



Equatorial Ground Station

Hosting solutions for your antenna systems

About Us

Astralintu Space Technologies is a New Space startup founded in 2020. Astralintu specializes in space logistics and ground segment operations, offering in-orbit satellite missions and ground station services. Our services facilitate fast, effortless, and reliable access to space, space operations, and the use of the data collected for businesses, governments, and educational organizations. Astralintu seeks to pioneer the New Space industry in Latin America and accelerate the region's participation in the space industry.

"We are committed to establishing accessible and quality ground station services in Ecuador, taking advantage of the closeness to latitude zero."

Astralintu has participated in worldwide trade shows and is an active member of the international community through advocacy organizations like the International Astronautical Federation, UNOOSA, the Space Generation Advisory Council, and the local Sideralis Foundation. In May 2022, Astralintu co-organized the Global Conference on Space for Emerging Countries (GLEC2022) in Quito, Ecuador, alongside the International Astronautical Federation (IAF) and Sideralis Foundation.



Our Services

We offer high-quality ground station services in Ecuador, near latitude zero, to worldwide space operators.

Available Now

Hosting Services

We provide equatorial well-located land without visual interference to take full advantage of each minute in each pass. Customers can install their antennas and equipment and enjoy our customized support. Our hosting services include security, electrical energy with the backup system, broadband internet, civil work services, a data center area for hosted equipment, permanent maintenance of the complex, and on-demand technical support. We adapt to the specifications for each case — from a single antenna to an earth station, teleport, or gateway, we are ready to turn customer initiatives into a success.

Available Now

Equatorial Ground Tracking

Customers can track their missions and operate their satellites and payloads from anywhere in the world, obtaining the following benefits

- **Powerful cloud-based mission control software suite** Our mission operations platform is powered by Aurora from D-Orbit. Customers can also leverage their preferred ground station suite
- **Flexible Payment Plans** Passes and Minutes are available on-demand or as part of reserved packages at a discount. We offer monthly or yearly payment plans (fixed time)
- **Full-duplex communication system** Downlink/Uplink in VHF, UHF, and downlink in S-Band especially suited for LEO missions
- **Extensive ground network** Access our equatorial Ground Station in Quito, Ecuador, and other partner ground stations across Latin America and the Globe. If the customer owns a ground station, we can work together to include it in our network to be used with our mission operations platform by users around the globe. We offer high-quality ground station services in Ecuador, near latitude zero, to worldwide space operators

Our Services

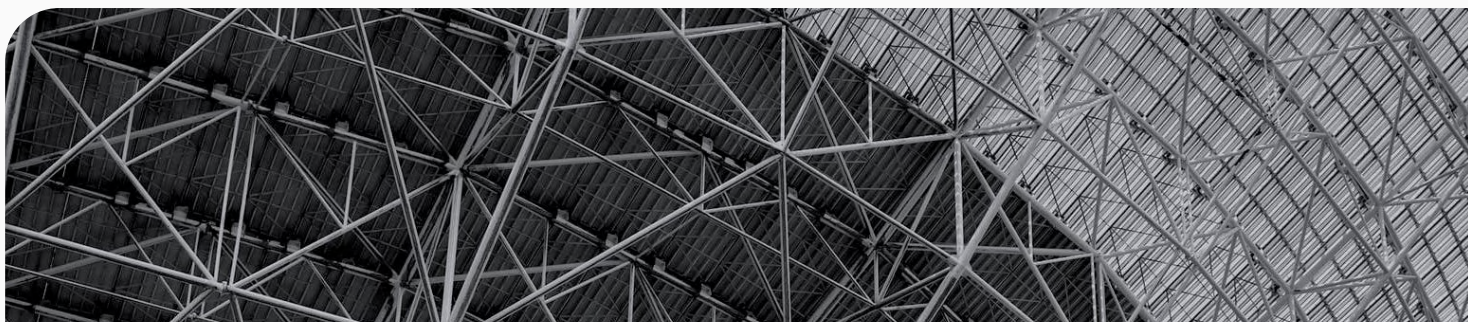
The table below describes our available services, all of which are accessible and adapted to your mission communications protocol through configurable GNU SDR settings.

