

Comparative Ownership Models for Modern-Day Space Elevators: International and U.S.-Led Approaches to Governance

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ABSTRACT

Space elevators are a transformative infrastructure concept with the potential to revolutionize space access, commerce, and sustainability. This paper examines two ownership scenarios—non-U.S. international ownership and shared U.S. ownership—through technical, economic, legal, and geopolitical perspectives. The first scenario demonstrates how a multinational consortium can leverage phased development, consortium-based financing, and equitable governance to ensure fair access, operational safety, and liability management. The second scenario highlights how U.S. leadership, combined with multinational collaboration and public-private partnerships, can accelerate development while balancing strategic influence with shared international standards. Both cases underscore the importance of hybrid governance models, robust legal frameworks, and innovative financing for long-term operational sustainability. Ultimately, the space elevator, supported by the Space Elevator Accords, offers a “Green Road to Space,” providing environmentally responsible, efficient, and routine access to orbit while establishing a foundation for humanity’s permanent and sustainable presence beyond Earth.

Keywords: space elevators, space policy, space vehicles, governance, international

Modelos de propiedad comparativos para ascensores espaciales modernos: enfoques internacionales y liderados por Estados Unidos para la gobernanza

RESUMEN

Los ascensores espaciales representan un concepto de infraestructura transformador con el potencial de revolucionar el acceso al espacio, el comercio y la sostenibilidad. Este documento examina dos

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escenarios de propiedad —propiedad internacional no estadounidense y propiedad compartida estadounidense— desde perspectivas técnicas, económicas, legales y geopolíticas. El primer escenario demuestra cómo un consorcio multinacional puede aprovechar el desarrollo por fases, la financiación consorciada y la gobernanza equitativa para garantizar un acceso justo, la seguridad operativa y la gestión de responsabilidades. El segundo escenario destaca cómo el liderazgo estadounidense, combinado con la colaboración multinacional y las asociaciones público-privadas, puede acelerar el desarrollo, equilibrando la influencia estratégica con estándares internacionales compartidos. Ambos casos subrayan la importancia de los modelos de gobernanza híbridos, los marcos legales sólidos y la financiación innovadora para la sostenibilidad operativa a largo plazo. En definitiva, el ascensor espacial, respaldado por los Acuerdos del Ascensor Espacial, ofrece una «Ruta Verde al Espacio», proporcionando un acceso a la órbita ambientalmente responsable, eficiente y rutinario, al tiempo que sienta las bases para la presencia permanente y sostenible de la humanidad más allá de la Tierra.

Palabras clave: ascensores espaciales, política espacial, vehículos espaciales, gobernanza, internacional

现代太空电梯所有权模式比较：国际与美国主导的治理路径

摘要

太空电梯是一项具有变革意义的基础设施概念，有望彻底改变太空进入方式、太空商业活动及可持续发展模式。本文从技术、经济、法律和地缘政治等角度，探讨了两种所有权模式：非美国主导的国际所有权模式与美国参与的共同所有权模式。第一种模式展示了跨国财团如何通过分阶段开发、财团融资及公平治理机制，确保公平的进入机会、运营安全及责任管理。第二种模式则强调了美国的主导作用如何与跨国合作及公私合作伙伴关系相结合，在加速开发进程的同时，平衡战略影响力与国际通用标准。这两种模式均凸显了混合治理模型、健全法律框架及创新融资方式对于实现长期运营可持续性的重要意义。归根结底，在《太空电梯公约》(Space Elevator Accords)的支持下，太空电梯将开辟一条通往太空的“绿色通道”；它不仅能提供环境友好、高效且常态化的轨道进入能力，还将为人类在地球之外建立永久且可持续发展的立足点奠定基础。

