ABSTRACT
The main astronomical observatory of the National Academy of Sciences of Ukraine developed an additional module for the laser station, which will at the same time measuring the distance to the satellite to determine the state of the atmosphere along the line connecting the telescope and satellite. Features of the telescope optical system of the TPL-1, which is used at the station Golosiy-Kyiv 1824 allows you to use the system to determine the state of the lower atmosphere during laser satellite observations.

The poster presents the telescope optical scheme, a block diagram of electronic components developed for lidar data.

Advantages of this system:
- a small field of view of the photomultiplier = small noise from the night sky
- receiving information from a ZERO distance from the telescope
- Use standard receiver system
- High sensitivity (1m telescope)

Block diagram of the electronic components

References:
1. G. Kirchner, F. Koidl, D. Kucharski. Graz kHz SLR LIDAR: First Results, Proceedings of the 16th International Workshop on Laser Ranging