

Svetloe Radio Astronomical Observatory

Sergey Smolentsev, Ismail Rahimov

Abstract

This report summarizes information on recent activities at the Svetloe Radio Astronomical Observatory (SvRAO). During the previous year a number of changes were carried out at the observatory to improve some technical parameters and upgrade some units to required status. The report provides also an overview of current geodetic VLBI activities and gives an outlook for the next year.

1. Introduction

Svetloe Radio Astronomical Observatory (SvRAO) (Figure 1) was founded by the Institute of Applied Astronomy (IAA) as the first station of the Russian VLBI network QUASAR. The VLBI network QUASAR is described in [1].



Figure 1. Svetloe observatory.

The sponsoring organization of the project is the Russian Academy of Sciences. SvRAO is located at the Karelian Neck, near Svetloe village, about 100 km north of St. Petersburg. The basic instruments of the observatory are the 32-m radio telescope RT-32 and technical systems provided for doing VLBI observations.

During last year, the Svetloe observatory participated regularly in various radio astronomical programs including VLBI and single dish observations of quasars and planets.

2. Participation in IVS Observational Programs

During 2007 the Svetloe IVS station participated in 46 24-hour IVS-R4, IVS-T2, EURO, R&D and VLBA sessions and in 15 IVS-Intensive sessions. A list of the sessions is presented in 1.

3. Radio Telescope

The railway junctures were joined by electric welding.

Table 1. List of IVS sessions observed at SvRAO in 2007.

Month	IVS-R4	IVS-T2	EURO	R&D	VLBA	IVS-Intensive
January	3		1		1	2
February	2		1			2
March	5					2
April	4			1		2
May	5	1				
June	3					
August	1					
September	3					1
October	5					2
November	4		1			2
December	4					2
Total	39	1	3	1	1	15

4. Co-location GPS

- The GLONASS/GPS receiver “PROTON” was installed as a GLONASS “Control station” in December.
- A TopCon GPS/GLONASS/GALILEO receiver was bought and tested for future installation in place of the Leica GPS receiver.

5. Outlook

Our plans for the coming year are the following:

- Participation in IVS-R1, IVS-R4, IVS-T2, EURO, VLBA and R&D observational sessions.
- Participation in the IVS CONT08 observation campaign.
- Participation in domestic observational programs for obtaining Earth orientation parameters.
- Continued geodetic control of the antenna parameters.

References

- [1] Site <http://www.ipa.nw.ru>.