







NOAA's National Environmental Satellite, Data, and Information Service (NESDIS) provides secure and timely access to global environmental data and information from satellites and other sources. This vital work—spanning from the bottom of the sea to the surface of the sun—helps promote and protect the nation's security, environment, economy, and quality of life.

As the Nation's authoritative environmental intelligence agency, NOAA's mission is to understand and predict changes in climate, weather, ocean, and coasts, to share that knowledge and information with others, and to conserve and manage coastal and marine ecosystems and resources.





NOAA's Joint Polar Satellite System (JPSS) provides global observations that serve as the backbone of the Nation's short- and long-term weather forecasts. Orbiting approximately 500 miles above Earth, these satellites follow a low Earth polar orbit, passing over the poles 14 times a day and providing a full view of the planet twice daily. Equipped with the Visible Infrared Imaging Radiometer Suite (VIIRS), JPSS satellites collect detailed visible and infrared imagery, as well as global observations of Earth's land, atmosphere, oceans, and cryosphere.

NOAA's satellite ground system oversees satellite operations by commanding the spacecraft, processing data, and delivering it to users. It also manages the Search and Rescue Satellite Aided Tracking (SARSAT) system, which detects emergency beacon signals via satellite, processes distress alerts, and sends them to mission control centers. These then reach U.S. Coast Guard and Air Force rescue coordination centers. Together, NOAA's satellites and ground system provide critical environmental data and support lifesaving operations.



