

RPW Consortium #25

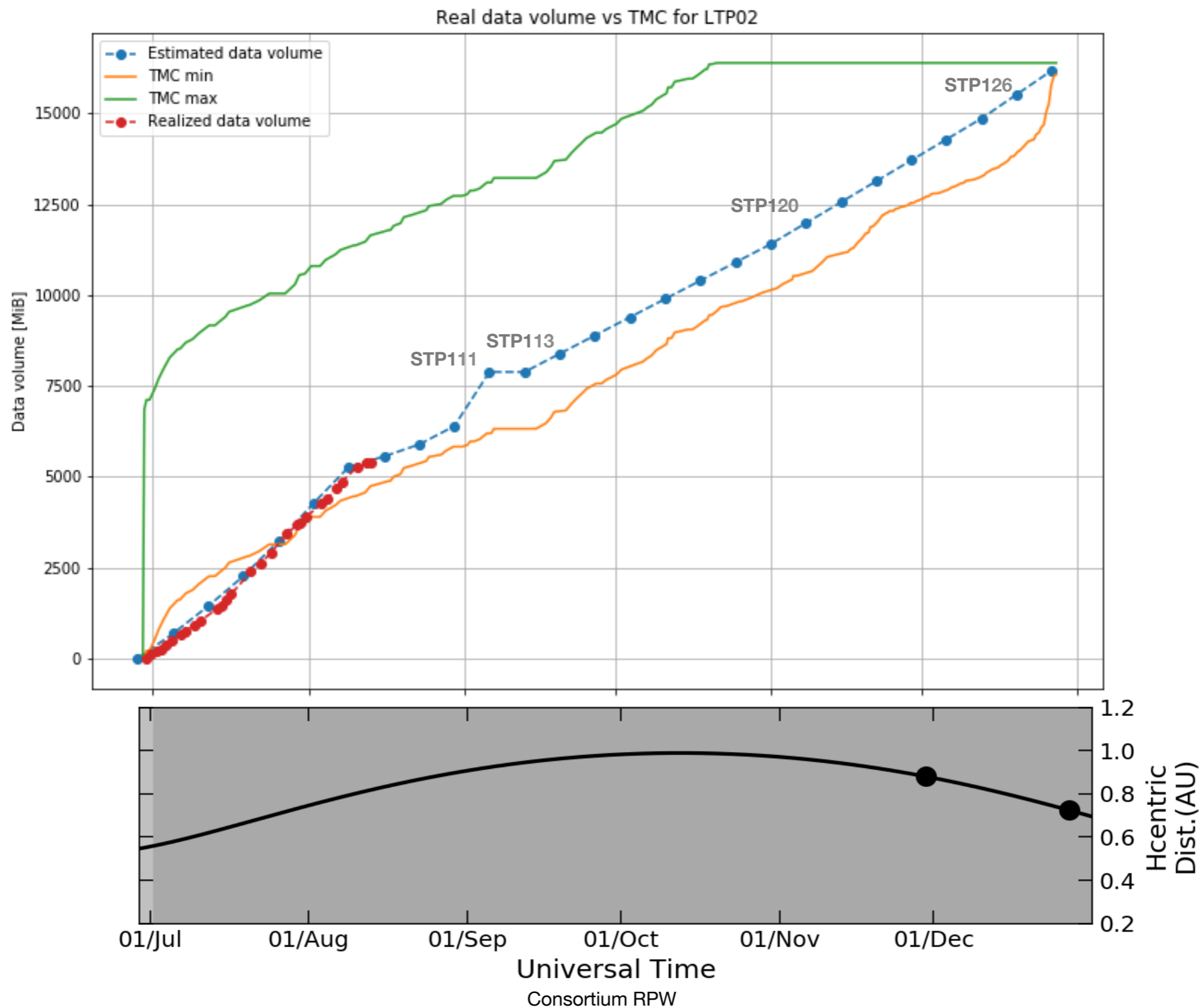
Operations : LTP02 overview (July-Dec 2020)



