

1. EQUIPMENT AND FACILITIES

The Observatory's main instruments are :

1. Big Refractor – equatorial Zeiss 650/10550 mm.
2. Solar Spectrograph (monochromator) Littrow type, 9000mm/100 000 developed by attaching to the Zeiss equatorial 200/3020 mm two astrocameras Tessar and Petzval 100/800 mm.
3. Large Meridim Circle Askania 190/2578 mm.
4. Large Transit Instrument Askania 190/2578 mm provided with two vacuum meridian marks.
5. Large Vertical Circle Askania 190/2578 mm.
6. Zeiss Astrograph 160/800 mm.
7. Photovisual Refractor Askania 135/1000 and 125/1000 mm.
8. Transit Instrument Bamberg 100/1000 mm.
9. Zenith-Telescope Askania 110/1287 mm.

Of works executed during 1995 at Belgrade Observatory, along with the purchases realized, of particular importance is the following :

- Complete reconstruction of the electric system in the main building has been performed wherewith this longstanding problem has found its full solution;
- Mechanical cleansing of the steam boilers and of the central heating installations has been executed, the safeguards against fire amended by installing iron door toward the coal depot, as well as the iron shutters on the depot's windows.
- Genereal putting in order of the Library, in the course of which 1308 books have been bound in stiff covers.
- Purchased Notebook 486, a computer 386 and a laser printer.

In the pavilions housing the instruments the following works have been carried out :

1. SOLAR SPECTROGRAPH

- The performed tinsmith works prevent the rain-water penetration into the pavilion's interior, the ruining of the walls, the damage of the electro-installations, the parquet decay and the corroding of the telescope metal pier.

- The old lime mortar, having been in a bad condition and full of moisture, was removed and replaced by a new hydroinsulating one. In this way the formation of dust is prevented which disturbed normal use of the observing device.

2. PHOTOVISUAL REFRACTOR "ASKANIA"

- The old mortar, decaying and full of moisture, was removed and replaced by a new one (hydroinsulating). In this way the internal surface is protected from the external-water penetration, as is the electro-installation and the complete equipment of the instrument.

3. LARGE MERIDIAN CIRCLE "ASKANIA"

As a result of the tinsmith works, obturator replacing, constructing of the pavement and gutter and of introducing the new hydroinsulating mortar the water (rain) penetration into the pavilion, as well as into substructure (cellar), itself, was completely blocked. Consequently, the ruining of the object as a whole and of the equipment contained in it is prevented.

4. "BIG REFRACTOR"

The electro-motor and the dome-revolving reductor, which had suffered an accident, were both repaired. The new electro-automatic installation activating the system with an electro-motor (asynchronous, three-phase, alternative) having suffered temporary blockade ensures the protecting of the entire system against accident.

ELECTRO-WORKS

Through the newly installed supplying connection the object is supplied by the 220 V voltage necessary for the photoeffect devices, computers, TV report cars, etc (which was not possible until now).

For the needs of the dome electro-motor, platform and of the telescope the old 110 V voltage is preserved being economically positive, because all (existing) electro-devices can still be used.

RECONSTRUCTION WORKS

By removing the old, heaving, facade and by replacing it with a new one, made of cement, the possibilities of an accident and of rain penetration into the pavilion are eliminated. In this way one prevents the mortar ruining on the pavilion internal walls and the formation of dust which has been a hindrance in all telescope observations.

Of particular importance are the reconstruction works on the fixture reinforcement, pouring in of the cement mortar and the refreshment of the relief figure on the pavilion's portal, which was all but decomposed.

WORKS ON THE TELESCOPE

Almost all of the telescope electro-commands have been out of order. By repairing the existing electro-commands and by installing new ones the telescope was fitted for regulating and adjustment in both right ascension and declination. In addition, it was fitted out for a new electro-automatics of the motor, bulb transformator and a special device for stopping the fast commands (right ascension, declination).

In this way a complete automatisisation and electro-protection of the telescope are achieved.