MMS Data Products - Definitions

Definitions:

Data Level	Brief Description	Nominal Delivery Schedule
Raw	Raw telemetry data as received at the ground receiving station	
L0	Binary CCSDS packets (as produced by the corresponding instrument; unpacked metadata	Survey: Within 30 minutes of telemetry arriving at the SOC. Burst: TBS timeframe that will support the creation of L1 products within 24 hours of telemetry arriving at the SOC.
L1A	Extracted telemetry items; no calibrations or corrections applied; B and Vsc to all investigations	Survey (for SITL support): within 60 minutes of Survey telemetry arriving at the SOC. Burst: within 24 hours of all expected telemetry for a burst segment arriving at the SOC.
L1B	Extracted telemetry data to which instrument-level provisional calibrations have been applied; simple moments, spectral indices	Survey (for SITL support): within 60 minutes of Survey telemetry arriving at the SOC. Burst: within 24 hours of all expected telemetry for a burst segment arriving at the SOC.
QL	Scientific data products that are generated using simplified science processing algorithms, e.g. with provisional calibrations.	Survey: within 60 minutes of Survey telemetry arriving at the SOC. Burst: Quicklook products are not planned for Burst data.
L2pre	“Instrument-level” research-grade data product, best calibrations to shorter-term delivery date. Quality is sufficient for designated intra-instrument L2 products to be processed. Mag data in BCS coord and MAG coord only.	Within two weeks of AFG and DFG telemetry arriving at the SOC. Note that this is an internal MMS product and not expected to be released to the general research community.
L2	“Instrument-level” research-grade scientific data products, definitive products Currently, only GSE coord is required; more can be added by individual teams.	Available to the general research community within 35 days of telemetry downlink. To support this timeline, instrument teams deliver L2 files to the SOC within 30 days of L0 data being available at the SOC.
L3	“Spacecraft- and Mission-level” [research-grade] products; resampled spatially and/or temporally and combined with measurements from other MMS instruments to produce a merged data set. ALL "mission-level" L3 products are provided only for designated events (i.e., the mission success events aka Sweet Sixteen).	1) Following the point in time when the PI or his designate identifies an event period as one on which the instrument teams should focus, the associated Level-3 data from all sources will be made available to the broader scientific communities at the time determined by the PI or his designate for the scientific evaluation of that event, or within 60 days, whichever period is shorter. 2) If the individual instrument teams generate L3 data for their own purposes, that data must be made available to the broader communities within TBR days of the time of its generation, even if it was not generated for a specific call made by the PI or his designate. 3) The instrument teams will work to produce a larger overall collection of public L3 data over time as feasible within available resources and other priorities.

Note: Survey-based Quicklook and Level-1 products are planned to be used for SITL analysis. FPI is planning to produce a SITL-specific product