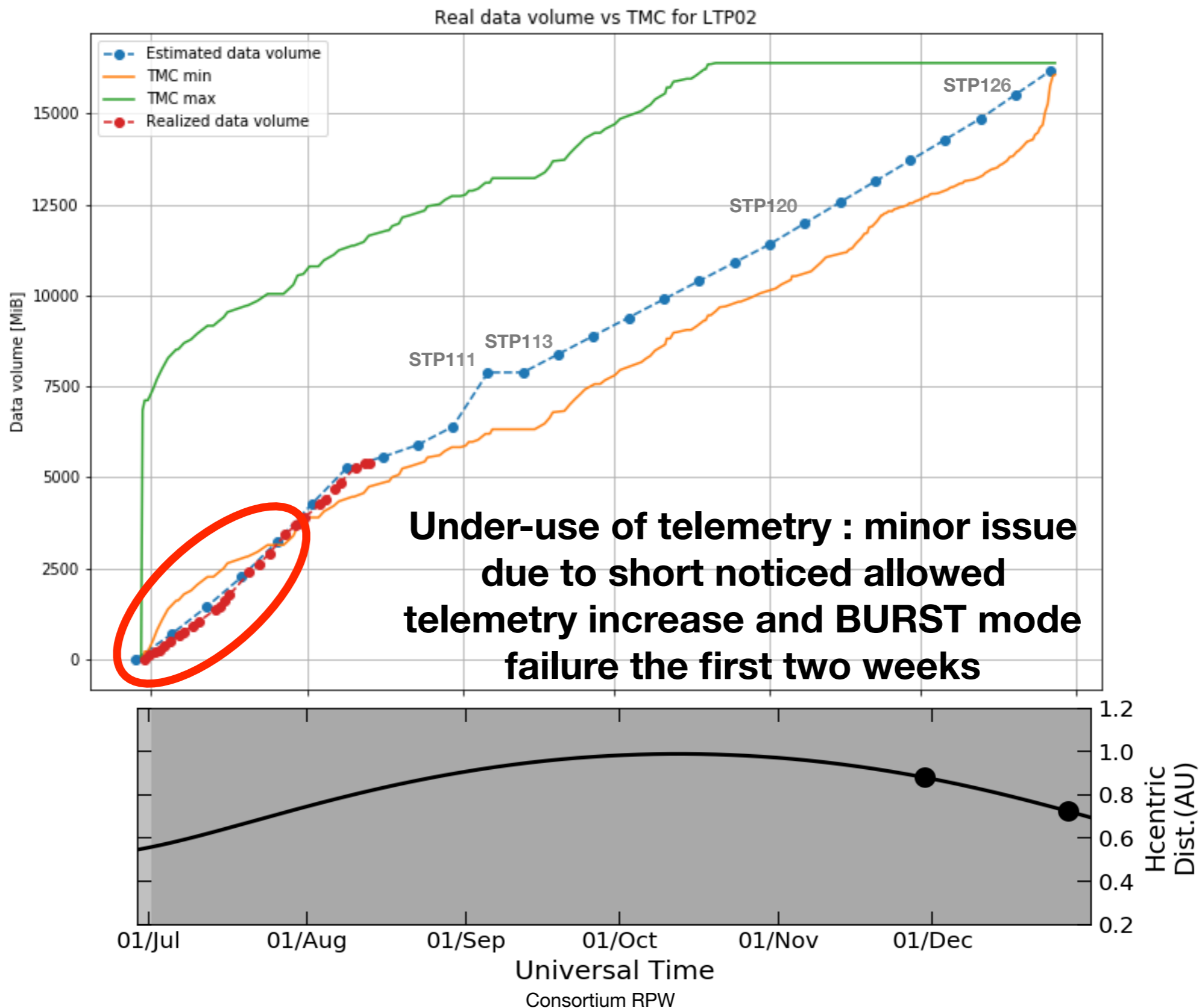
solar orbiter



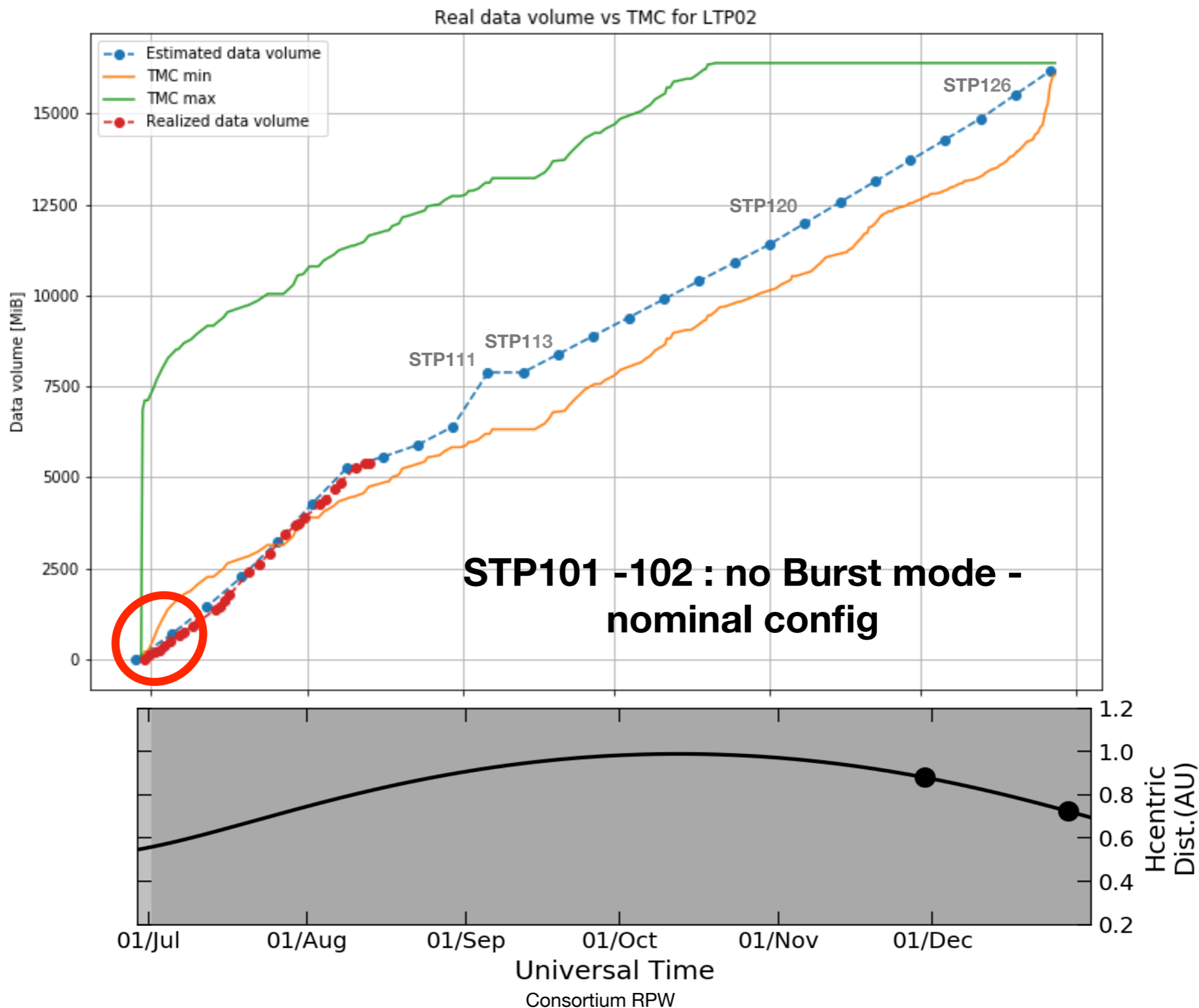
Telemetry overview : July - Dec 2020



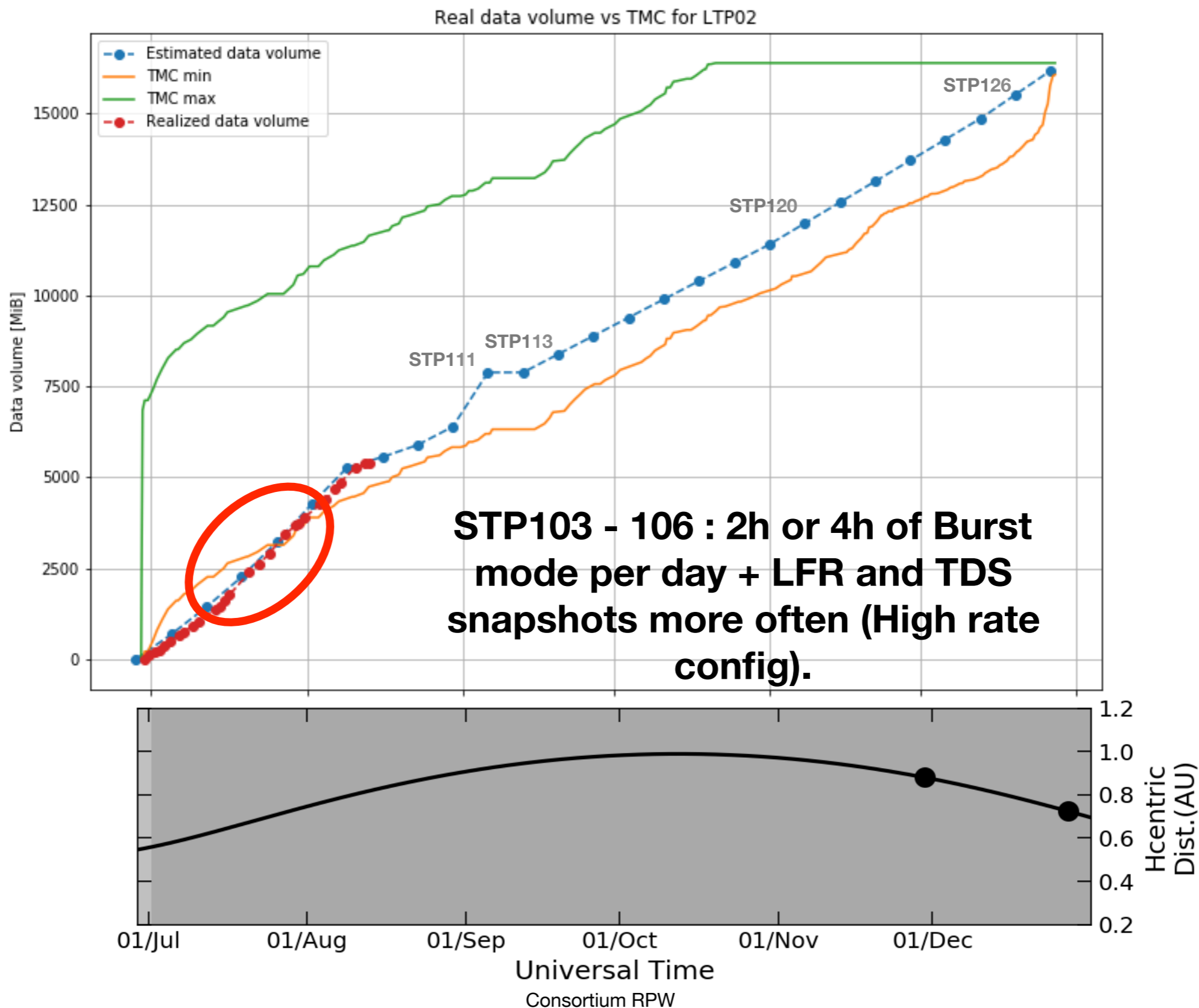
Telemetry overview : July - Dec 2020



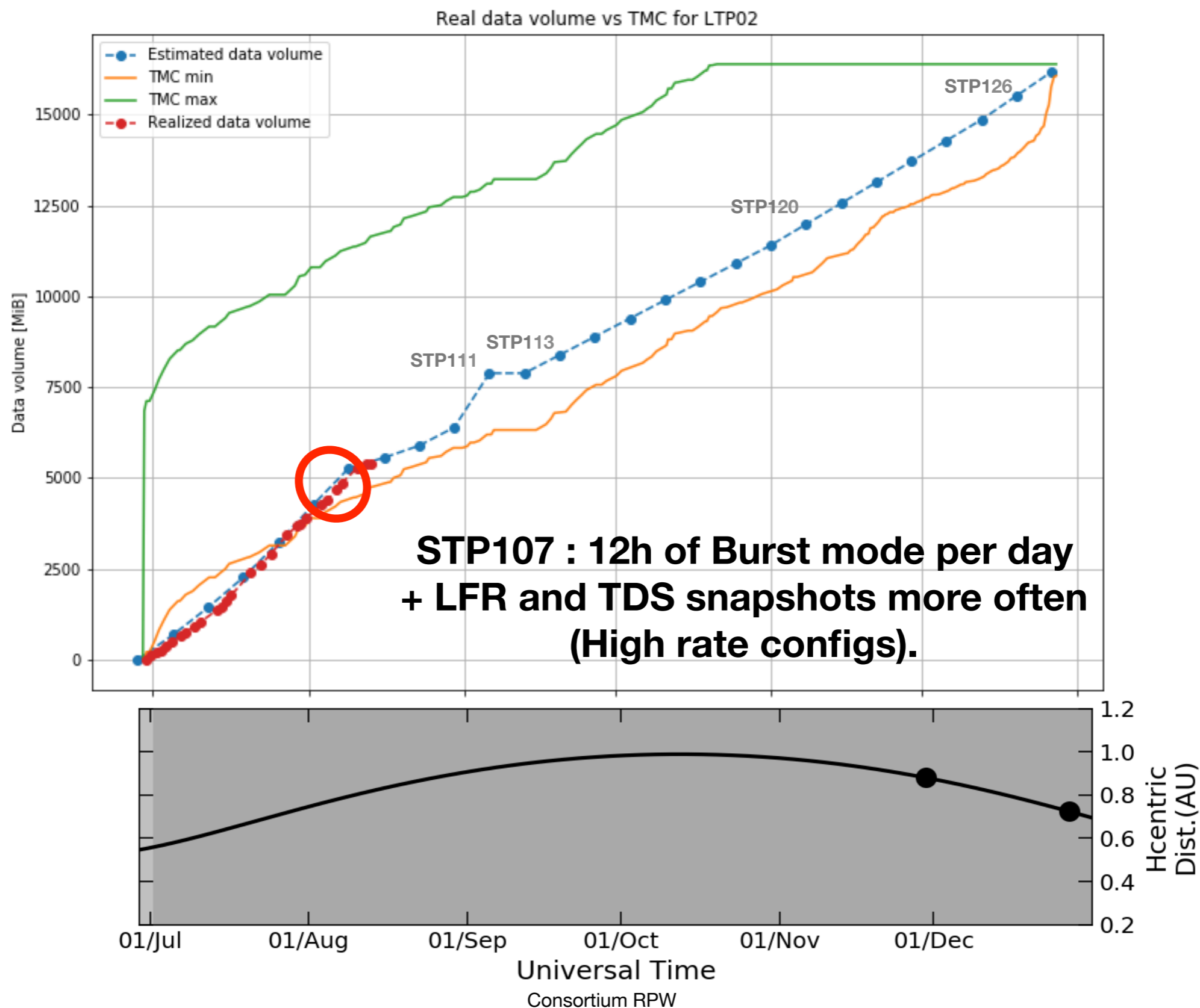
