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Detection of Transient Phenomena on Planetary bodies

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In this context, transient phenomena are defined as luminous events of different intensity, which occur in planetary atmospheres and surfaces, the duration of which spans from about 0.1 s to some hours. They consist of meteors, bolides, lightning, impact flashes on solid surfaces, aurorae, etc.. If well monitored, they represent a very useful tool to study the smallest component of meteoroids in different region of the interplanetary space and the electric phenomena in planetary atmosphere. So far, the study of these phenomena has been very limited, due to the lack of a *ad hoc* instrumentation, and their detection has been performed mainly on a serendipitous basis.

I will present a short review of the transient phenomena we aim at observing on the Earth, as well as on other Solar System bodies. I will describe a camera, to be used on a space platform, especially designed to carry out this kind of observations. Moreover, the implementation of a global surveillance system using this instrument will be discussed.