

## **MINUTES**

### **of the RadioAstron Teleconference on October 10, 2011**

**Yu.Yu. Kovalev** chaired the teleconference.

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

1. **N. Kardashev and M.Popov** informed the participants on the current IOC results. Cross scans by the SRT on Cas A have been done in all frequency ranges, and preliminary analysis proved that the whole receiver system parameters are in a reasonable agreement with the specifications. M.Popov also mentioned some malfunctions of service system such as thermal regulation of SRT antenna. He presented a plan of future IOC experiments such as observations of the Moon and Jupiter. M.Popov emphasized that the main task is to establish communication link between the SRT and Pushchino tracking station.
2. **E. Fomalont** provided information on VLBA survey of potential fringe finders. The observations of about 20 radio sources have been conducted, and data reduction will take about three weeks. K.Kellermann express his concern to finish processing in shorter period to provide time for scheduling of future space-ground observations.
3. **M. Popov** made further explanation on the rules of selection of compact extragalactic sources located close to the orbit plane and in the permitted area relative to the Sun. Some of these sources (like BL Lac 0016+731, 0212+735, 0738+313) will be in the very favorable position providing for some period of time space-ground baseline projections shorter than those for ground telescopes. Table of time slots suitable for observations of such sources is ready and will be sent to the observatories after final selection based on the results of the VLBA survey. However, it was recommended to distribute the table of potential time slots between the observatories as soon as possible.
4. **Yu.Yu. Kovalev** informed the participants on the activities in preparing scientific proposals to get observing time at ground radio telescopes in support of RadioAstron ESP. There are three working groups on AGN, pulsars, and cosmic masers, coordinated by Y.Y. Kovalev, M.Popov and A.Alakoz. During last few weeks several proposals are being prepared for the Arecibo, EVN and Effelsberg. Kovalev also reported an important news that several observatories agreed to support RadioAstron IOC and ESP programs (QUASAR network in Russia, Evpatoria 70-m dish in Ukraine, Medicina radio telescope in Italy, and Yebes RT in Spain). Participation of radio telescope in Usuda is under negotiations. Kovalev invited new members to participate in the development and future realization of the RadioAstron ESP.
5. **A. Lobanov** reported on his activities in understanding of data formats of documents issued by the Ballistic Center and containing orbital parameters necessary for tracking and correlation. He made translation of the documents into English. The documents may be utilized by software correlators outside of Russia.

**J.Romney** asked question about up-down link phase loop and implementation of such mode at the correlator. Kovalev and Popov made clarification that main mode of space-ground interferometer operation will use on-board hydrogen maser as the source of reference frequency.

**L.Gurvits** asked for clarification on the planned sequence of tests with establishing up-down link and first fringe search observations. He was answered that fringe search with the on-board H-maser standard will be conducted first.

**N.Kardashev** told about negative decision of the head of NASA Mr. Bolden on the request from the head of ROSKOSMOS Mr. Popovkin to provide funding for the Green Bank tracking station. Kardashev said that he will try to get necessary funding from the ROSKOSMOS now. Status of affair on creating tracking station in South Africa is very positive. Formal inter government agreement has been signed. The matter is to solve technical details of the implementation of the Russian equipment at the 30-m radio telescope.

6. Review of action items

- **E.Fomalont:** to initiate recovering of VLBA+Italy survey (to contact the schedulers) (closed)
- **E.Fomalont and J.Romney:** To provide some review of problems happened with fringe search in VSOP project. (closed)
- **M.Popov:** To compose a tentative time-table of possible observations, and inform the observatories on the specific time slots that might be requested for fringe search program in October-November. (continued)
- **C. Gwinn:** to try to compile FAKERAT software on modern platforms. (closed)
- **GBT and Arecibo:** to test communication lines for raw data transfer to the ASC correlator (continued to Y.Y. Kovalev)
- **ASC administration:** to prepare necessary agreements with Russian Custom Service for hard disks shipment. (in progress)

7. Next teleconference to be held in November of 2011 year.

**Yu.Yu. Kovalev** raised an issue on the restructuring the teleconference in the connection with the operational status of the mission. He suggested to circulate a request for present list of participants asking about their willing to take active part in mission operations.

There was a discussion on the time and necessity for the general Radioastron Review Meeting in Russia suggested by Kardashev to be held in June 2012 in Pushchino. However, there were opinions that in June only the first scientific results will be known, and more suitable time would be October-November. Nevertheless in June it would be reasonable to organize RISC meeting.

**Agenda of the RadioAstron teleconference  
October 10, 2011**

	Corrections to the Agenda	N.Kardashev
1	IOC status and results	N. Kardashev/M.Popov
2	VLBA observations to find best fringe search candidates	E.Fomalont
3	Fringe search plan	M.Popov

4	Early science program	Y.Y.Kovalev/M.Popov/A.Alakoz
5	Correlator supporting data	A. Lobanov
6	Tracking stations outside Russia	N.Kardashev/S.Likhachev
7	List of action items	M.Popov
8	Restructuring future telecons	Y.Y.Kovalev
9	Radioastron meeting in Pushchino in 2012	N.Kardashev
10	Next teleconference	N.Kardashev

**List of participants:**

Asaki Y.	JAXA, Japan
Baan W.	Astron, The Netherlands
Bartel N.	York Univ., Canada
Booth R.	Onsala, Sweden
Cannon N.	York Univ., Canada
Fomalont E.	NRAO USA
Giovannini G.	IRA/INAF, Italy
Gurvits L.	JIVE, The Netherlands
Gwinn C.	California University, USA
Hagiwara Y.	NAO, Japan
Jauncey D.	CSIRO, Australia
Kardashev N.	ASC, Russia
Karen O'Neil	GBT, USA
Kellermann K.	NRAO, USA
Kogan L.	NRAO, USA
Kostenko V.I.	ASC, Russia
Kovalev Y.Y.	ASC, Russia
Langston G.	NRAO, USA
Lobanov A.	MPIfR, Germany
Minter A.	GBT, USA
Mori M.	GBT, USA
Murata Y.	JAXA, Japan
Popov M.	ASC, Russia
Romney J.	NRAO, USA
Salter C.	NAIC, USA