A New Hope: GEDI to Yield 3D Forest Carbon Map

A comprehensive 3D map of canopy height and structure could help scientists determine how much carbon forests are storing. GEDI, NASA's new laser instrument, will reveal the three-dimensional structure of forest ecosystems around the globe.

By Photo by: NASA Goddard/Desiree Stover

NASA's new laser instrument, the Global Ecosystem Dynamics Investigation, or GEDI, has the highest resolution and densest sampling of any lidar ever put in orbit.

"We can send out a little pulse of light and it travels down, reflects off the surface, and comes back," said Bryan Blair, GEDI instrument scientist at NASA's Goddard Space Flight Center. "We can send out a little pulse of light and it travels down, reflects off the surface, and comes back."

"When looking at anything, such as a building or a tree, what you see is light reflecting off the surface. The GEDI team is replicating that function using a laser, which is also off the surface. The GEDI team is replicating that function using a laser, which is also..."

"We can send out a little pulse of light and it travels down, reflects off the surface, and comes back," Bryan Blair, GEDI instrument scientist at NASA's Goddard Space Flight Center. "We can send out a little pulse of light and it travels down, reflects off the surface, and comes back."