

## **OCM-3 Radiometric Performance Monitoring over Radiometric Calibration Network (RadCalNet)**

This daily report assesses the radiometric stability and accuracy of the Ocean Color Monitor-3 (OCM-3) onboard Oceansat-3 (EOS-06), crucial for reliable Earth Observation (EO) data.

### **Methodology:**

- Extract OCM-3 TOA Radiance over RadCalNet Site (3x3 pixels) and remove any cloudy pixels.
- Utilize Radiometric Calibration Network's (RadCalNet) Bottom of Atmosphere (BOA) reflectance data and simulate Top-of-Atmosphere (TOA) radiance using the latest 6SV-2.1 radiative transfer model with in-situ atmospheric parameters.
- Compares simulated and OCM-3 measured TOA radiance.
- Calculates daily gain numbers for OCM-3 all 13 spectral bands.
- Displays in-situ atmospheric parameters.

### **Key Report Components:**

- Daily Gain Numbers: Tables and visualizations for all OCM-3 band.
- Atmospheric Parameters: Current conditions at RadCalNet Sites.
- Comparative Analysis: Charts of measured vs. simulated TOA radiance.
- Temporal Stability Tracking: Daily trend monitoring.

### **Significance:**

- Timely detection of sensor performance deviations.
- Ensures OCM-3 data reliability and accuracy.
- Provides sensor performance transparency.