关键词：太空电梯，太空政策，航天器，治理，国际

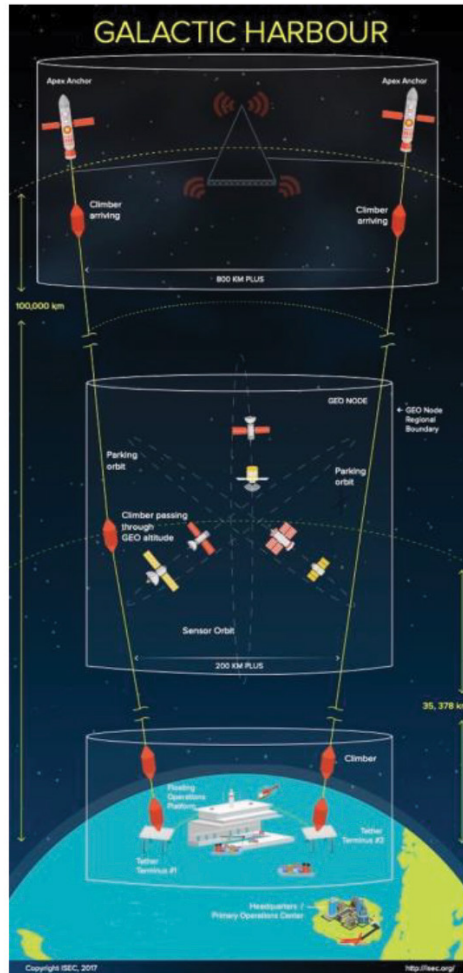


Figure 1. Reference Map of Galactic Harbours.

Note. Shared by International Space Elevator Consortium.

Background

Modern-day space elevators are a permanent transportation infrastructure designed to provide routine, high-throughput, and environmentally neutral access to space. Their core tethers extend approximately 100,000 km from the Earth's equator to well beyond geostationary orbit (GEO). Tethers are constructed from graphene super-laminate (GSL)—large-scale sheets of

single-crystal graphene with no vacancy defects stacked in a van der Waals homostructure. GSL offers a tensile strength of ~ 130 GPa while remaining exceptionally lightweight, making it suitable for sustaining the immense gravitational and centrifugal forces along the tethers. The tethers rotate synchronously with the Earth, ensuring structural stability and enabling climbers to transport cargo efficiently along their length.

The Apex Anchor at the tethers' upper terminus serves multiple operational roles beyond acting as a counterweight. It functions as a full-service orbital node, supporting payload assembly, storage, refueling, and high-velocity releases to lunar and Martian

trajectories at 7.76 km/s, enabling rapid interplanetary transport. The design accommodates more than 10 operational missions, including cargo dispatch, spacecraft servicing, and emergency backup capabilities.

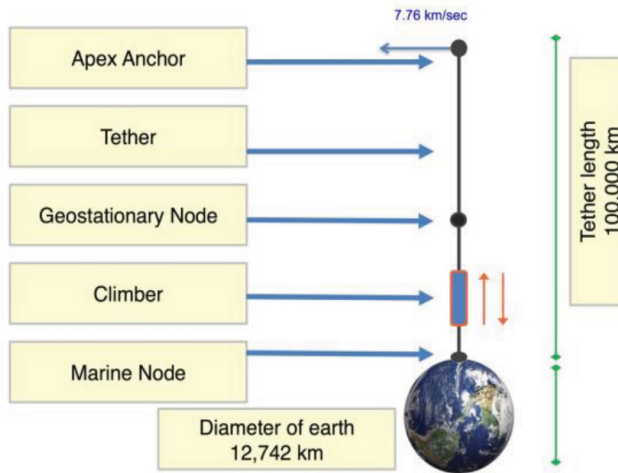


Figure 2. Projected Space Elevator Components with Estimated Tether Length.

Note. Shared by International Space Elevator Consortium.

At the tethers' Earth Ports, located on the equator, climbers ascend and descend the tethers using friction-based wheels and advanced electrical propulsion systems, delivering up to 30,000 tonnes of cargo per year to GEO and beyond during initial operations, with 70% of pad mass efficiently reaching orbit—a substantial improvement over conventional or even advanced rockets. For context, current global launch capacity to orbit is estimated at approximately 1,500–2,000 tonnes per year across all providers. Even at initial operating capacity, a space elevator would therefore represent more than an order-of-magnitude increase in annual mass delivery capability (BryceTech,

2023). In GEO and at Apex Anchors, dedicated facilities coordinate operations, including climber staging, cargo transfer, and integration with other space infrastructure.

