



NOAA's Geostationary Operational Environmental Satellites (GOES) orbit the Earth about 22,300 miles above the equator, at speeds equal to the planet's rotation.

The GOES West and GOES East satellites each monitor the Earth from different positions, and together keep watch over the Western Hemisphere. The images on this card are views from GOES West and GOES East respectively.



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NOAA's geostationary (GEO) satellites orbit the Earth about 22,300 miles above the equator, at speeds equal to the planet's rotation.

NOAA's low earth orbiting (LEO) satellites follow a polar orbit roughly 500 miles up, circling the Earth to provide full global coverage twice a day.

Together, these environmental satellites help us monitor our environment and gain a better understanding of weather patterns and climate change.



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NOAA satellites don't just monitor the Earth, but some also monitor the sun and space weather—conditions resulting from solar activity—that can potentially affect Earth, our atmosphere, and the near-Earth space environment.

NOAA's latest series of Geostationary Operational Environmental Satellites (GOES-R) as well as the Deep Space Climate Observatory (DSCOVR) satellite help us study the sun and space weather.



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NOAA's latest series of Geostationary Operational Environmental Satellites (GOES-R) are equipped with a Geostationary Lightning Mapper (GLM) instrument.

This instrument enables early predictions of intensifying storms and severe weather events while reducing false alarms, including weather events that could affect aviation safety.



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