

Evaluation of Commercial Satellite Data Products for Cloud Remote Sensing

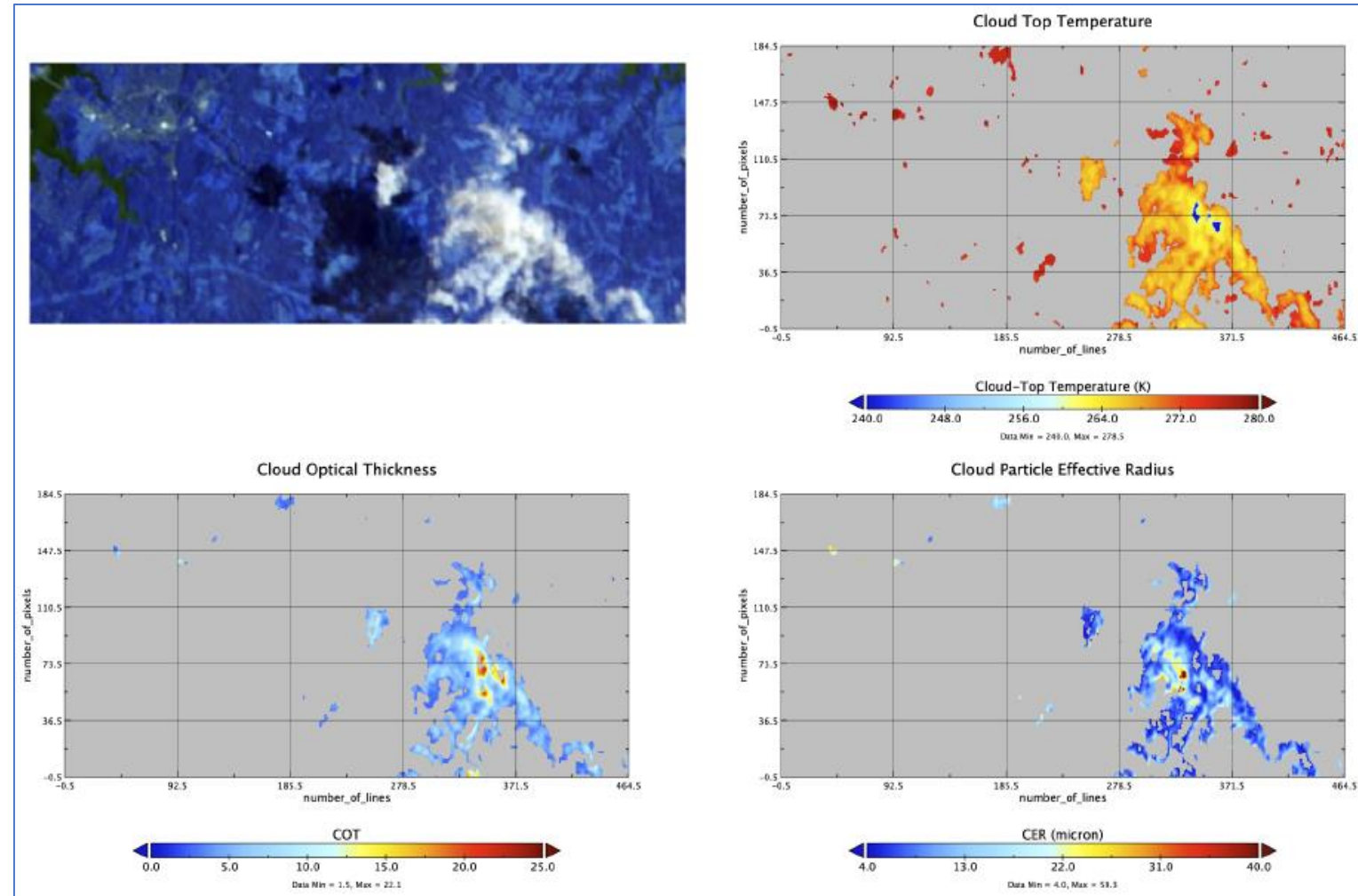
Kerry Meyer, Goddard Space Flight Center

Purpose: Refinement of algorithms for the characterization of clouds, and continued development of global cloud data products

Study Objective: Assess the usefulness of commercial imagery for cloud property retrievals that are consistent with existing NASA cloud datasets

Imagery: WorldView-3 (CAVIS instrument)

Findings: Data from the CAVIS instrument is of sufficient quality to provide MODIS-like cloud property retrievals, including estimates of cloud-top altitude, cloud optical thickness, effective radius, and other derived quantities (e.g., cloud water path). Its use will enable synergistic research involving aerosols and clouds. The user support and documentation was found to be inadequate. We understand that that NASA researchers were among the first to use CAVIS data.



Initial demonstration of cloud property retrievals for a CAVIS scene observed on 13 February 2019. Clockwise from top left: False-color RGB; cloud-top temperature; cloud effective radius; cloud optical thickness.