Modern-day space elevators represent a green road to space, leveraging permanent infrastructures for safe, routine, and environmentally neutral operations. By combining advanced materials, intermodal transportation, and permanent orbital nodes, space elevators transform space access from a rare and high-cost event into a sustainable and scalable logistical network, enabling humanity to expand off-planet while reducing environmental impacts on Earth.

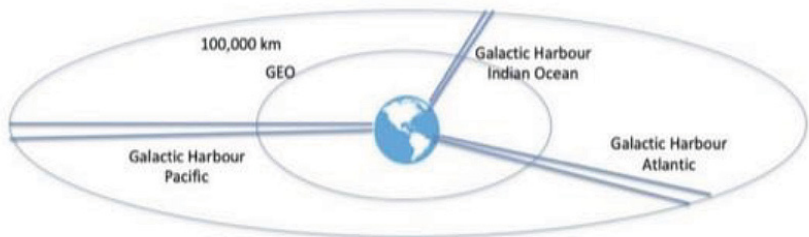


Figure 3. Reference Map of Geostationary Orbit, Including Galactic Harbours.

Note. Shared by International Space Elevator Consortium.



Figure 4. Projected Phases for the Build-Out of the Space Elevator.

Note. The phased approach is intended to manage technical risk and progressively expand operational capability.

Introduction

The expense and frequency of rockets, which can only launch during certain windows and need massive amounts of fuel for each mission, limit humanity’s ability to expand into space. Although rockets are now the only means of entry to space, they are unable to provide the constant transportation required for extensive space exploration or industry. Instead of merely improving space travel, space elevators that extend from Earth to a counterweight well above GEO would transform transportation into high-delivery-efficiency, inexpensive, environmentally neutral, and routine processes. They will lessen reliance on launch schedules, enable consistent transit of

people and cargo into space, and enable year-round interplanetary travel. With this technology, orbital infrastructure can expand at a rate that rockets alone could never sustain, and expeditions to Mars can depart daily.

The political and economic ramifications of establishing such a system are examined in our study. We examine two possible governance models—one in which the United States controls a portion of the elevators and the other in which they are run as a totally international project—to comprehend how global power can change. These hypothetical situations shed light on how space elevators might change not just space access but also the global framework of space policy, collaboration, and competition.

Counterarguments and Boundary Conditions

The feasibility of space elevators depends on several key assumptions. First, economic viability requires sustained, high-volume demand; without it, high upfront costs may not be recoverable. Second, continued advancements in reusable rockets could reduce the projected cost advantage of elevators. Third, geopolitical constraints may limit global access or cooperation, reducing overall system utility. Finally, the concept depends on successful large-scale production of defect-free graphene materials, which remains unproven. These factors suggest that space elevators are not guaranteed to succeed but are contingent on technological progress, market demand, and international coordination.

Case Study 1: International Ownership (Non-U.S.)

Research Framework & Guiding Questions

The development of space elevators by a multinational consortium without U.S. participation presents a novel set of legal, economic, and geopolitical challenges. The Outer Space Treaty (OST) prohibits sovereignty claims over outer space but does not anticipate fixed structures connecting Earth to orbit, creating a legal “gray zone.” Governance is further complicated by the increasing influence of private actors, shifting the paradigm from state-centric authority to a pluralistic legal order. This raises critical ques-

tions about jurisdiction, liability, and equitable access: which state registers the tethers and Apex Anchors, under whose jurisdiction do climbers operate, and how is damage addressed? Ensuring equitable access is especially crucial for nations in the Global South to prevent monopolization of the primary orbital transport corridor. Addressing these challenges requires a hybrid governance model combining host-state registration, multinational consortium oversight, and an access council empowered to enforce safety, liability, and operational standards.

