



AMICal and ATISE : two cubesats optical payload for space weather monitoring

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Polar thermosphere and ionosphere receive particles from the magnetosphere and the solar wind. A large part of these particles deposits their energy in the 100-300 km altitude range where polar lights occur. This range of altitudes is difficult to monitor since it is too high for balloon but too low for satellites in situ measurements. Thus remote sensing from space is a really important way to monitor these altitudes range.

In this paper, we will discuss the science cases of AMICal sat a wide field imager for auroral monitoring and ATISE a multi line-of-sight spectrometer. Both instruments will work in the visible. They will fly on two cubesats, one 2U (AMICal Sat) and one 12U (ATISE)

These missions are coordinated with the Russian mission Universat-Socrat.

and will enable monitoring of the airglow and aurora from 2019 for AMICal Sat and 2021 for ATISE.

Demonstration of these instrument have been performed in 2017 from the ground. We will also present in this paper, the first results of these demonstration and the potentialities of these instrument for thermoshere and space weather monitoring.

In the next future, other demonstration will be performed especially in coordination with the IR Halesis instrument.