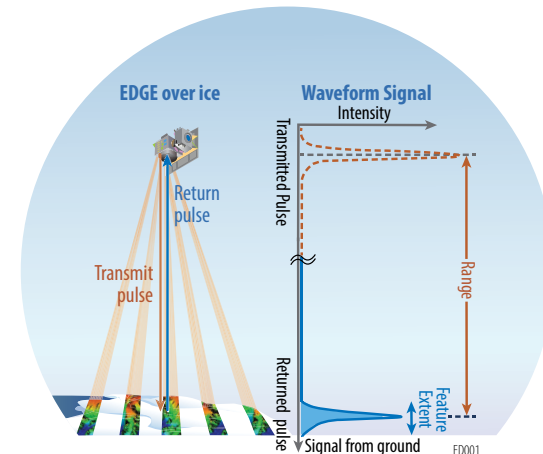
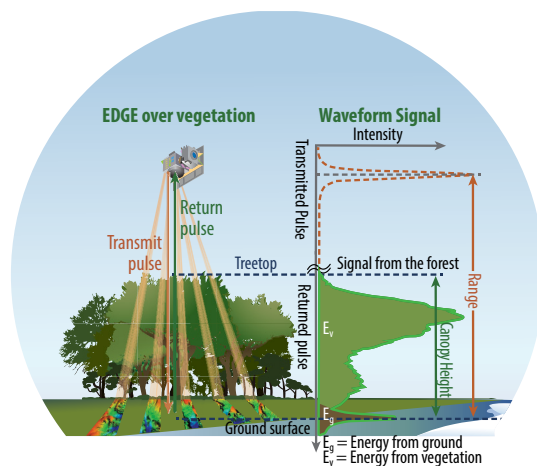
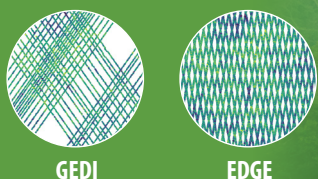


ONE MISSION TWO VITAL SIGNS OF THE EARTH

WHAT IS EDGE? The Earth Dynamics Geodetic Explorer (EDGE) is a proposed NASA Earth System Explorer mission featuring a swath-mapping laser altimeter designed for unprecedented coverage and precision, targeting critical regions of rapid change.



TERRESTRIAL ECOSYSTEM



GEDI

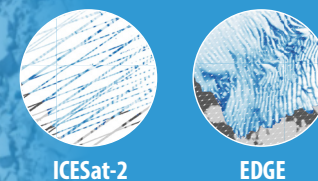
EDGE

EDGE's advanced imaging laser altimeter has five full-waveform 1064 nm infrared lasers, generating 8-beam, 120-m-wide mini-swaths for high-resolution mapping of the land surface. Covering all terrestrial ecosystems and the cryosphere from 83°N to 83°S, EDGE uses an innovative implementation of a proven measurement approach to achieve exceptional horizontal (< 3 m) and vertical (< 3 cm on low slopes) accuracy.

- **High-heritage design:** Leverages expertise from GEDI & ICESat-2, ensuring efficient, reliable and high performing design, implementation, operation, and delivery of science products.
- **Multi-purpose lidar:** Designed to meet Decadal Survey objectives for Terrestrial Ecosystem Structure (TES), Ice Elevation (IE), and partially for Snow.
- **Comprehensive Earth monitoring:** Delivers data at the scales needed to understand and better predict TES and IE changes.

- **Transformative measurement capability:** Maps 3D vegetation structure and ice topography at vastly improved vertical, spatial and temporal resolution which is essential to move from monitoring to understanding the processes driving rapid change.
- **Agile and precise targeting:** Operates on Maxar's Worldview Legion spacecraft which has advanced pointing control, allowing rapid-response observations (eg. disaster scenarios).
- **Expedited products:** Low-latency products to support urgent needs related to the increasing pace of change, such as disaster response.
- **Supports forest management and climate resilience:** Provides critical surface topography and 3D canopy structure data needed to increase the efficiency of wildland fire risk analysis, and reduce uncertainties in sea-level predictions.

CRYOSPHERE



ICESat-2

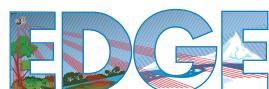
EDGE

WE INVITE YOU TO JOIN EDGE...

... in transforming Earth science into action. Your partnership is vital to this groundbreaking mission's success. Together, we can advance understanding of Earth's most vulnerable systems during this critical time. By leveraging transformative technology, EDGE delivers essential data with unparalleled precision, empowering society to adapt to environmental challenges and ensuring a sustainable future.

HOW CAN YOU GET INVOLVED?

EDGE is seeking formal collaborators who would increase the impact of the mission by applying EDGE data products for societal benefit. If you are interested in proposing such a project, get in touch with the edge.ucsd.edu/team to talk about how we can work together.



LEARN MORE: edge.ucsd.edu

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