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HOW SATELLITE LICENSING WORKS: A COMPLETE GUIDE

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HOW SATELLITE LICENSING WORKS

A COMPLETE GUIDE TO U.S. SATELLITE LICENSING

U.S. satellite licensing is the process of obtaining authorization from U.S. agencies (FCC, FAA, NOAA, and the State Department or Commerce for export controls) and coordinating spectrum through the ITU before a satellite can launch and operate. Most commercial missions need at least two licenses, plan for 12 to 24 months from first filing to launch readiness, and contend with the FCC's September 2024 five-year deorbit rule, FAA Part 450 (the framework governing all new launch licenses as of March 2026), and the ITU's 7-year bringing-into-use window. This guide walks through every step in plain language, from university CubeSats to thousand-spacecraft constellations.

QUICK SUMMARY

Who needs a satellite license? Any operator launching from U.S. soil or as a U.S. person. **Which agencies?** FCC (radio frequency and orbital parameters), FAA (launch and reentry), NOAA (Earth-observation payloads), ITU (international spectrum coordination via the FCC), and State Department (ITAR, if any foreign element). **How long?** 12 to 24 months end-to-end. **How much?** $100,000 to $250,000 for a simple LEO mission including filing fees, legal counsel, and engineering analysis; over $1M for novel vehicles or new launch sites.

WHICH AGENCIES DO YOU NEED TO LICENSE A

SATELLITE?

Most U.S.-licensed satellite missions require authorization from at least two of five agencies: the FCC, FAA, NOAA, ITU, and the State Department (ITAR). Which combination applies depends on what your satellite does and who builds it.

AGENCY	WHAT THEY AUTHORIZE	WHEN YOU NEED THEM
FCC	Radio frequency use + orbital parameters	Almost always (if your satellite transmits or receives)
FAA	Launch and reentry operations	Any launch from U.S. soil or by a U.S. operator
NOAA	Remote sensing (imaging, radar, spectral)	If your satellite collects data about Earth
ITU	International spectrum coordination	Always, handled through the FCC for U.S. operators
ITAR / State Dept.	Export of defense-related technology	If your mission involves foreign partners, components, or data

A typical communications satellite needs the FCC and FAA at minimum. Add a camera, and you need NOAA. Use a foreign launch provider or share technical data with foreign partners, and export controls (ITAR or EAR) apply. The process is parallel, not sequential. You can (and should) engage multiple agencies simultaneously.

PENALTIES FOR SKIPPING LICENSES

The FAA can impose civil penalties of up to

$299,772 per violation

for unlicensed launches (14 CFR 406.9). ITAR violations carry criminal penalties of up to

$1,000,000 per violation and 20 years imprisonment

(22 U.S.C. 2778(c)). Unlicensed remote sensing operations are subject to NOAA civil penalties of

up to $14,432 per violation

(15 CFR 6.3).

HOW TO APPLY FOR AN FCC SATELLITE LICENSE

An FCC satellite license is a domestic authorization from the Federal Communications Commission to use specific radio frequencies and operate at specific orbital parameters. If your satellite transmits or receives any signal (communications, telemetry, tracking, command), you need an FCC space station authorization.

WHAT YOU FILE

The core application is **FCC Form 312** with **Schedule S** (the technical exhibit). Schedule S includes your orbital parameters, frequency assignments, antenna characteristics, power levels, and interference analysis. You also submit an orbital debris mitigation plan, which since September 2024 must include a five-year post-mission disposal commitment for LEO satellites.

Applications are filed through the FCC's **International Communications Filing System (ICFS)**.

TWO LICENSING TRACKS

The FCC offers two paths depending on your mission:

- **Standard Part 25 application.** For most commercial satellites. Comprehensive technical review covering spectrum use, orbital mechanics, and debris mitigation. Applications accepted for filing are placed on public notice, opening a 30-day window for petitions and comments (47 CFR 25.154). Part 25 sets no binding deadline for issuing that public notice.
- **Streamlined small satellite process.** For missions meeting specific criteria under 47 CFR 25.122: 10 or fewer satellites, each with a mass of 180 kg or less including propellant, an in-orbit lifetime of 6 years or less per satellite, and deployment at or below 600 km or a propulsion system capable of collision avoidance and deorbit maneuvers. Lower fees, faster processing, and simplified technical showings. Designed for CubeSats, university missions, and technology demonstrators.

