlson

Executed January 30, 2026