Telemetry overview : July - Dec 2020



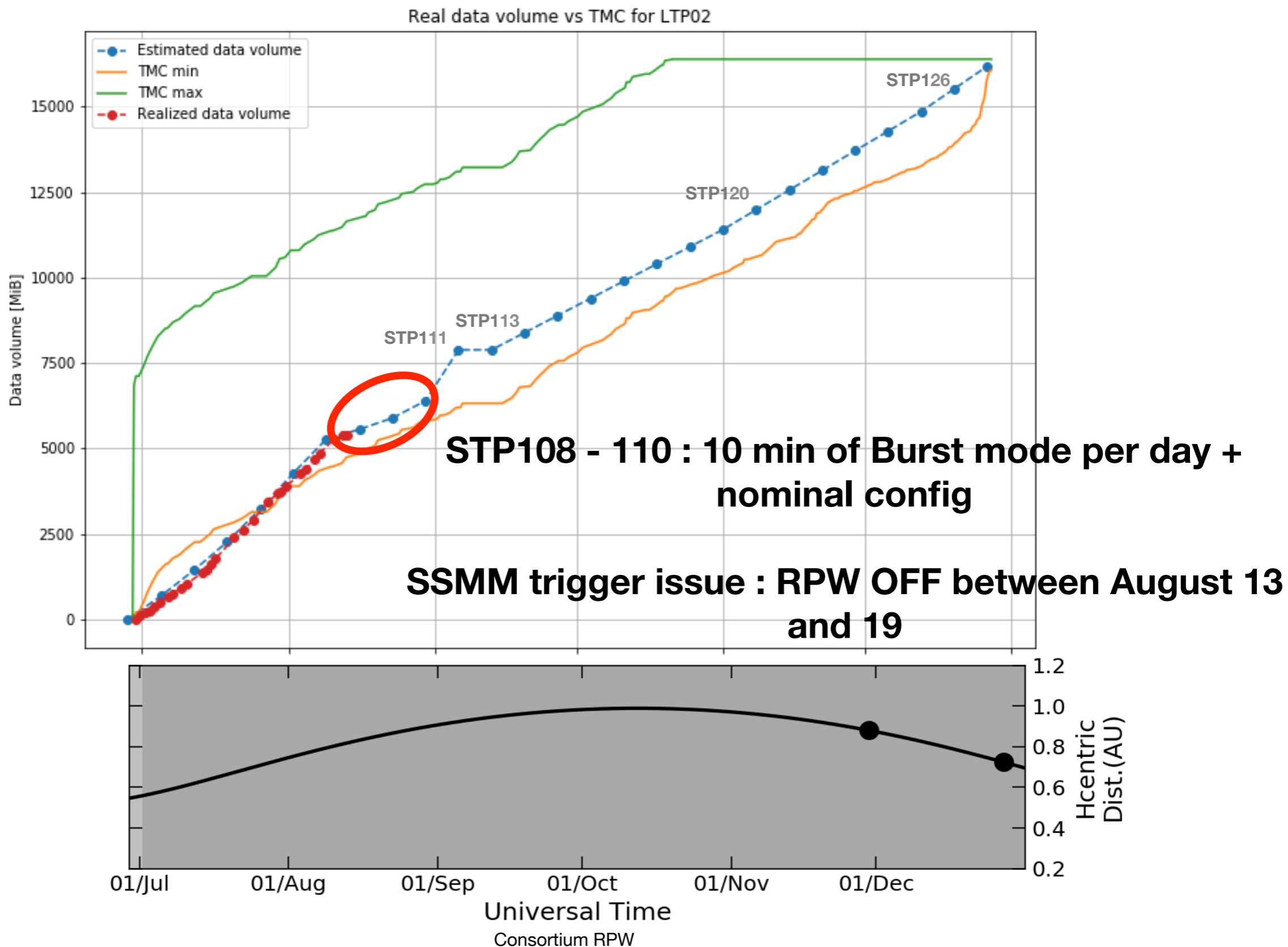
Telemetry overview : July - Dec 2020



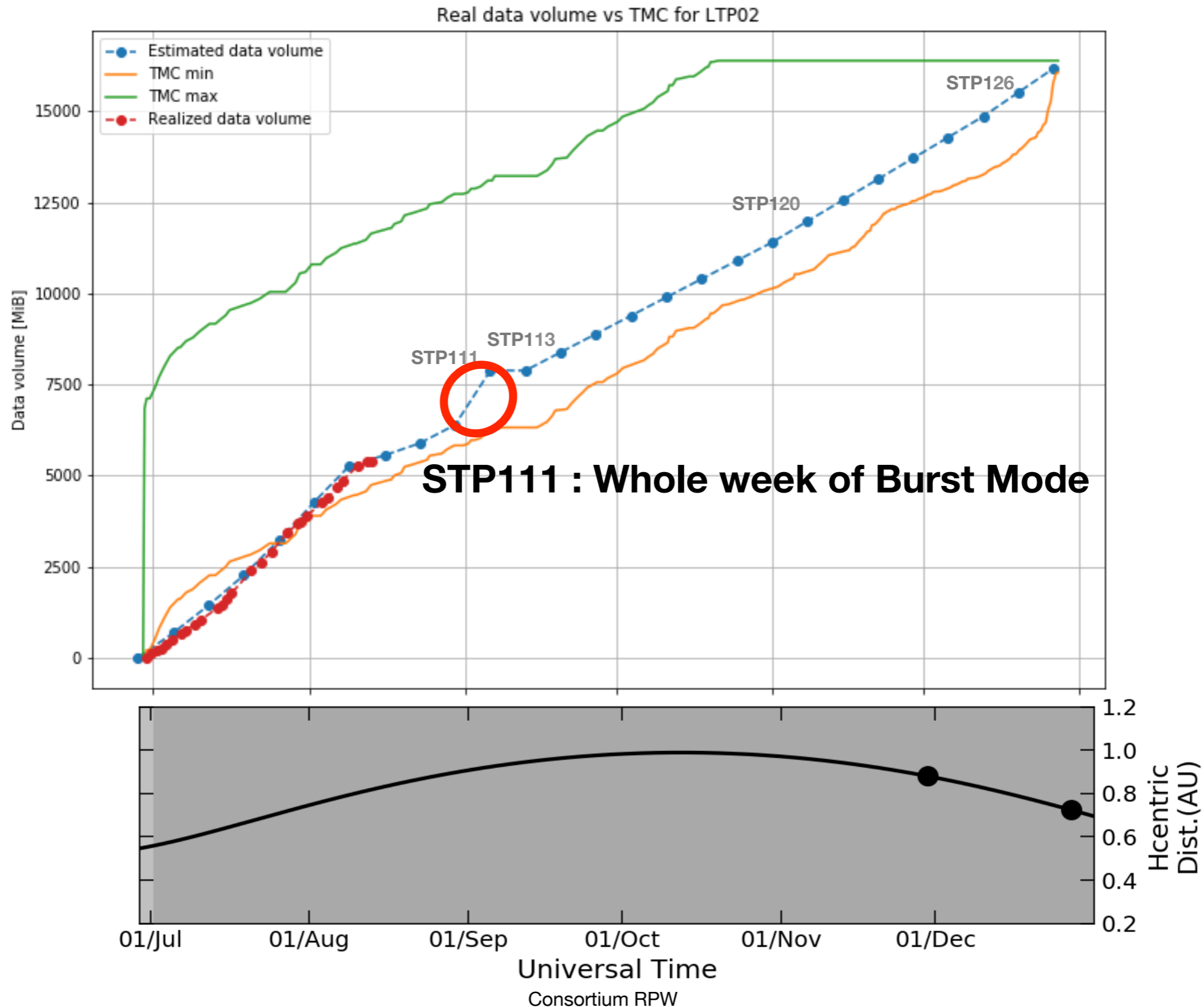
Telemetry overview : July - Dec 2020



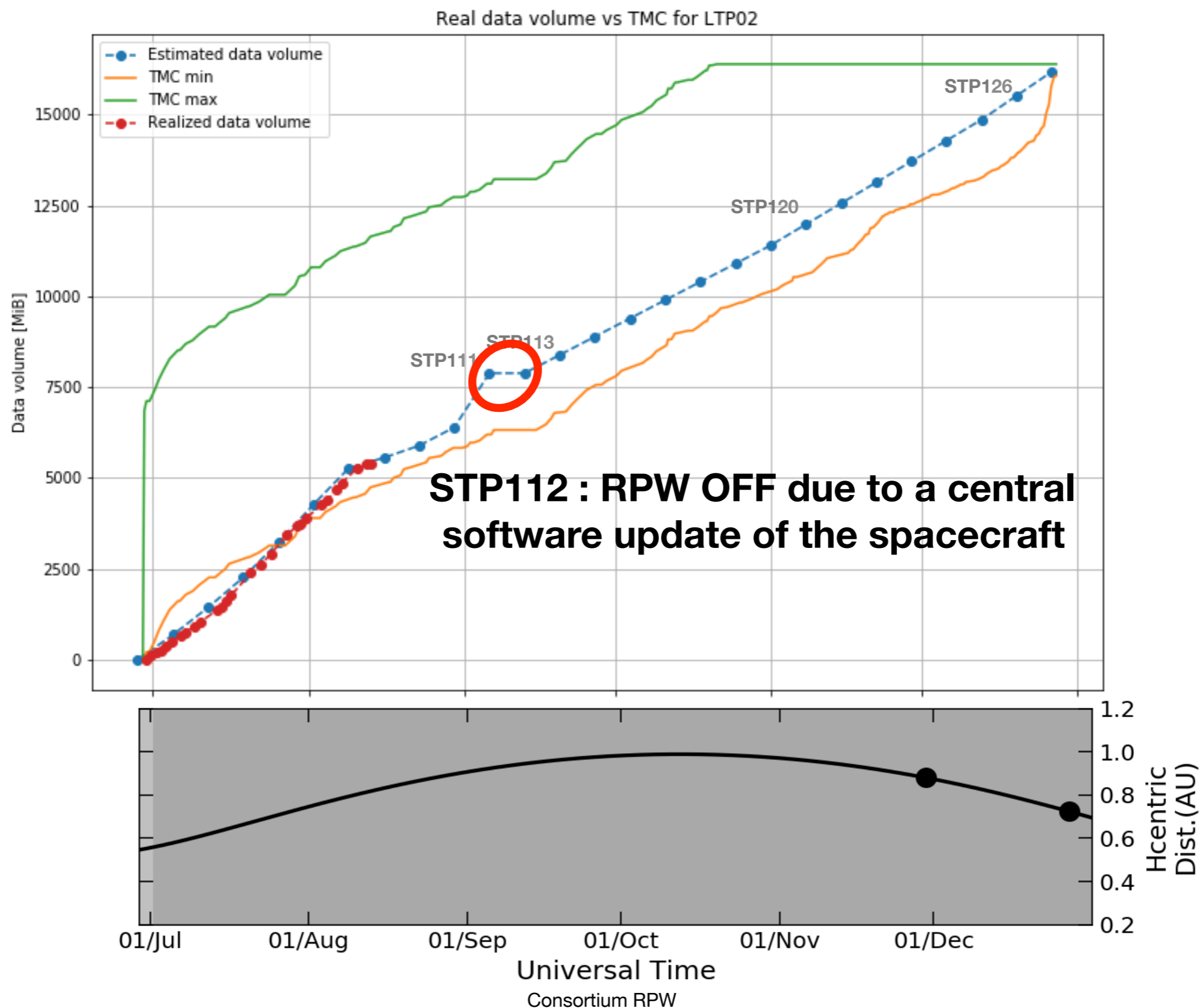
Telemetry overview : July - Dec 2020