HOW LONG DOES AN FCC SATELLITE LICENSE TAKE?

Straightforward, uncontested applications typically process in **6 to 9 months**. Complex applications (those involving waiver requests, contested spectrum, or large constellations) can take significantly longer. As a planning rule of thumb, file large constellation applications **at least 2 years** before planned launch, and small satellite applications **6 to 8 months** in advance.

HOW MUCH DOES AN FCC SATELLITE LICENSE COST?

Space station application fees (47 CFR 1.1107, Table 9):

- Geostationary space station: $4,175 per satellite
- Non-geostationary system: $17,670 per call sign
- Small satellite (streamlined): $2,555
- Modification of existing license: $2,930

NGSO licensees must also post a **surety bond** within 30 days of license grant (one year plus 30 days for streamlined small satellite licenses). Under 47 CFR 25.165 the bond amount starts at $1 million and rises the longer the license is held, up to $5 million. The obligation ends once the FCC finds the deployment milestones met.

WHAT CATCHES PEOPLE

The most common stumbling block is the **NGSO processing round**. Non-geostationary applications are batched into processing rounds rather than reviewed first-come, first-served. If you miss a round's filing window, your application waits for the next one, which can add months or more to your timeline. Under Part 100, adopted July 22, 2026 (FCC 26-47) and not yet effective, NGSO processing moves to annual opt-in processing rounds.

Tracking the next NGSO processing round, a competitor's Schedule S filing, or a debris mitigation rulemaking? **Sign up for Orbit Sentinel** (https://console.viventine.com/sign-in/) to monitor 418,000+ extracted filings across the FCC, ITU, UNOOSA, and FAA with **AI verification engineering** built in.

FAA LAUNCH LICENSE: HOW LONG DOES IT TAKE AND WHAT DOES IT COST?

An FAA launch license is an authorization from the Federal Aviation Administration's Office of Commercial Space Transportation (AST) to conduct a commercial launch or reentry operation. As of March 2026, all new licenses are issued under Part 450, a performance-based framework that replaced four legacy regulations.

WHAT YOU FILE

A Part 450 application includes your flight safety analysis, hazard analysis, ground safety plan, and environmental review documentation. The centerpiece is the means of compliance (MoC), your engineering argument for how your specific vehicle and operation meet the FAA's quantitative safety thresholds (individual risk no greater than 1 in 1,000,000; collective risk no greater than 1 in 10,000).

THE PROCESS

1. **Pre-application consultation.** Informal engagement with AST to scope your application. This has no fixed duration and can range from weeks (for experienced operators with proven vehicles) to years (for new vehicles or first-time applicants). This phase does *not* count toward the statutory review clock.
2. **Formal application.** Once filed, the FAA has **180 days** to review and issue a decision. In practice, the FAA may request additional information, which can pause the clock.
3. **Environmental review.** The National Environmental Policy Act (NEPA) requires environmental analysis for new vehicles or new launch sites.

This is often the longest bottleneck, potentially adding months to years.

4. **License issuance.** A single Part 450 license can cover both launch and reentry, multiple launch sites, and all vehicles within a class.

HOW LONG DOES AN FAA LAUNCH LICENSE TAKE?

The statutory clock is 180 days from formal application acceptance. Real-world timelines are longer because of pre-application consultation and NEPA. **Plan for 12 to 24 months** from first AST engagement to license in hand. Operators launching proven vehicles from established sites move faster. First-time operators with novel vehicles take longer.

HOW MUCH DOES AN FAA LAUNCH LICENSE COST?

Starting in 2026, the FAA charges a **per-pound payload fee** on each licensed launch or reentry under 51 U.S.C. 50924, enacted by the 2025 budget reconciliation law (Pub. L. 119-21, sec. 40004). For 2026 the fee is $0.25 per pound, capped at **$30,000 per launch**; both figures rise each year to $1.50 per pound and $200,000 by 2033. Before 2026 the FAA charged no licensing fee. The real cost is the engineering work required to develop your means of compliance and flight safety analysis, which can run into hundreds of thousands of dollars for complex missions.

WHAT CATCHES PEOPLE

Two things: **starting pre-application too late** and **underestimating NEPA**. The pre-application phase is where most schedule risk concentrates. Operators who have moved fastest through Part 450 licensing invested heavily in early AST engagement. NEPA environmental reviews for new launch sites can take 1 to 3+ years, so plan accordingly if you're not launching from an established site.

