

Topics (T)
Interactive Presentations (IP)

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CLIMATE CHANGE, A PRESSING NEED FOR GLOBAL MONITORING – EDC CONSTELLATION

Abstract

Climate change according to the majority of the collected data shows that this is due to the increase in greenhouse gas emissions produced by human activities. Climate change is already having a significant impact on our biosphere depending on the region. It can, for example, cause biodiversity loss, wildfires, a decrease in crop yields and increased temperatures. It can also affect people's health. Heatwaves, for example, can cost human lives in urban clusters.

These are all great challenges that our biosphere is facing that are also necessitating high-cadence, scientific-quality satellite and AI-derived monitoring, change detection alerting, and predictive analytics, at scale. EarthDaily Constellation (EDC) is designed to address and deliver the data set for these challenges. EDC is helping to turn out the Earth Observation technologies into something that is usable by public and private users to get better and more informed decisions. EDC is bringing a new paradigm shift in continuous global monitoring by introducing the world's first super-spectral satellite system with daily coverage optimized for AI/ML applications to provide baseline data for the whole planet. The twenty-two (22) spectral bands covering critical wavelengths for analytics: Visible-NIR, SWIR MWIR-Thermal stably looking always at Nadir at a consistent look angle, geometry, and calibration are producing ARD derivatives that are ready for direct-to-algorithm enterprise-grade AI/ML applications with no humans in the loop. Natively acquired at 5m Ground Sample Distance (GSD) with products up to 3.5m pixels size without compromising the 240km swath.

The EarthDaily EDC is unfolding a global monitoring system with unprecedented change detection accuracy for land cover and land-use, littoral complexes, multi-faceted environmental events, and cases ever changing and blended, with highly accurate radiometry, geolocation and clouds masks which substantially reduce uncertainly and associate false positives.