

Zelenchukskaya Radio Astronomical Observatory

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Abstract

This report shortly summarizes the observations activities at the Zelenchukskaya 32-m VLBI station during the year 2006.

1. General Information

Zelenchukskaya Radio Astronomical Observatory was founded by Institute of Applied Astronomy (IAA) as one of three stations of the Russian VLBI network QUASAR. Sponsoring organization of the project is the Russian Academy of Sciences (RAS). The Zelenchukskaya Radio Astronomical Observatory is situated in Republic Karachaevo-Cherkessiya (Northern Caucasia) about 70 km south of Cherkessk, near Zelenchukskaya (not far from Radiotelescope RATAN-600). The geographic locations of Observatory are shown on web site of IAA RAS (http://www.ipa.nw.ru/PAGE/koi8-r/DEPOBSERV/rus_zel.htm). The basic instruments of the observatory are a 32-m radio telescope and technical systems for doing VLBI observations.



Figure 1. Zelenchukskaya Observatory.

Table 1. Zelenchukskaya Observatory location and address.

Longitude	41°34'
Latitude	43°47'
Zelenchukskaya Observatory	
Republic Karachaevo-Cherkessia	
357140, Russia	
ipazel@mail.svkchr.ru	

2. Technical and Scientific Information

The technical parameters of Radiotelescope RT-32 and Zelenchukskaya station equipment were presented in the 2005 Annual Report [1].

It is necessary to inform that optical fiber lines took part in operation.

GPS observations:

A new, improved GPS receiver ASHTECHZ-X113 with ASH 700936D_M antenna Dorne-Margolin/ChokeRing was installed at observatory in exchange for receiver AOA SNR-8000ACT. Observational data are sent to BKG and IGS every hour.

3. Participation in the IVS Observing Program

Table 2 summarizes the sessions performed during 2006.

Table 2. The list of IVS sessions observed at “Zelenchukskaya” in 2006.

	IVS-R1	IVS-R4	IVS-EURO	IVS-T2	IVS-VLBA
January	2	2	1		
February		2			
March	1	3	1		
April	3	3			1
May	1	3	1	1	
June	4	3		1	
July	2	3	1		
August	1	2		1	1
September	2	2	1		
October	2	2			
November	3	3	1	1	
December	2	1			
Total	23	29	6	4	2

4. Outlook

Our plans for the coming year are the following:

- Participation in IVS R1, R4, T2, EURO and RDV observing sessions.
- Upgrade of rail by means of replacement of the concrete under it.
- To put into operation the cable lengths control system (“ground unit”).

References

- [1] International VLBI Service for Geodesy and Astrometry 2005 Annual Report, NASA/TR-2006-214136, 154–157.