

Proof That the Earth is Not Flat

AI-Generated Analysis

April 2, 2025

1. Hypothesis Formulation

- **Alternative Hypothesis (H):** The Earth is a nearly spherical object (geoid).
- **Null Hypothesis (H):** The Earth is flat.
- **Negative Hypothesis (H):** The Earth is an ellipsoid or other shape, inconsistent with a flat Earth.

2. Empirical Evidence Collection

Satellite Imagery and Remote Sensing

- Satellite images consistently show the Earth as round from various angles (e.g., NASA's *Blue Marble*).
- GPS systems rely on satellite orbits, demonstrating the curved Earth.

Physics: Gravity and Centripetal Force

The gravitational force is consistent with a spherical Earth model, and the force on a flat Earth would distort the planet and atmosphere.

Navigation and Flight Paths

Flight paths rely on spherical geometry, particularly the great circle route, which is optimal for long-distance travel on a globe.

3. Counterfactual Analysis

Predictions if Earth Were Flat

- The horizon would not drop as one ascends.
- Day and night cycles would not match observed patterns.

Predictions if Earth is Spherical

- Observable curvature and horizon drop as altitude increases.
- Day and night cycles align with Earth's rotation.

4. Logical and Experimental Verification

Eratosthenes' experiment, gravity effects, and astronomical observations verify Earth's spherical shape. Experiments like the lunar eclipse show a round shadow on the Moon.

5. Conclusion

The evidence overwhelmingly supports the Earth being an oblate spheroid, not flat. This conclusion aligns with centuries of scientific research, observations, and experimental data.