HOW TO OBTAIN A NOAA REMOTE SENSING LICENSE

A NOAA remote sensing license is required for any private satellite system that collects data about Earth from space. The National Oceanic and Atmospheric Administration licenses cameras, synthetic aperture radar, multispectral imagers, and any other Earth-observation instrument operated by a U.S. person.

WHAT YOU FILE

Applications are filed with NOAA's **Commercial Remote Sensing Regulatory Affairs (CRSRA)** office under **15 CFR Part 960**. The application covers your system's sensing capabilities, data handling procedures, and operational parameters.

THREE-TIER SYSTEM

Under the 2020 regulations (**15 CFR Part 960**), NOAA uses a tiered licensing approach based on whether comparable data is already available from other sources (15 CFR 960.6):

- **Tier 1:** Systems that collect data substantially the same as data already available from sources NOAA does not license, such as foreign operators. Standard license conditions only.
- **Tier 2:** Systems that collect data substantially the same as data available only from other NOAA-licensed U.S. systems. May carry a limited set of additional conditions.
- **Tier 3:** Systems that collect data not substantially the same as anything available from any domestic or foreign source. May carry temporary conditions, such as limits on imaging specific areas, that last one year and can be extended to no more than three years in total unless Defense or State requests more.

Most licensed systems today are Tier 1, Tier 3 is the next most common, and Tier 2 is rarely used. The tier determination happens during the application review process; you don't choose your tier.

HOW LONG DOES A NOAA LICENSE TAKE?

NOAA must grant or deny a license within **60 days** of notifying the applicant that the application is complete (15 CFR 960.7(b)). In practice, NOAA encourages **pre-application consultation**, filing an Initial Contact Form before submitting a formal application. The pre-consultation period is not subject to the 60-day clock.

HOW MUCH DOES A NOAA LICENSE COST?

NOAA does not publish an application fee for remote sensing licenses. Unlike FCC and FAA licenses, the publicly available regulations and application materials do not mention filing fees. Contact CRSRA directly at crsra@noaa.gov for current fee information.

WHAT CATCHES PEOPLE

Not realizing they need a NOAA license. Some operators don't think of their payload as "remote sensing," but NOAA's definition is broad. If your satellite collects any data about Earth from space, including for navigation, weather, agriculture, or environmental monitoring, you likely need a license. The civil penalty for operating without one is up to $14,432 per violation.

WHAT IS AN ITU FILING AND WHO NEEDS ONE?

An ITU filing is an international coordination mechanism, not a license. The International Telecommunication Union is a United Nations agency that coordinates global radio spectrum use. ITU filings give your frequency assignments international recognition and protection. Without one, other countries' satellite systems have no obligation to avoid interfering with yours.

HOW IT WORKS FOR U.S. OPERATORS

U.S. operators don't file directly with the ITU. The FCC acts as the U.S. notifying administration and submits filings to the ITU on behalf of U.S.-licensed operators. This means your ITU coordination is typically handled as part of your FCC application process, but the ITU has its own timelines and requirements that run in parallel.

THE FILING SEQUENCE

1. **Advance Publication Information (API).** Notifies the world of your planned satellite system. For networks not subject to coordination, it is filed not earlier than seven years and preferably not later than two years before the planned bringing-into-use date (Radio Regulations No. 9.1). Most commercial systems are subject to coordination and start instead with a coordination request under No. 9.30. Published by the ITU for review by other administrations.
2. **Coordination Request (CR/C):** For networks subject to coordination, this is the first filing (No. 9.30) and initiates formal coordination with other satellite operators whose systems might experience interference. This is where technical negotiations happen, and you may need to adjust frequencies, power levels, or orbital parameters to resolve conflicts.

3. **Notification.** Once coordination is complete, the filing is recorded in the ITU's Master International Frequency Register. This is what gives your frequency assignments international legal protection.

HOW LONG DO YOU HAVE TO BRING AN ITU FILING INTO USE?

The ITU's **Resolution 49** imposes due diligence requirements: operators must demonstrate progress toward actually deploying their satellite systems. The key deadline is **7 years from the date the ITU receives the complete API, or the coordination request for networks subject to coordination** (Radio Regulations No. 11.44), to bring the system into use, meaning at least one satellite must be operating on the filed frequencies. Miss this deadline, and your filing lapses. Extensions are possible but not guaranteed.

