mohammad.iranmanesh@constellr.com





Space assets supporting the Disaster Risk Management Cycle

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constellr offers land surface temperature at unprecedented quality

constellr LST



- ✓ 30 m native resolution in thermal infrared (from 2024)
 ✓ 5 m native resolution in visual and near infrared
 ✓ Daily revisit time(from 2026)
 ✓ Global coverage
- ✓ Better 0.1 K temperature

sensitivity

Temperature at high-resolution and high frequency: LST The state-of the art LST data fusion product available today



Getting ready for our launch in 2024



How do we measure Land Surface Temperature (LST) from space? Space Segment

Imaging capacity of up to 1.000.000km² per satellite per day

Data delivery within 12 hours from recording

> High accuracy: error <1.5K

High temporal resolution: Global coverage and daily revisit time

> High spatial nativ resolution (GSD): 30m thermal, 5m visible & near-infrared

Cryo-cooled detector for highest image quality

High precision thermal – infrared (TIR) camera with very high **temperature sensitivity:** 0.07K at 295K

Use cases

Delivering value across industries



ACCURATE SATELLITE LST ENABLING ANTICIPATORY ACTION IN DISASTER RISK MANAGEMENT SYSTEMS



If the pixels are brown, it's already too late

Temperature data in action

Thermal infrared images







images

Visual

Detecting fine scale features Showcasing forestry applications



Capturing highly dynamic ecosystem processes

Showcasing coastal applications



visual

Urban Heat Island localization and quantification

Early warning system and quantification of mitigation measures





LST for disaster risk management

Objective quantification



Time series and prediction





Contact

Mohammad Irnanmanesh

Project Manager mohammad.iranmanesh@constellr.com

