



1

00:00:01,000 --> 00:00:05,240

NEW INSTRUMENT WILL MAP CARBON WORLDWIDE IN 3-D

2

00:00:07,260 --> 00:00:11,780

In order to manage forests and mitigate climate change

3

00:00:12,270 --> 00:00:20,690

scientists need to understand where our carbon is being taken up and where it is already stored.

4

00:00:21,070 --> 00:00:27,340

So we are building a laser to measure trees from space.

5

00:00:29,360 --> 00:00:35,970

The Global Ecosystem Dynamics Investigation (GEDI) instrument will spend two years on the ISS

6

00:00:36,310 --> 00:00:44,830

using eight laser beams to measure every leaf, branch, tree trunk, and shrub in the ground path down on the s

7

00:00:45,390 --> 00:00:49,090

Photons in the laser pulse ricochet back to GEDI

8

00:00:49,110 --> 00:00:54,370

providing an intricate 3-D map of forest canopies

9

00:00:55,110 --> 00:01:03,230

Built by NASA and the University of Maryland, GEDI's laser can peer inside even the densest tropical forests