Economic Precedents & Funding Models

Space elevators are long-considered long-term infrastructures, comparable to high-tech rail networks or canals, rather than a single-use project. While conventional rocket launches cost thousands of dollars per kilogram, fully operational space elevators could reduce costs to a few hundred dollars per kilogram. Early operations may still incur 40–60% of current launch costs, which would gradually decrease as utilization scales. Financing is expected to combine sovereign contributions, private equity, infrastructure debt, and offtake contracts, wherein satellite operators or industrial partners commit to elevator usage, providing early revenue streams and reducing risk for consortium members.

The projected decline to a few hundred dollars per kilogram depends on three structural advantages over rockets. First, the system replaces repeated propellant-intensive launches

with electrically powered climber operations, reducing recurring launch energy costs. Second, the tether, Earth Port, and orbital nodes function as reusable infrastructure, allowing high upfront construction costs to be amortized over decades of continuous use rather than charged to each mission. Third, because climbers can operate routinely rath-

er than on discrete launch schedules, higher annual throughput spreads fixed costs across a much larger mass base. Under this model, early operations remain relatively expensive while capital costs are still being recovered, but cost per kilogram falls as utilization rises and the infrastructure approaches steady-state operation (de la Torre, 2024).

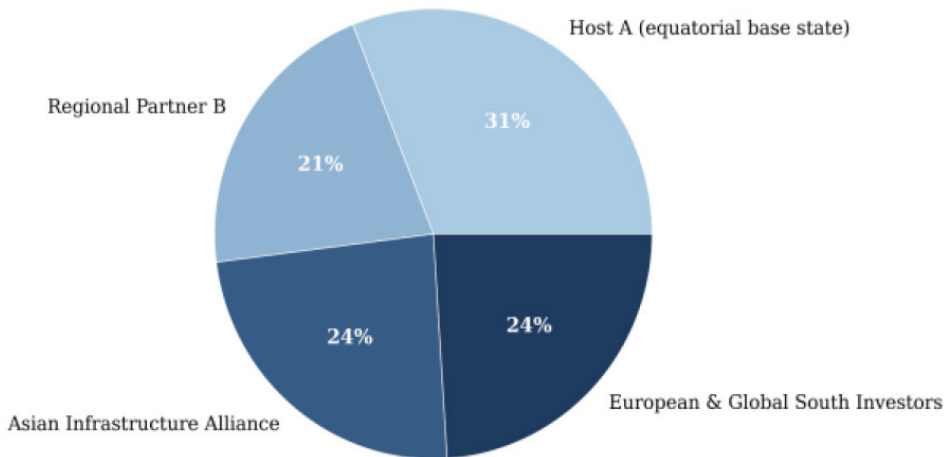


Figure 5. *The Proposed Consortium Model for Non-U.S. Ownership.*

Note. The model emphasizes global equity and first-mover advantage. A dedicated operator company, governed by a board and an access council, would oversee safety, liability, and access regulations.

International Governance & Legal Considerations

Without U.S. involvement, governance relies on consortium agreements, treaties, and proposed “Space Elevator Accords” to define jurisdiction, liability, user rights, and operational safety protocols. These accords aim to prevent monopolization and ensure equitable use. Given the absence of clear international norms for such a massive structure, proactive governance is essential to avoid disputes and potential geopolitical leverage.

Strategic, Geopolitical, & Policy Implications

In the short term (0–10 years), the consortium establishes operational norms while rockets continue to serve crewed missions. Over 10–30 years, control of the primary orbital gateway provides economic and strategic leverage, enabling industrial flows such as orbital manufacturing, asteroid mining, and space-based energy. Nations excluded from ownership must negotiate access, pay tolls, or develop alternative infrastructure. Transparent toll structures,

discounted access for Global South states, and multilateral oversight mitigate monopoly risks and promote global cooperation.

Environmental & Sustainability Considerations

Space elevators offer environmental benefits by reducing propellant use, emissions, and atmospheric pollution relative to rockets. Off-planet manufacturing and asteroid mining decrease terrestrial extraction of rare earth elements, reducing toxic waste, radiation exposure, and soil and water contamination. These advantages align with ISEC's "Green Road to Space" vision, promoting sustainable and equitable space infrastructures.

