House Committee on Energy and Commerce

Subcommittee on Communications and Technology

SAT Streamlining Act: Modernizing Satellite Licensing for the Final Frontier

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Testimony of Tom Stroup, President, Satellite Industry Association

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Chairman Guthrie, Chairman Hudson, Ranking Member Pallone, and Ranking Member Matsui, and distinguished Members of the Subcommittee, thank you for inviting me to testify before you today. I am Tom Stroup, President of the Satellite Industry Association (SIA).[1] SIA is a U.S.-based trade association that represents leading satellite operators, service providers, manufacturers, launch services providers, space situational awareness companies, and ground equipment suppliers.

Satellites are the backbone of modern society. We rely on them for communications, position, navigation and timing, and remote sensing across the globe. Satellites provide critical services to hundreds of millions of Americans and billions of people around the world every day. With over 14,000 active satellites on orbit today and plans for tens of thousands more through the end of the decade, we are at a time of tremendous innovation.[2] Satellite services support all sixteen critical infrastructure sectors. Satellite broadband is connecting millions of previously unserved Americans, while commercial remote sensing provides vital data for national security, agriculture, and disaster response. The satellite industry provides FCC-defined broadband service today across the globe and is ready to bring the nation into an interconnected future as a backbone for 5G, IoT, and AI technologies. From direct-to-home television and satellite radio to anytime, anywhere connectivity for consumers, airlines, ships, utilities, and supply chain logistics providers, the companies represented by SIA are poised to provide resilient services in

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[1] SIA Executive Members include: Amazon; AST SpaceMobile; Comtech; DIRECTV; EchoStar Corporation; The Eutelsat Group; HawkEye 360; Iridium Communications Inc.; Kratos Defense & Security Solutions; Lockheed Martin Corporation; Planet Labs PBC; SES Americom, Inc.; Spire Global Inc.; and Viasat Inc. SIA Associate Members include: The Aerospace Corporation; Artel, LLC; Astranis Space Technologies Corp.; The Boeing Company; Creative5 Inc.; ExoAnalytic Solutions; iDirect Government; Integrasys; Ovzon; Panasonic Avionics Corporation; SATCOM Direct; Skyloom; and Telesat. *See* SIA, *SIA Members List*, https://sia.org/about-sia/sia-members-list/ (last visited April 14, 2026).

[2] BryceTech and Satellite Industry Association, internal research, April 16, 2026.

any situation to empower U.S. leadership and support U.S. citizens and allies in an interconnected and contested world.

Satellites also play a critical role in disaster preparedness, response, and recovery. Remote sensing satellites can pinpoint and assess damage in the immediate aftermath of a disaster — even through cloud cover, using synthetic aperture radar. Unlike terrestrial networks, satellite infrastructure is not susceptible to damage on the ground; portable satellite terminals and antennas can be rapidly deployed to provide communications when other systems fail. The recent commercial launch of direct-to-device satellite connectivity, through major partnerships between satellite operators and wireless carriers, now means that ordinary mobile phones can reach emergency services and send messages even in areas with no cellular coverage — a transformative development for disaster resilience and public safety. Multi-orbit services that combine the low latency of LEO systems with the high-capacity coverage of GEO systems further enhance the resiliency and reliability of satellite networks.

Satellite technology is also making American agriculture more efficient and adaptable. Satellite broadband enables precision agriculture and autonomous farming equipment in rural areas far beyond the reach of terrestrial networks, while GPS and Earth observation data help farmers optimize crop yields and prepare for adverse weather. The industry continues to invest in high-throughput satellites, flexible software-defined payloads, AI-powered cybersecurity tools, and cost-reducing innovations across both space and ground systems.

The U.S. space and satellite industry is continuously gaining momentum, with the total size of the U.S. space economy growing to $193 billion in 2025.[3] Satellites remain a pillar of U.S. infrastructure, enabling the American economy in ways consumers might not be aware; polar orbiting satellites provide 85% of the data for numerical weather prediction and a GPS outage would cost the U.S. economy ~$1 billion per day.[4]

The Growth That Is Driving the Need for Modernization

The scale of growth the satellite industry has experienced over the past decade is without precedent in the history of communications, and it is precisely this growth that makes Congressional attention to licensing modernization so timely and important. According to a capacity study released by SIA and BryceTech in March 2026, total NGSO broadband capacity in orbit grew approximately 4,000-fold between 2016 and 2025, driven by the explosive growth of LEO broadband constellations. The number of NGSO broadband satellites in orbit has grown

[3] BryceTech and Satellite Industry Association, internal research, April 16, 2026.
[4] NOAA National Environmental Satellite, Data, and Information Service, *Numerical Weather Prediction & Critical Weather Applications Initiative*, https://www.nesdis.noaa.gov/numerical-weather-prediction-critical-weather-applications-initiative; RTI International, *Economic Benefits of the Global Positioning System (GPS)*, June 2019.

to over 10,300, and 2025 saw a record high in new capacity deployed in a single year. Over 11,700 NGSO broadband satellites have been launched since 2019 alone.[5] GEO capacity also continues to grow with , high-throughput satellites now represent 81% of all commercial GEO satcom capacity in orbit, up from a fraction of that share a decade ago, even as the per-unit manufacturing cost of that capacity has fallen by approximately 89% over the same period.

Looking ahead, the pace of growth is set to accelerate further. Operators have announced plans to deploy over 40,000 additional NGSO satellites in the 2026–2030 timeframe, with a potential capacity of nearly 10,000 Terabits per second — approximately fifteen times current NGSO capacity as of 2025. In addition, applications have been filed at the FCC for data centers in space for upwards of a million more satellites. This unprecedented growth in capacity and systems is why the regulatory framework governing this industry must keep pace.

