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OHB CZECHSPACE

SOVA

SATELLITE OBSERVATION OF WAVES IN THE ATMOSPHERE

SOVA

Czech satellite mission for better climate prediction and radiation evaluation

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SATELLITE OBSERVATION OF WAVES IN THE ATMOSPHERE

AMBITIOUS PROJECT FROM CZECH REPUBLIC

The SOVA scientific mission is a successful response to the call of the Czech Republic's "Ambitious Project" with the aim of improving Czech scientific excellence and expanding Czech know-how in the realization and operation of satellite missions.

WHO IS BEHIND SOVA?

The Prime

The SOVA mission is proudly lead by OHB Czechspace located in Brno.

The Science

The science team is led by the Principal Investigator of the Institute of Atmospheric Physics of the Czech Academy of Sciences. The team is supported by the German Space Agency DLR, the Research Centre Jülich from Germany and the Nuclear Physics Institute of the Czech Academy of Sciences.

The Instrument

The main optical instrument is developed by OHB Czechspace in cooperation with the Czech company Meopta and OHB System.

HIGHER CZECH SATELLITE CLASS

SOVA aims to be the first Czech satellite mission of its size since Magion 5, which launched in 1996. We – OHB Czechspace are proud to make the next step towards launching higher class satellite missions up to 100kg.

WHY SOVA?

The scientific goal of the SOVA mission is to study processes in the middle and upper atmosphere (60 - 300km) on a global scale, that need to be understood for better climate prediction.

WHAT IS THE BENEFIT OF SOVA?

Primary

The primary mission objective is to gain an improved understanding of processes in the atmosphere that will lead to more precise climate models, this will improve forecast of extreme weather such as, heavy rain or storms affecting agriculture, floodings and soil erosion, as well as forecasts of turbulences for aviation.

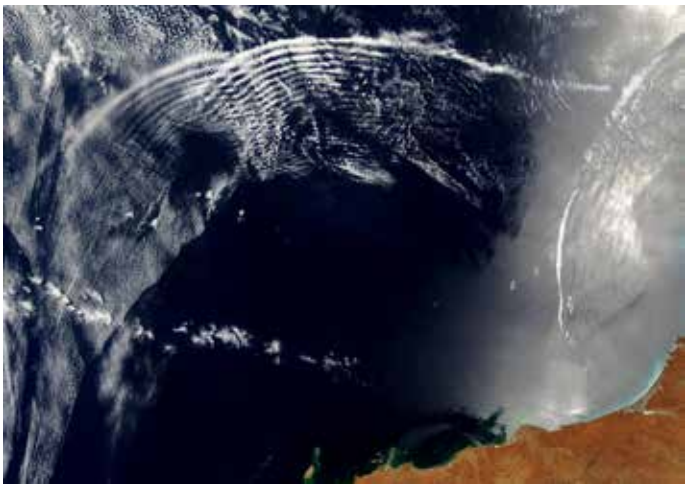
Secondary

The secondary mission objective is to gain an improved understanding of extreme radiation environments for future manned missions to the Moon and Mars.

WHAT WILL BE MEASURED?

The global climate is driven by so called Gravity Waves. These (air) waves transport an immense amount of energy from the lower atmosphere to the upper atmosphere where they break up and travel great distances, just like ocean waves, but on a larger scale. In addition SOVA will measure the radiation field in its orbit.

SOVA mission is funded through an ESA Contract in the Czech Third Party Framework Project.



Atmospheric gravity waves—seen here over the Indian Ocean
Image Credit: Jacques Descloitres, MODIS Rapid Response Team, NASA/GSFC

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