


MEASURING THE EARTH



THE SCIENCE OF GEODESY

SPACE WEATHER Satellite and ground networks critical to geodesy can be negatively impacted by space weather, and can also measure it. Our Sun, the main source of space weather, emits charged particles that interact with Earth's upper atmosphere. This can produce strong electromagnetic fields that interfere with power lines and radio transmissions, or produce beautiful aurora. As with water vapor, changes in the ionosphere can be measured by its effects on the signals from GPS satellites to ground-based receivers. Monitoring space weather activity allows us to take early action to protect infrastructure.

Photo: Aurora Borealis seen from Mount Washington, New Hampshire by Mount Washington Observatory



a monthly series on the how and why of geodesy