HOW MUCH DO ITU FILINGS COST?

ITU cost-recovery fees (ITU Council Decision 482) vary widely:

- Advance Publication Information: **570 CHF**
- Coordination Request: **5,560 CHF plus 150 CHF per unit**, up to 66,934 CHF for the largest NGSO filings, depending on the forms of coordination and number of frequency assignments
- Notification: **7,030 to 115,840 CHF** depending on system complexity

The ITU invoices these fees, and the operator bears them: the FCC submits a filing only after the operator files a signed declaration accepting all ITU cost-recovery responsibility (47 CFR 25.111(d)).

WHAT CATCHES PEOPLE

Treating ITU coordination as an afterthought. The 7-year bringing-into-use window sounds generous, but the coordination process itself can take years, especially in congested spectrum bands. If your planned

frequencies overlap with an existing or prior-filed system, you'll need to coordinate or choose different frequencies. Starting ITU coordination late can force expensive design changes.

WHAT IS ITAR AND WHEN DOES IT APPLY TO SATELLITES?

The **International Traffic in Arms Regulations** (ITAR) govern the export of defense-related articles, services, and technical data. Since November 2014, most commercial communications satellites and many components have been controlled under the Commerce Department's EAR (ECCN 9A515) instead. Spacecraft and components still described in **Category XV of the U.S. Munitions List (USML)**, such as higher-performance remote sensing satellites, remain defense articles under ITAR whether or not they have a military purpose.

WHEN DOES ITAR APPLY?

If any part of your satellite or its technical data is ITAR-controlled, ITAR applies when your mission involves:

- Foreign nationals (including employees, contractors, or academic collaborators) accessing satellite technical data
- Sending controlled technical data to foreign component suppliers
- Launching on a foreign launch vehicle
- Sharing technical information with foreign partners or investors

Even showing a satellite design document to a non-U.S. person at a conference can constitute an "export" under ITAR.

WHAT AUTHORIZATIONS DO YOU NEED?

If ITAR applies, you'll need one or more authorizations from the **State Department's Directorate of Defense Trade Controls (DDTC)**:

- **Technical Assistance Agreement (TAA):** Required when sharing technical data or providing defense services to foreign persons
- **Manufacturing License Agreement (MLA):** Required when a foreign person will manufacture a defense article
- **Export License (DSP-5).** Required for permanent export of defense articles
- **Temporary Import License (DSP-61).** Required for temporarily bringing defense articles into the U.S.

PENALTIES

ITAR violations are serious:

- Criminal: up to **$1,000,000** per violation and **20 years imprisonment**
- Civil: up to **$1,271,078** per violation, or twice the transaction value, whichever is greater
- Debarment from future defense trade

WHAT CATCHES PEOPLE

Not realizing how broad "export" is under ITAR. Startups with international teams, universities with foreign graduate students, and companies using foreign subcontractors all need to assess ITAR early. The Export Control Reform rules that took effect in November 2014 moved most commercial satellites and many components from the USML to the Commerce Control List (CCL), which is less restrictive, but many satellite systems and components remain ITAR-controlled. Get an export control assessment before you start sharing technical data.

HOW THE PIECES FIT TOGETHER

Satellite licensing isn't a linear process. You don't finish with one agency and then start with the next. The agencies operate independently, with different timelines, different filing systems, and different review processes. The key to managing the process is understanding which workstreams run in parallel and which have dependencies.

TYPICAL LICENSING TIMELINE FOR A LEO SATELLITE MISSION

ITAR assessment	Months 1–3
FCC application	Months 2–12
ITU coordination	Months 2–18+
FAA pre-application	Months 3–10
FAA formal review	Months 10–18
NOAA (if needed)	Months 4–10
NEPA review	Months 3–18+

CRITICAL PATH DEPENDENCIES

- **FCC before launch.** You can't legally turn on your satellite's radio without FCC authorization. The FCC license also triggers your ITU coordination.
- **FAA before launch.** No launch without a launch license. Period.
- **NOAA before data collection:** Your satellite can be in orbit, but you can't begin collecting or distributing remote sensing data without a NOAA license.

- **ITAR before everything.** If your mission involves any foreign element, the ITAR assessment should happen first. An ITAR violation early in development can jeopardize the entire program.

