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WILDFIRE DETECTION AND MAPPING FROM SPACE AND EARTH USING FUEGO AND FIREBALL

Abstract

We present a new approach to fighting wildfires using FUEGO (Fire Urgency Estimator in Geosynchronous Orbit) and Fireball machine learning software for automated image analysis. FUEGO instrumentation has been designed to provide the most effective solution to detecting even small wildfires across large areas on Earth, with Fireball providing rapid and accurate detection and mapping of wildfires using advanced machine learning techniques. Fireball software also works with sensors located on fire towers, aircraft or drones, providing complementary remote sensing of fires for maximum effectiveness. Fireball software is now being deployed in the USA and FUEGO is expected to be launched into orbit within five years.