THE AFR-2 SOLAR TELESCOPE MODERNIZATION

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The AFR-2 is an optical telescope for the detailed observations of Solar chromosphere and photosphere in the H-alpha narrowband spectral region. It is part of AO LNU ground based Solar observations service. The observations have been performed since 60s of the twentieth century. That's why the telescope needs modernization very much.

The main purpose of the upgrade was to change a film based receiver by CCD camera. Such modification led both to the rearrangement of the optical components in the telescope optical path and corresponding adapter development and installation. However, the new thermostat (the accuracy of the temperature maintenance is 0,01 °C) for the interference-polarizing filter with the bandwidth 0.5 Å has been developed. The upgraded receiving system requires new software for format conversion and data processing. Test observations are held currently.

As a result of such modifications we have got a modern telescope which can give additional data to the available from external databases about the active processes on Sun. So, it can be used both in the space weather and solar physics research, and in education and astronomical practices.