

StratoSAT

Complete Flight Package



StratoSAT has been designed to give people the opportunity to conduct their own experiments in Near Space (50K ft to 200K ft of the upper atmosphere.) StratoSAT is a turnkey balloon flight package developed by scientists and physics professors with experience gained through many launches. StratoSAT has been used to detect cosmic rays, aerosols, test satellite components, STEM education and many other scientific applications. Typical flights are usually above 99% of the earth's atmosphere. (see picture below taken from a StratoSAT)

Overview

The telemetry (Tracking and Communication) unit and payload of StratoSAT is taken into Near Space by a high-altitude balloon filled with helium. The craft usually ascends at a rate of about 1000 to 1500 ft/min with a maximum altitude of about 100,000 ft. StratoSAT



Telemetry unit will stream data down to the ground up to 110 kbits per second (similar to high-speed internet), allowing you to see your data and track the balloon in real time. After the launch a chase team will start its journey to a predicted landing zone, calculated by software using wind speed and descent rate. The entire flight takes about 2 hours 30 minutes. StratoSAT will travel with the jet stream and depending on the time of the year and launch location, StratoSAT

could land within one mile of your launch site or 200 miles away. The use of the prediction software allows you to launch almost anywhere because it will predict where your payloads might land. This gives you the capability to move your launch location to avoid hazardous landing areas, so you are no longer blind to where your payloads will land.

StratoStar has collected everything you need to develop your own balloon program. StratoSAT is a turnkey package and has been built to be user friendly. At the same time it allows for high levels of adaptability for the more technical users with standard interface boards and command and control capability.

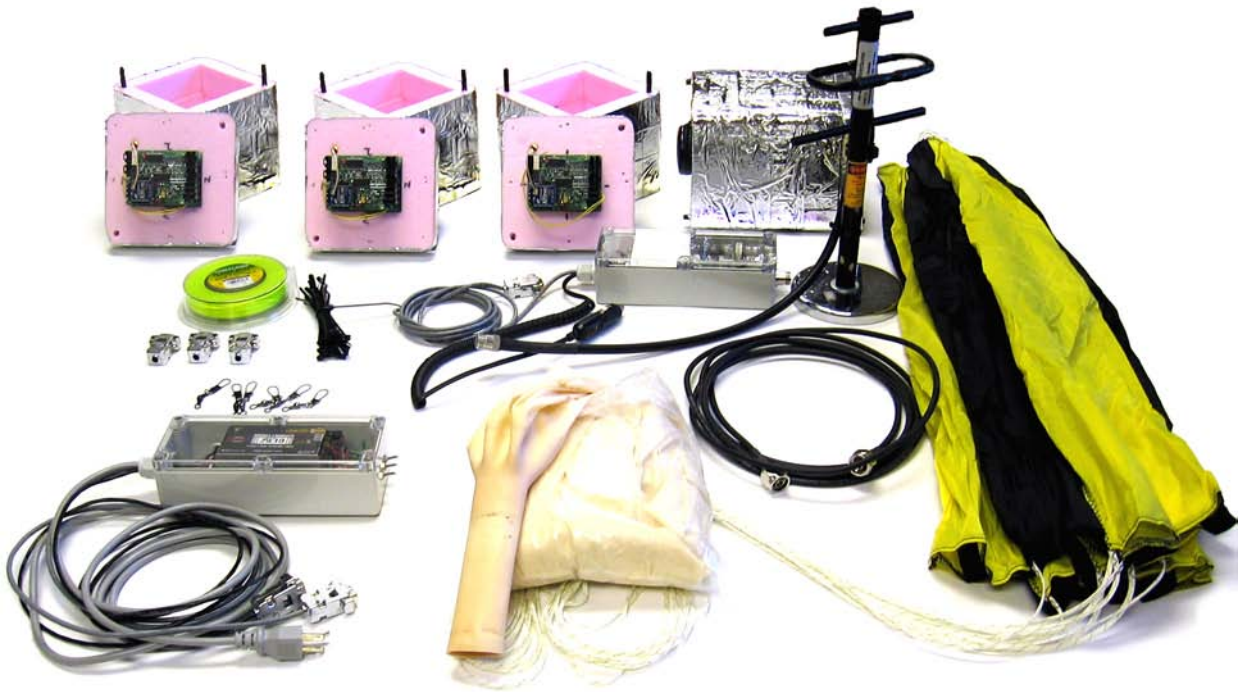
Application

The core function of StratoSAT is to take a payload into Near Space and transmit data from that payload to be recorded on the ground. StratoSAT allows you to control experiments from the ground and reliably track your balloon so you can recover your payloads.

StratoSAT is only limited by your imagination to develop applications. These applications go from simple science of testing temperature and pressure, to advanced science of detecting cosmic rays.

Features

- **Telemetry**
 - 900 MHz
 - 110 Kbits/sec
 - 1 Watt output
 - Uplink and Downlink
 - Up to ten pod payloads
- **Tracking and Data Collection**
 - Data transmitted every second
 - Real time data on ground
 - Data stored on board. (Optional)
- **One day launch training workshop**
- **Complete Turn-Key system**
 - Telemetry pod and 3 payload pods
 - Chase team package
 - Ground station package (Optional)
 - Launch hardware and Parachute
- **Standard interface board**
 - 10 analog inputs
 - Digital Inputs
 - SD memory card slot (Optional)
- **Zigbee wireless network**
 - Wireless network between pods
 - No cables needed



StratoSAT Package

Communications and Telemetry

- FreeWave Radio
- Standard Interface board
- GPS
- 4A/11V LiPoly Battery
- POD Enclosure
- Hardware
- Patch Antenna
- GPS Antena

Tracking Systems

Chase Team System

- FreeWave Radio
- 6' Serial Cable
- Clamps
- Chase team software
- Street Atlas Software

Launch Hardware

- FreeWave Radio
- Hardware
- Mag Mount Yagi Antenna 10 dB 12" (15' Cable)
- 3 PODs
- Battery Charger
- Latex Balloon
- Harness
- Parachute

Ground Station (Optional) (Not Shown)

- FreeWave Radio
- Yagi 10dB(5' Cable)
- FreeWave Enclosure
- Hardware
- Y Serial Cable
- Power Supply
- Ground Station Software

Pricing

StratoSAT Complete Flight System

Communications and Telemetry
Launch hardware

Chase team Tracking System

Training Workshop (Mandatory with 1st purchase)

StratoSAT Package Total

Ground Station (Optional)

* Training Workshop is at our facilities in Upland, IN.
On-site training available for \$2,500 per day plus expenses for 2 people to travel (Limited to 10 people).

See our Rental and Launch Services Package to take a 'Test Drive' of our system

\$7,000

\$1,000*

\$8,000

\$1,500



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