

=====  
Astro Space Center  
RadioAstron Newsletter  
Number 21  
August 15, 2013  
=====

## **Green Bank Earth station (GBES)**

A group of engineers from Astro Space Center has visited the National Radio Astronomy Observatory, Green Bank, to work together with local NRAO staff on the installation of the tracking station equipment. The instrumentation which has been installed on the 140-ft telescope was manufactured in Russia and is similar to that which has been in operation now for two years at Puschino. We are happy to report that the equipment was delivered to Green Bank and installed and tested without problems and is now operational. The tests of the GBES went very well. On 1 August 2013, science data from the RadioAstron space radio telescope was successfully recorded and sent to Moscow for evaluation. Due to the high gain of the 140-ft antenna, the detected signal power level was found to be well above operational requirements, and the bit error rate satisfactorily low. The results of Doppler measurements of the satellite velocity agreed well with measurements made sequentially by the Green Bank and Pushchino stations.

Active observations of the RadioAstron AO1 Key Science Program will start in late August 2013 with a reduced duty cycle in order to fully develop a detailed operating model. Starting in early October, we expect RadioAstron scientific observations to be fully supported by the GBES.

We congratulate everyone involved in this achievement, thank the NRAO-GB staff for their traditionally very high level of support and wish all of us happy observing with two available RadioAstron tracking stations during the execution of AO1.

The NRAO press release can be found here: <http://www.nrao.edu/pr/2013/RadioAstron/>

Nikolai Kardashev (nkardash@asc.rssi.ru)  
Yuri Kovalev (yyk@asc.rssi.ru)

The RadioAstron project is led by the Astro Space Center of the Lebedev Physical Institute of the Russian Academy of Sciences and the Lavochkin Scientific and Production Association under a contract with the Russian Federal Space Agency, in collaboration with partner organizations in Russia and other countries.

To subscribe or un-subscribe to the Newsletter, use:  
<http://asc-lebedev.ru/index2.php?engdep=22>



Figure 1: The joint ASC and NRAO group which has implemented the Green Bank Earth station for the RadioAstron Space VLBI project. On the back — the Green Bank Earth station.