

RSS MAIN FIRMWARE VERSION HISTORY

Version	Change	Released
2.7	Changes made to flow loop testing mode. Reliability improvements.	2024/01/23
2.8	Steering effectiveness added to Realtime packet as a percentage.	2024/10/23
3.0	Unit tests, static simulator and integration tests added. Improved Realtime telemetry to allow for additional QBus packets. Improved speed and reliability of log downloading. Fixed issue with occasional invalid date/time stamps. Added PCB serial number and revision ID to Main log. Increased frequency of log writing. Drill cycle restarts with each new downlink. String angle stored in all modes. Bootloader for remote programming via RST-Connect application added.	2023/03/06
3.1	QBus Realtime telemetry improved. Gain scheduling added to the steering algorithm. Error checking improved for erasing logs. Resolution of Shaft World Error and Transfer Function Out values in logs improved. Fixes issue with drill cycle whereby the position controller was still active when in neutral. Added downlink counter to logging. Added Firmware class to logging.	2024/03/20
3.2	Steering effectiveness added to Realtime packet as a percentage. Accelerometer serial numbers and calibration data added to logging startup records. Changes to Main log require minimum RST-Connect v1.0.0.35 to export.	2025/01/16
3.3	Demand Percentage values for manual steering modes MTF and GTF changed to 100%, 75%, 50%, 25% & 10%. Nudges added to downlinks. Twelve nudges are available, four in MTF and GTF modes, four in Inclination Hold modes and four in Inclination Hold 2 modes.	2025/05/08
4.0	New downlink mapping (displayed as XYZ in applications) implemented to allow faster sending of more commonly used commands, bringing significant time savings for messages sent via Mud Pulse Telemetry. Timeout in downlink detector reduced to match.	2025/06/26
5.1	New algorithm to improve drilling accuracy and enable vertical drilling in Inclination modes. Nudges enabled below 20° for Inclination modes to a minimum target of 1°. Downlink mapping changed to add sending of new messages for IH, IHL, IHR & IH2 Inclination modes to 5°, 10° & 15°. Improvements to accelerometer readings above 150°C. Mean Motor Current added to logging.	2026/05/18