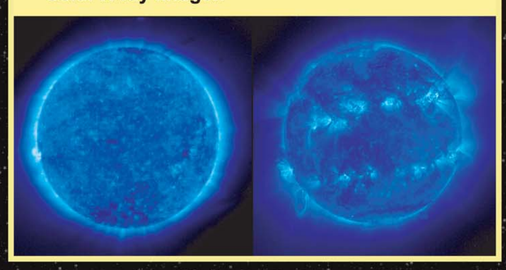
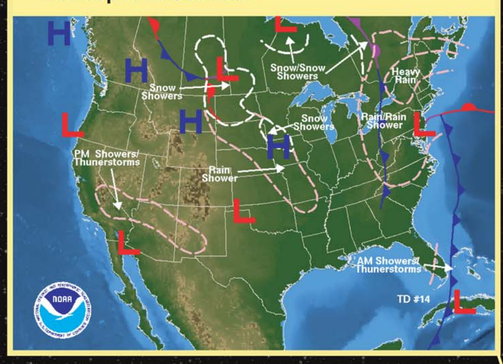
Warning of solar flares and geomagnetic storms from GOES' and POES' Space Environment Monitor data.

Early detection of solar flares using GOES' Solar X-ray Imager.



Short-term weather forecasting using GOES' Atmospheric Sounder.

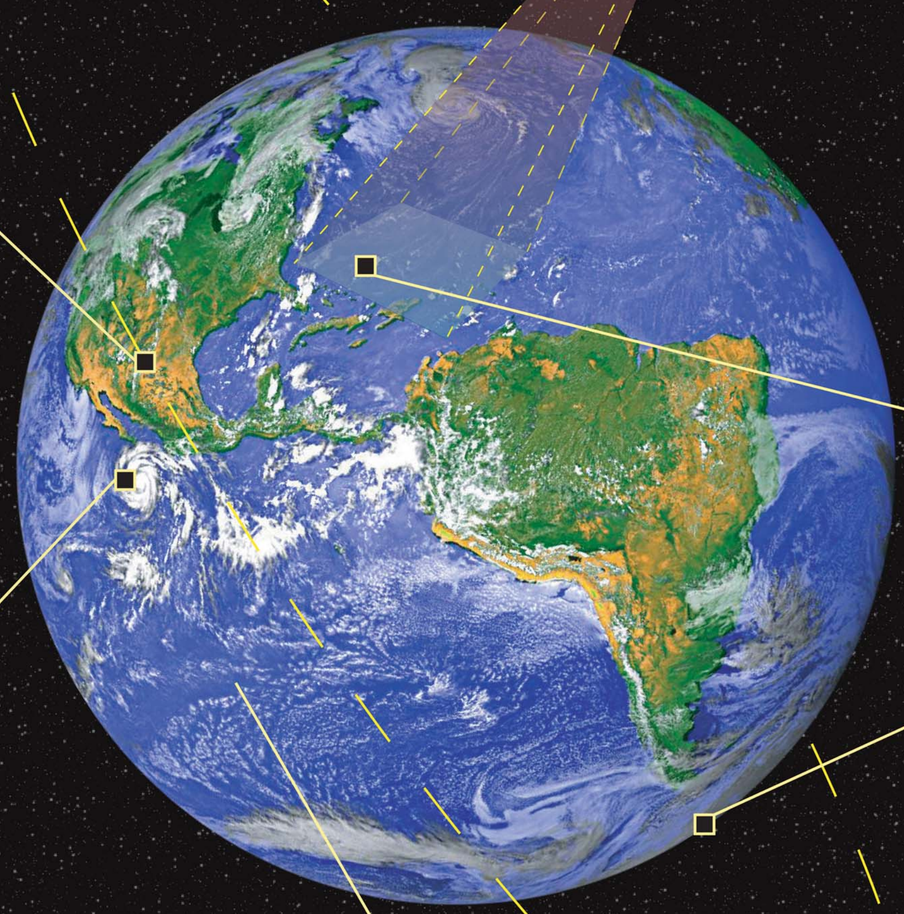


POES

Polar-orbiting Operational Environmental Satellite
(polar orbits 830-870 km)

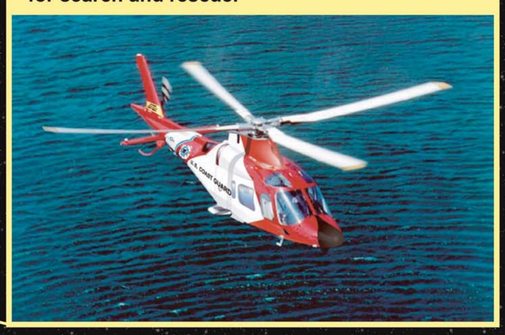
GOES

Geostationary Operational Environmental Satellite
(geostationary orbits 35,000 km)

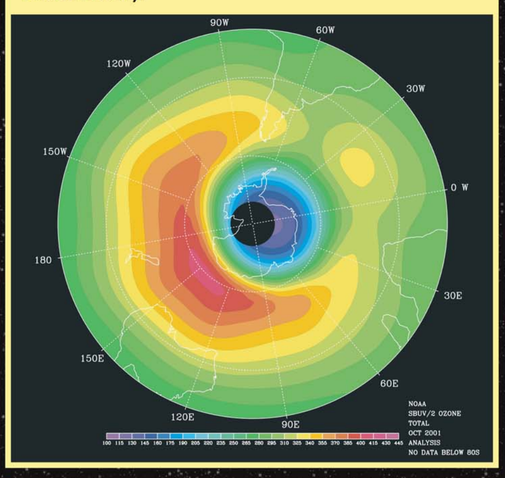


This May 2000 Los Alamos, New Mexico, wild fire, along with its downwind plume of smoke, show clearly in this image made using visible and infrared data from the AVHRR (Advanced Very High Resolution Radiometer) instrument on a POES.

Relaying of distress signals to ground stations for search and rescue.

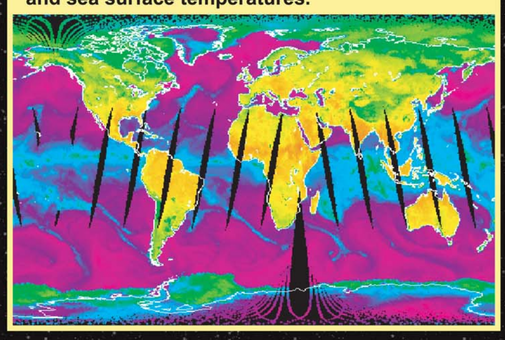


Tracking of the ozone hole over Antarctica using POES' SBUV/2 (Solar Backscatter Ultraviolet Radiometer).



Short-term weather forecasting using GOES' imager data.

Medium to long-term weather forecasting and climate studies using POES' AMSU (Advanced Microwave Sounding Unit) data such as maps of clouds, land-water boundaries, snow and ice, and sea surface temperatures.



The GOES and POES are complementary satellite systems. They all carry suites of instruments for meteorology and environmental studies. The GOES provide short-range warning and "now-casting," while the POES provide data for longer term forecasting. The GOES and POES provide many other types of data, as this poster shows.

NASA builds, NOAA funds and operates GOES and POES for the benefit of all.

National Aeronautics and Space Administration

National Oceanic and Atmospheric Administration

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