The current licensing regime, built on rules developed for a bygone era of a handful of large geostationary satellites, was not designed for a world in which thousands of satellites are launched in a single year and constellations are replenished on multi-year cycles. Slow decision timelines and unpredictable outcomes at the Commission have real costs for American companies competing in a global marketplace. SIA applauds the FCC's creation of the Space Bureau and its ongoing Space Modernization for the 21st Century proceeding, which proposes to replace the legacy Part 25 satellite rules with a new Part 100 framework designed to function as a "licensing assembly line." The FCC has been an excellent partner to the commercial satellite industry, and we are encouraged by its unanimous adoption of this proceeding and its commitment to a more efficient, predictable, and flexible licensing environment. In our filed comments, SIA urged the Commission to confirm that existing Part 25 precedent will continue to govern analogous issues under Part 100, to conduct thorough beta testing of any new IT systems before transition, and to proceed carefully before making any substantive changes to antenna performance standards, which could have unintended consequences for the large number of deployed earth stations and the services they support today. Congress can reinforce this progress by signaling its expectation that the FCC finalize a Part 100 framework that is faster, more predictable, and technology-neutral — one that allows the market and consumers, not government regulators, to choose winners and losers in the rapidly evolving satellite marketplace.

In addition to the important work the Commission and NTIA are doing to streamline the spectrum licensing and coordination processes, it is critical that U.S. agencies with responsibility for other aspects of satellite licensing also modernize their processes. For example, industry now has six years of experience with the 2020 regulations for licensing of private remote sensing satellite systems and, while there remains a lot to like about the original framework, the time is

[5] Satellite Industry Association and BryceTech, *Satellite Communications Capacity Trends 2016-2025*, March 2026.

right for another round of reforms to streamline processes in order to unleash American innovation in remote sensing.

Space Traffic Coordination

As the number of satellites in orbit has grown dramatically, so too has the importance of coordinating the safe operation of those satellites and managing the shared environment of low Earth orbit. The Office of Space Commerce, within the Department of Commerce, is playing an increasingly vital role through its work to develop a civil space situational awareness capability and a space traffic coordination framework for the United States. SIA strongly supports the Office of Space Commerce's mission and encourages Congress to ensure it has the resources and authorities it needs to fulfill its responsibilities. A well-functioning space traffic coordination system is essential not only to the safety of commercial satellite operations, but to the long-term sustainability of the space environment that underpins the entire industry. We also urge the United States to continue to advocate internationally for responsible behavior by all spacefaring nations, including practices that reduce the generation of new debris — an area where China, which has been leaving the upper stages of rocket launchers in low Earth orbit contrary to accepted industry norms, must be held to account.

The Competitive Landscape

While the U.S. has long led the space sector, China is closing the gap, with similar investments in space technologies that will challenge our national security community while also undermining democracy around the globe. China is now actively deploying two major LEO broadband constellations in parallel. The state-backed Guowang network, targeting up to 13,000 satellites, and the municipally-backed Thousand Sails (Qianfan) constellation, which aims for approximately 15,000 satellites, are both expanding rapidly. As recently as April 7–8, 2026, China conducted back-to-back launches adding new batches of satellites to both constellations, and China's new Five-Year Plan for 2026–2030 explicitly lists the advancement of satellite internet among its national priorities.[6] In 2025 alone, China launched nearly 400 satellites to support its constellation ambitions, roughly doubling its output from 2024.[7] These services will be offered to developing nations and Chinese allies at below-market or subsidized rates, and will come with the same backdoor security risks that exist today with Huawei. China's GPS rival Beidou already provides free military-grade service to some of its allies. It is critical for Congress to support continued domestic innovation and to avoid regulations that put U.S. providers on an unequal playing field internationally.

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[6] SpaceNews, "China Conducts Pair of Long March Launches for Thousand Sails and Guowang Megaconstellations," April 9, 2026.
[7] SpaceWatch Global, "In 2025, China Launched Nearly 400 Satellites," January 19, 2026.

SIA's Priorities

Our members are dedicated to advancing national interests, ensuring the competitiveness of satellite companies in the U.S. and globally, and driving progress for the benefit of all Americans. In furtherance of these goals, we have five priorities:

1. Promote American space innovation through streamlined regulations without unnecessary red tape and bureaucracy. Congress and the Administration should embrace policies in regulatory areas such as licensing and export controls that allow the market and consumers, not government regulators and policymakers, to choose "winners" and "losers." SIA looks forward to continuing to support pro-innovation work done by this Congress.
2. Lead standards development internationally. With WRC-27 preparations now actively underway and 80% of the WRC-27 agenda addressing space services and technologies, the stakes could not be higher. Without sustained investment and leadership by the United States in the ITU, others — particularly China — will fill the void, threatening U.S. national and economic security interests. SIA urges Congress to ensure the FCC and executive branch agencies have the resources and direction needed to present a unified, pro-innovation U.S. position at WRC-27.
3. Advance responsible space traffic coordination and advocate for the adoption of similar policies internationally. The Office of Space Commerce's work to develop a modern space traffic coordination framework deserves robust Congressional support, and the United States should continue to encourage responsible behavior that minimizes the generation of new orbital debris.
4. Streamline space system procurement for greater efficiency in government acquisition. The U.S. government should continue its focus on investing in and procuring cutting-edge satellite capabilities from the commercial space sector, including hardware as well as remote sensing data and analytics, broadband, and other services.
5. Spur development and investment through access to sufficient spectrum resources. The U.S. should ensure sufficient spectrum allocations are available domestically and internationally to support innovative and rapidly growing commercial satellite operations. SIA is supportive of continued investment in FCC staffing and IT infrastructure to power rapid modernization efforts.

I appreciate the opportunity to appear before you today on behalf of the satellite industry and I am happy to answer any questions.