Band	Direction	Frequency	Polarization/Grain
VHF	Uplink	144-148 MHz	RHC/LHC Polarization 12.64 dBi
	Downlink	144-148 MHz	RHC/LHC Polarization 12.64 dBi
UHF	Uplink	395-405 MHz	RHC/LHC Polarization 16.2 dBi
	Downlink	395-405 MHz	RHC/LHC Polarization 16.2 dBi
UHF	Downlink	2200-2300 MHz	RHC/LHC Polarization 31.34 dBi

In Development

More Antennas and Improved Infrastructure

We are working on adding new antennas and improving our infrastructure to serve missions in all Earth orbits, Cislunar, Moon Surface, and Deep Space. We are developing the capacities to manage different operations, such as LEOP, TT&C, and data transmission in general. Our first big goal for the middle of 2024 is to reach capabilities for Uplink in L-band, Uplink in S-band, X-band, and Ka-band.



Characteristics of our Equatorial Ground Station

The equatorial ground station could reach coverage in the latitude range 30°N to 30°S and longitude range 50°E to 105°E (depending on antenna systems used and the mission assigned).

Electricity

Electricity in the complex comes from the grid, which provides a good service level. The ground station will have backup systems for electricity generation.

Location

It is located on plain terrain with benign environmental conditions, without visual obstacles, making it ideal for antenna operations. The location is not in a populated area, with a history free of floods.

Customization

For hosted customers, we offer civil works services, tailored infrastructure building, and technical support on-demand. Additional data center services could be provided upon customer request.

Connection

Depending on the customers' requirements, the ground station could be connected to the entire world through four options of sub-sea fiber/cables systems: the South America-1 Cable Network (SAm-1), the South Pacific Cable System (SPSC/Mistral), the Carnival Submarine Network-1 (CSN-1), and the Pacific Caribbean Cable System (PCCS).

Temperature

The rooms for hosted equipment will have temperature and access control according to international parameters.

Security

The ground station will have a 24/7 security service and maintenance of the complex.

Why is Astralintu Equatorial Ground Station the best option?

● **Astralintu is the best partner you could have in Ecuador**

Cooperation agreements and alliances with public and private organizations in Ecuador ensure an increased technical and business advantage, as well as permanent innovation without depending on experts, resources, or capabilities outside of the Country.

● **Understanding of the customer requirements and well connected with the global space industry**

As a new space company, Astralintu understands the demanding pace of satellite operations and the competitiveness of the space sector.

● **Take advantage of an equatorial location**

Our geography allows us to reach more satellite passes with all the possible time per pass.

● **Dependable internet and electrical energy services**

Ecuadorian telecommunications and energy infrastructure is well developed and dependable.

● **National and local government support**

Our ground segment services are endorsed by the Ecuadorian government. We leverage opportunities offered by local and national administration for new investments, technological business, and telecommunications operations. These advantages include tax benefits and RF fee benefits.

● **Peaceful and safe country**

Ecuador is a country located in South America without guerrilla or terrorism threats. There aren't any potential wars near its frontiers, and it generally presents good conditions to work without interference.

● **Green Energy and Carbon Zero**

The ground station will use solar and hydroelectric energy instead of carbon or petroleum energy. Operations will minimize pollutant emissions and will apply reduce, reuse, and recycle policies. Astralintu is committed to preserving Ecuador's vibrant flora and fauna.

● **Support Emerging Countries Population**

Many rural communities in Ecuador are underserved. Astralintu's ground station will offer employment opportunities to some of these communities. Astralintu maintains a social responsibility program alongside the Sideralis Foundation to actively work towards improving health, education, and telecommunications services in rural areas.

On Our Way to 2024

In the second or third quarter of 2024, the Astralintu equatorial ground station will be 100% operational, ready to provide leased usage of antennas and infrastructure. However, hosting services will be provided from the first quarter of 2023. Some of the objectives to reach are listed following



Land with internet, electricity, and basic infrastructure for hosted customers.



New parabolic antenna systems



Software implemented to provide real-time monitoring, including detection and reporting of anomalies in failed passes, with a friendly user interface that enables customers to schedule and control satellite passes.



Access to real-time local weather data



Technology and systems integration processes emphasize reducing time and hidden costs for customers and Astralintu. Including standardized Application Programming interfaces (API) and friendly user interfaces



On-demand support to license satellites successfully in Ecuador at reduced costs and time thanks to the cooperation ties with the Ecuadorian government



High ground station infrastructure, equipment, operation, and software standards. We provide optimum Service Level Agreements (SLA) and Quality of Services (QoS).

Get in Touch

We want to learn about your
projects and requirements



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