

# PRABHA IAS IPS COACHING ACADEMY



## **SOUTH ATLANTIC ANOMALY**

The South Atlantic Anomaly (SAA) is actively splitting into two distinct zones, adding a new layer of complexity for satellites in low Earth orbit.

The SAA is a weak spot in Earth's magnetic field located above the South Atlantic Ocean, stretching between South America and southern Africa.

**Magnetic Weakness:** Reduced magnetic intensity in this region allows high-energy charged particles from space to penetrate closer to Earth.

**Radiation Exposure:** Satellites passing through the SAA experience increased radiation levels, leading to a higher risk of system glitches and hardware damage.

**Scientific Monitoring:** Missions like the European Space Agency's Swarm are continuously tracking changes in Earth's magnetic field and the anomaly's evolution.

SAA is called the "Bermuda Triangle of Space" due to its reputation for causing satellite anomalies.