

## Payload of MEMS Space Telescope Obscura

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The first application of optical MEMS(Micro-Electro-Mechanical Systems) technology to space telescopes is presented. Named MTEL (MEMS Telescope for Extreme Lightning), the instrument of the telescope obscura is a main payload of Tatyana-2 micro-satellite built by VNIIEM in Russia. Tatyana-2 will be launched in July 2008 and is foreseen to take at least one year of mission at 800 km in altitude. The main scientific objective is to observe a variety of extreme lightning like Transient Luminous Events (TLE) occurring at upper atmosphere, and to understand their origin and mechanism. We will report the status and plan of the MTEL project.