



A Global Landslide Nowcasting System using Remotely Sensed Information

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A global Landslide Hazard Assessment model for Situational Awareness (LHASA) has been developed that combines susceptibility information with satellite-based precipitation to provide an indication of potential landslide activity at the global scale every 30 minutes. This model utilizes a 1-km global susceptibility map derived from information on slope, geology, road networks, fault zones, and forest loss. A multi-satellite dataset from the Global Precipitation Measurement (GPM) mission is used to identify the current and antecedent rainfall conditions from the past 7 days. When both rainfall and susceptibility are high, a “nowcast” is issued to indicate areas where a landslide may be likely. The global LHASA model is currently being run in near real-time every 30 minutes and the outputs are available in several different formats at <https://pmm.nasa.gov/precip-apps>. This talk outlines the LHASA system, discusses the performance metrics and potential applications of the LHASA system.