

GEOS: Forecasting conditions to support crewed spaceflight returns...



NASA relies on **Goddard Earth Observing System (GEOS)** forecast data to ensure safe and precise Entry, Descent, and Landing (EDL) simulations

Atmospheric conditions, such as wind speeds, turbulence, and temperature variations, throughout the atmosphere significantly impact a spacecraft's return to Earth



By integrating these GEOS forecasts into mission operations, NASA ensures safer and more reliable landings for astronauts returning from space



Accurate landing predictions

Enhanced crew safety

Adaptive mission planning

Informed decision-making