

ISON : the comet of the century ?



Date de mise en ligne : vendredi 15 novembre 2013

Comet C/2012 S1 (ISON) - discovered on September 21st 2012 thanks to a 40 cm telescope of the International Scientific Optical Network (ISON) in Russie - will make its closest approach to the Sun (it will then be 1,2 million km from its surface) on November 28th 2013. Will this be an exceptional comet or not ? To know what is in store, specialists at the Paris Observatory are impatiently waiting for the end of the month of November.



Image de la comète C/2012 S1 (ISON) obtenue le 15 novembre au télescope TRAPPIST de l'observatoire de La Silla (ESO), au Chili. © ESO

The media have jumped on this object, since it is the first time that a Sun grazing comet was discovered a month ahead.

This is also the first time that a comet coming directly from the Oort cloud (a zone in the solar system situated almost a light year from the S) will come so close to our star.

ISON : the comet of the century ?

When it was discovered, NASA announced optimistically that at its closest distance from the Sun, ISON would be as bright as the full Moon, although at the time it was not observable.

However, it is very hazardous to extrapolate the activity of a distant comet. No-one can say what it will become as it approaches the Sun, 500 times closer. Especially as, with the exception of its path, we knew absolutely nothing about it when it was discovered.

Suspense....

C/2012 S1 (ISON) could well not survive the heating induced by its passage close to the Sun. It could even disappear before, as was the case of comet C/2010 X1 (Elenin) which disintegrated completely in 2011.

However, if it manages to survive until it reaches the Sun, and does not dissipate before reaching the solar corona, it could offer a superb spectacle to the early-birds of December.

In common with the great Sun-grazers, it could grow a beautiful long and narrow tail with a length of several tens of degrees, directed towards the pole star ; it will be on the Eastern horizon, towards the end of the night in mid-December.

To see it, a dark night sky without interfering light is a prerequisite.

The comet is being closely followed by French astronomers using the radiotelescopes of the Paris Observatory's Nançay radioastronomy station, the Institute for millimetre astronomy, and also using the solar telescope Thémis in the Canary Islands.