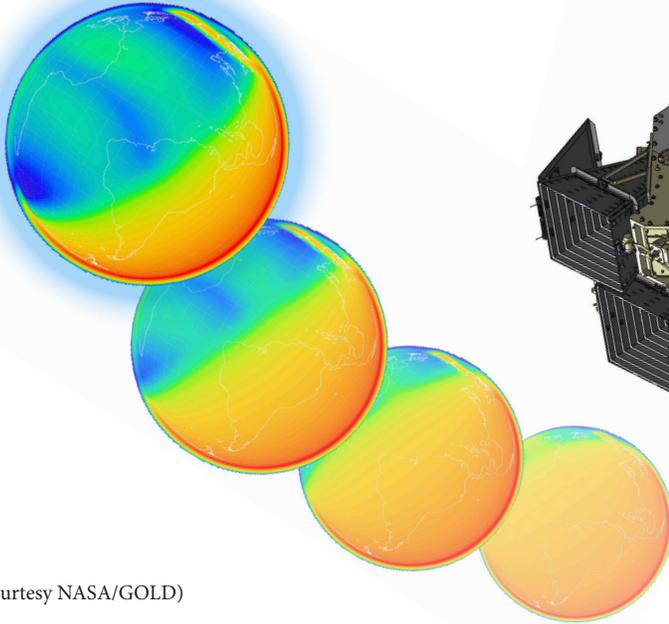
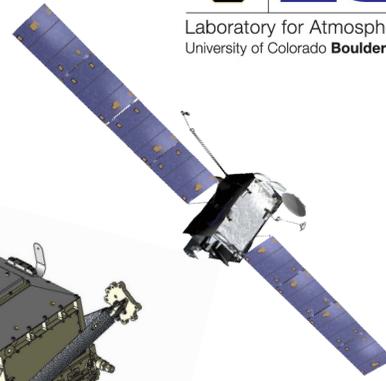
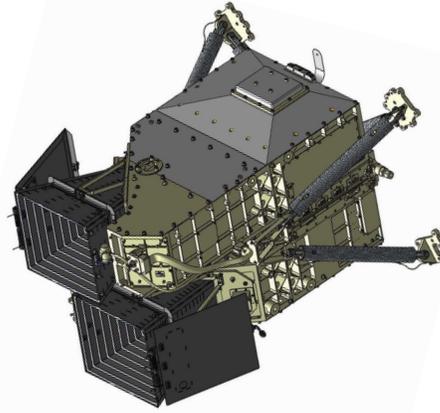


GOLD

Global-scale Observations of the Limb and Disk



(Courtesy NASA/GOLD)



The GOLD project is part of NASA's Explorer Program, designed to provide frequent, low-cost access to space for heliophysics and astrophysics missions with small to mid-sized spacecraft.

Frequently Asked Questions

What is the purpose of the GOLD mission?

The information collected by the GOLD mission will have a direct impact on understanding space weather and its impact on communication and navigation satellites, which we've come to rely on for everything from television programming to cell phone coverage and GPS in our vehicles.

What are GOLD's scientific goals?

During its flight, GOLD is determining how geomagnetic storms alter the temperature and composition of Earth's atmosphere, to analyze the global-scale response of the thermosphere to solar extreme-ultraviolet variability, to investigate the significance of atmospheric waves and tides propagating from below the temperature structure of the thermosphere and to resolve how the structure of the equatorial ionosphere influences the formation and evolution of equatorial plasma density irregularities.

What is unique about the GOLD project?

GOLD is the first mission to study the weather of the thermosphere-ionosphere rather than its climate. GOLD is also the first NASA mission to fly as a hosted payload on a commercial communications satellite (Airbus Defence and Space built SES-14), pioneering cost-effective access to geostationary orbit.

The Laboratory for Atmospheric and Space Physics (LASP) combines all aspects of space exploration through our expertise in science, engineering, mission operations, and data management. As an institute at the University of Colorado Boulder, LASP includes students throughout our activities. Learn more at <http://lasp.colorado.edu>.

Quick Facts

Launch date: January 25, 2018

Launch location: Guiana Space Center, Kourou, French Guiana

Launch vehicle: Arianespace Ariane 5 rocket

Mission target: Earth's ionosphere and thermosphere

Primary duration: 2-years; with an extended mission possible

Project description: The Global-scale Observations of the Limb and Disk (GOLD) mission will fly an ultraviolet imaging spectrograph on a geostationary satellite to measure densities and temperatures in Earth's thermosphere and ionosphere.

LASP provides:

- A high-resolution far-ultraviolet imaging spectrograph
- Project management, systems engineering, safety and mission assurance, and instrument operations for the mission
- GOLD Principal Investigator, Richard Eastes
- GOLD Deputy Principal Investigator, Bill McClintock
- GOLD Program Manager, Rory Barrett

Other organizations involved:

- University of Central Florida (UCF)
- National Center for Atmospheric Research (NCAR)
- National Oceanic and Atmospheric Administration (NOAA)
- University of California at Berkeley
- SES Government Solutions (SES)
- Computational Physics, Inc.

To read more about the GOLD mission, visit:

<http://lasp.colorado.edu/home/missions-projects/quick-facts-gold>.