

## **Cloud Detection: Optical Depth Thresholds and FOV Considerations**

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New satellite instruments, such as MODIS, GLI and AIRS, provide new capabilities in cloud detection. This poster addresses the impact of cloud optical depth on cloud detection using passive remote sensing instruments on a satellite or high-altitude aircraft platform.

What is a cloud? The answer to that question is determined by the application. What is considered a cloud in some applications may be defined as clear in other applications. For example, detection of thin cirrus clouds is important for applications of infrared remote sensing of sea surface temperature, but of little concern for microwave remote sounding of atmospheric temperature. The MODIS and GLI cloud masks were designed to support various applications, but the optical depth limit of detection has not been defined. This paper compares MODIS and MAS cloud detection retrievals with lidar observations to estimate the optical depth limit of detection for these passive instruments.

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