



At 9:57:24 am (PDT) on Tuesday, April 20, 2004, the Gravity Probe B spacecraft rose spectacularly off the launch pad from Vandenberg Air Force Base in south-central California. Flying through the speed of sound in less than thirty seconds, the rocket quickly shot the satellite up to fifty-five miles in the atmosphere. All systems and data checked out and within an hour, the GP-B satellite emerged from the nose cone of the rocket.

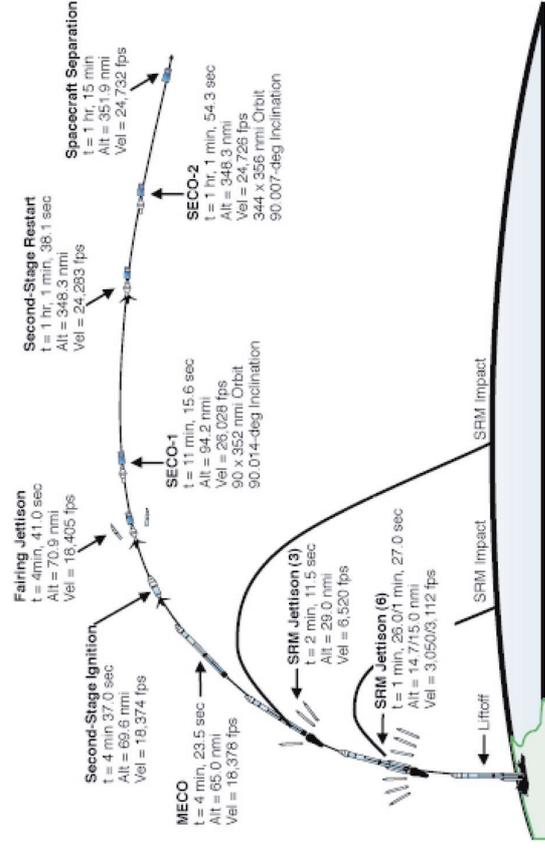
At one hour eleven minutes, the spacecraft's solar arrays deployed, and shortly thereafter, the on-board cameras treated all viewers, via NASA-TV, to the extraordinary sight of the separation of the spacecraft from the second stage rocket, with a portion of the Earth illuminated in the background. The Boeing Delta II 7920-10 rocket hit the bull's eye in placing the spacecraft in its target polar circular orbit, 400 miles (650 km) above the Earth.

To see when the satellite is visible from your location, you can track the GP-B satellite on the Web using NASA's J-Pass satellite tracking application at: <http://science.nasa.gov/realtime/JPass/>

The launch window for GP-B was only one second long each day from April 19-21, 2004. On the first day, the launch countdown reached t-3 minutes before scrubbing due to lack of information about high-altitude winds. On the second day, the launch was about four minutes earlier due to the Earth's progression around the Sun each day. The rocket was launched due south over the Pacific Ocean and towards the South Pole where it began its circular polar orbits.

The spacecraft is being controlled from the Gravity Probe B Mission Operations Center, located here at Stanford University. The Initialization & Orbit Checkout (IOC) phase of the Gravity Probe B mission lasted 120 days, after which GP-B entered the 10-month science data collection phase. This will be followed by a month-long final calibration of the science instrument assembly.

Gravity Probe B Flight Profile



ABOUT THE IMAGE

(clockwise from left)

- 1) The Delta II rocket carrying the GP-B satellite soars over the California coast.
- 2) The GP-B spacecraft just after separation with the Earth illuminated in the background.
- 3) The Delta II rocket with the NASA, GP-B, Boeing and VAFB decals at the moment of liftoff.





Gravity Probe B Launches! April 20, 2004

