Data Product Maturity

Because validation for different parameters can require different levels of effort, and because the uncertainties inherent in some retrievals can be substantially larger than in others, the maturity levels of the parameters reported in the different data products files are not uniform. Therefore, within this document, maturity levels are provided separately for each scientific data set (SDS) included with the data files. The data product maturity levels for the CALIPSO layer products are defined in the table below. This section supports data products version 3.xx and older.

Beta: Early release products for users to gain familiarity with data formats and parameters. **Users are strongly cautioned against the indiscriminate use of these data products as the basis for research findings, journal publications, and/or presentations.**

Provisional: Limited comparisons with independent sources have been made and obvious artifacts fixed.

Validated Stage 1: Uncertainties are estimated from independent measurements at selected locations and times.

Validated Stage 2: Uncertainties are estimated from more widely distributed independent measurements.

Validated Stage 3: Uncertainties are estimated from independent measurements representing global conditions.

External: Data are not CALIPSO measurements, but instead are either obtained from external sources (e.g., the Global Modeling and Assimilation Office (GMAO)) or fixed constants in the CALIPSO retrieval algorithm (e.g., the 532 nm calibration altitude).

CALIPSO Version 4 Data Production Strategies

Standard: Highest quality data; ancillary data is spatially and temporally matched to the CALIPSO measurements, thus guaranteeing the best possible calibration and most reliable level 2 retrievals.

Standard_V3V4: Blended production strategy using version 3 and version 4 standard data products as input. Currently only applicable to the Lidar Level 1.5 product.