

MINUTES of the RadioAstron Teleconference on May 30, 2006

V. Slysh chaired the teleconference.

The agenda of the teleconference and the list of participants are attached to the Minutes.

The main intent of the teleconference was to review current status of mission development and to discuss potential tests of the MFS observing mode.

1. Andreyanov informed the participants about recent developments and plans.
 - Vibration tests of the science payload and the service bus "Navigator" will start at Lavochkin association in June with mass-dimension devices and systems. The tests will be done in separate and in assembled configurations of the science payload and the service bus.
 - Flight models fabrications were continued. To the present moment 9 flight models (from the total amount of 22) were delivered to the ASC and they were tested. Also the ASC has received the flight model (FM) of the central part of SRT reflector. Other flight models are expected during this summer and autumn (2006).
 - It is important for the period to test corrected construction of the SRT antenna feed.
 - Zero-Baseline-Tests (ZBT) with FMs are planned to the end of 2006. The ZBT configuration includes the simulator of TS, GRT, time-frequency equipment, and two-station correlator.

In the answer on the question from Glen Langston Andreyanov ensured the participants that specifications on the VIRK communication system were not changed.

2. N.Kardashev informed the participants on the status of interactions with NASA. The letter from NASA was received with the intention to close NASA participation in RadioAstron project. Our current plan is to prepare a letter on a high government level with the request to NASA to keep its obligations on tracking stations support. On the other hand, Kardashev informed the participants on the progress on tracking station construction in Pushchino. The contract was signed with the Russian firm, providing the manufacturing of all electronic equipment for the Pushchino tracking station in the end of 2006.
3. N. Kardashev explained the specifications on the RadioAstron MFS mode of operations. He also reviewed main parameters of current performance of receiver systems in K-band at big radio telescopes in relation with the compatibility to RadioAstron MFS system. Kardashev described two experiments directed to explore peculiarities of the MFS-mode usage and subsequent data reduction. The experiments are: 1) To conduct VLBI observations using several selected VLBA antennas with Mauna Kea as very distant radio telescope, and Pie Town and Los Alamos as compact portion of the array. Frequency setup will cover both Ku and K bands to simulate MFS operations. The experiment will be used to explore the advantage of the MFS-mode in improving UV-coverage of such degenerated VLBA subnet, resembling in some extent the RadioAstron space-ground VLBI system. L.Kogan who agreed to be the PI of this technical experiment made some clarifications on the matter. 2) The second technical experiment is to conduct VLBI observations in K band (18-26 GHz) using existing frequency performance at the DSN 70-m radio telescopes (Goldstone, Robredo, and Tidbinbilla), and at the NRAO 100-m GBT radio telescope. The purpose of the observation is to test observing technique and data reduction at the VLBA correlator, as well as to explore the advantage of the MFS-mode in improving UV-coverage and imaging. Yu.Yu. Kovalev, who will prepare the proposal for this experiment also made some notes on this subject.

Ed Fomalont and John Romney took part in the discussion on the peculiarities of MFS specifications, proposed observations and future data reduction. They put useful remarks, while Kardashev and Yu.Yu. Kovalev answered their questions.

4. The date of the next teleconference was appointed for the first week of September.
5. Preliminary agreement was achieved on the date of the next RadioAstron Meeting (April 16-20, 2007).
6. M.Popov made report on the fulfillment of action items, formulated at the previous teleconference. In particular he informed the participants on the estimate of potential load for VLBA correlator during RadioAstron operations. The estimate was based on the dummy

scientific schedule composed for the first four months of mission operations. The value was found to be in a range of 10-15 % of observing time (relative to total calendar time) to be correlated at the VLBA correlator.

7. New action items are: to present reports at the next teleconference on the development of technical proposals described above, in the item 3 of this Minutes. (responsibility on L.Kogan and Yu.Yu.Kovalev respectively).

**Agenda of the RadioAstron teleconference
May 30, 2006 (15:00 UT)**

1	Corrections to the Agenda	V. Slysh
2	RadioAstron project status and progress	V. Andreyanov
3	Problems with tracking stations	N. Kardashev
4	GRT tests in MFS mode	N.Kardashev, S. Likhachev, L.Kogan, Yu.Yu.Kovalev
5	Proposed date for the next teleconference (September 5-8 2006)	M.Popov
6	Proposed date for the next RadioAstron Meeting (April 16-20, 2007)	M.Popov
7	Review of Action Items	M. Popov
8	New Action items	M.Popov

List of participants:

Andreyanov V.	ASC, Russia
Bartel N.	YorkU., Canada
Fomalont E.	NRAO, USA
Kanevsky B.,	ASC, Russia
Kardashev N.S.,	ASC, Russia
Kellermann K.,	NRAO, USA
Kogan L.	NRAO, USA
Kovalev Yu,Yu.	MPIfR/ASC
Lobanov A.,	MPIfR, Germany
Langston G.,	NRAO, USA
Likhachev S.,	ASC, Russia
Minter A.	NRAO, USA
Murata Ya.	ISAS, Japan
Popov M.V.,	ASC, Russia
Preston R.	JPL, USA
Romney J.,	NRAO, USA
Slysh V.I.,	ASC, Russia
Vasilkov V.I.,	ASC, Russia
VanKlooster K.	ESA, the Netherlands