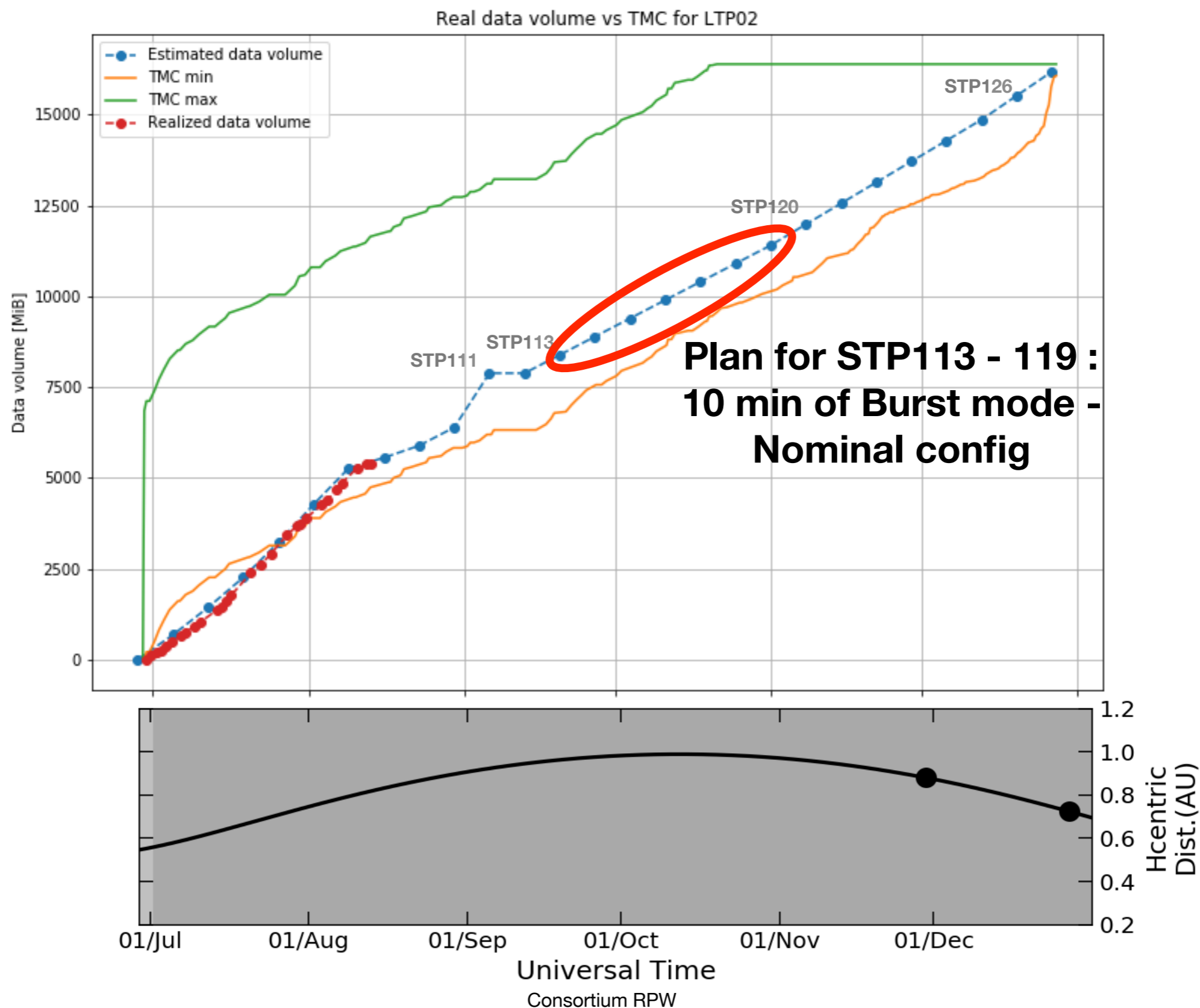
Telemetry overview : July - Dec 2020



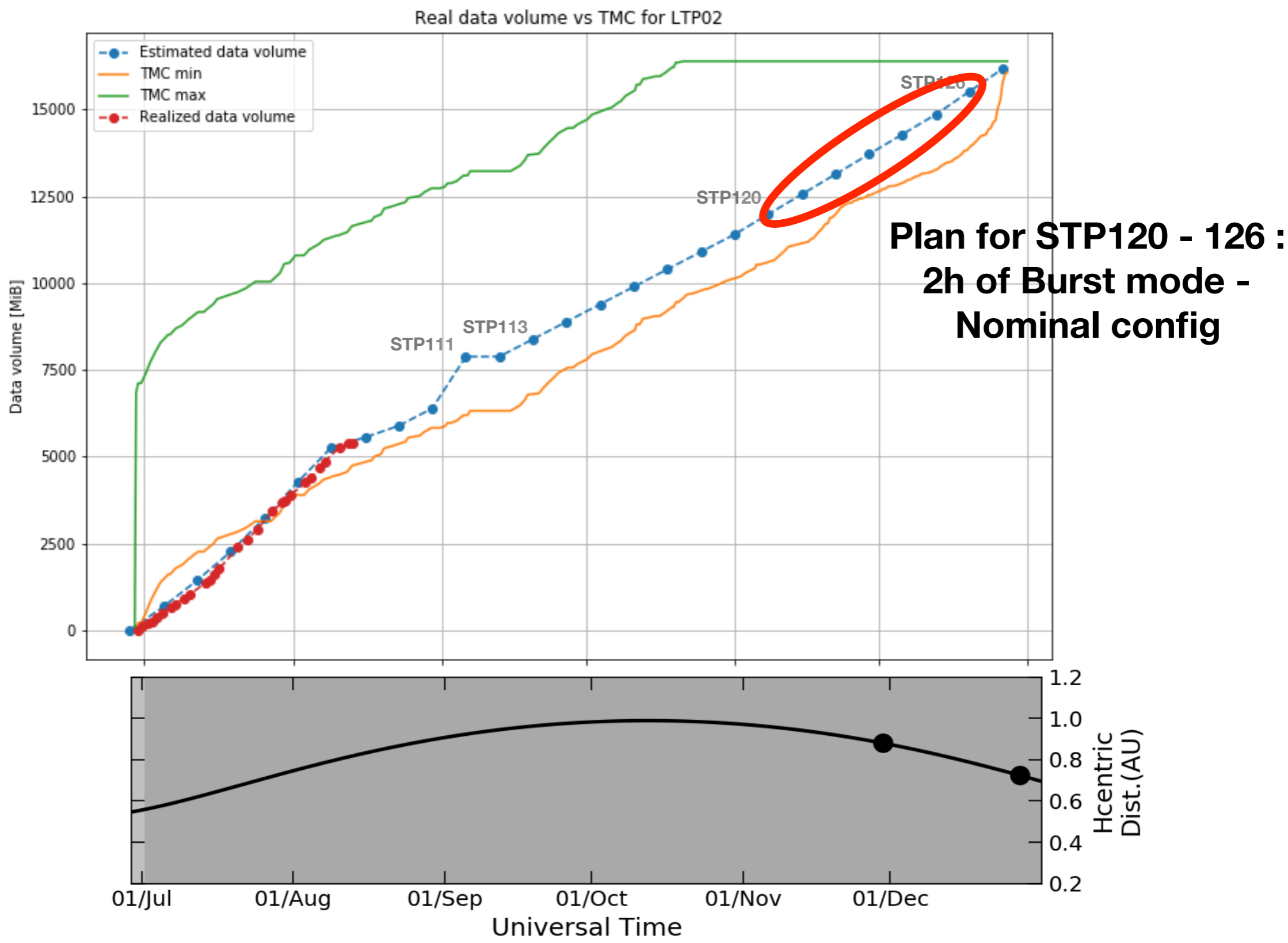
Telemetry overview : July - Dec 2020



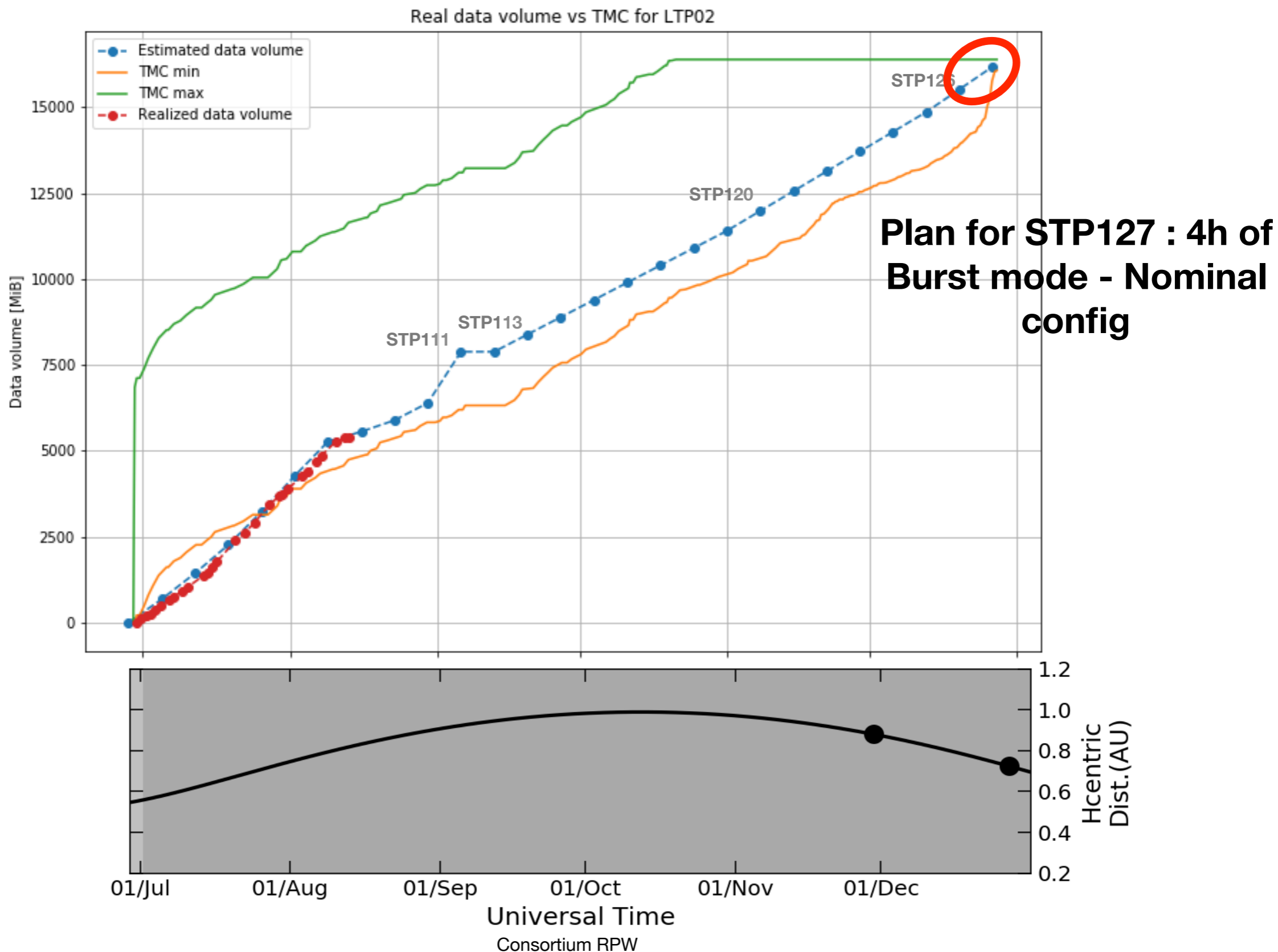
Telemetry overview : July - Dec 2020



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Main anomalies

Two major issues have been highlighted during the CP :

BIAS sweep : they seem to be shorter than expected even so from an operational point of view, there is no issue... —> under investigation

BURST mode : Tricky to manipulate

- One of RPW requirements is that snapshots (LFR and TDS) are synchronized with SWA measurements. It works perfectly since CP in Normal and SBM mode but not in Burst mode —> Impossible to synchronize snapshots in long period of Burst mode without a software update
- At the beginning of CP, we lost several slots of Burst because we were triggering SBM1 mode too often —> It's not possible to enter Burst mode if RPW is dumping SBM data

Two minor issues :

- SBM buffer emptying too slowly in case of high rate normal data
- Compression algorithm inefficient for TDS products

Future operations goals

Goals for the end of CP :

- To tune the parameters for SBM detection —> For now, RPW acquires SBM data but we don't retrieve them on ground —> Allow us to get statistics and work on parameters tuning.
- To re run some parts of EMC and/or IIC campaign (TBC after data studies)