Orbital debris mitigation is especially important because the tether passes through multiple orbital regimes rather than occupying a single fixed altitude. In practice, mitigation would require continuous tracking of conjunction risks, operational coordination with space traffic management systems, and design measures that reduce vulnerability in higher-risk regions. These could include restricted climber movement during elevated debris windows, localized reinforcement or sacrificial shielding in lower-altitude exposure zones, and formal deconfliction protocols around the tether corridor and geostationary anchor. In other words, debris mitigation for a space elevator would need to combine conventional debris-tracking policy with infrastructure-specific operating rules and protective engineering (International Space Elevator Consortium, 2021).

Conclusions / Key Takeaways

Non-U.S. ownership is technically and economically feasible, contingent upon strong consortium governance, clear legal frameworks, and equitable access mechanisms. The project provides first-mover advantages for owners and establishes a durable, environmentally sustainable orbital transport system. Non-owner nations such as the U.S. would need to negotiate access or develop alternative space infrastructures to remain competitive.

Case Study 2: Shared U.S. Ownership

Introduction and Framework

Shared U.S. ownership combines national leadership with international collaboration, leveraging technical, political, and economic strengths. Advanced materials such as graphene super-laminate, high-capacity climbers, and Apex Anchor infrastructure ensure technical feasibility. Political and economic feasibility draws on U.S. experience with public-private partnerships, including COTS, Artemis, and the ISS, where the government anchors funding while private firms drive design and deployment. Key guiding questions include: How can shared governance minimize conflict? How should costs be distributed among public and private actors? Which lessons from prior U.S.-led space programs inform multinational construction?

Economic Precedents & Funding Models

The U.S. space sector commands con-

siderable financial resources: NASA’s FY2024 budget is \$25B, and Department of Defense (DoD) space programs contribute \$30–40B annually. Public-private partnerships allow companies such as SpaceX and Blue Origin to lead design, prototyping, and early operations. Historical megaprojects such as Apollo, the International Space Station, and Artemis demonstrate the United States’ ability to coordinate

large-scale infrastructure efforts over long time horizons while distributing costs and responsibilities across public and private actors. These precedents show that, despite political changes and budget pressures, the U.S. can sustain complex space initiatives when they are framed as advancing national leadership, economic competitiveness, and strategic capability.

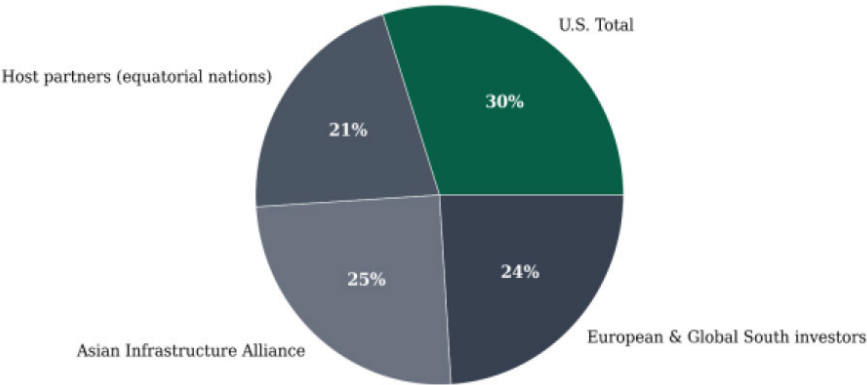


Figure 6. Proposed Equity Distribution with the U.S. as a Leading Force.

Note. The distribution promotes shared governance and balances U.S. strategic interests with multinational collaboration. An access council manages operations, liability, and equitable access while allowing private companies to drive innovation.

