

SUPPLEMENT MATERIALS

NASA data products: Terminology

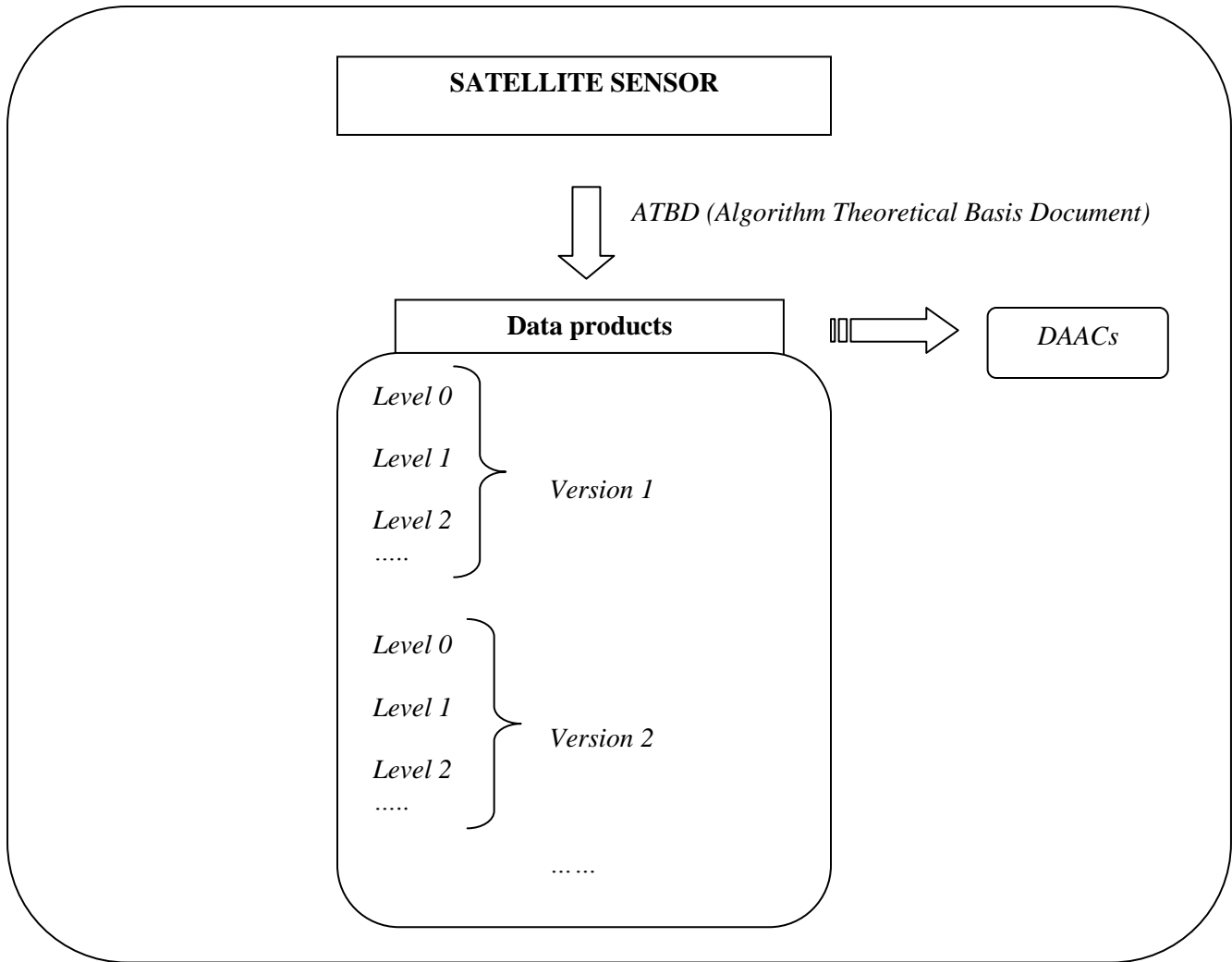


Figure 1. Schematics of organization of NASA data products.

KEY EOSDIS DATA PRODUCT TERMINOLOGY:

Standard data products. Data products that are generated as part of a research investigation using EOS data, are of wide research utility, are routinely generated, and in general are produced for spatially and/or temporally extensive subsets of the data are to be considered standard data products. All EOS instruments must have standard Level 1 data products, and most will have standard Level 2, etc. data products. Some EOS interdisciplinary Science Investigations will also generate standard data products. The retrieval of each standard data product is described in the *Algorithm Theoretical Basis Document (ATBD)*. ATBD is a document that provides background, description of the retrieval algorithms (including the underlying theory and modeling results) of each product (or several products) for all satellite sensors. ATBDs are developed before the satellite instrument is launched, and are improved during the lifetime of the instrument.

Special data products. Data products that are generated as part of a research investigation using EOS data and that are produced for a limited region or time period, or products that are not accepted as standard by NASA Headquarters, are referred to as special data products. Special data products will normally be generated at investigator SCFs. Special products may be reclassified later as standard products upon review and approval by NASA Headquarters; in which case, the algorithms and processing will be placed under the standard products.

Level Definitions:

- Level 0--Reconstructed unprocessed instrument/payload data at full resolution; any and all communications artifacts (e.g., synchronization frames, communications headers) removed
- Level 1A--Reconstructed unprocessed instrument data at full resolution, time-referenced, and annotated with ancillary information, including radiometric and geometric calibration coefficients and georeferencing parameters (i.e., platform ephemeris) computed and appended, but not applied, to the Level 0 data
- Level 1B--Level 1A data that have been processed to sensor units (not all instruments will have a Level 1B equivalent)
- Level 2--Derived geophysical variables at the same resolution and location as the Level 1 source data
- Level 3--Variables mapped on uniform spate-time grid scales, usually with some completeness and consistency
- Level 4--Model output or results from analyses of lower level data (i.e., variables derived from multiple measurements).

Version Definitions:

Version (or collection) is referred to different derivations of standard data products. Reprocessing of satellite data is required for various reasons, including improvements/changes in ATBDs, instrument related issues, etc. In general, the latest version of standard products is believed to be the most accurate.