

# Precipitation - GPCP Monthly

maturity level as of 10/26/2016

## Climate Data Record (CDR) Maturity Matrix

| Maturity | Software Readiness  | Metadata  | Documentation  | Product Validation   | Public Access   | Utility   |
|----------|---|---|--|--|---|---|
| 1        | Conceptual development  | Little or none  | Draft Climate Algorithm Theoretical Basis Document (C-ATBD); paper on algorithm submitted  | Little or None   | Restricted to a select few  | Little or none  |
| 2        | Significant code changes expected   | Research grade  | C-ATBD Version 1+ ; paper on algorithm reviewed  | Minimal  | Limited data availability to develop familiarity  | Limited or ongoing  |
| 3        | Moderate code changes expected  | Research grade; Meets int'l standards: ISO or FGDC for collection; netCDF for file  | Public C-ATBD; Peer-reviewed publication on algorithm  | Uncertainty estimated for select locations/times   | Data and source code archived and available; caveats required for use.  | Assessments have demonstrated positive value.   |
| 4        | Some code changes expected  | Exists at file and collection level. Stable. Allows provenance tracking and reproducibility of dataset. Meets international standards for dataset                       | Public C-ATBD; Draft Operational Algorithm Description (OAD); Peer-reviewed publication on algorithm; paper on product submitted | Uncertainty estimated over widely distributed times/location by multiple investigators; Differences understood.  | Data and source code archived and publicly available; uncertainty estimates provided; Known issues public                 | May be used in applications; assessments demonstrating positive value.                            |
| 5        | Minimal code changes expected; Stable, portable and reproducible                        | Complete at file and collection level. Stable. Allows provenance tracking and reproducibility of dataset. Meets international standards for dataset                     | Public C-ATBD, Review version of OAD, Peer-reviewed publications on algorithm and product  | Consistent uncertainties estimated over most environmental conditions by multiple investigators  | Record is archived and publicly available with associated uncertainty estimate; Known issues public. Periodically updated | May be used in applications by other investigators; assessments demonstrating positive value      |
| 6        | No code changes expected; Stable and reproducible; portable and operationally efficient | Updated and complete at file and collection level. Stable. Allows provenance tracking and reproducibility of dataset. Meets current international standards for dataset | Public C-ATBD and OAD; Multiple peer-reviewed publications on algorithm and product  | Observation strategy designed to reveal systematic errors through independent cross-checks, open inspection, and continuous interrogation; quantified errors | Record is publicly available from Long-Term archive; Regularly updated  | Used in published applications; may be used by industry; assessments demonstrating positive value |

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|-------|----------|
| 1 & 2 | Research |
| 3 & 4 | IOC      |
| 5 & 6 | FOC      |

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