WHAT PARALLEL PROCESSING LOOKS LIKE

A well-managed licensing program files the FCC application and begins FAA pre-application consultation at roughly the same time, typically 18 to 24 months before the planned launch date. NOAA and ITAR processes start in the same window. The goal is to have all authorizations in hand before the launch vehicle is on the pad, not after.

Apart from the FAA's payload review, which confirms a payload holds its other required licenses and consults Defense and State (14 CFR 450.43), the agencies don't run a joint review of individual applications. There is no single "satellite license" that covers everything. You are the integrator.

HOW MUCH DOES IT COST TO LICENSE A SATELLITE?

Total satellite licensing costs for a simple LEO mission typically range from $100,000 to $250,000 when you include filing fees, regulatory counsel, and engineering analysis. Filing fees alone are only part of the picture. Here's a realistic breakdown:

COST CATEGORY	RANGE	NOTES
FCC filing fees	$2,555 – $17,670	Depends on satellite type and licensing track

COST CATEGORY	RANGE	NOTES
FCC surety bond (NGSO)	$1M – $5M	Required for NGSO licenses; grows over time, released when milestones are met
FAA launch license fees	Up to $30,000 (2026)	Per-pound payload fee per launch; cap rises yearly to $200,000 by 2033
ITU filing fees	570 – 115,840 CHF	Varies by filing type and system complexity
NOAA license	No published fee	Contact CRSRA directly
Regulatory counsel	$50,000 – $300,000+	Specialized space law firms; scales with complexity
Flight safety analysis	$100,000 – $500,000+	Required for FAA Part 450 MoC development
Environmental review	$50,000 – $500,000+	NEPA compliance; highly variable by site

For a straightforward small satellite mission using an established launch provider and an existing launch site, total licensing costs (fees + legal + engineering) typically range from **$100,000 to $250,000**. For a novel vehicle or new launch site, costs can exceed **$1 million**, mostly driven by FAA flight safety analysis and NEPA environmental review.

The cost asymmetry matters: a mega-constellation operator spreads these costs across thousands of satellites. A three-satellite startup bears the same regulatory burden at a fraction of the scale.

WHAT ARE THE MOST COMMON SATELLITE LICENSING MISTAKES?

These are the mistakes that cost operators the most time and money:

1. **Treating licensing as a late-stage activity.** Licensing is a design constraint, not a paperwork exercise. The FCC's five-year deorbit rule affects your propulsion budget. The FAA's safety thresholds affect your trajectory design. NOAA's tier determination affects your data distribution plan. Start the licensing process during your mission's concept phase, not after your design is frozen.

2. **Filing with one agency and forgetting the others.** A startup that files with the FCC but doesn't begin FAA pre-application until the FCC license is granted has just added 12+ months to their timeline. File in parallel.

3. **Underestimating NEPA.** If your launch requires an Environmental Assessment (EA) or Environmental Impact Statement (EIS), this can be the single longest workstream in your entire program. For new launch sites, NEPA timelines of 1 to 3+ years are not uncommon. Using an established launch site with existing NEPA coverage can avoid this entirely.

4. **Ignoring ITAR until it's a problem.** Many startups discover ITAR requirements only after they've already shared technical data

with foreign team members or partners. By that point, the violation has already occurred. Get an export control assessment before you start building your team.

5. 5 **Missing the NGSO processing round.** FCC NGSO applications are batched into processing rounds. If you miss the filing window, you wait for the next round. This can add months to your FCC timeline and cascade into your launch schedule.

6. 6 **Not budgeting for regulatory counsel.** The filing fees are the smallest part of the cost. The engineering analysis, legal drafting, and agency engagement that produce a successful application are where the real expense lies. A $2,555 FCC filing fee becomes $75,000+ when you include the regulatory work behind it.

7. 7 **Assuming rideshare means simpler licensing.** Buying a rideshare slot on an existing launch doesn't eliminate your licensing requirements. You still need your own FCC authorization (and NOAA, if applicable). The launch provider handles the FAA license for the launch itself, but your satellite's spectrum and orbital authorization are entirely your responsibility.

FREQUENTLY ASKED QUESTIONS

+ How much does it cost to license a satellite in the United States?

+ How long does it take to get a satellite license?

+ Do I need a license from every agency to launch a satellite?

