

## Fast Facts

Landsat 9 animations/stills: <https://svs.gsfc.nasa.gov/13259>

Images of Landsat 9 spacecraft at VSFB: <https://images.nasa.gov/> (search “Landsat 9”)

Landsat mission video features: <https://svs.gsfc.nasa.gov/Gallery/Landsat.html>

Landsat 9 Interactive primer: [www.nasa.gov/Landsat9](http://www.nasa.gov/Landsat9)

Landsat images of Earth: <https://landsat.visibleearth.nasa.gov>

**Launch Date:** No earlier than Sept. 27, 2021

**Launch Location:** Vandenberg Space Force Base, California

**Launch Vehicle:** United Launch Alliance Atlas V 401 rocket

**Orbital Altitude:** 438 miles (705 kilometers)

**Spacecraft speed:** 16,760 mph (26,972 kph), or 4.6 miles per second (7.5 kilometers per second)

**Orbit Duration:** 99 minutes

**Orbits per Day:** ~14

**Images per Day:** 700+

**Coverage of Earth:** Images land and coastal regions every 16 days. (Together, Landsat 8 and Landsat 9 provide 8-day coverage.)

### SPACECRAFT

**Size:** 15 feet (4.6 meters) tall, 10 feet (3 meters) deep, 10 feet (3 meters) long. Once in orbit, a deployable 32-foot (9.8-meter) solar panel and 4-foot (1.2-meter) Earth shield add to length.

**Mass:** 5,975 pounds (2,710 kilograms)

**Mission Design Life:** 5 years, with fuel for at least 10 years.

**Instruments:** Operational Land Imager 2 (OLI-2), Thermal Infrared Sensor 2 (TIRS-2)

### SCIENCE

**Landsat scenes in USGS archives:** More than 9 million. (One scene covers approx. 118 by 112 miles, or 190 by 180 kilometers.)

**Cost per scene:** Free and available to the public at [usgs.gov/landsat](https://usgs.gov/landsat)

**Landsat 9 spectral bands:** 11 total. OLI-2 measures four visible, one near-infrared, three shortwave-infrared, and one panchromatic band. TIRS-2 measures two thermal bands.

**Landsat pixel size:** 49 feet (15 meters) square for OLI-2 panchromatic band; 98 ft (30 m) square for other OLI-2 bands on OLI-2; 328 ft (100 m) for TIRS-2 thermal bands.



### PARTNERS

**Mission Management and Operations:** NASA’s Goddard Space Flight Center manages the development of Landsat 9 through its launch and post-launch checkout. The USGS Earth Resources Observation and Science Center operates the satellite ground system and manages the data archive.

**Spacecraft Provider and Observatory Integration:** Northrop Grumman

**OLI-2 Provider:** Ball Aerospace

**TIRS-2 Provider:** NASA’s Goddard Space Flight Center

For more information:

[www.nasa.gov/landsat9](http://www.nasa.gov/landsat9), [www.nasa.gov/landsat](http://www.nasa.gov/landsat), [landsat.gsfc.nasa.gov](https://landsat.gsfc.nasa.gov), or [usgs.gov/landsat](https://usgs.gov/landsat)