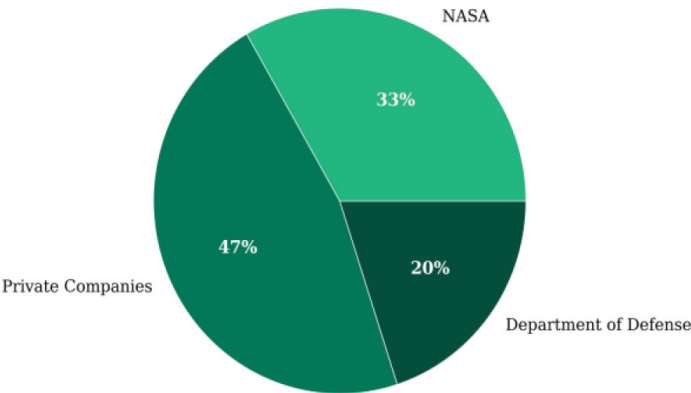


Figure 7. Proposed U.S. Equity Breakdown.

Note. Various private companies could include leading aerospace organizations such as SpaceX, Blue Origin, and Starlink. NASA and DoD combined assume the majority.

The proposed equity distribution with U.S. involvement in Fig. 6 allows for the U.S. to maintain a large portion of the total equity distribution while refraining from holding the majority. One option for a U.S.-led pathway for developing a space elevator is a commercial model, in which private companies primarily drive the design and deployment of the space elevator. In this scenario, commercial ownership would dominate the equity structure, with the U.S. government positioned as a major customer and strategic investor rather than the sole owner. A fully operational space elevator under this model could dramatically increase the growth of private space tourism and lower the costs of orbital manufacturing, as the cost and funding are driven by market demand rather than fixed government missions. However, a commercial-led space elevator raises significant political challenges. Fragmenting the bulk of space elevator oversight across several private sectors could complicate and stall operations. In addition, public opposition may also arise if a single private consortium monopolizes the space elevator infrastructure. Geopolitical tensions could increase if a U.S. corporation effectively owns and operates the world's primary access node to space. There is also the danger that non-partner states and other leading space countries such as Russia and China view such control as a *de facto* monopoly or as a security risk to their own nations.

With these caveats in mind, the ideal equity breakdown would result in NASA and DoD combined being given much of the U.S. equity breakdown,

with 53% total compared with various private companies (Fig 7). This approach closely parallels programs that rely on partnerships between NASA and private industry, most notably the Commercial Crew Program (CCP), which was launched in 2010. Under the CCP, the partnership between NASA and American private industry has successfully delivered on the mission's promise of safe and reliable transportation between Earth and the ISS (National Aeronautics and Space Administration [NASA], 2020). NASA acts as the safety overseer and major customer, while private companies such as SpaceX and Boeing design and operate the spacecraft (National Space Society, 2014). This final breakdown allows for U.S. governmental oversight to maintain dominance in the full U.S. equity breakdown while maintaining a level of autonomy for the individual U.S.-based private companies. Commercial participation remains rational even in a government-weighted ownership model because the public sector reduces early-stage risk while private firms retain access to long-term revenue. As in the Commercial Crew Program, government participation can function as an anchor customer, guaranteeing baseline demand and validating the market during the highest-risk development phase. Private companies would then compete for recurring revenue from cargo transport, orbital servicing, tourism, manufacturing support, and associated logistics contracts. In this structure, firms are not investing because they control the entire system; they are investing because government-backed

demand lowers downside risk while continued elevator operations create durable commercial income streams (NASA, 2020).

International Governance & Legal Considerations

The Artemis Accords allow a practical framework for the United States to lead the governance of a space elevator. The Accords were introduced in 2020 as an opt-in framework outside the UN system and pair diplomatic outreach with active technical cooperation. This framework allows the U.S. to align a large coalition of partner states around common principles of public transparency, peaceful use, and non-interference. One caveat of using the Accords as a guiding framework is that major spacefaring powers such as China and Russia refused to join, and a similar method for a space elevator may be a deterrent to international cooperation. However, the main purpose of the Accords was to avoid the political paralysis of international treaty negotiations and to position the U.S. as a leading force for future lunar activities. This baseline can be modified and repurposed as an international legal precedent for the space elevator. The Artemis Accords show the importance of establishing a clear legal framework before infrastructure becomes fully operational and can reduce uncertainty and attract international participation even in a competitive geopolitical environment.

