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Mini-Euso: how to recognize a small debris from the ISS altitude.

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Mini-Euso is a small telescope to be installed in the ISS by the end of 2017. It looks at earth through a UV window on the Russian segment, with two 25 cm Fresnel lenses. It is a pathfinder to Jem-Euso, pathfinder dedicated to assess the technology and look during the night at luminous events like storms, meteors, etc. It detects single photo-electrons with large dynamics.
At (ISS) sunset and sunrise, the earth for 5 mn is in the dark, while ISS is sun illuminated. This makes 10 mn every 90 mn. We will observe debris just under the ISS (300 to 400 km altitude) by their brightness. They will look as a track on the focal surface.
It is the first step to observe the [1-10 cm] debris, before using a satellite big enough to set a CAN laser to shoot at it.

Summary

Mini-Euso, a pathfinder to Jem-Euso, will be installed on the ISS. It has the possibility to detect [1-10 cm] debris at sunset and sunrise (10 mn every 90) which are flowing under the ISS.

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