+ What is the difference between an FCC license and an ITU filing?

+ Can I launch a satellite without a license?

+ What's the simplest path to launching a small satellite?

+ Where can I learn more about the specific regulations?

FURTHER READING

→ FCC ground station licensing requirements: complete guide. The companion guide covering earth station licensing, frequency coordination, and GaaS

→ Space Regulatory Glossary: Definitions for the terminology used throughout this guide

→ The FCC 5-Year Deorbit Rule. How the FCC's orbital debris mandate affects LEO mission planning

→ FAA Part 450: The New Era of Launch Licensing. The performance-based framework that replaced four legacy FAA regulations

→ The Operator's Playbook. The complete four-agency regulatory guide for commercial space missions

→ NOAA Remote Sensing License: What Part 960 actually requires, from tier conditions to the CRSRA staffing crisis

→ Mission Log: structured extraction from FCC and ITU filings. The batch LLM pipeline that turns ICFS and SNS filings into queryable structured data

→ The Trust Problem: Why regulatory trust matters in space industry intelligence

Key Regulatory References

→ 47 CFR Part 25 -Satellite Communications (FCC) (https://www.ecfr.gov/current/title-47/part-25)

→ 14 CFR Part 450 -Launch and Reentry Licensing (FAA) (https://www.ecfr.gov/current/title-14/chapter-III/subchapter-C/part-450)

→ 15 CFR Part 960 -Licensing of Private Remote Sensing Systems (NOAA) (https://www.ecfr.gov/current/title-15/part-960)

→ ITU Radiocommunication Bureau -Space Services (https://www.itu.int/en/ITU-R/space/Pages/default.aspx)

→ 22 CFR Parts 120–130 -ITAR (State Department) (https://www.ecfr.gov/current/title-22/chapter-I/subchapter-M)

FREQUENTLY ASKED QUESTIONS

How much does it cost to license a satellite in the United States?

FCC space station application fees under 47 CFR 1.1107 range from $2,555 for a small satellite to $17,670 for an NGSO system, with GSO applications at $4,175 per satellite. FAA charges a per-pound payload fee on each licensed launch starting in 2026, capped at $30,000 per launch in 2026. NOAA remote sensing licenses have no published application fee. ITU cost-recovery fees range from 570 CHF to about 116,000 CHF depending on the filing type and number of frequency assignments. Total licensing costs for a simple LEO mission typically range from $100,000 to $250,000 when including legal counsel and engineering analysis, not just filing fees.

How long does it take to get a satellite license?

Timelines vary by agency. FCC space station applications typically take 6 to 9 months for straightforward cases, though complex or contested applications may take longer. FAA launch licenses have a 180-day statutory review period, but pre-application consultation can add months to years. NOAA must decide a remote sensing license within 60 days after notifying the applicant that the application is complete (15 CFR 960.7). ITU coordination runs in parallel with domestic licensing and operates on a 7-year bringing-into-use window. Most operators should plan for 12 to 24 months from first filing to launch readiness.

Do I need a license from every agency to launch a satellite?

Most satellite missions require licenses from at least two agencies. Nearly every mission needs an FCC license for radio frequency use and an FAA license for launch. Satellites with imaging or remote sensing payloads also need a NOAA license. ITU coordination is required for international spectrum protection and is typically handled through the FCC. If your mission involves foreign partners or sharing technical data abroad, export controls (ITAR or EAR) may also apply.

What is the difference between an FCC license and an ITU filing?

An FCC license is a domestic authorization to operate a satellite and use specific radio frequencies within U.S. jurisdiction. An ITU filing is an international coordination mechanism that registers your frequency use with the global community to protect against harmful interference. The FCC handles ITU filings on behalf of U.S. operators, but they serve different purposes: the FCC license gives you permission to operate, while the ITU filing gives you international recognition and protection of your spectrum rights.

Can I launch a satellite without a license?

No. Launching a satellite from U.S. territory or by a U.S. person without proper licenses is a federal violation. The FCC can impose fines for unauthorized radio transmissions, the FAA can impose civil penalties up to $299,772 per violation for unlicensed launches, and ITAR violations carry criminal penalties up to $1 million per violation and 20 years imprisonment. Even university CubeSat projects require proper licensing.

Anthony Caracappa

Founder, Viventine Space Systems. Building Orbit Sentinel.

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