During the first decade, the U.S. leads design, funding, and coordination, establishing operational norms. Over the long term, space elevators become

a central logistics node for orbital, lunar, and Martian operations, providing strategic influence. Risks include public concern over private control, fragmented regulatory oversight, and geopolitical tensions. However, shared governance and international agreements mitigate these concerns. The construction and resulting economic benefits of a space elevator would raise several questions that are not currently answered by existing space law, such as guaranteed access, interference thresholds, and liability in the case of damage. This uncertainty facilitates the need for the “Space Elevator Accords,” a tailored legal framework specific to the economic and legal ramifications of a space elevator.

Space Elevator Accords Framework

- I. **Peaceful Purposes:** Explicit prohibition on weaponization of the tether, anchor, climbers, or control systems. Military use is restricted to non-offensive logistics, science, or emergency support.
- II. **Transparency:** Mandatory sharing of structural health data, traffic schedules and capacity utilization, and emergency protocols
- III. **Interoperability:** Standardized payload interferences, power, and safety protocols. Ensures the elevator functions as shared infrastructure rather than a closed system.
- IV. **Space Resources:** Explicit affirmation that ownership of

infrastructure does not directly translate to sovereignty over orbital space. Allows for transparent pricing and non-discriminatory access norms.

V. Deconfliction and Safety

Zones: Creates permanent safety zones around the tether and geostationary anchor.

VI. Orbital Debris: Mandatory debris planning specific to each step of space elevator design, such as tether damage and environmentally safe disposal of elevator components

Modeled on the core sections of the Artemis principles, these Accords will preempt conflict by defining baseline access for scientific missions, transparent rules regarding private and commercial use, zoning laws around the tether and anchor, and coordination requirements for spacecraft operating near the geostationary platform. The Accords will also address liability risks through shared insurance pools and joint financial responsibility for cleanup. Finally, transparency requirements will force structural health data and materials pricing to be made available to the full scope of international collaborators. The Accords will encourage participation by both countries and private actors and ensure the elevator is treated as shared strategic infrastructure while maintaining U.S. dominance in its creation and benefits.

Strategic, Geopolitical, & Policy Implications

During the first decade, the U.S. leads design, funding, and coordination, establishing operational norms. Over the long term, the elevator becomes a central logistics node for orbital, lunar, and Martian operations, providing strategic influence. Risks include public concern over private control, fragmented regulatory oversight, and geopolitical tensions; however, shared governance and international agreements mitigate these concerns. Although the U.S. will maintain a leading role in the space elevator's development and operation, the total project remains an international collaboration. With such an undertaking, it will be necessary for the U.S. to alter its current defense policies in stronger favor of international collaboration. The Secure World Foundation, a U.S.-based nonprofit organization, also calls for a lessening of restrictions in regard to the Wolf Amendment, which restricts NASA from collaborating with China's space sector without explicit congressional approval (Secure World Foundation, 2025).

Environmental & Sustainability Considerations

The construction and operation of a space elevator hold the potential to provide a more environmentally favorable alternative to the fuel use and noise pollution associated with traditional rocket launches (Piesing, 2022). The U.S.-led space elevator will actively promote and enable environmentally neutral operations, reducing emissions

and debris while supporting off-planet manufacturing. A key environmental argument for a fully operational space elevator is not that its construction is impact-free, but that routine operation could produce lower recurring emissions than repeated rocket launches once initial material and construction costs are amortized over sustained use. This approach aligns with sustainability initiatives and global climate objectives, positioning space elevators as a cornerstone of environmentally responsible space infrastructure. The Secure World Foundation puts forth a strategic policy and points of action to minimize the environmental impact with the U.S. as a leader in the space sector. The SWF's major points of action include mitigating the orbital debris crisis and facilitating an orbital debris removal mission on the national scale (Secure World Foundation, 2025).

