
1. Engineering model of the SRT feed system was isolated from the focal container, and it was carefully tested in the laboratory. Mechanical deformations were found in the feed construction, which may be responsible for high values of system temperatures measured in Pushchino radio astronomical tests. Necessary improvements were introduced into the feed construction. New engineering model of the feed system is under development now.

2. Noise temperatures of the engineering models of all receivers were tested in the laboratory. The measured values correspond to the specifications.

3. Technical specifications on the on-board hydrogen frequency standard were formulated and agreed with the Russian firm “Vremya-Ch” (Nizhnii Novgorod) which will be responsible for development of this frequency standard for RadioAstron project.

4. Technical specifications on the on-board 6-cm receiver were formulated and agreed with SKB IRE (the same institution which is responsible for the development of 22 GHz on-board receiver).

5. Flight model of 18-cm receiver has successfully passed operational tests which resulted in formal prolongation of its exploitability term covering launch date in 2007 year.

6. The Amendment to the Technical Specifications (TTZ) on the “Spectr-R” mission is being prepared in LA and in ASC in response to the request from RSA. The Amendment will be issued in April 2005. It will reflect all corrections and innovations for the Mission accumulated during last years.

7. Hard-disk recording system RDR developed in the ASC was successfully tested in observations of OH masers with 64-m radio telescope in Kalyazin. RDR recording systems uses S2 format and provides all RadioAstron recording modes

Appendix
(The list of used acronyms)

ASC Astro Space Center of Lebedev Physical Institute
Cold Plate cooled LNAs and antenna feed
DC hermetic device container (part of payload); it contains Formatter, Rb oscillators, synthesizer, control unit and is placed under dish
DM Device Module = DC + H-maser
EGSE Electronic Ground Support Equipment
Electronic Complex – all SRT electronics
EM Engineering Model
FC Focal Container – hermetic package with the scientific payload; it contains receivers, microwave synthesizer, control unit and is placed in focal site of dish
FM Focal Module = Focal Container/Cold Plate
LA Lavochkin Association
OHCFS-SRT Space Radio Telescope On-board Heterodyne and Clock Frequency Synthesizer set
OHFS-SRT Space Radio Telescope On-board Hydrogen Frequency Standard
ORFS-SRT Space Radio Telescope On-board Rubidium Frequency Standard
RSA Russian Space Agency
Service Module, Spacecraft bus – spacecraft itself (without payload).
SRT Space Radio Telescope (all scientific payload including 10-m dish)
TMS Spacecraft Telemetry System (technical)
TVT Thermo-Vacuum Tests
VIRK Scientific high rate (up to 2x72 Mbit/s) radio complex, including transponder
ZBIT Zero Baseline Interferometer Tests (ZBIT)