The U.S. Government Orbital Debris Mitigation Standard Practices, created by several leading astrophysics and astronomy professors and researchers, set forth clear steps forward to curb the increase of orbital debris in space (U.S. Government). Under these guidelines, the FCC is called to mitigate space waste by ending its blanket environmental exclusion for satellite constellations, as well as requiring comprehensive environmental reviews that evaluate the impacts of space debris on the environment. The same practices will be adhered to throughout the U.S.-led construction of the space elevator; environmental concerns will not be sidelined but should be fully documented and considered prior to

construction and operational use to minimize environmental impact. These guidelines set forth by U.S.-based agencies and environmental organizations are a prime example of balancing technological advancement with environmental preservation and should be used as a foundational blueprint for the international development of a space elevator.

That distinction is important because the environmental case depends on lifecycle accounting rather than operational claims alone. Rocket launches generate recurring atmospheric emissions with each mission, whereas a space elevator shifts much more of its environmental burden to the front end through construction, material production, and installation. The project therefore becomes environmentally favorable only if long-term operating savings outweigh those initial impacts. In that sense, “neutral” operations should be understood as a long-run target achieved through repeated use, not as a condition that exists at the moment of construction (Piesing, 2022).

Conclusions / Key Takeaways

Shared U.S. ownership balances national leadership with international collaboration, leveraging public-private partnerships for funding, construction, and operation. Strategic, economic, and environmental benefits are maximized, while the “Space Elevator Accords” provide a robust governance framework to ensure equitable access, operational safety, and multinational participation.

Limitations & Risks

Space elevators face several key limitations:

- Technical feasibility remains uncertain due to challenges in producing defect-free graphene at scale.
- The project requires extremely high upfront investment and sustained long-term demand.
- Continuous exposure to orbital debris increases collision risk.
- Existing legal frameworks do not clearly define jurisdiction or liability.
- Geopolitical tensions may limit cooperation and equitable access.
- Environmental benefits depend on offsetting material production impacts.

These constraints indicate that feasibility depends on both engineering success and sustained economic and international coordination.

Conclusion

The construction of space elevators represents one of humanity's most ambitious infrastructure projects, with the potential to transform space access, commerce, and sustainability. Case Study 1, with non-U.S. international ownership, demonstrates that consortium-based financing, phased development, and access governance mechanisms can support equitable participation while mitigat-

ing monopolization risks. Case Study 2 shows that U.S.-led collaboration, modeled on programs such as the Commercial Crew Program and Artemis initiatives, can accelerate development through public-private partnerships while maintaining strategic influence, though it introduces potential geopolitical and regulatory tensions.

Across both scenarios, the analysis shows that projected capabilities—approximately 30,000 tons of annual cargo delivery to geostationary orbit compared to current global launch capacity of roughly 1,500–2,000 tons—would represent an order-of-magnitude expansion in space logistics. Similarly, modeled cost reductions from thousands of dollars per kilogram to a few hundred dollars per kilogram suggest a fundamental shift in the economics of space access, contingent on sustained utilization and long-term amortization of infrastructure costs. These findings are supported by comparisons to existing launch systems, NASA-led programs, and infrastructure financing models, indicating that such transformations are plausible but highly dependent on scale and demand.

At the same time, the analysis identifies several critical constraints. The feasibility of large-scale graphene super-laminate production remains unproven; orbital debris presents a continuous risk across multiple altitude regimes; and lifecycle environmental benefits depend on long-term operational efficiency relative to material production impacts. In addition, both governance models face challenges re-

lated to legal ambiguity under existing space law, coordination among international stakeholders, and the need for stable, long-term investment.

Taken together, these results indicate that the success of space elevators depends not only on engineering breakthroughs but also on the integration of technical feasibility with governance, economic viability, and international cooperation. While uncertainties remain significant, the combination of

projected cost reductions, increased transport capacity, and reduced operational emissions supports the conclusion that space elevators could serve as a foundational infrastructure for sustained space activity. Under these conditions, and with the implementation of frameworks such as the Space Elevator Accords, space elevators offer a credible pathway toward a “Green Road to Space,” enabling more efficient, scalable, and environmentally responsible access to orbit.

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